

MEETING OF THE BOARD OF DIRECTORS OF THE
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
Jointly with the
PLANNING & OPERATIONS COMMITTEE
October 5, 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#

P&O Committee:

Director McVicker, Chair
Director Dick
Director Yoo Schneider

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

Ex Officio Member: Director Tamaribuchi

MWDOC Committee meetings are noticed and held as joint meetings of the Committee and the entire Board of Directors and all members of the Board of Directors may attend and participate in the discussion. Each Committee has designated Committee members, and other members of the Board are designated alternate committee members. If less than a quorum of the full Board is in attendance, the Board meeting will be adjourned for lack of a quorum and the meeting will proceed as a meeting of the Committee with those Committee members and alternate members in attendance acting as the Committee.

PUBLIC COMMENTS - Public comments on agenda items and items under the jurisdiction of the Committee should be made at this time.

ITEMS RECEIVED TOO LATE TO BE AGENDIZED - Determine there is a need to take immediate action on item(s) and that the need for action came to the attention of the District subsequent to the posting of the Agenda. (Requires a unanimous vote of the Committee)

ITEMS DISTRIBUTED TO THE BOARD LESS THAN 72 HOURS PRIOR TO MEETING -- Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection in the lobby of the District's business office located at 18700 Ward Street, Fountain Valley, California 92708, during regular business hours. When practical, these public records will also be made available on the District's Internet Web site, accessible at <http://www.mwdoc.com>.

ACTION ITEMS

1. ECONOMIC BENEFIT STUDIES AND MODELING WORK TO QUANTIFY THE BENEFITS OF LOCAL PROJECTS AND TO UNDERSTAND THE POTENTIAL IMPLICATIONS OF MET'S 2020 INTEGRATED RESOURCES PLAN (IRP)

2. AWARD CONSTRUCTION CONTRACT FOR ADMINISTRATION BUILDING SEISMIC RETROFIT & REMODEL
3. APPROVAL OF AGREEMENT WITH METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA AND THE METROPOLITAN MEMBER AGENCIES OF THE SANTA ANA RIVER CONSERVATION AND CONJUNCTIVE USE PROGRAM
4. JOINT CONTRACT BETWEEN MWDOC AND OCWD TO HIRE CDM SMITH TO UPDATE DEMAND PROJECTIONS FOR AGENCIES IN ORANGE COUNTY

DISCUSSION ITEMS

5. UPDATE ON COVID-19 (ORAL REPORT)
6. WEROC ASSESSMENT PRESENTATION – PART 2

INFORMATION ITEMS (The following items are for informational purposes only – background information is included in the packet. Discussion is not necessary unless a Director requests.)

7. STATUS REPORTS
 - a. Ongoing MWDOC Reliability and Engineering/Planning Projects
 - b. WEROC
 - c. Water Use Efficiency Projects
8. REVIEW OF ISSUES RELATED TO CONSTRUCTION PROGRAMS, WATER USE EFFICIENCY, FACILITY AND EQUIPMENT MAINTENANCE, WATER STORAGE, WATER QUALITY, CONJUNCTIVE USE PROGRAMS, EDUCATION, DISTRICT FACILITIES, and MEMBER-AGENCY RELATIONS

ADJOURNMENT

NOTE: At the discretion of the Committee, all items appearing on this agenda, whether or not expressly listed for action, may be deliberated, and may be subject to action by the Committee. On those items designated for Board action, the Committee reviews the items and makes a recommendation for final action to the full Board of Directors; final action will be taken by the Board of Directors. Agendas for Committee and Board meetings may be obtained from the District Secretary. Members of the public are advised that the Board consideration process includes consideration of each agenda item by one or more Committees indicated on the Board Action Sheet. Attendance at Committee meetings and the Board meeting considering an item consequently is advised.

Accommodations for the Disabled. Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning Maribeth Goldsby, District Secretary, at (714) 963-3058, or writing to Municipal Water District of Orange County at P.O. Box 20895, Fountain Valley, CA 92728. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the District to provide the requested accommodation.



ACTION ITEM
October 21, 2020

TO: MWDOC Board of Directors

FROM: Planning & Operations Committee
(Directors McVicker, Dick, Yoo Schneider)

Robert Hunter, General Manager

Staff Contact: Karl Seckel/Charles Busslinger

SUBJECT: Economic Benefit Studies and Modeling Work to Quantify the Benefits of Local Projects and to Understand the Potential Implications of MET's 2020 Integrated Resources Plan (IRP)

STAFF RECOMMENDATION

Staff recommends the Board authorize the General Manager to enter into a consulting contract with the Brattle Group to complete the economic benefit studies as outlined below in the estimated amount of \$245,000, plus additional support services by CDM Smith not to exceed \$25,000 for a total estimated cost not to exceed \$270,000.

COMMITTEE RECOMMENDATION

The P&O Committee (to be determined at the meeting).

SUMMARY

Staff recommends that MWDOC proceed with the previously authorized reliability modeling work and add to the existing scope of work the additional economic studies described below. The combined effort is designed to more closely examine issues within the MET IRP as well as future reliability investments at both the MET level and at the Orange County level. This additional work is an important part of MWDOC's responsibility in representing our member agencies. An important note is that MWDOC has taken considerable time and effort to step back and discuss in detail the economic studies with MWDOC's member agencies.

Budgeted (Y/N): N	Budgeted amount: n/a	Core <u> X </u>	Choice <u> </u>
Action item amount: \$270,000		Line item: 21-7010	
Fiscal Impact (explain if unbudgeted): Staff recommends the study costs be funded out of reserves as this issue arose after the budget discussions were completed for 2020-21 and due to the COVID impacts to our agencies.			

Following the April Committee meeting there was considerable push back from the agencies and a request for more time and discussion to understand the nature and scope of work for the economic studies. The need for the studies was discussed at several meetings with our agencies along with other items such as MWDOC's role and mission, the hydraulic model, and MWDOC's water rate resolution and ordinance. MWDOC committed to include Dr. David Sunding at a workshop in July where the entire meeting was dedicated to a discussion of the studies. The agencies input from the July meeting was captured and discussed at the Managers meeting with our agencies in August. Subsequently, a second dedicated workshop was held in September to focus entirely on the context of the economic studies and to further discuss the scope of work. Dr. David Sunding, Dr. Wallace Walrod, and Dan Rodrigo from CDM Smith were at the September workshop.

Good discussions occurred during the September 24, 2020 workshop; although with over 30 agency representatives in attendance, only about five agencies weighed in during the detailed discussions. Staff is of the opinion that the member agencies have a much better understanding of the studies and what might be at risk in the MET IRP discussions.

Undertaking \$270,000 in additional study work involves a significant investment. Staff believes that the investment will provide an improved basis for staff, directors, MET directors and MWDOC member agencies to do their planning and analysis as a result of a better overall understanding of the issues involved. Staff believes it is time to move forward with this work under the modified scope of work.

DETAILED REPORT

In April 2020, MWDOC staff recommended the Board consider authorizing staff to retain consultants to proceed with economic benefit studies that would describe and quantify the economic benefits of new local water supplies to the MWDOC service area. Staff is of the opinion that the studies will be useful to MWDOC and to our member agencies in better understanding the reliability benefits that come from the implementation of various local projects in Orange County. In April, input was provided by several member agencies requesting further discussion and time to digest the need for, and the scope of, the studies. At that time, MWDOC's agencies were not supportive of moving forward.

Since April 2020, discussions were held with our member agencies concerning the nature and scope of the economic studies at several meetings. The need for the studies was discussed at several meetings with our agencies along with other items such as MWDOC's role and mission, the hydraulic model, and MWDOC's water rate resolution and ordinance. MWDOC committed to include Dr. David Sunding at a workshop in July where the entire meeting was dedicated to a discussion of the economic studies. The agencies input from the July meeting was captured and discussed at the Managers meeting with our agencies in August. Subsequently, a second dedicated workshop was held in September to focus entirely on the context of the economic studies and to further discuss the scope of work. Dr. David Sunding, Dr. Wallace Walrod, and Dan Rodrigo from CDM Smith were at the September workshop.

Based upon member agency input, the approach previously considered in April has been broadened and the scope of work by Dr. David Sunding has been modified and reduced in cost. The survey work is now focused on surveying the business community to determine how they might be impacted by both emergency water shortages (i.e. earthquakes) which are severe shorter-term shortages; and by longer-term and less severe shortages (i.e. droughts). The residential impacts will now not require a survey of consumers. Dr. Sunding has indicated there is substantial information on the residential impacts of water shortages and he will rely on published data for this part of the study. Staff has amplified the background information to assist our agencies in understanding the nature of the work and why staff is interested in pursuing the work.

Below are notes from the July 23 workshop where input was captured in the discussions with our agencies. Items A. through G. below were the identified concepts of the potential study benefits and issues to provide a broader context for the economic studies. These items were then discussed with the agencies in August and again in the September 24 workshop discussions as potential goals of the economic studies:

- A. Quantify the value to residents & businesses from increased water reliability by investing in local projects
 - ◆ Helpful for updates of the reliability model; Dr. Sunding indicated that good data is not currently available on shortage impacts to businesses, so this information would be key.
 - ◆ Helpful for understanding and evaluating MET's IRP update and options for MET's Local Resources Program (LRP).
- B. How do MET reliability investments impact OC and MET member agencies? What are the costs paid through MET water rates and what reliability improvements will be achieved?
 - ◆ MET's Carson Regional Recycled Water Program
 - ◆ Delta Conveyance Project
 - ◆ Local Projects by MET member agencies and OC agencies
- C. What changes occur if MET moves to higher fixed charges by way of their rates and charges?
- D. What implications occur with changes in the structure of MET's LRP?
- E. Compare costs and reliability improvements at the MET level to the costs and reliability benefits of local projects
- F. Agencies could use the information developed by MWDOC to build their own reliability models. The CDM Smith scope of work includes options for providing interested retail agencies a spreadsheet template they can utilize in their own planning effort should they desire.
- G. What evaluations are included for OC to decide whether to support future investments being considered at the MET level?
 - ◆ For example, an investment by MET in the Carson Project may increase the cost of all MET water by \$200 per AF – is this a good investment for OC?

At the most recent workshop on September 24, 2020 staff discussed the items above and provided the following introduction and overview to the work:

There are potentially large dollar stakes involved in MET's IRP update. Staff believes the nature of the recommended work will provide valuable information towards an improved understanding of MET's IRP and where some of the policy issues may head. The recommended action item of \$270,000 is not an inexpensive endeavor; but what is at stake from the perspective of Orange County is the future reliability options under the MET IRP and upcoming decisions about investments in reliability both at the MET level and by the local agencies in Orange County. Staff believes these future investments will be large and having an improved understanding of how both MET and OC are impacted by these investments will serve our staff, directors and MET directors well in helping to represent our member agencies. It is also important for our agencies to benefit from these efforts to have an improved understanding of how local decisions impact our collective and individual reliability.

Our goal is to ensure that MET, the MET member agencies, and the local agencies do not collectively over-invest or under-invest from a reliability perspective at either the MET level or the OC level. Staff believes the type of work being pursued is consistent with MWD OC's mission of ensuring that policies and investments at the MET level work for Orange County; and to ensure investments made within OC complement MET's investments while meeting our local needs. When we presented this information on September 24th, staff was asked if this effort was a departure from MWD OC's historical role where our MET directors have acted at MET regarding what is in the best interests of Southern California and MET. Staff does not believe this is a departure from that role, as we have always kept in mind the end result of actions at MET as well as to understand how investments in water reliability within Orange County align with those investments.

In the September workshop, we included Dan Rodrigo from CDM Smith to remind the group of work already underway with which he has already been tasked. The CDM Smith work includes the following:

Why the Reliability Modeling Update? (This work was authorized by the MWD OC Board in August 2020)

- ◆ Greater Uncertainty Regarding Delta Conveyance Project
- ◆ MET IRP Update includes Scenario Planning for the first time
- ◆ Regional Water Demands Trending Downward
- ◆ Potential Changes in MET Water Rate Structure (e.g., greater fixed cost recovery) and Reduced Funding for LRP
- ◆ Update the OC Water Reliability Model

Additional Work by CDM Smith or Others

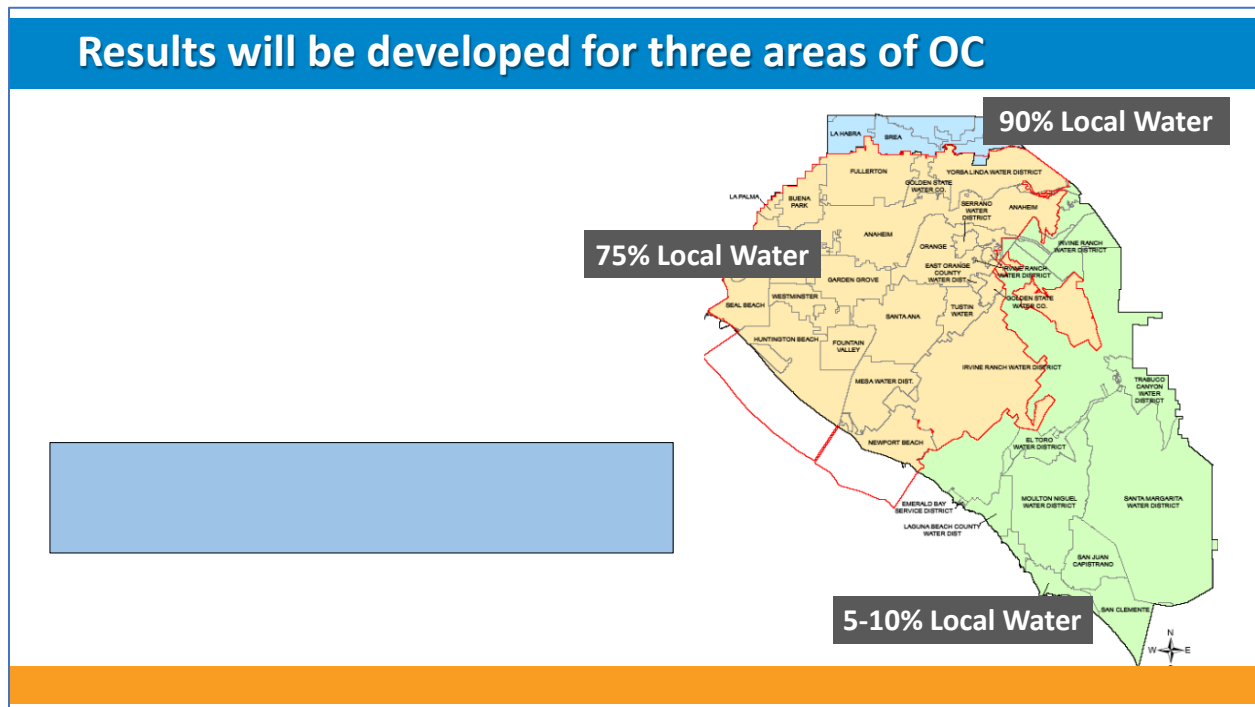
- ◆ Update Regional Water Demands (MET will complete as part of IRP Update in the December-January timeframe)

- ◆ Update OC Water Demands (CDM Smith proposal being reviewed jointly by MWDOC and OCWD for possible joint funding)
- ◆ New modeling of State Water Project (SWP) reliability with and without the Delta Conveyance Project (MET anticipates information will become available in October-November timeframe)

Benefits of the CDM Smith Scope of Work

- ◆ Useful to MWDOC and member agencies for planning purposes
 - ◆ New planning scenarios
 - ◆ CDM to provide member agencies templates for assessing local reliability and the benefits of local projects in their service area
 - ◆ Support for Urban Water Management Plans (e.g., demand forecasts)
- ◆ Support/evaluate MET's IRP Update
- ◆ Support for Proposed Study on Value of Water Supply Reliability

Dan Rodrigo reminded the group that the reliability modeling work will proceed at the level of the three reliability areas within Orange County based on what was done in the 2016 and 2018 reliability studies. Based on the reliability for these three areas, extrapolation templates can be provided at the agency level.



Dan Rodrigo also reminded the group that we will need to discuss and work through updated scenarios for the 2021 Reliability Study Update. Dan provided a first cut (see below) of potential scenarios that could be modeled in the upcoming work. Dan indicated that further discussions will be held concerning the nature of the scenarios to seek input

from the agencies. A good discussion ensued on the prospects of the Delta Conveyance Project and the likelihood under which it might proceed or be delayed over the course of several years. In the end, our agencies supported understanding the impacts of both scenarios, because it could be 20 years or more before a Delta Solution might begin operations.

First Cut Draft of Proposed New Planning Scenarios

Changes from 2018 OC Study		Added a "significant stress" climate impact scenario	Lowered MET and OC demand projections based on recent trends	Added more variability in assumed supplies	Added more variability in assumed supplies	Added scenario in which project is not implemented
Scenario Name	Climate Change Impacts	MET & OC Water Demands	MET Water Transfers and GW Banking	MET Regional Recycled Water Program	Delta Conveyance Project	
Low Stress with some MET projects but without Delta Conveyance	Slight impact on SWP supplies only	Lower base MET and OC water demands	100,000 AFY	91,000 AFY (LB & Main Basin)	Not implemented	
Moderate Stress with some MET projects and with Delta Conveyance	Slight impact on SWP and local GW; moderate impact on CRA and water demands	Lower base MET and OC water demands	100,000 AFY	102,000 AFY (LB, West Basin & Main Basin)	Implemented with about 400,000 AFY improvement on average	
Moderate Stress with more MET projects but without Delta Conveyance	Slight impact on SWP and local GW; moderate impact on CRA and water demands	Lower base MET and OC water demands with increased outdoor conservation	250,000 AFY	116,000 AFY (full program without OC Basin)	Not implemented	
Significant Stress with some MET projects and with Delta Conveyance	Moderate impact on SWP local GW; significant impact on CRA and water demands	Lower base MET and OC water demands	100,000 AFY	168,000 AFY (full program)	Implemented with about 400,000 AFY improvement on average	
Significant Stress with more MET projects but without Delta Conveyance	Moderate impact on SWP local GW; significant impact on CRA and water demands	Lower base MET and OC water demands with increased outdoor conservation	250,000 AFY	168,000 AFY (full program)	Not implemented	

Economic Studies Work

Dr. David Sunding from UC Berkeley and the Brattle Group discussed the project team which he will lead. The team includes Dr. Wallace Walrod of OC Business Council and Dr. Marlon Boarnet, Chair of the Urban Planning & Spatial Analysis Department at the USC Sol Price School of Public Policy. Dr. Sunding outlined how the information will be developed and used (his scope of work is attached):

- ◆ Information will be used to understand and quantify the economic benefits of local projects or projects serving local water into Orange County
- ◆ Consider periodic droughts and less frequent, extreme events such as earthquakes
- ◆ This effort is not specific to any one project but is intended to be applicable to any local projects that are being considered in Orange County.
- ◆ Project team will consider the value of reliability to both residential and business customers
- ◆ Will examine several measures of the value of reliability:
 - Willingness to pay
 - Jobs Losses
 - Lost economic activity
 - Regional (multiplier) impacts
- ◆ Value of reliability will be quantified at the agency level within MWDOC
- ◆ Residential losses will be calculated using retail demand relationships calibrated to socioeconomic and land use conditions within each district
- ◆ Business losses will be investigated with a survey of county businesses implemented by CSU Fullerton with Dr. Wallace Walrod
- ◆ Results will be a set of “loss functions” that capture the relationship between impacts and percentage shortages
- ◆ Final product will be draft and final reports, presentations to MWDOC and its member agencies and will include the survey results
- ◆ Cost ~ \$245,000 for the Brattle Group; the support costs for CDM Smith are separate and estimated not to exceed \$25,000; the total project costs are estimated not to exceed \$270,000.
- ◆ Timing ~ 6 months to complete after the CDM’s modeling work has been completed (target April 2021).

Schedule for the Work

Due to the delayed start on this work in order to hold discussions with the member agencies, combined with the need to coordinate some of the modeling work with MET’s IRP modeling, the schedule will be phased such that some of the work products will become available during MET’s IRP discussions and others will become available during the policy discussions phase of MET’s IRP. The modeling and demand projections are slated for completion in January 2021 while the economic studies will trail this work and be completed in April 2021.

Input from the Member Agencies

Good discussions occurred during the September 24, 2020 workshop; although with over 30 agency representatives in attendance, only about five agencies weighed in during the detailed discussions. Staff is of the opinion that the member agencies have a much better understanding of the studies and what might be at risk in the MET IRP discussions. Input during the discussions included the following:

- ◆ Some of the participants felt that the scope of work ultimately developed and the time taken for iterative discussions with the agencies was appreciated. Some noted that the clarifications and work plan would result in some good information being developed. This does not mean there was full consensus among the agencies to move forward (since we only heard from five agencies), but the mood can probably best be described as “reluctant concurrence” (MWDOC’s characterization).
- ◆ Some participants felt that understanding the impacts on businesses from both emergency shortages and longer-term drought driven shortages was very important.
- ◆ It was also noted that the economic damages from under or over investing was also an important consideration.
- ◆ Tracking project benefits based on a who is paying and who is receiving the benefits was also noted as a good objective.
- ◆ A question was raised as to whether this effort was duplicating the 2018 Reliability Study? Staff believes the CDM discussions noting the changes since the 2018 study (which was based on demand projection work completed in 2016) adequately characterized the need for the updated modeling work to be completed; this was why the CDM modeling work had previously been approved by the MWDOC Board in August 2020. The modeling work will proceed independent of the economic studies work.
- ◆ As previously noted, a question was raised as to whether this work represented a policy deviation by the MWDOC Board or MET Directors in how they look at what is best for Southern California. Staff noted that looking at what is best for Southern California does not mean MET Directors ignore potential impacts in OC. A main goal of the work MWDOC pursues, is to make sure we understand, to the greatest degree possible, what the ensuing implications are of MET policies on our member agencies. Staff believes this is an important aspect of this work and it is not a deviation from prior policy.
- ◆ A wide-ranging discussion occurred regarding the Delta Conveyance Project. In the end we agreed that while it may or may not proceed, if it does proceed, it may be 20 years or more before it begins operation. Therefore, we should evaluate future economic and reliability implications both with and without the Delta Conveyance Project. The discussion noted that one of the big obstacles in the Delta Conveyance Project is getting the Federal Central Valley Project contractors on board in some manner.
- ◆ IRWD continued to raise concerns that the survey of businesses could unduly alarm businesses that there might be shortages that could be unrealistic based on where the businesses are physically located. Dr. Sunding noted the concern and indicated

that extreme care would be taken in communications with the businesses being surveyed to clarify that we are simply seeking to generically understand potential business impacts of various levels of shortages to help our planning efforts. It will be emphasized that the range of shortages in the survey do not mean these shortages would occur specifically to any particular business. Staff believes these measures can alleviate the IRWD concerns.

- Two agencies indicated it might be preferable for them to “opt out” of the survey process (IRWD and MNWD). It was pointed out that not including the entire business community from Orange County would result in an incomplete analysis of the MET investment impacts in Orange County and was therefore not recommended. Other participants indicated they believed it would be a mistake if portions of Orange County were not included.

Undertaking \$270,000 in additional study work involves a significant investment. Staff believes that the investment will provide an improved basis for staff, directors, MET directors and MWDOC member agencies to do their planning and analysis as a result of a better overall understanding of the issues involved. Staff believes it is time to move forward with this work under the modified scope of work.

Staff indicated to the agencies that an agenda item would be prepared and presented at the October 5th Planning and Operations Committee and all are welcome to provide input. If the item clears the P&O Committee, it would then go to the Board on October 21st.

The Brattle Scope of Work for the Economic Studies is attached.

BOARD OPTIONS

Option #1

- **Authorize the Economic Studies**

Fiscal Impact: Requires the expenditure of \$270,000 from reserves plus staff time. However, based on the outcome of MET’s IRP, there could be large swings in investments in local projects and MET projects by way of capital costs, O&M costs and water rate payments that could save Orange County agencies many times more than the amount being spent.

Business Analysis: Staff believes the type of work being pursued is consistent with MWDOC’s mission of ensuring that policies and investments at the MET level work for Orange County; and to ensure investments made within OC complement MET’s investments while meeting our local needs. Helps to ensure that we do not collectively over or under invest in water reliability in Orange County, both of which can be quite expensive.

Option #2

- **Do Not Authorize the Economic Studies**

Fiscal Impact: Would save staff time and reduce expenditures by \$270,000 in FY 2020-21. However, based on the outcome of MET's IRP, there could be large swings in investments in local projects and MET projects by way of water rate payments that could potentially cost quite a bit more than would be spent in pursuing the studies.

Business Analysis: Staff would not be carrying out its full responsibilities to its member agencies in representing them at the MET level. Overall, it could result in Orange County collectively over or under investing in water reliability in Orange County which can be quite expensive.

STAFF RECOMMENDATION

Option #1

The Value of Water Supply Reliability: Study Proposal and Scope of Work

Marlon Boarnet, David Sunding, Wallace Walrod

September 22, 2020

Prepared for Municipal Water District of Orange County

I. Introduction

This document describes a study of the value of water supply reliability in Orange County, California. The County faces two vastly different kinds of potential disruptions – periodic drought, typical of the region’s climate, and larger, potentially catastrophic disruptions in water availability.

A drought scenario is better understood as it is experienced more frequently. In dry periods, residents may face voluntary water use reductions, price increases, and in more extreme circumstances water rationing that in the past have yielded reductions in water use from 10 to 35 percent. Businesses, being high-value water users responsible for the local job base, are often shielded from water rationing efforts.

A more extreme event could require reductions in water supply of 50 percent or more, for possibly weeks or months, and it would likely not be possible to shield businesses from supply reductions in the case of a catastrophic event. The most commonly discussed source of extreme interruptions would be earthquake damage to water treatment or major distribution systems, such as the potential for an earthquake to damage the Robert B. Diemer water treatment plant in north Orange County.

In both circumstances – a drought or a catastrophic disruption – residents and businesses could experience a reduction in available water supply. ***Efforts to mitigate against those reductions require that the County have a credible estimate of the value of water supply reliability to ensure the avoidance of over-investing or under-investing in water supply projects.*** How much would residents and businesses be willing to pay to avoid reductions or interruptions in water supply? And how would this compare to mitigation costs to avoid shortages?

