

MEETING OF THE BOARD OF DIRECTORS OF THE  
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY  
Jointly with the  
**PLANNING & OPERATIONS COMMITTEE**  
October 4, 2021, 8:30 a.m.

**Due to the current state of emergency related to the spread of COVID-19 and pursuant to Government Code Section 54953(e), MWDOC will be holding this Board and Committee meeting 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 Yoo Schneider, Chair  
Director Nederhood  
Director Seckel

Staff: R. Hunter, J. Berg, V. Osborn,  
H. De La Torre, T. Dubuque,  
D. Micalizzi, H. Baez, T. Baca

Ex Officio Member: Director Tamaribuchi

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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>.

**BOARD ACTION ITEM** (The MWDOC Board will convene as a full Board and may take action as a Board on the following item):

1. CONSIDER ADOPTING A RESOLUTION TO CONTINUE REMOTE MEETINGS PURSUANT TO AB 361

*Recommendation: Consider adopting a Resolution to continue remote meetings in October based upon the continued state of emergency for COVID-19 and find that (1) state and local officials have*

*recommended measures to promote social distancing; and (2) meeting in person would present imminent risks to the health and safety of attendees.*

*(Reconvene as Planning & Operations Committee)*

## **ACTION ITEM**

2. COST SHARE AGREEMENT BETWEEN MWDOC AND EL TORO WD FOR CONSULTING SERVICES FOR REPLACEMENT OF SOUTH EMERGENCY OPERATIONS CENTER (EOC)
  - a. Update Regarding Support For Funding For WEROC Emergency Operations Center
3. EOP UPDATE AND RESOLUTION

## **DISCUSSION ITEMS**

4. UPDATE ON COVID-19 (ORAL REPORT)
5. MWDOC LEGISLATIVE POLICY PRINCIPLES ANNUAL UP DATE

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

6. LOCAL LEGISLATIVE ACTIVITIES
  - a. County Legislative Report (Lewis)
  - b. Legal and Regulatory Report (Ackerman)
7. OC WATER SUMMIT UPDATE
8. SEPTEMBER 30<sup>TH</sup> WATER POLICY DINNER FEATURING METROPOLITAN GM ADEL HAGEKHALIL
9. MWDOC CHOICE SCHOOL PROGRAMS UPDATE
10. STATUS REPORTS
  - a. Ongoing MWDOC Reliability and Engineering/Planning Projects
  - b. WEROC
  - c. Water Use Efficiency Projects
  - d. Public and Government Affairs
11. REVIEW OF ISSUES RELATED TO PLANNING OR ENGINEERING PROJECTS, WEROC, WATER USE EFFICIENCY, FACILITY AND EQUIPMENT MAINTENANCE, WATER STORAGE, WATER QUALITY, CONJUNCTIVE USE PROGRAMS, EDUCATION, PUBLIC AFFAIRS PROGRAMS AND EVENTS, PUBLIC INFORMATION PROJECTS, PUBLIC INFORMATION CONSULTANTS,

## 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 4, 2021

**TO:** Board of Directors

**FROM:** Joe Byrne, General Counsel

**SUBJECT:** Consider Adopting a Resolution to Continue Remote Meetings Pursuant to AB 361

**STAFF RECOMMENDATION**

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It is recommended that the Board of Directors consider adopting a Resolution to continue remote meetings in October based upon the continued state of emergency for COVID-19 and find that (1) state and local officials have recommended measures to promote social distancing; and (2) meeting in person would present imminent risks to the health and safety of attendees.

**COMMITTEE RECOMMENDATION**

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This item was not presented to a Committee.

**SUMMARY**

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Starting in March 2020, in response to the spread of COVID-19 in the State, the Governor issued a number of executive orders aimed at containing the COVID-19 virus which, among other things, waived certain requirements of the Brown Act to allow legislative bodies to meet virtually. Pursuant to the Governor's executive orders, the District has been holding meetings with a virtual component during the pandemic in the interest of protecting the health and safety of the public and Agency staff and Directors.

The Governor's Executive Order allowing for remote Board meetings during the COVID-19 pandemic expired on September 30, 2021. AB 361, signed by the Governor on September 16, 2021, went into effect on October 1, 2021 and will allow the continuation of remote meetings during a proclaimed state of emergency, which currently exists for COVID-19, and if certain other conditions are met. Specifically, AB 361 (Government Code Section 54953(e)) allows legislative bodies to meet virtually provided there is a state of emergency, and either (1) state or local officials have imposed or recommended measures to promote social

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

distancing; or (2) the legislative body determines by majority vote that meeting in person would present imminent risks to the health and safety of attendees. As a result, if the District desires to have virtual Board meetings on or after October 1, 2021, it must do so consistent with the requirements of AB 361.

At present, the conditions described above are met. There is still a proclaimed state of emergency, which will continue until the Governor cancels it, state and local officials are recommending social distancing, and there is a reasonable basis for the Board to find that due to the COVID-19 emergency, meeting in person would present imminent risks to the health and safety of attendees. As a result and assuming these conditions will be in place on the date of the District's first Board meeting in October, the Board may decide to continue remote meetings effective October 1, 2021 with the required findings. There is however no requirement for the Board of Directors to take such action.

**RESOLUTION NO. \_\_\_\_\_**

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE MUNICIPAL WATER DISTRICT OF ORANGE COUNTY AUTHORIZING VIRTUAL BOARD AND COMMITTEE MEETINGS PURSUANT TO AB 361**

WHEREAS, the Municipal Water District of Orange County (“District”) is committed to preserving and nurturing public access and participation in meetings of the Board of Directors; and

WHEREAS, all meetings of the District’s legislative bodies are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963), so that any member of the public may attend and participate in the Agency’s meetings; and

WHEREAS, starting in March 2020, in response to the spread of COVID-19 in the State of California, the Governor issued a number of executive orders aimed at containing the COVID-19 virus; and

WHEREAS, among other things, these orders waived certain requirements of the Brown Act to allow legislative bodies to meet virtually; and

WHEREAS, pursuant to the Governor’s executive orders, the District has been holding virtual meetings during the pandemic in the interest of protecting the health and safety of the public, District staff and Directors; and

WHEREAS, the Governor’s executive order related to the suspension of certain provisions of the Brown Act expires on September 30, 2021; and

WHEREAS, on September 16, 2021 the Governor signed AB 361 (in effect as of October 1, 2021 – Government Code Section 54953(e)), which allows legislative bodies to meet virtually provided there is a state of emergency, and either (1) state or local officials have imposed or recommended measures to promote social distancing; or (2) the legislative body determines by majority vote that meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, such conditions now exist in the District, specifically, a state of emergency has been proclaimed related to COVID-19, state and local officials are recommending measures to promote social distancing, and because of the ongoing threat of COVID-19, meeting in person would present imminent risks to the health and safety of attendees;

NOW, THEREFORE, BE IT RESOLVED THE BOARD OF DIRECTORS OF THE MUNICIPAL WATER DISTRICT OF ORANGE COUNTY DOES HEREBY RESOLVE AS FOLLOWS:

**Section 1. Recitals.** The Recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

**Section 2. Remote Teleconference Meetings:** Consistent with the provisions of Government Code Section 54953(e), the Board of Directors finds and determines that (1) a state of emergency related to COVID-19 is currently in effect; (2) state and local officials have recommended measures to promote social distancing in connection with COVID-19; and (3) due to the COVID-19 emergency, meeting in person would present imminent risks to the health and safety of attendees. Based on such facts, findings and determinations, the Board authorizes staff to conduct remote teleconference meetings of the Board of Directors, including Committee meetings, under the provisions of Government Code Section 54953(e).

**Section 3. Effective Date of Resolution.** This Resolution shall take effect upon adoption and shall be effective for 30 days unless earlier extended by a majority vote of the Board of Directors in accordance with Section 4 of this Resolution.

**Section 4. Extension by Motion.** The Board of Directors may extend the application of this Resolution by motion and majority vote by up to 30 days at a time, provided that it makes all necessary findings consistent with and pursuant to the requirements of Section 54953(e)(3).

PASSED AND ADOPTED by the Board of Directors of the Municipal Water District of Orange County this 4<sup>th</sup> day of October 2021, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

I hereby certify that the foregoing is a true and correct copy of Resolution No. \_\_\_\_\_ adopted by the Board of Directors of Municipal Water District of Orange County at its meeting held on October 4, 2021.

ATTEST:

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Maribeth Goldsby, District Secretary  
Municipal Water District of Orange County



**ACTION ITEM**

October 20,2021

**TO:** Board of Directors

**FROM:** **Planning & Operations Committee**  
(Directors Yoo Schneider, Nederhood, Seckel)

Robert Hunter, General Manager

Staff Contact: Charles Busslinger,  
Vicki Osborn,  
Heather Baez

**SUBJECT: Cost Share Agreement between MWDOC and El Toro WD for consulting services for replacement of South Emergency Operations Center (EOC)**

**STAFF RECOMMENDATION**

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Staff recommends the Board of Directors authorize the General Manager to enter into a cost share agreement with El Toro Water District (ETWD) to pay the proportional share of consultant service costs for the replacement EOC as part of the ETWD Filter Plant Site Use Investigation and Design.

The total cost for consulting services for the ETWD Filter Plant Site Use Investigation and Design is estimated at \$651,147. MWDOC's share is estimated at \$270,056 plus a 10% contingency for a total of \$297,062 based upon proportional services for design, cost estimating, and construction support for a replacement EOC to be located on the ETWD filter plant site.

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**SUMMARY**

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ETWD hired Richard Brady & Associates in 2019 through a competitive bidding process to develop a preliminary design report and cost estimate for the removal and alternative site use of ETWD's decommissioned filtration plant. The report was based upon demolition of

Budgeted (Y/N): N	Budgeted amount:	Core __	Choice __
Action item amount: \$297,062		Line item:	
Fiscal Impact (explain if unbudgeted): Board approved use of cash reserves up to \$404,219 for this item on April 21, 2021.			

the existing facility and construction of a new garage for ETWD and a new EOC for WEROC on the existing building footprint. On April 21, 2021, the MWDOC Board approved proceeding with 1<sup>st</sup> year design and cost estimating services for a new EOC. MWDOC and ETWD then jointly developed and advertised a Request For Proposals (RFP) for site investigation and design services. As part of the RFP process, attendance at a mandatory pre-proposal meeting was required. Brady & Associates was the only consultant that attended the mandatory meeting. To validate Brady & Associates' proposal costs, MWDOC and ETWD hired ABS Consulting to provide an independent detailed cost estimate of the work required in the RFP. The ABS cost estimate was received on August 25, 2021 and Brady's initial proposal was received on September 2, 2021.

		Brady & Associates Bid Proposal	ABS Cost Estimate
Task 1	Project Meetings	\$ 39,480	\$77,614
Task 2	Review Site-Use Report & Drawings	\$ 12,675	\$31,365
Task 3	Geotech. & Demo. Report & Costs	\$ 58,539	\$63,730
Task 4	Clear Well Demolition & Infiltration/Retention Basin Study	\$ 2,144	\$32,312
Task 5	Demolition Design & Cost Estimates	\$ 68,227	\$108,456
Task 6	Buildings & Retention Basin Design Drawings & Specs	\$279,934	\$225,634
Task 7	Bid Support Services	\$14,634	\$25,940
Task 8	Construction Admin. Services	\$175,514	\$93,927
	<b>Total</b>	<b>\$651,147</b>	<b>\$658,978</b>
	<b>Difference</b>	<b>(\$7,831)</b>	<b>1.19%</b>

## Funding Opportunities

### Federal Funding

Both California Senators submitted a \$2 million congressionally directed spending request (earmark) on behalf of MWDOC for the WEROC EOC. At this time, the Senate is still very far behind in its appropriations process. Having passed a Continuing Resolution (CR) that will keep the government funded through mid-December, appropriators will now try to finalize the remaining appropriations bills, including the bill that could potentially include funding for the EOC. We won't know if Feinstein and Padilla's earmark requests were included in the legislation until the bill text is made public sometime later this fall.

### County Funding

On March 11, 2021, President Biden signed the American Rescue Plan Act (ARPA) of 2021 into law. The \$1.9T package is intended to support communities in their recovery from the COVID-19 pandemic, address economic fallout and lay the foundation for a strong recovery. The Coronavirus State and Local Fiscal Recovery Fund (SLFRF), under ARPA, allocates \$350B in funding for eligible state and local governments to respond to the COVID-19 pandemic. The SLFRF provides substantial flexibility for each government to meet local

needs. All funds must be obligated within the period of March 3, 2021 and December 31, 2024.

The County of Orange was allocated \$616.8M in SLFRF. The legislation requires the funds to be distributed in two equal rounds of funding. The first round was received on May 21, 2021, and all funds have been previously allocated, with the Board approving the final version via the September Budget Report on September 28, 2021.

The second round of funding, estimated at \$308.4M, is anticipated to be received no sooner than 12 months from the first payment, per guidelines outlined in the ARPA. In the County's September Budget Report, the CEO's recommendation for the second round includes \$39.2M of Board directed use. Currently there is no timeline estimate for requests for the second round of ARPA funding, but MWDOC staff will remain in contact with county staff, and follow up with Board offices in early Spring 2022.

### **Next Steps**

Upon Board authorization to proceed, staff will return to the Board in April 2022 with 30% cost estimates and design plans for discussions regarding the costs to construct the EOC as part of the FY 2022-23 Budget process.

## **BOARD OPTIONS**

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**Option #1:** Authorize the General Manager to enter into a cost share agreement with El Toro Water District (ETWD) to pay the proportional share of consultant service costs for the replacement EOC as part of the ETWD Filter Plant Site Use Investigation and Design.

**Fiscal Impact: \$297,062.** April 21, 2021 MWDOC Board approval authorized up to \$404,219 from reserves for this effort.

**Business Analysis:** Moves the project toward the goal of providing a properly-equipped and dedicated (primary) EOC that can be staffed and operational on a 24x7 basis along with an identified alternate (backup) EOC which is considered an industry "best practice" for critical infrastructure providers; thereby increasing Orange County's resilience and response capability to emergencies.

**Option #2:** Reject bid and re-advertise the project

**Fiscal Impact:**

**Business Analysis:** The RFP was advertised on PlanetBids.com which reaches a wide audience of construction contractors and consultants. Some comments received indicated a view by some that Brady & Associates may have a competitive advantage through completion of the preliminary design report and cost estimates. Rebidding the work will require an additional 6-8 weeks and does not guarantee additional bidders.

**COST SHARING AGREEMENT**  
**BETWEEN**  
**MUNICIPAL WATER DISTRICT OF ORANGE COUNTY AND**  
**EL TORO WATER DISTRICT**

This Cost-Sharing Agreement (“Agreement”) is dated for reference purposes this \_\_\_\_ day of \_\_\_\_, 2021, by the Municipal Water District of Orange County (“MWDOC”) and El Toro Water District (“ETWD”). MWDOC and ETWD are referred to individually as “Party” and collectively as “Parties.”

**RECITALS**

A. ETWD owns property (the “Site”) which includes a Water Filtration Plant (“Filter Plant”) that was taken out of service in approximately 1984. The Filter Plant consists of four sand bed filters and associated mechanical and electrical equipment and is housed in an approximate 13,000 square foot metal building. The Filter Plant, including the building, has experienced significant deterioration and decay since being taken out of service. The Filter Plant site also includes a 300,000 gallon, 54-foot diameter steel tank Clear Well that is in a similar state of disrepair; and

B. MWDOC currently occupies a portion of an existing ETWD office building on the Site for its existing Water Emergency Response Organization of Orange County (“WEROC”) Emergency Operations Center (“EOC”). The existing WEROC EOC structure is located directly to the west of the existing ETWD Filter Plant buildings. The existing structure does not meet current seismic code requirements and lacks sufficient space for WEROC’s needs; and

C. On July 23, 2021, MWDOC and ETWD issued a Request for Proposals (“RFP”) seeking a consultant to provide architectural and engineering services for a site investigation and design at the El Toro Water District Filter Plant Site (“Project”); and

D. The main objective of the Project is to evaluate and investigate the geotechnical requirements for the demolition and construction scope of work at the existing Filter Plant and Clear Well, including design and refined cost estimates for demolition of the existing facilities, construction of a new ETWD warehouse/storage building, construction of a new MWDOC Emergency Operations Center (“EOC”), and construction of an Infiltration/Retention basin in place of the existing Filter Plant and Clear Well; and

E. The purpose of this Agreement is to establish the responsibilities of the Parties and conditions on which each Party will contribute funds for the Project and enter into an agreement with the selected consultant.

**AGREEMENT**

**NOW, THEREFORE**, in consideration of the mutual covenants and conditions herein contained, the Parties hereby agree as follows:

1. **RECITALS.** The Parties agree that the above-stated Recitals are true and correct. The Recitals are incorporated herein and made an operative part of this Agreement.

2. **COST SHARING.** The Parties agree to share the costs of the site investigation and design for the Project as follows:

Task No.	Description	Cost Responsibility	
		ETWD	MWDOC
1	Review of Project Objectives/ Project Management	60%	40%
2	Review Site-Use Report and Record Drawings and Collection of Additional Data	100%	0%
3	Comprehensive Geotechnical Soils & Demolition Report Costing	85%	15%
4	Clear Well Demolition and Infiltration/Retention Basin Study	100%	0%
5	Demolition Design Documents and Cost Estimates	100%	0%
6	Building Structures & Retention Basin Design Documents and Cost Estimates	40%	60%
7	Bid Support Services	50%	50%
8	Construction Administration Support Services	60%	40%

3. **AGREEMENT WITH SELECTED CONSULTANT.**

a. The following indemnification provision shall be included in the agreement between MWDOC and ETWD and the selected consultant:

- i. **Indemnity.** To the fullest extent permitted by law, Consultant shall defend, indemnify and hold the Municipal Water District of Orange County, the El Toro Water District, their officials, officers, employees, volunteers, and agents (the “Indemnified Parties”) free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any acts, errors or omissions, or willful misconduct of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant’s services, the Project or this Agreement, including without limitation the payment of all damages, expert witness fees and attorneys’ fees and other related costs and expenses. Consultant’s obligation to indemnify shall not be restricted to insurance proceeds, if any, received by Consultant or the Indemnified Parties.

If Consultant's obligation to defend, indemnify, and/or hold harmless arises out of Consultant's performance of "design professional" services (as that term is defined under Civil Code section 2782.8), then, and only to the extent required by Civil Code section 2782.8, which is fully incorporated herein, Consultant's indemnification obligation shall be limited to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant, and, upon Consultant obtaining a final adjudication by a court of competent jurisdiction, Consultant's liability for such claim, including the cost to defend, shall not exceed the Consultant's proportionate percentage of fault.

b. The agreement between MWDOC and ETWD and the selected consultant shall conform with the following:

1. All required insurance policies shall name the Municipal Water District of Orange County, the El Toro Water District, their respective Boards and each member of the Boards, their officers, directors, employees, and agents as Additional Insureds under the policies.
2. All required policies shall contain a provision stating that Consultant's policies are primary insurance and that the insurance of the District or any named insureds shall not be called upon to contribute to any loss.

4. **DELIVERABLES.** The deliverables to be provided by the selected consultant shall be jointly reviewed and accepted by MWDOC and ETWD.

5. **CONTINUING THE PROJECT.** Following completion of the site investigation and design, in the event that ETWD chooses to not construct the warehouse/storage building, MWDOC may still proceed with construction of the EOC at the Site, on condition that the Parties enter into a separate agreement that contains all of the terms and conditions mutually acceptable to the Parties with regard to MWDOC's desire to proceed with the construction and occupancy of the EOC building site.

6. **TERM.** This Agreement shall become effective as of the date first written above and shall continue in full force and effect until either it is terminated in a writing signed by the Parties or the Project is completed.

7. **NOTICES.** Notices hereunder shall be in writing and shall be sufficient if delivered to the notice address of each Party hereto for legal notices or as otherwise provided by a Party hereto in writing to the other Party.

8. **GOVERNING LAW.** This Agreement is made in the State of California under the Constitution and laws of the State of California and is to be so construed.

9. **AMENDMENTS.** This Agreement may be amended at any time, or from time to time, by one or more supplemental agreements executed by the Parties to this Agreement, without limitation, including the addition of new Parties to pursue the purposes of this Agreement.

10. **SEVERABILITY.** Any provision of this Agreement that is declared invalid by a court of competent jurisdiction shall be considered separable and inapplicable and will not affect any other provision or provisions of this Agreement.

11. **BINDING EFFECT.** This Agreement will inure to the benefit of and be binding on the successors and assigns of the Parties.

12. **EXECUTION.** This Agreement may be executed in counterparts, each of which shall constitute an original.

IN WITNESS HEREOF, the Parties hereto have executed this Agreement.

MUNICIPAL WATER DISTRICT OF ORANGE  
COUNTY

Date: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

EL TORO WATER DISTRICT

Date: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

**BRADY**



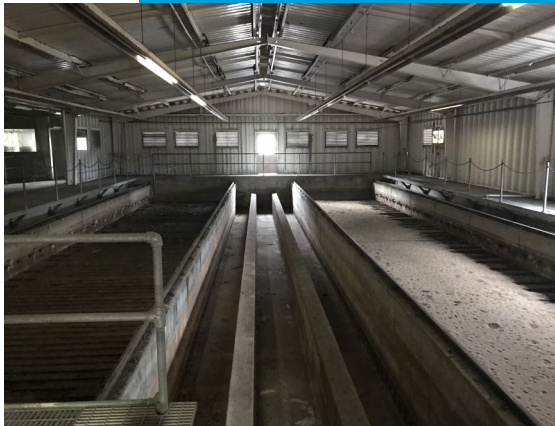
**El Toro Water District**

24251 Los Alisos Blvd.

Lake Forest, CA 92630

**FILTER PLANT SITE USE INVESTIGATION AND DESIGN**

**THURSDAY SEPTEMBER 2, 2021**



Submitted By:

**BRADY**

**Richard Brady & Associates, Inc.**

2655 Camino del Rio North, Suite 100

San Diego, CA 92108

## Why Choose Brady?

### 100% Alignment with El Toro Water District's Evaluation Criteria



#### No Learning Curve

BRADY prepared the Filter Site Usage Plan in 2019, delivering the final report in January, 2020, **on schedule and below budget.** As a result of our prior efforts on the project, BRADY has unmatched knowledge of the filter plant site. No time and associated costs will be expended by BRADY to “get up to speed”. We will truly hit the ground running. BRADY has been a “niche” engineering services provider for municipal Operations Building projects going back several decades. This is not a response to an RFP because it is something we would like to try for the first time.



#### Understanding of the Project and Project Approach

Our proposed **Project Manager, George Murdoch,** has more than **40 years** of hands-on public agency experience working for the City of Newport Beach. He is a roll-up-the sleeves “Ops guy”, has been involved with numerous similar renovation/consolidation projects and he served as the Project Manager for the first phase of this project for El Toro Water District. He knows all the players involved in this project, and will be supported by a team of energetic and experienced engineers, estimators, and design professionals. **You know what you will get from George and you can trust his expertise and wisdom.**



#### Scope of Work, Schedule, and Quality Control

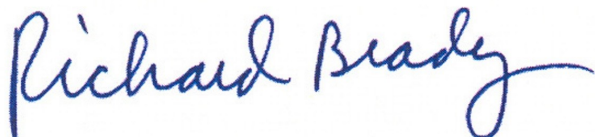
BRADY is highly skilled at managing challenging scopes, budgets, and schedules. Our design group is a close-working group with all of the necessary skill sets working side by side in our home office. Scope creep and schedules are blown when communication is poor. Communication and coordination are BRADY strengths. **We will get this investigation and design assignment completed, start to finish, in 12 months or less. QA/QC efforts will be led by BRADY CEO Richard Brady, P.E., BCEE.**



#### Cost, Contract, and Insurance Compliance

BRADY's smaller size and lean management structure provide for a **lower overhead structure,** leading to **cost competitive rates.** We can meet all of the District's administrative requirements including insurance, liability, and equal opportunity practices. **We take no exceptions to the District's professional services contract.**

Signature of officer of BRADY who is authorized to execute legally binding agreements:

A handwritten signature in blue ink that reads "Richard Brady".

September 2, 2021

## Executive Summary

Ladies and Gentlemen:

In response to your request for proposals, we are pleased to submit this proposal to the El Toro Water District (ETWD or District). BRADY has carefully considered the potential Scope of Work provided by ETWD, and has assembled an unmatched team to all provide all required services for the Filter Plant Site Use Plan Investigation and Design project. We understand the District's desire to reclaim the site of the abandoned water treatment plant for beneficial use for the erection of a new multi-purpose building in the old water treatment plant footprint. Fortunately this is not a difficult challenge, a project that BRADY has successfully executed on numerous similar occasions in award winning fashion. Led by **George Murdoch**, our professional team members are fully capable of meeting the project requirements and are committed to applying our skills and talents toward the accomplishment of ETWD's goals in an efficient and professional manner. We believe personal service, superior quality, and client satisfaction are the true measures of success in our industry.

