MEETING OF THE BOARD OF DIRECTORS OF THE
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
Jointly with the
PLANNING & OPERATIONS COMMITTEE
18700 Ward Street, Conf. Room 101, Fountain Valley, CA 92708
July 14, 2025, 8:30 a.m.

Teleconference Sites:
400 Squaw Creek Road, Olympic Valley, CA 96146
17420 Walnut Street, Fountain Valley, CA 92708
2800 Keller #301, Tustin, CA 92782

This meeting will be held in person at 18700 Ward Street, Fountain Valley, California, 92708 (Conference Room 101). As a convenience for the public, the meeting may also be accessed by Zoom Webinar and will be available by either computer or telephone audio as indicated below. Because this is an in-person meeting and the Zoom component is not required, but rather is being offered as a convenience, if there are any technical issues during the meeting, this meeting will continue and will not be suspended.

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 Seckel, Chair
Director Yoo Schneider
Director Dick

Staff: H. De La Torre, M. Baum-Haley, A. Crespi, V. Osborn, C. Busslinger, D. Micalizzi, J. Wicks, T. Baca, K. Pham

Ex Officio Member: President McVicker

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.

ROLL CALL

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 need and take action to agendize item(s), which arose 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 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 Website, accessible at http://www.mwdoc.com.

PRESENTATION ITEMS

1. AUTOMATED METERING INFRASTRUCTURE (AMI) WORK GROUP PROJECT WRAP-UP

2. OVERVIEW OF THE CALIFORNIA WATER SECTOR MUTUAL AID SYSTEM & WEROC RESOURCES MUTUAL AID POLICY

ACTION ITEM

3. AWARD OF CONSULTANT CONTRACT FOR 2025 URBAN WATER MANAGEMENT PLAN SHARED SERVICES PROGRAM

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.)

4. WATER POLICY FORUM RECAP

5. OC WATER SUMMIT UPDATE

6. QUARTERLY MWDOC K-12 CHOICE SCHOOL PROGRAMS UPDATE

7. PUBLIC AFFAIRS HIGHLIGHTS

8. DEPARTMENT ACTIVITIES REPORTS
   a. Ongoing MWDOC Reliability and Engineering/Planning Projects
   b. WEROC
   c. Water Use Efficiency Projects
   d. Public and Government Affairs

9. 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 Angela Crespi, District Secretary, at (714) 963-3058, or writing to Municipal Water District of Orange County at P.O. Box 20895, Fountain Valley, CA 92728. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that District staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the District to provide the requested accommodation.

Item No. 1

PRESENTATION ITEM
July 14, 2025

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

FROM: **Harvey De La Torre, General Manager**

Staff Contact: R. Davis, Water Loss Control Programs Supervisor

SUBJECT: **AUTOMATED METERING INFRASTRUCTURE (AMI) WORK GROUP PROJECT WRAP-UP**

STAFF RECOMMENDATION

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

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

REPORT

On June 19, 2024, the Board of Directors authorized the General Manager to enter into a two-year professional services agreement with E Source Companies, LLC (E Source), in an amount not to exceed $41,640, for the facilitation of up to six Advanced Metering Infrastructure (AMI) Work Group meetings. These meetings aimed to promote accelerated learning and information sharing among our member agencies, supported by E Source, which specializes in AMI development and implementation.

The collaboration and coordination with MWDOC staff and E Source in the facilitation of these discussions were very productive; and the Member agency participation and feedback was extremely positive. Eighteen different retail agencies participated, representing a wide variety of functions within their organizations, ranging from operations to finance. The six AMI Work Group meetings covered a variety of topics, including: metering hardware; the costs and benefits of AMI; analytics; project budgeting; outside funding sources; and procurement. Many expressed their appreciation and opportunity to learn in such a group setting, including Irvine Ranch Water District Water Efficiency Manager Amy McNulty who said, “Access to AMI experts through MWDOC’s AMI Workshops proved invaluable. I greatly appreciated the opportunity to engage in detailed discussions regarding the complexities of AMI equipment, networks, software, and their practical applications…”

Budgeted: ☒ Yes ☐ No ☐ N/A	Budgeted amount: $41,640	Core: ☒	Choice: ☐
Action item amount: N/A	Movement between funds: ☐ Yes ☒ No		

The final facilitated work group meeting was held on May 13, 2025, and thus that portion of the project has concluded. Staff will continue analyzing the results of meter accuracy tests with E Source at a cost not to exceed the original project amount. This research will provide work group members with further insight into the health of existing meter stock and the potential benefits of solid-state meters. Therefore, although the facilitated meetings are complete, the networking and conversations established by these meetings will allow member agencies to continue their collaboration and knowledge exchange after the formal work group has concluded.

The next steps of this project will include continued information sharing through the AMI Work Group participant email list and further meter research with E Source.

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

- ☐ *Clarifying MWDOC's mission and role; defining functions and actions.*
- ☐ *Balance support for Metropolitan's regional mission and Orange County values and interests.*
- ☐ *Strengthen communications and coordination of messaging.*
- ☒ *Work with member agencies to develop water supply and demand objectives.*
- ☒ *Solicit input and feedback from member agencies.*
- ☐ *Invest in workforce development and succession planning.*

List of Attachments/Links:
Attachment 1: MWDOC AMI Work Group Project Wrap-Up Presentation

MWDOC AMI Work Group Project Wrap-Up

Bringing together AMI information and experiences from across Orange County and beyond…

Rachel Davis, Water Loss Control Programs Supervisor

July 14, 2025

1

Why We Formed This Work Group

- Share best practices and lessons learned
- Guide strategic deployment of AMI
- Develop a learning network across agencies
- Identify challenges and potential solutions
- Learn from a consultant with extensive experience

2

Who's at the Table

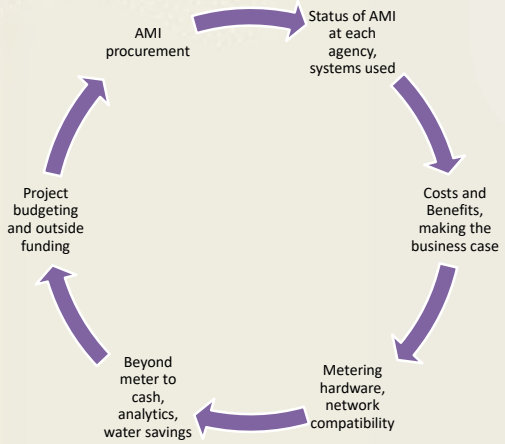
Attended by 18 different retail agencies

Roles Represented: Water Ops, Finance, Water Use Efficiency, Customer Service, Management

