

WORKSHOP MEETING OF THE
BOARD OF DIRECTORS WITH MET DIRECTORS
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
18700 Ward Street, Fountain Valley, California
June 3, 2020, 8:30 a.m.

Due to the spread of COVID-19 and as authorized by the Governor's Executive Order, MWDOC will be holding all upcoming Board and Committee meetings by Zoom Webinar and will be available by either computer or telephone audio as follows:

Computer Audio: You can join the Zoom meeting by clicking on the following link:
<https://zoom.us/j/8828665300>

Telephone Audio: (669) 900 9128 fees may apply
(877) 853 5247 Toll-free
Webinar ID: 882 866 5300#

AGENDA

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. 2098

ACTION ITEM

1. MWDOC BOARD AUTHORIZATION OF ADVANCE PUMP PURCHASE BY MWDOC FOR THE EOCWD OC-70 FLOW CONTROL FACILITY AS PART OF THE NEGOTIATIONS BETWEEN MET, MWDOC AND EOCWD

Recommendation: Authorize the General Manager to offer to MET the advance purchase of a pump for the OC-70 Flow Control Facility, at an estimated cost of \$50,000 (previously \$35,000, but the higher price has the cost of the pump, tax, shipping, and MET specified coating and materials). The advance purchase of the pump will help resolve the critical nature of that facility, as the

negotiations proceed for transfer of the facility from MET to MWDOC/EOCWD. The purchase would be funded from reserves and a request for reimbursement by MET will be included as part of the OC-70 resolution of issues. Reimbursement cannot be guaranteed at this point.

PRESENTATION/DISCUSSION ITEMS

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

Recommendation: Receive input and discuss the information.

3. METROPOLITAN'S 2020 INTEGRATED RESOURCES PLAN (IRP) DISCUSSION SERIES PART 6 – DRIVERS OF CHANGE

Recommendation: Review and discuss the information presented.

INFORMATION ITEMS

4. DELTA CONVEYANCE PROJECT ACTIVITIES UPDATE

Recommendation: Receive and file the information presented.

5. WATER SUPPLY CONDITIONS UPDATE

Recommendation: Review and discuss the information presented.

6. 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 in the Doheny and Huntington Beach Ocean (Poseidon) Desalination Projects
- f. South County Projects

Recommendation: Review and discuss the information presented.

7. 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 accommodations should make the request with adequate time before the meeting for the District to provide the requested accommodations.



ACTION ITEM

June 3, 2020

TO: Board of Directors

FROM: Robert Hunter,
General Manager

Staff Contact: Karl Seckel

SUBJECT: MWDOC Board Authorization of Advance Pump Purchase by MWDOC for the EOCWD OC-70 Flow Control Facility as Part of the Negotiations between MET, MWDOC and EOCWD

STAFF RECOMMENDATION

Staff recommends the Board of Directors authorize the General Manager to offer to MET the advance purchase of a pump for the OC-70 Flow Control Facility, at an estimated cost of \$50,000 (we had previously talked about \$35,000, but the higher price has the cost of the pump, tax, shipping, and MET specified coating and materials). The advance purchase of the pump will help resolve the critical nature of that facility, as the negotiations proceed for transfer of the facility from MET to MWDOC/EOCWD. The purchase would be funded from reserves and a request for reimbursement by MET will be included as part of the OC-70 resolution of issues. Reimbursement cannot be guaranteed at this point.

SUMMARY

A series of issues over the past 5 ½ years, beginning with what is believed to be an inaccurate MET meter, has gone on way too long without resolution. The issues have grown and changed a bit and now include a request by EOCWD to transfer the OC-70 facility from MET to MWDOC/EOCWD. The criticality of the OC-70 facility has increased both due to Public Safety Power Shutoff (PSPS) events and due to PFAS issues. Staff is recommending that MWDOC advance the purchase of a pump to accelerate improving the reliability of the facility and to incorporate a request for reimbursement in the discussions with MET. MWDOC can consider this to be an enforcement issue responsibility of the AMP Sale Agreement from 1995. The purchase would be funded from reserves and a request for reimbursement by MET will be included as part of the OC-70 resolution of issues. Reimbursement cannot be guaranteed at this point.

Budgeted (Y/N): No	Budgeted amount: \$0	Core <u>X</u>	Choice <u>X</u>
Action item amount: Approximately \$50,000		Line item: Set as a reimbursement	
Fiscal Impact (explain if unbudgeted): To be funded from reserves and requested from MET as part of the settlement of issues relative to the OC-70 facility and enforcement of the AMP Sale Agreement.			

DETAILED REPORT

MWDOC and Boyle Engineering designed and constructed the Allen McColloch Pipeline (AMP) and MWDOC operated the AMP and the OC-70 flow control facility for EOCWD between 1980 and 1995. MET purchased the AMP and took over ownership and operations of the AMP and 16 flow control facilities in 1995 including the OC-70 facility. The Sale of the AMP had an inspection and chargeable defects clause whereby MET paid the first \$500k of defects and any defects above \$500k would be split on a 50/50 basis. No chargeable defects were identified. The transfer to MET took place in 1995. It is likely MET assumed the OC-70 meter structure worked adequately in 1995 as it had been in place for 15 years without complaint.

In January 2015, MWDOC was informed of what EOCWD believed was a metering error and MWDOC informed MET. Work over the past 5 ½ years has been spent on a variety of issues ranging from:

- How to conduct a meter test comparison using meters in the field or using Utah State Testing Labs to conduct work. A method agreeable to MET to use existing meters in the field to conduct a meter comparison could not be worked out to MET's satisfaction – their desire was to use only meters that had been recently calibrated and to minimize the number of meters used.
- In the fall of 2019, MET and MWDOC agreed to utilize Utah State Testing Labs to build a replica of the OC-70 structure to calibrate a clamp-on sonic meter that can then be installed in the field and used to compare to the existing venturi meter. We believe the metering discrepancy occurs because of the original design of the facility. There is a tee one pipe diameter downstream of the existing venturi that connects to the pumps. When a pumping condition exists, we believe turbulence is created at that juncture which disrupts the accuracy of the venturi meter. Venturi meters without flow interferences are very accurate installations as long as they have sufficient upstream and downstream straight pipe runs. MET design guidelines incorporate a standard for straight runs of pipe of 10 diameters upstream and 5 diameters downstream of a meter. This installation does not meet the MET 5 diameters downstream design guidelines and therefore does not comply as a MET standard meter installation.

The Utah State calibration of a clamp-on sonic meter, when installed at the actual facility, will be able to determine how accurate the venturi meter registers under three operating conditions, no pumps operating, one pump operating and two pumps operating. This information can then be used to determine what the actual meter variance has been over many years.

MET had to take very accurate measurements of the OC-70 piping and venturi meter during the AMP shutdown in January 2020 to enable the manufacture of a short spool replica of the existing piping at OC-70 for use in the Utah State testing. This process was impacted by the COVID issues. MET will complete that work and send the clamp-on meter and pipe spool to Utah State by the end of June. The following schedule to resolve the metering issue is anticipated:

- We expect the Utah State testing in the lab to be complete in July.

- The calibrated meter from Utah State will then be used to field test the venturi meter at OC-70. Hopefully, this testing can be completed in August.
- The metering error can be quantified in September.
- An item will need to be taken to the MET Board for action. If it is combined with the transfer of the OC-70 facility to MWDOC/EOCWD (discussed below), it may not be ready for action until early 2021.
- Comparing the OC-70 meter reads to a summation of the EOCWD downstream meter reads. This seemed to indicate a metering error of about 5%, but did not meet MET's standards for resolving metering errors.
- EOCWD conduct of meter testing seemed to indicate a metering error of about 10%, but the accuracy of the testing did not meet MET's standards for resolving metering errors.
- Review of MET standards to be a "compliant" MET metering facility (OC-70 does not appear to meet this standard)
- Several operational issues have arisen with the pump or the pump check valves
- Reviewing the AMP Sale Agreement to determine what role it might play
- The SCE outage issues and the PSPS events have raised an issue as to whether or not MET should provide a generator for the OC-70 facility as a result of the AMP Sale Agreement. In prior discussions with MET, they did not agree they had an obligation to provide a generator at the facility.
- More recent information on PFAS impacts to EOCWD and to the agencies they serve has increased the criticality of the structure until such time as PFAS treatment can be employed.
- Responsibility of costs for a Transfer Switch EOCWD installed at the facility to be pro-active with being able to connect a generator to run the pumps. In prior discussions with MET, MET has offered to refund the \$70,000 costs of the transfer switch paid by EOCWD.
- Questions have arisen with respect to the approximately 40 year-old pumps and motors and whether or not they need to be rehabilitated or replaced and getting information as to what work has been performed on the pumps since 1995
- A number of other smaller issues with MET's operation of the facility

Recent Issues

Most recently, just over the past several months, EOCWD has put forth a request to transfer the facility from MET to MWDOC/EOCWD. EOCWD believes this will enable EOCWD to operate, maintain and improve the facility to meet their needs, rather than having to deal with MET. It would also resolve a number of other issues. MET has a policy and desire to transition the AMP Flow Control Facilities to the local agencies. One other facility was transferred from MET to IRWD by way of a short agreement in 1996. Staff is of the belief

that the negotiations of the transfer of the facility can run simultaneous with the meter testing and is expected to take about 6 months.

Also, just since January 2020 when the PFAS regulations were tightened, the criticality of the facility to EOCWD and the agencies they serve has increased because more and more wells are being shut down. Until PFAS treatment comes on line, the operating flexibility of the local agencies has become restricted and they are virtually 100% dependent on MET.

MWDOC and EOCWD began asking questions about the pumps and motors (approximately 40 years old) and what shape they were in and what historical maintenance MET had performed. MWDOC and EOCWD originally requested MET to rehab the pumps but the PFAS issue hit and there has not been time to take the facility off line. There is a concern that if the pumps are disassembled for rehab work (would take a couple of days for each pump), based on the condition of the pumps, it could take some time to bring the facility back on line, if major parts are needed. EOCWD cannot afford to be in this position at this time. Without any work on the pumps, they could also stop working at any time, simply due to wear and tear over the years, although recent vibrational tests by MET have not identified any specific issues to date.

Following discussions between MET, MWDOC and EOCWD, the latter two are convinced that a spare pump should be on-hand to allow one pump at a time to be taken out of service and rehabilitated. Having a spare pump to install would help to avoid any long duration outages and after both pumps have been rehabbed, it will leave a spare pump on-site. A replacement pump will cost about \$50,000 (we had previously talked about \$35,000, but the higher price has the cost of the pump, tax, shipping, and MET specified coating and materials). Delivery of the pump is expected to take about 5 months. Staff is of the opinion that MET should be responsible for this cost. MET believes that the spare pump should be part of the longer term negotiations. Staff's concern is that those negotiations may take 6 months, plus 5 months to secure a pump, and we could be a year down the road, all while EOCWD is at risk.

Staff is recommending MWDOC offer to advance the purchase of the pump now and have MET order it to the proper specs. Staff is of the belief that it is possible that MWDOC could secure the reimbursement from MET during the longer term negotiations, but it cannot be guaranteed and therefore we would be at risk for the estimated \$50,000 cost. Even given that, goodwill will be created from MWDOC stepping up to do what is right and would help in subsequent discussions between EOCWD, MWDOC and MET as they negotiate the transfer of the facility. Staff have conceptually estimated the range in costs of the metering issue, reconfiguring the facility to correct the error, rehabilitation costs, testing costs at Utah State and by MET, and other costs in total could range between \$1M and \$5M; the estimated \$50,000 cost of a spare pump is small compared to the other costs and should be purchased.