## FIRM INTRODUCTION

BRADY is an engineering and construction management firm providing a wide array of services through three primary business lines:

- ◆ Water, Wastewater & Water Resources
- ◆ Facilities & Infrastructure
- ◆ Environmental Services

BRADY's client base includes commercial, municipal, local, state, and federal government clientele. BRADY is a true multi-discipline engineering, construction management, and construction firm (BRADY has a Class A Contractors license, which is a key differentiator that is rare in our industry) with substantial in-house technical resources. We are designers, constructors, operators, inspectors, and maintenance technicians for water systems, treatment plants, and related infrastructure facilities. Because of our unique multidisciplinary experience, we are committed to facilities that are safe, sustainable, simple, smart and secure. We believe this expertise will benefit ETWD by developing a solution to this particular problem that is practical, sustainable, and cost-effective.

## PROJECT TEAM

BRADY is a full service engineering firm that will be able to meet ETWD's needs from project planning through closeout. Our firm is experienced in all engineering disciplines, with specific expertise with demolition projects and in the design of Operations Buildings projects. **In addition to numerous similar projects we have completed for municipal clients in Southern California, BRADY served as the owner, designer, and builder of our own two-story 20,000 square foot Class A corporate headquarters building in 2006-2007.**

The proposed team for this project offers an optimal combination of extensive field experience, technical expertise and demonstrated commitment to safety. **George Murdoch** is our proposed Project Manager for this contract. Over the 38 years at the City of Newport Beach, George was involved in relevant projects such as: the demolition of existing facilities and construction of a storage facility at the Big Canyon Reservoir site; **needs assessment for the consolidation of corporate yards; construction of the Utilities Department emergency operations center (named George Murdoch DOC at retirement);** construction of the treatment facility at 16th Street as well as the re-design of many other utility facilities to include storage of large equipment and materials; and reconstruction of the radio tower and county communications facility. In addition to the many years of facility changes, **George has participated in WEROC activities,** and has a good working relationship with MWDOC and has a good understanding of utility operations and needs. He has conducted many public outreach meetings regarding new facilities.

Our expertise and history with water treatment plants and operations facilities upgrades sets us apart from our competition, adding value to our clients. We take pride in and truly enjoy the work that we do.

## INITIAL THOUGHTS

George Murdoch and Richard Brady jointly prepared the “Draft Report, Filter Plant Site Use Plan, Phase 1” dated January 2020. Mr. Murdoch and the BRADY team spent considerable time at the filter plant site during the development of the Draft Report, prepared the Draft report on schedule and under budget to the satisfaction of the District, and therefore is clearly the most qualified firm to move the project forward into the design and implementation phases. It is also clear that our potential competition for this assignment came to the same conclusion. BRADY’s experience on this project is unbeatable.

It is clear that the demolition of the abandoned structures in a timely and cost effective way is the primary and initial mission for this project. The facilities were tested for lead in Phase 1, so we already know we will have to manage a lead abatement problem. Additionally, asbestos cement pipe (ACP) was discovered inside the filter complex, and additional ACP pipe is likely buried around the project site, with locations and sizes to be determined. Asbestos was also found in bathrooms and HVAC ductwork. Removing asbestos as documented in Vert Environmental’s Asbestos Inspection Report will be an immediate priority, to clear the way for the work that will follow.

Removing metal coated with lead paint is not a challenging process. How to properly and safely abate the presence of lead paint is well understood and is not a concern. Likewise, the 300,000 steel tank Clear Well is painted with lead. We have estimated the potential salvage value of the Clear Well to be 90 tons. However, due to the presence of lead, this will likely result in a cost to the District for disposal, rather than a financial gain for the value of 90 tons of salvageable steel. How to execute this work — either hiring a Contractor through a blind competitive process where costs and markups are unknown but in favor the Contractor, or allowing BRADY to execute this work on the District’s behalf as the Contractor by obtaining competitive bids for comparison. These two options are worth discussion. It may be possible to convert the likely “cost to the District” scenario to a “cost benefit to the District” by simply changing the execution model.

Regardless of how we manage the demolition phase, in the end we will expose to view the old Hardinge filters concrete substructures. We have studied the design in our Draft Report and as we recommended in January 2020, we believe it is best and most cost advantageous to the District to leave the old concrete substructures in place and allow this perimeter outline to define the future multi-purpose footprint. The area can be filled with controlled low-strength material (CLSM), a self-compacted, cementitious material used primarily as backfill in place of compacted fill. This 2-sack cement slurry material would convert the entire subterranean structure to one monolithic concrete block, that would not only save the cost of unnecessarily demolishing these concrete walls and slabs, but provide the foundation and footprint for the new buildings.

A new building would only need a new footing on the outside edge of the existing perimeter Hardinge filter structure, constructing vertically immediately on top of the existing walls would not be adequate with current seismic codes. As recommended in the Draft Report, the proposed buildings will be erected using prefabricated metal panels.

Lastly, as we discuss throughout this proposal, the most likely obstacle to success is “stakeholder” acceptance and environmental issues that are not resolved in advance. Public meetings and face-to-face discussions with the adjacent property owners and interested parties (e.g. WEROC, AQMD, MWD) are imperative, and must happen early and often to flush out all relevant concerns. Renderings of the constructed project are helpful tools to clearly show the future outcome. Keeping promises is critical. We have found the general public to be very forgiving and understanding as long as we avoid surprises. We know and understand from direct experience working in residential communities that citizens can become very active and vocal regarding the project, and in particular, dust, noise, traffic during construction, and most importantly, the presence and removal of hazardous materials (asbestos pipe and lead paint) through a neighborhood full of children. An angry public is usually the result of poor communication. Beyond safety issues, the surrounding public will most likely be interested in “what will this look like from my condo?” followed by “why are there 30 cars on the site at midnight”? We will work closely with District staff to ensure the greatest chance of public acceptance possible.

# 1

### Utilities Operations Yard Upgrade

In 2011 BRADY was recognized with the APWA Project of the Year Award for providing a Facilities Master Plan, studies, and updates occurring from 2003 to 2007 for the City of Huntington Beach. BRADY provided designs for several new structures, and a design for a seismic remodel and upgrade to an existing 8,389 square foot Administrations building.



CLIENT	CITY OF HUNTINGTON BEACH
CLIENT'S REFERENCE	DEBBIE DEBOW, P.E. (see note below) Tel: (714) 330-3683
TIMEFRAME	2007-2011
CONTRACT VALUE	DESIGN: \$2.2M TOTAL: \$11.6M

Full disclosure: Ms. DeBow retired from the City of Huntington Beach in 2019 and now works part-time for BRADY.

# 2

### Temecula Field Operations Center

The City of Temecula in 2005-2007 Contracted BRADY to conduct a Facility Needs Assessment and provide a design for a new City Maintenance Facility and Corporate Yard. The project included a 3.35 acre build site, 23,600-SF building area made up of four separate structures, a 45,800 –SF parking area, a 49,000-SF maintenance yard area, and a 27,000-SF landscape area.

CLIENT	CITY OF TEMECULA
CLIENT'S REFERENCE	GREG BUTLER Tel: (951) 694-6411
TIMEFRAME	2005-2007
CONTRACT VALUE	DESIGN: \$1.5 CONSTRUCTION: \$10

# 3

### Alvarado Water Treatment Plant

From 1999-2013, BRADY personnel provided ongoing project management, construction management, master planning, and civil engineering support service for the design and construction of an expansion to the City of San Diego's Alvarado Water Treatment Plant. BRADY's scope of services included master planning, architecture, structural engineering, civil engineering, project management, cost control, project scheduling, and construction management and administration. BRADY's work allowed the plant to be re-rated from 150 mgd to 200 mgd by virtue of these fairly simple improvements, at minimal capital investment, helping BRADY to earn the 2013 American Society of Civil Engineers Outstanding Engineering Project Award.

CLIENT	CITY OF SAN DIEGO
CLIENT'S REFERENCE	MIKE WALLACE Tel: (619) 409-6884
TIMEFRAME	1999-2013
CONTRACT VALUE	DESIGN: \$25M CONSTRUCTION: \$250M

# 4

### BRADY's Previous Headquarters

BRADY financed, designed, and constructed our own 20,000 square foot company headquarters in 2006-2007. The building consisted of tilt up concrete walls and included an elevator to meet disabled employee needs both at the time of construction and for future employee needs.

CLIENT	Richard Brady & Associates (BRADY)
CLIENT'S REFERENCE	Richard Brady, CEO Tel: (619) 701-1956
TIMEFRAME	2006-2007
CONTRACT VALUE	DESIGN: \$0 (Internal cost) CONSTRUCTION, SHELL: \$5.6m INTERIOR IMPROVEMENTS, INCLUDING FURNISHING: \$2.2M

## B) Key Personnel

### PROJECT MANAGER - GEORGE MURDOCH

Mr. Murdoch has 38 years of experience in utility operations and management. Before joining BRADY, Mr. Murdoch served as the Municipal Operations Director for the City of Newport Beach. In this capacity, he managed a full – service water and wastewater utility as well as storm drain, streetlight and oil & gas operation with an annual operating budget of \$33M, and a staff of 60 employees serving a population of over 70,000. After retiring from the City of Newport Beach, he received the lifetime achievement award for 38 years of dedication and public service.



### QA/QC MANAGER - RICHARD BRADY, P.E., BCEE

Richard Brady is a Professional Engineer and Board-Certified Environmental Engineer with over 39 years of professional experience in water engineering. His experience includes treatment plants, municipal operations buildings, reservoirs, and pump stations.



His projects have been recognized with national awards, including the American Society of Civil Engineers 2013 Outstanding Civil Engineering Project for the Alvarado Water Treatment Plant Expansion and Upgrade. Mr. Brady will provide owner-level commitment to the success of this project, and will ensure that BRADY's technical resources remain in place throughout the project. His previous work in constructability review has saved clients substantial costs and resulted in improved and safer designs.

### PROJECT ENGINEER - GARRETT MURWASKY, P.E.

Mr. Murawsky has over 5 years of experience in the civil/structural engineering, design-build, and construction management professions. This experience has involved the management, quality control, design, and analysis of operation yards, buildings, utility structures, transmission structures, substations, gas lines, water lines, sewer lines, bridges, and water and wastewater treatment facilities. He has also provided overall management for the design and construction of various projects with structural, civil, architectural, mechanical, plumbing, and electrical discipline scope.



## B) Key Personnel, cont.

### SITE CIVIL ENGINEER - CHELSI PASCUA, EIT

Ms. Pascua is a civil engineer specializing in water and wastewater projects. She has assisted with numerous inspections and the design and drafting of several municipal projects. In her BRADY career, she has worked as a project engineer, designer, and inspector for 8 projects involving tanks and reservoirs. Ms. Pascua has a high attention to detail and is proficient in the use of AutoCAD Civil 3D aid in creating profiles, renderings, site grading plans, and detailed drawing designs.



### DESIGN PRODUCTION - JOEL REYES

Mr. Reyes has 37 years of experience in drafting, management, and systems administration in the fields of Architecture and Civil/ Structural Engineering. He has complete understanding of the BIM Industry standard and can integrate various models. Mr. Reyes maintains all CADD workstations and related software here at BRADY. His vast knowledge of multiple platforms and application software allow him to navigate and replicate various client-specific environments.



### COST ESTIMATION/DEMOLITION LEAD ENGINEER - JIM BOWEN, P.E.

Mr. Bowen is a Professional Engineer with more than 31 years of experience specializing in engineering, design, management and quality control of environmental and construction contracts. Mr. Bowen served as the Quality Control Program Manager on the Nation's first Environmental Multi-Award Contract (EMAC I) and performed as Project Manager and Deputy Program Manager on projects completed under the Navy's Environmental Job Order Contract (EJOC II). He has a thorough understanding of Design-Build and Design-Bid-Build project delivery methods and has direct experience with construction means and methods, manufacturing processes, electrical/mechanical system design and installation, start-up, and operation and maintenance activities.



### ELECTRICAL ENGINEER - RYAN NISHIMURA, P.E.

Mr. Nishimura is a Professional Engineer with more than 14 years of experience in electrical and control engineering. His experience includes designing, inspecting, and implementing electrical and control systems for reservoirs, treatment plants, pump stations, flow control facilities, centrifuges, and buildings. Mr. Nishimura possesses extensive field experience during installation and startup/commissioning of electrical and industrial control systems in the built environment.



## B) Key Personnel (Subconsultants)

### ARCHITECTURE - JEFF KATZ ARCHITECTURE

Jeff Katz Architecture is **JKA** j e f f k a t z **ARCHITECTURE** a group of experienced and well-qualified architecture professionals. They are idea people, facilitators, and love a good challenge. They understand that client priorities are paramount and it is their goal to exceed your expectations. The end product is important, but they want you to enjoy the process too! Whether they are involved in an all-hands design charette with the entire project team or following up on the tiniest detail via text message, they are confident that you will find their team friendly, engaging, and knowledgeable.

They are a Southern California based firm with experience ranging from Public Safety facilities to Military to Entertainment and Parks + Recreation. They have experience with local jurisdictions and entities.

### GEOTECHNICAL INVESTIGATION - GROUP DELTA

Incorporated in California in  **GROUP DELTA** April 1986, Group Delta has provided geotechnical and environmental engineering, instrumentation, materials testing and inspection, and construction support services for more than 30 years. Group Delta is staffed by 100 civil and geotechnical engineers, environmental engineers and scientists, geologists, laboratory and field technicians, deputy grading and construction inspectors, CADD designers, and support staff. Group Delta maintains offices in the cities of Irvine, Torrance, Anaheim, San Diego, and Ontario as well as accredited laboratories in San Diego and Anaheim. They have served clients in both the public and private sectors throughout its history and have developed expertise in various types of projects.

### POTHOLING SERVICES - AIRX

AirX Utility Surveyors, Inc. is Southern California's premier full-service Subsurface Utility Engineering service provider for over 17 years. Their skilled engineers, contractors, managers, locators, and potholers possess more than



50 years of trad experience locating and identifying underground utilities. Their services ensure work and cost efficiency and, most importantly, safety. They have completed over 2300 projects, including an ongoing 10-year, billion-dollar project to test and/or replace outdated gas lines throughout Southern California.

### COST ESTIMATING - RLB

Rider Levett Bucknall (RLB) is a leading professional construction consultancy firm



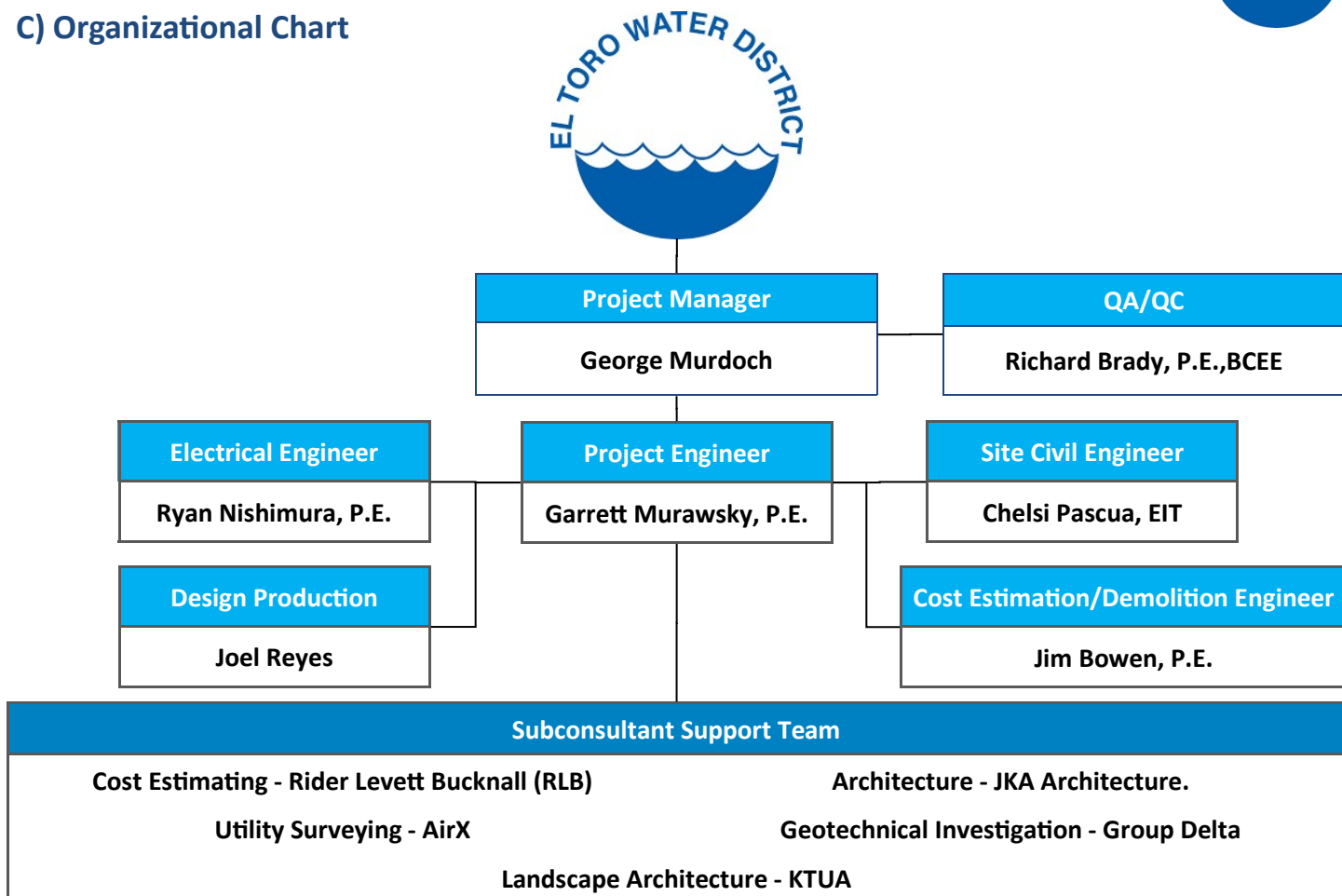
providing clients with independent management and unbiased, expert advice for all aspects of the feasibility, cost, and time of major construction projects. RLB provides full cost management services from conceptual and detailed estimating, cost planning, cost control, and construction risk management. The firm's construction cost managers have experience producing detailed cost estimates for public works projects. ENR is the industry leader in estimating. They are annual contracted directly with Engineering News Record (ENR) to prepare monthly and annual cost indexes for the construction engineering. We want to get an accurate bid cost for this project and there is no better source for this than RLB.

### KTU&A Landscape Architect

KTU&A was established in 1970 as a landscape architecture and is knowledgeable in active transportation, community planning, federal planning and natural resource management. They employ landscape architects, GIS analysts, irrigation designers and graphic artists and have designed award-winning, creative and sustainable projects throughout the southwest.



## C) Organizational Chart



## D) Current and Future Workload

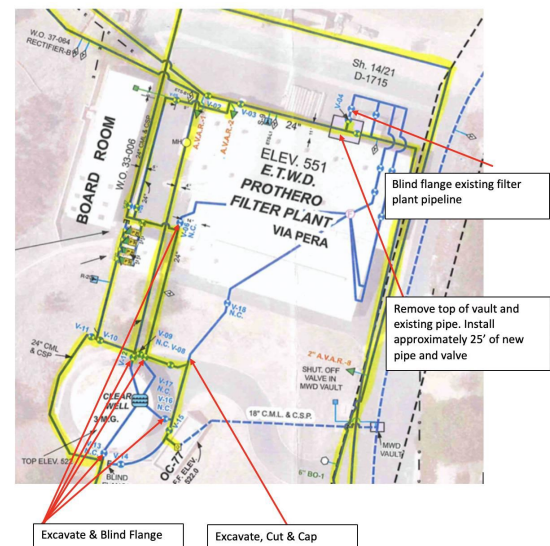
BRADY's current workload can be considered moderate. All staff identified in the Organizational Chart above will be dedicated to this assignment until completion, without change. George Murdoch, BRADY's proposed Project Manager, has only two current Project Manager assignments, both with Laguna Beach County Water District, so selection of BRADY for this project will be a delight to those at BRADY who track billable time, as currently George is at 25%. All other staff members have more than adequate unallocated billable time for the next 12 months to support every activity needed to complete this project.

## E) Project Approach and Detailed Scope of Work

BRADY has reviewed the Scope of Work and is fully prepared to execute the work as written with no deviations. We do recommend an addition to the Scope to include BRADY's QA/QC program that can be found in Appendix A. We have also enhanced the Scope of Work for our geotechnical activities that can also be found in Appendix A. We prefer to design a project just one time, and do not view QA/QC as an error catching program, it is error prevention. We allocate 5% of each budget for QA/QC activities, with the goal of making sure at the outset of the project we are headed in the right direction.

Our approach to efficiently executing the work will require the close attention to the following key success factors.

1. The first order of business is to finalize our "Draft Report, Filter Plant Site Use Plan, Phase 1" dated January 2020. Space needs of both the District and MWDOC must be confirmed or adjusted as necessary.
2. Perform the geotechnical work immediately to develop design criteria for the proposed new facilities.
3. Prepare architectural renderings of the final proposed project.
4. Asbestos was discovered in Phase 1 and we recommend a separate procurement package be developed to allow asbestos to be removed before any other contractor arrives on site.
5. We will focus heavily on the initial 30% design submittal for the new buildings to provide sufficient detail to assure an accurate cost estimate. The cost of this project is a key decision point for moving forward, or making adjustments in the project scope.
6. Potholing existing utilities.
7. Meeting with AQMD to assure we clearly understand their specific needs, and get this out of the way separately so there is no interference with other work.
8. Meet with the surrounding community to let them know what is being planned, and to flush out any manageable concerns.
9. We recommend the design be split into multiple packages to assure competitive quotes for various items of work for focus by specialty contractors. Packages would include:
  - A. Demolition of the existing building and steel water tank. This will allow for the salvage value of steel to be maximized.
  - B. Work associated with pipe relocations and abandonment (image at right)
  - C. New structures.
10. Meeting our budget and schedule. Nothing good happens when budgets are blown and schedules are not met.



### ESTIMATE OF THE LEVEL OF EFFORT (PERSONNEL HOURS) TO BE EXPENDED

As required by the RFP, the table below summarizes our level of effort (personnel hours) to accomplish the Scope of Work included in Appendix A.

	1	2	3	4	5	6	7	8	
Labor Category	Task 1 - Review of Project Objectives / Project Management	Task 2 - Review Site-Use Report and Record Drawings and Collection of Additional Data	Task 3 - Comprehensive Geotechnical Soils and Demolition Report and Costing	Task 4 - Clear Well Demolition and Infiltration / Retention Basin Study	Task 5 - Demolition Design Documents and Cost Estimates	Task 6 - Building Structures and Retention Basin Design Documents and Cost Estimates	Task 7 - Bid Support Services	Task 8 - Construction Administration Support Services	TOTAL
Senior Program Manager / Senior Principal	56.0	-	-	-	-	-	-	-	56.0
Program Manager / Principal Engineer II	80.0	-	-	-	8.0	-	8.0	80.0	176.0
Senior Engineer / Project Manager	-	-	-	-	-	-	-	40.0	40.0
Project Engineer	-	-	8.0	-	120.0	120.0	40.0	316.0	604.0
Associate Engineer	-	-	-	16.0	16.0	-	-	40.0	72.0
Senior Designer	-	8.0	-	-	120.0	200.0	-	40.0	368.0
Construction Manager	-	-	40.0	-	80.0	40.0	16.0	200.0	376.0
<b>Subtotal Labor Hours</b>	<b>136.0</b>	<b>8.0</b>	<b>48.0</b>	<b>16.0</b>	<b>344.0</b>	<b>360.0</b>	<b>64.0</b>	<b>716.0</b>	<b>1,692.0</b>

LABOR HOURS	LABOR HOURS BY WBS						
	1.01	1.02	2.01	2.02	3.01	3.02	4.01
Labor Category	Project Meetings	QA/QC	Report and Review Drawing Review	Additional Utility Data Collection	Geotechnical Report	Demolition Study and Costing	Clear Well Demolition and Infiltration / Retention Basin Study
Senior Program Manager / Senior Principal	16.0	40.0	-	-	-	-	-
Program Manager / Principal Engineer II	80.0	-	-	-	-	-	-
Senior Engineer / Project Manager	-	-	-	-	-	-	-
Project Engineer	-	-	-	-	8.0	-	-
Associate Engineer	-	-	-	-	-	-	16.0
Senior Designer	-	-	-	8.0	-	-	-
Construction Manager	-	-	-	-	-	40.0	-
	96.0	40.0	-	8.0	8.0	40.0	16.0

LABOR HOURS	5.01	5.02	6.01	6.02	7.01	8.01	TOTAL
	Demolition Drawings and Specifications	Demolition Cost Estimates	Building Structures and Retention Basin Design Drawings and Specifications	Building Structures and Retention Basin Cost Estimates	Bid Support Services	Construction Administration Support Services	
Senior Program Manager / Senior Principal	-	-	-	-	-	-	56.0
Program Manager / Principal Engineer II	8.0	-	-	-	8.0	80.0	176.0
Senior Engineer / Project Manager	-	-	-	-	-	40.0	40.0
Project Engineer	120.0	-	120.0	-	40.0	316.0	604.0
Associate Engineer	16.0	-	-	-	-	40.0	72.0
Senior Designer	120.0	-	200.0	-	-	40.0	368.0
Construction Manager	40.0	40.0	-	40.0	16.0	200.0	376.0
	304.0	40.0	320.0	40.0	64.0	716.0	1,692.0



## G) Not-to-Exceed Fee

BRADY has provided a detailed not-to-exceed fee which includes hourly rates, direct expenses, subconsultants' fees, and is broken out by task and labor category. The project fee can be found in the separate sealed envelope along with this proposal.