The most recent study which quantified the value of water supply reliability in Orange County was almost two decades ago (Orange County Business Council, 2003). Since then, little work has been done that can illuminate how residents and businesses would be economically harmed if water supply is reduced or interrupted. Water agencies do occasionally conduct customer surveys or opinion polls, and those surveys are useful for assessing customer satisfaction in

qualitative terms. That said opinion and satisfaction surveys do not provide insight into how residents and businesses value a reliable water supply, nor can satisfaction or opinion surveys give a quantified estimate of the value of a secure water supply. Similarly, satisfaction or opinion surveys cannot illuminate how residents and businesses would be willing to pay for investments that can increase the reliability of water supply.

We propose a detailed economic study that will quantify how the Orange County community values water supply reliability. The end products of our research will be quantified measures of the benefits that would accrue to the County from reducing small (e.g. drought) and large (e.g. catastrophic event) reductions in water availability. As the threat of earthquakes, changes in climate and related hydrology, or other possibly unforeseen events become more prominent in strategic policy-making, an understanding the value of investments that will increase the reliability of supply is vital.

II. Scope

We will study two different classes of supply disruption: droughts and earthquakes. Those will model, respectively, normal supply reductions in ranges experienced in the recent past, and larger supply reductions that could occur due to catastrophic events.

For both the drought and earthquake scenarios, we will quantify the value of reliability by using willingness-to-pay or demand measures for residential consumers and measures of lost revenue, added costs, or employment reductions for business customers.

An important contribution of this study will be the quantification of business losses from large, infrequent and unplanned water supply reductions. As a general rule, business losses are typically substantially larger than aggregated losses from residential customers for water supply reductions of a given magnitude. As an example, Brozovic et al. (2007) estimated that business losses from hypothesized earthquakes in the Bay Area, focusing only on the resulting disruption to water supply from the Hetch Hetchy distribution system, would be from 30 to 70 times larger than resident valuations for the same water supply disruptions.

A. Drought Scenario

Residential Sector Losses: We will quantify how Orange County residents value reductions in water supply by using updated residential water demand curves based on our prior work for Metropolitan Water District of Southern California and the State of California. These water demand relationships capture the relationship between quantity consumed and willingness to pay and are frequently employed to measure customer losses from episodes of mandatory rationing as in Buck et al. (2016). We propose to update these loss functions by using current rates, consumption levels and socioeconomic profiles for retail water agencies in Orange County.

It should be noted that the drought scenario only considers residential losses since there's not really a record of business shortages during droughts in CA. The residential sector is typically large enough to accommodate any needed changes in water use to accommodate business shortages.

The output of this portion of the study will be a set of “loss functions” which are mathematical equations describing the consumer loss for various levels of mandatory rationing. These loss functions will be developed separately for each retail water agency in Orange County. To parameterize loss functions for each community in the county, we will gather rate and consumption information to calibrate the functions, and will adjust demand elasticities for each agency based on characteristics of the customer base such as household income, housing density and the like. The exact method for developing residential loss functions is described in Buck et al. (2016).

B. Earthquake Scenario

The earthquake (or catastrophic disruption) scenario will be an important innovation in this study. We know less about reliable valuations of large reductions than for smaller drought scenarios, and what is known indicates that the costs of catastrophic reductions in water supply could be larger than simple extrapolations from smaller reductions. For residents and businesses, a loss of half or more of water supply can be much more costly than the impact of a 10 or 20 percent reduction in water supply that would be typical in a drought.

Residential Sector Losses: We propose to follow the method outlined in Brozovic et al. (2007) to calculate residential losses from catastrophic water supply disruptions. This method is similar to the one used for drought impacts, since both approaches aim to measure customer willingness to pay to avoid a given water supply interruption. In the case of seismic events, however, there is a possibility that some customers may be totally without water (or see a significant disruption in the amount of water available) for some period of time while repairs are made. In these cases, emergency water supplies may need to be made available (potentially by truck or through distribution of bottled water), and the cost of these measures will form part of the welfare loss from the earthquake-induced disruption.

Business Sector Losses: A key innovation of this study will be extending business loss information into the Orange County context. The best available study of business losses from water supply reductions is a survey of firms conducted by MHB Consultants (1994). That work, albeit from 1994, is still the best available data on how businesses will reduce operations and employment in the face of large reductions in water supply. Yet, the MHB data are almost three decades old.

We will leverage the position of the Orange County Business Council to reach out to firms in an interview and survey approach. We will group industries in the county into approximately ten categories, and interview a small number of firms (approximately one to three) in each category. Those interviews will inform a survey to be implemented by CSU Fullerton that will query Orange County firms about how reductions in water supply will lead to reductions in revenues, increases in costs, and/or reductions in employment. The result will be a detailed understanding of how

water supply reductions could lead to business losses in the county. Those business survey results will be inputs into models (such as IMPLAN or other regional economic models) that quantify the economic effect of different magnitudes of water supply reductions on the local economy.

C. The Value of Water Supply Reliability

The output of the study will be quantified estimates of the impact of water supply reductions, from the drought and earthquake scenarios, for both residents and firms. That will provide the best available insight into how Orange County residents and businesses value water supply reliability. The quantified estimates of supply reliability can be used in later studies as a decision tool to assess investments or strategies that could increase the reliability of water supply.

III. Timeline

Six Months from project commencement.

IV. Deliverables

The project deliverables will include a draft and final report of the research performed, as well as spreadsheets and computer code describing the formulas and methods for calculating the value of water supply reliability for MWD OC member agencies.

Part of our analysis will be based on an original survey of Orange County business owners in various sectors of the economy to be conducted by CSU Fullerton (Dr. Wallace Walrod will be using CSU Fullerton for the business survey). Upon completion of the project, we will make the survey responses available to MWD OC. We will also include a written summary of the survey's findings and implications in our draft and final reports.

V. Cost

The cost for this project is \$245,000, inclusive of all direct and indirect costs. Following is a budget breakdown by task:

Residential Analysis	\$80,000
Survey of OC Businesses	\$85,000
Regional Economic Modeling	\$80,000
Total	\$245,000

VI. References

Brozovic, Nicholas, David L. Sunding, and David Zilberman. 2007. Estimating Business and Residential Water Supply Interruption Losses from Catastrophic Events. *Water Resources Research*, vol. 43.

Buck, Steven, Max Auffhammer, Steven Hamilton and David L. Sunding. 2016. Measuring Welfare Losses from Urban Water Supply Disruptions. *Journal of the Association of Environmental and Resource Economists*, vol. 3.

MHB Consultants. 1994. *The Economic Impact of Water Delivery Reductions in San Francisco Water Department's Commercial and Manufacturing Customers*. Report to the San Francisco Public Utilities Commission.

Orange County Business Council. 2003. *Determining the Value of Water Supply Reliability in Orange County, California*. Report to the Metropolitan Water District of Orange County.



ACTION ITEM
October 21, 2020

TO: Board of Directors

FROM: **Planning & Operations Committee**
(Directors McVicker, Yoo Schneider, Dick)

Robert Hunter, General Manager

Staff Contact: Charles Busslinger

SUBJECT: Award Construction Contract for Administration Building Seismic Retrofit & Remodel

STAFF RECOMMENDATION

It is recommended that the Board of Directors approve entering into the following subject agreements for improvements to the MWDOC administration building:

- Make a CEQA finding that the project is categorical exempt under: Class 1-Existing Facilities.
- Receive the Bid Protest and any evidence presented by RT Contractor Corporation and reject the Bid Protest.
- Waive all discrepancies and deficiencies and award Optima RPM, Inc. the “MWDOC Administration Building Seismic Retrofit, ADA Compliance, and Tenant Improvement Project” construction contract as the lowest responsive and responsible bidder in the amount of \$1,606,878.00. Additionally, authorize a 20% contingency in the amount of \$321,375.40 for a total Not to Exceed amount of \$1,928,144.40. (Please note that the original bids are valid for 90-days from the July 31, 2020 receipt of bids which is until October 29, 2020.)
- Authorize the General Manager to enter into a license agreement with OCWD for the purposes of constructing the MWDOC administration building improvements and pay OCWD a one-time license fee of \$1,148.00.

Budgeted (Y/N): Y		Budgeted amount: \$2,038,772	Core X	Choice __
Action item amount:	Line item:			
	FY 20-21-8811- Building Improvements (Mobilization, Phases 0-2)			\$1,408,884
	FY 21-22-8811- (Phases 3-4, Exterior work, & Demobilization occurring in FY 21-22)			<u>\$629,888</u> \$2,038,772
Fiscal Impact (explain if unbudgeted):				

- Authorize an increase in the IDS Architectural, Space Planning, Interior Design and Construction Administration Services Contract in the amount of \$58,667.00 to include additional Architectural, Interior Design and Engineering support services through to the conclusion of the project.
- Authorize an increase in the ABS Owner's Representative Services Contract in the amount of \$36,900.00 to increase the contract scope of work to include move management services through the 4 phases of construction.
- Award SPS Data Communications a contract for IT Support Services for a total Not to Exceed amount of \$13,912.50.

Total of all items in this Action Item is \$2,038,771.90

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

Staff is seeking Board authorization to proceed with seismic improvements and a remodel of the administration building along with changes to Conference Room 101 to serve as a backup WEROC emergency operations center. The remodel will also address current space inefficiencies with the existing floor plan that will provide additional workspaces within the building.

DETAILED REPORT

In October 2017, staff presented to the Board the initial seismic study results of the MWDOC Administration Building. The Board approved staff to move forward with the seismic recommendations and approved contracts for IDS to prepare plans for non-structural retrofit elements of the Administration Building and additional engineering analysis and evaluation for structural retrofit elements of the building.

In November 2017, the Board authorized the General Manager to enter into a contract with IDS Group for architectural, space planning, interior design and construction administration services to conduct space planning analysis, improve floorplan efficiency, update and relocate conference rooms, relocate and maximize storage, provide for additional workstations, and determine the most favorable balance between shared work areas, private workstations and private offices that allow for collaboration and enhanced work flow processes.

In April 2018, staff presented to the Board a summary of the "Report on the Conceptual Seismic Retrofit Study of the MWDOC Administration Building" by IDS. The Board approved staff to move forward with seismic retrofit improvements of the MWDOC Administration Building, which are designed to bring the building up to a seismic performance level known as 'Damage Control' following American Society of Civil Engineers/Structural Engineering Institute standard 'Seismic Retrofit of Existing Buildings' (ASCE/SEI-41). ASCE/SEI-41

Damage Control level of seismic design is similar to the seismic performance standard used for school buildings. The Damage Control level of seismic improvements are designed to allow for re-occupancy of the building shortly after a seismic event and supports having Conference Room 101 serve as the back-up WEROC Emergency Operations Center. Current seismic codes are designed only to protect occupants for a sufficient duration to safely exit the building. The ability to re-occupy a building after an earthquake is not considered in the current minimum seismic codes and the seismic codes clearly state that buildings meeting minimum seismic standards will likely require significant repairs (if not demolition and re-placement) before re-occupancy.

Subsequent to the determination of the building seismic performance level needed to support WEROC Emergency Operations, IDS strongly recommended that the seismic retrofit and the architectural remodeling efforts be combined. IDS pointed out the two efforts had significant overlap with the amount of work needed for the retrofit, and the extent of partition wall removal and reconfiguration of office spaces to provide additional workspaces and improve efficiencies identified in the remodel design. IDS cautioned that should the two projects move to construction separately, there would be additional costs incurred that could be avoided by combining efforts into one project. The two efforts were combined into a single project which is now before the Board for consideration of award.

In February 2019, the Board authorized the General Manager to enter into a contract with ABS Consulting to provide Owner's Representative/Project Management services for the administration building seismic retrofit and remodel.

Some elements of the project were determined to provide opportunities for reducing costs by being managed directly by MWDOC staff. These elements are specialty items that would otherwise result in General Contractor mark up and pass-through of the work to sub-contractors, should they have been included in the Construction Schedule of Work Items. These items include directly contracting for:

- Fire Alarm System modifications and interface with the OCWD campus-wide alarm system
- Building Energy Management System modifications for the integrated energy management system between the MWDOC and OCWD buildings
- IT network cabling removal and installation
- Furnishings provider and installation of furniture. The furniture provider and installer contract will be coming to the A&F Committee on October 14, 2020 for consideration, and if recommended, to the full Board on October 21, 2020.

A 20% construction contingency is based upon recommendations from both IDS and ABS. Both consultants indicate that at minimum, a 15% contingency should be retained for retrofits & remodels and a 20% contingency is recommended. The majority of retrofits/remodels, including this case, do not undergo extensive destructive investigation to determine all of the issues that may be encountered during a retrofit/remodel project, and the contingency is set aside to address those issues as they are encountered. Additionally, there is one item concerning ADA requirements for backup power to the main lobby glass

double doors that is not currently in the scope of work. IDS is currently investigating backup power requirements to meet ADA requirements for door operation during loss of power. This item will be addressed at some point during the 11-month construction schedule in time for final inspection.

Background of Improvements to Date

Dates	Action
2009-2014	Window Replacement & Walkway Handrails
2013-2014	Air Handler Work
2014-2016	Boiler, Chiller & Energy Control System
2015-2016	Bathroom Remodel
2016	Fire Alarm System
2015-2016	Entry Area Remodel
2019	Electrical System Rehabilitation
2019	Computer Room Air Conditioner Replacement

Project Bidding

The project was advertised for bidding through PlanetBids. A mandatory pre-bid meeting was held with 17 General Contractors in attendance. Formal bids were received from 7 bidders on July 31, 2020. The Low Bidder is Optima RPM, Inc.

Bid Summary

1.	RT Contractor Corp.	Garden Grove	\$1,925,000.00
2.	Horizons Construction	Orange	\$2,137,000.00
3.	Faris Construction	Oceanside	\$2,077,000.00
4.	JRH Construction	Irvine	\$2,364,220.00
5.	Courts Construction	Glendora	\$2,042,764.00
6.	Nationwide General	Fountain Valley	\$3,575,000.00
7.	Optima RPM Inc.	Irvine	\$1,606,878.00

Engineer's Estimate	\$1,600,000 - \$2,600,000
Average Bid	\$2,246,837

Low Bid Breakdown (without Contingency)

No.	Item Description	Unit	Item Cost
1.	Mobilization	Lump Sum	\$364,623
2.	Phases 0-4	Lump Sum	\$1,226,939
3.	Exterior Work	Lump Sum	\$15,225

After the public posting of the August 2020 A&F Committee Agenda Packet, a bid protest was received on Friday August 7, 2020 from the second lowest bidder, RT Contractor Corporation, claiming:

1. The Apparent Low Bid failed to list an Asbestos Abatement Contractor (C-22 license) and pointed out that Optima RPM Inc. (Optima's) proposed demolition subcontractor only held a Demolition Contractor License (C-21).

2. Asbestos abatement work in the project exceeds the 0.5% threshold that requires disclosure of the work as a subcontractor.

The protest was submitted by e-mail and did not follow the required formalities in the bid documents. For this and the reasons explained below, staff recommends rejection of the protest.

Bid Review and Analysis

MWDOC staff and ABS investigated Optima's bid and found the bid did not indicate a direct subcontractor with a C-22 Asbestos Abatement License on their submitted Subcontractor List (Document 00430). The explanation given by Optima, was that the demolition subcontractor listed in their bid, Central Coast Demolition-4, Inc. intends to hire a second sub-tier contractor, PG&J Environmental Inc. (C-22 License #969005) as part of the demolition scope of work submitted in the bid.

The "Subletting and Subcontracting Fair Practices Act" requires that first-tier subcontractors (those hired by the prime contractor) be listed in the bid form, but it does not require listing of second-tier subcontractors. The bid documents therefore did not require listing of second-tier subcontractors.

Optima indicated that since their direct subcontractor, Central Coast Demolition-4, Inc., does indeed not hold a C-22 license; and as the bid documents did not indicate disclosure of second sub-tier contractors for any work, they did not indicate their demolition subcontractor as holding a C-22 license, nor include any second sub-tier contractors on the Subcontractor List. Optima reaffirmed that asbestos mitigation work will be carried out by a licensed C-22 second-tier subcontractor under their demolition subcontractor as part of \$88,995.00 scope of work listed their bid proposal.

Optima's bid otherwise conforms to the requirements of the bid documents, and staff's review indicates that Optima is qualified to perform the work. To the extent that there may be any minor discrepancies within the bid, such discrepancies would be inconsequential and may be waived. Staff therefore recommends that the Board award the bid to Optima and waive all discrepancies.

The 90-day time limitation on the bids accepted on July 31, 2020 will expire on October 29, 2020. If the Board were to instead reject Optima's bid, Rejection of Optima's bid at this point will likely result in the need to reject all bids and re-advertise the project. Staff has noted issues of varying levels of significance with many of the remaining bids and there is no guarantee that a second round of bids will not encounter similar bid issues.

License Agreement with OCWD

OCWD has requested that MWDOC enter into a license agreement to use and occupy common areas of the campus during construction, comprising a portion of the western courtyard and portions of the parking lot on the north side of the campus. OCWD has also requested a one-time license fee of \$1,148.00, which is the standard fee for license agreements on OCWD properties and was previously approved by the OCWD Board as a standard fee.

The license agreement was brought to the OCWD Property Management Committee (PMC) for recommendation of approval in June 2020. The recommendation was deferred pending

additional information to the July 2020 OCWD PMC. The recommendation was then further deferred to the August 28, 2020 OCWD PMC, pending more information and an OCWD legal review of the existing MWDOC lease to see if it allows for the construction of a storage room under the existing MWDOC roof and immediately adjacent to Conference Room 101. At the August 28, 2020 OCWD PMC, the OCWD Committee recommended approval of the license agreement with an exclusion for the construction of a storage room under the existing MWDOC roof; citing that it was an expansion of the MWDOC building footprint. The license agreement, with an exclusion for the construction of a storage room, was then approved by the OCWD Board on September 2, 2020.

At the MWDOC Special Board Meeting on September 3, 2020, the Board deferred award of the construction contract and directed staff to continue working with OCWD to explore other alternatives that would provide a suitable resolution to the furniture and storage needs for Conference Room 101. MWDOC staff was directed to bring back results of these efforts to the October 5, 2020 P&O Committee.

Discussions with OCWD

MWDOC staff met with OCWD staff on September 28, 2020 to discuss various alternatives to the furniture and storage needs for Conference Room 101. During the meeting OCWD staff offered to make additional resources available:

- OCWD to look into increasing the size of the existing Board room storage area by consolidating IT equipment behind the video screen and opening up an existing wall,
- Provide labor to setup/tear down for MWDOC Conference Room 101 meetings if the furniture is stored in the Board room storage area (at no cost to MWDOC),
- Storing any WEROC EOC materials in the basement of the microfiltration building (which is designed to a higher seismic standard than the redesigned MWDOC building).

These proposals are welcome and helpful. The joint MWDOC/OCWD Building Management Committee is scheduled to meet and discuss these proposals prior to the October 21, 2020 MWDOC Board Meeting. Staff will look to include additional information in the final write-up for Board consideration of this item.

Financial Summary

The table below provides an overall cost summary of the project.

	Current Board Action Items:	
1.	Construction Contract with 20% Contingency – Optima RPM, Inc.	\$1,928,144
2.	License Agreement - OCWD	\$1,148
3.	Additional Construction Support through Completion - IDS	\$58,667
4.	Move Management - ABS	\$36,900
5.	I.T. Support Services – SPS Data Communications	\$13,912.50
	Total Project Items this Action:	\$2,038,772
	Previously Approved Project Items:	
1.	ABS Owners Rep Services	\$257,706

2.	Architecture & Engineering Services IDS	\$103,366
3.	Asbestos Testing	\$4,700
4.	Sunbelt Controls Energy Mgmt. System modifications	\$4,449
5.	Fire Alarm System Modifications	\$18,600
6.	City Permits	\$7,278
7.	Fenagh Engineering – Certified Deputy Welding & Epoxy Inspector	\$10,294
8.	Pacific Environmental – Air Quality Monitoring during construction	\$17,600
	Total of Project Items Previously Approved:	\$423,993

Total Project Cost	\$2,462,765
--------------------	--------------------

BOARD OPTIONS

Option #1:

- Authorize award of the construction contract and **exclude construction of a storage room** for Conference Room 101. Additionally, authorize supporting contracts and approve the license agreement with OCWD through the following actions:
 - Make a CEQA finding that the project is categorical exempt under: Class 1- Existing Facilities.
 - Receive the Bid Protest and any evidence presented by RT Contractor Corporation and reject the Bid Protest.
 - Waive all discrepancies and deficiencies and award Optima RPM, Inc. the “MWDOC Administration Building Seismic Retrofit, ADA Compliance, and Tenant Improvement Project” construction contract as the lowest responsive and responsible bidder in the amount of \$1,606,878.00. Additionally, authorize a 20% contingency in the amount of \$321,375.40 for a total Not to Exceed amount of \$1,928,144.40.
 - Authorize the General Manager to enter into a license agreement with OCWD for the purposes of constructing the MWDOC administration building improvements **containing an explicit exclusion for construction of a storage room outside of Conference Room 101**, and pay OCWD a one-time license fee of \$1,148.00.
 - Authorize an increase in the IDS Architectural, Space Planning, Interior Design and Construction Administration Services Contract in the amount of \$58,667.00

to include additional Architectural, Interior Design and Engineering support services through to the conclusion of the project.

- Authorize an increase in the ABS Owner's Representative Services Contract in the amount of \$36,900.00 to increase the contract scope of work to include move management services through all phases of construction.
- Award SPS Data Communications a contract for IT Support Services for a total Not to Exceed amount of \$13,912.50.
- Utilize the resource alternatives offered by OCWD and agreed to by the joint MWDOC/OCWD Building Committee.

Fiscal Impact: \$2,038,772

Business Analysis: Improve the seismic resilience of the building to accommodate use of Conference Room 101 as a WEROC emergency operations center, and continued business operations in the building following a major earthquake. Additionally, the project is designed to improve floorplan efficiency and provide for additional workstations for staffing flexibility. This Business analysis is common to Options 1, 2, & 3.

Option #2

- Authorize award of the construction contract **with the expectation of resolving the furniture and storage needs for Conference Room 101** with OCWD. Additionally, authorize supporting contracts and approve the license agreement with OCWD through the following actions:
 - Make a CEQA finding that the project is categorical exempt under: Class 1- Existing Facilities.
 - Receive the Bid Protest and any evidence presented by RT Contractor Corporation and reject the Bid Protest.
 - Waive all discrepancies and deficiencies and award Optima RPM, Inc. the "MWDOC Administration Building Seismic Retrofit, ADA Compliance, and Tenant Improvement Project" construction contract as the lowest responsive and responsible bidder in the amount of \$1,606,878.00. Additionally, authorize a 20% contingency in the amount of \$321,375.40 for a total Not to Exceed amount of \$1,928,144.40.
 - Authorize the General Manager to enter into a license agreement with OCWD for the purposes of constructing the MWDOC administration building improvements **containing an explicit exclusion for construction of a storage room outside of Conference Room 101**, and pay OCWD a one-time license fee of \$1,148.00. **Direct staff to continue to work OCWD to resolve the furniture and storage needs for Conference Room 101, while leaving the option of future arbitration with OCWD open.**
 - Authorize an increase in the IDS Architectural, Space Planning, Interior Design and Construction Administration Services Contract in the amount of \$58,667.00

to include additional Architectural, Interior Design and Engineering support services through to the conclusion of the project.

- Authorize an increase in the ABS Owner's Representative Services Contract in the amount of \$36,900.00 to increase the contract scope of work to include move management services through all phases of construction.
- Award SPS Data Communications a contract for IT Support Services for a total Not to Exceed amount of \$13,912.50.

Fiscal Impact: \$2,038,772

Option #3

- Authorize the award of the construction contract **including construction of a storage room for Conference Room 101 and authorize the General Manager to issue a letter of request for arbitration with OCWD for construction of a storage room outside of Conference Room 101**. Additionally, authorize supporting contracts and approve the license agreement with OCWD through the following actions:
 - Make a CEQA finding that the project is categorical exempt under: Class 1- Existing Facilities.
 - Receive the Bid Protest and any evidence presented by RT Contractor Corporation and reject the Bid Protest.
 - Waive all discrepancies and deficiencies and award Optima RPM, Inc. the "MWDOC Administration Building Seismic Retrofit, ADA Compliance, and Tenant Improvement Project" construction contract as the lowest responsive and responsible bidder in the amount of \$1,606,878.00. Additionally, authorize a 20% contingency in the amount of \$321,375.40 for a total Not to Exceed amount of \$1,928,144.40.
 - Authorize the General Manager to enter into a license agreement with OCWD for the purposes of constructing the MWDOC administration building improvements **and construction of a storage room pending the results of arbitration** and pay OCWD a one-time license fee of \$1,148.00.
 - Authorize an increase in the IDS Architectural, Space Planning, Interior Design and Construction Administration Services Contract in the amount of \$58,667.00

to include additional Architectural, Interior Design and Engineering support services through to the conclusion of the project.

- Authorize an increase in the ABS Owner's Representative Services Contract in the amount of \$36,900.00 to increase the contract scope of work to include move management services through all phases of construction.
- Award SPS Data Communications a contract for IT Support Services for a total Not to Exceed amount of \$13,912.50.

Fiscal Impact: \$2,038,772

Option #4

- Do not authorize the work.

Business Analysis: Continue to work in a less resilient building and risk the building becoming unusable as a WEROC emergency operations center following a major earthquake. Continue to deal with a floorplan that does not provide efficiencies or the needed number of workstations for all staff members.