Each meeting had between 12 and 32 individual attendees

3

Key Topics We've Explored



4

Voices from the Work Group

Access to AMI experts through MWDOC's AMI Workshops proved invaluable. I greatly appreciated the opportunity to engage in detailed discussions regarding the complexities of AMI equipment, networks, software, and their practical applications. An added benefit was learning from the experiences of other water suppliers which significantly enhanced my understanding of AMI capabilities and best practices

- Amy McNulty, Water Efficiency Manager, Irvine Ranch Water District

I appreciate that MWDOC organized the AMI Work Group to help member agencies not only get a better understanding of AMI technologies and strategies for implementation, but also provide a sounding board for those agencies that have already implemented AMI to exchange information amongst each other and pass along advice to those who have not yet begun the process…

- Leif Lovegren, Public Works Project Manager, City of Santa Ana

5



Project Completion

- The original 6 meetings have been held
- No additional topics have been brought up at this time
- Agency collaboration and matchmaking will continue
- Additional sessions may be held on an as-needed basis, if requested by Member Agencies
- Continue Meter Testing Research and Analysis

6

Item No. 2

PRESENTATION ITEM
July 14, 2025

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

FROM: **Harvey De La Torre, General Manager**

Staff Contact: Vicki Osborn, Director of Emergency Management, WEROC

SUBJECT: **OVERVIEW OF THE CALIFORNIA WATER SECTOR MUTUAL AID SYSTEM & WEROC RESOURCES MUTUAL AID POLICY**

STAFF RECOMMENDATION

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

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

REPORT

Presentation Summary

The presentation will provide an overview of the California Water Sector Mutual Aid System, with a specific focus on its operational framework, key rules, roles, and responsibilities, as well as the role of the Water Emergency Response Organization of Orange County (WEROC) in resource deployment and coordination. The goal is to ensure committee members are informed about how mutual aid functions within the water sector and how it supports member agency preparedness and response.

Purpose of the Presentation

To inform the Committee of the mutual aid processes that guide how WEROC member agencies request and receive assistance during emergencies, and how WEROC coordinates these efforts regionally and statewide in accordance with established agreements and policies.

Background

The mutual aid system in California is rooted in the California Emergency Services Act and operationalized through the Standardized Emergency Management System (SEMS). Water and wastewater agencies access mutual aid through established agreements such as the

Budgeted: ☐ Yes ☐ No ☒ N/A	Budgeted amount: N/A	Core: ☒	Choice: ☐
Action item amount: N/A	Movement between funds: ☐ Yes ☒ No		

WEROC Indemnification Agreement and the CalWARN Omnibus Mutual Aid Agreement. As a key regional coordinator, WEROC plays a central role in facilitating resource requests, ensuring deployment readiness, and aligning agency needs with available support during incidents. This briefing provides foundational knowledge on mutual aid to support future decision-making and planning.

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

- ☐ *Clarifying MWDOC's mission and role; defining functions and actions.*
- ☐ *Balance support for Metropolitan's regional mission and Orange County values and interests.*
- ☒ *Strengthen communications and coordination of messaging.*
- ☒ *Work with member agencies to develop water supply and demand objectives.*
- ☒ *Solicit input and feedback from member agencies.*
- ☐ *Invest in workforce development and succession planning.*

List of Attachments/Links:

Attachment 1: California Water Sector Mutual Aid System & WEROC Resources Mutual Aid Policy Presentation



California Water Sector Mutual Aid System & WEROC Resources Mutual Aid Policy

Presentation Item
P&O Committee July 14, 2025

1

Agenda

Purpose
Outline the factors and criteria involved in providing and requesting mutual aid resources.

Background
Review the legal foundations and structure of California's water sector mutual aid system.

Key Rules
Summarize the essential policies that govern mutual aid participation and deployment.

Roles & Responsibilities
Define the roles of WEROC, member agencies, and mutual aid partners in coordinatio and response.

Prioritization & Deployment
Explain the framework for resource prioritization and deployment decision-making.

2



Background: Mutual Aid System

Rooted in the California Emergency Services Act (Gov. Code §§ 8550–8668)

Operationalized through the Standardized Emergency Management System (SEMS)

Supported by Mutual Aid Agreements

Key Characteristics:

- Voluntary and reciprocal support between agencies
- Formal request, approval, and documentation processes
- Sector-specific coordination (e.g., WEROC for Orange County and CalWARN for statewide/regional water/wastewater agencies)

3

When & How Mutual Aid Is Requested



Triggered when resources are overwhelmed or unavailable

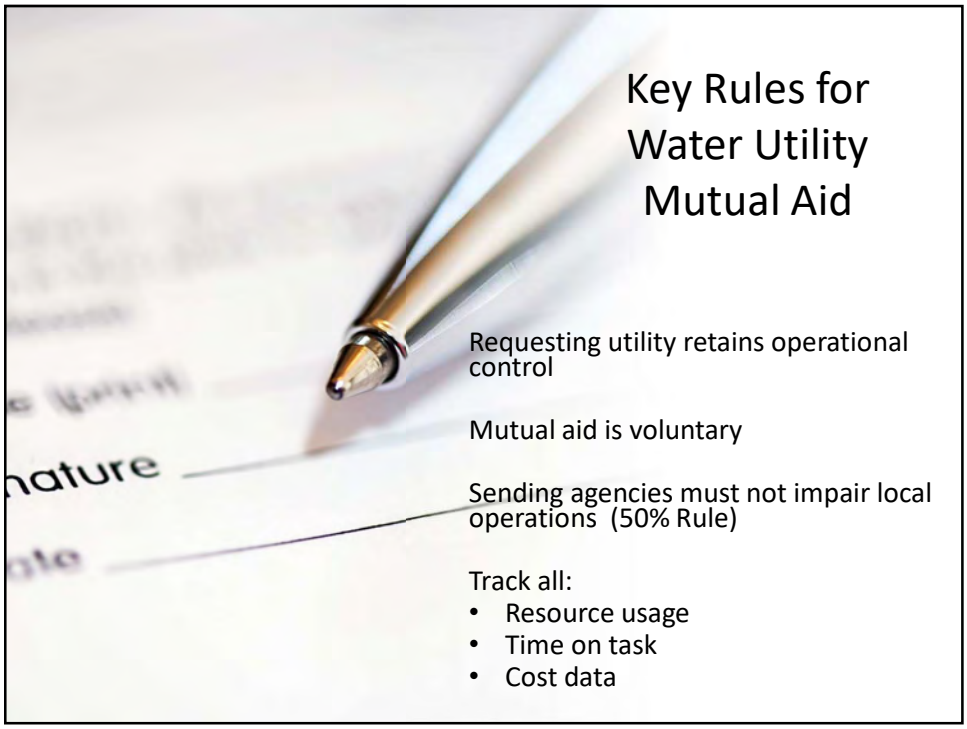
Requests must specify:

- Type of aid (e.g., generators, operators)
- Scope and mission

Request flow:

- Utility → WEROC or CalWARN Region I (out of County)
- Aid must be requested – no self-deployment!!*

4



Key Rules for Water Utility Mutual Aid

Requesting utility retains operational control

Mutual aid is voluntary

Sending agencies must not impair local operations (50% Rule)

Track all:
- Resource usage
- Time on task
- Cost data

5

WEROC's Role in Mutual Aid

Legal and Operational Authority:
- WEROC Indemnification Agreement
- CalWARN Omnibus Mutual Aid Agreement

WEROC Mutual Aid Resources Available:
- Mobile Command Vehicle (MCV) – Type 3 Communications Center
- Portable Generators – Emergency power for critical infrastructure

Deployment Jurisdictions:
- Primary: Orange County member agencies
- Secondary: Outside OC, if conditions allow and per deployment criteria



6

Deployment Criteria and When Mutual Aid is Used

When WEROC Sends Resources:

- Valid request received via WEROC Duty Officer Line
- Supports life safety, continuity, or coordination
- No conflicting local threats to Orange County
- Approved by WEROC Director or designee
- Receiving Agency agrees to cost recovery and support

When WEROC Does NOT Send Resources:

- Active threat within Orange County
- Request not from signatory to WEROC or CalWARN
- Falls Outside Priority Criteria

7

Deployment Prioritization Framework

MCV and Generator Deployment Questions:	Mission Prioritization Matrix:	Policy Impact:
Function of the asset (command, field ops) Is the Requesting Agency part of WEROC or CalWARN? In-county vs out-of-county; any local unmet needs? Clear duration, staffing, logistics plan?	Life Safety > Operational Continuity > Interagency Coordination Out-of-county support must not compromise local readiness	Transparent, fair, and defensible deployment decisions Reinforces WEROC's role in regional resilience Agency has input on creation

8

Item No. 3

ACTION ITEM
July 16, 2025

TO: Board of Directors

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

Harvey De La Torre, General Manager

Staff Contact: Charles Busslinger, Director of Engineering/ District Engineer
Sarina Sriboonlue, Principal Engineer

SUBJECT: **AWARD OF CONSULTANT CONTRACT FOR 2025 URBAN WATER MANAGEMENT PLAN SHARED SERVICES PROGRAM**

STAFF RECOMMENDATION

Staff recommends that the Board of Directors:

1. Authorize the General Manager to enter into a professional services contract with Carollo Engineers, Inc. (Carollo) to assist in the development of MWDOC's and Participating Agencies' 2025 Urban Water Management Plans (UWMP);
2. Authorize expenditure of $74,727 plus a contingency of 10% for an amount not to exceed $82,200 for the preparation of MWDOC's 2025 UWMP; and
3. Authorize the General Manager to enter into agreements with the Participating Agencies for cost-sharing in this effort.

Depending on the number of Orange County agencies that elect to participate, the final contract amount will include all of MWDOC's and the participating agencies' costs. This would include any contingency items (Optional Tasks) that the participating agencies request and/or that the consultant deems are needed to meet the requirements of the UWMP Act. These contingency items vary from submitting an agency's UWMP's data into the California Department of Water Resources' (DWR) web portal to updating an agency's Water Shortage Contingency Plan.

Attachment 1 includes the list of agencies interested in participating in this joint effort with MWDOC. If all 22 agencies participate, the total contract, with estimated contingency items, can range from $1.01 to $1.47 million.

Budgeted: ☒ Yes ☐ No ☐ N/A	Budgeted amount: $60,000	Core: ☒	Choice: ☐
Action item amount: $82,200	Movement between funds: ☐ Yes ☒ No		

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

REPORT

The California Water Code 10644 (a) requires water suppliers (including wholesalers), either publicly or privately owned, that provide water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet annually to submit an updated UWMP with the DWR at least once every five years; in years ending in six or one. The next UWMPs are due to the State no later than July 1, 2026.

Most of MWDOC's retail agencies are required to submit an updated 2025 UWMP, and there has been much interest in MWDOC to again facilitate a joint effort to retain a single consulting firm to assist in updating their UWMPs as was done in 2010, 2015, and 2020. In 2020, under a single contract managed by MWDOC, 22 UWMPs were prepared, including MWDOC's and all participating agencies' UMWP were deemed completed by DWR.

Key new requirements passed by the Legislature have been incorporated since 2020, including a complete revamp of the Water Shortage Contingency Plan Section, a new Drought Risk assessment analysis looking at five consecutive dry years, an estimate of an agency's energy consumption for each supply use, and inclusion of your adopted local hazard mitigation plan to address the new seismic risk assessment requirement. These elements continue to be required components of the 2025 UWMPs.

While DWR has yet to release the Draft UWMP Guidebook, it has indicated in DWR-led UWMP workshops that a few new elements are slated to be added in the 2025 UWMPs, for example, passive water savings projection (optional), water loss audit reporting for each public water system served by the agency for each of the past 5 years, and progress towards the 2028 water loss performance standard.

Based on the interest of 23 agencies in Orange County and the potential of cost savings through economies of scale, MWDOC prepared and issued a Request for Proposals (RFP) for a consultant to assist in updating UWMPs for retail agencies and MWDOC under the schedule below:

Activities	Completion Dates
1. Issue an RFP	April 15, 2025
2. Questions on RFP Due	May 9, 2025
3. Proposals Due	May 20, 2025
4. Consultant Interviews	June 19, 2025
5. Consultant Selection	June 20, 2025
6. Recommendation to MWDOC's P&O Committee	July 14, 2025
7. MWDOC Board Consideration of Authorization	July 16, 2025

8. Agreement between MWDOC and Consultant / Notice to Proceed	August 1, 2025
9. Agreements between MWDOC and Participating Agencies	September 30, 2025
10. 2025 UWMP Submissions	July 1, 2026

Consultant Procurement and Selection

Consultant procurement was a competitive process. MWDOC released the Request for RFP on April 15, 2025 to solicit proposals from qualified consultants, and proposal submission closed on May 20, 2025. A review panel, comprised of internal and external subject matter experts, was formed to review and rank the proposals as well as evaluate the consultant teams. The panel included three MWDOC staff members and representatives from four retail agencies, which established review criteria to evaluate and score consultants based on, but not limited to the following considerations:

- Proposal content and format is professional and responsive, and demonstrates a clear understanding of the required scope of work.
- Firm and project team's experience, particularly the qualifications of the designated project manager, subject matter experts, and key staff, demonstrate ability to effectively deliver all aspects of the project.
- The project management approach is well thought out (e.g. promotes efficiency).
- The technical approach and Scope of Work is thorough, sound, and demonstrates a clear path to meeting compliance and to completing the project on time and within budget.