## H) Detailed Schedule

Meeting the schedule objectives of this project is a very important factor that will determine the ultimate success of efforts.

Methods BRADY will use to meet the schedule objectives:

1. Conduct the kick-off meeting the day following the notice to proceed. This meeting will be in a workshop format District and MWDOC management, engineering and operations and maintenance staff. Roles and responsibilities will be defined; space planning needs identified in the Draft Report will be re-evaluated and confirmed; project objectives will be identified as target goals that must be met; and all critical path items will be identified.
2. As it stands now, we see the critical path items as follows:
3. Finalize the Phase 1 Draft Report from January 2020.
  - a. Confirming all space planning recommendations made in the Draft Report.
  - b. Completing the geotechnical investigations.
  - c. Pothole existing utilities.
  - d. Confirming the type of type of new building construction.
4. Prepare Design Packages
  - a. Preparing a separate procurement package to allow the immediate removal of asbestos discovered in Phase 1.
  - b. To properly separate trade work and receive competitive pricing (work that is separate from demolition), prepare a separate design package for work associated pipe relocations and abandonment.
  - c. Prepare a separate design package for all demolition activities, including the existing steel tank. This package will be developed to 100% and placed out to bid, as this is the only way to determine the true cost. Any estimate we prepared will be flawed as we don't have insight into the salvage market. Once the price is know, the District can decide to move forward to re-think the demolition effort.
  - d. Prepare a separate design package for all new facilities.
5. Other activities.
  - a. Completing work related to visual impacts - preparing renderings for review by project Stakeholders. In order to demonstrate that the architectural and landscape design approaches will be pleasing to the community, graphics that demonstrate the height, massing, and character of the architecture and landscape screening will be prepared.
  - b. Pursuant to the California Environmental Quality Act (CEQA), the environmental review process is required for projects that require discretionary approval by a government agency. Completing the CEQA process by the District in a timely manner is essential for project success.
  - c. Landscaping, though a likely small component of the project, is an important aspect with respect to visual impact mitigation.

## **I) Professional Services Contract Agreement**

BRADY has read and has suggested language changes found directly below:

### BRADY comments to Consulting Agreement – El Toro Water District

Please add as follows:

“DISTRICT agrees that in connection with the Services, ENGINEER has no control over or responsibility for the cost of labor, material, equipment, or the outcome of the competitive bidding process. If ENGINEER provides any opinion of probable cost, it shall be based on its experience and qualifications and represent its judgment as a consultant familiar with the construction industry but shall not be a guarantee or representation that construction costs will not vary from its opinions of probable cost.”

Section 5. Please add at the end of the section the following: “Irrespective of any language to the contrary in this Agreement, ENGINEER has no duty to provide or to pay for an up-front defense against unproven claims or allegations, but shall reimburse those reasonable attorney’s fees incurred by the DISTRICT to the extent caused by the negligence, recklessness, or willful misconduct of ENGINEER or any of ENGINEER’s officers, agents, employees or contractors. ENGINEER’s aggregate liability for the obligations in this Section 5 (inclusive) shall not exceed the amount of insurance proceeds available under the policies of insurance required to be maintained by ENGINEER under this Agreement. Provided further, ENGINEER shall not be liable under this Agreement for any indirect, incidental, consequential (including loss of profits), or special damages, of any nature whatsoever.”

## **J) Insurance Form Agreement**

BRADY has read and understands that it will provide the District with the requested insurance as outlined in the sample contract. Upon award of the project contract, BRADY will provide professional liability coverage at a minimum of \$2,000,000 and general liability and property damage at a minimum of \$2,000,000.

## **K) Addenda Acknowledgement**

No addenda was issued for this RFP.

## **Appendix A: Scope of Work Suggested Additions**

## Appendix A) Scope of Work Suggested Additions

The Scope of Work included in the RFP was very well prepared and is acceptable to BRADY. All major scope items are more than adequately covered and were used to prepare our fee estimate included in Envelope "A". We have added a few additional scope items or clarifications as noted below.

### Task 1

#### ADD:

#### B) Quality Assurance/Quality Control (QA/QC)

1. Prepare a Project/Quality Plan. BRADY will prepare Project/Quality Plan for use by all design team members, and a project specific Quality Assurance/Quality Control (QA/QC) Plan will be a part of this document to ensure that the company produces and delivers professional engineering services and work products to the highest standard that can be expected in the engineering industry. When this QA/QC Plan is implemented, a formal documented system of procedures and instructions will be used. With this QA/QC Plan, efficiency and accuracy will be increased, allowing BRADY to prepare deliverables on time and within budget. This is an error prevention program, not an error catching program. Approximately 5% of BRADY's design budget is allocated to QA/QC activities. QA/QC procedures will involve the independent review of technical memoranda, calculations, design drawings and specifications throughout their production. These procedures will also include internal auditing of the project fiscal and schedule status. This task will include specific reviews at PDR level, 50 percent and 90 percent level of completion, and will include interdisciplinary review meetings, final design completion, and/or other reviews as may be necessary. Quality Control also assures day-to-day review of work products and deliverables.

#### Task 1 Deliverables

- 1) Meeting Agendas & Minutes (electronic)
- 2) Monthly Status Reports (electronic)
- 3) Monthly Updated Project Schedules (electronic)
- 4) Monthly Invoices
- 5) Project Quality/Plan

### Task 3 – Comprehensive Geotechnical Soils & Demolition Report and Costing

#### ADD:

#### Subsurface Exploration

We propose two days of subsurface exploration to complete five hollow stem auger test borings using a truck mounted drill rig at the site. Specifically, we propose to advance four borings around the perimeter of the abandoned Filter Plant buildings and one boring at the Clear Well structure for the infiltration site assessment discussed below. The borings will extend a minimum of 5 feet into competent formational materials or to a maximum depth of 20 feet, whichever depth is shallower.

The field work will consist of the following activities:

- Coordinate with Brady and El Toro Water District to obtain permission to access the site.
- Mark out the locations of the explorations.
- Notify Underground Service Alert (USA) and subcontract with a private utility locating service to review the location of explorations relative to underground utilities prior to commencing the field work.

- Subcontract with a drilling subcontractor and advance the hollow stem auger test borings to the target depths, or shallower if drilling refusal is encountered. When drilling, obtain bulk samples in the upper 5 feet and samples at depths of about 2, 5, 7.5 and 10-feet, and then at 5 to 10-foot depth intervals thereafter using Modified California and Standard Penetration Test split-barrel samplers. A Group Delta engineer or geologist will supervise the field work, log the test borings, and collect the soil samples.
- Abandon the explorations with soil cuttings and/or bentonite and thin spread any remaining spoils within earth surfaced areas of site.

### **Geotechnical Laboratory Testing**

Group Delta will conduct laboratory testing on selected soil samples to evaluate physical and engineering properties. Our accredited laboratory in San Diego will perform the testing per ASTM International and Caltrans standards. The emphasis of the testing will be to assess: 1) index properties of the soils for classification, 2) elastic and consolidation settlement, 3) soil shear strength, 4) the potential for soil expansion or collapse, and 5) soil corrosivity. We will determine the actual laboratory testing program following completion of the subsurface exploration.

### **Interpretation and Geotechnical Reporting**

We will interpret the findings from the subsurface exploration and laboratory testing and conduct geotechnical evaluations and analyses to prepare a geotechnical investigation report that provides the information listed below.

- 1) *General*
  - a. Generalized soil and groundwater conditions
  - b. Geologic and tectonic setting
  - c. Assessment of geologic and seismic hazards such as surface fault rupture, strong ground motion and liquefaction and secondary effects
  - d. Assessment of geotechnical conditions such as expansive and compressible soils, and corrosivity screening
- 2) *Seismic Design*
  - a. Site Class in accordance with the latest version of the California Building Code
  - b. Mapped seismic design parameters in accordance with the latest version of the California Building Code
- 3) *Shallow Foundations*
  - a. Recommendations for allowable vertical and lateral bearing pressures
  - b. Estimates of total and differential settlement
  - c. Recommendations for footing position and embedment
  - d. Considerations for Risk Category II and IV structures, as appropriate

## **Task 6 – Building Structures & Retention Basin Design Drawings and Specifications**

### **ADD: Clarifications from**

#### **CONCEPTUAL DESIGN PHASE**

1. Meet with Project Team to discuss budget, program, schedule and design issues. This meeting will include meeting with the Water District and stakeholders to gather input for project requirements.
2. Meet with County Building and Planning Department to review all requirements including design review, accessibility issues and approval process.
3. Work with Brady to prepare space needs / program document per discussions with the project team.
4. Develop Preliminary Building Floor Plans and Building Elevations for the project. These designs will build on the information already completed to date, but with modifications recommended "Best Practices".

After obtaining approval of a preferred design option we will proceed into Schematic Design.

#### **SCHEMATIC DESIGN PHASE**

1. Refine Concept Plans to reflect overall scope requirements. These plans will be schematic in nature and are intended only to provide information with regard to overall extent of the project. Included will be site plan, concept electrical/lighting plans, concept mechanical plans, preliminary structural plans and architectural plans to describe design intent for each of the project elements and systems.
2. Prepare preliminary interior and exterior renderings of proposed design and provide an initial walk-thru of the 3D model for design review.
3. Prepare preliminary material and equipment selections for review.
4. Coordinate with provided civil engineering and landscape architecture consultants.
5. Present to Project Team for schematic design review and approval to proceed with current scope extents. At this stage any adjustments to the scope/program should be identified.
6. Make required presentations to various agency review organizations to review proposed design. Proposal assumes one County presentation.
7. Make required modifications to Schematic Design to obtain Schematic Design and Site Plan approval.
8. After obtaining approval of Schematic Design we will proceed into Design Development.

### **DESIGN DEVELOPMENT PHASE**

1. Refine design of Site Plan, Architectural Plans, and Engineering Plans
2. Meet with the County Building Department and any applicable utility companies or other points of coordination to establish expectations for the project and understand timelines for incorporation into the project schedule.
3. Prepare updated design renderings and conduct Virtual Reality walk thru.
4. Provide submittal and presentation to Project Team for design review and approval to proceed with current program and design direction.
5. After obtaining approval of Design Development we will proceed into Construction Documents.

Attend progress meetings with stakeholders (assume 1 meeting for this phase).

### **CONSTRUCTION DOCUMENTS PHASE**

1. Prepare drawings and associated documents required for approving agencies and incorporate all required revisions/corrections as necessary to obtain required approvals.
2. Prepare drawings and specifications suitable for bidding to clearly delineate the Contractor's scope of work.
3. Submittals will be made at 60% CDs, 90% CDs, 100% CDs and will include plans and specifications. A final FOR CONSTRUCTION document set will be distributed for construction once permitting is complete. It is assumed that the Client will provide any required General and Supplementary Conditions and Bidding Information. Structural design will be for foundation systems only.
4. Submit plans to County Building Department for plan check, and perform all required revisions to construction documents based on Department's plan check comments (Note: plan check and permit fees are not included).

Meet with Project Team (one meeting) to review final design and construction documents.

### **BIDDING PHASE**

1. Provide drawings and specifications (in electronic format) for bid package. For this proposal it is assumed that the Client or their selected contractor will advertise, assemble and distribute bid packages as required.
2. Interpret and clarify contract documents for contractors, and assist in issuing addenda as required.
3. Attend a Pre-Bid walkthrough at the site with all interested contractors.

Participate in bid review of contractor's detailed cost breakdown and assist in evaluation of the bids.

### **CONSTRUCTION ADMINISTRATION PHASE**

Construction contract administration services are based on a Nine month construction period, from Authorization to Proceed through Punch list Inspection. The following services will be provided:

Attend Pre-Construction conference.

Review and approve or take other appropriate action upon Contractor's submittals and shop drawings as required by contract documents.

Interpret contract documents (including all contracted sub-consultant disciplines) for proper execution and progress of construction, including responding to contractor's requests for information and clarification, and issuing ASI's (Architect's Supplemental Instructions).

Make one scheduled site visit every other week during the course of construction (total of 18) to observe the project, and prepare site visit report (meeting minutes). Site visit shall include meeting with contractor and Client representative to review progress of construction, review pending RFI and Change Order information, and observe the construction to verify work is proceeding in accordance with construction documents.

Make one additional site visit to perform Punchlist Inspection, and one additional visit to perform Final Inspection. Punchlist Inspection will include a detailed listing of all items remaining to be completed by the Contractor. Final Inspection will certify that all work has been completed in accordance with construction documents.

Assist in review of contractor's initial and progress schedules and Schedule of Values.

Assist in reviewing and processing contractor's progress payment requests, and certifying the amounts due to the contractor.

### **ASSUMPTIONS & ADDITIONAL SERVICES**

The following items are not included in the Basic Services, and will be provided as additional services only after written authorization is received. Unless a subsequent fixed fee proposal is provided, the work will be done on an hourly basis.

Additional Services not included in our basic scope of work include:

1. Civil Engineering and Landscape Architecture.
2. Fire Protection design and engineering (to be done as a deferred submittal).
3. Topographic survey, boundary survey, Title search, easement identification, etc.
4. Geotechnical survey and report.
5. Structural engineering for the building shell. If PEMB is not utilized for building design additional fees will be required.
6. Revisions to Contract Documents resulting from Owner requested changes to documents previously approved by the Owner, or due to code or zoning changes made subsequent to Owner approval.

7. Preparing separate construction document packages for discretionary permits or alternate bid items.
  8. Attendance of any public hearings and/or additional meetings other than detailed in the proposal.
  9. Services required because of significant changes in the project (not due to the design team's acts or omissions) including, but not limited to, size, quality, complexity, schedule, or the method for bidding and contracting for construction.
  10. Processing change requests for Owner requested changes, and for unforeseen site conditions, after bid, including revisions to Contract Documents, processing approval of revisions through the Building Department, and Change Order negotiation.
  11. Providing services in conjunction with implementing substitutions proposed by the Contractor, and making subsequent revisions to Contract Documents resulting from such.
  12. Providing services made necessary by the default of the Contractor, by major deficiencies in the work of the Contractor, or by failure of performance of either the Owner or the Contractor under the Contract for Construction.
  13. Providing services in conjunction with arbitration proceedings or legal proceedings, except where the Architect is a party to such proceedings.
  14. Providing "Special Inspection" services required by law or the Contract Documents.
  15. Traffic Engineering Services.
  16. Commissioning or Enhanced Commissioning Services.
  17. Preparation of documentation to process the project through the US Green Building Council as a LEED project.
  18. Design of photo-voltaic electrical generation systems (code required solar ready infrastructure is included in basic scope).
- Plan check and permit fees are not included and are to be paid by the Client.

## **Appendix B: Project Descriptions**

## Appendix B: Project Descriptions

# 1

### Utilities Operations Yard Upgrade

A Facilities Master Plan and study was prepared by the BRADY team for the utilities operations yard in 2003, with additional studies and updates occurring in 2006 and 2007. The studies provided the concept designs and recommendations to enhance operating efficiencies and effectiveness through budgeting, design, and construction of new and remodeled facilities to meet present and future staffing and operational needs. The Facilities Master Plan was accepted in late 2007 which included structural, civil, architectural, mechanical, plumbing, electrical, and landscaping scope. BRADY was contracted to prepare the contract documents for the required operations yard improvements project, including:

<b>CLIENT</b>	<b>CITY OF HUNTINGTON BEACH</b>
<b>CLIENT'S REFERENCE</b>	<b>DEBBIE DEBOW, P.E.</b> Tel: (714) 330-3683
<b>TIMEFRAME</b>	<b>2007-2011</b>
<b>VALUE OF CONSTRUCTION CONTRACTS</b>	<b>DESIGN: \$2.2M</b> <b>TOTAL: \$11.6M</b>

- A remodel and seismic upgrade of the existing Operations/Administration Building (8,389 square feet);
- Design of a new Operations Building to provide for training, GIS, water quality, and expanded laboratory facilities (6,714 square feet);
- Design of new Distribution & Meter Building to provide for workshops for the water distribution and metering, and wastewater operations (11,096 square feet)
- Design of a new storage facility addition to the existing Production Building (990 square feet);
- Design of a new covered storage and fleet parking structure;
- Design of new material bays and fluoride tank structure;
- Associated site work including landscaping, site fencing, and relocation of existing miscellaneous support facilities

**BRADY was recognized for the completion of this project with the 2011 APWA Project of the Year Award.**



## 2 Temecula Field Operations Center

BRADY was contracted by the City to conduct a Facility Needs Assessment and provide a design for a new City Maintenance Facility and Corporate Yard. This project was constructed on a 3.35 acre site adjacent to City Hall. The project was being phased to provide for early use of additional parking facilities needed for current City operations, and to allow for full facility implementation and execution of the work within a City established CIP budget and cash flow. The Facility was programmed to accommodate for expanding City operations and services demand anticipated to peak in 2015.

CLIENT	CITY OF TEMECULA
CLIENT'S REFERENCE	GREG BUTLER Tel: (951) 694-6411
TIMEFRAME	2005-2007
VALUE OF CONSTRUCTION CONTRACTS	DESIGN: \$1.5M CONSTRUCTION: \$10M

The complex of structures consisted of a 23,600-SF total building area (made up of four separate structures), a 45,800 –SF parking area, a 49,000-SF maintenance yard area, and a 27,000-SF landscape area. Over 700 linear feet of masonry retaining/screen walls were provided. Sustainable design features were used throughout the complex, some of which were recycled materials, natural ventilation and daylighting, low water-used fixtures and irrigation, and low building energy use. Stringent structural design measures were required to mitigate the potential hazards of an earthquake fault below the site.

One structure was a multi-occupancy two-story steel framed building with a total of 17,750 square feet. The structural system consisted of a steel frame system utilizing special moment resisting frames for resisting earthquake forces. Additional building components consisted of concrete slab-on-grade for the first floor, metal decking with lightweight concrete fill supported on steel beams at the second floor and roof levels, steel wide flange and tube columns supporting the second floor and roof framing, conventional spread footings supporting steel columns and steel studs with stucco finish for the exterior walls. Three steel framed exterior covers consisted of a storage facility, a covered parking facility, and a wash facility. The covers were primarily roof canopies with limited wall siding. The structural system was cantilevered steel tube columns supporting steel roof framing. Tapered steel roof girders efficiently provided minimum required roof slopes and supported conventional steel wide flange purlins. Metal roof decking provided the structural substrate for architecturally enhancing standing seam metal roofing. The cantilevered tube columns were supported by cast-in-place concrete drilled piers.

All design work for this project was performed in accordance with the strictest project specific quality control procedures, and in cooperation with client quality assurance requirements. Subconsultants were involved in early partnering sessions, and conformed to QC requirements throughout design development. The well received design was accomplished within budgetary and schedule parameters. Stringent cost control procedures resulted in zero additive construction change orders.



## 3

**Alvarado Water Treatment Plant**

From 1999-2013, BRADY personnel provided ongoing project management, construction management, master planning, and civil engineering support service for the design and construction of an expansion to the City of San Diego's Alvarado Water Treatment Plant.

<b>CLIENT</b>	<b>CITY OF SAN DIEGO</b>
<b>CLIENT'S REFERENCE</b>	<b>MIKE WALLACE</b> Tel: (619) 409-6884
<b>TIMEFRAME</b>	<b>1999-2013</b>
<b>VALUE OF CONSTRUCTION CONTRACTS</b>	<b>DESIGN: \$25M</b> <b>CONSTRUCTION: \$250M</b>

The Alvarado Water Treatment Plant project for the City of San Diego required multiple, simultaneous contracts to expand and upgrade the existing facility, including the complete renovation of the Operations Building. Richard Brady, P.E., BCEE, performed the building code upgrade, including seismic improvements, of the existing Operation Building to provide a new control room, offices, laboratory, locker facilities, and public restrooms. The work included utility and HVAC upgrades throughout the facility and involved significant environmental, lead and asbestos abatement work.

BRADY's scope of services included master planning, architecture, structural engineering, civil engineering, project management, cost control, project scheduling, and construction management and administration. BRADY performed constructability reviews and plan checks, provided construction inspection and testing services, acted as the Owners representative, and performed contract administration. BRADY engineers designed numerous improvements to eliminate waste by-products; reduce chemical feed requirements for most chemicals while eliminating others entirely (lime and ammonium hydroxide); improvements to treatment processes to obtain the maximum output from facilities originally constructed in the 1940's; and the introduction of new processes such as ozone disinfection that reduced the use of chlorine by nearly 80%. Our team increased the production capacity of the original filters from 70 mgd to 120 mgd, at a cost that was less than 4% of the cost to construct entirely new filters. We replaced the filter underdrains that allowed the removal of the gravel layer of media and thereby increasing the filter driving head by 18 inches; the washwater troughs were raised to reduce the amount of filter media loss that occurred during backwashing; the surface wash system was replaced with a fixed grid system that also reduced the amount of media lost during backwashing while the filter bed was expanded; and we added filter-to-waste that allowed the first slug of high turbidity water to be recycled back to the plant influent, and not into the distribution system. All of these improvements together, costing less than \$1 million dollars compared to the \$50 million dollars for an equivalent new filtration module, allowed the improved filters to be re-rated at 6 gallons per minutes per square foot of filter surface area, equal to the maximum amount allowed by the Surface Water Treatment Rule. This then allowed the plant to be re-rated from 150 mgd to 200 mgd by virtue of these fairly simple improvements, at minimal capital investment.

**This project won the 2013 American Society of Civil Engineers Outstanding Civil Engineering Project Award.**



## Appendix C: Resumes


**YEARS EXPERIENCE**

38

**PRIMARY WORK LOCATION**

Orange County

**EDUCATION**
Water Utility and  
Environmental Resources
**LICENSES /  
CERTIFICATIONS**

California State Water  
Resources Control Board  
Water Grade V Water  
Distribution Certification  
(#3157) and Grade II Water  
Treatment Certification  
(#11727)  
American Water Works  
Association Grade III Water  
Distribution Certification

**PROFESSIONAL  
AFFILIATIONS**

Association of California  
Water Agencies (ACWA)

American Water Works  
Association (AWWA)

**Professional Summary**

George Murdoch has over 38 years of experience in utility operations and management. His primary areas of expertise include water distribution and treatment, wastewater operations as well as storm drain, streetlight, and oil & gas operations. He maintains the highest level of state water distribution certification and certified in water treatment. During his career he participated in the construction of two treatment facilities, a reservoir cover, numerous lift stations and pumping stations as well as built the Supervisory Control and Data Acquisition system (SCADA). Before joining Brady in 2018, Mr. Murdoch served as the Municipal Operations Director for the City of Newport Beach. In this capacity, he managed a full-service water and wastewater utility as well as storm drain, streetlight and oil & gas operation with an annual operating budget of \$33M and a staff of 60 employees serving a population of over 70,000. After retiring from the City of Newport Beach, Mr. Murdoch received the lifetime achievement award for 38 years of dedication and public service. Mr. Murdoch currently serves as a board of directors for a local water agency.

**Work Experience**

**Brady (2018)** - Assist cities and districts with annexation of service boundaries. Coordinate efforts with Local Area Formation Commission. Assist with oil well strategic planning. Assist with Supervisory and Data Acquisition strategic planning and updates.

**City of Newport Beach Utilities General Manager/Municipal Operations Director (2007-2018)**

- Responsible for directing and managing all city utility operations including water, wastewater, streetlights, storm drains and oil & gas. Responsible for a \$33 million-dollar budget and 60 employees. City infrastructure and services include; 200 miles of water main and 190 miles of sewer collection system, 27,000 service connections, 22 wastewater lift stations, 3 reservoirs, 2 treatment facilities, 5 water pump stations, 16 oil wells, 3,000 street lights, and 4 water wells. Responsible for conducting rate studies and establishing rate adjustments for water and sewer services. Prepared and presented staff reports, resolutions, and municipal code to City Council for approval. Responsible for media and emergency operations as well as water conservation and efficiency compliant with state regulations. Served as the state designated Chief Operator responsible for water quality and distribution to 70,000 residents. Other projects include conversion of streetlights to LED lighting, Variable frequency drive replacements saving over a half million dollars a year in energy savings.