STAFF RECOMMENDATION

Seeking Board Direction

IDS SCOPE - Additional Construction Support through Completion

MWDOC Seismic & TI Bidding-CA Phase Additional Fees

Phase	Architectural	Structural	Mechanical HVAC	Plumbing	Electrical
Bid					
Construction	\$6,256.00	\$4,690.00	\$4,276.00	\$527.00	\$3,543.00
Meetings	\$9,272.00	\$556.00	\$540.00	\$974.00	\$3,028.00
	\$3,620.00	\$760.00	\$380.00	\$0.00	\$2,485.00
Total	\$36,908.00	\$6,006.00	\$5,196.00	\$1,501.00	\$9,056.00

Rate	Position	Arch		Struct		Mech		Plumbing		Elect		MWDOC	Rounded to:
		Hrs	Sub-Total	Hrs	Sub-Total	Hrs	Sub-Total	Hrs	Sub-Total	Hrs	Sub-Total		
3	Bid												
190	Principal	4	\$760.00	3	\$1,140.00	6	\$1,140.00			4	\$760.00		
135	PM/P.Arch./P.Eng.	24	\$3,240.00	16	\$2,160.00	0	\$0.00	1	\$135.00	8	\$1,080.00		
135	Cost Estimating	8	\$1,080.00		\$0.00		\$0.00			1	\$135.00		
98	Designer/Draftsperson	12	\$1,176.00	20	\$1,960.00	32	\$3,136.00	4	\$392.00	16	\$1,568.00		
	Subtotal	48	\$6,256.00	39	\$4,690.00	38	\$4,276.00	5	\$527.00	29	\$3,543.00	\$19,292.00	
4	FF&E												
190	Principal	16	\$3,040.00										
135	PM/P.Arch./P.Eng.	80	\$10,800.00										
135	Cost Estimating	0	\$0.00										
98	Designer/Draftsperson	40	\$3,920.00										
	Subtotal		\$17,760.00									\$17,760.00	
5	Construction Administration												
190	Principal	8	\$1,520.00	1	\$190.00			1	\$190.00	2	\$380.00		
135	PM/P.Arch./P.Eng.	40	\$5,400.00	2	\$270.00	4	\$540.00			8	\$1,080.00		
135	Cost Estimating	0	\$0.00		\$0.00								
98	Designer/Draftsperson	24	\$2,352.00	4	\$96.00	4	\$784.00	8	\$784.00	16	\$1,568.00		
	Subtotal	72	\$9,272.00	7	\$540.00	8	\$540.00	9	\$974.00	26	\$3,028.00	\$14,370.00	
6	Meetings												
190	Principal	2	\$380.00	4	\$760.00	2	\$380.00			1	\$190.00		
135	PM/P.Arch./P.Eng.	24	\$3,240.00		\$0.00					17	\$2,295.00		
135	Cost Estimating	0	\$0.00		\$0.00								
98	Designer/Draftsperson	0	\$0.00		\$0.00								
	Subtotal	26	\$3,620.00	4	\$380.00	2	\$380.00	0	\$0.00	18	\$2,485.00	\$7,245.00	
	Grand Total	146	\$36,908.00		\$5,196.00		\$5,196.00		\$1,501.00		\$9,056.00	\$58,667.00	

August 5, 2020

Mr. Charles Busslinger
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
18700 Ward Street
Fountain Valley, CA 92728

Ph: (714) 292-2405
Email: cbusslinger@mwdoc.com

Subject: *Proposal to Provide Additional Move Planning and Scheduling for Phases Two Through Four Occupants at Municipal Water District of Orange County Administration Building*
(ABSG Consulting Inc. Proposal No. 4385398-005)

Dear Mr. Busslinger:

ABSG Consulting Inc. (ABS Consulting) is pleased to present this proposal to provide the subject move planning and scheduling services. The purpose of these services is to provide Phase 2 through Phase 4 move planning and scheduling services for Municipal Water District of Orange County (MWDOC) with ABS Consulting's Sub-Consultant, Blackman and Forsyth.

The services being provided by Blackman and Forsyth are for Phases 2 to 4 only. A complete breakdown of services being provided are included in Exhibit A. The additional services for Phases 2 through 4 are not within the ABS Consulting's 5% contingency fee for the project and are a change order to the contract budget and scope. The additional scope of work is identified in Exhibit A. For a complete fee breakdown, see Table 1.

SCOPE OF WORK

The scope of work consists of the following task:

CO #2.doc

Task 5 Perform Move Planning and Scheduling Services for Phases Two Through Four (Exhibit A).

Below is a general move planning and scheduling scope of work for the project. For a comprehensive description of the services, see **Exhibit A**.

1. Attend client move-team meetings and conference calls.
2. Maintain the move matrix (From/To).
3. Assist with move vendor selection.
4. Prepare migration schedule.
5. Prepare relocation package and pack/label instructions

EXCLUSIONS

- All Phase 1 move-out services (included in a separate change order).
- Move vendor costs.
- ABS Consulting staff attendance at meetings and conference calls.

COST & SCHEDULE

The following section presents ABS Consulting's proposed fee breakdown for performing the project as described in our proposed scope of work. The proposed **Time and Materials Fees** includes all labor costs, travel costs and expenses to perform the proposed scope of work.

Description	Fee	Basis
Client Move Team Coordination	\$24,000	Time and Materials
Maintain Move Matrix	\$1,350	Time and Materials
Mover Coordination	\$900	Time and Materials
Migration Schedule	\$1,800	Time and Materials
Relocation Packaging	\$3,000	Time and Materials
B&F Sub-total Fee	\$31,050	Time and Materials
B&F Expenses (5%)	\$1,553	Time and Materials
B&F Total Fee	\$32,603	Time and Materials
ABS Consulting Mark-Up (10%)	\$3,260	Time and Materials
ABS Consulting Management (contract, invoices, etc.)	\$1,037	Time and Materials
Total	\$36,900	Time and Materials

Mr. Charles Busslinger

August 5, 2020

Page 3

This fee is valid for a period of 60 days from the date of this proposal, after which ABS Consulting reserves the right to retain or modify this cost to reflect changing economic conditions. Work performed by ABS Consulting will be billed monthly based on the actual expenses incurred.

REQUIRED INFORMATION

Prior to commencement of work, we will need the following documents sent to our office:

- An executed change order.

Please execute and return to us a copy of this letter contract to acknowledge your understanding of our proposal and to formally authorize us to proceed.

We look forward to working with MWDOC on this important project. If you have any questions regarding this proposal, please do not hesitate to call.

Sincerely,

ABSG Consulting Inc.



Daniel J. Dopudja, S.E.
Group Manager

Enclosures: *Exhibit A – B&F Scope of Work*

APPROVED FOR MWDOC CORPORATION

Task 5: _____

By: _____

Title: _____

Date: _____

Exhibit A

July 27, 2020

Dan Dopudja
ABS Consulting
300 Commerce Drive, Suite 150
Irvine, CA 92602
Email: ddopudja@absconsulting.com

Subject: MWDOC - Blackman & Forsyth Proposal for Relocation Management

Dear Dan,

Thank you for requesting a relocation project management proposal for your client, MWDOC from Blackman & Forsyth. Blackman & Forsyth provides comprehensive move planning services for businesses and agencies. We know that advanced, thorough planning is essential for an effective and efficient move. Blackman & Forsyth is uniquely skilled to provide our move consulting services to manage an effective and efficient move plan for MWDOC.

We understand the project is as follows: MWDOC will initiate a seismic upgrade and tenant improvement project that delivers new paint, carpet and furniture at their current office, located at 18700 Ward Street, Fountain Valley. Notice to proceed is scheduled for late August 2020 and projected completion is September 2021.

The construction plan is scheduled into (4) phases, running from the West to East in the building. To support this construction activity, we suggest a (5) phase relocation plan that moves groups out prior to construction and back once construction in their area is completed. Construction durations by phase range from 2-4 months.

2. Move Back Phase 1 + Move Out Phase 2
3. Move Back Phase 2 + Move Out Phase 3
4. Move Back Phase 3 + Move Out Phase 4
5. Move Back Phase 4

This project is considered a multi-phase contents and equipment move for MWDOC's full floor and entire staff of approximately 45 employees. Furniture removal will follow each move-out, and is the responsibility of the general contractor.

Blackman & Forsyth proposes to initiate Move Team Meetings immediately to address critical details by discipline to develop a comprehensive plan for the project. Swing space needs, workplace prospects and storage options are essential criteria for evaluation. The details of this plan need to be resolved in order to hire supporting vendors (mover resource and possibly a furniture liquidator / disposal resource) and prior to engaging with employees on move instructions and expectations. Blackman & Forsyth understands that each move phase will involve different parameters determined by each phased impact zone. Move Team meetings will be scheduled at regular intervals for the duration of the project, with an estimated +/- 20 meetings total.

Prior to each move, Blackman & Forsyth will craft a migration schedule that details all of MWDOC's relocation activity by responsible party so that roles and objectives are clearly defined and achieved. Blackman & Forsyth will also provide Relocation Kits, packing and labeling instructions, for each employee affected in each move phase.

The Basic Scope of Services will include:

2. Client Move Team Coordination
3. Move Matrix: From-To(s)
4. Mover Selection
5. Migration Schedule(s)
6. Relocation Package / Pack & Label Instructions

Project activities by initiative are as follows:

- 2. Client Move Team Meetings:** We will initiate Move Team communication exchanges with the firm's representatives from Facilities, IT, HR, Operations and other relevant groups as they surface. Our Move Team meetings ensure two-way information exchange and facilitate discovery and resolution on all move-related

topics. Output from these meetings develops the relevant data for completing all of the move documentation. Blackman & Forsyth will manage these meetings from start to finish. Critical tasks involved are creating agendas, fostering and facilitating dialog, imparting expertise, providing notes and tracking follow-ups.

3. **Maintain the Move Matrix, From/To:** Blackman & Forsyth documents each staff member and their belongings, IT equipment, file cabinets as well as storage and common rooms to ensure thorough planning prior to the move and to verify proper delivery during the move. Mapping is the process of determining who and what is moving and where it is moving. Significant time and attention is spent in the discovery phase. Finally, all belongings and equipment are mapped to their final destination. In this process we augment your floor plans by adding colors for specific floors or areas and unique numbers for each user. These colors and numbers will expedite your move and minimize the occurrence of errors.
4. **Mover & Vendor Selection:** Blackman & Forsyth will develop and coordinate the RFP (Request for Proposal) process for Mover. With the Move Team we will develop the project scope for the request for proposal for the movers and we will conduct a job walk with qualified vendors, providing the RFP and a Basis of Estimate spreadsheet for their bids. Blackman & Forsyth will provide a qualitative and quantitative analysis of all bids to support the selection process and work with MWDOC to negotiate the "best" price.
5. **Migration Schedules:** The key to a successful move is ensuring that all of the players are following a clear schedule and responding quickly when changes are needed. Blackman & Forsyth will craft a Migration Schedule for each move phase that details all the move activities for the entire move period. The Migration Schedule has a clear sequencing order and accountability component. It is our job to communicate this schedule to all parties involved in the move.
6. **Relocation Package / Pack & Label Instructions:** Blackman & Forsyth will create comprehensive, personalized relocation kits for each employee affected in the move. The relocation kit is customized with the individuals unique move labels based on their destination address. The kit contains information on what to pack, what not to pack and how to pack and label belongings.

We are committed to using your budget in the most efficient, economical manner. Therefore, we will bill you only for hours expended and not necessarily the entire amount of the budget. Should you require fewer hours and services and your staff can handle additional tasks the fees will decrease accordingly. If the hours spent increase the fees due beyond those estimated in this agreement, we will notify you in writing and obtain your written consent before incurring any excess fees.

Our fees are \$150 per hour for a Principal, \$125 per hour for a Project Manager and \$100 per hour for a Site Supervisor. Expenses are not included in the fees as stipulated above. We are to be compensated for reimbursable expenses incurred in connection with the project. Expenses include: office services @ \$35 per hour, mileage @ \$0.575 cents per mile (or the prescribed rate); parking, copies, etc. to be invoiced at actual cost. Expenses are not to exceed 5% of fees unless authorized by you.

From: Richie Tran
Sent: Friday, August 7, 2020 4:07 PM
To: Chris Lingad
Cc: 'richie@rtcontractor.com'
Subject: Re: MWDOC Planet Bids
Importance: High

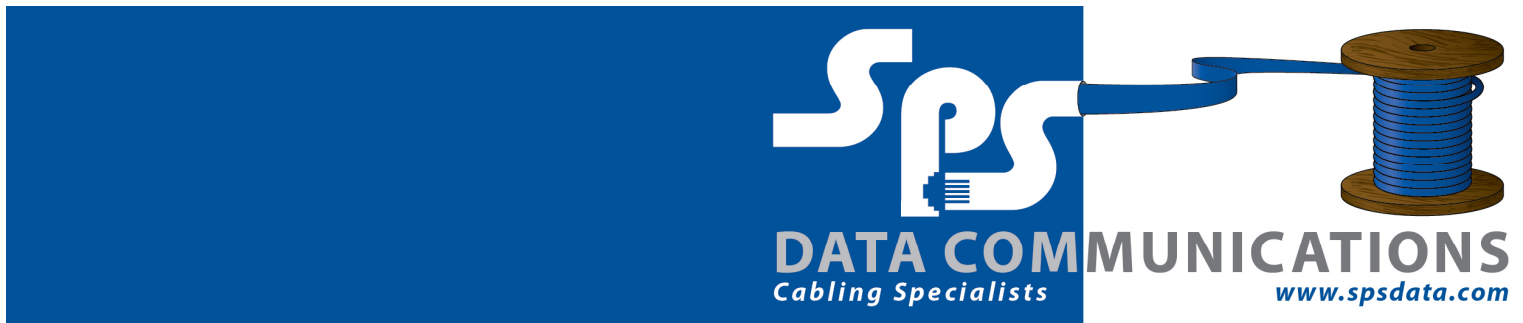
Chris,

Thank you for your prompt response to our inquiry and providing us with the low bidder, Optima RPM's bid package. Upon closer review, we would like to formally protest Optima RPM's low bid and ask that they be deemed non-responsive due to the following factor(s)

- They only listed Central Coast Demolition – 4, Inc. as their demo subcontractor and they are only licensed a C-21 contractor, with no asbestos sub-license or certification.
- There is asbestos abatement work within the project that exceeds ½ of 1 % of the contract and no asbestos abatement subcontractor (C-22 licensed) was listed

Given their omission of a C-22 licensed contractor in their listed sub, it is clear they omitted that scope of work and/or failed to list all required subcontractors doing at least ½ of 1% and as such need to be deemed non-responsive. Is this good enough or you want in our letter head letter?

Thank you for your time and have a good weekend



Quote # 20200801

August 5, 2020

Project Name: Office Remodel Rev. a

Item	Qty	Description	Unit Price	Extended Price
1	10,000	Cat 6 cable	\$0.28	\$2,800.00
2	50	Cat 6 conn.	\$7.25	\$362.50
3	125	Labor	\$85.00	\$10,625.00
4	1	Misc Parts (velcro, Hooks etc)	\$125.00	\$125.00
Grand Total				\$13,912.50

Scope of Project: Demo cables prior to construction, Recycle cables that are appropriate , install new cables where old can't be used (island cubicles, Conference room). My price does include sales tax, my knowledge of your facility, and over 15 year relationship with MWDOC.

Sincerely

Steve Snyder

SPS Data Communications

Notice of Exemption**Appendix E**

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk

County of: _____

From: (Public Agency): _____

(Address)

Project Title: _____

Project Applicant: _____

Project Location - Specific:

Project Location - City: _____ Project Location - County: _____

Description of Nature, Purpose and Beneficiaries of Project:

Name of Public Agency Approving Project: _____

Name of Person or Agency Carrying Out Project: _____

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☐ Categorical Exemption. State type and section number: _____
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:

Lead Agency _____

Contact Person: _____ Area Code/Telephone/Extension: _____

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? ☐ Yes ☐ No

Signature: _____ Date: _____ Title: _____

☐ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

Bidder Name: Optima RPM Inc.

**DOCUMENT 00310
BIDDING SHEET**

Price for construction of MWDOC Administration Building Improvements

Item	Description	Amount (Lump Sum)
1	Mobilization by General Contractor, General Contractor Bonds, General Contractor Overhead and Profit, General Contractor General Conditions	\$ <u>364,623.00</u>
2	Construction of all work in the contract for Phases 0 through 4 as included in Table 1 of this section, except for work covered under the other bid items on this bidding sheet, as specified and shown on the drawings for the lump sum of	\$ <u>1,226,939.00</u>
3	Exterior work including parking lot refinishing and ADA parking lot improvements.	\$ <u>15,225.00</u>
Total of Items 1 through 3:		<u>\$ 1,606,878.00</u>

Bidders shall complete Document 00310 "Bidding Sheet" and submit with other bid documents by the deadline Friday, July 31 at 2:00 PM. Bidders shall complete Table 1 on the following pages and submit by Monday, August 3 at 2:00 PM. Bid amounts on Table 1 and Bidding sheet may be handwritten. Illegible bids will be rejected.

Charles Busslinger

From: Chris Lingad
Sent: Tuesday, September 8, 2020 4:08 PM
To: 'mkhalil@optimarpm.com'
Cc: 'Mohamed Mamoon'; 'Maykel A. Hanna'; Charles Busslinger
Subject: RE: MWDOC Seismic Retrofit and Tenant Improvement Project (Storage Room)

Thank you for the updated information Michael.

Chris Lingad
Associate Engineer
clingad@mwdoc.com
714-593-5009

From: mkhalil@optimarpm.com
Sent: Tuesday, September 8, 2020 2:38 PM
To: Chris Lingad
Cc: 'Mohamed Mamoon' ; 'Maykel A. Hanna'
Subject: MWDOC Seismic Retrofit and Tenant Improvement Project (Storage Room)

Hi Chris,

With reference to the above mentioned subject and as per the last board meeting discussion, kindly be informed that we priced all work related to the Conference room extension (Storage room) with total value of (\$36,750).

This is for your information and record.

Thanks,

Michael Khalil
Bidding & Procurement Director, PMP



17945 Sky Park Circle, Suite D
Irvine, CA, 92614
O: (949)724-1399
F : (949)724-1851
Cell: (909)454-4439



ACTION ITEM
October 21, 2020

TO: Board of Directors

FROM: **Planning & Operations Committee**
(Directors McVicker, Yoo Schneider, Dick)

Robert Hunter, General Manager

Staff Contact: Harvey De La Torre

SUBJECT: Approval of Agreement with Metropolitan Water District of Southern California and the Metropolitan Member Agencies of the Santa Ana River Conservation and Conjunctive Use Program

STAFF RECOMMENDATION

Staff recommends the Board of Directors authorize the General Manager to execute the Santa Ana River Conservation and Conjunctive Use Program (SARCCUP) agreement, subject to any non-substantive changes or modifications. This agreement is between Metropolitan Water District of Southern California (Metropolitan) and the four Metropolitan Member Agencies of Eastern Municipal Water District, Inland Empire Utilities Agency, Western Municipal Water District, and MWD OC (collectively referred to as the SARCCUP-MWD Member Agencies).

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

REPORT

In early March, MWD OC staff presented an information item to the MWD OC Planning and Operation (P&O) Committee on the proposed terms of an agreement between Metropolitan and the four Metropolitan member agencies collectively referred to as the SARCCUP-MWD Member Agencies (Eastern Municipal Water District, Inland Empire Utilities Agency,

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

Western Municipal Water District, and MWDOC) on a cooperative water banking program known as SARCCUP.

This agreement will allow these four SARCCUP-MWD Member Agencies the ability to purchase a portion of the surplus water that San Bernardino Valley Municipal Water District (Valley), a State Water Project Contractor, sells to Metropolitan for the purpose of storing such water in local groundwater basins throughout the Santa Ana River watershed and extract during dry years to reduce the impacts from multiyear droughts.

Since the P&O committee in March, an agreement (attached) has been finalized between the SARCCUP-MWD Member Agencies and Metropolitan, and now all of the agencies are seeking review and approval from their respective governing boards on the agreement. Metropolitan is expected to present this agreement to their Board for review on October 12 and for action on November 10. Below is background information on SARCCUP, the key terms of the final agreement, and MWDOC's involvement in the program.

Background

In 2013, five regional water agencies within the Santa Ana River Watershed came together in a collaborative effort to identify a watershed-scale program and developed SARCCUP. The initial group included representatives from the following five regional water agencies:

- Eastern Municipal Water District
- Inland Empire Utilities Agency
- Western Municipal Water District
- Orange County Water District (OCWD)
- San Bernardino Valley Municipal Water District (Valley)

In 2016, SARCCUP was successful in receiving \$55 million in grant funds from Proposition 84 through the California Department of Water Resources (DWR). The overall SARCCUP program awarded by Proposition 84, consists of three main program elements:

- Watershed-Scale Cooperative Water Banking Program
- Water Use Efficiency: Landscape Design and Irrigation Improvements and Water Budget Assistance for Agencies
- Habitat Creation and *Arundo Donax* Removal from the Santa Ana River

The Watershed-Scale Cooperative Water Banking Program is the largest component of SARCCUP and the focus of this Board item.

Since 2016, Valley, Metropolitan, and the four SARCCUP-MWD Member Agencies, with MWDOC representing OCWD, have been discussing terms and conditions for the ability to purchase surplus water from Valley to be stored in the Santa Ana River watershed. With the Valley and Metropolitan surplus water purchase agreement due for renewal, it was the desire of Valley to establish a new agreement with Metropolitan that allows a portion of its surplus water to be stored within the Santa Ana River watershed.

Therefore, in the terms of the proposed new Metropolitan and Valley agreement, which is set for review and approval by the Metropolitan Board on November 10, Metropolitan will be given the right to purchase surplus Valley water under the condition that SARCCUP-MWD

Member Agencies may purchase from Metropolitan up to 50% of an equivalent amount of Valley water for storage in local banking facilities. Moreover, this water purchased by the SARCCUP-MWD Member Agencies could qualify as an “Extraordinary Supply” provided it meets the provisions of Appendix G of Metropolitan’s Water Supply Allocation Plan (Attached).

Key Terms of the Metropolitan & SARCCUP-MWD Member Agencies Agreement

Length of the Agreement

This agreement is for 15 years (December 31, 2035), with an extension clause. This aligns with the new Metropolitan/Valley agreement.

Purchasing Water

In a year where Valley has surplus water available, Metropolitan will inform the SARCCUP-MWD Member Agencies of the amount of water Metropolitan will purchase and offer 50% of the equivalent amount purchased to the SARCCUP-MWD Member Agencies.

Then, each SARCCUP member agency will inform Metropolitan of the amount they seek to purchase. Because this water is purchased directly from Metropolitan, this water is considered “Metropolitan Water” and all of the Metropolitan full-service volumetric rates and charges will apply at the time of delivery, like any other Metropolitan water purchased. This will include: System Power Rate; Supply Rate; System Access Rate; Readiness-to-Serve (RTS) Charge; and the Alternative to the Water Stewardship Rate (Once adopted by the Board).

The MWD Capacity Charge will not apply because the water will be delivered at Metropolitan’s discretion. This is consistent with previous Metropolitan programs such as Conjunctive Use Program (CUP) and Cyclic water deliveries.

In addition, if such purchased water is stored and accounted for in accordance with Appendix G of the Metropolitan Water Supply Allocation Plan it can qualify as Extraordinary Supply.

To aid in the coordination of this program there will be a SARCCUP Operations & Finance Committee, which will consist of all SARCCUP participants, to convey the purchase amounts, delivery and recovery method, and accounting of the water to Metropolitan.

Delivery Methods

Metropolitan will coordinate the delivery of such water with each SARCCUP-MWD Member Agencies during the calendar year. There are three methods of delivering this water in a SARCCUP storage facilities:

- **Direct Metropolitan Delivery** – Water purchased by a SARCCUP-MWD Member Agency for direct delivery to its SARCCUP storage facilities.
- **Indirect Metropolitan Delivery** – Water purchased for one SARCCUP-MWD Member Agency for delivery to another SARCCUP-MWD member agency’s storage facilities.

- **Delivery to Valley** – Delivery of a SARCCUP-MWD Member Agency's water to Valley's SARCCUP recharge facilities (Metropolitan "virtual Meter") for storage in the San Bernardino Basin Area (SBBA) bank (outside the Metropolitan service area).

All deliveries are through Metropolitan facilities or an agreed upon Metropolitan virtual meter, as would be the case for deliveries into the SBBA bank.

Ways to the Recover the Water

When a SARCCUP-MWD Member Agency seeks to recover this banked water, there are two methods of recovery:

- **Direct Local Delivery** – Pumping and direct conveyance of stored water between SARCCUP-MWD Member Agencies using local interagency conveyance facilities.
- **In-lieu Metropolitan Delivery** – Pumping and local use of water by a SARCCUP-MWD Member Agency (pumping agency) that was stored on behalf of another SARCCUP-MWD Member Agency (benefitting agency), with an equivalent reduction in the pumping agency's Metropolitan deliveries and an equivalent increase in the benefitting agency's Metropolitan deliveries.

None of the recovered water is conveyed through the Metropolitan system. Recovery of stored water is either In-lieu or direct deliveries using local conveyance facilities between SARCCUP-MWD Member Agencies.

MWDOC's Involvement in the Metropolitan & SARCCUP-MWD Member Agency Agreement

Although MWDOC was not originally involved in the formation of SARCCUP, and not a financial contributor to the program, MWDOC staff has been involved in the Watershed-Scale Cooperative Water Banking Program as it relates to the purchasing of Valley surplus water from Metropolitan. As OCWD's Metropolitan member agency representative, all purchases from Metropolitan will be coordinated through MWDOC.

More importantly, because this agreement primarily involves the billing of Metropolitan water and receiving of Extraordinary Supply during a Water Supply Allocation, MWDOC must be party to the agreement. Thus, OCWD and MWDOC staff have been working together, and in coordination with the other SARCCUP-MWD Member Agencies, on the development of this agreement with Metropolitan.

Due to the unique arrangement in Orange County, to the coordinate purchasing, billing, and transfer of extraordinary supply credits, an additional SARCCUP agreement will also be developed between Metropolitan, OCWD, MWDOC, and the cities of Anaheim, Fullerton, and Santa Ana. This additional agreement is necessary for the potential future distribution of any extraordinary supplies to the cities of Anaheim, Fullerton, and Santa Ana; as MWDOC is limited in the distribution of extraordinary supplies only among its own member agencies.