MWDOC received proposals from two qualified consultant teams: 1) Carollo Engineers, Inc. (in collaboration with Maddaus Water Management Inc. and CDM Smith Inc.); and 2) EKI Environment & Water, Inc.

The evaluation process involved reviewing the written proposals and interviewing both consultant teams using the same set of questions within a one-hour allotment. The review panel individually scored each proposal and convened to deliberate. ***The review panel unanimously selected the Carollo team based on the team's qualifications and experience, as well as their technical and project management approach that promotes efficiency.*** They demonstrate a clear path to meeting compliance and completing the project on time and budget. The Carollo team will be led by respected technical experts with extensive experience in water resources planning in southern California and Orange County specifically. Collectively, the Carollo, Maddaus Water Management, and CDM Smith team members have successfully prepared more than 100 UWMPs for more than 75 different California water agencies (including MWDOC's and 21 Participating Agencies' 2020 UWMPs by Maddaus Water Management).

Below is the basic pricing proposal submitted by Carollo, without any of the contingency items (Optional Tasks):

Carollo Proposal Price Summary per UWMP by Agency Category (Base Cost without Optional Tasks)		
UMWP Category	**Minimum of 15 Agencies**	**Minimum of 20 Agencies**
MWDOC	$74,727	
OCWD Groundwater Agencies	$41,488	$40,433
OCWD Groundwater Agencies with Recycled Water	$44,637	$43,582
South OC Agencies with Recycled Water	$47,251	$46,196
South OC Agencies without Recycled Water	$42,369	$41,314
Non-OCWD North OC Groundwater Basin Agencies	$47,251	$46,196

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

- ☒ *Clarifying MWDOC's mission and role; defining functions and actions.*
- ☐ *Balance support for Metropolitan's regional mission and Orange County values and interests.*
- ☐ *Strengthen communications and coordination of messaging.*
- ☒ *Work with member agencies to develop water supply and demand objectives.*
- ☐ *Solicit input and feedback from member agencies.*
- ☐ *Invest in workforce development and succession planning.*

BOARD OPTIONS

Option #1: Staff recommends the Board of Directors authorize the General Manager to:

1. Authorize the General Manager to enter into a professional services contract with Carollo, Inc. (Carollo) to assist in the development of MWDOC's and Participating Agencies' 2025 Urban Water Management Plans (UWMP);
2. Authorize expenditure of $74,727 plus a contingency of 10% for an amount not to exceed $82,200 for the preparation of MWDOC's 2025 UWMP; and
3. Authorize the General Manager to enter into agreements with the Participating Agencies for cost-sharing in this effort.

Fiscal Impact: $60,000 was included in the FY 2025-2026 budget for the preparation of MWDOC's 2025 UWMP; therefore, the additional $22,200 would be taken from $30,000 that was included in the FY2025-2026 budget for On-Call services. The Participating agencies' UWMP costs will be fully recovered by those agencies.

Business Analysis: UWMP's are required to be submitted by July 1, 2026, for MWDOC and retail agencies under the California Water Code. Option 1 would ensure the District and the participating agencies achieve compliance under the California Water Code in an efficient and cost-effective manner.

Option #2: Not move forward with staff's recommendation of Carollo Engineers, Inc., and direct staff to re-issue the RFP for the preparation of the 2025 Urban Water Management Plans for MWDOC and participating Orange County agencies or direct staff to develop an alternative path for updating the 2025 UWMPs.

Fiscal Impact: Option 2 would significantly delay the proposed UWMP schedule for the District and the participating agencies, resulting in increased costs and possibly non-compliance under the California Water Code.

List of Attachments/Links:

Attachment 1: List of Interested Orange County Water Agencies
Attachment 2: Carollo Proposal
Attachment 3: MWDOC Standard Agreement for Consultant Services

Attachment 1

List of Interested Orange County Water Agencies for Development of its 2025 UWMP

Wholesaler	
1	MWDOC
OCWD Groundwater Agencies	
2	City of Buena Park
3	City of Fullerton (direct Metropolitan member agency, not part of MWDOC)
4	City of Garden Grove
5	City of Huntington Beach
6	City of La Palma
7	City of Orange
8	City of Seal Beach
9	City of Tustin
10	City of Westminster
11	Yorba Linda Water District
12	East Orange County Water District
OCWD Groundwater Agencies with Recycled Water	
13	City of Anaheim (direct Metropolitan member agency, not part of MWDOC)
14	City of Fountain Valley
15	City of Newport Beach
16	City of Santa Ana (direct Metropolitan member agency, not part of MWDOC)
17	Mesa Water District
South County Agencies with Recycled Water	
18	City of San Clemente
19	El Toro Water District
20	South Coast Water District
21	Trabuco Canyon Water District
Non- OCWD Groundwater Agencies	
22	City of Brea
23	City of La Habra

Prepared for
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

PROFESSIONAL SERVICES FOR

2025 Urban Water Management Plan

Preparation for Orange County Water Agencies

PROPOSAL / RFP ENG. 2025-02 / May 2025



carollo®

Table of Contents

Cover Letter / Executive Summary 1

Experience, Qualifications, and Record of Performance 2

Project Approach and Scope of Work..... 10

Project Schedule 18

Fee Schedule 19

APPENDIX

– Resumes

– Proposed Revisions to Standard PSA

A. Cover Letter / Executive Summary

3150 Bristol Street, Suite 500
Costa Mesa, California 92626
714-593-5100

carollo.com

May 20, 2025

Ms. Sarina Sriboonlue, Principal Engineer
Municipal Water District of Orange County
Submitted via Email: ssriboonlue@mwdoc.com

Subject: Proposal for 2025 Urban Water Management Plan (UWMP) Preparation for Orange County Water Agencies

Dear Ms. Sriboonlue:

You know from your own experience leading the Urban Water Management Plans (UWMP) and Water Shortage Contingency Plans (WSCP) for MWDOC and the participating agencies (PAs) in both the 2015 and 2020 cycles, that effective organization of data and documents is vital to project success—especially when developing UWMPs for more than 20 agencies, each with three versions and a 30-day public review period, all within an 11-month timeframe to meet the Department of Water Resources (DWR) deadline of July 1, 2025.