BOARD OPTIONS

Option #1

- Proceed with procurement of the pump

Fiscal Impact: \$50,000 will be at risk, but may be reimbursed.

Business Analysis: MWDOC would be taking the right actions to help one of our agencies and to enforce the provisions of the AMP Sale Agreement. The critical nature of the facility needs this attention and the lead time to secure the pump is estimated at 5 months. \$50,000 is a small amount to put forth compared to have a facility and a service area that may not have reliable supplies.

Option #2

- Do NOT proceed with procurement of the pump

Fiscal Impact: \$50,000 not at risk for MWDOC, but potentially much more is at stake in the negotiations with MET and quite a bit more would be involved in the situation where the facility cannot reliably meet the demands it was designed to meet.

Business Analysis: MWDOC may not be doing its best to resolve an important matter for one of its agencies.

Option #3

- Apply additional pressure to get MET to step up

Fiscal Impact: \$50,000 not at risk for MWDOC, but potentially much more is at stake in the negotiations with MET and quite a bit more would be involved in the situation where the facility cannot reliably meet the demands it was designed to meet.

Business Analysis: We have discussed this issue with MET on a number of occasions and most recently they did not want to advance the purchase of the pump at their own cost. Continuing the negotiations with MET will take valuable time that then gets added on to the time to secure a pump for the facility and risks exposure in case a problem develops at the facility. During an emergency at the facility, a temporary pump could be installed and operated, but our rough guess is that the costs will greatly exceed \$50,000.

STAFF RECOMMENDATION

Option #1



DISCUSSION ITEM

June 3, 2020

TO: Board of Directors
FROM: Robert Hunter, General Manager

Staff Contact: Harvey De La Torre
Melissa Baum-Haley

**SUBJECT: METROPOLITAN'S 2020 INTEGRATED RESOURCES PLAN (IRP)
DISCUSSION SERIES PART 6 – DRIVERS OF CHANGE**

STAFF RECOMMENDATION

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

REPORT

In this sixth discussion of our series on Metropolitan's 2020 Integrated Water Resources Plan (IRP) we will review and discuss the Drivers of Changes, a key building block within the Scenario Planning Process methodology.

To support the policy development and technical analysis in the 2020 IRP, Metropolitan is employing a Decision Support Planning Method called Scenario Planning. In Scenario Planning, important and uncertain Drivers of Change are identified and used to envision multiple plausible alternative futures. Planning over these multiple alternative futures helps to explore a much wider range of needs and impacts than traditional single-path deterministic planning can do.

The Scenario Planning process for the 2020 IRP will involve four key steps:

1. Identifying **Drivers of Change** that will affect the future
2. Constructing **Scenarios** that reflect alternative plausible outcomes of the future
3. Developing the **Resource Mixes** that combine resource and policy approaches to addressing the future scenarios,
4. Developing an **Adaptive Management** Strategy

Budgeted (Y/N): N/A	Budgeted amount: None	Core <u> X </u>	Choice <u> </u>
Action item amount: N/A	Line item:		
Fiscal Impact (explain if unbudgeted):			

The overall concept of Scenario Planning is straightforward: Envision a scenario of the future. Identify a plan of solutions and policies that effectively deal with the outcomes within that future. Repeat with a series of multiple futures. Analyze the outcomes of the multiple futures to identify solutions and policies that are “robust” across a variety of futures.

To embark on this, first the underlying drivers that lead to the different futures must be identified. The goal is to recognize driving factors whose importance and uncertainty is large and significant. The exploration of both the uncertainty of these driving factors and their interaction with other factors will describe the Scenarios with futures that will cover a wide range of outcomes.

The primary product from the analysis of each individual scenario is a Resource Mix that specifically addresses the water supply goals for that scenario. Each Resource Mix is a plan that describes the resource development needs, timing and cost that would be needed to meet policy goals within a scenario.

Comparing the elements of the various Resource Mixes developed across the multiple alternative scenarios will provide two key types of information. The first is the identification of Resource Mix actions that are common in many or all scenarios. The second is the identification of actions that are unique but effective for specific future outcomes. Information on both types of actions will be useful in determining an IRP Adaptive Management Strategy that will develop the common actions while monitoring ongoing conditions that may indicate the need for implementing actions to adapt to a more specific future.

Identifying Drivers of Change

The Drivers of Change are the specific factors whose future values and outcomes are uncertain, but significantly impact future water supply reliability. The specific underlying factors that impact water supply and demand are both complex and broad. The outcomes of these factors greatly affect the actual outcomes of the future supply reliability.

For example, residential water use, which comprises roughly 70% of total water demand in Southern California today, is highly uncertain in the future. The importance and uncertainty of underlying factors such as population, income levels, and the water use behaviors of the residential consumer.

Gathering input in on the important Drivers of Change is being conducted through an inclusive process involving the Metropolitan Board’s IRP Special Committee, the Member Agency technical staff, and regional stakeholder workshops and surveys of driver importance. The survey is anticipated to be a 5-point Likert scale which will be used to express how much agreement or disagreement there is for self-perceived importance of a particular driver input. In simple terms, how important is a given driver to your agency.

Next Steps

Following the initial Board, Member Agency, and stakeholder input and survey response, Metropolitan staff will collate and report on the final drivers of change and survey results at the June 23 IRP Special Committee Meeting. Metropolitan staff will then incorporate the most important, impactful, and uncertain drivers of change into the development of the Scenarios. It is expected that this may result approximately four Scenarios accounting for the vast range of uncertainties.

In the coming months, MWDOC staff will continue discussion of the Scenario Planning process through the evaluation of the Drivers of Change, supply projections for Resource Mixes, and the Adaptive Management Strategies associated the identified policy issues within the 2020 IRP.

ATTACHMENT: (1) Metropolitan Draft Memo on Drivers of Change Examples
(2) MWDOC Presentation on Drivers of Change

Drivers Impacting Metropolitan's Future

Climate Change

Stresses on River Basin Ecosystems – Continued deterioration of the Bay Delta ecosystem, and potential deterioration of Colorado River riparian systems due to lower flows and rising temperatures, could lead to increased invasive species populations on the Colorado and uncertain State Water Project Table A allocations, as endangered species continue to decline.

Rising Sea Level – A changing climate will prompt an unknown level of sea level rise by 2045 that could result in increased saltwater intrusion in coastal groundwater basins and Bay Delta, potential stranded assets under some conditions, and potential impacts on existing seawater desalination plants.

Hydrologic Variations and Extremes – While California has historically had the nation's most variable weather, the future is expected to be even more variable and extreme, with impacts by 2045. The extent of this change may increase Colorado River salinity and agriculture runoff and prolong drought cycles. Existing storage may prove inadequate in wet cycles.

Economic Impacts

Increasing Costs of Providing Water – Water rates are sure to increase as the capital and operating costs rise. But the unknown magnitude of future increases, and the future source of those rising costs, may impact investments in imported and local supplies, raise affordability issues at a retail level and reduce industrial uses such as evaporative cooling at power plants.

Uncertain economic conditions, including lasting impacts of Covid-19 – The post-pandemic economy is a major unknown for the state and world, with the pace and magnitude of the recovery uncertain. A slow recovery and a deep recession have the potential to test institutional capacity, reduce local budgets and water supply investments and potentially lower water use due to trends ranging from a decline in tourism to land use changes resulting from home-based workplaces. How these issues evolve has the potential to impact all sectors, increasing poverty in some locations and decreasing numbers of high-wage earners in others. Sustained high levels of unemployment will likely increase advocacy for a legal right to affordable, high-quality water.

Legislative and Regulatory Uncertainties

Emerging Regulatory Challenges – California’s unpredictable regulatory environment could become even more so. With emerging contaminants, regulations could expand covered contaminants, reduce detection limits requiring public notice, impact direct potable use regulations and increase tensions between drinking water and wastewater quality regulations. In addition, State Water Project supplies could become increasingly uncertain due to Endangered Species Act permitting.

Legislative Initiatives – Sacramento’s political tradition of creating new mandates for wholesale and retail agencies through legislation may or may not intensify. Two examples are whether future legislation will aim to further reduce per-capita and outdoor water uses.

Public Trust Initiatives to Protect Environmental Resources – Public Trust determinations, either by legislation or the State Water Resources Control Board, undoubtedly will evolve. Statewide, SWRCB’s Bay Delta Water Quality Control Plan may rebalance the beneficial uses of water in Northern California, including the State Water Project. Locally, reduced flows in the Los Angeles River due to upstream water recycling could impact downstream objectives and create new conflicts to be resolved.

Demographic Changes

Uncertainty Regarding Population Projections – In recent years, Southern California has overestimated population growth, leading to overestimates of future water demand. The accuracy of future population projections will have an unknown but significant impact on water, driven by impacts of population aging and uncertainty regarding spatial distribution of the population changes.

Changing Housing Densities and Land Uses – Southern California housing densities and patterns will undoubtedly continue to change. How much so will drive an uncertain level of water demand growth. The drive to create accessory dwelling units is an example of one of these changes.

Increasing Consumer Water Use Ethic – Making conservation a part of California life will expand and evolve, challenging water planning assumptions while driving structural and behavioral demand hardening. Increasing water use efficiency could decrease wastewater flows. The extent of this trend will increase competition for recycled source water.

Federal, State, and Regional Policies

Reduced Cooperation between State and Federal Water Managers – A past generation of coordinated operations and collaboration may be replaced with a generation of conflict. The extent of a potential conflict would create operational inefficiencies in the SWP-CVP system, limit cooperation among its water users, deepen a disinterest in future investments by the agriculture sector, and create more uncertainty about the overall ability to develop Delta improvements.

Declining Cooperation Among Colorado River Agencies – The level of collaboration and compromise necessary to achieve new 2026 guidelines to manage future Colorado River conditions may not materialize, creating future uncertainties for the level of Colorado River supplies for Metropolitan, California’s junior in priority.

Increasing Regional Collaboration -- Southern California has the potential to expand on its tradition of collaboration and collective action to usher in a new generation of local projects with regional benefits, further diversifying the region's portfolio and reducing reliance on imported supplies.

Technological Advances

Increasing Availability of Decentralized Treatment Technologies – An unknown level of treatment and recycling may “go off the grid” with new technologies that were previously uneconomical. For communities previously served by larger facilities, these technologies may reduce reliance on the regional system and increase building-level and small community water efficiency.

Adoption of Innovative Stormwater Capture Measures – Existing financial and institutional barriers to capturing significant amounts of additional stormwater are “broken” by new approaches that expand stormwater in the future regional water portfolio, increasing investments in landscape and streetscape improvements.

Acceptance of Direct Potable Reuse – Robust technologies and improved monitoring gain both regulatory and public acceptance of direct potable reuse, thus eliminating the mandate for a large environmental buffer such as a reservoir or groundwater basin. Demand for imported supplies to meet consumptive needs declines during the wet winter months as more baseline demand is met through potable reuse.

Aging Infrastructure

Increased Vulnerability to System Failures and Natural Disasters – Metropolitan’s system to bring water from the Colorado River is more than 80 years-old. The State Water Project is more than 50 years-old. The aging infrastructure leaves the region more vulnerable to routine breaks and natural disasters, which will prompt an unknown level of increased investment in the Colorado River Aqueduct and regional conveyance and distribution system and increasing vulnerability to seismic events.

Groundwater Impairment

Potential Groundwater Losses Due to Contamination – Future groundwater production levels are unknown due to emerging contaminants, most notably PFAS today, resulting in increased demand on State Water Project supplies for replenishment/recharge.