BOARD OPTIONS

Option #1: Authorize the General Manager to execute the Agreement between Metropolitan and the SARCCUP-MWD Member Agencies, subject to any non-substantive changes or modifications

Fiscal Impact: No fiscal impact to MWDOC

Business Analysis: Signing the Agreement will enhance our ability to add additional local storage and improve our reliability during multi-dry years.

Option #2: Not authorize the General Manager to execute the Agreement between Metropolitan and the SARCCUP-MWD Member Agencies

Fiscal Impact: No fiscal impact to MWDOC

Business Analysis: Not signing the Agreement could prevent the participation of MWDOC and OCWD in the Cooperative Water Banking Program of SARCCUP and limit the ability to enhance our local reliability with additional storage.

STAFF RECOMMENDATION

Option # 1

Attachments – (1) Metropolitan and SARCCUP-MWD Member Agencies' Final Agreement

(2) MET Water Supply Allocation Plan Appendix G – Extraordinary Supply

(3) PowerPoint Presentation on the Metropolitan and SARCCUP-MWD Member Agencies' Final Agreement

**Agreement Among The Metropolitan Water District of Southern California,
Eastern Municipal Water District, Inland Empire Utilities Agency,
Municipal Water District of Orange County, and Western Municipal Water District
Regarding the Santa Ana River Conservation and Conjunctive Use Program**

This Agreement Among The Metropolitan Water District of Southern California (Metropolitan), Eastern Municipal Water District (Eastern MWD), Inland Empire Utilities Agency (IEUA), Municipal Water District of Orange County (MWDOC), and Western Municipal Water District (Western MWD) Regarding the Santa Ana River Conservation and Conjunctive Use Program (Agreement) is hereby entered into as of _____, 2020. Metropolitan, Eastern MWD, IEUA, MWDOC, and Western MWD are collectively referred to as “Parties” and individually as a “Party.”

RECITALS

A. Metropolitan is a metropolitan water district organized under the Metropolitan Water District Act, codified at section 109-1, et seq. of West’s Appendix to the California Water Code, and is engaged in developing, storing, and distributing water in the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. Metropolitan has a long-term contract with the California Department of Water Resources (DWR) which sets forth the terms and conditions of Metropolitan’s participation in the State Water Project (SWP).

B. Eastern MWD is a California municipal water district formed and existing under the California Municipal Water District Act of 1911, Sections 71000 et seq. of the California Water Code, for the purpose of providing water services and certain other services. Eastern MWD’s powers and purposes include the acquisition within or without the district’s boundaries in the State of California of all necessary property or rights in property necessary or proper for

the production, storage, transmission and distribution of water for irrigation, domestic, industrial and municipal purposes and the power to contract with one or more public agencies in carrying out any of its powers. Eastern MWD is a member agency of Metropolitan.

C. IEUA is a California municipal water district formed and existing under the California Municipal Water District Act of 1911, Sections 71000 et seq. of the California Water Code, for the purpose of supplying supplemental water to the Chino Basin and certain other services. IEUA's powers and purposes include the acquisition within or without the agency's boundaries in the State of California of all necessary property or rights in property necessary or proper for the production, storage, transmission and distribution of water for irrigation, domestic, industrial and municipal purposes and the power to contract with one or more public agencies in carrying out any of its powers. IEUA is a member agency of Metropolitan.

D. MWDOC is a municipal water district formed and existing under the California Municipal Water District Act of 1911, Sections 71000 et seq. of the California Water Code, for purposes that include providing its 28 member agencies in Orange County, including Orange County Water District, with reliable, high quality supplies from Metropolitan and other sources to meet present and future needs, at an equitable and economic cost, and to promote water use efficiency for all of Orange County. MWDOC is a member agency of Metropolitan. One of MWDOC's member agencies, Orange County Water District (OCWD), undertakes the responsibilities associated with actively managing the OCWD groundwater basin. OCWD was formed by an act of the California State Legislature in 1933 for the purpose of protecting and managing the Orange County groundwater basin.

E. Western MWD is a California municipal water district formed and existing under the California Municipal Water District Act of 1911, Sections 71000 et seq. of the California

Water Code, for the purpose of providing water services and certain other services. Western MWD's powers and purposes include the acquisition within or without the district's boundaries in the State of California of all necessary property or rights in property necessary or proper for the production, storage, transmission and distribution of water for irrigation, domestic, industrial and municipal purposes and the power to contract with one or more public agencies in carrying out any of its powers. Western MWD is a member agency of Metropolitan.

F. In 2014, Eastern MWD, IEUA, OCWD, Western MWD, and the San Bernardino Valley Municipal Water District (Valley District) entered into a Memorandum of Understanding (2014 MOU). Valley District is engaged in developing, transporting, storing, treating, and wholesale delivery of water in portions of the counties of San Bernardino and Riverside. Like Metropolitan, Valley District has a long-term contract with DWR which set forth the terms and conditions of its participation in the SWP. Valley District recharges SWP water into the San Bernardino Basin Area (SBBA) for the benefit of its member agencies. The purpose of the 2014 MOU is to collaborate in the exploration, analysis and implementation of a large-scale, regional water supply reliability project, known as the Santa Ana River Conservation and Conjunctive Use Program (SARCCUP). The SARCCUP is a multi-agency, watershed-wide groundwater storage and recovery project involving multiple basins in the Santa Ana Watershed. The goal is to store available water during wet years in local groundwater basins throughout the watershed and extract the stored water during dry years to reduce the impacts from multi-year droughts. Eastern MWD, IEUA, MWDOC, and Western MWD are collectively referred to as the "SARCCUP Member Agencies" and individually as a "SARCCUP Member Agency."

G. The SARCCUP includes four water banking sites. Three of the sites are located within Metropolitan's service area. More specifically, they are located in the service areas of

Eastern MWD, Western MWD, and MWDOC. The facilities within MWDOC's service area are located within, owned, and operated, by OCWD. The fourth site is the SBBA, which is located outside of Metropolitan's service area and within Valley District's service area. The owners of the four water banking sites are responsible for all operating decisions for those water banking facilities including the quantity of water that they store and extract within the water banks under the SARCCUP.

H. Valley District and Metropolitan entered into a Coordinated Operating and Surplus Water Agreement, dated _____, whereby Valley District may offer to sell to Metropolitan, and Metropolitan may purchase from Valley District, surplus water.

I. Under this Agreement, Metropolitan will sell to the SARCCUP Member Agencies an amount of water equivalent to the amount of water Metropolitan purchases from Valley District without such water counting against a SARCCUP Member Agency's annual Tier 1 limit or incurring Metropolitan's capacity charge. Some of the water Metropolitan sells to the SARCCUP Member Agencies under this Agreement may be temporarily stored in the SBBA. An amount of water equivalent to up to half of the water that Metropolitan purchases from Valley District may qualify as Extraordinary Supply under Metropolitan's Water Supply Allocation Plan. Metropolitan may also make a call on water stored by the SARCCUP Member Agencies in Valley District's SBBA pursuant to this Agreement that has not qualified as Extraordinary Supply.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and the representations, warranties, covenants and agreements contained in this Agreement and for other good and

valuable consideration, the receipt and sufficiency of which the Parties hereby acknowledge, the Parties hereby agree to the following terms and conditions of this Agreement.

1. Consultation between Metropolitan and the SARCCUP Member Agencies

A. By June 15th of each calendar year subsequent to the execution of this agreement, Metropolitan will inform the SARCCUP Member Agencies of the amount of water, if any, that Metropolitan will purchase from Valley District and, of that amount, how much water, if any, Metropolitan is willing to deliver to the SARCCUP Member Agencies at Valley District's connection to the SWP and/or Metropolitan's service connections to the SARCCUP Member Agencies. Metropolitan has discretion whether to purchase any or all of the water Valley District offers to Metropolitan within a calendar year. No SARCCUP Member Agency may purchase water from Valley District.

B. Metropolitan will allocate equally to those SARCCUP Member Agencies requesting water an equivalent amount of water of at least 50% of the amount that Metropolitan purchases from Valley District during a calendar year, provided that those SARCCUP member agencies requesting water may modify the allocation by unanimous written agreement among themselves. Each SARCCUP Member Agency will inform Metropolitan of the amount, if any of the allocated water, that the SARCCUP Member Agency will purchase and accept for delivery at Valley District's connection to the SWP and/or Metropolitan's service connections to the SARCCUP Member Agencies. The SARCCUP Member Agencies will notify Metropolitan by August 15th of each year of these amounts.

2. Delivery to SARCCUP Member Agencies at Valley District's Connection to the SWP

Metropolitan will deliver to the SARCCUP Member Agencies at Valley District's connection to the SWP during a calendar year the amount that the SARCCUP Member Agencies previously notified Metropolitan they would accept under Section 1(B). Such deliveries will be scheduled and delivered at times and rates acceptable to Metropolitan, Valley District, and the relevant SARCCUP Member Agencies. Water that Metropolitan delivers to Valley District's connection to the SWP may be stored temporarily within Valley District's service area but must be used in Metropolitan's service area during the term of this Agreement. Water purchased from Metropolitan and delivered into Valley District's service area that does not qualify as Extraordinary Supply shall be considered local supply under Metropolitan's Water Supply Allocation Plan.

3. Billing and Payment

Metropolitan will bill each SARCCUP Member Agency individually and each SARCCUP Member Agency will pay Metropolitan's rate for full service untreated water or full service treated water in effect at the time of the sale of water to the SARCCUP Member Agency. Water purchased by a SARCCUP Member Agency will be counted as water delivered for purposes of meeting that SARCCUP Member Agency's purchase order commitment. Upon Metropolitan's approval of a SARCCUP Member Agency certification of each monthly delivery, the following exceptions will apply: (a) such purchases will not count against a SARCCUP Member Agency's annual Tier 1 limit; and (b) Metropolitan's capacity charge will not apply to such purchases. The sale of water under this Agreement will be included in the calculation of the Ten-Year Rolling Sales Average for purposes of Metropolitan's Readiness-to-Serve Charge at

the time water is sold to the SARCCUP Member Agencies. Metropolitan's invoices will separately identify the quantities of water subject to this Agreement.

4. Extraordinary Supply Benefit

An amount equivalent to up to half of the amount of water Metropolitan purchases from Valley District during a calendar year, if stored by the SARCCUP Member Agencies during the same calendar year in either a SARCCUP Member Agency's groundwater basin or in Valley District's SBBA, in accordance with Appendix G of Metropolitan's Water Supply Allocation Plan (or as any successor to such plan), will qualify as Extraordinary Supply. The amount of Extraordinary Supply available to each SARCCUP Member Agency under this Agreement may not exceed the allocation provided under Section 1(B). However, in the event that the SARCCUP Member Agencies' combined purchases exceed 50% of the amount that Metropolitan purchases from Valley District, the amount of Extraordinary Supply available to each SARCCUP Member Agency that purchases water will be equal, provided that those SARCCUP Member Agencies purchasing water may, by unanimous written agreement among themselves, re-allocate the total amount of Extraordinary Supply available to each SARCCUP Member Agency that purchases water.

5. Extraordinary Supply Benefit Regarding OCWD

Metropolitan will assign any Extraordinary Supply benefit that would accrue to MWDOC as result of actions taken by OCWD, in accordance with a separate agreement among Metropolitan, MWDOC, OCWD, and the Cities of Anaheim, Fullerton, and Santa Ana.

6. Pumping of Stored Water and Reduction in Purchases from Metropolitan

Upon written notice provided by Metropolitan, a SARCCUP Member Agency will pump a requested amount of water it has in storage in Valley District's SBBA at the time Metropolitan

makes the request, less the amount of water that has qualified as Extraordinary Supply at the time Metropolitan makes the request. The SARCCUP Member Agency will also reduce its purchases of water from Metropolitan by an equivalent amount. The SARCCUP Member Agency may pump stored water prior to the time Metropolitan makes a request.

7. Record Keeping

SARCCUP Member Agencies and Metropolitan will keep records of water purchased, delivered, and stored pursuant to this Agreement. The records of each Party relevant to this Agreement will be open to inspection by the other Parties upon reasonable notice. The Parties will cooperate to develop coordinated administrative procedures for the tracking required under this Agreement.

8. Metropolitan's Administrative Code

Unless otherwise specifically provided for in this Agreement, Metropolitan's Administrative Code will continue to apply to the relationship between Metropolitan and the SARCCUP Member Agencies.

9. Termination

This Agreement will terminate on December 31, 2035 unless the State Water Contract between Metropolitan and the State of California is extended past 2035, in which case, this Agreement will have the same termination date. After 2035, this Agreement may be terminated upon five-years' notice provided in writing by Metropolitan to all other Parties.

10. Late Arising Claims

If a claim arising under or with respect to one or more terms of this Agreement has not been resolved when such term terminates, or if such a claim is brought after this Agreement has terminated, but within the period of time for bringing such a claim under California law (Late

Arising Claim), the provisions of this Agreement shall continue in full force and effect for such additional period of time as is necessary to resolve such claims and to satisfy the rights and obligations of the Parties hereto with respect thereto.

11. Indemnity Clause

Liability and indemnification shall be determined pursuant to section 4502 of Metropolitan's Administrative Code. Metropolitan provides no warranty or guarantee regarding the quality or content of its untreated water or the suitability of its use for storage in groundwater basins. SARCCUP Member Agencies acknowledge that they accept untreated water "as is."

12. Informal Mediation

In the event of a dispute between the Parties regarding this Agreement, the Parties may attempt to resolve the dispute by using the services of a mutually acceptable mediator. If the Parties decide to use a mediator, they will equally share the mediator's fees and expenses.

13. Successors and Assigns

This Agreement shall bind and inure to the benefit of the successors and assigns of the Parties; provided, however, no Party shall assign any of its rights or obligations under this Agreement without the prior written consent of the other Parties. Nothing in this Agreement is intended to confer any right or remedy under this Agreement on any person other than the Parties to this Agreement and their respective successors and permitted assigns, or to relieve or discharge any obligation or liability of any person to any Party to this Agreement, or to give any person any right of subrogation or action over or against any Party to this Agreement.

14. Waiver/Cure of Defaults

The failure of any Party to enforce against another Party a provision of this Agreement shall not constitute a waiver of that Party's right to enforce such a provision at a later time. No

Party shall be deemed to be in default of any provision of this Agreement unless the other Party has given written notice specifically stating the alleged default and the Party in default fails to cure the default within sixty (60) days of receipt of such written notice.

15. Construction of Agreement

The language in all parts of this Agreement shall be in all cases construed simply according to its fair meaning and not strictly for or against any of the Parties, and Section 1654 of the Civil Code has no application to interpretation of this Agreement. The recitals and all exhibits and schedules to this Agreement are part of this Agreement and are incorporated herein by this reference.

16. Entire Agreement

This Agreement constitutes the final, complete and exclusive statement of the terms of the agreement among the Parties pertaining to the matters provided herein during the term and supersedes all prior and contemporaneous understandings or agreements of the Parties related thereto. No Party has been induced to enter into this Agreement by, nor is any Party relying on, any representation or warranty outside those expressly set forth in this Agreement.

17. Severability

In the event that a court of competent jurisdiction determines that a provision included in this Agreement is legally invalid or unenforceable and such decision becomes final, the Parties to this Agreement shall use their best efforts to (i) within thirty (30) days of the date of such final decision, identify by mutual agreement the provisions of this Agreement which must be revised, and (ii) within three (3) months thereafter promptly agree on the appropriate revision(s). The time periods specified above may be extended by mutual agreement of the Parties. Pending the completion of the actions designated above, to the extent it is reasonably practical and can be

done without violating any applicable provisions of law, the provisions of this Agreement, which were not found to be legally invalid or unenforceable in the final decision, shall continue in effect. If the Parties cannot agree on appropriate revisions, this Agreement shall be terminated, and the Parties will return any water owed to each other.

18. Force Majeure

All obligations of the Parties other than monetary or payment obligations shall be suspended for so long as and to the extent the performance thereof is prevented, directly or indirectly, by earthquakes, fires, tornadoes, facility failures, floods, strikes, other casualties, acts of God, orders of court or governmental agencies having competent jurisdiction, or other events or causes beyond the control of the Parties. In no event shall any liability accrue against a Party, to its officers, agents or employees, for any damage arising out of or connected with a suspension of performance pursuant to this section. All time limits to perform and the term of the Agreement shall be extended by a period of time equivalent to the length of suspension.

19. Notices

All notices, requests, and demands hereunder (Notices) shall be in writing, including electronic communications, and shall be deemed to have been duly given when delivered (or, if mailed, postage prepaid, on the third business day after mailing, if that date is earlier than actual delivery). Notices shall be sent to a Party at the address of that Party set forth below or, if such Party has furnished notice of a change of that address as herein provided, to the address of that Party most recently so furnished.

Metropolitan Water District of Southern California
Attention: General Manager
P.O. Box 54153
Los Angeles, CA 90054-0153

Eastern Municipal Water District
Attention: General Manager
P.O. Box 8300
Perris, CA 92572-8300

Inland Empire Utilities Agency
Attention: General Manager
6075 Kimball Ave.
Chino, CA 91708

Municipal Water District of Orange County
Attention: General Manager
P.O. Box 20895
Fountain Valley, CA 92708

Western Municipal Water District
Attention General Manager
14205 Meridian Pkwy
Riverside, CA 92518

20. Further Assurances

Each Party hereto, upon the request of the other, agrees to perform such further acts and to execute and deliver such other documents as are reasonably necessary to carry out the provisions of this instrument.

21. Governing Law

The validity, construction, and enforceability of this Agreement shall be governed in all respects by the laws of the State of California.

22. Counterparts

This Agreement may be executed in two or more counterparts, each of which, when executed and delivered, shall be an original and all of which together shall constitute one instrument, with the same force and effect as though all signatures appeared on a single document.

In WITNESS WHEREOF, the Parties have caused this Agreement to be executed by the following duly authorized representatives.

**THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA**

By: _____
Jeffrey Kightlinger
General Manager

Dated

APPROVED AS TO FORM:

By: _____
Marcia L. Scully
General Counsel

EASTERN MUNICIPAL WATER DISTRICT

By: _____
Paul D. Jones II
General Manager

Dated

APPROVED AS TO FORM:

Olivarez, Madrugá, Lemieux & O'Neill

By: _____
Steven O'Neill

INLAND EMPIRE UTILITIES AGENCY

By: _____
Shivaji Deshmukh
General Manager

Dated

APPROVED AS TO FORM:

JC Law Firm

By: _____
Jean Cihigoyenetché

MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

By: _____
Robert Hunter
General Manager

Dated

APPROVED AS TO FORM:

Best, Best & Krieger

By: _____
Joseph Byrne

WESTERN MUNICIPAL WATER DISTRICT

By: _____
Craig Miller
General Manager

Dated

APPROVED AS TO FORM:

Best Best & Krieger LLP

By: _____
Jeffrey F. Ferre

Appendix G: Board Policy Principles on Determining the Status of Extraordinary Supply

At the June 8, 2010 Water Planning and Stewardship Committee meeting Metropolitan's Board of Directors adopted the following policy principles to guide staff in determining the Extraordinary Supply status of future member agency supply programs.

No Negative Impacts to Other Member Agencies

A potential Extraordinary Supply for a member agency should not decrease the amount of Metropolitan water supply that would be available to the other member agencies in a WSAP. Programs that utilize Metropolitan supplies as a primary or in-lieu source or as a means of payback or future replenishment may have the effect of decreasing supplies, available to other agencies, if designated as Extraordinary Supply.

Provides Supply in Addition to Existing Regional Supplies

A potential Extraordinary Supply should provide a water supply that increases the overall water supplies that are available to the region in a WSAP. A program that is designed to move existing regional supplies from year to year would not qualify.

Specifically Designed Program or Supply Action

A potential Extraordinary Supply must be intentionally created and operated to provide additional supply yield. Normal variations in existing and planned local supply programs would not qualify.

Intended for Consumptive Use in a WSAP

A potential Extraordinary Supply should be designed with the primary intention to deliver water supply to a member agency only at a time when Metropolitan is allocating supplies. Programs designed to deliver water on a regular basis would not qualify. Exceptions for reasonable use of a supply program for emergency or other extenuating local circumstances should be considered.

Fully Documented Resource Management Actions

A potential Extraordinary Supply should have a full description as to the source, transmission, distribution, storage, and delivery of the water supply.

These principles are intended to identify deliberate actions taken by member agencies to augment supplies only when Metropolitan is allocating supplies through the WSAP. Production from existing local supplies, programs that are operated on an ongoing basis, and incidental increases in water supply would not qualify as Extraordinary Supply. The intent of the Extraordinary Supply designation is to recognize programs and actions that are additive to the total regional water supply as the region continues to confront the water supply challenges from drought and regulatory conditions. To that end, any supply actions taken after the initial implementation of the WSAP in July 2009 that utilize Metropolitan supplies either as a primary source, or to refill or replenish an incurred obligation or deficit at a future date would not qualify as Extraordinary Supply.



SANTA ANA REGIONAL CONSERVATION CONJUNCTIVE USE PROGRAM
(SARCCUP)



MWDOC Planning & Operations Committee Meeting
October 5, 2020

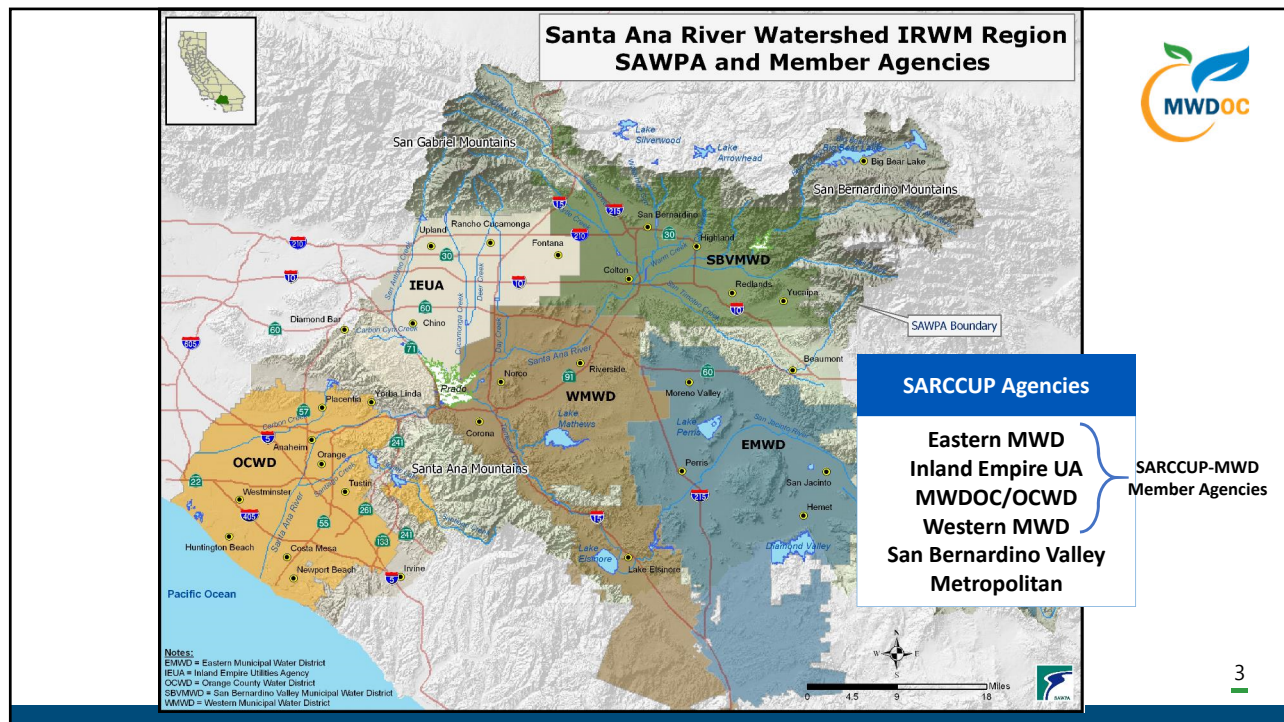
Agenda



- 💧 **SARCCUP Overview/Background**
- 💧 **Agreement Key Terms**
- 💧 **Benefits to Orange County**

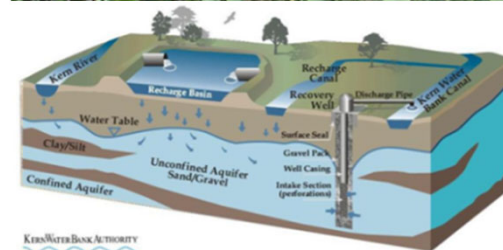
Agenda





SARCCUP Overview

- 💧 **Water Use Efficiency:** Assistance for agencies to develop conservation-based rates
- 💧 **Habitat Creation:** Establish habitat for Santa Ana Sucker fish and water-consuming non-native *Arundo donax* removal along the Santa Ana River
- 💧 **Watershed-Scale Cooperative Water Banking Program:** Water banking facilities in four locations with coordinated operations to store water in wet years and provides a new extraordinary supply during droughts and emergencies resulting in additional regional Dry-Year Yield



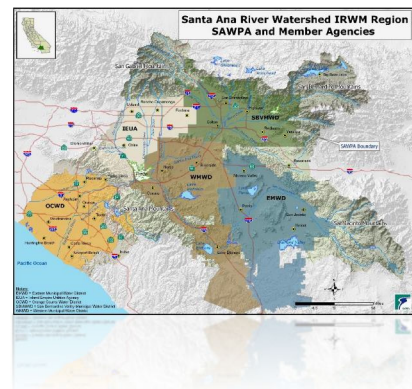
SARCCUP Water Bank

- 💧 **SARCCUP's Banking Program** is a watershed-scale program that allows imported water to be banked in wet-years to enhance water supply reliability and increase available during dry-year supplies
 - 🔥 Water banking facilities in four locations with coordinated operations to store water in wet years and provides a **Extraordinary Supply** during a Metropolitan Allocation year
- 💧 \$150 million plus program developed by the five regional water agencies in a collaborative effort that secure Proposition 84 funding
- 💧 Successfully received \$55 million in grant funding in the last round of Proposition 84 funding

5

SARCCUP Water Bank's Key Elements

- 💧 **Land:** Four locations with coordinated operations
- 💧 **Water Supply:**
 - Access to Valley (SBVMWD) surplus water
 - Metropolitan 50%
 - SARCCUP-MWD Agencies 50%
- 💧 **Storage:** 137,000 AF
- 💧 **Conveyance:** Direct potable deliveries or In-lieu deliveries

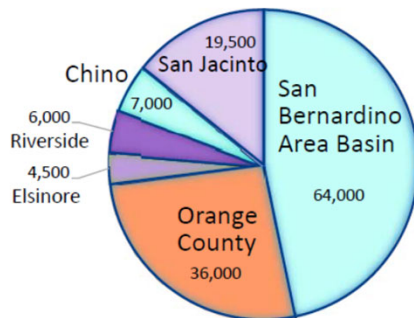


6

SARCCUP Water Bank's Key Elements (cont.)