Now that you are in a new role at MWDOC and will lead this project for your organization and the PAs, you know need a team you can trust. **The Carollo Team is that team!**

As detailed in our proposal, Shivani Shrotriya, recognized for her strong organizational skills, is proposed in the same role she held on your side during the 2020 UWMP cycle. I will work with Shivani, Dan Rodrigo, and Michelle Maddaus, who are all intimately familiar with MWDOC and your PAs from previous work, to repeat the success of the 2020 UWMP. Together, we will address these three critical success factors:

1. Efficient and On-Time Project Delivery
2. Streamlined Data Management and Organization
3. Sound Quality Control that Promotes Accuracy and Consistency

Key highlights of our team, experience, and approach are provided on the right. We welcome the opportunity to answer any questions and look forward to hearing from you.

Sincerely,

CAROLLO ENGINEERS, INC.

Inge Wiersema, PE, ENV SP
Project Manager

- We acknowledge the receipt of all addenda.
- We are familiar with applicable conflict of interest laws and requirements. Neither our firm nor any of our employees or subconsultants involved on this project has any apparent or potential conflict of interest that would preclude working on this project, nor do we expect any future conflicts of interest with MWDOC or any of the potential participating agencies.
- We accept the terms and conditions of MWDOC's professional services agreement, but wish to make the additions noted in the appendix of our proposal.

THE RIGHT TEAM FOR MWDOC

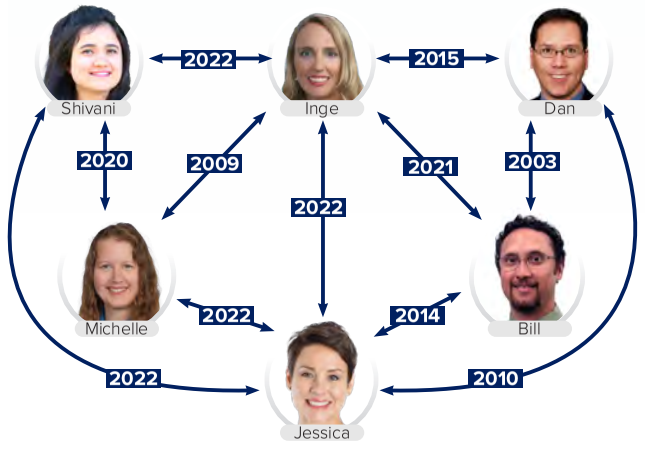
Our project manager, Inge Wiersema, brings 30 years of water supply planning experience in SoCal and has been involved in more than 20 UWMPs. Through proactive and hands-on project management, she knows how to lead complex projects involving extensive coordination, just as she did for One Water LA with over 20 agencies and 23 subconsultants.

Inge will be assisted by our UWMP lead, Shivani Shrotriya, and the Maddaus Water Management team who bring experience and lessons learned from having worked on your 2020 UWMPs and WSCPs. Additionally, CDM Smith brings in-depth knowledge from MWDOC's Water Supply Reliability Study, as well as preparing complex UWMPs and WSCPs for City of San Diego and Los Angeles.

Ready to Hit the Ground Running

Our team has collaborated on many similar projects—some going back more than 10 to 15 years—including projects for Los Angeles, Santa Barbara, and Metro Vancouver. We understand how to communicate with each other to get things done.

Our team's successful working relationships translate into smooth project execution, building on each team member's strengths, and a collaborative team spirit!



The years above show when our team members first began collaborating with each other.

UNMATCHED UWMP EXPERIENCE

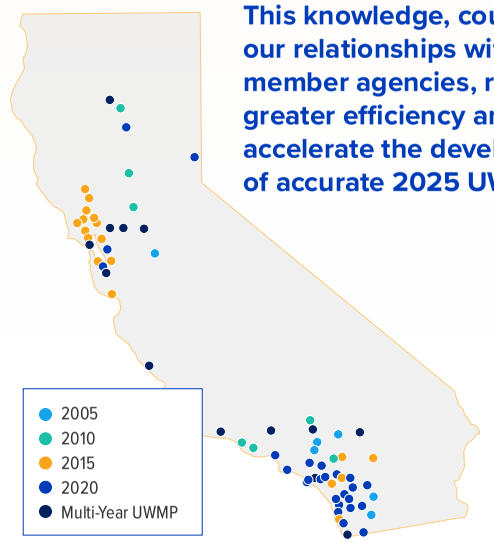
Our team members have collectively prepared more than 100 UWMPs for more than 75 different agencies with a wide range of service area populations and water supply complexity. All of these plans have been successfully submitted to DWR without being contested.

On-Time Complex Project Delivery

Our team also has a proven track-record of completing complex water planning projects with multiple agencies, stakeholders, and deliverables within aggressive schedules. In addition to the successful completion of MWDOC's 22 UWMPs and WSCPs in 2020, our team delivered 35 Tech Memos as part of One Water LA in 18 months, and prepared water supply assessments for all of CalWater's 25 districts in less than 2 years.

OC Knowledge and Experience

Carollo and CDM Smith have been actively working in Orange County since 1972. Collectively, our team has worked with nearly all of MWDOC's member agencies and brings unmatched knowledge of MWDOC's and MET's water supply.



This knowledge, coupled with our relationships with your member agencies, results in greater efficiency and will accelerate the development of accurate 2025 UWMPs.

AN ORGANIZED APPROACH FOR A SMOOTH PROCESS

Being extremely organized is critical to success when delivering at least 60 deliverables in just 11 months for 20+ agencies. We will leverage the proven project approach from the 2020 UWMP cycle, enhanced with a few smart innovations to ensure smooth and on-time project delivery.

Just like in 2020, we propose to start with a pilot for one PA. This pilot phase will be used to develop a detailed UWMP template. We also plan to use MS Office tools and link the excel tables and common text templates to automate updates of numbers and narratives in the UWMP chapters. This promotes efficiency, accuracy, and consistency between the UWMPs.

Our team has dedicated chapter leads and we will stagger the production process of the UWMPs by grouping them based on water supply mix. This will result in a more balanced production and review workflow, allowing sufficient time for each plan. Our three independent senior experts will conduct in-depth quality control of all deliverables to promote smooth DWR approval.

By selecting the Carollo team, MWDOC and all participating agencies can rest assured that the Carollo Team tackles all the details and "checks the box" of 2025 UWMP compliance.



B. Experience, Qualifications and Record of Performance

Firm Information

Carollo is a full-service, environmental engineering firm that has been exclusively delivering water management solutions across the U.S. for 92 years. Our clients have counted on us to help them meet public expectations and navigate the increasingly complex challenges of protecting water resources and delivering water services that meet regulatory requirements with innovative technologies and tailored solutions.