**City of Newport Beach Utilities Manager (2005-2007)** – Managed water divisions including maintenance and repair, water quality, meter reading and customer service. Responsible for water supply and resources assuring the city has an adequate safe water supply. Managed the streetlight electrical division maintaining and repairing over 3,000 streetlights. Prepared and presented staff reports and contracts for City Council approval as well as Urban Water Management Plans and state water supply permits.

**City of Newport Beach Water Production Supervisor (2000-2005)** – Supervised the division managing all water production facilities including pump stations, reservoirs, treatment facilities and pressure regulating facilities. Converted the treatment facilities from chlorination to chloramination using automation and new injection systems. Conversion of pumping operations to variable frequency drives for energy efficiency. Oversaw construction of the 600AF reservoir cover project. Responsible for City's water quality and distribution.

**City of Newport Beach Utilities Worker / Water Plant Operator (1980-2000)** – Provided hands on water and wastewater operations and maintenance activities including water and sewer main construction and replacement, water service installation and customer service. Operations of the City's water treatment plants, pump stations, and reservoir facilities. Oversaw the City's water laboratory taking samples and processing for bacteriological and physical testing to comply with state and federal regulations. Created the first automation system (SCADA) to remote control, monitor and alarm water and waste water stations. Participation in the construction and implementation of the City's water well operations and new treatment facilities.

**YEARS EXPERIENCE**

39

**YEARS WITH FIRM**

20 (Firm's Owner)

**PRIMARY WORK LOCATION**

San Diego

**EDUCATION**

BS, Civil Engineering,  
San Diego State University,  
1980

Leading Professional Service  
Firms, Harvard Business  
School

**LICENSES /  
CERTIFICATIONS**

Civil Engineer, California No.  
36175

Diplomate, American  
Academy of Environmental  
Engineers, No. 97-20026

**PROFESSIONAL  
AFFILIATIONS**

American Public Works  
Association

American Water Works  
Association

San Diego County Water  
Works Group

**Professional Summary**

Richard Brady is the founder, President and Chief Executive Officer of Richard Brady & Associates (BRADY). He has 39 years of experience in water resources planning and in the design, management, and construction administration of drinking water supply projects. His fields of specialization include: predesign, design, value engineering, construction management, and start-up services for many large drinking water treatment plants, pump stations, and reservoir projects. Mr. Brady is a graduate of Harvard Business School's "Leading Professional Service Firms" and the "Owner-President Management" program. He is also an internationally-recognized water engineer, and a contributing author to the AWWA's "Water Treatment Plant Design". He has served as the Program Manager for the City of San Diego Water Infrastructure Master Plan, and his design experience includes nationally-acclaimed water treatment facilities.

Mr. Brady will work with his project team to ensure that all aspects of the rehabilitation design are taken into consideration and the design is completed on-time and with the highest possible standard.

**Project Experience****Principal-in-Charge, Water Operations Yard Master Plan Update; Huntington Beach, CA (City of Huntington Beach)**

- Mr. Brady served as Principal-in-Charge on this project which consisted of field verification, investigation, and documentation of existing conditions at the Water Operations Yard in the City of Huntington Beach. The investigation included an examination of the buildings currently being occupied by the Water Division's Administrative and Management, Water Quality, Water Production, Water Distribution, Water Meters, Warehousing, and Geographic Information Systems (GIS) Sections. A Building Needs Assessment Survey was also conducted to obtain information from Water Division staff members regarding current facility and future growth needs.

**Project Manager, Water Facilities Master Plan, San Diego, CA (City of San Diego)**

- The City was seeking professional civil engineering services to prepare a Water Facilities Master Plan (WFMP) in a phased manner over a 5 year contract. Specifically, to develop the Water Facilities Master Plan with a long-term sustainable perspective incorporating all of the Water Department's facilities and assets into one comprehensive document. Mr. Brady was selected to update the Master Plan, a result of his multi-decade career of serving the City of San Diego, including his role as the Project Manager of the Alvarado Water Treatment Plant project from 1989-2005.

The WFMP was to include aspects of the potable, raw, and recycled water systems and incorporate and enhance existing City documents such as the Potable Hydraulic Water Master Plans, Recycled Water Master Plan Evaluation Process, and other pertinent City information and data. Mr. Brady's responsibilities as Project Manager included the oversight of reviewing and updating the City's geodatabases; establishing system performance criteria for water system evaluation; evaluating existing water distribution facilities and their ability to meet current and future demands and in their ability to minimize life-cycle cost; incorporating of current CIP projects and evaluating existing and future system operations; updating/completing potable, recycled, and raw water master plans; developing probable cost opinions for the required capital facilities; and developing an implementation and prioritization plan for recommended CIP projects to ensure available infrastructure through ultimate built-out of the City's water service areas.

**Principal-in-Charge, 17 MG Conventionally Reinforced and Buried Los Coches Reservoir, Padre Dam**

**Municipal Water District** – Mr. Brady was responsible for predesign, design, and construction management. The 17 MG Los Coches Reservoir is a 216-foot x 456-foot x 25-foot deep conventionally reinforced concrete reservoir constructed by the Padre Dam Municipal Water District between 1983 and 1985. The reservoir is completely buried and covered with 18-inches of soil. Two hundred and twenty 20-inch diameter columns support the reservoir roof. The reservoir is separated into two cells by a center-dividing wall. The inlet and outlet piping is 36-inches in diameter. The reservoir construction involved the placement of over 8,000 cubic yards of concrete and more than 20,000 linear feet of waterstop and joint sealant. There were no change orders on this project.

**Principal-in-Charge, Integrated Facilities Plan, San Diego, CA (Padre Dam Municipal Water District)** - Mr. Brady served as Principal-in-Charge and assisted in managing the development of the Padre Dam Municipal Water District's Integrated Facilities Plan (IFP). The IFP analyzed potable water, recycled water, and wastewater handling needs and developed strategies to meet peak demands. The IFP document updated the previous PDMWD water and wastewater master plans and recycled water master plans.

**Project Manager, Drinking Water Quality Improvement Program, San Diego, CA (City of San Diego Water Utilities Department)** - While employed at Malcolm Pirnie, Mr. Brady served as Project Manager for the City of San Diego's Drinking Water Quality Improvement Program. His responsibilities included preparing reports addressing City-wide issues of water supply and transmission, water quality, environmental considerations, specific predesign reports for the Alvarado (200 mgd) and Miramar (215 mgd) WTPs, and master planning for the Lower Otay (60 mgd) and North City (60 mgd) WTP. The estimated construction cost for projects identified in the DWQIP was \$773 million dollars.

**Project Manager, Alvarado Water Treatment Plant Expansion and Rehabilitation, Phases I & II, San Diego, CA (City of San Diego)** - Mr. Brady served as Project Manager on this multi-phase Water Treatment Plant Expansion and Rehabilitation from 1989-2005. The project involved the design of new sedimentation basins, ozone contactors, and filter backwash facilities, as well as upgrades and rehabilitation to the existing sedimentation basins, filters, and operations building. Responsible for the preparation of a preliminary design study for the existing filter backwash water storage and conveyance facilities, and evaluation of flocculation and sludge removal equipment for new and existing basins. Provided technical support and project background information to the VE team, and an evaluation of the impact due to implementing VE ideas. Participated in all technical review meetings, assisted in preparation of project design schedules, and reviewed construction cost estimates. Prepared periodic design progress reports, design calculations, and technical documents concerning treatment capacity for review by the California Department of Health Services. Prepared permit review packages for the City's Development Services Department.

**Project Manager, Earl Thomas Reservoir Demolition and Replacement Project, San Diego, CA (City of San Diego)** - Mr. Brady served as Project Manager for the Earl Thomas Reservoir Demolition and Replacement Project, which at one time, was the largest prestressed concrete reservoir. The project included the design of a 35 MG prestressed concrete, circular clearwell 410 feet in diameter and 40 feet tall. Mr. Brady was responsible for civil site work, including the appurtenant piping, pumping, and flow control equipment required for operation of the new clearwell. Additionally, he provided design services including preparation of civil site plans; structural, mechanical, and electrical drawings, and supplemental specifications for the prestressed concrete tank.

**Project Manager, Otay Water Treatment Plant Upgrade, San Diego, CA (City of San Diego)** - Mr. Brady was selected by the City of San Diego to manage the Otay Water Treatment Plant Upgrade. The project included the design of a new U.V. disinfection system and ancillary facilities, including yard piping, grading, chlorine contractor, and related work to be added to the existing water treatment plant. The plant is designed for an immediate upgrade to 40 mgd and for the future expansion to 60 mgd. Project included the study of plant hydraulics and emergency power requirements.



## YEARS EXPERIENCE

4 years

## LICENSES / CERTIFICATIONS

- Professional Civil Engineer, California, No. C90365
- OSHA 30-Hour Construction
- Competent Person
  - Confined Space
  - Fall Protection
  - Excavation
  - Scaffolding
- First Aid/CPR/AED

## EDUCATION

M.S., Civil and Environmental Engineering,  
California Polytechnic State University,  
San Luis Obispo, CA

B.S., Environmental Engineering,  
California Polytechnic State University,  
San Luis Obispo, CA

## SOFTWARE SKILLS

- AutoCAD Civil 3D
- MicroStation
- ArcGIS
- FLOW-3D
- FLO-2D
- HEC-HMS
- HEC-RAS
- MATLAB

## Professional Summary

Mr. Murawsky is a civil engineer specializing in water distribution and storage systems with a background in water/wastewater treatment for both centralized and decentralized systems. Over his past four years at BRADY he has assisted with numerous reservoir and utility vault inspections and the design and drafting of several extensive projects. His design experience includes potable water reservoirs, pump stations, pressure reducing stations, disinfection facilities, flow control and metering installations, distribution pipelines, and stormwater conveyance systems. His attention to detail and proficient use of AutoCAD Civil 3D aid in creating site plans, grading plans, pipe alignments and profiles, and detailed design drawings.

## Project Experience

### Project Engineer/Designer/Superintendent/Site Safety and Health Officer (SSHO)/Inspector – HB 5 MG Reservoir Rehabilitation, Vista Irrigation District, CA

Designed new inlet/outlet yard piping and metering vault for the HB reservoir to improve reservoir mixing and water quality. Designed civil site work surrounding reservoir to include grading plan, paving plan, and general site layout. Sized site drainage features for design rain event. Compiled contract documents, including basis of design report, plans, and specifications.

On-site, full-time, as the Prime Contractor Superintendent/SSHO/Inspector during construction to manage daily production, site safety, and quality control.

### Project Engineer/Designer – Pressure Reducing Stations, Upland, CA

Analyzed the distribution system hydraulics for the City of Upland, CA to determine how to effectively implement pressure reducing stations to increase operation flexibility during future system rehabilitation and emergency situations. Implemented pressure data loggers to track and analyze system pressures at proposed pressure reducing station locations and areas of concern, indicated from the hydraulic model. This data was used to establish set points for the pressure reducing valves.

Researched existing utilities and created site plans for each proposed location. Pipeline profiles were created to indicate connections to existing pipelines and establish vertical spacing requirements for existing utility crossings.

### Project Engineer/Designer – 8 MG Steel Reservoirs No. 1 and No.2 Inspection, Westminster, CA

Inspected two existing above ground steel reservoirs for interior and exterior coating failure. Coating failure, primarily on the interior of the reservoir, resulted in corrosion of roofing members. Coating defects were mapped and quantified to determine the most efficient and economical solution to increase the reservoirs service life. A report was submitted to the client, which emphasized the results of the inspection and recommendations for repair.

### Project Engineer/Designer – HB 5 MG Reservoir Inspection, Vista Irrigation District, CA

Inspected existing above ground prestressed concrete reservoir with concrete dome roof for structural deficiencies. The inspection focused on identifying cracks and spalling of the reservoir footing, wall, and roof. These structural deficiencies were mapped and repair suggestions were submitted to the client along with report on inspection findings.

### Project Engineer/Designer – Pechstein 20 MG Reservoir Roof Inspection, Vista Irrigation District, CA

Inspected existing partially buried prestressed concrete reservoir with wooden roof for structural deficiencies. Inspection focused on identifying and quantifying areas of corrosion in roofing hardware and locations of dry rot, delamination, and checking within the glulam beams. The reservoir roof was inspected from the outside of the reservoir as well as by boat on the inside of the reservoir. Structural deficiencies were mapped and a report was submitted to the client, which highlighted findings and proposed that a new aluminum dome roof be installed to increase the reservoirs useful life.

### Project Engineer/Designer – Northrop Grumman Chiller Tank Inspection, CA

Inspected two concrete chiller tanks with a total storage volume of 250,000 gallons and two accompanying wet wells. The goal of the investigation was to locate and propose a fix for the campus cooling system, which was leaking at a rate of approximately 50,000 gallons per year. A report of the findings was prepared and repair suggestions were presented to the client.

**Project Engineer/Designer – Water Treatment and Distribution System for the Crow Indian Reservation, MT**

The project consisted of taking inventory of the existing infrastructure throughout the entire reservation. Including two existing conventional water treatment plants, several wells, chlorination systems, and storage tanks. Then locating a preferred site for a new centralized water treatment plant and distribution system to replace the existing infrastructure and provide a safe source of drinking water for the entire Crow Reservation. Developed hydraulic profiles of the previously proposed treatment and distribution system to show alternative solutions. Created several graphics and maps to summarize spatial data in relation to the Crow Reservations topography. Analyzed previously proposed system layout and how it could be modified to create a more affordable and efficient system.

**Project Engineer/Designer – Reservoir Failure Analysis, City of Upland, CA**

Implemented FLO-2D Software to simulate an instantaneous failure of a 7.5 MG reservoir and how it would impact the immediate community. The simulation was run at eight different failure locations to map maximum floodplain depth, flow velocity, and impact force. The simulation was also conducted with the implementation of a K-rail type barrier to analyze its effects on the same criteria. Results were presented to the City of Upland.

**Project Engineer/Inspector – San Antonio Park Reservoir No. 16 Tank Inspection, City of Upland, CA**

Inspected a 10 MG circular concrete reservoir with a hopper bottom to determine its condition, structural integrity, and needed repairs. Conducted a boat inspection using an inflatable raft inside of the reservoir to view the exposed reservoir walls, roof, columns, and shear walls for cracks, spalling, exposed rebar, and efflorescence. Also inspected the exterior of the roof and exposed joint between the roof and top of wall for cracks and deflection. Created figures to aid in the rehabilitation of reservoir damages.

**Incident Commander – Nob Hill Pipeline Project, San Diego County Water Authority, CA**

Site Incident Commander for Nob Hill pipeline installation project, where approximately 900 feet of existing pipeline was replaced to improve water distribution to the City of San Diego. Worked in 12-hour shifts to observe and report site operations to maintain worker safety during construction. Monitored worker activity within the pipeline and air quality measurements to ensure safety and regulation compliance.

**Project Engineer/Inspector – Reservoir No. 7 Tank Inspection, City of Laguna Beach, CA**

Inspected a 1.5 MG circular welded steel reservoir to determine its condition, structural integrity, and needed repairs. Conducted a boat inspection using an inflatable raft inside of the reservoir to view the exposed beams, roof, columns, walls, hardware, and steel coating for pitting, buckling, and other signs of distress.

**Project Engineer/Designer – New 7.5 MG Reservoir, City of Upland, CA**

The project consisted of a new 7.5 MG pre-stressed concrete reservoir, chlorine injection system, and site amendments. Designed and sized an onsite infiltration basin per the San Bernardino County Stormwater Program Water Quality Management Plans (WQMP) to capture and infiltrate stormwater runoff on site. Worked with clients to design a sodium hypochlorite injection system to chlorinate well water before entering reservoir and maintain residual concentration within the reservoir and distribution system. Designed and sized a secondary containment structure for chlorine storage. Developed pipeline profiles for all new pipe layouts and connections to existing reservoir and services. Designed site grading/paving plan using custom roadway corridors and grading software in AutoCAD Civil 3D. Assisted with project cost estimate and project specifications.

**Project Engineer/Designer – New Booster Pump Station, Dam Outlet Valve Improvements, and Water Quality Improvements, Fairbanks Ranch, CA**

The project consisted of developing a Site Improvement Report for the replacement of existing piping, meters, valves, and booster pumps, improvements to the damaged dam outlet valve, and improving water quality in Clubhouse Lake. Conducted a site investigation to inventory and determine the condition of existing infrastructure. Calculated the headloss through the existing pipe network to determine proper sizing for new booster pumps.

**Project Engineer/Designer - New Booster Pump Station, Orange County Sheriff Department, CA**

The project consisted of a new booster pump station for the Orange County Sheriff Department. Created a hydraulic profile based on the current pipeline and future metering configuration to determine how to appropriately size new pumps to obtain desired flowrate. Visited site to take inventory and pictures of existing facilities to better understand system and client's needs. Participated in start-up once pump skid was installed. Assisted in the trouble shooting of electrical wiring connections between controls and control panels.

**Project Engineer/Designer - 5 MG Reservoir Improvements and New Booster Pump Station, City of Fountain Valley, CA**

The project consisted of a new booster pump station, SCADA system, and upgrades to the existing 5 MG reservoir and existing site. Developed pipeline profiles for all new pipe layouts and connections to existing reservoir and services. Designed site grading/paving plan using custom roadway corridors in AutoCAD Civil 3D. Provided construction support by responding to Submittals and Requests for Information (RFI) from Contractor.

**JOINED FIRM**  
2019**PROFESSIONAL  
EXPERIENCE BEGAN**  
2017**LICENSES /  
CERTIFICATIONS**  
Engineer in Training  
March 2019**EDUCATION**  
B.S., Environmental  
Engineering, San  
Diego State  
University, CA, 2019**Professional Summary**

Chelsi is a recent environmental engineering graduate from San Diego State University.

**Technical Skills**

AutoCAD, ArcGIS, ECM OnBase, MATLAB, Aqualog 3-D fluorometer, In-Situ 1-D fluorometer, TOC analyzer, UVVIS spectrometer, Reverse osmosis pump

**Project Experience****Senior Design Project – Capstone – San Diego State University**

As Project Manager / Hydraulics Specialist, Chelsi managed, prioritized, and communicated tasks of the complex senior design project to a team of 7 people while mediating project disputes between team members. She oversaw the completion of tasks and the professional development of technical writing of submittals to the client. She also designed the water infrastructure aspect of the project to maintain post project flows while including a safety factor for surge flows and general wear and tear.

**California State Water Resources Control Board, Division of Drinking Water**

As Student Water Resource Control Engineer, Chelsi utilized engineering judgement to beneficially monitor water quality and infrastructure of distinct water systems in San Diego County and Imperial County by reviewing and evaluating technical and engineering reports, conducting compliance inspections, and taking appropriate follow-up actions. She composed effectual technical reports of routine scientific correspondence, memos, and formal and informal enforcement documents. Chelsi productively collaborated with Division of Drinking Water staff to gain experience and knowledge of relevant laws, rules, regulations, processes, and procedures related to water quality management. Proficiently entered and extracted relevant compliance information from various databases and spreadsheets and ensured that it was accurate, complete, and up to date.

**San Diego State University Research Foundation**

As Research Assistant, Chelsi successfully completed project “Effects of Scum Removal on Anaerobic Baffled Reactor Performance”; research on scum removal and batch flow of synthetic wastewater within an Anaerobic Baffled Reactor. Research presented at SDSU’s Summer Research in Engineering Poster Presentation to encourage high school students into STEM majors. Effectually trained new team members on equipment in the laboratory during their introductory period. Wrote standard operating procedures for both projects, as well as lab risk analyses. Delegated tasks and workloads to ensure laboratory functionality and safety.

**Water Innovation and Reuse Lab at San Diego State University**

Chelsi was a student volunteer and ran project “Simulating Wastewater Treatment with a Bench Top Anaerobic Baffled Reactor”; research on tracking the degradation of organic compounds in synthetic wastewater in a bench top Anaerobic Baffled Reactor. Research presented at San Diego State University’s 2017 Student Research Symposium. Successfully completed and followed hazardous waste material training and lab manual.



## YEARS EXPERIENCE

37

## EDUCATION

Houston Technical  
Institute, 1977

University of Houston,  
1978-1979

University of California  
Los Angeles, 1989

## Professional Summary

Mr. Reyes has 37 years of design experience in drafting, management, and systems administration in the fields of Architecture and Civil/Structural Engineering. His design program experience includes AutoCAD (23 yrs) and MicroStation (25 yrs). He is highly proficient in both applications with an emphasis on system configurations and troubleshooting. He has a complete understanding of the BIM Industry standard and can integrate various models. In addition to direct project design, setup, layout, and deliverables coordination, he maintains all CADD workstations and related software upgrades. Serving in the official title of, CADD Manager, his vast knowledge of multiple platforms and application software allow him to navigate and replicate the various client-specific environments. His flexibility and constant ongoing training ensures that he remains current with the latest release versions of industry standard CADD applications.

## Project Experience

**CADD Manager-Bentley Microstation V8i SS2, Portsmouth Gaseous Diffusion Plant - Decontamination & Decommissioning - On-Site Disposal Cell, Fluor- Babcock & Wilcox Portsmouth, LLC under contract to the United States Department of Energy**  
Title - Served in role of CADD Manager for the OSDC in Piketon, Ohio, in partnership with Fluor.

Established programmatic CADD design standards and created CADD manual. Ordered computer hardware and design software to accommodate 5 workstations. Supervised the CADD department in the creation of preliminary design drawings and exhibits. Created site layouts and grading plans and all other Civil drawings necessary for implementation of selected remedy waste disposal option. Oversaw and managed the direct interaction with FBP contract awarded A & E firm to maintain compliance with FBP's policies and standards as it related to electronic media submittals. Trained and mentored junior CADD designers and junior engineers in the application design software. Responsible for all CADD-related project issues.

**Senior Designer-Bentley Microstation V8i SS3, Water Group Job 926, Orion Construction/City of San Diego** - Prepared plan & profile construction documents for waterline replacements in the City's Point Loma area. All drawings were created per the City of San Diego's CIP guidelines and Citywide CADD & Drafting Standards-2012 edition. Coordinated all job set CADD & design requirements for BRADY and Orion Construction.

**Senior Designer-Bentley Microstation XM, I-680 Smart Lane Electronic Toll System, Electronic Transaction Corporation/Alameda County Corridor Management Agency** - Prepared plan & detail construction documents for electronic toll system upgrade to current HOV lane located in the Alameda County corridor limits boundary. All drawings were created per CalTrans standard plans preparation manual and the electronic files strictly adhere to the Caltrans CADD manual.

**Senior Designer-Bentley Microstation XM, Water Group Job 790, Orion Construction/Harris & Associates/City of San Diego** - Prepared plan & profile construction documents for waterline replacements in the City's La Jolla area. All drawings were created per the City of San Diego's CIP guidelines. Coordinated all job set CADD & design requirements for BRADY between prime partners Orion Construction and Harris & Associates.

**Senior Designer/Drafter-Bentley Microstation XM , Old Rose Canyon Trunk Sewer Relocation, City of San Diego** - Prepared construction drawings based on an existing pre-design report for approximately 2430 linear feet of new 24" PVC pipe. New alignment consisted of relocating sewer from Rose Canyon to Santa Fe Street. All horizontal and vertical alignments were to City of San Diego criteria and standards.

**CAD Manager/Senior Designer, Whitegates Reservoir Project, WG-1 5.3 Mil Gal, WG-2 3.7 Mil Gal, Sema Construction/City of Riverside, California** - Oversaw the construction document production for two new water reservoirs in this Design-Build Project. Drawings consisted of Civil, Mechanical, Electrical, Structural and I&C. Maintained drawing log and issued revision changes as required by contract. Coordinated all disciplines at local project level.

**Senior Designer, Sewer Lift Station 24 & Force Main Replacement, City of Huntington Beach** - Prepared general civil and mechanical construction documents for facilities upgrade to replace existing pump station and new sewer force main alignment.

**Senior Designer, Sewer Lift Station 26 & Force Main Replacement, City of Huntington Beach** - Prepared general civil and mechanical construction documents for facilities upgrade to replace existing pump station and new sewer force main alignment.

**Senior Designer-Bentley Microstation XM, Lake Skinner Water Treatment Plant ORP, Module 7 & Chemicals Redesign, Metropolitan Water District of Southern California** - Assigned to treatment plant to help investigate and coordinate all RFI's and FM's generated by the construction upgrades. Input all changed information into the CADD drawings in preparation for final as-built design drawings.