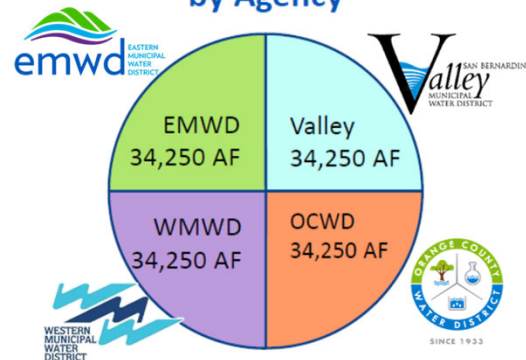


Storage by Location



Total = 137,000 AF

Storage Allocation by Agency



Total = 137,000 AF

7

Agreement Terms



- 💧 In all cases, Metropolitan purchases surplus water from Valley District
 - 🔥 Metropolitan makes available an amount equivalent to 50% of the amount purchased by Metropolitan to the SARCCUP-MWD Member Agencies
- 💧 SARCCUP-MWD Member Agencies pay Metropolitan the full service rate at **time of delivery**
 - 🔥 Metropolitan Full Service Tier 1 rate (includes Supply, System Access, and Power Rates, and the Alternative to the Water Stewardship Rate)
 - 🔥 No Capacity Charge because the water is purchased at Metropolitan's discretion
 - 🔥 All deliveries are through Metropolitan facilities or Metropolitan virtual meter
- 💧 These are Metropolitan purchases
 - 🔥 No SARCCUP-MWD member agency can purchase water from Valley

8

Agreement Terms (cont.)



- ▶ Such water purchased by a SARCCUP-MWD Member Agency can qualify as “Extraordinary Supply” and be used during a Metropolitan Allocation
 - ▶ Water must be managed according to the Metropolitan Water Supply Allocation Plan to qualify – Appendix G
- ▶ SARCCUP Operations as described are consistent with Metropolitan’s Administrative Code
- ▶ Term: 15 years (December 31, 2035), with an extension clause.
 - ▶ This aligns with the new Metropolitan/Valley agreement

9

Delivery Methods



- ▶ “Put” Scenarios (Delivery):
 - ▶ **Direct Metropolitan Delivery** – Water purchased by a SARCCUP-MWD Member Agency for direct delivery to its SARCCUP storage facilities
 - ▶ **Indirect Metropolitan Delivery** – Water purchased for one SARCCUP-MWD Member Agency for delivery to another SARCCUP-MWD Member Agency’s storage facilities
 - ▶ **Delivery to Valley** – Delivery of a SARCCUP-MWD Member Agency’s water to Valley District’s SARCCUP recharge facilities (Metropolitan’s “virtual meter”) for storage in the SBBA bank (outside the Metropolitan service area)

10

Ways to Recover the Water



💧 “Take” Scenarios (Recovery):

- 🔥 **Direct Local Delivery** – Pumping and direct conveyance of stored water of a SARCCUP-MWD Member Agency using local interagency conveyance facilities
- 🔥 **In-lieu Metropolitan Delivery** – Pumping and local use of water by a SARCCUP-MWD Member Agency (pumping agency) that was previously stored on behalf of another SARCCUP-MWD Member Agency (benefitting agency), accompanied by an equivalent reduction in the pumping agency’s Metropolitan deliveries and an equivalent increase in the benefitting agency’s Metropolitan purchases

11

Benefits to Orange County



- 💧 Orange County receives access to State Water Project (Valley) for drought or emergency purposes
 - 🔥 Purchased from Metropolitan at the full-service rate (via MWD OC)
 - 🔥 Access to Extraordinary Supply Credits
- 💧 Water can be stored locally (up to 36,000 AF in OCWD Basin)
- 💧 Flexibility in Put and Take operational scenarios
- 💧 Separate agreement between Metropolitan, MWD OC, OCWD and the three cities on the coordinating purchasing, billing, and transfer of extraordinary supplies within Orange County



Next Steps



- 💧 All SARCCUP-MWD Member Agencies are currently seeking their Boards' approval for the SARCCUP-MWD Agreement
- 💧 In October, Metropolitan staff is bring an information item on the SARCCUP-MWD Agreement to their Water Planning & Stewardship Committee
- 💧 In November, the Metropolitan staff will seek Board action on the SARCCUP-MWD Agreement
- 💧 Coming months, Metropolitan, MWDOC, OCWD, and the three cities will be finalizing the separate agreement on the distribution of extraordinary supplies



Action Item



MWDOC Staff Recommendation:

Option 1:

Authorize the General Manager to execute the Agreement between Metropolitan and the SARCCUP-MWD Member Agencies, subject to any non-substantive changes or modifications

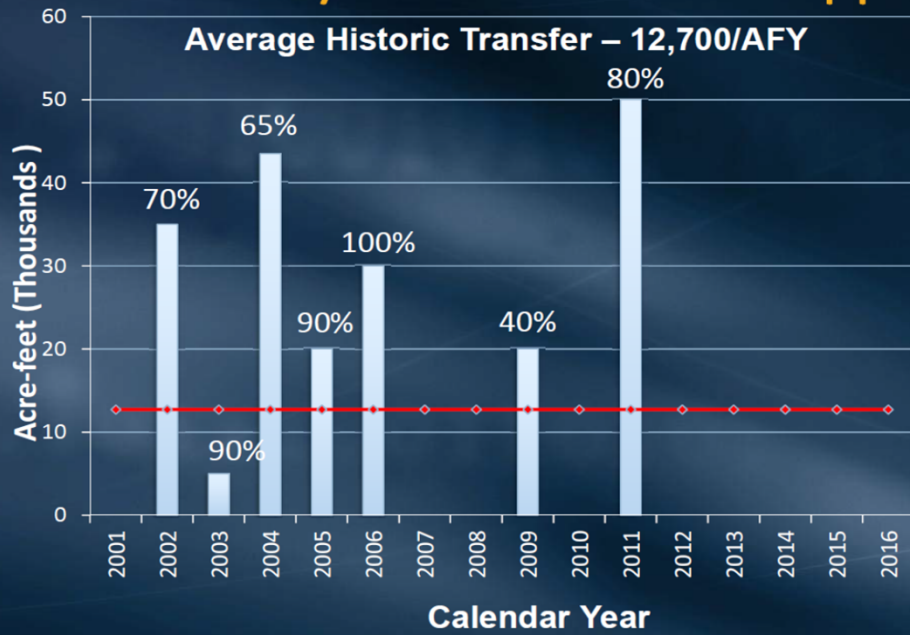
BACKUP SLIDES

Metropolitan Appendix G – Extraordinary Supply



- No negative impacts on member agencies
- Provides supply in addition to existing regional supplies
- Specifically designed program or supply actions
- Intended for consumptive use in allocation
- Fully documented resource management actions

Historic Valley District Transfer Supplies





ACTION ITEM
October 21, 2020

TO: MWDOC Board of Directors

FROM: Planning & Operations Committee
(Directors McVicker, Dick, Yoo Schneider)

Robert Hunter, General Manager

Staff Contact: Karl Seckel/Charles Busslinger

SUBJECT: Joint Contract Between MWDOC and OCWD to Hire CDM Smith to Update Demand Projections for Agencies in Orange County

STAFF RECOMMENDATION

Staff recommends the Board authorize the General Manager to enter into a consulting contract with Orange County Water District (OCWD) and/or consultant CDM Smith to update demand projections in Orange County for use in various planning efforts. The cost for CDM Smith is estimated at \$56,465, with the Municipal Water District of Orange County (MWDOC)'s cost share estimated at \$38,000 based on sharing the OCWD service area on a 50/50 basis and MWDOC paying for the South County and North County agencies outside of OCWD.

COMMITTEE RECOMMENDATION

The P&O Committee . . . (to be determined at the meeting).

SUMMARY

MWDOC and OCWD initiated discussions with CDM Smith regarding an update to the 2016 demand projections developed as part of the 2016 OC Water Reliability Study. Projections by many agencies in 2015 differ significantly from actual water use over the past five years. The projections completed by MWDOC and CDM Smith have been more closely aligned to actual water use over the past five years. Retail agencies will provide water use survey data for their agencies to MWDOC and OCWD. The information will be reviewed and then provided to CDM Smith. CDM Smith will then develop updated water demand forecasts for all water agencies in Orange County to support planning for MWDOC and OCWD efforts. CDM Smith anticipates this work to take 8 weeks to complete once survey data is received.

Budgeted (Y/N): Yes	Budgeted amount: n/a	Core _X_	Choice __
Action item amount: \$38,000	Line item: 21-7010		
Fiscal Impact (explain if unbudgeted):			

DETAILED REPORT

MWDOC and OCWD can share the cost of developing updated demand forecasts for the retail agencies in Orange County. The information developed will be used in various planning efforts within the County, including MET's Integrated Resource Plan (IRP) and the District's 2020 Urban Water Management Plan. It will benefit both agencies to have a common set of demand forecasts.

CDM Smith will develop updated water demand forecasts for all water agencies in Orange County to support planning for MWDOC and OCWD. CDM Smith will provide retail agency-level demand forecasts from 2020 to 2050 for review by MWDOC, OCWD and the retail agencies.

MWDOC and OCWD will work together to provide CDM Smith current and future projections of household population, single-family housing units and multifamily housing units by agency. In addition, MWDOC and OCWD will work together to collect historical water use information by customer classification from 2015 through 2019 to include with the historical data collected in 2015. This information will be provided to CDM Smith for calibration of their demand models.

CDM Smith will analyze historical agency water demands and demographic data provided to develop updated demand forecasts:

1. Current indoor household-level residential water use for single-family (SF) and multifamily (MF) will be estimated using end-uses of water (toilet flushing, showers, clothes washing, dishwashing, leaks, etc.) from the most recent literature/research on per capita use rates and flow rates of major fixtures. It is expected from CDM Smith's most recent demand forecasting for other water agencies in Southern California that the current residential indoor water use will be approximately 55 to 60 gallons per capita per day (gpcd). By 2030, CDM Smith will assume that indoor water use for all current homes will decrease to approximately 50 gpcd as a result of agency rebate programs and remodeling.
2. Current outdoor household residential water demands for SF and MF will be estimated taking the difference between total household water use, estimated from agency surveys, and indoor water use estimated in step 1. Each year from 2020 to 2050, an assumed level of participation for landscape transformation rebates will be made which will reduce current household levels of outdoor water demands.
3. For future indoor and outdoor household-level SF and MF water use, a maximum efficiency level assuming 50-gpcd indoor use and the Model Water Use Efficiency Landscape Ordinance (MWELo) compliant outdoor use will be established.
4. For non-residential water uses (commercial, institutional, industrial), we will estimate current water demands by agency.
5. The demand forecasts will be summarized by the three analysis areas for Orange County, Brea/La Habra, OCWD and South County areas outside of OCWD.

OCWD will work with IRWD to determine a methodology for separating IRWD demands between the basin and non-basin areas.

6. CDM will review the 2015 Projections for the three areas in Orange County to explain differences between the 2015 projections and actual weather adjusted demands for 2015 through 2019.

Water Demand Forecasts

For each water agency in Orange County, CDM Smith will prepare a water demand forecast from 2020-2050 based on the following steps for the baseline scenario:

1. Single-Family Residential Demands – Current SF water demands based on current household-level indoor and outdoor water use from the agency surveys, with gains in efficiency levels from 2020 to 2050, multiplied by current and future single-family households.
2. Multifamily Residential Demands – Current MF water demands based on current household-level indoor and outdoor water use from the agency surveys, with gains in efficiency levels from 2020 to 2050, multiplied by current and future multifamily households.
3. Non-Residential Demands – Current Commercial/Industrial/Institutional (CII) water demands held constant through 2020 to 2050.
4. Non-Revenue Water – NRW will be estimated based on the difference between agency's total water production and consumptive use, expressed as a percentage through 2050. Furthermore, data may be used from the MWDOC water loss program, as appropriate.
5. In addition to the baseline demand forecast scenario, up to three additional demand scenarios will be developed by way of discussions with MWDOC and OCWD staff. Potential example scenarios might include the following:
 - a. Baseline Demands Plus Climate Change – A weather factor (based on the statistical analysis of water production for the OC Reliability Study) will be applied to baseline water demands to account for future climate change.
 - b. Baseline Demands Plus Climate Change and Slight Increase in Non-Residential Demands – A slight increase in non-residential water demands, tied to growth of housing units, will be assumed.
 - c. Baseline Demands Plus Climate Change and Slight Decrease in Non-Residential Demands – A slight decrease in non-residential water demands, assuming greater levels of non-residential water efficiency.

CDM Smith will prepare a short report documenting the methodology used and results of the demand forecast. A draft report will be prepared for MWDOC and OCWD review. Comments from MWDOC and OCWD will be incorporated into a final report. Both the final report and spreadsheet results will be delivered to MWDOC and OCWD.

BOARD OPTIONS

Option #1

- Authorize the study work

Fiscal Impact: Would result in additional expenditures of \$38,000 plus staff time.

Business Analysis: Preparing regional demand forecasts for our agencies helps to keep our water demand information consistent in Orange County. Cost-sharing and working cooperatively with OCWD in this effort will improve relations between the two organizations. It is likely more cost-effective for MWDOC and OCWD to prepare regional forecasts rather than have each retail agency approach this on their own. In any instances where the MWDOC and OCWD forecasts are not supported by the local agencies, we can utilize the local agency forecast.

Option #2

- Do not authorize the study work
- **Fiscal Impact:** Would save expenditures in the amount of \$38,000.
- **Business Analysis:** We would not be carrying out MWDOC's role and mission of conducting planning for water resources in Orange County and helping to represent and assist our agencies. Each of our agencies would have to do this on their own and it may create inconsistent demand projections in the County.

STAFF RECOMMENDATION

Option #1



Cost Proposal

*To: Karl Seckel, Municipal Water District of Orange County
Greg Woodside, Orange County Water District*

From: Dan Rodrigo, CDM Smith

Date: September 30, 2020

Subject: Cost Proposal for Development of Orange County Water Demand Forecasts

CDM Smith is pleased to submit our cost proposal to develop a water demand forecast for each retail water agency in Orange County to support planning for the Municipal Water District of Orange County (MWDOC) and Orange County Water District (OCWD). We will provide an agency-level demand forecast from 2020 to 2050. The following describes our approach and level of effort to complete the following tasks:

Task 1 – Develop Database

MWDOC and OCWD will work together to provide CDM Smith current and future projections of household population, single-family housing units and multifamily housing units by agency.

CDM Smith will develop a spreadsheet template water use data request that MWDOC and OCWD will send out to every water agency in Orange County, including Cities of Anaheim, Fullerton, and Santa Ana. MWDOC and OCWD will jointly be responsible for initial communication and follow-up in order to assure that the water use data is provided in a timely manner. All completed agency spreadsheets will be turned over to CDM Smith and we will develop a full database that joins water use and demographic data to be used in Task 2. MWDOC and OCWD will receive a spreadsheet copy of the database for those agencies served by each of them.

- CDM Smith Level of Effort: 38 hours
- Time to Complete Effort: 1 week after we receive the last of agency spreadsheets

Task 2 – Conduct Demand Analysis

CDM Smith will analyze historical agency water demands and demographic data from Task 1 with the following basic methodology:

1. Current indoor household-level residential water use for single-family and multifamily will be estimated using end-uses of water (toilet flushing, showers, clothes washing, dishwashing, leaks, etc) from the most recent literature/research on per capita use rates and flow rates of major fixtures. It is expected from CDM Smith's most recent demand forecasting for other water agencies in Southern California that the current residential indoor water use will be approximately 55 to 60 gpcd. By 2030, CDM Smith will assume that indoor water use for all current homes will decrease to approximately 50 gpcd as a result of agency rebate programs and remodeling.

2. Current outdoor household residential water demands for single-family and multifamily will be estimated taking the difference between total household water use, estimated from agency surveys, and indoor water use estimated in step 1. Each year from 2020 to 2050, an assumed level of participation for landscape transformation rebates will be made which will reduce current household levels of outdoor water demands.
 3. For future indoor and outdoor household-level single-family and multifamily water use, a maximum efficiency level assuming 50-gpcd indoor use and Model Water Use Efficiency Landscape Ordinance (MWELo) compliant outdoor use will be established.
 4. For non-residential water uses (commercial, institutional, industrial), we will estimate current water demands by agency.
- CDM Smith Level of Effort: 78 hours
 - Time to Complete Effort: 2 weeks after completion of Task 1

Task 3 – Develop Water Demand Forecast

For each water agency in Orange County, CDM Smith will prepare a water demand forecast from 2020-2050 based on the following steps for the baseline scenario:

1. Single-Family Residential Demands – Current SF water demands based on current household-level indoor and outdoor water use, with gains in efficiency levels from 2020 to 2050 per Task 2, multiplied by current and future single-family households.
2. Multifamily Residential Demands – Current MF water demands based on current household-level indoor and outdoor water use, with gains in efficiency levels from 2020 to 2050 per Task 2, multiplied by current and future multifamily households.
3. Non-Residential Demands – Current CII water demands held constant through 2020 to 2050.
4. Non-Revenue Water – NRW will be estimated based on the difference between agency's total water production and consumptive use, expressed as a percentage through 2050. Furthermore, data may be used from the MWDOC's water loss program, as appropriate, for each agency.
5. The demand forecasts will be summarized by the three analysis areas for Orange County, Brea/La Habra, OCWD and South County areas outside of OCWD. OCWD will work with IRWD to determine a methodology for separating IRWD demands between the basin and non-basin areas.
6. CDM will review the 2015 Projections for the three areas in Orange County to explain differences between the 2015 projections and actual weather adjusted demands for 2015 through 2019.

In addition to the baseline demand forecast scenario, up to three additional water demand scenarios will be developed through discussions with MWDOC and OCWD. Potential example scenarios might include the following:

1. Baseline Demands Plus Climate Change – A weather factor (based on the statistical analysis of water production for the OC Reliability Study) will be applied to baseline water demands to account for future climate change.
 2. Baseline Demands Plus Climate Change and Slight Increase in Non-Residential Demands – A slight increase in non-residential water demands, tied to growth of housing units, will be assumed.
 3. Baseline Demands Plus Climate Change and Slight Decrease in Non-Residential Demands – A slight decrease in non-residential water demands, assuming greater levels of non-residential water efficiency.
- CDM Smith Level of Effort: 56 hours
 - Time to Complete Effort: 2 weeks after completion of Task 2

Task 4 – Prepare Report and Deliverables

A short report will be prepared documenting the methodology used and results of the demand forecast. A draft report will be prepared for MWDOC and OCWD review. Comments from MWDOC and OCWD will be incorporated into a final report. Both the final report and spreadsheet results will be delivered to MWDOC and OCWD.

- CDM Smith Level of Effort: 54 hours
- Time to Complete Effort: 3 weeks after completion of Task 3

Task 5 – Project Management, QA/QC and Meetings

Budget and schedule will be tracked for duration of project. A short summary of work completed will be included with monthly invoices. In addition, the results of the demand forecast and the report will be reviewed by CDM Smith senior staff not involved with day-to-day analysis in accordance with CDM Smith's QA/QC protocols. Three presentations are also assumed, with CDM Smith preparing and delivering the presentations. The presentations will occur within the schedule for Task 4.

- CDM Smith Level of Effort: 54 hours

Schedule and Budget

CDM Smith will complete this project in eight (8) weeks after we receive all of the agency water use surveys collected by MWDOC. The budget for this effort is shown below:

Cost Proposal for Orange County Water Demand Forecast
September 30, 2020
Page 4

Task	PI - Acevedo	Technical Director - Rodrigo	Project Manager - Fernandez	Lead Engineer - Zimmer	Engineer - Caswell	Planner - Shepard	Contract Admin - Wood	Total Hours	Total Labor
Task 1 - Database Development	0	6	0	6	24	2	0	38	\$ 6,850
Task 2 - Demand Analysis	0	15	0	8	10	45	0	78	\$ 14,035
Task 3 - Water Demand Forecast and Sensitivity	0	12	0	12	0	32	0	56	\$ 10,420
Task 4 - Report (draft and final) and Deliverables	2	12	0	8	0	32	0	54	\$ 10,390
Task 5 - PM/QAQC and Presentations (3)	6	20	20	0	0	0	8	54	\$ 14,770
Total	8	65	20	34	34	111	8	280	\$56,465

CDM Smith looks forward to working with MWDOD and OCWD on this important project.

cc. Alberto Acevedo, CDM Smith



DISCUSSION ITEM
October 21, 2020

TO: Planning & Operations Committee
(Directors McVicker, Yoo Schneider, Dick)

FROM: Robert Hunter, General Manager

Staff Contact: Vicki Osborn

SUBJECT: WEROC Assessment Presentation – Part Two

STAFF RECOMMENDATION

Staff recommends the Planning & Operations Committee: Review and discuss the presentation.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

The WEROC Department in three part series is presenting the WEROC Assessment performed by the Director of Emergency Management. WEROC Assessment Report - Part Two covers the WEROC strengths, WEROC programs, and the key findings section of the report.

DETAILED REPORT

The Water Emergency Response Organization of Orange County (WEROC) Emergency Management Program is charged with supporting the resiliency of Orange County's water and wastewater agencies, and the community it serves by coordinating and integrating all activities necessary to build, sustain, and improve the capability to mitigate against,

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

prepare for, respond to, and recover from threatened or actual natural disasters, acts of terrorism, or other man-made disasters.

The WEROC emergency management function has evolved from its early mission primarily due to the worldwide field of emergency management undergoing a significant evolution in the last 20 years, with an expansion in mission, role, organizational complexity, and program functions.

With the arrival of the new WEROC Director of Emergency Management, the General Manager requested that the WEROC program be assessed and evaluated. In order to conduct a thorough assessment, the National Fire Protection Association (NFPA 1600)¹, and the Emergency Management Accreditation Program (EMAP) assessment standards were used as the evaluation metric for the assessment. WEROC used the categories identified in the NFPA 1600 Standard on Disaster/Emergency Management and Business Continuity Programs (chart below) and the Emergency Management Accreditation Program. WEROC then conducted document review of both electronic and hard copy files. Finally, WEROC conducted interviews and/or survey questions with stakeholders regarding the overall WEROC program, and the current COVID-19 response lessons learned so far which are incorporated into the assessment process.

Program Management and Administration
Leadership and Commitment
Program Manager/Staff
Program Committee
Program Administration
Laws and Authorities
Finance and Administration
Records Management
Planning
Planning and Design Process
Common Plan Requirements
Risk Assessment
Business Impact Analysis
Resource Needs Assessment
Performance Objectives
Public Education
Implementation/Execution
Common Plan Requirements
Hazard Mitigation Program
Grants and other funding programs/Services
Crisis Communications and Public Information
Warning, Notifications, and Communications
Incident Management/Information & Situational Awareness
Tools

¹ http://preparednessllc.com/assets/emergency_management_business_continuity_program_self-assessment-checklist.pdf

Resources Management
Operational Procedures
Emergency Operations Center
Continuity of Operations
Emergency Operations/Response Plan
Mutual Aid
Recovery
Recovery Plan
Training and Exercises
Training and Exercise Plan (TEP)
Record Keeping
Program Maintenance and Improvement
Program Reviews
Corrective Actions
Continuous Improvement/Project Completion

Attached is the presentation slides and the WEROC Assessment Report.

Assessment Report: Emergency Management Program

WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY (WEROC)

August 2020



TABLE OF CONTENTS

1	Scope.....	3
2	Introduction	3
3	Capabilities Assessment and Key Findings.....	7
	3.1 Key Findings.....	8
	3.2 Key Findings Identified:	12
	3.2.1 Program Management and Administration.....	12
	3.2.2 Planning.....	13
	3.2.3 Implementation and Execution.....	13
	3.2.4 Recovery	16
	3.2.5 Training and Exercises/Program Maintenance and Improvement	17
4	Emergency Management Program Recommendations and Opportunities for Improvement	18
	Recommendations Summary	18
	4.1 Three (3) to Six (6) Months.....	18
	4.1.1 Program Management and Administration Recommendations	18
	4.1.2 Planning Recommendations	19
	4.1.3 Operational Procedures	19
	4.1.4 Training and Exercise Plan.....	20
	4.2 Six (6) to Twelve (12) Months.....	20
	4.2.1 Program Management and Administration Recommendations	20
	4.2.2 Operational Procedures	21
	4.2.3 Continuous Improvement/Project Completion.....	21
	4.3 Twelve (12) to Twenty-Four (24) Months.....	21
	4.3.1 Mutual Aid and WEROC Agreement.....	21
	4.3.2 Incident Management, Information Sharing, and Situational Awareness Tools	22
	4.3.3 Emergency Operations Center	24
	4.3.4 Training and Exercise Plan.....	24
	4.3.5 Resources Management/Logistics	24
	4.4 Long-Term 24+ Months or More Discussion Required.....	25
	4.4.1 Program Management and Administration Recommendations	25
	4.4.2 Planning Recommendations	26
	4.4.3 Recovery Plan	26
5	Summary of the future	27

1 SCOPE

This report provides the results of an assessment examining the Water Emergency Response Organization of Orange County's current emergency management program by analyzing its function, organization, capabilities, and challenges. Key findings are provided, as well as recommendations. The document was developed by the Director of Emergency Management by reviewing existing emergency management policies, procedures, tools, references, and with input from stakeholders. Part of this assessment encompasses real-world events and coordination efforts during the COVID-19 pandemic.