DRAFT FOR REVIEW ONLY

Consolidated Drivers of Change

Categories	Drivers of Change	Input Received through May 15, 2020
Count: 8	Count: 19	Count: 48
<i>Climate change impacts</i>	Stresses on river basin ecosystems	Declines among endangered species on State Water Project (SWP) Increased invasive species populations on Colorado River (CR)
	Rising sea level	Increasing salinity in Delta Future SWB rebalancing of beneficial uses Increasing saltwater intrusion in coastal GW basins Potential impacts on seawater desalination plants
		Uncertain SWP Table A allocations
		Widening per-capita water use differences within region
	Hydrologic variations and extremes (Long Term and Near Term)	Potential stranded assets under some conditions
		Potential inadequate storage under some conditions
		Increasing CR Salinity and ag runoff
		Potential prolonged drought on the CR
		Potential reductions in CR ag demands
		Increasing microclimate variability (long-term and short-term)
<i>Economic Impacts</i>	Increasing costs of providing water	Declining use of evaporative cooling at power plants Increased costs of supply augmentation (e.g. RRWP) Affordability of water at retail level
	Uncertain economic conditions, including lasting impacts of Covid-19	Reduced revenue in all economic sectors Increased poverty and fewer high-wage earners Sustained levels of high unemployment Increasing advocacy for “Human Right to Water” values and actions Worsening income inequality Reduced local budgets and investments in water supply improvements Loss of water system institutional capacities due to economic effects
<i>Legislative and Regulatory Uncertainties</i>	Emerging regulatory challenges	CEC regulatory expansion and reduced detection limits Reduced detection limits for reporting PFAS Tension between drinking water and wastewater quality regs
	Legislative initiatives	Impacts of AB 1668 / SB606 on per capita conservation targets
	Public Trust initiatives to protect environmental resources	Impact on LA River flows and recycled water availability for other uses

DRAFT FOR REVIEW ONLY

Categories	Drivers of Change	Input Received through May 15, 2020
Count: 8	Count: 19	Count: 48
Demographic Change	Uncertainty regarding population projections	Uncertainty regarding spatial distribution population changes
		Impacts of population aging
	Changing housing densities and land uses	Uncertain demand growth from accessory dwelling units
		Land use changes resulting from home-based workplaces
Federal, State, and Regional Policy Direction	Increasing consumer water use ethic	Structural and behavioral demand hardening
		Declining per capita wastewater flows
	Reduced cooperation between State and Federal water managers	Operational inefficiencies in SWP-CVP system
		Limited cooperation among SWP and CVP water users (including willingness to pay differences)
Technological Advances	Declining cooperation among Colorado River agencies	Uncertainty regarding the ability to develop Delta improvements
		Uncertainty regarding Colorado River supplies
	Increasing regional collaboration	Increased recognition of value in projects with regional benefits
	Increasing availability of decentralized treatment technologies	Reduced reliance on regional grid
Aging Infrastructure		Increasing building-level water efficiency
	Adoption of innovative stormwater capture measures	Increasing investments in landscape and streetscape improvements
	Acceptance of Direct Potable Reuse	Impacts of pending DPR regulations
Groundwater impairment	Increased vulnerability to system failures and natural disasters	Increased investments in CR Aqueduct
		Increasing vulnerability to seismic events
	Potential groundwater losses due to contamination	Increased demand on SWP imported supplies for recharge

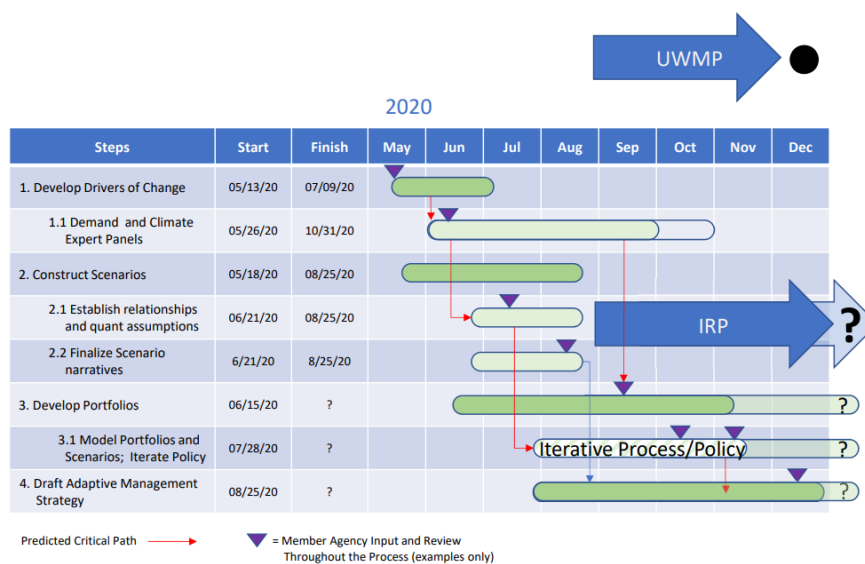


Metropolitan's Integrated Resources Plan Discussion Series #6: Drivers of Change

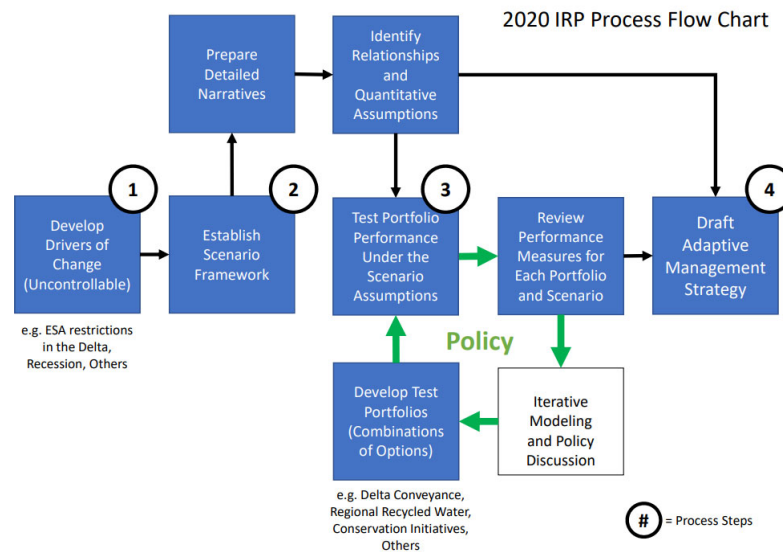


June 3, 2020

2020 IRP Schedule



2020 IRP Process



First Step in the Process



Definition:

“A social, technological, economic, environmental, cultural, or political force in or around the system, a small change in which would have a **big impact on those aspects of the system that matter to you.**”



Driver of Change Criteria

Answers must be “yes” to both

- 💧 Is it largely outside of our control?
- 💧 Is it impactful:
 - 🔥 To the balance of supply and demand?
 - 🔥 To institutional sustainability and integrity?



Technical and Stakeholder Workshops

- 💧 Successful “brainstorming” of drivers
- 💧 Participation:
 - 🔥 57 in attendance from MWD Member Agencies technical staff
 - 🔥 ~250 in attendance at each Stakeholder Workshop
- 💧 All input will be consolidated in a survey
 - 🔥 What drivers are important to you?



Online Workshop

Help Us Plan for Southern California's Water Future

The Metropolitan Water District of Southern California prepares for the future through an Integrated Resources Plan (IRP) developed in coordination with its member agencies and retail water providers across the region. The first IRP was adopted in 1996 and has been updated several times over the past 25 years. In 2020, Metropolitan is creating a new IRP that will incorporate different scenarios to most effectively plan for and address potential water supply reliability challenges through 2045.

You're invited to learn about the process and help identify “drivers of change” that will affect the future, the first step in scenario planning.

Click to register for one workshop below
(both dates will feature same content)

MAY 20 10-11:30 a.m.

MAY 22 10-11:30 a.m.

Example Drivers of Change

Climate Change

- Stresses on River Basin Ecosystems
- Rising Seas Level
- Hydrologic Variations and Extremes

Economic Impacts

- Increasing Costs of Providing Water
- Uncertain economic conditions, including lasting impacts of Covid-19

Legislative and Regulatory

- Emerging Regulatory Challenges
- Legislative Initiatives
- Public Trust Initiatives to protect env.

Demographic Changes

- Uncertainty in Population Projections
- Changing Housing Densities and Land Use
- Increasing Consumer Water Use Ethic

Technological Advances

- Availability of Decentralized Treatment
- Stormwater Capture Measures
- Direct Potable Reuse

Groundwater

- Impairment
- Significant Production Variations

Aging Infrastructure



What Drivers are Most Important to YOU?

Metropolitan will evaluate the drivers

- Through of the survey the stakeholders, Member Agencies, and Board

- How important is a given driver to your agency

- MET Staff will then evaluate the most important, impactful, and uncertain drivers of change into the development of the Scenarios

SAMPLE

Not at all important	Slightly important	Moderately important	Very important	Extremely important

Future groundwater production levels are unknown due to emerging contaminants, most notably PFAS today, resulting in increased demand on State Water Project supplies for replenishment/recharge.



DISCUSSION

What Drivers are Most Important to YOU?

Is it out of
our control?

Is it
impactful?





INFORMATION ITEM

June 3, 2020

TO: Board of Directors

FROM: Robert Hunter,
General Manager

Staff Contact: Melissa Baum-Haley

SUBJECT: DELTA CONVEYANCE PROJECT ACTIVITIES UPDATE

STAFF RECOMMENDATION

Staff recommends the Board of Directors receive and file the information presented.

REPORT

Legal Matters

Following President Trump's February signing of the Record of Decision, the state immediately filed a lawsuit on them to in effect, block the State Water Project's operating permit. On April 21, Attorney General Becerra filed a motion for a preliminary injunction. The [preliminary injunction](#) granted in the lawsuit against the U.S. Bureau of Reclamation and the new biological opinions is set to expire on May 31st.

Chronology of the lawsuits:

- On March 31, the Department of Fish and Wildlife released the Incidental Take Permit, the operating rules for CESA compliance for the State Water Project.
- On April 14 the Metropolitan Board voted to file a lawsuit against the state.
- On April 21, Attorney General Xavier Becerra filed for a preliminary injunction over federal water exports from the Delta.
- On April 29, the State Water Contractors filed a lawsuit against the state, and four environmental groups also sued the state.

Budgeted (Y/N): N/A	Budgeted amount: None	Core <input checked="" type="checkbox"/> X <input type="checkbox"/>	Choice <input type="checkbox"/>
Action item amount: N/A		Line item:	
Fiscal Impact (explain if unbudgeted):			

- Now, on May 20, the Center for Biological Diversity, Restore the Delta, and the Planning and Conservation League sued the Reclamation over the permanent federal water contracts to water users supplied by the Central Valley Project.

Delta Conveyance

The California Department of Water Resources (DWR) initiated the California Environmental Quality Act scoping period for the proposed Delta Conveyance project, with the release of the Notice of Preparation (NOP) on January 15, 2020. DWR conducted eight public scoping meetings throughout the state from February 3 to March 2. In response to ongoing public health and safety concerns, DWR extended the scoping period for the Delta Conveyance Project by four weeks. The new deadline for public comment was April 17. Metropolitan submitted comments prior to the original deadline, and supported efforts by member agencies and others by providing supporting documents. DWR will compile comments into a Scoping Summary Report and use information received to formulate alternatives to the proposed project included in the NOP.

Joint Powers Authorities

The Delta Conveyance Design and Construction Authority's (DCA) regularly scheduled meetings on March 19 and April 16 were held online via conference line and video. In March, the DCA board heard a presentation on the eastern and central Delta conveyance alignments, which was presented at the March 11 Stakeholder Engagement Committee (SEC) meeting. The March 25 SEC meeting was canceled, and future meetings will be conducted via live streaming and teleconference, and will shift from bi-monthly to monthly meetings.