Carollo has more than 1,600 employees, including more than 600 registered engineers located throughout the U.S. In California, a staff of more than 450 professionals is available to support our proposed local principal-in-charge and the project manager to successfully complete UWMPs for MWDOC and the Participating Agencies. At Carollo, water is all we do. Because of this water focus and our long history working in Southern California, Carollo brings a deep understanding of the local water landscape.

Qualifications

Our team has provided UWMPs for every cycle since 2000. All UWMPs were completed on time and were submitted successfully to DWR. For the past four UWMP cycles, we have helped our clients navigate the changing UWMP requirements and supported using the UWMP development process as a component of responsible water supply planning. We have prepared UWMPs for clients with a wide range of service area populations, level of sophistication in water supply planning, and degree of system complexity. All these projects have included data collection, water demand projections, water supply analysis, water quality impacts on supply reliability, demand management measures, and contingency planning.

We have assembled an experienced team that has worked on many water planning studies, including UWMPs, WSCPs, water master plans, and integrated water resources plans.

This team has successfully completed more than 100 UWMPs, including the 22 plans for MWDOC in the 2020 UWMP cycle.

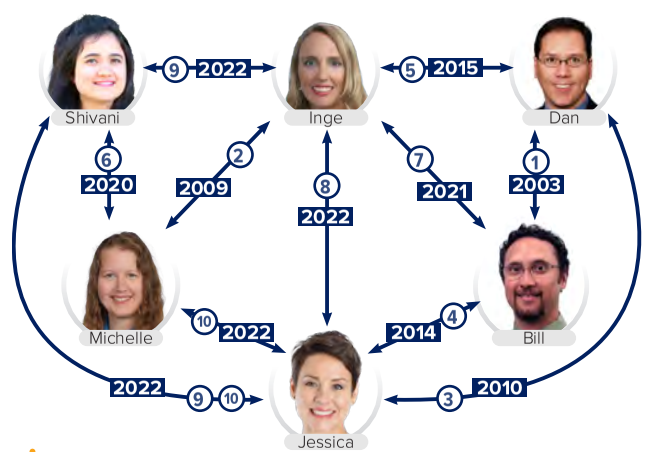
Based on this experience, we have learned to work efficiently to comply with all requirements from the previous UWMP cycles, get started on the anticipated new requirements, and adapt as needed once the Final DWR UWMP Guidebook is published.



Subconsultants
1. CDM Smith
2. Maddaus Water Management

We commit our team for the duration of the project and key team members will not be reassigned without prior MWDOC contract manager approval.

No team member or firm involved on this project has any apparent or potential conflict of interest, nor do we expect any future conflicts of interest with MWDOC or any of the potential Participating Agencies.



1. San Diego Long-Range Water Resources Plan
2. Santa Barbara Water Supply Plan
3. LADWP 2010 UWMP
4. Arkansas State Water Plan
5. One Water LA 2040 Plan
6. MWDOC 2020 UWMPs/WSCPs
7. One Water Honolulu
8. Oklahoma State Water Plan
9. Maui Water Shortage & Conservation Plan
10. Metro Vancouver Conservation Potential Study

Since our **first collaborations** (the years indicated in the graphic above), our team members have worked together on many other projects in the last 15+ years. Our long personal working relationships will directly **translate to work efficiencies and smooth project delivery!**

Subcontract Arrangements

Partnership with a Purpose

We recognize that our individual team members are the critical element for successful project delivery. We have complemented our team with **two key subconsultants that bring the right mix of MWDOC-specific knowledge and UWMP/WSCP experience, and broaden our bench of experts to hit the ground running.**

WHY CDM Smith?

CDM Smith has prepared **25 UWMPs and 12 WSCPs** since 2005. They have been **working for MWDOC since 2014 on its Water Reliability Study efforts, including member agency demand forecasts used for its 2020 UWMPs.** CDM Smith also brings water supply planning and PFAS expertise in Orange County for the Orange County Water District, the cities of Anaheim and Garden Grove, and East Orange County Water District, South Coast Water District, Moulton Niguel Water District and Irvine Ranch Water District. Our project manager Inge and Dan Rodrigo have **enjoyed working together since their first collaboration on One Water LA in 2015.**

WHY Maddaus Water Management?

Maddaus Water Management (MWM) was a **key contributor for MWDOC's 2020 UMWPs and WSCPs.** MWM was responsible for the QA/QC of 22 UWMPs and 21 WSCPs and developed a template for the model Water Shortage Ordinances. **MWM is a recognized leader in water conservation,** which will help support the new California Urban Water Use Objective regulation section of the 2025 UWMPs. Our project manager Inge and Michelle Maddaus have **enjoyed working together since the 2009** Water Supply Plan for Santa Barbara. As an internationally recognized water conservation authority, MWM brings extensive knowledge of demand analysis, forecasting, and data management, along with unparalleled expertise in water conservation planning and implementation.

Proposed Key Team Members

We offer a passionate and talented team. They are ready and available to begin work on this project. Below are our key team members' relevant experience and qualifications. Two-page resumes for our entire team are included in the appendix. A selection of our team members' relevant project descriptions starts on page 7.



Inge Wiersema, PE, ENV SP

PROJECT MANAGER

Inge is an environmental engineer with 30 years of experience. She is a Senior Vice President with Carollo and serves as the company's national Water Resources Practice Director. Inge specializes in water resources projects and has been involved in 24 UWMPs. She has also worked on more than 150 utility master planning projects involving water, wastewater, recycled water, and stormwater systems, as well as many One Water Plans. As a senior project manager, she brings in-depth experience leading large and complex water planning projects across the country, involving extensive data and task coordination with multiple project partners and subconsultants.

SIMILAR CALIFORNIA EXPERIENCE

- Project manager/technical advisor/PIC for 24 UWMPs from 2005 to 2020.
- Technical advisor for the 2025 UWMP for the City of San Diego.
- Project manager for the One Water LA 2040 Plan for the City of Los Angeles.
- Technical advisor for the Water Resources Assessment of 25 Districts for California Water Service Company.
- Project manager for the 2014 and 2025 Water Master Plans for the Mesa Water District.
- Project manager for the Water and Recycled Water Master Plan for UC Irvine.



Shivani Shrotriya, P. Eng.