2 INTRODUCTION

The Water Emergency Response Organization of Orange County (WEROC) Emergency Management Program is charged with supporting the resiliency of Orange County's water and wastewater agencies, and the community it serves by working with these agencies and the County to build, sustain, and improve the capability to mitigate against, prepare for, respond to, and recover from threatened or actual natural disasters, acts of terrorism, or other man-made disasters.

Created in 1983¹ (37 years ago), WEROC's primary mission was originally to coordinate and support preparedness activities. Over the years, additional core functions were added to build a strong and resilient program supporting the member agencies during the response to a major emergency or disaster. In 2004 (16 years), a new program coordinator assumed the responsibilities of WEROC, assessed the program, and established additional mission activities as WEROC's core functions and capabilities including:

- Maintain the dedicated emergency radio system exclusively for the water utilities used by Orange County water utilities during any emergency or disaster response with required updates and enhancements.
- Prepare, update, and test a countywide emergency response plan, and provide assistance, as requested, for agencies to prepare and test their plans.
- Maintain two Emergency Operations Centers (EOC) in a state of readiness that will be staffed by trained water industry professionals.
- Organize emergency preparedness and response trainings among the water and wastewater agencies in Orange County.

¹ Original Volunteer Emergency Preparedness Organization Agreement, dated 1983

- Attend local and regional meetings regarding emergency preparedness and response issues on behalf of the Orange County water utilities.
- Include WEROC as an integral member of the County's Operational Area.

The groundwork of WEROC is its Indemnification Agreement between 35 water and wastewater utilities allowing for the provision of mutual assistance to each other during disasters and coordination efforts before a disaster. The WEROC staff provides the water utilities with required trainings, grant assistance, emergency plan review and development, and disaster exercise coordination. More importantly WEROC provides information sharing, resource coordination when disasters impact the water and waste water utilities of Orange County and sharing of how emergency response efforts proceeded in other parts of the State or County to ascertain lessons learned. WEROC is written into and fully integrated within the County's Operational Area Emergency Operations Plan.

The WEROC emergency management function has evolved from its early mission primarily due to the worldwide field of emergency management undergoing a significant evolution in the last 20 years, with an expansion in mission, role, organizational complexity, and program functions. This has been driven by several factors:

- With the implementation of California's Standardized Emergency Management System² (SEMS) in 1995, the county-level emergency management program became the lead agency for developing and maintaining the Operational Area concept. The Operational Area consists of all the county, municipal, and local district governments inside the county's geographic borders. County staff directly serve those residents in unincorporated county areas while indirectly supporting the cities and special districts. The county program serves as the primary conduit to state and federal organizations – before, during and after a disaster.
- Following 9/11, the federal government developed a tremendous body of regulation, policy, guidance, and practice (ex. the National Incident Management System). Initially intended to address the threat of major terrorism, these efforts have created many actual or implicit mandates and standards for how local government organizes and administers its emergency management function.
- The Homeland Security grants that also grew out of the post-9/11 initiatives have become increasingly complex to administer even as local governments grow more dependent upon them. In many ways, federal and state grant requirements drive priorities and programs, and funding from this source has become more competitive.

² California Government Code Section 8607
https://leginfo.ca.gov/faces/codes_displaySection.xhtml?sectionNum=8607.&lawCode=GOV

- The increased level of knowledge, skill, and technical abilities required to conduct traditional emergency management preparedness activities such as planning, training, and exercising has forced many emergency managers to specialize. It is not uncommon to have staff spend most of their career in just one focus area.
- The effort to address the tactical level of emergency management (planning, etc.) often competes with needed policy-level work. Emergency managers are increasingly asked to support senior governance and policy programs including general plan development, infrastructure development, and post-disaster fiscal recovery. Emergency managers must balance workloads to ensure they can exercise their roles as leaders in support of executive management.

Recent advances in automation, information technology, and cutting-edge communications have produced an increasingly efficient but brittle society. For example, the shift to “just-in-time” inventories dependent upon overnight shipping have created inherent vulnerabilities. For example, the potential disruption in chemical supply deliveries, or as seen recently with COVID-19 and personal protective equipment used by multiple disciplines. Interruptions in communications, transportation, and electrical utilities and other lifelines can produce significant second-level threats to life and safety.

The recognition of threats from occurrence of natural hazards and man-made threats has resulted in the expansion of efforts to mitigate these threats greatly in the last 20 years. The true probabilities of existing hazards such as earthquakes, floods, and wildfires are now being appreciated. The threat of terrorism and cyber-attack incidents have challenged agencies like nothing before. The effects of climate change are already producing demonstrable extreme weather effects including extreme peak rainfall intensity, or lack of rainfall leading to drought, potentially more significant wildland fire incidents, significant winter storms, increased extreme heat incidents, and coastal storm surge. Therefore, the recognition of planning for and mitigating against these threats has a return on investments as all these events have an impact in different ways to the water/wastewater infrastructure.

Concurrently, public expectations for local government services before and after a disaster have also risen dramatically. Residents are increasingly reliant upon collective infrastructure, utility, transportation, and information systems. Disruptions to these physical systems and the corresponding tears in the social fabric are effectively outside the control of individuals. In a disaster, communities expect local government to respond as quickly and with the same capabilities as our institutions provide in our daily lives. Additionally, there is an expectation of transparency as a public agency.

The federal government is urging local governments to adopt a culture of preparedness. This is no different for the water/wastewater agencies as demonstrated with more stringent federal regulations, such as the American Water Infrastructure Act of 2018. Local governments are being asked to increase preparedness resources, mitigate and

harden infrastructure, and stand ready to address their own needs following a disaster, and not depend on state or federal assistance.

In July at the MWDOC Manager Meeting, information was shared on the drivers for change in regards to the IRP study where outages and disasters were included. Below is the table highlighting Outages & Disasters at 76% and 87% by two of the three groups. An important reference in regards to linking the benefits of the WEROC program for its member agencies and the community.

Table 1.1 - June 2020 Survey IRP Drivers of Change

Top 5 Survey Ranking by Cohort					
Based on Percentage of Responses that Were Extremely or Very Important					
Board Members	%	Member Agencies	%	Stakeholders	%
Colorado River Cooperation	95%	Colorado River Cooperation	91%	Hydrologic Variations	92%
Hydrologic Variations	90%	Stress on River Basins	87%	Outages and Disasters	87%
Stress on River Basins	90%	Direct Potable Reuse	83%	Stress of River Basins	84%
Emerging Regulations	86%	Hydrologic Variations	83%	Direct Potable Reuse	81%
Direct Potable Reuse	76%	Groundwater Contamination	78%	Groundwater Contamination	78%
Outages & Disasters	76%				

Additionally, the future of the WEROC program must incorporate the lessons learned from recent events that occurred both within our state and nationwide. It is critical to keep in mind that Orange County has been extremely lucky over the past 20 years, even though the county has been part of 13 federally declared disasters, Orange County has not had a significant event impacting all jurisdictions and agencies at one time to a catastrophic degree (not including COVID-19). A major earthquake poses grave challenges, while new and evolving threats such as active shooter, cyber disruption, or climate change-influenced weather incidents may test our readiness and resilience at any time.

3 CAPABILITIES ASSESSMENT AND KEY FINDINGS

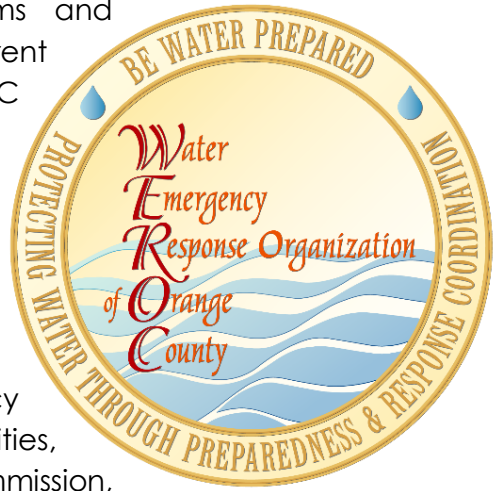
WEROC has a solid program foundation that was built over the years by the previous dedicated Director of Emergency Management. The WEROC program is a recognized, best practice model for developing and implementing collaboration and cooperation among water and wastewater agencies for preparedness and response. The previous Emergency Manager was a dedicated advocate, mentor, and leader for the program by instilling an architecture of success for all who participated.

The Leadership and support at the executive and elected level comes from the Municipal Water District of Orange County and its member agencies, Orange County Sanitation District, Orange County Water District, South Orange County Wastewater Authority, City of Anaheim, City of Fullerton, City of Santa and WEROC's signatory member agencies. Collectively, this group validates the importance of the WEROC program and its day-to-day role and emergencies activities.

WEROC has developed a multitude of programs and overarching, high level plans to aid agencies with different types of event scenarios. Whenever possible, WEROC obtained grant funding for regional projects, such as improving the EOC's, purchasing fuel trailers and emergency drinking water trailers, and to secure emergency generators.

WEROC has built a network of communications and partnerships not only with member agencies, but other organizations, such as County of Orange Emergency Management, Orange County Fire Authority, Cities, CalOES, CalWARN, California Public Utilities Commission, Independent Special Districts of Orange County, and Orange County Water Association to name a few.

WEROC advocates on behalf of member agencies with federal, state, and local partners representing their needs and concerns to influence positive changes to legislation, procedures, and operational capabilities. Examples of representing advocacy is inclusion of water and wastewater agencies with mapping programs, the 800MHz radio system, the Public Safety Power Shutoff Program and approval of the Hazard Mitigation Program. WEROC has demonstrated its value and worth to all of its member agencies over the years.



3.1 Key Findings

While an assessment of the emergency management program duly respects the successes and previous work performed by its predecessors, it is essential to acknowledge that a successful program needs to continue to evolve and adapt to changing principles and values of doing business. Infrastructure, technology, regulations, politics, and the expectations of agencies, along with the community it serves, is different now than it was just five (5) years ago. Technology, skills, and the overall business culture has transformed emergency preparedness and response into a highly complex system. The plans, procedures, programs, and technology systems in place must continually be evaluated and adjusted to meet the daily needs.

The WEROC program was assessed and evaluated using the National Fire Protection Association (NFPA 1600)³, and the Emergency Management Accreditation Program (EMAP) assessment standards. Since it was first published, NFPA 1600 has become the gold standard in emergency management. The U.S. Department of Homeland Security has adopted it as a voluntary consensus standard for emergency preparedness. It is not a fire-based standard, rather it's a universal standard that emergency management and business continuity professionals can use to prepare and protect their people, property, and businesses. FEMA, the International Association of Emergency Managers (IAEM), and the National Emergency Managers Association (NEMA) all endorse NFPA 1600. In fact, these organizations worked with the NFPA to develop the standard.

The chart on the next page summarizes the internal staff assessment of the current emergency management program capabilities based on categories identified in the NFPA 1600 Standard on Disaster/Emergency Management and Business Continuity Programs, the Emergency Management Accreditation Program, document review of both electronic and hard-copy files, and interviews and/or survey questions with stakeholders regarding the overall WEROC program. Additionally, the current COVID-19 response lessons learned so far have been incorporated into this assessment.

To aid in understanding the categories and criteria within each area is outlined on the following page.



Self-assessment tool for evaluating organizational preparedness
using NFPA 1600 "Standard on Continuity, Emergency, and Crisis
Management," 2019 edition

PREPAREDNESS, LLC
10 Fisher St., Suite 500, Fitchburg, MA 01525-2933
Telephone 781.734.5672
<http://preparednessllc.com> | info@preparednessllc.com
© 2019 Preparedness, LLC All Rights Reserved

³ http://preparednessllc.com/assets/emergency_management_business_continuity_program_self-assessment-checklist.pdf

Program Management:

- Requires the commitment of the organization's leadership and managers through:
 - Committing to all phases of the program—development, implementation, and maintenance
 - Providing the resources to support the program
 - Ensuring program review and continuing evaluation to maintain program effectiveness
 - Supporting needed corrective measures to correct deficiencies in the program
- This area also requires the appointment of a program coordinator and program committee responsible for carrying out the above.
- Program administration requirements also include:
 - A documented program on policy, scope, goals, etc.
 - Acknowledgment, articulation and ensuring compliance with applicable laws and regulations
 - Finance and Administration procedures and records management

Planning:

- This area outlines the planning and design process in five areas:
 - A definition of the organization's vision, mission, and goals
 - A risk assessment and business impact analysis (BIA)
 - A resource needs assessment for:
 - emergency operations/response
 - crisis communications
 - developing a business continuity standard
 - actionable recovery plans
- Crisis management to address those events that could severely impact:
 - The organization's operations
 - Its ability to do business
 - Impact on relationships with key stakeholders both inside and outside the organization in the planning process
- Hazard analysis and risk assessment provides a list of hazards the organization needs to evaluate (geological, weather, disease, accident, sabotage, and technological) and examples of each. This area also describes the elements of a business impact analysis (BIA) and the analysis of the areas should identify and address.

Implementation

- Requires an emergency operations and response plan to define specific responsibilities and state what actions need to be taken and measures to stabilize the situation. Continuity and recovery plans to restore vital operations need to be included.
- This area analyzes measures an organization needs to take in developing strategies to:
 - Prevent a life-threatening or other serious incident
 - Mitigate or control the consequences of an incident
 - Provide for crisis communications and public information
 - Establish operational procedures to control access, identify and account for key personnel, and mobilize necessary resources

Training and Education

- This area prescribes “competency-based training that supports all employees who have a role in the program.” The training must focus on program awareness with the goal to “enhance the knowledge, skills, and abilities required to implement, support, and maintain the program.”

Exercises

- Periodic exercises and tests of the plan promote continuous improvement. The area requires a “standardized methodology to practice procedures.” The design of the exercises and program tests include evaluation, measurement, and identification of deficiencies with the goal of improving group and individual performance.
- In sum, the exercises “shall evaluate program plans, procedures, training, and capabilities” and evaluation results shall be stated as either pass or fail. The exercises and drills “shall be conducted on the frequency needed to establish and maintain required capabilities.”

Program Maintenance and Improvement

- This area prescribes a process to evaluate the organization's adherence to NFPA 1600 “through evaluation of the implementation of changes resulting from preventive and corrective actions.” The program must be re-evaluated on a regular schedule, and when changes in the organization's operational environment impact the program.

The assessment yielded results in 11 of 33 categories having critical issues needing to be addressed and amended. The key findings following the chart on the next page correlates directly to those categories marked in red highlighting identified critical areas missing or current practice does not meet the program needs to be proficient in this area.

Table 1.2 WEROC Evaluation Matrix Results

Mission Capable	Minor Issues	Critical Issues
Program Management and Administration		
Leadership and Commitment		
Program Manager/Staff		
Program Committee		
Program Administration		
Laws and Authorities		
Finance and Administration		
Records Management		
Planning		
Planning and Design Process		
Common Plan Requirements		
Risk Assessment		
Business Impact Analysis		
Resource Needs Assessment		
Performance Objectives		
Public Education		
Implementation/Execution		
Common Plan Requirements		
Hazard Mitigation Program		
Grants and other funding programs/Services		
Crisis Communications and Public Information		
Warning, Notifications, and Communications		
Incident Management/Information & Situational Awareness Tools		
Resources Management		
Operational Procedures		
Emergency Operations Center		
Continuity of Operations		
Emergency Operations/Response Plan		
Mutual Aid		
Recovery		
Recovery Plan		
Training and Exercises		
Training and Exercise Plan (TEP)		
Record Keeping		
Program Maintenance and Improvement		
Program Reviews		
Corrective Actions		
Continuous Improvement/Project Completion		

3.2 Key Findings Identified:

The following key findings are listed in the order lists in the assessment table and are not prioritized at this time. Prioritization of key findings and recommendations will occur after presentation of the information, and further discussion of findings and recommendations with key stakeholders.

3.2.1 Program Management and Administration

1. The WEROC program was significantly impacted by staff turnover in the WEROC Coordinator/Specialist role. This position was unfilled for long periods. Personnel hired in many cases did not have strong experience and knowledge in the overall emergency management field. Consequently, a learning curve was present which slowed the ability to assign and complete projects. While the one constant was the previous Director of Emergency Management, who was in place for 15 years, the other support position went through a total of six people during a time when the expectations and requirements of WEROC grew.
2. The WEROC program has 36 identified programs/project areas it maintains on an on-going basis. Under each program area, there are sub-projects and requirements embedded within each project, for instance, plan development and training. This does not include the staff commitments when emergency events occur; day-to-day activities have to cease or slow down to cover issues such as COVID-19 or new emerging unfunded mandates, or regulations not accounted for within the staffing requirements for the current programs and project areas. This understaffing issue has impacted WEROC's ability to stay current, accurate, and continually update documents, provide on-going training, and complete implementation of important programs with member agencies.
3. Mounting and conflicting priorities have degraded capabilities due to staff vacancies (and understaffing) for basic maintenance of plans, basic training offerings, standard operating procedures, and many documents that have been untouched for 3 years or more.
4. The Municipal Water District of Orange County's current emergency language within its Administrative Code contains basic language to enable an effective response to a disaster. However, there is a lack of clarity in the relationship and the delegation of authority between the WEROC Emergency Operations Center (EOC) Director, MWDOC General Manager, and the Board of Directors.
5. The Finance and Administration Department at the Municipal Water District of Orange County are managed and supported by an extremely capable and dedicated financial and IT team. In regards to the support of the WEROC mission, the current financial management software makes it challenging to extract information required to track disaster costs. Additionally, the Finance & Administrative role is not well defined outside the basic checklists or language in

the Administrative Code. There are not any standard operating procedures or process documents that currently exist to be implemented during emergencies or events outside of what is included in the Contracts Manual and the Administrative Code.

6. WEROC has a limited amount of petty cash available for use during an event that would not be able to sustain operations for more than one-two days. Moreover, there is not a chain of custody for expenditures each day, or approval authority hierarchy established to approve resource requests or EOC needs during an actual event. This was evident during the COVID-19 event when by the second day following the WEROC EOC activation, the expenditures for ordering personal protective equipment already surpassed the 1000.00 expenditure mark.
7. The WEROC records management is a strong area of concern as the current state of the WEROC files both electronic and hard copy files is difficult to navigate and find current records as there is no consistent naming convention for the files. Furthermore, many of the records kept are obsolete as they have been either superseded, old or they have no historical value. MWDOC has comprehensive record management and retention policy along with a dedicated program manager, but WEROC staff maintained its internal department drive which is out of compliance with not only MWDOC's policy but state and federal recommendations.

3.2.2 Planning

8. While conducting a resource needs assessment by looking at plans, procedures, and conducting stakeholder interviews, the Regional Fuel Project came up multiple times which was started by WEROC previously but never completed or implemented. WEROC began to ascertain the needs of agencies for critical equipment including facilities, generators, and vehicles requiring fuel during a catastrophic event. This project was not completed nor were any agreements established with local fuel suppliers during this time. There will be competition for fuel resources between all levels of government during a catastrophic event and therefore it is very important to complete and implement this project at the water agency level.

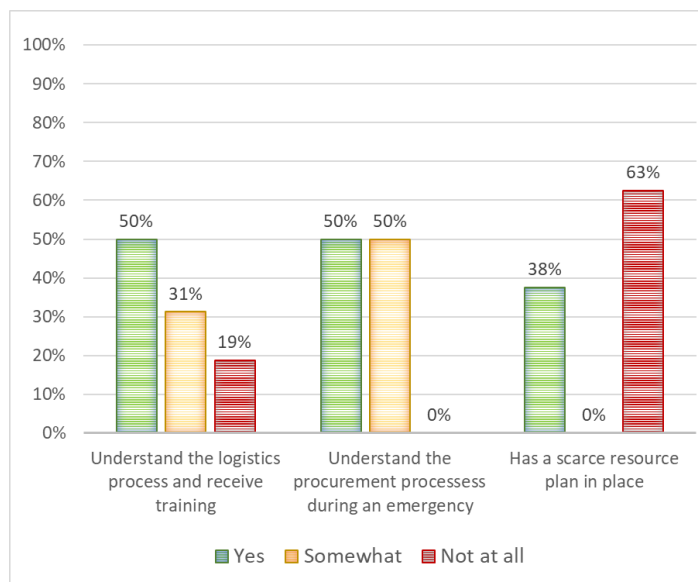
3.2.3 Implementation and Execution

9. Many member agencies indicated that sharing and accessing information is difficult and not everyone is comfortable with all the different platforms used. WEROC implemented eight different platforms to share or obtain information and situational awareness with member agencies and other partner agencies (Safety Center, WebEOC, Email, Google Drive, Dropbox, Facebook, Twitter, and WEROC's

Website). WEROC implemented multiple platforms to bridge a gap of obstacles and challenges different agencies had to suit their needs; however, none of the platforms used are interoperable or able to transfer information automatically. Each system needs to be manually inputted therefore ensuring accurate information contained within each platform at all times is open for human error. Misinformation leads to liabilities and bad decision making which has consequences potentially legally and financially. None of the current platforms have a Geographic Information Systems (GIS) mapping and resource availability. Many of these platforms do not have a mechanism for sharing Protected Critical Infrastructure Information (PCII) for cyber information which is a high concern for many agencies.

10. WEROC maintains an excel spreadsheet of water and wastewater resources available during a mutual aid/assistance request. This document is not uploaded into any of the systems being used such as WebEOC Resource Manager. The tracking of resources request process and deployment is a gap as the WebEOC Resource Manager Platform which is currently used for resource requests is not functioning properly and has been in this state for years. At this time, WEROC remains unable to receive resource requests from agencies from WebEOC and is using a paper-based form and email. There is currently no process documents or a Logistics Plan available to member agencies to explain how resource requests and procurement works, and agencies do not have access to or knew where to obtain the resource request forms without inquiring from WEROC.

11. Results from the member agency survey highlighted what was observed as the actual process during COVID-19, a real event outside of an exercise impacting a large number of agencies at one time. Most survey participants who answered the open-ended questions responded that they have multiple contracts, memorandums of understanding (MOUs), or processes in place to obtain equipment and personnel. Additionally, most respondents expected WEROC and Orange County Operational Area/Emergency Management Division to provide coordination, information, assistance, resources (including vendor lists or supplies), and guidance. Most



agencies do not have a Scarce Resource Plan in place to address needs during a catastrophic situation (example fuel resources), and have the misinformation that WEROC at the onset of event is supposed to have any supply a jurisdiction needs. WEROC was not set up, nor did it have any established contracts with vendors for emergency supplies.

12. WEROC's Emergency Operations Plan is due for revision in accordance with the AWIA 2018 standards. Member agencies maintain individual Emergency Operations and Continuity of Operations Plans (COOPs), however, there is not a synchronizing document addressing the WEROC and Operational Area coordination mission or the ability to directly support member agencies by means of process documents, or an ongoing training program for hazard specific events such as cyber terrorism, water quality, wildland fire.
13. Many of the operational plans (specific to the hazard) reviewed are incomplete, out of date, inconsistently formatted or not well integrated with each other or the All-Hazards EOP. Most existing annexes do not reference or incorporate emergency response planning documents developed by individual agencies or for specific threats/hazards such as Standard Operating Procedures. In some instances, the only procedure developed was by means of an email sent to the agencies and never formalized. There is a good foundation in the overall EOP and a lot of forms, but the process documents or trainings on how to use these tools does not exist. Additionally, some of the information loaded in to the Safety Center does not match what is in the EOP updated in 2018.
14. There are 45 position guides with hard copy forms and reference documents along with a portable USB drive within each guide. On the USB drive there are 40 sub folders. There is no document that outlines the contents or how to use this information. Moreover, a considerable amount of the information contained on the USB drives is outdated, some information by more than 5 years old. As part of Federal Comprehensive Planning Guidance (CPG) 101 v2, plans are on a cycle of revision. The overall EOP is on a 2 year cycle, Hazard Mitigation 5 year, etc.
15. One of the most visible features of an emergency management program is the Emergency Operations Center (EOC). WEROC staff maintains facilities at both the South and North EOCs. The South EOC facility was constructed in 1982 and has undergone minor renovations in the intervening years. A facility assessment study conducted in 2016, revealed critical defects requiring further renovation to bring this building up to safety standards. The North EOC was constructed in 1988 to essential facility standards. The facility is intended to survive a major earthquake and remain operational. However, after analysis of past reports on both locations and using both the South and North EOC during the COVID-19 response, critical deficiencies were revealed at both locations including inadequate workspace and walkways, inflexible workstations, constrained floor plan layout, inability to

expand current electrical and data needs, outdated and inoperable communications systems, outdated or non-working computer equipment, underpowered HVAC system, insufficient storage, and incomplete ADA compliance. Neither EOC in its current form is capable of fully supporting large, complex, or extended-duration incidents.

16. The groundwork of WEROC is its Indemnification Agreement between 35 water and wastewater utilities allowing for the provision of mutual assistance to each other during disasters and coordination efforts before a disaster. The WEROC staff provides the water utilities with required trainings, grant assistance, emergency plan review and development, and disaster exercise coordination. More importantly WEROC provides information sharing, resource coordination when disasters impact the water and waste water utilities of Orange County. WEROC is written into and fully integrated within the County's Operational Area Emergency Operations Plan, but this is not identified in the original VEPO Indemnification Agreement as it was created prior to the Operational Area Agreement and OA EOP in 1995 and is out of date based on the concepts of Emergency Management today.

3.2.4 Recovery

17. Disaster recovery planning, not Information Technology Disaster Recovery, but overall recovery of operations and cost recovery may warrant an expanded planning focus. Recent events have repeatedly demonstrated that disaster recovery activities are often more challenging for local jurisdictions than emergency response requires. While WEROC is represented in the Operational Area Recovery Annex (plan), there is no specific planning for water agencies to address the priorities of restoration, multi-agency coordination of recovery activities, and agency cost recovery which are two different issues. Agencies do not have a through knowledge on what cost recovery is and the components requirements an agency needs to perform to qualify for federal recovery funding. One key example is debris management and debris removal. Over the years, while I was at the County, many water agencies failed to claim and lose the opportunity to seek reimbursement funding in the hundreds of thousands of dollars for Emergency Work-Category A-Debris Removal due the misunderstanding is this is solely for public works and community debris removal item. Likewise, contained within the WEROC Emergency Operations Plan, the Public Assistance section is a brief summary of some considerations but does not serve as an effective operational guide to aid agencies with the complex requirements to execute their agencies' recovery program.