**Senior Designer, Monterrey Plantation / Lockwood Landing, JWH Engineering** - Prepared construction drawings for land development project in NC; layout waterlines, sanitary sewer lines and storm sewer lines for high density project.

**Senior Designer-Bentley Microstation XM, Weymouth Filtration Plant Oxidation Retrofit Project, Metropolitan Water District of Southern California** - Prepared design drawings for retrofitting of MWD's Weymouth filtration plant with ozonation facilities in order to meet the treatment technique components of the D/DBP Rule.

**Senior Designer-Bentley Microstation XM, MWD Regional Sub System Distribution Map, Metropolitan Water District of Southern California** - Created new sub system distribution map based on actual field-verified information.

**Metropolitan Water District of Southern California, Eagle Rock Lateral Blow-Off and Turnout Structure; Valve Installation and Replacement, Senior Designer-Bentley Microstation XM** - Prepared excavation drawings and construction support services for this project. This project consists of the replacement and relocation of approximately 35' of 24" diameter steel pipe, and 75' of 12" diameter steel pipe, and a new valve.

**Senior Designer-Bentley Microstation XM, San Diego Pipeline No. 5 and Lake Skinner Outlet Conduit Repairs, Metropolitan Water District of Southern California** - Prepared construction drawings for two pipeline repairs. The project included a new 16'-long section of 154" diameter steel liner, installed in multiple sections to allow for installation of the liner through a 45-degree elbow in the pipeline, and a 16'-long section of 167" diameter steel pipe, which replaces an existing prestressed concrete cylinder pipe.

**JOINED FIRM**  
2007**EDUCATION**  
B.S., Mechanical  
Engineering  
The Pennsylvania  
State University,  
1988**LICENSES /  
CERTIFICATIONS**  
Professional  
Engineer, CA,  
#33082  
(Mechanical)**Professional Summary**

Mr. Bowen has 25 years of experience and specializes in engineering, design, management and quality control of environmental and construction contracts. He is a professional engineer with emphasis in mechanical engineering. He has worked extensively in proposal and scope of work generation, cost estimating, construction management, project management, budget and cost analysis, project scheduling, supplier and subcontract management, drawing and specification development, regulatory compliance, and project closeout. Mr. Bowen has a thorough understanding of Design-Build and Design-Bid-Build project delivery methods and has direct experience with construction means and methods; manufacturing processes; fiberglass reinforced plastic and metal fabrication; electrical/mechanical system design and installation; start-up, training, operation and/maintenance activities.

Numerous private and public contract mechanisms under which Mr. Bowen has successfully completed projects include job order contracts, indefinite delivery/indefinite quantity contracts, multi-award contracts, basic ordering agreements, federal supply schedules, firm fixed-price, on-call, and cost plus contracts.

Mr. Bowen served as the Quality Control Program Manager on the Nation's first Environmental Multi-Award Contract (EMAC I) and performed as Project Manager and Deputy Program Manager on projects completed under the Navy's Environmental Job Order Contract (EJOC II).

Mr. Bowen will provide mechanical inspection services on this contract.

**Project Experience**

**Program Manager, Mechanical Inspector: N62473-12-D-3004 Marine Corp Base Camp Pendleton, Job Order Contract (JOC) for Design-Build of Heavy and Civil Engineering Construction** - As Program Manager for the Rapid JOC, Mr. Bowen oversaw and managed all incidental engineering and construction activity for this multi-year IDIQ contract. All task orders to date have been completed on time and on budget, with no contractor-initiated change orders, and no liquidated damages. All task orders to date have been negotiated on a firm fixed price basis, and are issued as a design-build performance-based task order. This contract involves the management of multiple sites and multiple task orders, which at most times are running concurrently. The work associated with this contract to date has included water, wastewater, storm water, natural gas distribution and facilities type projects.

**Program Manager, Mechanical Inspector: N62473-11-D-0813 Naval Base Point Loma, Job Order Contract (JOC) for Design-Build of Heavy and Civil Engineering Construction** - As Program Manager for the NBPL FEAD JOC, Mr. Bowen oversees and manages all incidental engineering and construction activity for this multi-year IDIQ contract. All task orders to date have been completed on time and on budget, with no contractor-initiated change orders, and no liquidated damages. All task orders to date have been negotiated on a firm fixed price basis, and are issued as a design-build performance-based task order. This contract involves the management of multiple sites and multiple task orders, which at most times are running concurrently. The work associated with this contract to date has included natural gas distribution, petroleum-based fuels, oils, or lubricants (POL) and facilities type projects.

**Program Manager, Mechanical Inspector: N62473-09-D-1019 Marine Corp Base Camp Pendleton, Job Order Contract (JOC) for Design-Build of Heavy and Civil Engineering Construction** - As Program Manager for the Rapid JOC, Mr. Bowen oversaw and managed all incidental engineering and construction activity for this multi-year IDIQ contract. All task orders were completed on time and on budget, with no contractor-initiated change orders, and no liquidated damages. All task orders were negotiated on a firm fixed price basis, and were issued as a design-build performance-based task order. This contract involved the management of multiple sites and multiple task orders, which at most times were running concurrently. The work associated with this contract included water, wastewater, storm water, wash water recycling, petroleum-based fuels, oils, or lubricants (POL) and facilities type projects.

**Program Manager, Mechanical Inspector: N62473-07-D-6311 Marine Corp Base Camp Pendleton, Job Order Contract (JOC) for Design-Build of Heavy and Civil Engineering Construction** - As Program Manager for the Rapid JOC, Mr. Bowen oversaw and managed all incidental engineering and construction activity for this multi-year IDIQ contract. All task orders were completed on time and on budget, with no contractor-initiated change orders, and no liquidated damages. All task orders were negotiated on a firm fixed price basis, and were issued as a design-build performance-based task order. This contract involved the management of multiple sites and multiple task orders, which at most times were running concurrently. The work associated with this contract included water, wastewater, and facilities type projects.

**Project Manager, Mechanical Inspector: N62473-13-C-4402 NAF El Centro, Design-Build Repair Arresting Gear E 28** - Demolish existing and design-build a new foundation associated with runway arresting gear retrieval equipment which supports air traffic at the Naval Air Facility El Centro. The work included removal of the existing foundation and installation of a new concrete foundation support system along with rough re-assembly of the arresting gear equipment. Special care was required to obtain the required tolerance levels of the equipment for proper operation with the associated aircraft.

**Project Manager, Mechanical Inspector: N62473-12-C-1416 SERE Camp, Design-Build Sewage Treatment System** - Design-Build project consists of repairs and upgrades to the existing wastewater systems and treatment plant. A new wastewater treatment plant will replace the existing plant which has exceeded its design life. The new collection piping and corresponding building tie-ins will replace a portion of the existing structurally deficient pipe. The new treatment plant will include the following: influent lift station, primary treatment units and secondary treatment unit, effluent pump station, wastewater sampling station and 40,000 gallon above-ground overflow tank.



**JOINED FIRM**  
2006

**PROFESSIONAL  
EXPERIENCE BEGAN**  
2000

**EDUCATION**  
B.S. Electrical  
Engineering  
University of  
California, San Diego,  
2005

**LICENSES /  
CERTIFICATIONS**  
Professional  
Electrical Engineer,  
California, No.  
20050

**PROFESSIONAL  
AFFILIATIONS**

## **Professional Summary**

Mr. Nishimura is a Professional Engineer with 13 years of professional experience in engineering. Mr. Nishimura is also proficient in AutoCad, AutoCad P&ID, AutoCAD Plant 3D, ETAP (Load Flow, Short Circuit, Protective Device Coordination & Arc Flash Analysis), Microstation, Plantspace P&ID, Sketchup, Allen Bradley RSLogix 500/5000, Schneider Electric Concept, Control Microsystems Telepace, Allen Bradley FactoryTalk, GE Fanuc Proficy, and Wonderware InTouch as well as programming experience in Matlab, Visual Basic, C, Java, KML (for use with Google Earth), and relay ladder logic programming. In addition to engineering design work, Mr. Nishimura also has extensive field experience during installation and startup/commissioning of electrical and industrial control systems in the built environment.

## **Project Experience**

**Title: Electrical & Control Systems Inspector/Start-Up Engineer**  
**Otay Water Treatment Plant Sodium Hypochlorite Generation**  
**Client: City of San Diego**

The Otay Water Treatment Plant is a 34.2 mgd conventional water treatment plant for the City of San Diego. This project consisted of providing inspection services and assisting the City in oversight on a Design-Build project that involved the replacement of the existing chlorine gas system with sodium hypochlorite generators to alleviate the safety concerns associated with storing and using chlorine gas for disinfection. Provided assistance in start-up, electrical testing, functional tests, preparing punch item punch lists, and discussing the progress of the work with the contractor. Electrical construction was inspected for conformance to the contract drawings, industry standards, and applicable codes.

**Title: Electrical & Control Systems Inspector/Start-Up Engineer**  
**Metropolitan Biosolids Center Centrifuges Replacement**  
**Client: City of San Diego**

The Metropolitan Biosolids Center (MBC) is the City of San Diego's state-of-the-art regional biosolids treatment facility. MBC provides two treatment operations including: thickening and digestion of raw solids and the dewatering of wet biosolids. This project consisted of providing inspection services and assisting the City in oversight on a Design-Build project that involved the replacement of six (6) dewater centrifuges. Provided assistance in start-up, electrical testing, functional tests, preparing punch item punch lists, and discussing the progress of the work with the contractor. Electrical construction was inspected for conformance to the contract drawings, industry standards, and applicable codes.

**Title: Electrical & Control Systems Inspector/Start-Up Engineer**  
**South Bay Water Reclamation Plant Demineralization Project**  
**Client: City of San Diego**

The South Bay Water Reclamation Plant (SBWRP) provides local wastewater treatment services and reclaimed water for the South Bay area of San Diego with a 15 mgd capacity. The treatment process consists of bar screens, grit chambers, clarifiers, aeration, tertiary filtration, uv disinfection, and demineralization. This project consisted of providing inspection services and assisting the City in the oversight on a Design-Build project that involves the full installation of two (2) Electrodialysis Reversal (EDR) trailer units relocated from the North City Water Reclamation Plant to establish a new demineralization facility at SBWRP, including a new clean -in-place system, new chemical feed systems, and integration into the existing control system at the plant. Provided assistance in start-up, electrical testing, functional tests, preparing punch item punch lists, and discussing the progress of the work with the contractor.

**Title: Electrical & Control Systems Engineer****City of Buena Park SCADA Maintenance****Client: City of Buena Park**

Mr. Nishimura provided Electrical and Control Systems Services to maintain the Supervisory Control and Data Acquisition (SCADA) system that was designed and installed by BRADY in a previous project. The City's water system consists of 1 reservoir with a booster pump station, 8 well sites, and 4 connections to the Metropolitan Water District's (MWD) Orange County Feeder (OCF) system. Services are provided to perform routine maintenance to keep the system up to date and provide assistance in upgrading and further enhancing the SCADA system.

**Title: Electrical & Control Systems Engineer****Naval Station Mayport Water Treatment Plant PLC Replacement, Mayport, FL****Client: Naval Facilities Engineering Command - NAVFAC**

Mr. Nishimura provided Electrical and Control Systems Services to replace the existing Programmable Logic Controller (PLC) for the Water Treatment Plant at Naval Station Mayport, Florida. This project included the design, installation, and programming for a new PLC, new local touchscreen Operator Interface Terminal (OIT), and a new Human Machine Interface (HMI) system consisting of two servers located in a control room. The Water Treatment Plant system consists of 2 reservoirs, 3 well sites, 6 high service pumps with Variable Frequency Drives (VFD), and a chlorine injection system.

**Title: Electrical & Controls Engineer****South Louisiana Methanol (SLM) Plant, Water Treatment Plant, Port Charles, LA****Client: South Louisiana Methanol**

Provided electrical and control system engineering support for the Front End Engineering and Design (FEED) Phase 2 work associated with the 2MGD water treatment to support the operations of a new \$1.2B methanol production facility. The water treatment plant supplies process water to multiple sources within the methanol production areas with influent ground water. Water was treated to varying levels based on the proposed use for fire water, cooling water, or ultra-pure demineralized process water. Raw water treatment was performed by water softening with lime and multi-media filtration. Water used for process was then further treated using a multi-step demineralization process that included ultrafiltration (UF), reverse osmosis (RO), electrodeionization (EDI), and ion exchange. Sludge produced in the softening process was dewatered using filter presses.

**Title: Electrical & Control Systems Engineer****City of Buena Park SCADA Replacement****Client: City of Buena Park**

Design-Build project consisted of upgrading SCADA System for the City of Buena Park. The City's water system consists of 1 reservoir with a booster pump station, 8 well sites, and 4 connections to the Metropolitan Water District's (MWD) Orange County Feeder (OCF) system. The existing Emerson/Iconics SCADA system was outdated and no longer functioning. The system was upgraded to Schneider Electric's SCADAPack/ClearSCADA system, which is expandable for future growth. The radio network was also upgrade to provide a mesh network to increase the reliability of communications to the remote sites. Produced design drawings and specifications, performed all PLC programming, oversaw PLC installation and conducted loop checks during startup and commissioning and tested all system I/O points end-to-end.



**ACTION ITEM**  
October 20, 2021

**TO:** Board of Directors

**FROM:** **Planning & Operations Committee**  
(Directors Yoo Schneider, Nederhood, Seckel)

Robert Hunter, General Manager

Staff Contact: Daniel Harrison  
Vicki Osborn

**SUBJECT: EOP Update and Resolution**

**STAFF RECOMMENDATION**

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Staff recommendation is to approve the WEROC EOP resolution.

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**SUMMARY**

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The WEROC Emergency Operations Plan (EOP) is a flexible, multi-hazard document that addresses Orange County Member Agencies and WEROC Emergency Operations Center (EOC) planned response and short-term recovery to extraordinary emergency/disaster situations associated with natural disasters, technological incidents, and national security emergencies.

The plan does not address normal day-to-day emergencies or the well-established and routine procedures used in coping with such emergencies. Instead, the operational concepts reflected in this plan focus on potential large-scale disasters that can generate unique situations requiring unusual responses. This plan is a preparedness document, designed to be read, understood, and exercised prior to an emergency/disaster.

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

It is designed to include WEROC as part of the Orange County Operational Area, California Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS). This plan provides basic planning information. City departments, Special Districts and private Critical Infrastructure Operators must prepare standard operating procedures and, in most cases, more detailed checklists that will describe their internal operations under emergency/disaster conditions.

## **PLANNING ASSUMPTIONS**

- Priority will be given to protecting public health; this includes restoration of fire suppression, potable water delivery, and wastewater collection.
- Allocation of water will require a public request for emergency conservation based on the circumstances of the event. It could range from 0% to 50% or more in specific areas.
- WEROC is primarily responsible for coordinating resources and establishing a central communication point for all of WEROC member agencies.
- WEROC will utilize SEMS/NIMS in emergency response operations.
- WEROC and its signatories will commit their resources to a reasonable degree before requesting mutual aid assistance.

## **PLAN PURPOSE**

This Plan determines the actions to be taken by WEROC EOC staff to reduce the loss of water and wastewater infrastructure; to respond effectively to a disaster, and to coordinate recovery operations in the aftermath of any emergency involving extensive damage to Orange County water and wastewater utilities.

## **SCOPE**

The EOP has been designed to serve the growing needs of water and wastewater utilities. The EOP must be flexible enough to use in all emergencies. This plan not only meets that need but will also improve the effectiveness and efficiency of the response and short-term recovery activities. It is intended as an overview of emergency management for the WEROC organization and is not a detailed operational document. WEROC water and wastewater utilities will be referred to as “Member Agencies” from here on out.

## **CONCEPT OF OPERATIONS**

WEROC is organized on the basis that each member agency is responsible for developing its EOP following SEMS, NIMS, and America’s Water Infrastructure Act of 2020 to meet specific emergency needs within its service area. In turn, WEROC will coordinate the exchange of resources for member agencies, and if necessary, for MET, the Orange County Operational Area, and other appropriate outside agencies. In the event of a major regional disaster, WEROC would perform but not limit itself to the following functions:

- Activate the EOC

- Notify all EOC staff
- Send a water liaison to the OA EOC and ICP (if needed)
- Assess overall condition of the water supply system, including availability, quantity, and quality of MET and member agency water supplies
- Assess overall condition of the wastewater collection systems, including operability of treatment systems
- Identify resource and coordination needs of member agencies
- Collect Initial Damage Estimate (IDE) reports
- Quantify available Mutual Aid and private resources and secure as necessary
- Request resources
- Determine optimal use of resources
- Establish response and repair priorities
- Recommend water allocation schemes, if required
- Maintain liaison with MET, OA EOC, and outside agencies
- Document all actions taken
- Prepare After Action Reports
- Implement Corrective Actions

#### **Focused Revisions of the WEROC EOP Included:**

- Elimination of automatic activation and deployment
- Updates to many sections, such as Alert and Warning
- Updates to Joint Information System (JIS) Plan
- Removal of attachments not related to EOC operations
- Addition of RRA (risk and resilience assessment), update from CPRI (critical priority risk index).
- Alignment with AWIA
- Removal of security information
- Updates of staff names and positions

#### **Plan Protection**

With a changing threat landscape nefarious actors/groups have embraced the unrestricted warfare model, critical infrastructure has become a prime target. As a result, it's important to make sure that emergency operations plans and related documents become protected critical infrastructure information. Such critical infrastructure information needs to be:

- Accessed only by authorized and properly trained individuals;
- Used for analysis of threats, vulnerabilities, and other homeland security purposes;
- Protected from disclosure under the Freedom of Information Act (FOIA) and similar State, local, tribal, or territorial disclosure laws; and
- Not used directly in civil litigation nor as the basis for regulatory action.

Since the WEROC EOP contains Continuity of Government and Operational Information, it has not been included with the P&O packet, but can be reviewed by contacting the Director of Emergency Management. WEROC member agencies has been part of the this process and have direct access to the WEROC EOP using a secured information sharing platform.

Attachment 1 – WEROC EOP Resolution

Attachment 2 – WEROC EOP Presentation

## **BOARD OPTIONS**

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**Option #1:** To approve the WEROC EOP resolution

**Fiscal Impact:** None

**Option #2:** To not approve the WEROC EOP Resolution

**Fiscal Impact:** Potential loss of available federal and/or state government grant funded projects and training opportunities as a result of SEMS/NIMS noncompliance.

**RESOLUTION NO. XXXX**

**A RESOLUTION OF THE MUNICIPAL WATER DISTRICT OF ORANGE COUNTY  
ADOPTING THE REVISED WEROC EMERGENCY OPERATIONS PLAN**

WHEREAS, The Municipal Water District of Orange County (MWDOC) established the goal of developing and maintaining an emergency plan; and

WHEREAS, The California Code of Regulation Section 2401 has since established the Standardized Emergency Management System (SEMS), and the President of the United States in Homeland Security Directive (HSPD)-5, directed the Secretary of the Department of Homeland Security to develop and administer a National Incident Management System (NIMS), both of which standardize response to emergencies involving multiple jurisdictions or agencies; and

WHEREAS, Government Code Section 8607 required all political subdivisions to be in compliance with SEMS by December 1, 1996, to be eligible for reimbursement of emergency response personnel costs and now pursuant to the President's Executive Order, Homeland Security Directive (HSPD)-5, local governments are required to establish the NIMS as the standard for incident management by September 30, 2007; and

WHEREAS, with this revised emergency plan MWDOC continues to conform to State SEMS and Federal NIMS guidelines for emergency plan compliance; and

WHEREAS, MWDOC has determined that it is in the District's best interest and benefit to maintain a current emergency plan that meets emergency management best practices.

NOW, THEREFORE, BE IT RESOLVED the Board of Directors of Municipal Water District of Orange County hereby adopts the WEROC Emergency Operations Plan, dated September 2021.

Said resolution supersedes Resolution 2068, adopted on April 18, 2018, by the following roll call:

AYES:	Directors
NOES	None
ABSENT:	Directors
ABSTAIN:	None

I hereby certify the foregoing is a true and correct copy of Resolution No. \_\_\_\_ adopted by the Board of Directors of Municipal Water District of Orange County, at its meeting held on \_\_\_\_\_.

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Maribeth Goldsby, Board Secretary  
Municipal Water District of Orange County



# WEROC Emergency Operation Plan 2021 Update

## What is an EOP



**WEROC  
EMERGENCY  
OPERATIONS PLAN  
(EOP)**  
September 2021

- Assigns responsibility to organizations and individuals for carrying out specific actions at projected times and places in an emergency that exceeds the capability or routine responsibility of any one agency.
- Sets forth lines of authority and organizational relationships, and shows how all actions will be coordinated.
- Describes how people and property will be protected in emergencies and disasters.

## What is an EOP (cont.)

- Identifies personnel, equipment, facilities, supplies, and other resources available--within the jurisdiction or by agreement with other jurisdictions--for use during response and recovery operations.
- Identifies steps to address mitigation concerns during response and recovery activities.
- An EOP also cites its legal basis, states its objectives, and acknowledges assumptions.

## EOP Organization

- **Basic Plan.** The Basic Plan contains information on the overall organizational and operational concepts relative to response and recovery.
- **Appendices.** The Appendices provide supplemental reference information.
- **Hazard Specific Annexes.** Hazard Specific Annexes provide specific information and procedures for responding to hazards that may affect Orange County water utilities.

## Examples of Plan Changes

- Elimination of automatic activation and deployment
- Updates to many sections, such as Alert and Warning
- Updates to JIS plan
- Removal of attachments not related to EOC operations
- Addition of RRA (risk and resilience assessment), update from CPRI (critical priority risk index).
- Alignment with AWIA
- Removal of security information
- Updates of staff names and positions

## Plan Protection

- Accessed only by authorized and properly trained individuals;
- Used for analysis of threats, vulnerabilities, and other homeland security purposes;
- Protected from disclosure under the Freedom of Information Act (FOIA) and similar State, local, tribal, or territorial disclosure laws; and
- Not used directly in civil litigation nor as the basis for regulatory action.

Thank you for attending today  
Any Questions?





**INFORMATION ITEM**

October 4, 2021

**TO:**           **Planning and Operations Committee**  
(Directors Yoo Schneider, Nederhood, Seckel)

**FROM:**       **Robert Hunter, General Manager**

Staff Contact: Heather Baez

**SUBJECT:   MWDOC LEGISLATIVE POLICY PRINCIPLES ANNUAL UPDATE**

**STAFF RECOMMENDATION**

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Staff recommends the committee review the policy principles and provide feedback to staff on any suggested or requested updates.

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**REPORT**

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MWDOC maintains a set of legislative policy principles that serve as guidelines for staff and our legislative advocates on issues that are of importance to the District. The policy principles here are a culmination of current policies and initial changes recommended by staff from all departments within the agency.

Staff solicited feedback from the Board, member agencies, as well as any additional input from MWDOC Department Managers, and updated the document accordingly.

At the September P&O Committee, it was recommended that staff further streamline the full document as it has become overly long and redundant in many sections over the years. The focus of this month's discussion is for staff to receive input from the committee on the updated, draft policy principles to advance the Board's objective of establishing legislative and regulatory policy principles to help guide for both our federal and state legislative

<b>Budgeted (Y/N):</b> n/a	Budgeted amount: n/a	Core X	Choice __
<b>Action item amount:</b> None		Line item:	
<b>Fiscal Impact (explain if unbudgeted):</b>			

programs. All recommended edits are in red on the attached document which will be finalized for action by the P&O Committee and Board in November.

Attached: **Legislative Policy Principles**

## **Municipal Water District of Orange County** **Legislative and Regulatory Policy Principles**

### **OVERALL POLICY**

Legislation and regulations addressing water resource management issues should be guided by local and regional water resource officials with knowledge and experience in addressing opportunities, threats and needs for success within the water industry.

### **IMPORTED WATER SUPPLY**

**It is MWDOC's policy to support legislation, regulations and administrative actions that:**

1) Facilitates the implementation of a Sacramento-San Joaquin Delta Improvement program similar to the Delta Conveyance Project that addresses the co-equal goals of reliable water supply and ecosystem restoration, and related policies that provide long term, comprehensive solutions for the San Francisco Bay/Sacramento-San Joaquin River Delta that:

- a) ~~Provide reliable water supplies to meet California's short- and long- term needs;~~ (See "c" below)
- b) ~~Improve the ability to transport water through the Delta either for, or supplemental to, State Water Project deliveries;~~ (see "c" below)
- c) Improve the reliability and quality of water delivered through the Delta;
- d) ~~Enhance the Bay-Delta's ecological health in a balanced manner;~~ (See "e" below)
- e) Employ sound scientific research and evaluation to advance the co-equal goals of improved water supply and ecosystem health and sustainability.
- f) Expedite the completion of the State Water Project and EcoRestore initiative;
- g) Encourages regular infrastructure maintenance and upkeep of the levees to ~~counter the effects of subsidence and seismic risk.~~ (Unnecessary to list some reasons and not others.)