Delta Islands

On March 25, the California Department of Fish and Wildlife (CDFW) announced the selection of 40 multibenefit ecosystem restoration and protection projects to receive funding under its Proposition 1 and Proposition 68 grant programs. Metropolitan was awarded a planning-level study grant for up to \$1,131,942 from Proposition 1 funding. The funded project is for the "Analysis of opportunities for island-wide improvements that includes a mosaic of multiple land uses for subsidence reversal, sustainable agricultural practices, carbon sequestration, water quality, & habitat restoration." The objective of the project is to conduct science-based planning for alternate land uses on one of the Delta islands owned by Metropolitan in an effort to increase sustainability and resilience.

Regulatory Activities

Under the California Endangered Species Act, DWR is required to obtain an Incidental Take Permit (ITP) to minimize, avoid, and fully mitigate impacts to threatened or endangered species as a result of State Water Project (SWP) operations. On March 31, the CDFW issued an ITP to DWR for long-term operations of the SWP. The permit covers four species protected under the California Endangered Species Act: Delta smelt, longfin smelt, winter-run Chinook salmon, and spring-run Chinook salmon.

Science Activities

Metropolitan staff continued to participate in forums to contribute to science development and collaboration. In March and April, the State Water Contractors (SWC) Board approved contracts with scientific experts to participate in the review of Interagency Ecological Program monitoring surveys and the U.S. Fish and Wildlife Service Delta Smelt Life Cycle Model, and to conduct science studies addressing longfin smelt coastal distribution and the effects of nutrient changes on phytoplankton in the Delta. On March 25, as part of the CDFW announcement of grant funding, the SWC was awarded a Proposition 1 grant for the Interior Delta Export Effects Study that will study the effects of water project operations on salmon in the Delta. Metropolitan is a collaborator on the study.

Metropolitan staff attended a DWR workshop on the ECO-PTM ecological modeling tool with particle tracking that includes behavior mechanisms of salmonids. DWR hopes to use the tool to assess salmonid entrainment, water project operation modifications, and habitat restoration. Metropolitan staff also attended the Estuarine Connectivity Symposium organized by the Delta Science Program, which included talks highlighting the importance of connectivity and how changes in one area of the estuary influence all other areas of the estuary.

Metropolitan staff co-authored two recent science publications. The first publication reports on a study that found that threadfin shad, a pelagic fish in the Delta, exposed to *Microcystis* accumulated *Microcystis* toxins in its tissues. The second publication identifies critical needs, including regulatory changes and funding, for control of invasive aquatic weeds in the Delta.

Metropolitan staff continued participating in the Collaborative Science and Adaptive Management Program (CSAMP), including participation on the Collaborative Adaptive Management Team (CAMT). The March and April CAMT meetings included presentations and discussions of several topics including Delta smelt science studies and next steps in implementing the Delta Smelt Science Plan; a study of salmon survival in the Delta; an evaluation of CSAMP progress in addressing management questions; and an update on the Franks Tract restoration project. This month, Metropolitan staff also provided comments on the salmonid management, science, and monitoring activities that will be included for prioritization in the CAMT Coordinated Salmonid Science Plan (CSSP). The CSSP will coordinate and integrate Central Valley salmonid science activities to support management needs and decision making.

Delta Flood Emergency Management Plan

DWR reported that their Stockton emergency stockpile site, which supports flood fight operations in the Delta, will be stocked at capacity next year with delivery of major sheet pile supplies currently posted for bids and contracted for delivery. Large warehouses at the site are at capacity with storage of flood fight materials such as sheeting, sandbags, and super socks. Additional roll-on containers have been delivered with stocks of flood fight materials for focused deployment to incident locations.

The DWR Delta Levees Program has approved engineering and design for levee improvements on portions of the Bacon Island east levees that have been identified for improvement as a component of the Emergency Freshwater Pathway. These are in addition

to other levee improvements at the island, which will better prepare levees and facilitate emergency repairs in the event of a major earthquake.



INFORMATION ITEM

June 3, 2020

TO: Board of Directors

FROM: Robert Hunter, General Manager

Staff Contact: Kevin Hostert

SUBJECT: WATER SUPPLY CONDITION UPDATE

STAFF RECOMMENDATION

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

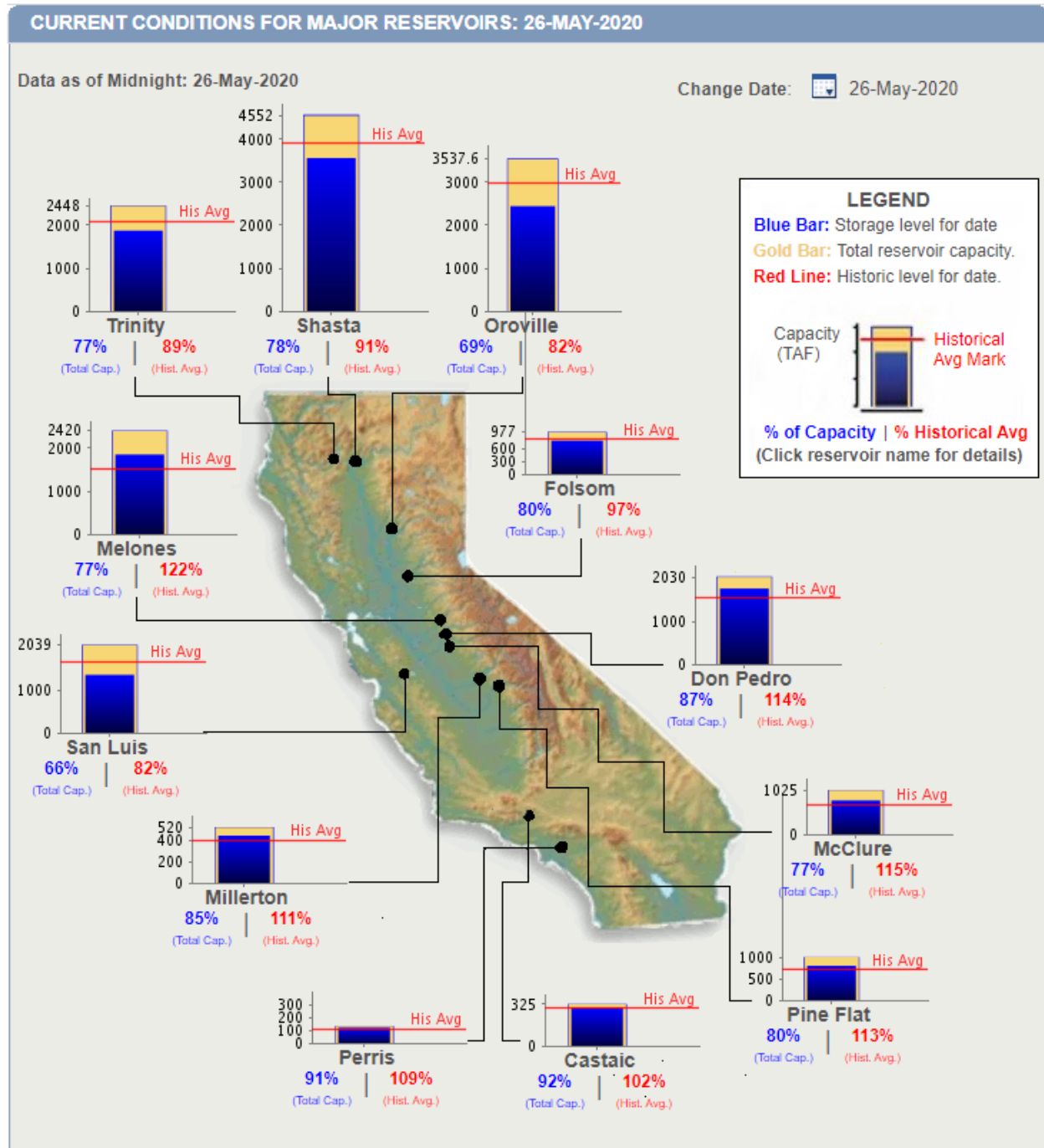
SUMMARY REPORT

The 2019-20 Water Year (2019-20 WY) officially started on October 1, 2019. Thus far, the Northern California accumulated precipitation (8-Station Index) is reporting **31.03 inches or 65% of normal** as of May 27th. For 2019-20 WY, the Northern Sierra Snow Water Equivalent is reporting **19.5 inches on April 8th**, which is **71% of normal** for that day. Due to a slight increase in precipitation/snowfall, the Department of Water Resources (DWR) has increased the State Water Project (SWP) **“Table A” allocation at 20%**. This allocation provides Metropolitan with approximately **382,300 AF in SWP deliveries this water year**. DWR's approval considered several factors including existing storage in SWP, conservation reservoirs, SWP operational regulatory constraints, and the 2020 contractor demands.

The Upper Colorado River Basin accumulated precipitation is reporting **19.2 inches or 82% of normal** as of May 26th. On the Colorado River system, snowpack is measured across four states in the Upper Colorado River Basin. The Upper Colorado River Basin Snow Water Equivalent was reporting **19.7 inches as of April 6th**, which is **100% of normal** for that day. Due to the above average precipitation/snowfall in 2018-19 WY, and due to average conditions in WY 2019-20, there is now a 0% chance of a shortage at Lake Mead in 2021 and an 9% chance of shortage in 2022.

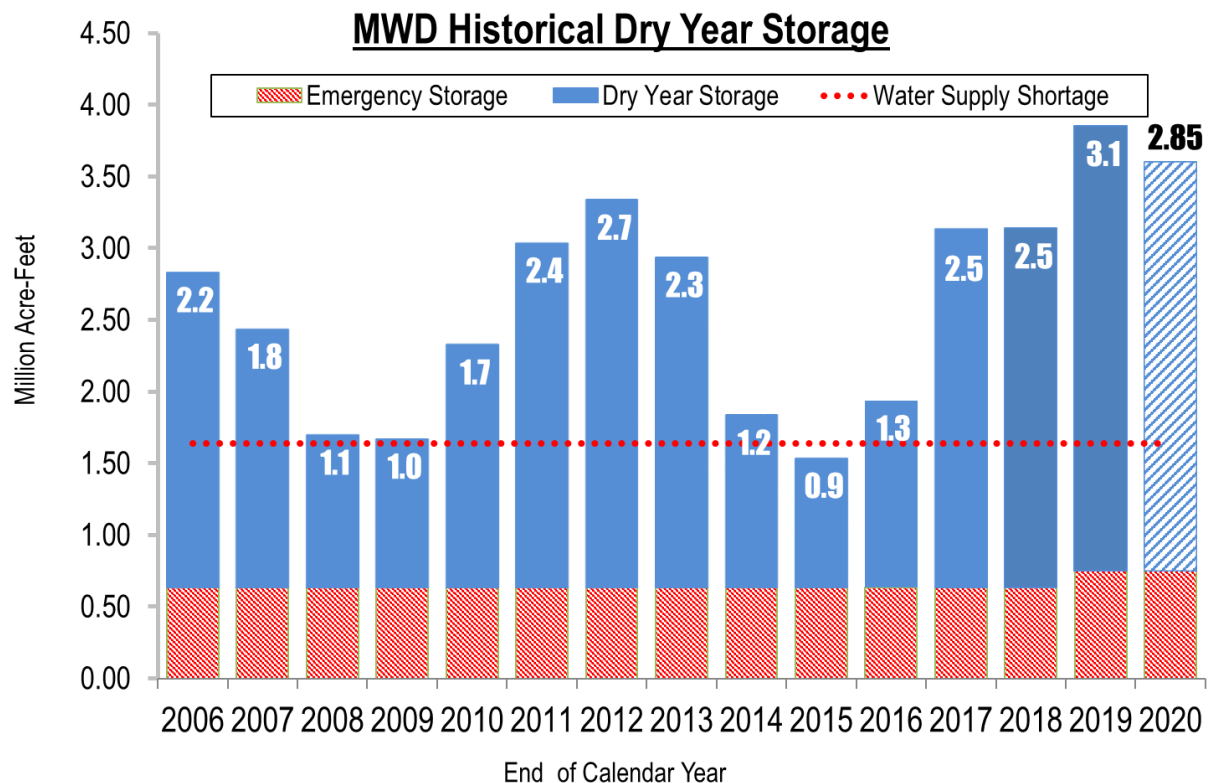
Budgeted (Y/N): N/A	Budgeted amount: N/A	Core <input checked="" type="checkbox"/> X <input type="checkbox"/>	Choice <input type="checkbox"/>
Action item amount: N/A	Line item:		
Fiscal Impact (explain if unbudgeted):			

As of May 26th Lake Oroville storage is at **69% of total capacity and 82% of normal**. As of May 26th San Luis Reservoir has a current volume of **66% of the reservoir's total capacity and is 82% of normal**.