3.2.5 Training and Exercises/Program Maintenance and Improvement

18. Many notable, innovative critical projects and programs were created or started by WEROC over the years, however, not all projects were completed or implemented. Some examples include, Water Commodities Distribution Plans, and the Regional Fuel Project. Moreover, the Emergency Water Quality Sampling Kits program was started, training conducted and an exercise conducted, but the WEROC process documents were not fully implemented nor was an on-going training program established past its initial offerings in 2017. Furthermore, an effort was initiated to begin securing additional generators and standardizing the connections of such with various types of transfer switches; this project faced technical issues and was not completed.



Santiago Fire 2007 via Mission Viejo Lake source OC Register

4 EMERGENCY MANAGEMENT PROGRAM RECOMMENDATIONS AND OPPORTUNITIES FOR IMPROVEMENT

Recommendations Summary

- **Commit.** Build a responsive and effective emergency management program that engages our agencies, mitigates hazards, prepares our agencies, and guides our agencies to understand their roles and responsibilities in relation to response and recovery to major emergencies and disasters.
- **Resource.** Commit staff and funding resources to reinforce and sustain the emergency management program.
- **Manage.** Prioritize and implement the recommendations set forth in the assessment by transitioning this document into a WEROC Strategic Plan.
- **Evaluate.** Incorporate performance measures of the emergency management program into an annual report for the Board of Directors and member agencies to analyze and quantify the future vision and mission of the WEROC program.

The following recommendations focus on the major, critical areas identified in the key findings section of this report. These are not listed in priority order, but divided into potential timelines for implementation. It should also be noted that items listed as “minor issues” on the NFPA 1600 matrix will be addressed throughout the year as staff time allows.

4.1 Three (3) to Six (6) Months

4.1.1 Program Management and Administration Recommendations

1. Obtain and assign a US Bank Government Cal Card to the WEROC program. By obtaining an Integrated Card combining capabilities of purchase, travel and fleet programs into a single solution. This card would have a procedure and process in place for its use for both non-emergency and emergency event. The process will:
 - Identify the authorized users
 - Authorized spending limits
 - Approval authority
 - Establish a process incorporated into the logistics, and financial standard operating procedures.

- The current petty cash system can remain in effect for small events, but the process document will identify when the activation of the Cal Card system will occur.
2. WEROC staff will organize all files in possession and required to maintain. It should include:
- Development of a naming convention
 - Development of a process document that complements the MWDOC records management policy
 - Inclusion of a consistent date stamp and file pathway policy at the bottom of each document.

All old, obsolete or draft paperwork no longer containing a historical value or in accordance with the MWDOC record retention/management policy will be deleted.

4.1.2 Planning Recommendations

1. WEROC should be prioritizing program areas based on the criteria of state and federal mandates (example – AWIA), risk assessment (probability vs. consequence), and business impacts (operational, financial, reputation damage, and community/consumers expectations). This process will be done in collaboration with the WEROC member agencies as no project or program can be successful without their buy-in and commitment to the project. The end result is to establish a way to potentially combine planning efforts to address multiple programs which have overlap such as AWIA and Hazard Mitigation Planning. This will save both staff time and money.



4.1.3 Operational Procedures

1. Develop a plan maintenance schedule program that incorporates updating of all hazard procedures, and incorporates changes and process into the WEROC overall training program.
 - This program will look at requirements, for instance AWIA and Hazard Mitigation, so the timing for revision and training can be done at the same time as a result of many similar, overlapping requirements of each program.

- This schedule will identify planning gaps and needs for plan development, for example Cyber Terrorism Planning.
- This recommendation will fix the out-of-date information in safety center not being updated.

4.1.4 Training and Exercise Plan

1. Increase training on basic emergency management and stay up-to-date with best practices. There is a want and expectation from member agencies obtained from the WEROC coordination calls, training survey and assessment surveys conducted over the past 6 months for more training on the basics of emergency management and periodic updates on changing practices in the emergency management field.
2. Develop a Training and Exercise Plan that corresponds with the maintenance and updating of plans and standard operating procedures.
3. Establish a minimum training requirement for new and existing staff. Includes ongoing training and requirements for refresher training.

4.2 Six (6) to Twelve (12) Months

4.2.1 Program Management and Administration Recommendations

1. Update and amend the MWDOC Administrative Code with expanded language to align with the California Government Code and Federal statutes to ensure the delegation of authorities are clearly outlined. Sections within the Administrative Code include:
 - 1307-General Manager;
 - 2000-General Policy;
 - 2009- WEROC Reserves;
 - 8003-Requisition and Purchase Orders.

Adding additional language establishes the following:

- Clarity in the relationship and Delegation of Authority between the WEROC Director, MWDOC General Manager, and the Board of Directors
- Transparency
- Operational capability
- Clear line of succession

- Ensure compliance with federal regulations 2 C.F.R. § 200.320(f) (2), and 2 C.F.R. §§ 200.317–200.326 by outlining the differences between both exigency and emergency situations that demand immediate aid or action as defined by FEMA.
- Ability to access contracts such as California Multiple Awards Services (CMAS) contracts.

4.2.2 Operational Procedures

1. Develop hazard specific standard operating procedures that explain where to find and obtain resources needed for the specific hazard. Many of the checklists are written more as guidance. The missing link here is the process on “how to” actions. These process documents will be built into hands-on training, not just a lecture series prior to exercises.
2. Develop a “Just in Time” training guide for the front of the position guides explaining the contents and how to use the binder, and process documents.
3. Eliminate the 45 USB drives. Maintain 6 USB drives for EOC Director, EOC Manager, Operations Section Chief, Planning and Intelligence Section Chief, Logistics Section Chief, and the Finance & Administration Section Chief. This will assist with staff time requirement to maintain the 200+ documents on these drives on a consistent timetable due to the staff time required to maintain these documents.
** If the new information sharing platform is implemented, staff will have access to the most updated information if required.

4.2.3 Continuous Improvement/Project Completion

1. WEROC will develop a current project and program work plan listing all the program/planning areas.
2. WEROC will present an annual report and business plan outlining its milestones for the year and grading the programs contained within for transparency.

4.3 Twelve (12) to Twenty-Four (24) Months

4.3.1 Mutual Aid and WEROC Agreement

1. Rewrite the Voluntary Emergency Preparedness Organization/WEROC Indemnification Agreement between 35 water and wastewater utilities. The Agreement was designed to accommodate the admission of new participants without requiring original or existing participants to amend or ratify the Indemnification Agreement with each new admission. In order to accurately

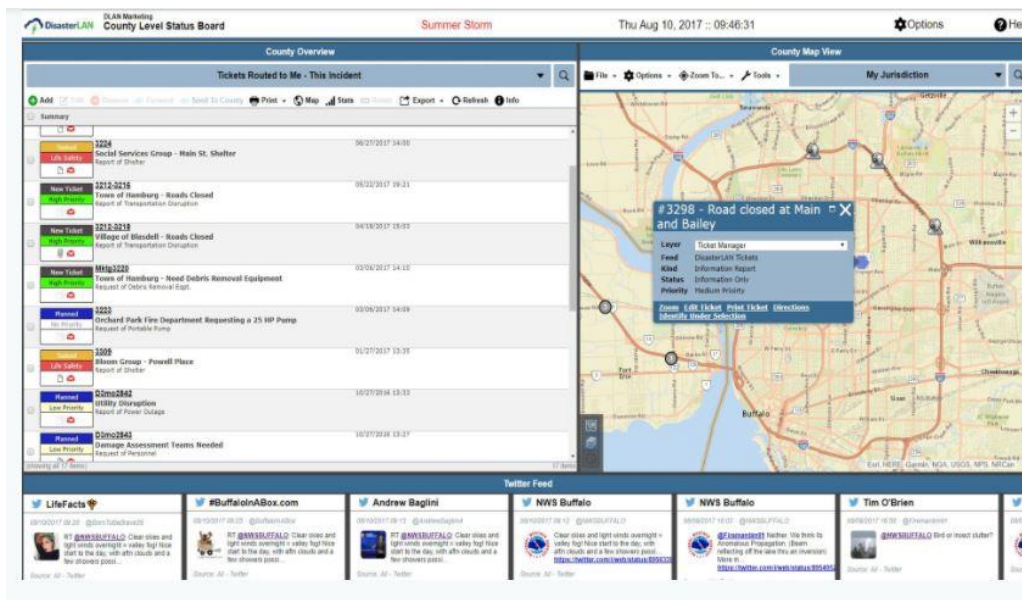
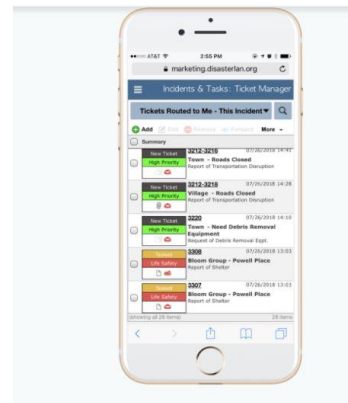
describe the rights and obligations of the new signatories to the Indemnification Agreement, new participants have signed the same agreement as the original signatories, titled "Volunteer Emergency Preparedness Agreement Indemnification Agreement." As documentation of the change in name to the program, they were additionally provided Municipal Water District of Orange County Resolution No. 1623 "Name Change of Volunteer Emergency Response Organization to Water Emergency Response Organization of Orange County." The outdated document does not highlight the overall changes to mutual assistance, mutual aid, and emergency management systems seen globally including the importance of disaster recovery and resiliency. The current state of the document does not include intra-agency, non-emergency sharing of equipment.

4.3.2 Incident Management, Information Sharing, and Situational Awareness Tools

1. Develop, obtain, and implement a new WEROE-specific platform to meet specific needs of the member agencies to securely store, maintain, and disseminate files and information. This will establish one location in which all information can be securely maintained for the WEROE organizations only instead of using 9 different applications. This application can be used for day to day operations and emergency events. Justification for this recommendation is as follows:
 - Safety Center, the solution put into place 10 years ago, does not allow personnel the ability to download documents but only to view or read on their computer or mobile device. This platform is older technology and not user friendly on the backend to upload documents or implement a data management strategy. Not to mention the cost of this platform increased 20% from 2019 which is not justifiable based on what the return is for the user. This is not a viable solution for real time events.
 - WebEOC, an internet based incident management program is maintained and operated by the County of Orange and provided to members of the Operational Area. The information obtained by the County is very important in order to create an overall, impact operating picture of the entire county in order to know how bad it is. The down side to WebEOC is water and wastewater agencies are unable to create boards or track specific information about their organization. It is important to understand the county provide this system to everyone signatory to the Operational Area Agreement, which currently stands at 115 signatory members and others with a pertinent reason to access the system. New processes and needs are prioritized based on the regional view, so timelines to get new items only for one discipline or sector is limited by County priorities and

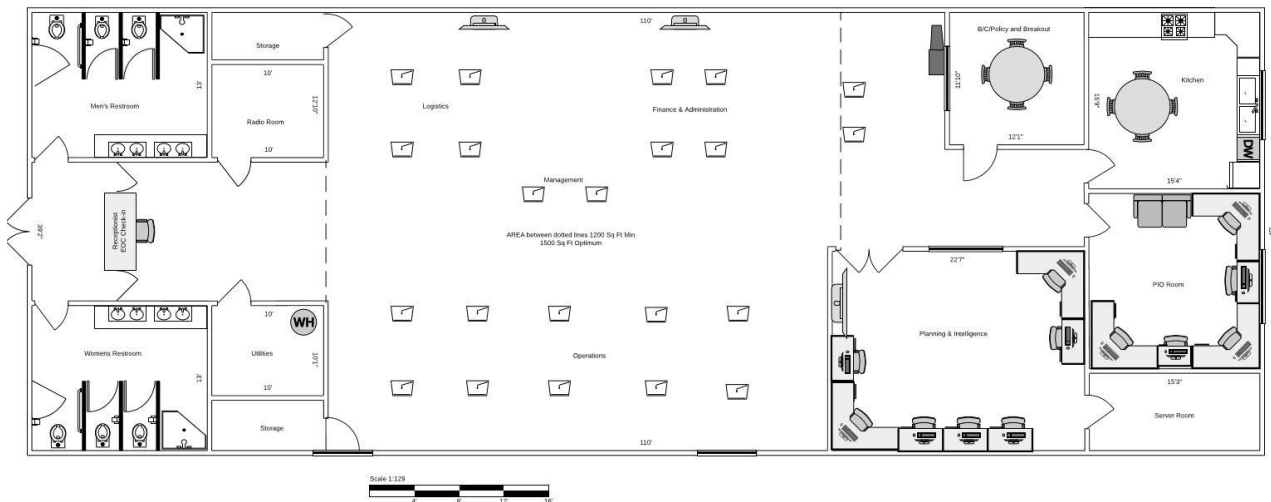
funding. Part of the scope of work for a system will be to complement and be able to pull information the County is still requesting from water and wastewater agencies so we can meet the needs of everyone who desires certain information.

- None of the current operating platforms in use, including WebEOC, contain a GEO Spatial Information (Mapping) system or simplified GIS Dashboard with layers for all member agencies to use. This tool would be very useful to the member agencies. With the inter-dependencies of the water connections, having a interfacing map and GIS layer capability of the infrastructure and other open source critical information such as flow rates, high fire zone, current weather information, liquidation zone, flood plain maps, dam inundation layers, etc., would allow for tracking and decision making purposes, not only during an emergency, but planned, larger, longer outages as well. Part of the GIS component would also include a File Transfer Protocol (FTP) site to store and disseminate GIS files to MAs agencies.
- Email is a great tool to share information, but there are setbacks and challenges such as having the appropriate people receiving the information; people forwarding the information outside of the water community with a right to know – need to know; referencing information days or weeks later and remembering when it was sent, etc.



4.3.3 Emergency Operations Center

1. Renew the South Land Use Agreement with the El Toro Water District where the South EOC is Located.
2. Partner with El Toro Water District on the construction of the new South EOC building as part of El Toro Water District existing Filter Plant and Clearwell Project instead of the 2017 Seismic Project renovation of the current building.
 - Presentation and project outline will be offered to the Board during a future Planning and Operations Committee Meeting.



3. Discontinue the services at the North EOC, but maintain the location as a logistics Point of Distribution/Staging Site and maintain the agreement with MET for its use.

4.3.4 Training and Exercise Plan

1. Incorporate a training database and training calendar into the new information sharing platform to track when training has been completed and when training is expired.

4.3.5 Resources Management/Logistics

1. Develop a Logistics Plan. The Logistics Plan will incorporate how personnel, supplies, and equipment are requested, procured, tracked, and supported within the WEROC Organization. While the EOP has a logistics section included containing the process, policies and procedures, the section does not contain specific detail. Member agencies responded to the Logistics question that they have an expectation for WEROC to provide coordination, information, assistance, resources (including vendor lists or supplies), and guidance throughout the event. One section of the plan will focus on the development of a Vendor Specialist EOC

position under the Procurement Unit Leader in Logistics with developed procedures and checklists for identifying vendors for scarce resource such as fuel.

2. Prepare a compiled list of verified vendors for use by the water and wastewater agencies. WEROC did not have a master vendor list, or established contracts prior to the COVID-19 event. Agencies looked to WEROC to fill the void of finding a vetted vendor for scarce items.
3. Incorporate a Resource Tracking System within the new Information Sharing Platform.
 - Easy Inventory tracking
 - Mutual Aid Resources Tracking
 - Resource Request Process built in
 - Maintained Vendor Lists accessible by all water and waste water agencies as developed jointly with member agencies.

4.4 Long-Term 24+ Months or More Discussion Required

4.4.1 Program Management and Administration Recommendations

1. Expand the number of emergency management staff positions from 3.0 Full time Employees (FTE) to 5.0 FTE.

Current Program:

- Emergency management staff: 1.0 Director, 1.0 WEROC Specialist - Full Time Equivalent (FTE), and 1.0 Administration Support FTE – 36 hour employee shared with the MWDOC Administration Department.
- One Extra Help (E/H) – Limited Term – 20 hours maximum per week AWIA specific contracted employee. Project contract employee paid for by the contract.
- Limited support from the Engineering and Planning Group

Recommendation: Augment emergency management:

- Emergency management staff: 5.0 FTE including 1.0 Director, 2.0 WEROC Specialists (experienced), 2.0 WEROC Coordinators (entry level).
- Current Administrative Support Positions: 1.0 Full Time Equivalent reclassified as WEROC Coordinator Position for additional projects and duties specific in the emergency management field.
- Instead of extra help – Convert Limited Term position and commit to a fulltime position to develop, design and implement large, comprehensive programs including on-going maintenance, training and planning (WEROC Specialist) as emergency management programs are not a one-time implementation but an ongoing cycle.

- WEROC Coordinator is an entry level position and will have assignments to augment professional growth while achieving assigned tasks appropriate for the employee's knowledge base for the benefit of the organization.
- Expand succession planning by having more opportunities for different program management.
- Additional staff can focus on the training, exercise, and planning mission of WEROC and its member agencies. This will eliminate the conflicting priority issue, or lack of staff in order to maintain a project.
- Additional staff can assist with the upkeep and training of the volunteer program established to respond to the EOC.

4.4.2 Planning Recommendations

1. WEROC commits to finishing and implementing the Regional Water and Wastewater Fuel Project which has been highlighted by many in terms of importance. This includes but is not limited to:
 - Assessment of all agencies fuels needs (facilities and equipment) and types (unleaded, diesel, red diesel, CNG, propane, etc.)
 - Inventory current fuel locations and capabilities
 - Obtain fuel burn rates and conduct a Business Impact Analysis (BIA) for emergency times vs day to day operations to develop a sustained "fueling" program to operate generators within the County for durations of several weeks or more.
 - Research Grant opportunities for partnerships with the private sector
 - Enter into agreements with fuel vendors, wholesale-local retailers, local distribution centers and local fuel stations within each of our MAs
 - Develop an operational procedure on obtaining the resource include the mechanisms for which it is activated
 - Enter into an agreement with member agencies on use of these agreements and financial obligations as required
 - Develop a training plan for member agencies and the organization in which agreements are made

4.4.3 Recovery Plan

1. Develop a Recovery Plan, which includes cost recovery and complements the Business Continuity Plan agencies have in place. The Recovery Program and Plan will address:
 - The priorities of restoration

- Multi-agency coordination of recovery activities
- Create key debris management policies until a specific template for debris management for each agency can be developed.
- Identify potential long-term recovery authorities and policies such as expedited processes and finance vehicles.
- Cost recovery and the process and procedures required in accordance with state and federal regulations and guidelines.
- On-going training for both field and administrative staff.
- Recovery Exercise program built into the Training and Exercise Plan.

5 SUMMARY OF THE FUTURE

This assessment looked at all aspects of the current WEROC program. While there were opportunities identified to make positive changes for the future of WEROC, it should be acknowledged that WEROC is an organization not found in many areas of the nation. This can be attributed to where the program has been from its inception, its innovation, collaboration and foundation of supporting the member agencies is what this program is about. The past efforts should be applauded for their hard work and dedication putting a program in place to improve the resiliency of water and wastewater agencies. The mission and values may change from the original plan, but maintaining the stewardship and trust of continuing the traditions of WEROC's core fundamentals is essential. At the same time, we must continue to evolve with the changing times and expectations of today. With that being said, WEROC is being developed looking ahead for the next 10-20 years. The goal will remain to encompass resiliency, continuity, and succession planning for this program to continue with the mindset that WEROC is a system and an organization.

Respectfully Written and Submitted by:
 Vicki Osborn
 Director of Emergency Management
 Water Emergency Response Organization of Orange County



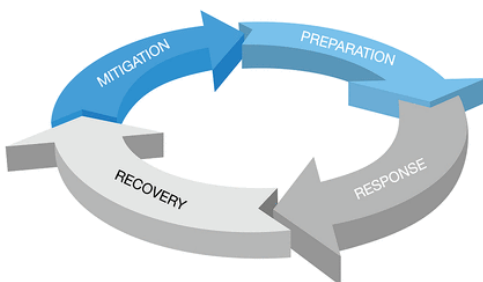
WEROC Program Assessment – Part Two

Planning and Operations Committee
10.05.2020

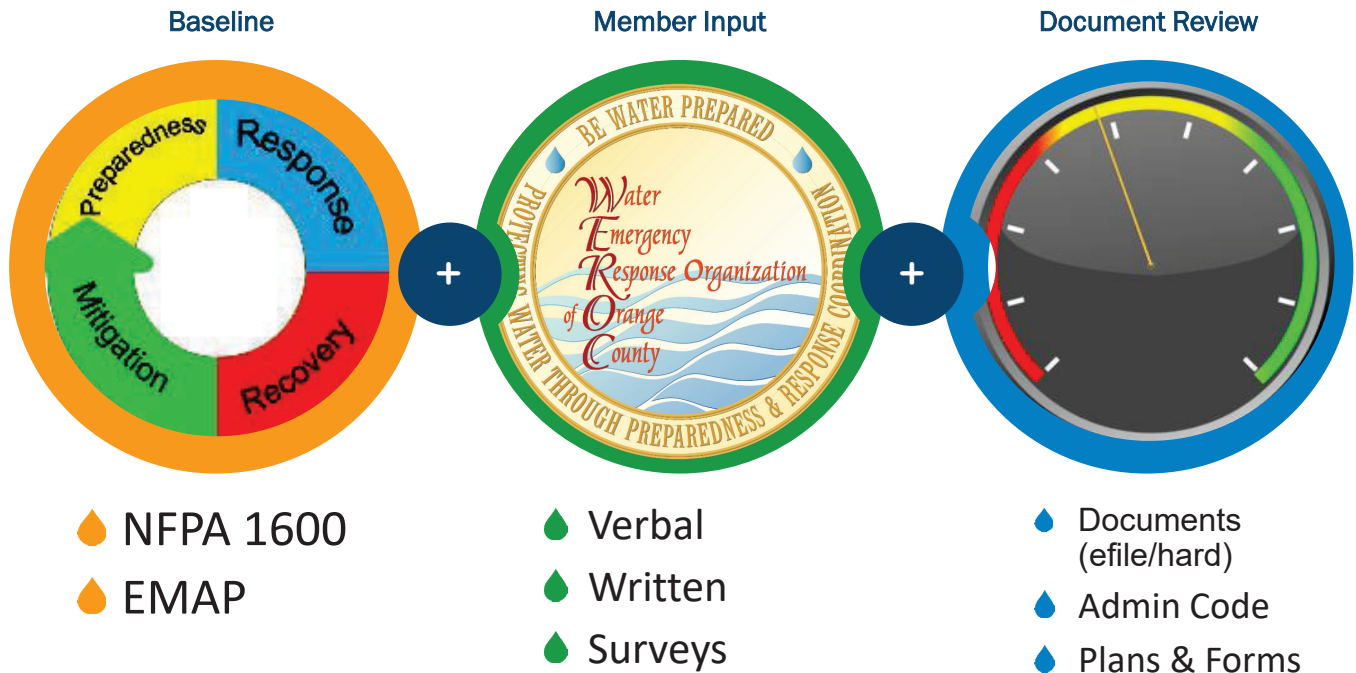
Last Meeting Recap

- 💧 Emergency Management
- 💧 SEMS-NIMS & Regulations
- 💧 WEROC Historical
- 💧 WEROC Structure
- 💧 Assessment Process

The Emergency Management Cycle



Assessment Process Used



WEROC Strengths & Accomplishments



- Leadership and Support
- Member Agency Engagement
- Planning and Design Processes
- Risk Assessment
- Communications
- Partnerships
- Collaboration
- Advocacy



➤ ***WEROC has demonstrated its value and worth to all of its member agencies over the years.***

4

Current Programs



Preparedness

- Planning Efforts and Plans
- Training
- Exercises
- Day to Day Member Agency Support & Collaboration
- WEROC EOC Preparedness



5

Current Sustained Programs



WEROC Emergency Response Coordination

- MWDOC Staff Commitment to Respond
- Information Collection/Intelligence Sharing
- Inter-Agency Cooperation
- Communication Systems
- Resource Needs
- WEROC EOCs



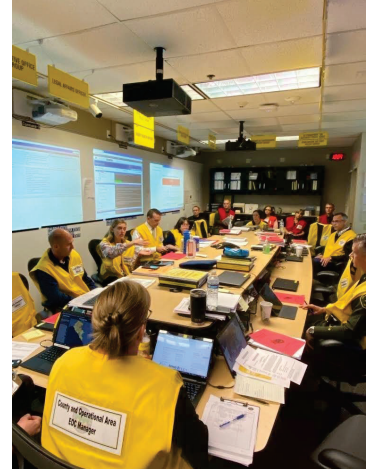
6

Current Sustained Programs



Representation

- Local and Regional Meetings
- WEROC is an integral member of the County's Operational Area



7

Findings

National Fire Protection Association NFPA 1600

- 6 categories
- 32 areas

Mission Capable	Minor Issues	Critical Issues
Program Management and Administration		
Leadership and Commitment		
Program Manager/Staff		
Program Committee		
Program Administration		
Laws and Authorities		
Finance and Administration		
Records Management		
Planning		
Planning and Design Process		
Common Plan Requirements		
Risk Assessment		
Business Impact Analysis		
Resource Needs Assessment		
Performance Objectives		
Public Education		
Implementation/Execution		
Common Plan Requirements		
Hazard Mitigation Program		
Grants and other funding programs/Services		
Crisis Communications and Public Information		
Warning, Notifications, and Communications		
Incident Management/Information & Situational Awareness Tools		
Resources Management		
Operational Procedures		
Emergency Operations Center		
Continuity of Operations		
Emergency Operations/Response Plan		
Mutual Aid		
Recovery		
Recovery Plan		
Training and Exercises		
Training and Exercise Plan (TEP)		
Record Keeping		
Program Maintenance and Improvement		
Program Reviews		
Corrective Actions		
Continuous Improvement/Project Completion		