PROJECT ENGINEER / UWMP LEAD

Shivani has six years of experience in water, wastewater, and stormwater projects. She has participated in multiple UWMPs and WSCPs and was the PE for the 2020 UWMPs and WSCP for MWDOC, its 19 member agencies, and 2 cities. Her experience also includes water supply assessments, water and sewer master plans, operation plans, condition assessment plans, water bank development, stormwater pollution prevention plans, green infrastructure conceptual designs, stormwater management, and water treatment projects for various clients across the U.S. and Canada.

SIMILAR CALIFORNIA EXPERIENCE

- Deputy project manager and project engineer for the 2020 UWMP for MWDOC, including the UWMPs for its 19 member agencies and the cities of Fullerton and Santa Ana.
- Task lead for Water Supply Assessment for the City of Buena Park.
- Task lead for Water Supply Assessment for the El Toro Water District.
- Project engineer for the Chino Basin Water Bank Development for Inland Empire Utilities Agency.



Graham Juby, PhD, PE

PRINCIPAL-IN-CHARGE

Graham brings 42 years of proven experience in the planning and design of water and wastewater treatment facility solutions. He has worked in Orange County for 25+ years and directly with many of your PAs. In his role as principal-in-charge, he will provide any hands-on support as needed and will liaise between MWDOC and our team as necessary to confirm your needs are being met.

SIMILAR CALIFORNIA EXPERIENCE

- Principal-in-charge for the 2010 UWMP for the City of Corona.
- Principal-in-charge for the Wholesale and Retail Water Master Plans for the East Orange County Water District.
- Principal-in-charge for the Demand Model and the Water Master Plans (2014 and 2024) for Mesa Water District.
- Principal-in-charge for the Facilities Master Plan Update, including demand projections for all 6 member agencies, for the Inland Empire Utilities Agency.



Jessica Fritsche

COMPREHENSIVE QUALITY REVIEW

Jessica is a senior water resource planner with 17 years of experience in urban, regional, statewide, and national planning projects with a focus on water demand analysis and water conservation. She has worked on water plans for eight states, including more than two dozen integrated water resource and master plans. Jessica provides her technical expertise on numerous water planning projects throughout the U.S. and currently serves as co-chair to update AWWA's M50 Water Resources Planning and Management manual.

SIMILAR CALIFORNIA EXPERIENCE

- Water demand task lead for the Water Demand Study and 2025 UWMP for the City of San Diego.
- Water demand task lead for the 2020 UWMP for Los Angeles Department of Water and Power.
- Technical lead for the AWWA Guidebook for Modeling Climate Change Effects on Water Demands.
- Planner for the Water Conservation Assessment Model for MWDOC.



Dan Rodrigo

UWMP QUALITY REVIEW

Dan is CDM Smith's global One Water Practice Leader and has 35+ years of expertise in integrated water resources management, water supply planning, scenario planning, climate resiliency, and stakeholder process design. Having led 10 fully compliant California UWMPs in every planning cycle since 2005, Dan is also a proven practitioner in preparing WSCPs. He has a thorough understanding of Orange County water demands and local water supplies through work on multiple OC projects.

SIMILAR CALIFORNIA EXPERIENCE

- Project manager for the Orange County Reliability Study for MWDOC.
- Project manager for the 2020 UWMP for the Los Angeles Department of Water and Power.
- Project manager for the 2020 UWMP for the City of San Diego.
- Project technical lead for Water Supply Reliability Studies (Various Districts) for Cal Water Service.
- Project lead for One Water LA for the City of Los Angeles.



Michelle Maddaus, PE

WSCP QUALITY REVIEW

Michelle is Maddaus Water Management's (MWM) president and has 25 years of experience in water conservation plans, water supply assessments, and demand forecasts involving conservation savings and climate change analyses. She has been helping clients develop UWMPs since 2000, including WSCP development during the 2020 UWMP process for 19 of MWDOC's member agencies and 2 cities. In 2021 she was awarded the AWWA's RIPPLE Award for Water Conservation Division volunteers.

SIMILAR CALIFORNIA EXPERIENCE

- Project manager for the 2020 UWMP and WSCP for MWDOC, including its 19 member agencies and the cities of Fullerton and Santa Ana.
- Project manager for 25 additional UWMPs for various clients for all water cycles since 2000.
- Project manager for the 2020 UWMP and Water Conservation Strategic Plan for the City of Santa Barbara.
- Hosted the Water Conservation California Legislation Webinar series on behalf of San Diego County Water Authority.



Bill Fernandez, PE

WSCP LEAD

Bill is CDM Smith's Discipline Leader for Water Resources Modeling & Decision Support Systems and has 25 years of technical experience in water resources, including research, analysis, planning, and implementation. He incorporates uncertainties in the evaluation of supply reliability, such as population growth, climate change, evolving regulations, groundwater recharge, and others. Bill has led complex UWMPs and WSCPs for several large water agencies in California.

SIMILAR CALIFORNIA EXPERIENCE

- Project manager for the 2020 UWMP and WSCP for Los Angeles Department of Water and Power.
- Project lead for the 2020 UWMP and WSCP for the City of San Diego.
- Technical lead for the Orange County Water Reliability Study for MWDOC.
- Technical review for the 2020 UWMP for Diablo Water District.

Our UWMP and WSCP Project Experience is Second to None

In preparation for this proposal, we tabulated all the UWMPs that our collective team from Carollo, CDM Smith, and Maddaus Water Management have worked on since the 2005 UWMP cycle. As shown in the map below, we helped 76 agencies with one or more cycles of their UWMPs, with a combined wholesale and retail population of 23 and 14 million people. These plans cover a wide range of service area populations, level of sophistication in water supply planning, and degree of system complexity.

So in addition to the work our team members did for your 2020 UWMP, our team knows what it takes to deliver many UWMPs simultaneously as all California water agencies need to meet the same compliance deadlines. With the depth and breadth of our bench, **we are ready to successfully complete your UWMPs (and WSCP if elected to do so) in this round!**