With estimated total demands and losses of 1.63 million acre-feet (MAF) and with a 20% SWP Table A Allocation, Metropolitan is projecting that demands will exceed supply levels in Calendar Year (CY) 2020. Based on this, estimated total dry-year storage for Metropolitan at the end of **CY 2020 will go down to approximately 2.85 MAF**.

A projected dry-year storage supply of **2.85 MAF will be the second highest amount for Metropolitan**. A large factor in the increase in water storage is because **water demands regionally have been at approximately 36-year lows**.



2019-20 CYCLIC IN-LIEU OPERATIONS

In regards to the 2019-20 Cyclic In-Lieu operations (a.k.a. MET Cyclic Cost Offset Program), as of December 2019 approximately **9,354.7 AF of imported water has been delivered into the OC Basin Cyclic Account via In-Lieu**.

Unfortunately, due to dry hydrology and a State Water Project allocation of 15 percent, Metropolitan has suspended all cyclic deliveries as of December 31, 2019, including Cyclic In-Lieu deliveries. Metropolitan will also begin reducing State Water Project deliveries to preserve flexibility in case the allocation remains low. Metropolitan will regularly revisit operational plans throughout early 2020, as the final SWP allocation for the calendar year will be unknown until the May/June timeframe.

Attachment: Water Supply Conditions Presentation



Water Supply Conditions

Kevin Hostert, Water Resources Analyst
Municipal Water District of Orange County

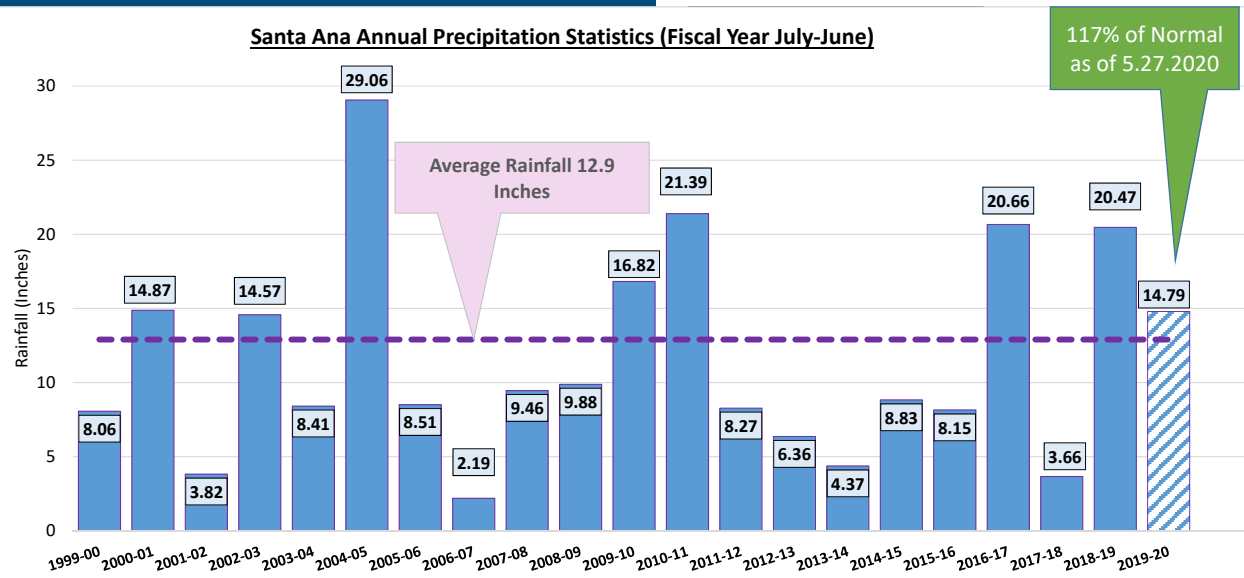
June 3rd 2020



Orange County Weather and Water Supply Conditions

Insight to local weather conditions that affect Orange County's water supply and water demand

Santa Ana Precipitation (Station #121)

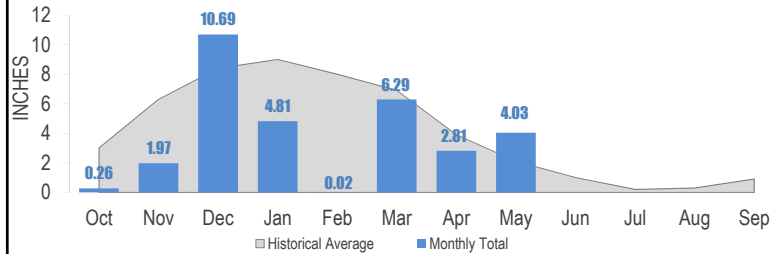


Regional Weather and Water Supply Conditions

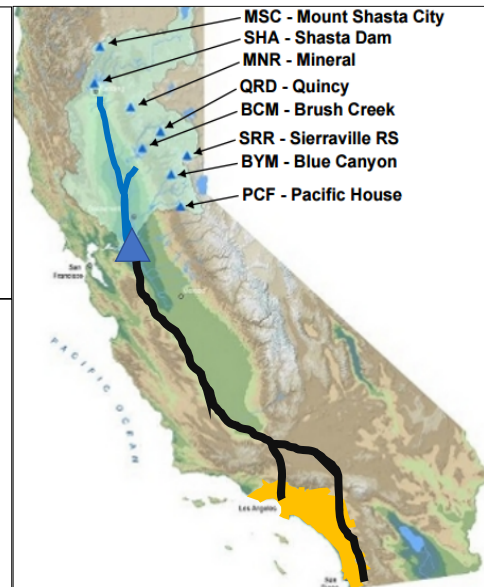
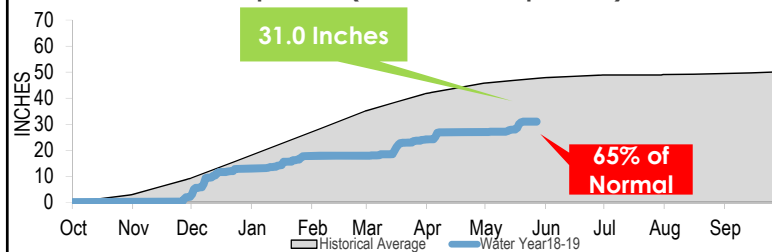
Insight to regional weather conditions that affect California's water supply

Northern California Accumulated Precipitation

Monthly Precipitation (8 Station Precip Index)

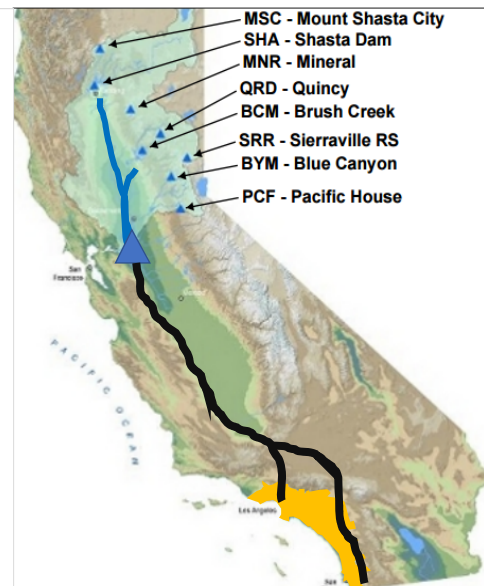
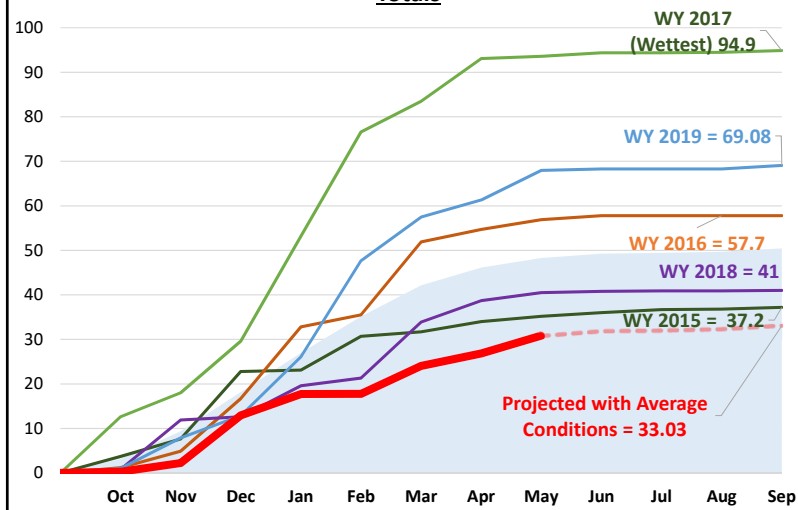