2) Authorizes, appropriates, and expeditiously distributes the state and federal share of funding to improve the State Water Project and EcoRestore initiative.

- 3) Promotes continued federal funding and coordination between states for the Colorado River Basin Salinity Control Program under the Federal Department of Agriculture and Interior.
- 4) Protects and preserves Metropolitan's interest in binational water conservation programs.
- 5) Supports the completion of the Central Valley Project (CVP) which may include the construction of conveyance facilities in the Sacramento-San Joaquin Bay Delta and the raising of Shasta Dam.

**It is MWDOC's policy to oppose legislation or regulation that:**

- ~~1) Would make urban water supplies less reliable, or would substantially increase the cost of imported water without also improving the reliability and/or quality of such water.~~
- ~~2) Imposes water user fees to fund non-water supply improvements in the Delta region or user fees that are not proportional to the benefits received from a Delta region water supply improvement.~~

*Staff Note: Having stated what MWDOC will affirmatively support, it is not necessary to state that it will also oppose the opposite. Water user fees are covered under Fiscal Policy.*

## **LOCAL WATER RESOURCES**

**It is MWDOC's policy to support legislation and regulation that:**

- 1) Supports the development of, provides funding for, and authorizes and/or facilitates the expanded use of, cost-effective, water recycling, potable reuse, conservation, water use efficiency, groundwater recovery and recharge, storage, brackish and ocean water desalination and surface water development projects where water supply quality and/or reliability is improved and the beneficiaries of the project pay for the portions of the project not funded by state or federal funds.
- 2) Reduces and/or streamlines regulatory burdens on augmented or alternative water supply projects, and provides protections for the use of these supplies during water supply shortages, through incentives, exemptions or provisions of credit during state mandated reductions.
- 3) Supports ecosystem restoration, increased stormwater capture where the capture avoids impact to others, and sediment management activities that are cost-effective and enhance the quality and/or reliability of water supplies.
- ~~4) Recognizes that the reliability and high quality of supplies to the end user is the primary goal of water suppliers.~~ *Staff Note: Unnecessary statement of the obvious and too general.*
- ~~5) Provides incentives for local or regional use of augmented or alternative water supplies.~~ *Staff Note: Added incentives to #2 above.*

- 6) Support the inclusion of environmental infrastructure projects the Army Corps of Engineers must consider in its Report to Congress.
- 7) Allows Investor Owned Utilities to invest in redundancy and reliability projects.
- 8) Encourages the State and Federal government to foster investments in water quality, storage, and/or reliability projects.
- 9) Recognizes that desalinated water, recycled water, and potable reuse are important components of water use efficiency and drought resiliency.
- 10) ~~Standards should be~~ Promote science-based and peer-reviewed standards; take economic feasibility and impact into consideration, respect existing water rights, include reasonable time for implementation and compliance, and, be subject to Legislative oversight and review biennially.
- 19) Authorizes, promotes, and/or provides incentives for the development of extraordinary emergency water supplies for voluntary use by local water agencies during times of drought or water shortages.
- 20) Is inclusive of transparent collaboration techniques for legislation and regulation regarding water use efficiency.

**It is MWDOC's policy to oppose legislation or regulation that:**

- ~~1) Restricts a local governmental agency's ability to develop or use their local water resources in a manner that is cost-effective, environmentally sensitive, and protective of public health.~~
- ~~2) Imposes barriers or increases costs to the safe application of recycled water and continues to define recycled water as a waste or resource of lesser value than traditionally defined potable water.~~
- ~~3) Would make urban water supplies less reliable, or would substantially increase the cost of local water supplies without also improving the quality and/or reliability of such water.~~

*Staff Note: Unnecessary because stated in the affirmative above.*

- ~~4) Restricts or limits a local governmental agency's ability to establish local priorities for water resources planning decisions.~~ *Staff Note: Redundant to overall policies above*

- 5) Reduces a local agency's ability to benefit from local investments in drought-proof or emergency water supplies ~~during water shortages.~~

- 6) Would prohibit ocean discharges and mandates that defined a percentage(s) of recycled water required to be used or served by water suppliers.

**WATER STORAGE**

**It is MWDOC's policy to support legislation and regulation that:**

- 1) Provides conveyance and storage facilities that are cost-effective for MWDOC, its member agencies and their customers, while improving the quality and/or reliability of the water supply.
- 2) Supports “beneficiaries pay” for water storage that ensure full cost recovery.
- 3) Supports the siting and construction of surface storage in Southern California, which is sited to receive either State Water Project (SWP) or Colorado River Aqueduct (CRA) supplies.
- 4) Supports funding at the state and federal level for surface and groundwater storage, including reauthorization and expansion of the WIIN Water Storage Program and bifurcation of Surface and Groundwater Storage Funding at the state and federal levels.
- 5) Supports the development of both a state and federal funding program to provide funding for local and regional dam safety/improvement projects and programs to repair conveyance facilities that have been damaged due to subsidence.

**It is MWDOC's policy to oppose legislation or regulations that:**

- 1) Results in reducing the quantity, quality and/or reliability of water in either surface or groundwater storage of substantially increases the cost of operating and maintaining surface and groundwater storage facilities without an adequate increase in public safety, water quantity, quality and/or reliability.

**WATER USE EFFICIENCY AND DISTRIBUTION SYSTEM WATER LOSS**

**It is MWDOC's policy to support legislation and regulation that:**

- 1) Furthers the statewide goal of appropriately increasing reasonable water use efficiency, throughout the state, and water conservation for local, regional, or statewide emergencies.
- 2) Would allow flexibility and fosters local and regional collaboration to develop and implement options for compliance in achieving statewide water reduction goals.
- 3) Seeks to cost-effectively improve water efficiency standards and policies for water-using devices such as, but not limited to, the EPA Water Sense Program and Cal Green Building Standards.
- 4) Reasonably improves Commercial, Institutional and Industrial (CII) water use efficiency programs while preserving community choice and the local economy.
- 5) Provides financially appropriate incentives, funding, and other assistance to facilitate market transformation and gain wider implementation of water-efficient indoor and outdoor technologies and practices.
- 6) Recognizes and protects past investments of agencies and customers in water use efficiency measures, especially from the demand hardening perspective.

7) Provides federal and state tax exemptions for water conservation or efficiency incentives for measures including, but not limited to, turf removal, devices, and other measures to reduce consumption of water or enhance the absorption and infiltration capacity of the landscape.

**It is MWDOC's policy to oppose legislation or regulations that:**

1) Would repeal cost-effective efficiency standards for water-using devices.

2) Places unreasonable conservation measures on residential, commercial, industrial and institutional customers that would negatively impact or limit the potential for economic growth.

3) Fails to recognize the importance of both water use efficiency and water supply development.

~~4) Fails to recognize augmented or alternative water supplies as an efficient use of water, or that fails to provide an adequate incentive for investments in such water, for potable or non-potable reuse.~~ *Staff Note: Stated in the affirmative in #1 and #2 above*

5) Requires water efficiency standards or performance measures that are infeasible, not practical or fail to have a positive cost-benefit ratio when comparing the cost of meeting the standard or implementing the performance measure with the value of the volume of water saved.

**WATER QUALITY AND ENVIRONMENTAL IMPACTS**

**It is MWDOC's policy to support:**

1) Legislation that protects the quality of surface water and groundwater including salinity management and the reduction of salt loading to groundwater basins.

2) The establishment and/or implementation of standards for water-borne contaminants based on sound science and with consideration for cost-effectiveness.

3) A science-based regulatory process that has been established under the Safe Drinking Water Act and that considers feasibility, benefits and cost, is the best approach for any consideration and development of drinking water regulations to address any contaminant or family of contaminants, including per- and polyfluoroalkyl (PFAS).

4) The investment in the development of analytical methods to more reliably and accurately measure various contaminants, including PFAS, in drinking water.

5) Administrative/legislative actions to improve clarity and workability of CEQA, and eliminate other duplicative state processes.

6) Streamlining or exempting water, recycled and desalinated water, wastewater projects, and/or environmental restoration projects, from the California Environmental Quality Act (CEQA).

7) Provides liability protections to public water districts, and related wholesale water providers, seeking to consolidate with or serve as the administrator for troubled water systems that cannot consistently demonstrate that they are able to provide safe, clean and reliable water supplies to their customers.

8) State-funded groundwater basin contamination studies and associated economic or environmental impacts.

9) Supports the efforts of water industry to promote policies that enhance the pace and scale of headwaters and forest management, including improved planning, coordination, and implementation; increase financing, research, and resources to protect water supply and quality; bring management practices in line with modern challenges; and provide multiple benefits to the State's water users.

10) Support the eradication and prevention of invasive species from becoming established in or around water supplies.

11) Legislation and/or regulations that enforce against cannabis growers' water theft and/or negative impacts to water quality. (Staff Note: Recommendation from Mesa Water District)

**It is MWDOC's policy to oppose:**

1) Legislation that could compromise the quality of surface water and groundwater supplies.

2) Legislation that establishes and/ or implements standards for water-borne contaminants without regard for sound science or consideration of cost-effectiveness and/or reasonable compliance timelines.

3) Projects that negatively impact the water quality of existing local supplies.

4) Legislation or regulation that would mandate an unscientifically supported federal or state maximum contaminant level, or mandating an artificial deadline for promulgating a maximum contaminant level for drinking water.

5) Legislation, regulation or other policy that would hold drinking water and wastewater facilities liable for PFAS contamination caused by third parties; or that does not clearly state that the party directly responsible for the PFAS pollution is solely liable for the costs associated with the contamination cleanup.

**METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

**It is MWDOC's policy to oppose legislation or regulation that:**

1) Compromises the existing governance structure and the representation of member agencies on the Metropolitan Water District Board of Directors.

2) Would restrict MET's rate-making ability.

## **WATER TRANSFERS**

### **It is MWDOC's policy to support legislation and regulation that:**

- 1) Encourages and facilitates voluntary water transfers, or streamlines the transfer approval process.
- 2) Provides appropriate protection or mitigation for impacts on the environment, aquifers, water-rights holders and third-parties to the transfer including those with interests in the facilities being used.

### **It is MWDOC's policy to oppose legislation or regulation that:**

- 1) Undermines the operations and maintenance of the conveyance system conveying the water.
  - 2) Interferes with the financial integrity of a water utility or compromises water quality and/or reliability.
  - ~~3) Increases regulatory or procedural barriers to water transfers at the local or state level.~~
- Staff Note: Stated in the affirmative in #1 and #2 above.*

## **WATER INFRASTRUCTURE FINANCING AND PROJECT FUNDING**

### **It is MWDOC's policy to support legislation and regulation that:**

- 1) Employs a "beneficiary pays" principle that establishes a clear nexus between the costs paid to the direct benefit received.
- 2) Reduces the cost of financing water infrastructure planning and construction, establishes grants or other funding and finance opportunities.
- 3) Considers local investments made in infrastructure, programs, mitigation and restoration in determining appropriate cost shares for water infrastructure, and project investments.

### **It is MWDOC's policy to oppose legislation or regulation that:**

- 1) Establishes a fee or tax that does not result in a clear and proportional benefit to the District, its member agencies, and their customers.
- 2) Would reduce the total available water infrastructure financing measures such as WIFIA, state-revolving funds, and others.

## **ENERGY**

**It is MWDOC's policy to support legislation or regulation that:**

- 1) Facilitates the development and expansion of clean, and cost-effective renewable energy in California, and recognizes hydroelectric power as a clean, renewable energy source and that its generation and use meets the greenhouse gas emission reduction compliance requirements called for in the Global Warming Solutions Act of 2006 (AB 32 and SB 100).
- 2) Facilitates voluntary and cost-effective local investments in renewable energy, energy management and storage, and energy efficiency which improve the water-energy nexus and reduce local agency costs.
- 3) Provides water agencies greater flexibility to run backup generators to support critical facilities during de-energization and PSPS events.

**FISCAL POLICY**

**It is MWDOC's policy to support legislation or regulation that:**

- 1) Requires the federal and state governments to provide a subvention to reimburse local governments for all mandated costs of regulatory actions.
- 2) Allows retail water providers to voluntarily offer localized Water Rate Assistance Programs that comply with Proposition 218 of California's Constitution and/or are funded either voluntarily or via non-restricted/non-water-rates revenues.
- 3) Support Proposition 13 as embodied in Article XIII A of the California Constitution, and oppose the "split roll" efforts that would increase property taxes on businesses.
- 4) Changes how inverse condemnation liability is determined for water service providers in order to limit water agency liability for impacts of wildfire.

**It is MWDOC's policy to oppose legislation or regulation that:**

- 1) Is inconsistent with the District's current investment policies and practices.
- 2) Pre-empts the District's or its member agencies' ability to impose or change cost-of-service-based water rates, fees, or assessments, or requires them to submit their rates or charges to any state agency for approval.
- 3) Impairs the District's ability to maintain levels of reserve funds that it deems necessary and appropriate.
- 4) Makes any unilateral reallocation of District revenues, or those of its member agencies, by the state unless the state takes compensatory measures to restore those funds.
- 5) Mandates a specific rate structure for water agencies.
- 6) Imposes a "public goods charge" "water user fee", or "water tax" on public water agencies or their ratepayers.

## **GOVERNANCE**

### **It is MWDOC's policy to support legislation or regulation that:**

- 1) Advances good government practices and public transparency measures in a manner that does not take a "one-size-fits-all" approach, respects local government control, and facilitates technological efficiencies to meet state reporting and disclosure requirements.
- 2) Are consistent with the current LAFCO processes defined in the Cortese-Knox-Hertzberg Act.
- 3) Supports or facilitates responsible programs, procedures, and methods that promote collaboration, transparency and open government.

### **It is MWDOC's policy to oppose legislation or regulation that:**

- 1) Imposes unnecessarily broad burdens or new costs upon all local governments absent a clear and necessary benefit.
- 2) Reduces or diminishes the authority of the District to govern its affairs.
- 3) Resolves state budget shortfalls through shifts in the allocation of property tax revenue or through fees for which there is no direct nexus to benefits received.

## **PUBLIC EMPLOYEE PENSION REFORM**

### **It is MWDOC's policy to support legislation that:**

- 1) Seeks to contain or reform public employee pension and other post-employment benefit (OPEB) cost obligations that are borne by public agencies via taxpayers and ratepayers.

## **EMERGENCY RESPONSE**

### **It is MWDOC's policy to support legislation that:**

- 1) Increases coordination on Homeland Security and emergency response efforts among the federal, state, and local governments with clearly defined roles and responsibilities for each.
- 2) Provides continued funding to enhance and maintain local Homeland Security infrastructure, including physical and cyber protection of critical infrastructure.
- 3) Ensures adequate funding for expenditures related to disaster response and all phases of emergency management; including the earthquake early notification system and efforts to enhance water infrastructure resiliency.

- 4) Strengthens intergovernmental planning and preparation coordination for emergency response and drills.
- 5) Enhances protection of information and cyber security for critical infrastructure through policy and funding for local efforts.
- 6) Supports water utility capability to notify customers of emergency protective measures through mass notification systems.
- 7) Properly recognizes water agencies' role in emergency response to wildfires and other natural disasters, where water service is needed or may be impacted, because water and wastewater services are essential public utilities that ensure public health and safety.

**It is MWDOC's policy to oppose legislation or regulation that:**

- 1) Reduces a water utility's ability to represent itself or implement activities of any component of the disaster preparedness cycle, especially within response and recovery section.
- 2) Negatively impacts water and wastewater utility's ability to prepare, mitigate or respond to, or recover from disaster and emergencies in order to provide fire suppression, drinking water and wastewater services.

# The County of Orange Report

Prepared for the MWD OC P&O Committee

September 28, 2021  
by Lewis Consulting Group

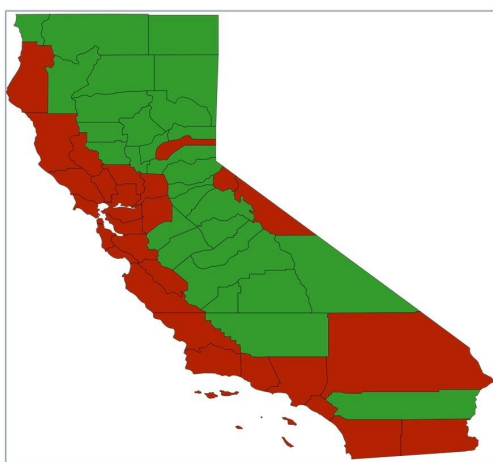


## Recall Defeated in a Landslide

This time the polls were right. However, even the pollsters couldn't account for the late surge in NO voters. Apparently Governor Newsom's strategy of tying leading candidate Larry Elder to President Trump in a barrage of advertising paid dividends. Recent statewide polls have captured the liberal sentiment on a myriad of issues that Californians now support.

One interesting take on the election was the stark difference between heavily populated urban counties and lightly populated inland counties. The map below depicts that visually.

### THE TWO CALIFORNIAS



Reporting

97%

as of September 27, 5:38 P.M. PDT

Results








Response	Votes	%
✓ Yes	4,736,702	37.80%
✗ No	7,794,727	62.20%
Valid votes	12,531,429	99.59%
Invalid or blank votes	51,263	0.41%
Total votes	12,582,692	100.00%
Registered voters/turnout	22,057,610	56.81%

\* The recall failed in San Bernardino county by the narrowest of margins, otherwise the map would have filled in more perfectly.

## Orange County Narrowly Votes NO

"Orange County is where good Republicans go to die", this quote from President Reagan seemingly belongs to a by-gone era. The defeat of the recall - 52% NO, in the former conservative bastion, provides further proof of the "blueing" of Orange County. The County ended up joining all but one of California's coastal counties in opposing the recall of Governor Newsom. In the 2022 elections, Republicans will try to buck the trend by preserving their narrow margin on the Board of Supervisors and defending the Congressional seats held by Young Kim and Michelle Steel. The off Presidential election cycle, coupled with President Biden's declining popularity might help their cause.

## Final Pre-Election Recall Polls

Poll source	Date(s) administered	Sample size <sup>[a]</sup>	Margin of error	Yes on recall	No on recall	Undecided
The Trafalgar Group (R) 	September 11–13, 2021	1,082 (LV)	± 3.0%	45%	53%	2%
SurveyMonkey/Momentive 	August 31 – September 13, 2021	3,985 (LV)	± 1.6%	41%	55%	4%
Emerson College 	September 10–11, 2021	1,000 (LV)	± 3.0%	40%	60%	1%
Data for Progress (D) 	September 2–10, 2021	2,464 (LV)	± 2.0%	43%	57%	–
SurveyUSA 	September 7–8, 2021	930 (LV)	± 4.2%	41%	54%	5%
Suffolk University 	September 6–7, 2021	500 (LV)	± 4.4%	41%	58%	1%
Berkeley IGS 	August 30 – September 6, 2021	7,917 (LV)	± 2.0%	38%	60%	1%



## LAFCO'S Strategic Planning Workshop

"LAFCO serves Orange County cities, special districts and the County to ensure effective and efficient delivery of municipal services". This newly crafted and proposed LAFCO mission statement was the first order of business at the lengthy workshop held on September 8<sup>th</sup>. The workshop was facilitated by Marilyn Snider of Snider and Associates.

Following several breakout sessions, the participants collaborated on crafting goals, accomplishments, strengths, weaknesses, future trends and three year goals.

### THREE-YEAR GOALS

2021 - 2024 \* not in priority order

- Optimize external communication
- Facilitate a continuing dialogue of South County governance options
- Refine and enhance the MSR process

### IDENTIFY THREE-YEAR GOALS

Brainstormed list of possible goals from which the Three-Year Goals were developed

- Provide outstanding customer service.
- Focus (continue to focus) on external communications and engage the public
- Increase Public Awareness
- Fulfill state mandates.
- Participate in legislative committees.
- Update/adjust the work plan in light of COVID-19 and other external forces
- EO/AEO continue outreach and communication plan to stakeholders
- Streamline future MSR process for reconfirmation.
- Develop a program to educate local leaders on governance issues
- Improve legislative advocacy/platform.
- Shared services opportunities-potentially public safety as an area of importance
- Continue to develop staff in all levels
- Continue with the process of South County Governance by informing and facilitating decisions relating to organizational alternatives and timing, including review of existing community interrelationships and SOCCC.
- Accelerate and expand MSR process to look at (a) remaining unincorporated islands and (b) redundancies/inefficiencies and economies of scale in service delivery.
- Process county islands and other applications
- Balance commission structure

## **STRENGTHS AND ACCOMPLISHMENTS OF ORANGE COUNTY LAFCO**

Brainstormed List of Perceptions from all Participants

- Santa Margarita Water District annexation
- Fully staffed- assistant executive officer
- Legislative reports
- Updates to Commission
- Municipal service reviews
- Actions in accordance with the CKH Act
- Commission deliberation
- Diligent and professional staff
- Leadership by EO
- Development of staff
- Improved outreach to stakeholders
- Proactive on County/City/District Issues
- Surviving COVID – business continuity
- Processing and completing applications without undue delays (notably San Juan)
- Increasing community presence/outreach
- Completed MSR scheduled for the year
- Completed MSR for San Juan Capistrano for the divestiture of their water and wastewater utility
- Completed the review and consultation with SJC and Santa Margarita Water District for annexation of SJC's water and wastewater utility
- Consulting with south county un-incorporated communities about future governance options
- Significant projects of work plan completed.
- Improved agency branding and communications tools.
- Enhanced communications with commissioners
- Filled staff vacancy and maintained morale in pandemic environment.
- Strengthened collaboration with southern region EOs, staff, and commissioners.
- San Juan water/wastewater utilities annexation.
- Efficient operations despite challenges with the pandemic
- Fiscally sound agency
- We continued to do business during Covid
- We continued outreach in south county
- We instituted a nice newsletter (lafco update)
- We stuck to business. No mission creep (remember homeless was almost put into our strategic plan a couple years ago?)



### **Summer Doldrums for Supervisors**

The most recent Board of Supervisors meetings on September 14, and September 28, 2021 along with the upcoming October 5, 2021 Board meeting have dealt largely with non-substantive issues. One noticeable change has been the recent cessation of COVID-19 updates from County Public Health Officer Dr. Clayton Chau. Perhaps the Board members have tired from the repetitive public comment “putdowns” from the anti-vaccine attendees or they may have also wanted to stop what they perceive as “grandstanding” on the issue by new Supervisor Katrina Foley.

## COVID-19 Plateaus in the County

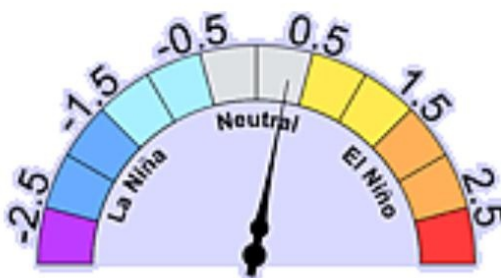
The uncertainty associated with the Delta variant created fears of a return to the horrible days of the first COVID-19 peak. That has not happened. After an early spike in new cases, hospitalizations and deaths, the numbers have stabilized and in some cases started to decline. A major factor appears to be the high vaccine rates among the most vulnerable (elderly, obese or immune compromised).

ORANGE COUNTY COVID-19 STATS	AS OF 9/28/2021	AS OF 8/30/2021
CUMULATIVE CASES TO DATE	296,932	285,098
CUMULATIVE DEATHS TO DATE	5,418	5,220
DEATHS REPORTED TODAY	13	18
CUMULATIVE TESTS TO DATE	5,054,229	4,660,095
TESTS REPORTED TODAY	12,461	31,388
CASES CURRENTLY HOSPITALIZED	288 *	546 *
CASES CURRENTLY IN ICU	72	139
CUMULATIVE RECOVERED TO DATE	282,630	263,557

\* = INCLUDES *ICU* CASES

## Return to La Niña?

### ENSO METER



According to the National Weather Service "a transition from ENSO - neutral to La Niña is favored in the next couple of months with a 70%-80% chance of La Niña during the Northern Hemisphere winter 2021-2022". This unfortunately lessens the chance of drought busting rain.