8



- Pages 8-10 of the report highlights some of the methodology used for the analysis
- The assessment yielded results in 11 of 33 categories having critical issues needing to be addressed and amended.
- There is a total of 18 Key Findings



9



• Program Management and Administration (Pages 12 -13)

- #1 - Staff Turnover
- #2 - Program Management and Required Staff Time Commitments
- #3 - Conflicting Priorities and Staff Vacancies
- #4 - Emergency Language within the Admin Code
- #5 - Financial Processes in the Event of an Emergency
- #6 - EOC Expenditures
- #7 - WEROC Records Management



10

• Planning (Page 13)

• #8 - Regional Fuel Project and Resources Planning

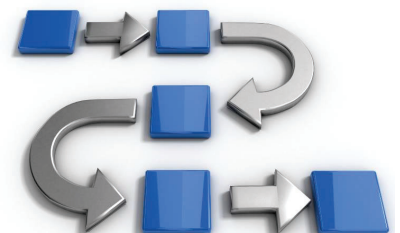


11

• Implementation and Execution (Page 13-15)

- #9 - Information Sharing Platforms
- #10 - Resource Management
- #11 - Logistics
- #12 - Operational Process Documents

PROCESS



• Implementation and Execution (Page 15-16)

- #13 - Status of Program Planning Documents
- #14 - EOC Forms and Position Guides
- #15 - Emergency Operations Center
- #16 - WEROC Agreement



13

• Recovery (Page 16)

- #17 – Recovery Planning

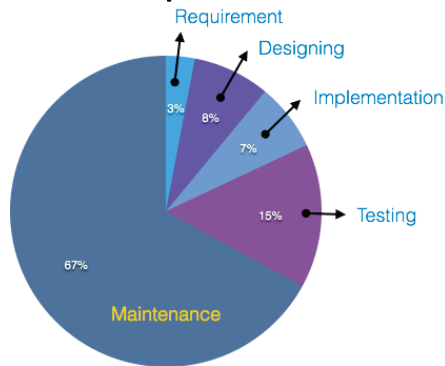


14



- Training/Exercises/Program Maintenance and Improvement (Page 17)

- #18 – Project completion, implementation and sustained



15

Next Presentation



Recommendations

Moving Forward



16

ENGINEERING & PLANNING	
Economic Studies to Quantify the Benefits of Local Projects	A full report is included in the P&O packet this month.
OC-70 Meter Testing Update	<p>MWDOC staff continue to work with staff from MET and East Orange County Water District (EOCWD) on an investigation of the accuracy of the billing meter at Service Connection OC-70 under MET Administrative Code Section 4506 - Metering of Water. As part of this investigation, MET and MWDOC agreed to a testing methodology using Utah State Water Research Laboratory (UWRL). After an initial portable ultrasonic flow meter failure at UWRL in August 2020, new portable ultrasonic flow meter tests were successfully completed on September 17, 2020.</p> <p>Field testing at OC-70 is scheduled for October 6, 2020. Following the field testing, quantification of any billing metering error is estimated to be completed by early November 2020.</p>
Doheny Ocean Desalination Project	<p>South Coast Water District (SCWD) continues working on the project:</p> <ul style="list-style-type: none"> • SCWD submitted their NPDES permit application on March 13, 2020. SCWD anticipates approval of the NPDES permit in Early/Mid 2021. The next step would be the Coastal Commission with a permit anticipated in Mid-2021. • Work is progressing on the Financial Analysis for a 2 mgd and 5 mgd scenario through Clean Energy Capital. SCWD is coordinating the financial analysis with the Alternative Energy Study. • Work is also progressing on an Alternative Energy Study for the project. A draft report is under review by SCWD. • Working groups are underway for a third party hydrogeology review. Two meetings have taken place in July and a third in August 2020. <p>On June 25, 2020 the SCWD Board approved an amendment to the Clean Energy Capital Financial Analysis 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.</p> <p>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</p>

	<p>cost project options, to utilize and potentially expand existing assets as a means to meet their reliability needs.</p> <p>This amended 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.</p>
SMWD San Juan Watershed Project	<p>Santa Margarita WD continues to focus on diversifying its water supply portfolio for south Orange County residents, businesses, schools, and visitors through the San Juan Watershed Project.</p> <p>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 beyond 5 mgd. Fish passage and regulatory hurdles to satisfy subsurface travel time requirements are being tackled.</p> <p>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 with an ability to meet the required travel time. SMWD is of 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. SMWD believes 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.</p>
South Orange County Emergency Service Program	<p>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.</p> <p>Dudek participated in the November 6, 2019 SOC 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</p>

	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 met in August 2020 and will begin reaching out to other agencies to determine the level of interest in the project.
Poseidon Resources Huntington Beach Ocean Desalination Project	<p>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.</p> <p>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:</p> <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> a. Site b. Design c. Technology d. Mitigation Measures 2. Then consider all four factors collectively and determine the best combination of feasible alternatives. <p>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.</p> <p>The key areas required by the Ocean Plan on which the Santa Ana Water Board is required to make a determination, includes:</p> <ul style="list-style-type: none"> • 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.

	<p>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.</p> <p>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.</p> <p>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.</p> <p>On September 15, 2020, the Regional Board postponed action on the waste discharge permit renewal at the request of Poseidon. Poseidon requested additional time to address concerns raised in three days of public hearings, among them: the need and cost of desalinated water; OCWD’s commitment to purchase the supply; the harm to marine life caused by the facility’s intake process; and whether the Bolsa Chica wetlands Marine Life Mitigation Plan satisfies the state’s Ocean Plan requirements for seawater desalination plants. Poseidon informed the Regional Board that it plans to evaluate the mitigation recommendations, work with resource agency and board staffs, and expects to complete the process within 45-60 days.</p> <p>Assuming success at the Regional Board, 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.</p>
Trampas Canyon Dam and Reservoir	<p>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.</p>

	<p>The construction of the Trampas Canyon Recycled Water Seasonal Storage Reservoir consists of three main components:</p> <ol style="list-style-type: none"> 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) <p>The construction of the facilities is being completed in three phases:</p> <ol style="list-style-type: none"> 1. Preconstruction/Site Preparation for the Dam and Pump Station Construction <p>Project Status - Complete</p> 2. Dam and Pipelines <p>Project Status – Extensive and productive work continues on this project, but the Critical Path on the overall schedule has become constrained by the following issues:</p> <ol style="list-style-type: none"> a. Defective concrete that requires repair at the Inlet/Outlet Structure. b. Potential for the need to replace structural slurry in the cut off wall of the West Dam. c. The need to replace 5 piezometer deep wells on the Main Dam face. d. Material and equipment shipping delays resulting from the effects of the Covid-19 Pandemic. 3. Pump Station <p>Project Status – Trampas Pump Station project has made significant progress over the past few months and remains on track to be substantially complete by September 30, 2020. The building structure is complete and the main electrical, control panels, and pumping equipment are scheduled to be installed by the end of September..</p> <p>SMWD is operating under the intentions that the basic Project Overview will be suitable for presentation at the Dedication Ceremony currently scheduled for October 9, 2020. Three more months of smaller-scale activity to include startup and commissioning will likely be required following October 9, 2020.</p>
NAWI – National Alliance of Water Innovation	<p>Karl Seckel has continued meeting as part of the Municipal Water Core Team process. The overall vision of NAWI is developing non-traditional water sources at pipe-parity costs of existing water sources today - this is an <i>aspiration</i>, not a <i>prediction</i>!</p>

	<p>Roadmaps are being prepared for five water end-user types and will be blended into an overall Roadmap by the end of the calendar year:</p> <ol style="list-style-type: none"> 1. Power 2. Resource Extraction 3. Industrial 4. Municipal 5. Agricultural <p>The Roadmapping Process includes the following steps:</p> <ol style="list-style-type: none"> 1. Vision (current step, soon moving into the others) 2. Targets/Milestones 3. GAPS/Challenges 4. Solutions 5. Action Plans <p>Hopefully by the end of this calendar year, solutions and action plans to fill the GAPS and resolve challenges will emerge to prioritize investments starting with \$100M from the Electric Power Research Institute. Water sources being considered in the Water Roadmap includes:</p> <ol style="list-style-type: none"> 1. ocean water 2. inland brackish groundwater 3. industrial wastewater 4. municipal wastewater 5. mining wastewater 6. conventional produced water 7. unconventional produced water 8. power/cooling wastewater 9. agricultural wastewater
<p>AMP Shutdown in 2021 to Replace PCCP Sections</p>	<p>In 2016, MET initiated a Prestressed Concrete Cylinder Pipe (PCCP) rehabilitation program to install 100 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.</p> <p>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</p>

	<p>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.</p> <p>MET's engineering group considers three segments of pipe within a 1,000 linear foot reach downstream of OC-70 as increased risk due to the segments having 20 or more wire breaks. MET does not recommend that repairs to these segments wait until Fall 2021.</p> <p>MWDOC staff coordinated a meeting with all AMP participants on May 13, 2020 to discuss the options for the proposed shutdown.</p> <p>Two MWDOC member agency projects are also scheduled around the same time as the pending AMP shutdown; a South Coast Water District vault rehabilitation on the JTM that was previously postponed due to the previous Diemer shutdown, and Santa Margarita Water District relocation of a portion of the Aufdenkamp Connection Transmission Main (ACTM) to accommodate the I-5 widening project. The South Coast project is scheduled for completion by the beginning of February 2021.</p> <p>SMWD notified MWDOC staff of pipe supply delays that could cause delays in returning the ACTM to service. As the ACTM is needed to provide water during an AMP shutdown, this would subsequently delay the AMP shutdown.</p> <p>MWDOC staff asked SMWD to explore options for expediting the ACTM project. The pipe manufacturer indicated that overtime work would expedite pipe delivery at a cost of approximately \$35,000 which would increase the likelihood of completing the ACTM relocation by March 31, 2021 and allow time for the AMP shutdown to occur prior to high water demand months.</p> <p>MWDOC staff coordinated a meeting with all affected AMP participants on August 12, 2020 to discuss the regional value of expediting the ACTM relocation and possible cost sharing options. The SOC agencies agreed to share the costs of expediting the pipe manufacture work.</p> <p>The shutdown is planned for April 3, 2021 through May 2, 2021.</p> <p>Staff is continuing to work with affected agencies and will keep both the Board and the AMP Participants informed as more information becomes available.</p>
Other Shutdowns	<p>Orange County Feeder</p> <p>MET is planning to reline and replace valves in a section of the Orange County Feeder from Bristol Ave to Corona Del Mar – this is the last section of this 80-year old pipeline to be lined. A meeting was held on August 27, 2020 between staff from MET, MWDOC, and Mesa WD and a plan was developed to allow the shutdown to move forward, while addressing MWDOC member agency concerns. Staff will continue to work with our member agencies and MET through this shutdown.</p>

Due to CIP budgeting changes, MET has proposed new shutdown dates of September 15, 2021 through June 15, 2021. MET will be re-evaluating this Orange County Feeder relining project in the June 2021 budget review.

Second Lower Feeder



MET has completed a shutdown of the Second Lower Feeder just below the Diemer Treatment Plant. A pipeline survey identified increased wire breaks in some of the Prestressed Concrete Cylinder Pipe (PCCP) sections, which required an accelerated replacement schedule. This shutdown impacted Golden State Water Company's (GSWC) service connection OC-56 and began on June 22, 2020. MWDOC and GSWC have been coordinating with MET on this shutdown. MET completed the installation of a bulkhead on June 30, 2020 to allow GSWC to take water through OC-56 while the remaining repairs were completed. In early August 2020, MET notified

MWDOC and GSWC that the pressure on the Second Lower Feeder had to be lowered because the bulkhead had potentially been impacted by a surge event and the safety of the workers on the other side of the bulkhead was a concern. GSWC agreed to take OC-56 out of service earlier than scheduled in order to remove the bulkhead. GSWC worked collaboratively with the City of Fullerton to potentially take water through a shared interconnection in the event GSWC needed additional supplies. MWDOC staff worked with MET and the City of Fullerton to assist with transferring accounting information for any increases in flows over to GSWC, in the event Fullerton peaked their capacity charge during the period (May – September). MET completed the Second Lower Feeder shutdown ahead of schedule on August 29, 2020 and returned the pipeline to service thereby avoiding the need for GSWC to take water from the City of Fullerton. Both GCWC and the City of Fullerton are to be congratulated on the cooperative manner in which they worked through the issues presented by this shutdown.

West Orange County Feeder

MET will be shutting down the West Orange County Feeder from September 28-30, 2020 to perform maintenance. During the shutdown, the City of Buena Park's service connection OC-25, will be out of service.

	<p>Joint Transmission Main</p> <p>SCWD is planning a rehabilitation project of their CM-10 vault in early 2021 on the Joint Transmission Main (JTM) which will include replacement of existing valves. MWDOC is coordinating this work with MET and SCWD, so the above referenced AMP shutdown and this project do not overlap.</p> <p>Aufdenkamp Connection Transmission Main</p> <p>SMWD is currently working on a relocation of the ACTM pipeline for the I-5 widening project. We are also coordinating with MET and SMWD, so the above referenced AMP shutdown and this project do not overlap.</p> <p>OC Feeder extension</p> <p>MET is planning to reline 300-linear feet of the OC Feeder extension affecting the City of Newport Beach. Due to CIP budgeting changes, MET has proposed revised shutdown dates of June 16, 2022 through July 10, 2022. MET will be re-evaluating this Orange County Feeder relining project in the June 2021 budget review.</p> <p>Lake Mathews Forebay</p> <p>MET is also planning a shutdown of the Lake Mathews Forebay for maintenance and repair work which will affect the Santiago Lateral from March 1-14, 2021. Staff is currently coordinating with MET and IRWD & Trabuco Canyon WD on this shutdown.</p> <p>Irvine Cross Feeder</p> <p>MET is planning a PCCP Inspection of the Irvine Cross Feeder November 2-8, 2020 affecting Newport Beach, Huntington Beach, and Mesa WD. Staff is currently coordinating with MET and our affected agencies on this shutdown.</p>
Meetings	
	Charles Busslinger and Chris Lingad attended MET's 2020 Member Agency Engineering Managers Forum via Zoom on September 1, 2020. MET co-hosted the forum with EMWD.
	Charles Busslinger and Chris Lingad participated in a Zoom meeting on September 1, 2020 with ABS Consulting to discuss phase zero of the Administration building seismic retrofit and remodel project.
	Charles Busslinger, Cathy Harris, Katie Davanaugh, Hilary Chumpitazi, Patrick Dinh and Chris Lingad have participated in several meetings throughout the month of September with consultants ABS Group and Blackman and Forsyth to discuss move management for the MWDOC building retrofit and remodel project.
	Chris Lingad attended a meeting at the MWDOC office on September 9, 2020 with consultant IDS Group and door specialist consultant ASSA ABLOY to inspect the entryway doors for modifications for ADA compliance.

	Chris Lingad participated in a conference call on September 10, 2020 with MET, the City of Buena Park and the City of Fullerton to discuss the upcoming West Orange County Feeder Shutdown.
	Karl Seckel and Charles Busslinger attended the Santiago Aqueduct Commission Quarterly Meeting on September 17, 2020. Charles Busslinger was sworn in and seated as the Alternate Commissioner for the meeting (Director Thomas had a conflict with the SAC meeting due to MWDOC's Executive Committee meeting at the same time). The Commission approved engineering and environmental permitting work to address a 350-linear feet section of the SAC Baker pipeline crossing Santiago Creek (within Irvine Regional Park) that has been exposed due to erosion. The proposed solution is to lower the pipeline in the affected reach by an additional 10-feet. The cost share for this project is based on capacity ownership in Reach 1.

Planning and Operations Committee

WEROC Status Report

Item 7b

September 2020

COVID-19 (CORONA VIRUS) COORDINATION

- Current Action Items:
 - On September 2nd, FEMA released an interim policy to clarify eligible work under the Public Assistance program as part of the response to coronavirus (COVID-19) pandemic. The interim policy ["COVID-19 Pandemic: Work Eligible for Public Assistance"](#) is applicable to eligible applicants only and is exclusive to emergency and major disaster declarations for the COVID-19 pandemic. This policy applies to work performed on or after September 15, 2020. Basically, this means water and wastewater will no longer be eligible based definitions of an emergency responder used in the policy and the way the policy is written.
 - On September 9th, Vicki attended a webinar hosted by CalOES on the newly released FEMA interim policy. Vicki posed the following question to CalOES "Water and Wastewater Special Districts are part of the state Medical Health Operational Area Coordination (MHOAC) system as one of the 17 essential functions for medical health system so will water and waste water Special Districts qualify for the PPE reimbursement as the services provided support the critical facility being used for medical COVID response. Under C-4 of the policy we are now disallowed, but we are asking for this to be reconsidered." CalOES replied they are reaching out to FEMA on this issue. As of September 29th, the question is still open and has been sent again.
 - On September 8th, the County of Orange moved into the red tier of the new State 4-tier COVID-19 County monitoring system. As of September 29th, Orange County will remain in the red tier due its numbers over the course of the past two weeks. WEROC is providing updated information received from the County Health Care Agency and the state as it is released and available.
 - Agencies continue to provide updates to the WEROC COVID-19 Matrix including business practices with the changes occurring for field and office staff (50/50 schedule, full staffed, staggered, telecommuting).
 - On the September 1st WEROC Coordination Conference Call, the agencies discussed looking at the schools re-opening to assist with a benchmark of staff returning to the offices and other business resumption activities.

- WEROC continues to monitor the State and County for changing information and is sharing information with agencies as it becomes available.
 - WEROC is participating in the weekly Operational Area Conference calls.
 - WEROC continues to hold bi-weekly conference calls on Tuesdays with member agencies to report on Federal, State, and County changes. Calls continue to support the sharing of information between agencies, logistics, legislation, and recovery updates. Additionally, agencies have an opportunity to share best practices or ask other agencies for input on an issue they are encountering. Post COVID-19, these calls will transition into different topics and will continue as long as the information benefits the agencies.
 - WEROC has procured, transported, warehoused and distributed over 110,000 various pieces of personal protective equipment and sanitizing products. These supplies have been and will continue to be made available to all WEROC member agencies in times of need. Daniel is leading logistics coordination.
 - WEROC is monitoring the legislation related to COVID-19. The Governor signed AB1945 which clarifies in the California Emergency Services Act by adding to section 8562 which clarifies the definition of a first responder in California which is an employee of the state or a local public agency who provides emergency response services, including a peace officer, firefighter, paramedic, emergency medical technician, public safety dispatcher, or public safety telecommunicator. Water and Wastewater employees are not within this classification and WEROC will be creating a white paper for agencies that explains the difference between a first responder and emergency responder.
 - WEROC continues to support agencies daily by answering their questions. Vicki has been providing agency assistance with OSHA training and guidance on requirements due to the current COVID conditions.
-

SEPTEMBER INCIDENTS/EVENTS:

(PUBLIC SAFETY POWER SHUTOFF, HEAT ADVISORY, SMOKE ADVISORY AND ORANGE COUNTY DEMONSTRATIONS)

- Following the WEROC PSPS Standard Operating Procedure, WEROC sent information out to agencies on the weather and Southern California Edison and San Diego Gas and Electric mapping and identified circuits. No power was shut off during this event.
- Vicki is working with SCE on notification issues a couple of agencies had during this past event. As of September 29th, and follow up the notification issue has been resolved.

- WEROC developed a Smoke Advisory Procedure following a request from a couple of agencies inquiring if WEROC has anything in accordance with the regulations under the Injury and Illness Prevention Program under Title 8 section 3203 of the California Code of Regulations and as required under section 5141 (Control of Harmful Exposure to Employees). This information was implemented in September due to the Bobcat and El Dorado fire's impact on the air quality in Orange County.
 - Due to recent national and local events, multiple protests and demonstrations were scheduled in different member agency service areas. Open source information was shared with the member agencies on these events in order to brief field operations and employees where these locations are for safety reasons.
 - Heat Advisory information for the last week of September was shared with the agencies.
-

WEROC PROGRAM ASSESSMENT

- Vicki has completed the WEROC Assessment Report. She conducted interviews with employees, member agencies, used governing documents, and national standards to perform her assessment. This document is being shared with the MWDOC Board of Directors in a three part series during the P&O Committee meetings. Part One covering what emergency management is, the organization, the history of WEROC and the assessment process was presented on September 8th. This same presentation was made at the MWDOC Manager, MET Managers and WEROC Funding agencies meetings.
-

AMERICA'S WATER INFRASTRUCTURE ACT (AWIA)

- WEROC and its consultant, Herndon Solutions Group (HSG), are continuing to work with WEROC agencies to achieve compliance with America's Water Infrastructure Act (AWIA).
- There are 18 agencies (both Tier I & II) working concurrently on their AWIA requirements.
- Final Emergency Response Plan presentation workshops occurred in September for the Tier 1 agencies with their plans due to EPA by September 30, 2020. All agencies did successfully self-certify by the due date.
- Tier II virtual meetings continue to take place for the Risk and Resiliency Assessments (RRA) due in December 2020. Agencies are already receiving their draft full reports for review.

- City of Seal Beach reached out to WEROC in September and is rejoining the AWIA project as a Tier 3 agency for Phase 2, and Three. Additionally, East Orange County Water District will be proceeding with Phase 3.
 - Janine is processing all AWIA contact hour requests received.
-

COMMUNICATION AND COORDINATION WITH MEMBER AGENCIES AND OUTSIDE AGENCIES

- WEROC has submitted the non-disclosure agreement to the US Army Corp of Engineers and requested the dam inundation maps affecting Orange County that the USACE owns.
- On September 8th, the WEROC Quarterly Meeting was held and focused on training, PSPS, planning action items and CalOES Dam Division spoke to changes to the program and going over challenges with plan approvals which many of our agencies have been having.
- Vicki has reviewed three dam plans this month for agencies.
- On September 22nd, Vicki attended the ACWA wildfire needs and resources meeting. These meeting targeted agencies affected by the recent wildland fires, but was educational to share information with everyone. One topic included what CalWarn is and how it works. WEROC was able to share the CalWarn website information and information regarding some recovery questions.
- On September 24th, Vicki attended the County of Orange Area Safety Taskforce (COAST) meeting. Members of this group include Federal, State, City, and County agencies, along with local fire-safe councils and homeowner associations. The focus is on wildland interface planning aligning with the Countywide Community Wildfire Protection Plan. Items of interest from this meeting included the agency's activities for fire mitigation and the current fire outlook for the winter season.
- On September 25th, Vicki participated in South Orange county Community College Districts Hazard Mitigation Planning Task Force meeting. This was the second meeting. WEROC is representing water agencies as part of the task force to help SOCCCD meeting the federal hazard mitigation regulation for planning with outside partners.
- Vicki attended two National Weather Service workshops focused primarily on current weather pattern but it also included the outlook for the winter season. We are entering into a mild La Nina season.

- City of Tustin is signing the WEROC (VEPO) agreement. This is going to their City Council on October 6th. Vicki has offered to attend this meeting for support to the agency.
-

EMERGENCY OPERATIONS CENTER READINESS

- Daniel has been focusing on system checks and ensuring the operational and communication systems of the Emergency Operations Centers are operational.
 - Daniel is working on the annual recertification of fire safety systems at the EOCs.
 - The WEROC team is working on the data management of all files.
-

TRAINING AND EXERCISES

- Standardized Emergency Management System and the National Incident Management System training is set October 6-8th.
 - ICS 300 – Intermediate Command System training is set and has two offerings, October 12- 16th and October 26 – 30th.
 - Vicki has created the WEROC Training and Exercise Plan for the next 5 years. This document was finalized at the September 8th, WEROC Quarterly Meeting. ** Note: this is a living document and will change based on the needs of the WEROC members agencies.
 - ICS 400 – Advance Incident Command System course was submitted to the state for approval. As of September 29th, still waiting for that approval for the November class offering.
-

**Status of Water Use Efficiency Projects
September 2020**

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Smart Timer Rebate Program	MWDSC	Ongoing	Ongoing	In August 2020, 454 smart timers were installed in Orange County. To date, 27,877 smart timers have been installed through this program.
Rotating Nozzles Rebate Program	MWDSC	Ongoing	Ongoing	In August 2020, 120 rotating nozzles were installed in Orange County. To date, 570,938 rotating nozzles have been installed through this program.
SoCal Water\$mart Residential Indoor Rebate Program	MWDSC	Ongoing	Ongoing	In August 2020, 270 high efficiency clothes washers and 22 premium high efficiency toilets were installed in Orange County. To date, 121,702 high efficiency clothes washers and 60,589 high efficiency toilets have been installed through this program.
SoCal Water\$mart Commercial Rebate Program	MWDSC	Ongoing	Ongoing	In August 2020, 1 premium high efficiency toilet and 2 zero water urinals were installed in Orange County. To date, 110,305 commercial devices have been installed through this program.
Industrial Process/ Water Savings Incentive Program (WSIP)	MWDSC	Ongoing	Ongoing	This program is designed to improve water efficiency for commercial customers through upgraded equipment or services that do not qualify for standard rebates. Incentives are based on the amount of water customers save and allow for customers to implement custom water-saving projects. Total water savings to date for the entire program is 1,284 AFY and 5,256 AF cumulatively.

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Turf Removal Program	MWDOC	Ongoing	Ongoing	<p>In August 2020, 14 rebates were paid, representing \$44,739 in rebates paid this month in Orange County.</p> <p>To date, the Turf Removal Program has removed approximately 23 million square feet of turf.</p>
Spray to Drip Rebate Program	MWDOC	Ongoing	Ongoing	<p>This is a rebate program designed to encourage residential and commercial property owners to convert their existing conventional spray heads to low-volume, low-precipitation drip technology.</p> <p>To date, the Spray to Drip Rebate Program has converted approximately 1,006,129 square feet of area irrigated by conventional spray heads to drip irrigation.</p>
Recycled Water Retrofit Program	MWDSC	Ongoing	Ongoing	<p>This program provides incentives to commercial sites for converting dedicated irrigation meters to recycled water.</p> <p>To date, 164 sites, irrigating a total of 1,598 acres of landscape, have been converted. The total potable water savings achieved by these projects is 3,489 AFY and 13,757 AF cumulatively.</p>