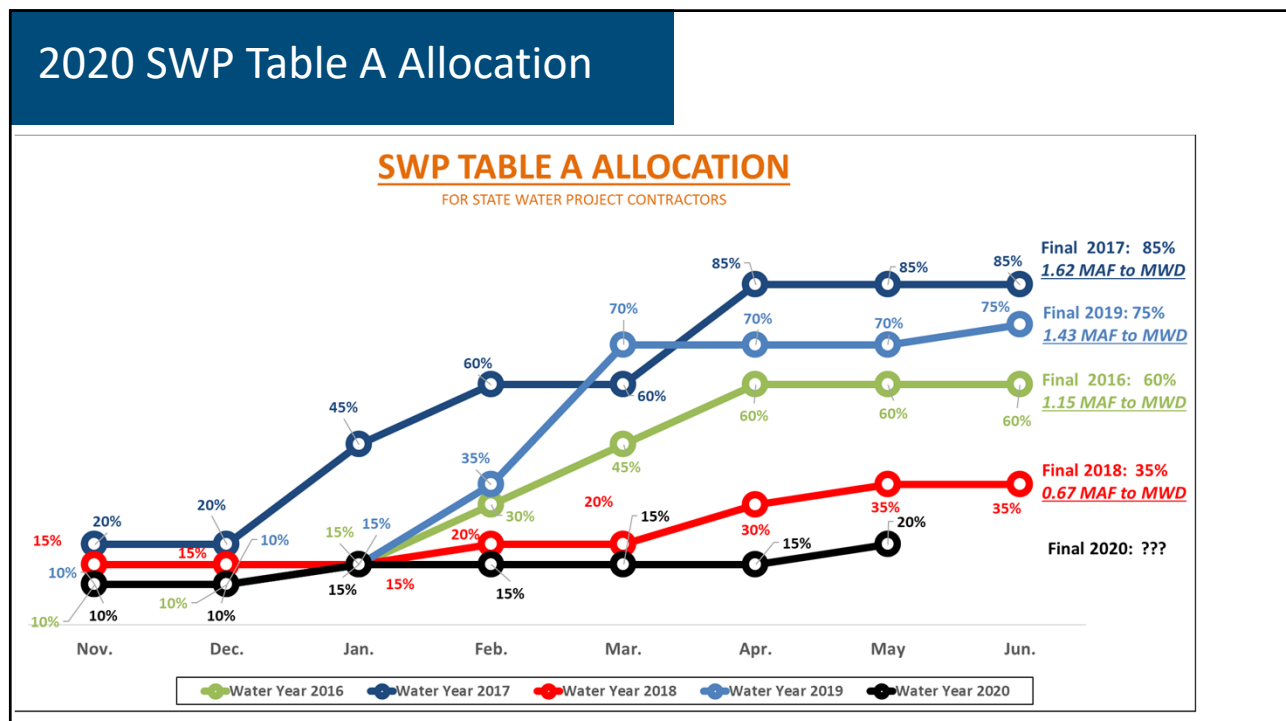
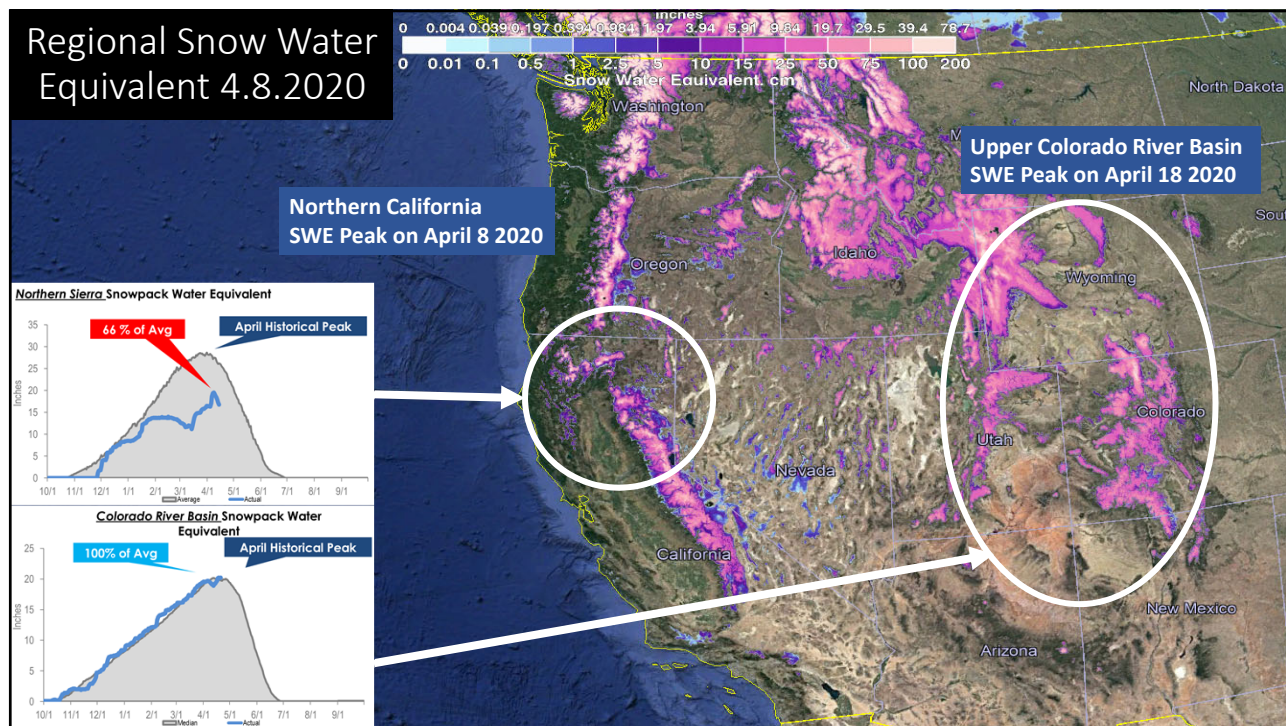
Accumulated Precipitation (8-Station Precip Index)



Northern California Accumulated Precipitation

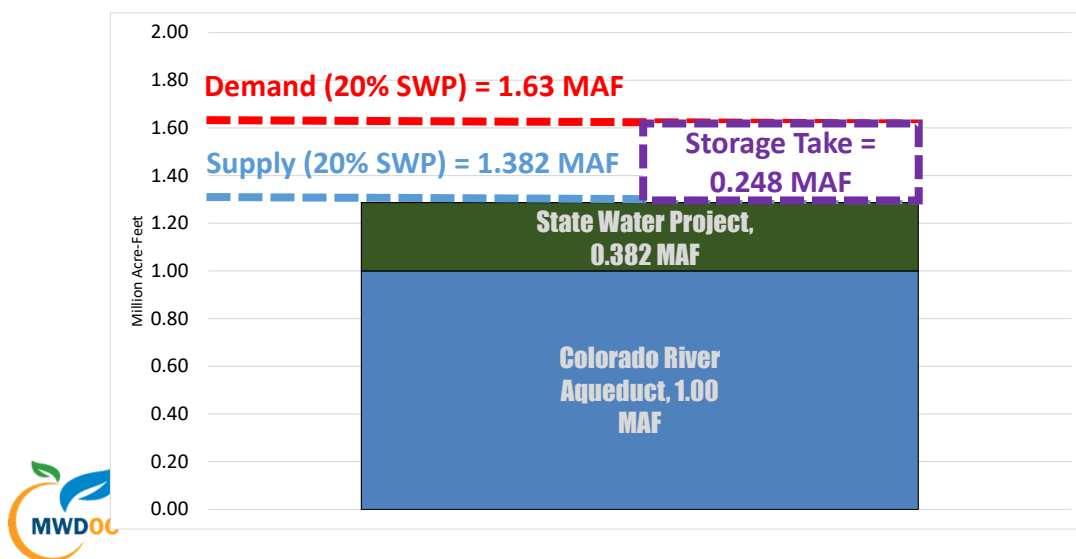
8 Station Index all Time Month by Month Cumulative Totals



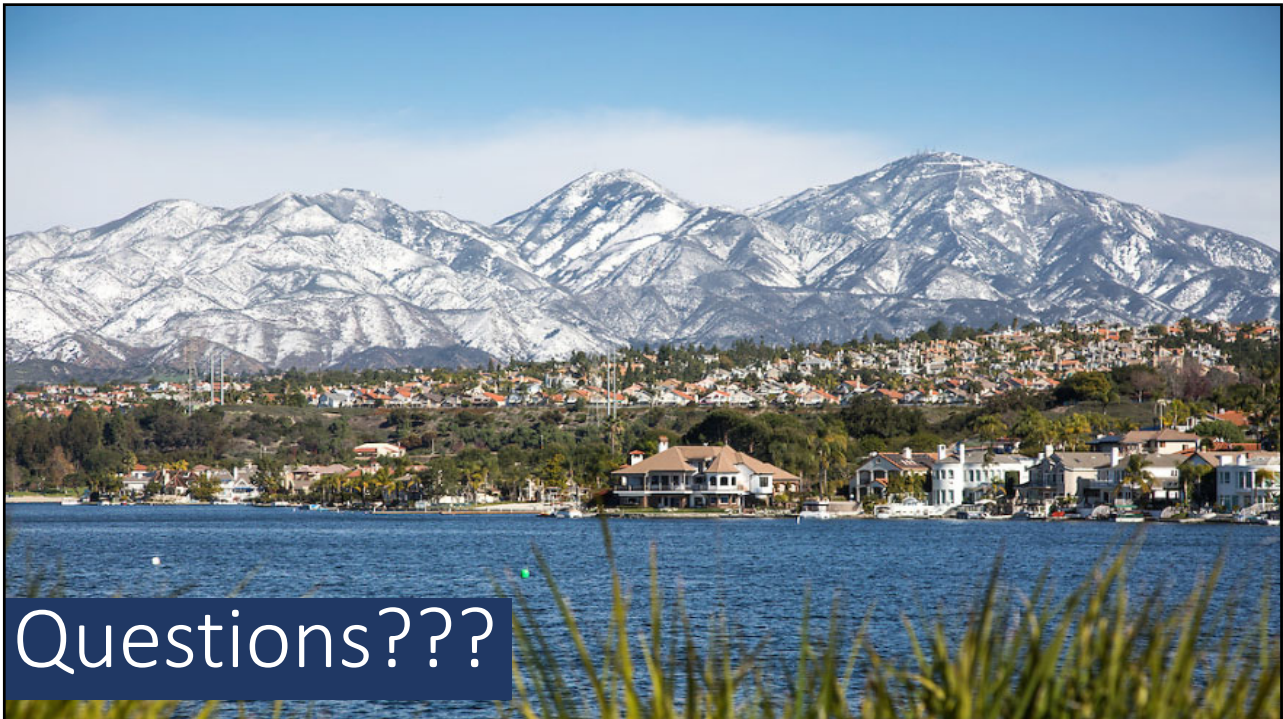
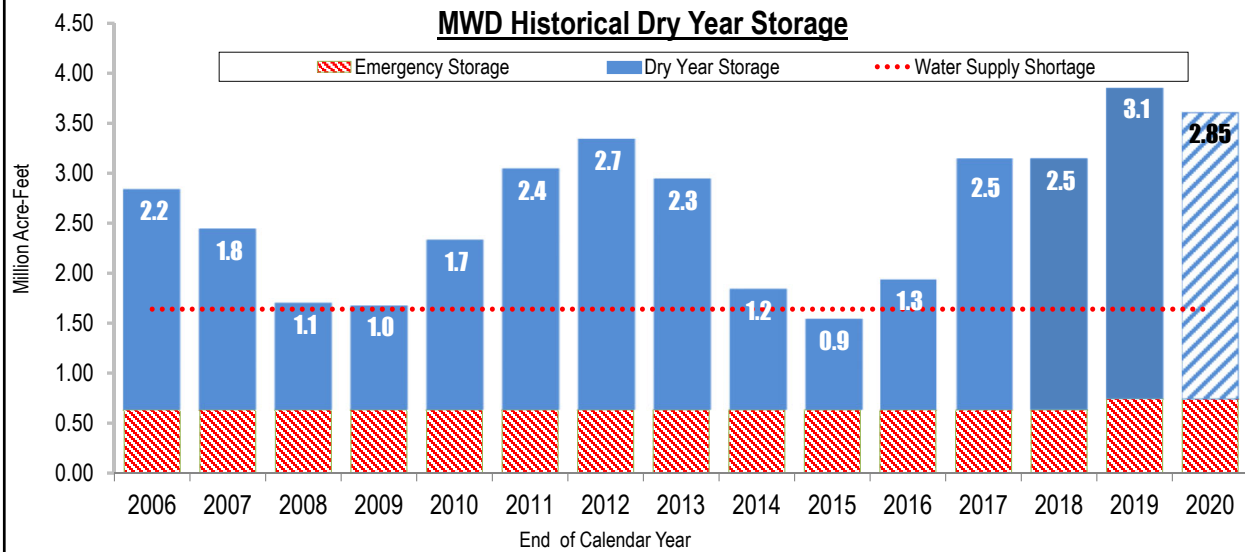




MWD 2020 Estimated Water Storage



MWD 2020 Estimated Water Storage





DISCUSSION ITEM

June 3, 2020

TO: Board of Directors

**FROM: Robert Hunter,
General Manager**

Staff Contact: Karl Seckel
Harvey De La Torre
Melissa Baum-Haley

**SUBJECT: METROPOLITAN WATER DISTRICT (MET) ITEMS CRITICAL TO
ORANGE COUNTY**

STAFF RECOMMENDATION

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

DETAILED REPORT

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) South Orange County Projects

ISSUE BRIEF # A

SUBJECT: MET's Water Supply Conditions

RECENT ACTIVITY

Information can be found in the associated Board Item – Water Supply Update and Storage Levels.