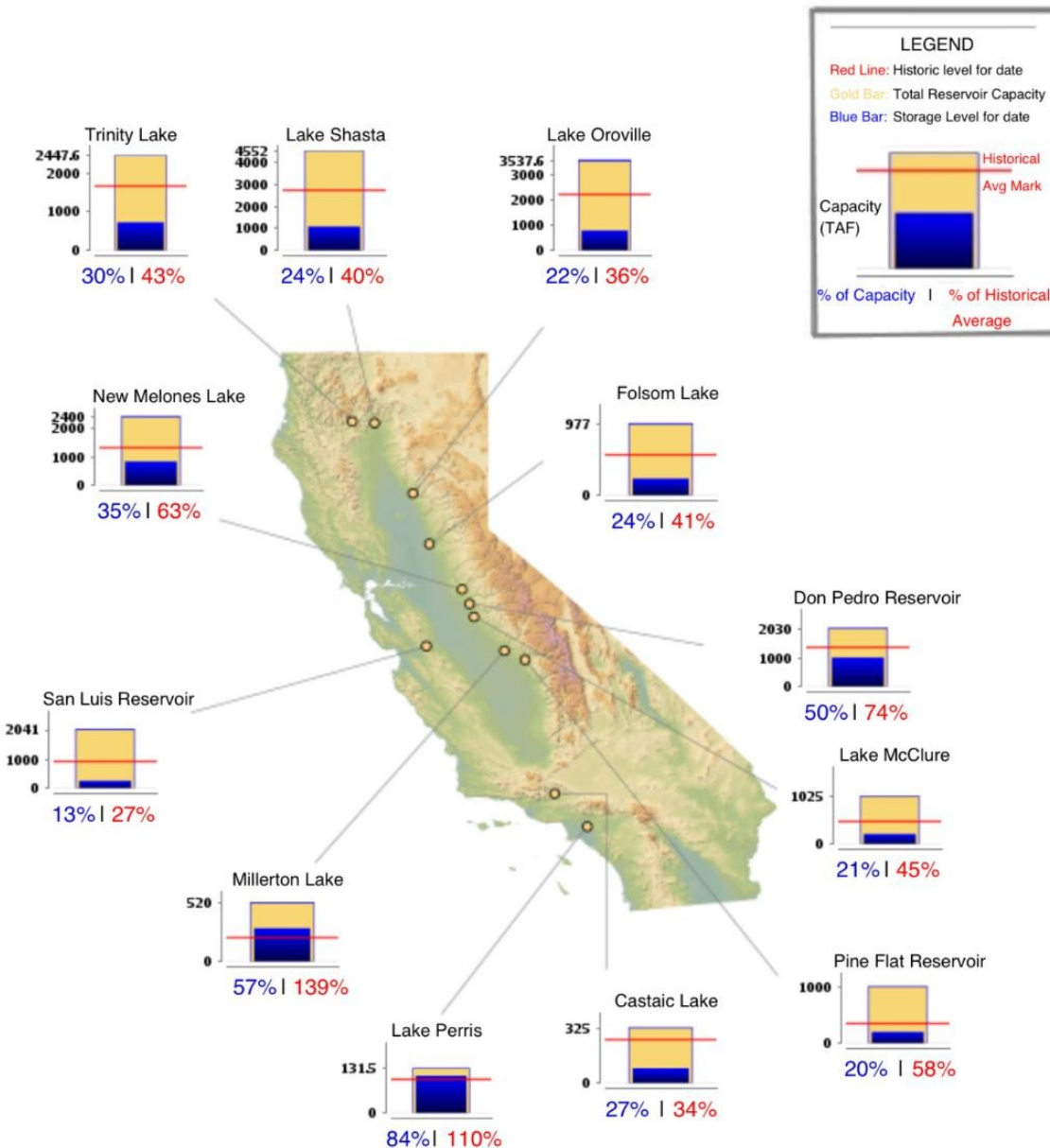
## California Reservoirs Take It On the Chin

The prolonged drought has taken its toll on California reservoirs water levels. Leading the way in the bad news department, is the San Luis Reservoir which is only at 13% of capacity.



SELECTED WATER SUPPLY RESERVOIRS

Midnight: September 27, 2021



Updated 09/28/2021 06:48 AM

# ACKERMAN CONSULTING

## Legal and Regulatory

October 4, 2021

1. **Amador County 20% Water Cuts:** Amador Water Agency, led by Larry McKenney, is asking its customers to reduce water usage by 20%. The Agency has been restricted in its diversion of river water. Their request is to limit watering to three days a week, reduce swimming pool and hot tub filling, no sidewalk washing and other limits which have been adopted by many OC agencies. No water at restaurants unless specifically requested. Local wineries are not concerned since their major source is wells. They are hoping to avoid a Stage 2 call which would reduce usage by 30%.
2. **Sustainable Water Treatment:** Monash University in Australia has developed a natural method for cleaning up wastewater. Fossil fuel and toxic chemicals are avoided. The process uses a cellulose/zinc oxide catalyst which when exposed to sunlight breaks down pollutants in wastewater. The pilot uses sunlight and UV lights (solar powered) and controlled flow to produce clean water. The trials have shown success with PFAS, solvents, dyes and wastewater samples. Tests are now being done to determine commercial feasibility for large water streams. Their target markets currently are breweries, textile, food and beverage and printing companies to see if the usage can be expanded to greater markets.
3. **Pro Environment Blue Jeans:** Clothes dyeing and blue jeans in particular are heavy users of water and toxic chemicals. It takes 50 to 100 liters of water to dye one set of jeans. The University of Georgia is working on an indigo dyeing technology which could revolutionize the market. In addition, it reduces the need for chemicals and actually produces better color. Indigo is not water soluble which means more chemicals must be used to complete the process. The new method uses a form of wood pulp mixed with the indigo which attaches the ink to the textile. It requires only one application as compared to the current multiple applications. The potential cost savings is huge, plus the eliminations of many of the environmental concerns and water savings. Blue jeans annual sales exceed \$90 billion. The impact of the process is enormous.
4. **More Wastewater Developments:** Ammonia is the second most produced chemical in the world. It is used in fertilizers and many plastic and drug products. The current process uses large amounts of energy and fossil fuels. The University of Illinois, Chicago has found a solar powered process to jump start a chemical reaction to produce ammonia from wastewater. The addition of nitrate, a commonly found water contaminant, with sunlight produces a chemical reaction to form ammonia and practically zero negative side effects. While many metals have been experimented with, a cobalt catalyst proved to be the key to make the reaction occur. This process is being tested for commercial scale.
5. **Floods Can Stop Fires:** An article by the Slate Group has suggested ways to use flood conditions to help prevent forest fires. While running pipes across the United States has been discussed for many years, the practicality of

actually doing it remains dubious. However, certain areas have been studied to determine the feasibility of building an infrastructure to make it happen. That structure would have to collect water during flood conditions and divert or store water for above ground storage and aquifer recharge. Areas that have actually done such planning and projects include New Orleans, Virginia Beach, Boston and China. Studies in California have suggested better coordination between flood control efforts and groundwater treatment. Also, collaboration with the agricultural interests and wetland preservation could achieve less fires and better water use. New York City's recent floods have spotlighted their efforts to create more conditions to allow water to be absorbed and to recharge aquifers to reduce hotter conditions. I would suggest that this planning effort is not applicable to all situations but may be useful in some.

6. **Lithium Saves Salton Sea?:** The electric car market may save the Salton Sea. Lithium is the backbone material in batteries used to power most electric cars. Geothermal power plants are a common sight in the Salton Sea area. Today they are mainly used to power steam turbines. However, in the future, that may change. The salty brine has been returned to the ground but since lithium is contained in that brine, a new business model has appeared. Most of the 11 geothermal plants operating at the Sea are considering switching over to lithium and other mineral harvesting. The plant cost is averaging \$500 million per copy and production is predicted to start as early as next year or the next few years. The primary sources for lithium are presently Australia, Chile, Argentina and China. The US is far behind. The Sea could change those dynamics. To show the seriousness of the investors, one of them is General Motors who wants to eliminate tail pipe emissions by 2035. This method has not been used before but it is more environmentally sound than other current methods. Many local businesses in the area are starting to gear up for the new business opportunities.
7. **Water System Destroys Rainforests:** The Central Valley does not look the same today that it did prior to the California Gold Rush. In the early 1800s the Valley had raging rivers, floodplains and abundant woodlands. That all changed when the agriculture complex began to form. Rivers were tamed and redirected. The natural cycle of floods, reseeding and new growth was slowly phased out and eventually disappeared. The groundwater condition did not get recharged on the regular basis as before. Seasonal growth patterns were altered. Riparian woodlands disappeared and the associated wildlife also.
8. **Southern Blob:** A warm water phenomenon the size of Australia in the southwest Pacific is called the Southern Blob. The mass is so large that it impacts the weather patterns thousands of miles away. The drought conditions in Chile have been linked to the Blob. The storms that usually hit that part of South America are sent further south to Antarctica. This has been happening for the last 10 or so years which coincides with Chile's recent drought conditions. It is not known when the Blob will go away but most think it will at some point in time. Some blame this on human activity but others suggest no one knows exactly how Mother Nature operates.
9. **Artificial Reefs:** Southern California is home to 32 man made reefs in the Pacific Ocean. These started back in the 1950s when about everything including a kitchen sink was used to construct these reefs. Initially, they were built for fisherman and diving. Everyone knew that putting stuff on the sandy bottoms would create kelp beds and other homes for fish and other critters. Later, we became more scientific and used materials that would not

pollute and would last longer. Cars and objects made from wood did not stand the test of time. Now, quarry rock (from Catalina Island) has proven to be the best material. The good news is that they do work.

10. **More Water on Earth:** The University of Saskatchewan, Canada has used modelling and research to show additional groundwater on earth. The water is old and salty and exists in rock formations from 1 to 10 kilometers below the earth surface. The estimated volume is greater than the volume of the ice caps and glaciers currently known. The depth is below what traditional wells can access but could be a source of water in the future.



**INFORMATION ITEM**

October 4, 2021

**TO: Planning & Operations Committee**  
(Directors Yoo Schneider, Nederhood, Seckel)

**FROM: Robert Hunter, General Manager**

Staff Contact: Damon Micalizzi

**SUBJECT: OC Water Summit Update**

**STAFF RECOMMENDATION**

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Staff recommends the Public Affairs & Legislation Committee: Receive and file the report.

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**REPORT**

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The stage is set for the the 2021 OC Water Summit, to be held on October 15th, at Disneyland's Grand Californian Hotel. Including staff and board members from OCWD and MWDOC, more than 280 attendees are registered for the event.

At the time of this report, including purchased tables, nearly \$60,000 has been secured in sponsorships for the event.

The program is attached.

## 2021 OC Water Summit Program

<p><b>WELCOME</b> 8:00 – 8:05</p>	<p>Welcome address by Directors Sheldon and Thomas, followed by the Pledge of Allegiance and introduction of Master of Ceremonies.</p> <p>Speakers:</p> <ul style="list-style-type: none"> <li>• Stephen Sheldon, President, Orange County Water District</li> <li>• Jeffery Thomas, Director, Municipal Water District of Orange County</li> <li>• Fritz Coleman, Master of Ceremonies</li> </ul>
<p><b>SESSION 1</b> 8:05 – 8:45</p>	<p><b>Water Prediction— Collaboration Yields Increased Supplies</b></p> <p>Weather forecasting is nothing new, but recent advancements in forecasting are aiding stormwater capture and flood control efforts. From Lake Mendocino to Prado Dam, improved water and weather forecasts allow for more effective management of reservoirs. Learn more about this public-private collaboration that has gained support for developing Forecast Informed Reservoir Operations.</p> <p>Speakers:</p> <ul style="list-style-type: none"> <li>• Moderator: Fritz Coleman</li> <li>• Marty Ralph, PhD., Director, Center for Western Weather and Water Extremes, Scripps Institution of Oceanography</li> <li>• David Van Dorpe, P.E., PMP, Deputy District Director, Los Angeles District, US Army Corps of Engineers</li> <li>• Grant Davis, General Manager, Sonoma Water</li> </ul>
<p><b>SESSION 2</b> 8:45 – 9:40</p>	<p><b>The Best Defense to Drought is Water Supply</b></p> <p>Forty-two percent of California is experiencing drought and reservoirs are at historic lows. While Orange County is well prepared for dry conditions, it still must battle with decreased water allocations. Yet, the state has not invested in large scale water infrastructure in decades. Why? What challenges stand in the way? A panel of experts will lay it all on the table as they debate California’s best course of action to sustainably increase its water supply.</p> <p>Speakers:</p> <ul style="list-style-type: none"> <li>• Steven Greenhut, Author, Winning the Water Wars</li> </ul>

	<ul style="list-style-type: none"> <li>• Jennifer Pierre, General Manager, State Water Contractors</li> <li>• William Bourdeau, Chairman, California Water Alliance and Executive Vice President, Harris Farms</li> </ul>
<b>BREAK</b> 9:40-10:00	
<b>SESSION 3</b> 10:00 – 10:40	<p><b>PFAS—Where are We Now?</b></p> <p>In 2019, PFAS became a critical issue for the water industry. The Orange County Water District has led the way in exploring how PFAS can be removed from groundwater supplies. Hear from the experts who are researching, designing and constructing PFAS treatment in Orange County.</p> <p>Speakers:</p> <ul style="list-style-type: none"> <li>• Moderator: Jason Dadakis, Executive Director of Water Quality and Technical Resources, OCWD</li> <li>• Patricia Tinnerino, Account Manager-Environmental Solutions, Evoqua Water Technologies</li> <li>• Scott Grieco, Ph.D., P.E., Global Technology Leader, Jacobs</li> <li>• Kirk Harns, Owner, Pacific Hydrotech</li> </ul>
<b>SESSION 4</b> 10:40 – 11:20	<p><b>The Santa Ana River —What’s Coming Downstream?</b></p> <p>What’s happening in the upper watershed affects Orange County. Learn what’s in store for Southern California’s largest river and how this will impact us downstream.</p> <p>Speakers:</p> <ul style="list-style-type: none"> <li>• Moderator: Jeff Mosher, General Manager, Santa Ana Watershed Project Authority</li> <li>• Shivaji Deshmukh, P.E., General Manager, Inland Empire Utilities Agency</li> <li>• Bob Tincher, Deputy General Manager, San Bernardino Valley Municipal Water District</li> <li>• Todd Corbin, General Manager, Riverside Public Utilities</li> <li>• Mike Markus, General Manager, Orange County Water District</li> <li>• Craig Miller, General Manager, Western Municipal Water District</li> </ul>
<b>SESSION 5</b> 11:20-12:15	<b>19 Million People, 26 Agencies—Will the Plan Serve All?</b>

	<p>Hear from the Metropolitan Water District of Southern California about its recently completed Integrated Water Resources Plan (IRP). What's in it and does it guarantee a reliable water system for generations to come. Does the audience agree? Hear stakeholder questions tackled live on stage.</p> <p>Speaker:</p> <ul style="list-style-type: none"> <li>• Adel Hagekhalil, General Manager, Metropolitan Water District of Southern California</li> </ul>
<p><b>LUNCH BUFFET</b> <b>12:15 – 1:30</b></p>	<p>12:45 - Closing remarks from Directors Sheldon and Thomas.</p>



**INFORMATION ITEM**

October 4, 2021

**TO: Planning & Operations Committee**  
(Directors Yoo Schneider, Nederhood, Seckel)

**FROM: Robert Hunter, General Manager**

Staff Contact: Damon Micalizzi

**SUBJECT: September 30<sup>th</sup> Water Policy Dinner Featuring Metropolitan GM Adel Hagekhalil**

**STAFF RECOMMENDATION**

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Staff recommends the Public Affairs & Legislation Committee: Receive and file the report.

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**DETAILED REPORT**

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At the time of this report, more than 230 guests, including 20 tables purchased, are registered for MWD OC's September 30<sup>th</sup> Water Policy Dinner. The event was held at the Westin in Costa Mesa and featured the new General Manager and Chief Executive Officer of the Metropolitan Water District of Southern California, Adel Hagekhalil.

A verbal update will be provided at the meeting.



**INFORMATION ITEM**

October 4, 2021

**TO: Planning & Operations Committee**  
(Directors Yoo Schneider, Nederhood, Seckel)

**FROM: Robert Hunter, General Manager**

Staff Contact: Sarah Wilson

**SUBJECT: MWDOC Choice School Programs Update**

**STAFF RECOMMENDATION**

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Staff recommends the Planning & Operations Committee receive and file this report.

**COMMITTEE RECOMMENDATION**

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Committee recommends (To be determined at Committee Meeting)

**SUMMARY**

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The Municipal Water District of Orange County (MWDOC) K-12 Choice School Program contractors—Shows That Teach and Orange County Department of Education's Inside the Outdoors—continue to book live, interactive water lessons for the 2021/22 school year. Included in this report is a detailed breakdown of each program's progress including teacher feedback, photos, and more.

Also included in this report is a preview of scheduled visits for the months of October and November 2021. MWDOC Choice School Program contractors update the shared Google Calendar so that participating member agencies are able to view the virtual sessions in their service area as they are booked. Please note that the shared Google Calendar is updated frequently, and will always have the most accurate information. Visits are subject to change due to school and teacher availability. Login information for the shared Google Calendar is available upon request.

**DETAILED REPORT**

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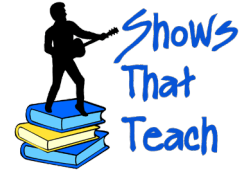
<b>Budgeted (Y/N): Y</b>	Budgeted amount: \$430,221	Core <u>  </u>	Choice <u>X</u>
<b>Action item amount:</b>	Line item: 63-7040		
<b>Fiscal Impact (explain if unbudgeted):</b>			

The MWDOC K-12 Choice School Programs support California State Standards, including [Environmental Principles and Concepts \(EP&Cs\)](#), now integrated into the Science (Next Generation Science Standards – NGSS), History-Social Science, Health, and Arts Frameworks with Mathematics on the way. EP&Cs enable MWDOC to expand its involvement in youth education beyond science classes, providing essential water-focused lessons in multiple core subjects. Through participation in the MWDOC Choice School Programs, Orange County K-12 students gain the interdisciplinary knowledge to become thoughtful water stewards prepared for active citizenship and academic and career success.

All MWDOC Choice School Programs incorporate hands-on interaction, pre- and post-program activities, and opportunities for family and community engagement. Presentations are offered to schools as either in-person or virtual.



**MWDOC Choice Elementary School  
Program (grades K-2)**  
October 4, 2021



Shows That Teach offers Orange County students in grades K-2 fun and informative assemblies that use music, humor, and audience participation to engage students in water-centric topics such as the water cycle, water supply resources, and using water wisely. This interactive program also includes hands-on pre- and post-activities that encourage students to reflect on their relationship with water. This program is offered either in person or virtually to K-2 students combined. Multiple classrooms and grade levels can participate simultaneously.

**COMPLETED PARTICIPATION TO DATE:**

Totals reflect the number of presentations *completed* and students seen since the start of the 2021-2022 school year.

- **In-person presentations hosted:** 0
- **Virtual presentations hosted:** 8
- **Total number of students seen:** 1,342
- **Presentations have been completed in the following service areas:** City of Westminster, Trabuco Canyon Water District, City of Huntington Beach, City of Orange, City of Brea, City of Anaheim

**SCHEDULED PARTICIPATION TO DATE:**

Totals reflect the number of presentations currently *scheduled* and students expected to participate in the upcoming months of the 2021-2022 school year.

- **In-person presentations scheduled:** 10
- **Virtual presentations scheduled:** 6
- **Total number of students expected:** 2,365
- **Upcoming presentations have been scheduled in the following service areas:** City of Orange, City of Garden Grove, City of Brea, Santa Margarita Water District, City of Anaheim, City of Westminster, City of La Palma, Moulton Niguel Water District, El Toro Water District

**ADDITIONAL PROGRAM DETAILS AND MEASUREMENTS:**

**Photo taken by a teacher at La Veta Elementary and given to Shows That Teach by a teacher.**



**Teacher feedback:**

My students really enjoyed it and I like that you still ask kids for their questions.  
-- First Grade teacher, Brea Country Hills

Very good. My students were engaged the whole time. They loved Puey the Pig and all of the songs!  
-- First Grade teacher, Hephatha Lutheran

The virtual assembly was so inventive and engaging. My kids were really excited to watch the skits and interact with the material.  
-- First Grade teacher, Brea Country Hills



**MWDOC Choice Elementary School  
Program (grades 3-5)**  
October 4, 2021



Orange County Department of Education's Inside the Outdoors offers Orange County students in grades 3-5 interactive, grade-specific lessons that engage students in valuable instruction on the history of California water, local climate and water sources, and how to use water efficiently. Each session includes student prompted interaction, demonstrations, and pre- and post-activities that guide students to examine how access to a reliable source of drinking water is important to every community. Participating students and their families also receive resources that complement the topics covered during the classroom session. This program is offered either in person or virtually to students in grades 3-5.

- ◆ **3rd Grade:** Compare and describe diverse weather and climate data and explore personal choices to protect our local water resources.
- ◆ **4th Grade:** Identify the key role water plays in California's history including the growth and expansion of towns and cities.
- ◆ **5th Grade:** Examine existing water management solutions and determine ways to protect the quality and quantity of water.

**COMPLETED PARTICIPATION TO DATE:**

Totals reflect the number of presentations *completed* and students seen since the start of the 2021-2022 school year.

- ◆ **In-person presentations hosted:** 0
- ◆ **Virtual presentations hosted:** 0
- ◆ **Total number of students seen:** 0
- ◆ **Presentations have been completed in the following service areas:** N/A

**SCHEDULED PARTICIPATION TO DATE:**

Totals reflect the number of presentations currently *scheduled* and students expected to participate in the upcoming months of the 2021-2022 school year.

- ◆ **In-person presentations scheduled:** 1
- ◆ **Virtual presentations scheduled:** 27
- ◆ **Total number of students expected:** 2,478
- ◆ **Upcoming presentations have been scheduled in the following service areas:**
  - City of Anaheim
  - City of Garden Grove

## ADDITIONAL PROGRAM DETAILS AND MEASUREMENTS:

To date, OCDE/ITO has received interest from the following schools and is working with teachers to schedule those presentations:

- Eight (8) schools in the City of Fullerton service area
- One (1) school in the City of La Habra service area
- One (1) school in the City of Orange service area
- Eight (8) schools in the City of Santa Ana service area
- One (1) school in the City of Anaheim service area
- One (1) school in the City of Brea service area
- One (1) school in El Toro Water District service area
- One (1) school in the City of Fountain Valley service area
- Two (2) schools in the City of Buena Park service area
- One (1) school in the City of Huntington Beach service area
- Eight (9) schools in the City of Garden Grove service area

Once scheduled, the shared calendar of visits will be updated.



**MWDOC Choice Middle and High  
School Programs (grades 6-12)**  
October 4, 2021



Orange County Department of Education's Inside the Outdoors offers Orange County students in grades 6-12 grade-specific classroom sessions that guide students to investigate challenges faced by water providers and identify sources of human impact on the quality, quantity, and availability of water in their communities. Each session includes student prompted interaction, demonstrations, and pre- and post-activities that engage students in developing solutions to real-world problems. Participating students also have the opportunity to engage in field study or volunteer days of service to receive credit toward their required service hours. This program is offered either in person or virtually to students in grades 6-12.

- ◆ **6<sup>th</sup>-8<sup>th</sup> Grade:** Students analyze water samples to identify sources of potential pollution and form strategies to monitor or minimize pollution.
- ◆ **9<sup>th</sup>-12<sup>th</sup> Grade:** Students collect and analyze data to explore the role of the Sacramento-San Joaquin Delta and its connection to our local water resources.

**COMPLETED PARTICIPATION TO DATE:**

Totals reflect the number of presentations *completed* and students seen since the start of the 2021-2022 school year.

**Middle School Program (grades 6-8)**

- ◆ **In-person presentations hosted:** 0
- ◆ **Virtual presentations hosted:** 0
- ◆ **Total number of students seen:** 0
- ◆ **Presentations have been completed in the following service areas:** 0

**High School Program (grades 9-12)**

- ◆ **In-person presentations hosted:** 0
- ◆ **Virtual presentations hosted:** 0
- ◆ **Total number of students seen:** 0
- ◆ **Presentations have been completed in the following service areas:** N/A

**SCHEDULED PARTICIPATION TO DATE:**

Totals reflect the number of presentations currently *scheduled* and students expected to participate in the upcoming months of the 2021-2022 school year.

**Middle School Program (grades 6-8)**

- ◆ **In-person presentations scheduled:** 0
- ◆ **Virtual presentations scheduled:** 0
- ◆ **Total number of students expected:** 0
- ◆ **Upcoming presentations have been scheduled in the following service areas:** 0

**High School Program (grades 9-12)**

- ◆ **In-person presentations scheduled:** 0

- ◆ Virtual presentations scheduled: 0
- ◆ Total number of students expected: 0
- ◆ Upcoming presentations have been scheduled in the following service areas:  
N/A

#### **ADDITIONAL PROGRAM DETAILS AND MEASUREMENTS:**

To date, OCDE/ITO has received interest from one (1) school in the City of Anaheim service area and one (1) school in the City of Brea service area. Once scheduled, the shared calendar of visits will be updated.

OCDE/ITO has begun outreach to middle school and high school teachers. It typically takes a little longer to coordinate with teachers in the secondary level, especially at the beginning of the school year.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	1	2
			3-5 City of Anaheim	3-5 City of Anaheim		
3	4	5	6	7	8	9
K-2 GARDEN GROVE K-2 ORANGE St.	K-2 BREA Country	K-2 SMWD Bathgate			K-2 ANAHEIM	
10	11	12	13	14	15	16
		K-2 GARDEN GROVE K-2 WESTMINSTER	K-2 LA PALMA G.B. K-2 SMWD Chaparral		K-2 MNWD Laguna	
17	18	19	20	21	22	23
		K-2 MNWD Viejo		K-2 ANAHEIM		
24	25	26	27	28	29	30
					3-5 City of Anaheim	
31	1	2	3	4	5	6
					K-2 ETWD Grace	

Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	1	2	3	4	5	6
					K-2 ETWD Grace	
7	8 K-2 MNWD Marian	9	10 K-2 WESTMINSTER	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30 3-5 City of Anaheim	1	2	3	4

<b>ENGINEERING &amp; PLANNING</b>	
<b>Economic Benefit Studies and Modeling Work to Quantify the Benefits of Local Projects in the Context of MET's 2020 Integrated Resources Plan (IRP)</b>	<p>MWDOC staff continues working with the Brattle Group and CDM Smith on the Economic Benefits Studies and modeling work.</p> <p>Wallace Walrod, economist for Orange County Business Council and sub-consultant for the Brattle Group, is leading the business survey portion of the economic benefit studies. The business survey instrument has been completed. Cal State University, Fullerton's Social Science Research Center (CSUF)'s Institutional Review Board has reviewed and approved the survey. CSUF is currently conducting the business survey.</p> <p>The current schedule anticipates completion of the survey of 400 Orange County businesses by October 2021 and completion of the economic studies report by November 2021.</p>
<b>OC-70 Meter Testing Update</b>	<p>MWDOC staff continue to work with staff from MET and EOCWD on finalizing the investigation of the accuracy of the billing meter at Service Connection OC-70.</p> <p>A summary presentation of the OC-70 meter accuracy results was provided by MET to MWDOC and EOCWD on August 9, 2021; where MET reported that the OC-70 service connection meter is over registering by 5%. MET confirmed that a reimbursement is due to MWDOC and EOCWD, but have been unable to identify the exact source of the error. MET will continue to investigate the source of the error and, when operational feasible for EOCWD, will shut down OC-70 to do an internal 3D scan of the inside dimensions of the venturi meter as one final possible source of the error.</p> <p>On September 15, 2021, MET staff reconfigured and calibrated the OC-70 meter by offsetting the meter output by 5.2%. This error correction will apply to all meter reads moving forward.</p> <p>MET is currently working on a final report of the meter error and the proposed retroactive billing adjustment. Once the final report is received, MWDOC will work with EOCWD to review MET's proposed adjustment and work with MET staff to bring the final adjustment to the MET Board to bring the issue to closure.</p>
<b>Reliability Study Update</b>	<p>Staff are working with CDM Smith on an update to the reliability study. The update will look at a total of 5 scenarios that include recent information including uncertainty about the Delta Conveyance Project and more recent Climate Change impact information. The update will incorporate the latest demand forecasts from the 2020 Urban Water Management Planning efforts, update project cost information, and include updated information from MET's 2020 IRP process. Staff anticipates the update to be completed in early December 2021. Staff will then bring the study results to the Board for discussion.</p>

<b>Doheny Ocean Desalination Project</b>	<p>South Coast Water District (SCWD) continues to develop the Doheny Ocean Desalination Project. SCWD is currently working through multiple due diligence items to move the project forward including; permitting, plant sizing and siting, financing, and project delivery method. SCWD anticipates having all necessary permits by the end of the 1st Quarter of 2022 and estimates an on-line date of early 2026, if approved by the SCWD Board.</p> <p>On July 22, 2021, SCWD conducted its 7<sup>th</sup> workshop on the SCWD Integrated Water Resources Plan (IWRP). Included in that plan was consideration of a strategy for various options for the Doheny Ocean Desalination Project. The SCWD Board approved an adaptive management strategy which includes proceeding with efforts to secure partners for a 5 MGD Doheny Ocean Desalination Project. If SCWD is unsuccessful in securing partners SCWD will proceed with construction of a smaller 2 MGD project that does not have future expansion capabilities.</p> <p>SCWD held a Special Board Meeting on September 2, 2021 to discuss the financial implications of the project. Clean Energy Capital (CEC) presented a water cost analysis for the project where CEC presented cost projections for a 2 MGD project with an estimated 1<sup>st</sup> year water cost of \$1,928/AF in 2021\$, and a 5 MGD project with an estimated 1<sup>st</sup> year water cost of \$1,479/AF in 2021\$. The SCWD Board actions included accepting the water cost analysis; initiating a Public Outreach Program supporting the implementation of the project; re-engaging with task-related consultants for the development of necessary contract activities; and authorizing the SCWD General Manager to develop a partnership education plan to pursue and secure partnerships with local agencies to realize the cost savings a 5 MGD project provides.</p>
<b>Strand Ranch Project</b>	<p>IRWD presented the Strand Ranch project at the July MWDOC Agencies Managers Meeting. A follow up meeting was held on August 30, 2021 to provide more information to interested agencies.</p>
<b>Poseidon Resources Huntington Beach Ocean Desalination Project</b>	<p>On April 29, 2021, the Santa Ana Regional Water Quality Control Board (SARWQCB) conditionally renewed Poseidon's permit governing the seawater intake and waste discharges. The SARWQCB order requires Poseidon to minimize negative impacts on marine life by directing them to undertake a series of mitigation measures and prohibiting the intake of seawater and the discharge of concentrated brine until certain conditions are met.</p> <p>To comply with the plan's requirements, Poseidon agreed to install fine mesh, wedge wire screens on the plant's intake pipe and affix a diffuser to its discharge structure to reduce marine mortality and impacts of the brine effluent to the ocean. Poseidon also agreed to expand its mitigation plans at the Bolsa Chica Wetlands to achieve 59.2 acres of mitigation credit and to create an artificial reef offshore of Palos Verdes to restore rocky reef habitat buried by recent landslides for an additional 41.3 acres of mitigation credits.</p>

	<p>To incentivize Poseidon to implement the mitigation measures as quickly as possible, the order prohibits the facility from intaking seawater and discharging return water into the ocean until they have completed several permit requirements to the satisfaction of the SARWQCB including; developing cost estimates, timeline estimates, and completing 60 percent design plans for the mitigation projects.</p> <p>The next step for Poseidon includes seeking permits from the California Coastal Commission (CCC), which is anticipated to occur during the first quarter of 2022.</p>
<b>Shutdowns</b>	<p><b>Orange County Feeder</b></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.</p> <p>MET has further delayed the relining project and has proposed new shutdown dates of September 15, 2022 through June 15, 2023.</p> <p><b>Orange County Feeder Extension</b></p> <p>MET is planning to reline 300-linear feet of the OC Feeder extension affecting the City of Newport Beach, IRWD and LBCWD. MWDOC and the City are meeting with MET staff to review details of the Traffic Control Plan.</p> <p>MET has delayed the relining project by one year and has proposed new shutdown dates of June 16, 2023 through July 10, 2023.</p> <p><b>Orange County Reservoir (OC Feeder)</b></p> <p>MET is planning to decommission the Orange County Reservoir during the dates of November 1, 2021 through November 6, 2021. This work will affect the cities of Brea and La Habra.</p> <p><b>Lake Mathews Facility Shutdown</b></p> <p>MET is planning rehabilitation work on Lake Mathews facilities from March 1, 2022 through March 10, 2022. Work on Lake Mathews will affect downstream untreated lines. The following agencies will be affected during the shutdown: OCWD, YLWD, Serrano WD, IRWD, TCWD, ETWD, SMWD, MNWD, and the City of San Clemente.</p> <p><b>Allen-McColloch Pipeline</b></p> <p>MET has completed 50% of the preliminary design of the AMP PCCP rehabilitation and is expected to be complete with the design by 2023. Preliminary design work currently underway includes identifying priority reaches, developing access locations, conducting geotechnical assessments, modeling a surge analysis, conducting real property assessments, identify permitting requirements and development of a feeder isolation plan. A draft project schedule will be developed at the completion of preliminary design.</p>

	<p>Rehabilitation of individual reaches will be based on the ongoing condition assessments, priorities, and shutdown scheduling.</p> <p>Staff will be setting up a working group in the coming months with MET and the impacted AMP agencies to coordinate shutdown planning for the 8 miles of AMP pipe that will need to be relined.</p>
<b>Meetings</b>	
	MWDOC staff along with ABS Consulting, IDS Group and Optima RPM participated in several construction progress meetings in the month of September regarding the admin building seismic retrofit and remodel. Weekly progress meetings will continue through the completion of the project.
	Charles Busslinger and Chris Lingad attended a meeting with the City of Newport Beach and MET on September 2, 2021 to discuss the traffic control plan for the upcoming Orange County Feeder Shutdown.
	Charles Busslinger, and Chris Lingad attending a meeting with Ed Means and MET on September 9, 2021 to discuss the EOCF#2 Emergency Pilot Project.
	Charles Busslinger attended the August 16, 2021 Santiago Aqueduct Commission quarterly meeting.
	Charles Busslinger met with El Toro WD staff on August 15, 17, 20, and 22, 2021 to discuss El Toro Filter Plant Site/South Emergency Operations Center design and geotechnical services proposal and cost share agreement.
	Charles Busslinger met with Dan Rodrigo on August 22, 2021 to review the Reliability Study Update.
	Charles Busslinger and Chris Lingad met with Wallace Walrod and CSUF staff on September 23, 2021 to discuss the progress of the business survey for the Economic Benefits Studies.

# General Manager Report

## WEROC Status Report

### September 2021

#### COVID-19 (CORONA VIRUS) COORDINATION

- WEROC continues to monitor the CDC, State and County for changing information and is sharing information with agencies.
- WEROC continues to support agencies with COVID-19 related questions and guidance needs.
- At the time of this report, the OC Health Care Agency (HCA) continues to encourage vaccinations among unvaccinated Orange County residents as the percentage of eligible residents who are fully vaccinated nears 70%. The Centers for Disease Control and Prevention's (CDC) COVID Data Tracker reports that 69.8% of eligible OC residents are now fully vaccinated, with 79.3% having received at least one dose of vaccine as of September 14.
- WEROC continues to hold bi-weekly conference calls on Tuesdays with member agencies, as requested by the agencies to continue to support the sharing of information and WEROC is providing updated information as received. Information Topics Included:
  - National and State Osha Emergency Temporary Standards information
  - COVID Relief Funding (Specific for Special Districts)
  - AB 361 – Open Meetings State and Local Agencies Teleconferencing
  - President Initiative for vaccine and mandatory testing update
  - FEMA Public Assistance Updated Policy
  - OC HCA New Dashboard showing COVID variants in Orange County
- Guidance issued on August 18, the California Department of Public Health issued several updates to its Beyond the Blueprint guidance for Industry and Business sectors remains unchanged including:
  - Applied vaccine verification or negative testing requirement to Indoor Mega Events involving 1,000 or more participants.
  - Removed self-attestation as a mode for both vaccine verification and for verification of negative COVID-19 test for indoor events scheduled after September 20, 2021.

- Extended date for requirements and recommendations to remain in place to November 1, 2021.
  - On 9/9, Vicki met with South Coast Water District to assist with questions regarding COVID Public Assistance with their new Financial Director.
  - On 9/13, Vicki participated on the White House Intergovernmental Agency Coordination call. This call was focused on further information from Presidents Biden's announcements the previous week in regards to covid and National OSHA creation of Emergency Temporary Standards. The Deputy Secretary for the Department of Industry stated they would be posting information to the website soon. Due to emergency state of the procedures, normal public comment and input from stakeholders will not be occurring.
  - California OSHA is working on making the current ETS 3205 procedures permanent. The state is waiting for further direction or guidance from National OSHA. More information will be released hopefully in the next month. CalOSHA did state their goal is for the permanent standard to become a part of the Injury and Illness Prevention Program (IIPP).
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## **SEPTEMBER INCIDENTS/EVENTS**

- No significant events to report.
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## **COORDINATION/PARTICIPATION WITH MEMBER AGENCIES AND OUTSIDE AGENCIES MEETINGS**

- On 8/31, Vicki participated in the County's Orange County Disaster Logistics Workshop. Vicki was the only agency outside of County Departments in attendance at the workshop based on the WEROC role as the Water and Wastewater Mutual Aid Coordinator and past involvement with the county in developing the logistics process.
- On 9/2, Vicki, Daniel and Janine attended the monthly OCEMO (Orange County Emergency Management Organization) meeting (held virtually). Presentations included Exercise templates created by the La County Disaster Management Area Coordinators as a toolkit, and Vicki Osborn on understanding Special Districts and what is WEROC. Brief outs were also made by the numerous subcommittees of OCEMO.

- On 9/7, Vicki attended the California Emergency Services Association Emergency Management Certification Working Group Meeting. This group will be developing the California State Certification for the Emergency Manager role. This is an important project for the emergency management discipline, as it will outline the core competencies for those who will work in the industry in the future.
  - On 9/10, Vicki and Janine met with the County Emergency Management Division to review the revised AlertOC MOU and Standard Operating Procedures. The County requested WEROC assist with the coordination with the Special districts, including the tracking of who wish to continue participate in the mass notification program, signature of the MOU and user agreements and ensuring the required training is conducted.
  - On 9/13, Vicki participated on the White House Intergovernmental Agency Coordination call. This call was focused on further information from President Biden's announcements the previous week in regards to covid and National Osha creation of Emergency Temporary Standards. The Deputy Secretary for the Department of Industry stated they would be posting information to the website soon. Due to emergency state of the procedures, normal public comment and input from stakeholders will not be occurring.
  - On 9/16, Vicki attended the State Water Resources Control Board in regards to drought funding. Even though the webinar was geared towards those agencies that are already listed within the state drought proclamation, the information provided was good to hear what types of projects will be eligible, who is eligible to receive assistance, Vicki shared this information and the link to the website with member agencies.
  - On 9/20, Vicki met with Moulton Niguel Water District to talk about the County 800 Mhz Agreement, and offer her services, additionally, the current WEROC program and how WEROC can better support agencies was discussed.
  - On 9/21, Vicki attended the County Technology Subcommittee meeting. The focus was on the AlertOC regional test being conducted on 9/30.
  - On 9/23 Vicki attended the quarterly COAST meeting. The forecast weather for the fall was discussed, funding opportunities related to fire related activities, and the finalization of the Community Wildland Fire Preparedness Plan.
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## **AMERICA'S WATER INFRASTRUCTURE ACT (AWIA) PROJECT**

- WEROC and its consultant, Herndon Solutions Group (HSG) continues to work with WEROC agencies to achieve compliance with America's Water Infrastructure Act (AWIA).
- The final phases of this project continues to progress. WEROC sent closeout-training invites to the AWIA primary points of contacts that will be happening at the end of October. The training is how to maintain the RRA assessments, and how to keep your ERP's as a living document. This is one of the last deliverables of AWIA.

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## **OTHER PLANNING AND PROGRAM EFFORTS**

- AlertOC - WEROC held a conference call with our member agency special districts that take part in our county's reverse notification system, AlertOC, on Tuesday, September 28. WEROC covered the new, updated MOU and walked the agencies through the participation process, including discussing training and our water/wastewater regulatory requirements for messaging. Janine will be the Project Manager on this.
  - 800 Mhz Radio Agreement – Vicki is assisting agencies with questions and the process for executing Joint Agreement for the Operation, Maintenance, and Financial Management of the Orange County 800 Megahertz Countywide Coordinated Communications System. This is the system which fulfills the WEROC radio system and the MWDOC board approved the agreement at the last board meeting.
  - Other Coordination topics discussed and planning efforts outside of COVID conducted on the Bi-Weekly coronation calls included:
    - Supply Chain Issues
    - Cyber
    - Drought
    - Communications and Coordination
    - Training
    - PSPS Protocols
    - Mutual Aid and Logistics
  - WEROC/Daniel will be starting a quarterly cyber-working group meeting. We want to make sure information is getting shared with all the Member Agencies. OCIAC will be hosting our first meeting, which will be October 18, 2021, at the WEROC EOC. Daniel continues to share cyber information received from the OCIAC and DHS with member agencies.
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## TRAINING AND EXERCISES

The Virtual WEROC Symposium occurred on Wednesday, September 29. Speakers included Mike Howe from the TXWARN shared details regarding The Great Freeze of February 2021; Christine Herndon from Herndon Solutions Group to discussed the new AWWA toolkit for resource typing; Dr. Kevin Morley, AWWA shared lessons learned from multiple events over the past year. The event also included a WEROC Program update and information regarding CalWarn – What you need to know.

**Status of Water Use Efficiency Projects  
September 2021**

<b>Description</b>	<b>Lead Agency</b>	<b>Status % Complete</b>	<b>Scheduled Completion or Renewal Date</b>	<b>Comments</b>
<b>Smart Timer Rebate Program</b>	MWDSC	Ongoing	Ongoing	In August 2021, 219 residential and 80 commercial smart timers were installed in Orange County.  To date, 31,587 smart timers have been installed through this program.
<b>Rotating Nozzles Rebate Program</b>	MWDSC	Ongoing	Ongoing	In August 2021, 91 rotating nozzles were installed in Orange County.  To date, 570,937 rotating nozzles have been installed through this program.
<b>SoCal WaterSmart Residential Indoor Rebate Program</b>	MWDSC	Ongoing	Ongoing	In August 2021, 161 high efficiency clothes washers and 15 premium high efficiency toilets were installed in Orange County.  To date, 124,617 high efficiency clothes washers and 60,760 high efficiency toilets have been installed through this program.
<b>SoCal WaterSmart Commercial Rebate Program</b>	MWDSC	Ongoing	Ongoing	In August 2021, no commercial devices were installed in Orange County.  To date, 111,402 commercial devices have been installed through this program.
<b>Industrial Process/ Water Savings Incentive Program (WSIP)</b>	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 6,330 AF cumulatively.

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
<b>Turf Removal Program</b>	MWD/DOC	Ongoing	Ongoing	<p>In August 2021, 17 rebates were paid, representing \$82,734.53 in rebates paid this month in Orange County.</p> <p>To date, the Turf Removal Program has removed approximately 23.6 million square feet of turf.</p>
<b>Spray to Drip Rebate Program</b>	MWD/DOC	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 1,625,988 square feet of area irrigated by conventional spray heads to drip irrigation.</p>
<b>Recycled Water Retrofit Program</b>	MWD/DOC	Ongoing	Ongoing	<p>This program provides incentives to commercial sites for converting dedicated irrigation meters to recycled water.</p> <p>To date, 178 sites, irrigating a total of 1,654 acres of landscape, have been converted. The total potable water savings achieved by these projects is 3,646 AFY and 17,332 AF cumulatively.</p>

**Public & Governmental Affairs Activities Report**  
**September 1, 2021 – September 28, 2021**

<b>Member Agency Relations</b>	<p>Public Affairs Staff:</p> <ul style="list-style-type: none"> <li>Presented a regional drought campaign proposal to the MWDOC Water Use Efficiency workgroup</li> <li>Offered Orange County water provider General and City Managers, Public Information Officers, and Water Use Efficiency coordinators the opportunity to submit feedback for the regional drought campaign proposal via survey and email</li> </ul> <p>Government Affairs Staff:</p> <ul style="list-style-type: none"> <li>Circulated a SCAQMD public hearing notice to member agencies regarding regulatory changes to time and use of emergency generators</li> <li>Joined the Water Loss Control Working Group to provide a grants program overview and update</li> <li>Sent out a notice for a Department of Finance webinar on how special districts can apply for COVID-19 financial relief funding</li> </ul>
<b>Community Relations</b>	<p>Public Affairs Staff:</p> <ul style="list-style-type: none"> <li>Provided promotional items for Bathgate Elementary School's Fun Run (Mission Viejo)</li> </ul> <p>Governmental Affairs Staff:</p> <ul style="list-style-type: none"> <li>Attended the OCBC Governmental Affairs Committee meeting with guest Congresswoman Katie Porter</li> <li>Attended the Women in Water meeting featuring SWRCB member Nichole Morgan</li> <li>Participated in the OCBC Infrastructure Committee meeting</li> </ul>
<b>Education</b>	<p>Public Affairs Staff</p> <ul style="list-style-type: none"> <li>Attended a "Town Hall Webinar: The Powerful Connection Between Education, Climate and Justice"</li> <li>Participated in the California Environmental Literacy Initiative Green Career Innovation Hub bi-weekly meeting</li> <li>Attended the Department of Water Resources Water Education Committee meeting</li> <li>Participated in the bi-weekly Metropolitan Water District of Southern California's Education Coordinator's meetings</li> <li>Met with the Statewide Director for the Centers of Excellence for Labor Market Research</li> <li>Attended Santiago Canyon College's Automation/Robotics/Mechatronics (ARM) Advisory Council meeting</li> <li>Provided information regarding MWDOC Choice School Programs to City of San Clemente, City of Anaheim, City of Westminster, Mesa Water, City of Newport Beach, City of Fullerton, and City of Garden Grove</li> </ul>

	<ul style="list-style-type: none"> <li>• Worked with MWDOC K-2 Choice School Program contractor, Shows That Teach, on plans to incorporate Ricky the Rambunctious Raindrop puppet into in-person and virtual presentations</li> <li>• Worked with MWDOC Choice School Program contractors and provided participating agencies with the 2021/22 shared calendar of scheduled visits</li> <li>• Provided participating agencies the opportunity to submit educational resources specific to their service area for the MWDOC 3-12 Choice School Programs student/teacher dashboard</li> <li>• Connected MWDOC K-12 Choice School Program contractors with teachers that submitted interest forms on the MWDOC website</li> <li>• Updated all MWDOC Choice School Program flyers and provided them to contractors for promotional use. Flyers were also added to the Director's Dropbox and the MWDOC website.</li> <li>• Prepared a write up on the Water Energy Education Alliance for the California Environmental Education Foundation website</li> </ul>
<b>Special Projects</b>	<p>Public Affairs Staff:</p> <ul style="list-style-type: none"> <li>• Participated in the OC Water Summit committee meeting</li> <li>• Prepared and distributed second and third invites for the MWDOC Water Policy Dinner on September 30 at the Westin South Coast Plaza featuring Adel Hagekhalil, General Manager and Chief Executive Officer, the Metropolitan Water District of Southern California</li> <li>• Coordinated event logistics with The Westin South Coast Plaza Hotel for the MWDOC Water Policy Dinner</li> <li>• Accepted on-going registration and completed a variety of event logistics for the MWDOC Water Policy Dinner on September 30</li> <li>• Updated Annual Financial Audit cover sheets for accounting</li> <li>• Designed and coordinated printing of Proposition 1 signage for Water Use Efficiency</li> <li>• Attended California Water Efficiency Partnership Drought Communications Primer webinar</li> <li>• Met with FlashVote to discuss regional drought survey options</li> </ul> <p>Governmental Affairs Staff:</p> <ul style="list-style-type: none"> <li>• Along with Charles Busslinger, met with staff at the Center for Demographic Research to discuss timelines and logistics for MWDOC's upcoming redistricting</li> <li>• Staffed the ISDOC Executive Committee meeting</li> <li>• Along with Director McVicker and Tina Dubuque, met with CSDA staff to discuss benefits ISDOC could provide for Associate Members</li> <li>• Collaborated on a draft drought messaging and outreach letter to send to the Orange County delegation</li> <li>• Staffed the WACO Meeting featuring guest speaker, Tim Quinn</li> </ul>

	<ul style="list-style-type: none"> <li>• Contacted various community organizations seeking support for funding for the WEROC EOC</li> <li>• Sent the September 30 Water Policy Dinner invitation to the Orange County delegation offices</li> </ul>
<b>Legislative Affairs</b>	<p>Governmental Affairs Staff:</p> <ul style="list-style-type: none"> <li>• Met with NRR staff to discuss an upcoming meeting with The Nature Conservancy</li> <li>• Participated in the ACWA Covid-19 Funding Working Group meeting</li> <li>• Circulated the MWDOC Policy Principles to member agencies for comment and feedback</li> <li>• Participated in the following ACWA Federal Affairs Sub-Committee meetings: Drinking Water, Infrastructure and Water Supply</li> <li>• Along with Directors Tamaribuchi and Yoo Schneider, and our state and federal advocates, met with staff from The Nature Conservancy to discuss state policy goals and areas of common interest</li> <li>• Participated in the Metropolitan Water District Legislative Update meeting for Met member agencies</li> <li>• Attended the CMUA Regulatory Committee meeting</li> </ul>