ISSUE BRIEF # B

SUBJECT: MET's Finance and Rate Issues

RECENT ACTIVITY

At the May 11 Finance and Insurance Committee meeting, MET Staff gave a third quarter financial review (July to March). The presentation noted that Projected Total Revenues were projected to end \$265.5 million less than budget. This is primarily due to lower than anticipated water sales. Similarly, the expenses are projected to reduce by \$255.3. Due to lower State Water Contractor costs, debt service, demand management, and repair and replacement expenses; as shown below. Nonetheless, the projected net revenue is still expected to exceed the projected total expenses resulting in a slight increase in net reserves; from \$460.1 million to \$487.2.

FY 19/20 Revenues				
March 31, 2020 (\$ in millions)				
	YTD Actual	FY Projected	FY Budget	Variance
Water	\$ 891.0	\$ 1,237.9	\$ 1,528.5	\$ (290.6)
RTS	100.5	134.5	134.5	-
Capacity Charge	22.9	30.5	31.2	(.7)
Power	14.9	19.1	19.1	-
Taxes, net	107.5	143.4	118.1	25.3
Interest	15.1	18.3	17.8	.5
Other	7.0	11.5	11.5	-
Total Revenues	\$ 1,158.9	\$ 1,595.2	\$ 1,860.7	\$ (265.5)
Finance & Insurance Committee Item 6a Slide 2 May 11, 2020				
FY 19/20 Expenses				
March 31, 2020 (\$ in millions)				
	YTD Actual	FY Projected	FY Budget	Variance
State Water Contract	\$ 457.4	\$ 517.9	\$ 589.5	\$ 71.6
Supply Programs	60.9	73.3	54.4	(18.9)
CRA Power Costs	24.8	39.5	53.0	13.5
Debt Service	272.0	283.4	330.9	47.5
Demand Management	35.2	47.2	85.8	38.6
Departmental O&M	359.6	496.4	496.4	-
R&R/General Fund	28.2	30.0	120.0	90.0
California WaterFix	-	-	13.0	13.0
Total Expenses	\$ 1,238.1	\$ 1,487.7	\$ 1,743.0	\$ 255.3
Finance & Insurance Committee Item 6a Slide 3 May 11, 2020				

ISSUE BRIEF # C

SUBJECT: Colorado River Issues

RECENT ACTIVITY

Metropolitan and Southern Nevada Water Authority Sign Letter of Intent

In March, Metropolitan and the Southern Nevada Water Authority (SNWA) took a historic first step towards partnering together to develop a Regional Recycled Water Program (RRWP) by signing a Letter of Intent (LOI). Metropolitan and SNWA have a long history of working together to enhance Colorado River supplies, and this LOI furthers that effort. In the LOI, Metropolitan and SNWA agree to build on the existing cooperative working relationship in order to lay the foundation to further the goal of developing the RRWP. This effort will lead to a joint development agreement that provides the scope and terms of contributions and allocations, if the RRWP is finalized and approved by Metropolitan's Board of Directors and other conditions are met. Metropolitan and SNWA anticipate that the development agreement will describe the scope of the project, including studies, planning, and construction; allocate resources provided by each party; commit the parties to future water distributions upon project completion; and provide for the parties to cooperate regarding any necessary regulatory changes.

Paradox Valley Unit to Resume Brine Injection Operations

The U.S. Bureau of Reclamation (Reclamation) notified cooperating agencies of its intent to begin a six- month test of decreased injection well operations at the Paradox Valley Unit in April. The injection well has been shut down for more than a year, since an earthquake occurred in that area more than a year ago. During this test, Reclamation will capture and dispose of brine at a reduced injection rate of 68 percent. Reclamation plans to closely monitor the injection pressure and seismic response near the well. If any abnormal responses are observed, Reclamation will shut down well operations for evaluation. Reclamation will use data collected during the test to decide how to operate the well in the future. This level of operation could capture and inject approximately 63,000 tons of salt per year.

Bard Seasonal Fallowing Program Update

Metropolitan and Bard Water District (Bard) launched the Bard Land Management and Seasonal Fallowing Program (Program) on April 1, following the execution of agreements with four farmers within the Bard Unit in March. Metropolitan has since performed an inspection of the fallowed land. The total enrolled acreage for the 2020 Fallowing Season is approximately 2,750 irrigable acres, which will occur from April 1 to July 31, 2020. By providing an annual incentive of \$452 per irrigable acre fallowed, Metropolitan will issue a total payment of \$1.26 million for this year's fallowing season. In addition to the payments to participating farmers, Bard will receive an estimated payment of \$326,000, which includes

\$15,000 for direct program costs and system improvements. Metropolitan anticipates that it will receive about 5,500 acre-feet of Colorado River supply under this program this year.

Bard and Metropolitan are amending the original agreement within the authority provided by Metropolitan's Board. To ensure Metropolitan only provides funding to lands that could have been otherwise irrigated, the amendment defines which acres within the Bard Unit are "fallowable" and therefore eligible for participation in the Program. The amendment also clarifies Metropolitan's method of calculating fallowed acreage for the Program.

Reclamation begins 2007 Interim Guideline Review

In March, Reclamation hosted a webinar to outline the process that the Department of Interior, acting through Reclamation, will follow to complete its formal review for the purpose of evaluating the effectiveness of the 2007 Interim Guidelines (Guidelines) for the operation and management of the Colorado River. In the Record of Decision that adopted the Guidelines, the Secretary of the Interior is to initiate the review no later than December 31, 2020, in consultation with the Colorado River Basin States. In the webinar, Reclamation explained that they will focus the review on how well the Guidelines performed for the purposes identified in the Record of Decision, including providing the operations of Lake Powell and Lake Mead, greater certainty in water supplies, and the incentives to conserve and store water in Lake Mead. They plan to complete their review by the end of 2020. There will be two opportunities for the public to provide input: (1) during the current initial scoping process in April and May 2020, and (2) after the preliminary draft report is issued this summer. Metropolitan is coordinating with other agencies to develop a single comment letter from the Basin States to Reclamation.

ISSUE BRIEF # D

SUBJECT: Bay Delta/State Water Project Issues

RECENT ACTIVITY

For information specifically relating to the Delta Conveyance Project (f.k.a. the California WaterFix) please, refer to the associated Board Item – Delta Conveyance Project Activities.

ISSUE BRIEF # E

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

RECENT ACTIVITY

Doheny Desal

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

Poseidon Huntington Beach

The Santa Ana Regional Water Quality Control Board (SARWQCB) continues to work with Poseidon on renewal of the National Pollutant Discharge Elimination System (NPDES) Permit for the proposed HB Desalination Project.

The renewal of the NPDES permit for the proposed desalination facility requires a California Water Code section 13142.5(b) determination in accordance with the State's Ocean Plan (a.k.a. the Desalination Amendment). To make a consistency determination with the Desalination Amendment, the Regional Board is required to analyze the project using a two-step process:

1. Analyze separately as independent considerations, a range of feasible alternatives for the best available alternative to minimize intake and mortality of all forms of marine life:
 - a. Site
 - b. Design
 - c. Technology
 - d. Mitigation Measures
2. Then consider all four factors collectively and determine the best combination of feasible alternatives.

Regional Board staff reviewed hundreds of documents and input from both an independent reviewer and a neutral 3rd party reviewer to develop Tentative Order R8-2020-0005.

The key areas required by the Ocean Plan on which the Santa Ana Water Board is required to make a determination, includes:

- Facility onshore location;
- Intake considerations including subsurface and surface intake systems;
- **Identified need for the desalinated water;**
- Concentrated brine discharge considerations;
- Calculation of the marine life impacts; and

- Determination of the best feasible mitigation project available.

In evaluating the proposed project, Santa Ana Regional Board staff interpreted “the identified need for the desalinated water” as whether or not the project is included in local area water planning documents, rather than a reliability need as analyzed in the OC Water Reliability Study. The Regional Board staff referenced several water planning documents; Municipal Water District of Orange County’s (MWDOC) 2015 Urban Water Management Plan (UWMP), the OC Water Reliability Study, OCWD’s Long Term Facilities Plan, and other OCWD planning documents in their evaluation of Identified Need.

On December 6, 2019, SARWQCB, Regional Board staff conducted a workshop in Huntington Beach that was heavily attended with a considerable range of views expressed at the meeting. Several of the SARWQCB members were somewhat confused about the evaluation of Identified Need for the project (inclusion in local water planning documents vs. an identified reliability need for the project) and requested staff to help them understand the issue better.

On May 15, 2020, SARWQB held a second workshop, which focused on the identified need for the desalinated water and marine life mitigation requirements. Karl Seckel presented to the Regional Board on a number of topics including: MWDOC’s role in Orange County, alternative definitions of “need” for a water supply project and the role of water agencies, Urban Water Management Plans, non-mandated planning documents, and what was and was NOT in the 2018 OC Water Reliability Study.

Assuming success, Poseidon would then seek its final permits from the California Coastal Commission (CCC). The CCC has committed to reviewing the permit within 90 days of the SARWQCB NPDES permit issuance.

ISSUE BRIEF # F

SUBJECT: South Orange County Projects

RECENT ACTIVITY

Doheny Desal Project

South Coast Water District (SCWD) continues working on the project:

- SCWD submitted their NPDES permit application on March 13, 2020. SCWD anticipates approval of the NPDES permit in the Fall 2020. The next step would be the Coastal Commission with a permit anticipated in Feb 2021.
- Work is progressing on the Financial Analysis for a 2 mgd and 5 mgd scenario. A workshop is currently being planned.
- Work is also progressing on an Alternative Energy Study for the project. A draft report for SCWD staff review is expected in May 2020.

SCWD staff is now also proposing to evaluate alternative project options that meet reliability benefits for SCWD similar to the Doheny Desalination Project, along with reducing overall life-cycle costs in light of the uncertain economic situation moving forward due to the COVID-19 pandemic.

The Doheny Desalination Project is currently sized at a capacity of up to 5 MGD, which exceeds SCWD's average potable water demand expected during emergency situations. SCWD has only received interest from SMWD for about 1 mgd of supply from Doheny. This leaves South Coast with potential capacity for others in a 5 MGD facility. Based on this, along with regional financial hardships caused by the COVID-19 pandemic and potential economic recession, SCWD believes that it is necessary to consider alternative, and potentially lower cost project options, to utilize and potentially expand existing assets as a means to meet their reliability needs.

This new study will review design parameters and existing conditions at SCWD's existing Groundwater Recovery Facility (GRF), to obtain a comprehensive understanding of actual production capacity of the GRF and current limitations and reliability concerns. A range of additional water production volumes needed to maintain emergency reliability for SCWD will be developed. Current estimates are that 1.2 to 2.2 mgd of additional reliability will be needed for SCWD based on a GRF production volume of 0.8 mgd.

SMWD Trampas Canyon Recycled Water Reservoir

Trampas Canyon Reservoir and Dam (Trampas Reservoir) is a seasonal recycled water storage reservoir, with a total capacity of 5,000 AF, of which 2,500 AF is available to meet Santa Margarita Water District's projected base recycled water demands, and 2,500 AF to meet future water supply needs. When completed, the Trampas Reservoir will allow SMWD to store recycled water in the winter and draw on that water during the peak summer months.

The construction of the Trampas Canyon Recycled Water Seasonal Storage Reservoir consists of three main components:

1. Trampas Canyon Dam (Dam)
2. Conveyance facilities to transport recycled water into and out of the Reservoir (Pipelines)
3. Trampas Canyon Pump Station (Pump Station)

The construction of the facilities is being completed in three phases:

1. Preconstruction/Site Preparation for the Dam and Pump Station Construction
 - a. Project Status - Complete
2. Dam and Pipelines
 - a. Project Status - The Construction Contract was awarded in December 2017 and is approximately 85% complete.
3. Pump Station
 - a. Project Status - The pump station construction began in January and will continue through September.

The project is currently projected to conclude at or before early-October 2020.

San Juan Watershed Project

Santa Margarita WD continues to focus on diversifying its water supply portfolio for south Orange County residents, businesses, schools, and visitors. On June 21, 2019, the San Juan Watershed Environmental Impact Report (EIR) was approved.

The original project had three Phases; Phase 1 was three rubber dams recovering about 700 AFY; Phase 2 added up to 8 more rubber dams with the introduction of recycled water into the creek to improve replenishment of the basin for up to 6,120 AFY, and Phase 3 added more recycled water topping out at approximately 9,480 AFY. Under this arrangement, most or all of the production and treatment involved the existing San Juan Groundwater Desalter with expansions scheduled along the way to increase production over 5 mgd. Fish passage and regulatory hurdles to satisfy subsurface travel time requirements are presenting some difficulties.

SMWD is working with the Ranch on the next phase of development within SMWD and have access to riparian groundwater from the Ranch. Furthermore, they have discovered that the local geology has high vertical percolation rates and sufficient groundwater basin travel time to potentially allow percolation of treated recycled water. SMWD is of the opinion that groundwater production and treatment of the groundwater can be initiated in a relatively short time-frame while permitting for percolation augmentation using recycled water from the nearby Trampas reservoir can be added as permitting allows. They believe the new project area may be able to ultimately produce 4,000 to 5,000 AF per year; they believe the original project will continue to be developed for production out of the wells and treatment provided by San Juan Capistrano as the two agencies merge. Ultimate production out of the basin could exceed 10,000 AF per year if all goes well.

South Orange County Emergency Service Program

MWDOC, IRWD, and Dudek have completed the study to determine if the existing IRWD South Orange County Interconnection capacity for providing emergency water to South Orange County can be expanded and/or extended beyond its current time horizon of 2030.

Dudek participated in the November 6, 2019 workshop to re-engage with the SOC agencies on this project. Support from the agencies was expressed to take a small next step to install Variable Frequency Drives at a pump station within IRWD which would be paid for by SOC to help move water from the IRWD system to SOC in an emergency. The Variable Frequency Drives will provide more flexibility to the IRWD operations staff to allow additional water to be sent to SOC while meeting all of the IRWD needs.

Strand Ranch Project

MWDOC and IRWD are continuing to exchange ideas on how to implement the program to capture the benefits that can be provided by the development of “extraordinary supplies” from the Strand Ranch Project. Staff from MWDOC and IRWD are continuing to discuss methods of quantifying the benefits of the program.

Other Information on South County Projects

Accelerated AMP Shutdown in Early 2021 to Replace PCCP Sections

In 2016, MET initiated a Prestressed Concrete Cylinder Pipe (PCCP) rehabilitation program to install 26 miles of steel liner throughout the MET system to address structural issues associated with prestressed steel wire failures in PCCP. As part of the program, MET monitors PCCP for wire breaks on a regular basis.

MWDOC staff was notified that a recent internal inspection of the AMP which included an electromagnetic surveys of the pipeline revealed two pipe segments with increased wire breaks within the PCCP portion South of OC-70. Metropolitan Engineering considers this section of the pipeline high-risk which will require relining. The minimum relining length needed would be approximately 1,000 feet, which would require a minimum 1-month shutdown only South of OC-70. A longer shutdown duration would allow Metropolitan to reline approximately 3,300 feet, which would reduce the number of shutdowns needed for future relining of the entire PCCP portion of the AMP and would reduce the overall construction and shutdown costs. MET had originally scheduled the AMP PCCP relining to begin in about 5 years, but based on the survey, the relining of this initial section has been accelerated.

MWDOC staff coordinated a meeting with all AMP participants on May 13, 2020 to discuss the options for the proposed shutdown.

Due to scheduling issues, MET staff has indicated the relining project will not be able to start until June 2021 at the earliest. MWDOC staff will coordinate with MET for this shutdown to occur in the Fall of 2021.

Staff will continue working with affected agencies and will keep both the Board and the AMP Participants informed as more information becomes available.

If any agencies would like to have updates included herein on any projects within your service area, please email the updates to Karl Seckel at kseckel@mwdoc.com.

**Summary Report for
The Metropolitan Water District of Southern California
Board Meeting
May 12, 2020**

COMMITTEE ASSIGNMENTS

None. **(Agenda Item 5C)**

FINANCE AND INSURANCE COMMITTEE

Adopted the resolution to continue the Standby Charge for fiscal year 2020/21.
(Agenda Item 8-1)

Approved the draft of Appendix A in Attachment 1 of the board letter; authorized the General Manager, or other designee of the Ad Hoc Committee, to finalize, with changes approved by the General Manager and General Counsel, Appendix A; and authorized distribution of Appendix A, finalized by the General Manager or other designee of the Ad Hoc Committee, in connection with the sale or remarketing of bonds. **(Agenda Item 8-2)**

LEGAL AND CLAIMS COMMITTEE

Authorized an increase in the maximum amount payable under contract with Best, Best & Krieger LLP for legal services related to the Surface Mining and Reclamation Act by \$150,000 to a maximum amount payable of \$250,000. **(Agenda Item 8-3)**

CONSENT CALENDAR

In other actions, the Board:

Authorized an agreement with Sespe Consulting, Inc., in an amount not-to-exceed \$510,000 for preparation of Surface Mining and Reclamation Act reclamation plans and environmental documentation. **(Agenda Item 7-1)**

Authorized an agreement with Computer Aid, Inc. not-to-exceed \$771,219.00 for the implementation of a new Information Technology Service Management System.
(Agenda Item 7-2)

Reviewed and considered the City of Hemet's certified Final Environmental Impact Report and take related CEQA actions, and authorized the granting of a permanent easement to the City of Hemet to facilitate the construction and maintenance of a drainage system.
(Agenda Item 7-3)

Reviewed and considered the City of Perris' certified Final Environmental Impact Report and take related CEQA actions, and authorized the granting of three permanent easements for public road purposes to the City of Perris. (**Agenda Item 7-4**)

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://mwdh2o.com/WhoWeAre/Board/Board-Meeting/Pages/search.aspx>

All current month materials, before they are moved to the Board Letter Archive, are available on the public website here: <http://mwdh2o.com/WhoWeAre/archived-board-meetings>



Regular Board Meeting

June 9, 2020

12:00 p.m.

Tuesday, June 9, 2020 Meeting Schedule	
9:30 AM	OP&T
11:00 AM	L&C
12:00 PM	Board

Live streaming is available for all board and committee meetings on our mwdh2o.com website
([Click to Access Board Meetings Page](#))

Public Comment Via Teleconference Only: Members of the public may present their comments to the Board on matters within their jurisdiction as listed on the agenda via teleconference only. To participate call (404) 400-0335 and use Code: 9601962.

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

1. Call to Order

- (a) Invocation: Tania Asef, Associate Environmental Specialist,
Environmental Planning Section,
Chief Administrative Office
- (b) Pledge of Allegiance: Director Linda Ackerman,
Municipal Water District of Orange County

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 Government Code Section 54954.3(a))

5. OTHER MATTERS

- A. Approval of the Minutes of the Meeting for May 12, 2020
(Copies have been submitted to each Director)
Any additions, corrections, or omissions
- B. Report on Directors' events attended at Metropolitan expense for
month of May 2020

- C. Presentation of 5-year Service Pin to Director Stephen J. Faessel, representing the City of Anaheim
- D. Presentation of 5-year Service Pin to Director Donald D. Galleano, representing Western Municipal Water District
- E. Induction of new Director Ardashes “Ardy” Kassakhian from the City of Glendale
 - (a) Receive credentials
 - (b) Report on credentials by General Counsel
 - (c) File credentials
 - (d) Administer Oath of Office
 - (e) File Oath
- F. Approve committee assignments
- G. Chairwoman's Monthly Activity Report

6. DEPARTMENT HEADS' REPORTS

- A. General Manager's summary of activities for the month of May 2020
- B. General Counsel's summary of activities for the month of May 2020
- C. General Auditor's summary of activities for the month of May 2020
- D. Ethics Officer's summary of activities for the month of May 2020

7. CONSENT CALENDAR ITEMS — ACTION

- 7-1** Approve Commendatory Resolution for Director Vartan Gharpetian representing the City of Glendale
- 7-2** Approve Metropolitan's Statement of Investment Policy for fiscal year 2020/21, and delegate authority to the Treasurer to invest Metropolitan's funds for fiscal year 2020/21; the General Manager has determined that the proposed actions are exempt or otherwise not subject to CEQA. (F&I)

- 7-3** Adopt resolution authorizing the reimbursement of capital expenditures from bond proceeds for fiscal years 2020/21 and 2021/22 relating to Metropolitan's water delivery system; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (F&I)
- 7-4** Approve up to \$1.378 million to purchase insurance coverage for Metropolitan's Property and Casualty Insurance Program; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (F&I)
- 7-5** Adopt the CEQA determination that the proposed action has been previously addressed in the certified 2016 Final Program EIR and related CEQA documents; and award a \$429,295 contract to Pride Construction Engineering Services to construct erosion-control improvements for six sites in the Orange County region. (E&O)
- 7-6** Authorize a professional services agreement with Flairsoft Limited not-to-exceed \$825,000 for a cloud-based solution to manage Real Property business transactions; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (OP&T)
- 7-7** Authorize the General Manager to execute a funding agreement extension, and, by a two-thirds vote, authorize payment of \$736,000 for support of the Colorado River Board and Six Agency Committee for fiscal year 2020/21; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (WP&S) **[Two-thirds vote required at Board]**
- 7-8** Authorize the General Manager to waive, at his discretion, Section 2121(c) of Metropolitan's Administrative Code to allow matters involving amounts greater than \$2 million or requiring a roll call vote to be placed on the consent calendar, for the duration of the State of Emergency declared by Governor Newsom's March 4, 2020 Executive Order; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (L&C)
- 7-9** Express support and seek amendments to AB 3256 (E. Garcia, D-Coachella) Economic Recovery, Wildfire Prevention, Safe Drinking Water, Drought Preparation, and Flood Protection Bond Act of 2020; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (C&L)

- 7-10** Watch and engage as needed to protect Metropolitan's interests on SB 625 (Bradford); Central Basin Municipal Water District: receivership; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (C&L) **[To be posted separately]**

END OF CONSENT CALENDAR

8. OTHER BOARD ITEMS — ACTION

- 8-1** Authorize an increase of \$4,000,000 in change order authority for urgent prestressed concrete cylinder pipe relining on the Second Lower Feeder; the General Manager has determined that the proposed actions are exempt or otherwise not subject to CEQA. (E&O)
- 8-2** Authorize an increase of \$3 million, to an amount not-to-exceed \$41.1 million, for an existing 5-year agreement with Securitas to provide security guard services through December 31, 2020; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. (E&O)

9. BOARD INFORMATION ITEMS

- 9-1** Update on Conservation Program
- 9-2** Review of Greenhouse Gas Reduction Target for Metropolitan's Proposed Climate Action Plan. (E&O)
- 9-3** District Housing Improvement Project Update

10. FOLLOW-UP ITEMS

11. FUTURE AGENDA ITEMS

12. ADJOURNMENT

NOTE: 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.