100+ UWMPs

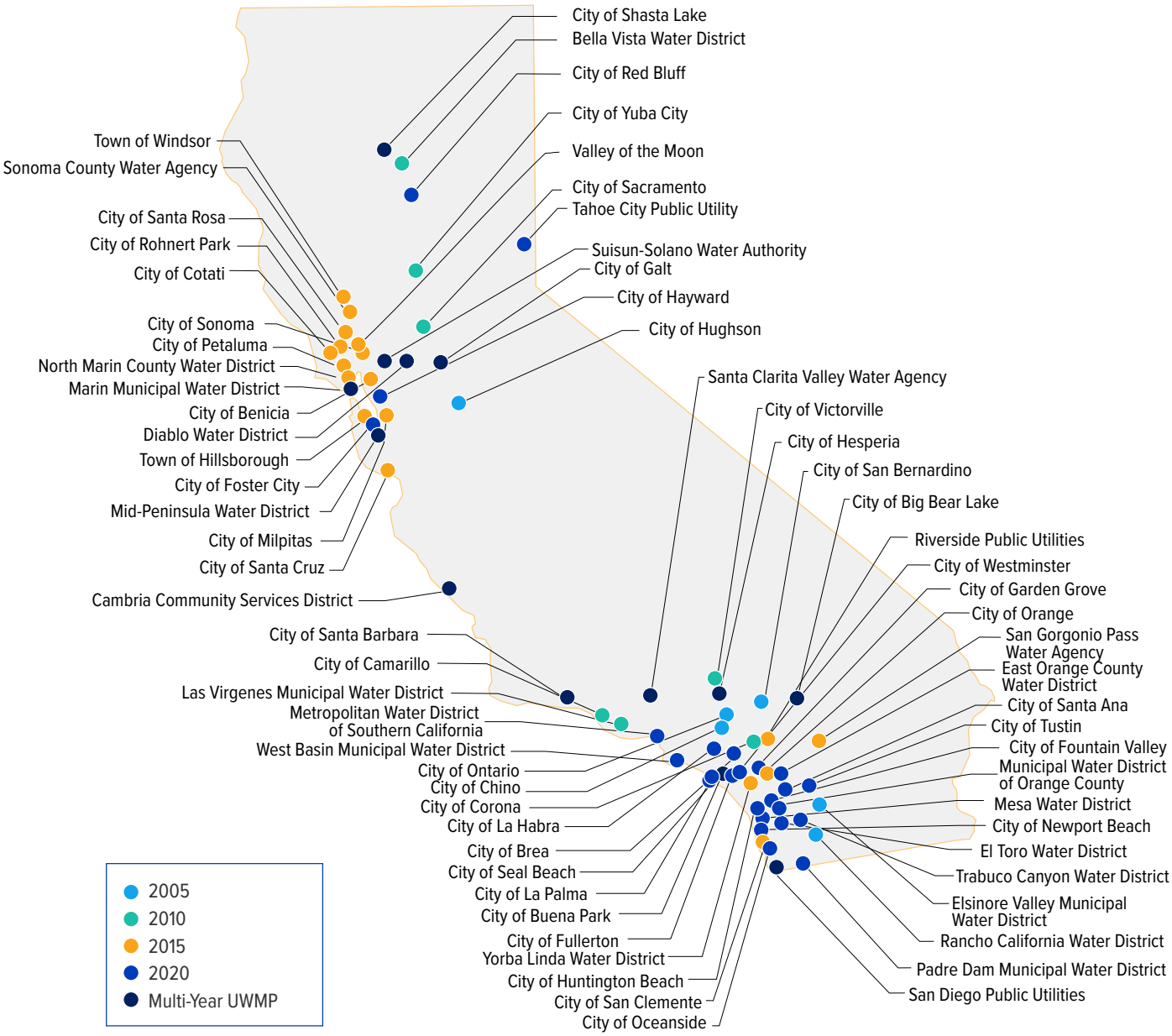
2005
2010
2015
2020

AGENCIES **76**

POPULATION

23 MILLION WHOLESALE

14 MILLION RETAIL



Team Commitment and Responsiveness

It takes corporate commitment to keep high-caliber talent engaged and focused throughout the process to deliver a successful project. As the highest-ranked national company specializing in water, Carollo continuously executes a high volume of work across a wide range of disciplines. We understand that the qualifications of the people proposed are a part of your selection, and that you, in turn, expect those people to be dedicated to the project if selected.

Our team member commitments—shown in the team bios—confirm our team's availability for the duration of this project to meet the aggressive 11-month schedule. Our project manager, Inge Wiersema, will be your primary contact from start-to-finish. She is located in our downtown Los Angeles office and is committed to being responsive to your needs. Although we have assumed that all meetings will be virtual, she often works from our Costa Mesa office and can easily meet you in person, if desired.

Assurance of Firm's Workload

The Carollo team anticipates completing the 2025 UWMP Preparation for Orange County Water Agencies project within MWDOC's outlined schedule to help agencies meet the DWR submittal deadline of July 1, 2026.

At Carollo we utilize our company-wide workload planning tool (called BST) where we input monthly hours for all ongoing and anticipated projects, as well as planned vacation time, to verify that our staff has the capacity to meet project commitments and keep our clients and employees happy. We have already input our projected workload into our BST workload planning tool to confirm that our proposed team members are available to be committed to this project from start to finish and meet the July 1, 2026 deadline. The proposed workload allocations have been approved by Carollo's local resource managers and client service leaders.



"As Senior Vice President of Carollo, I have the authority to direct the resources of the firm. I commit the proposed Carollo team members to the work described in this proposal. My confidence in committing this team to your project is reinforced by our long history working together on similar projects. We look forward to helping MWDOC and the Participating Agencies in the 2025 UWMP cycle!"

- **Inge Wiersema,** ***Senior Vice President*** **|** ***Carollo Engineers, Inc.***

We are Dedicated to Responsive Client Service

Our team combines decades of knowledge with a proven record of delivering complex projects. Just as important as technical expertise is our ability to communicate effectively and foster a collaborative environment to resolve project challenges. **We invite you to contact the references provided below that will attest to the quality of our work and responsiveness of our team members' services on similar projects.**



Los Angeles Sanitation and Environment, CA

One Water LA 2040 Plan

Carollo (prime) and CDM Smith

Ali Poosti
former Division Manager
ahpoosti@yahoo.com
818-281-2670



City of Tumwater, WA

2023 Source Development Planning and Water Conservation

Carollo (prime) and MWM

Dan Smith, Director, Water Resources & Sustainability
desmith@ci.tumwater.wa.us
360-754-4140



City of San Diego Public Utilities Department, CA

2020 UWMP and WSCP

CDM Smith (prime)

Keli Balo
Deputy Director
kbalo@sandiego.gov
619-993-6811

2020 UWMP and WSCP

Municipal Water District of Orange County, CA



As part of the 2020 UWMP cycle, Shivani (prior to joining Carollo) served as deputy project manager and project engineer to **deliver 22 UWMPs and WSCPs for MWDOC, its 19 member agencies, and the cities of Fullerton and Santa Ana.** The project involved extensive coordination across diverse agencies, confirming compliance with updated Department of Water Resources (DWR) requirements and addressing each agency's unique water supply and planning needs.

Working closely with Maddaus Water Management (MWM), the subconsultant leading the WSCP efforts, Shivani managed the end-to-end development of all 22 plans. She led communications and coordination with each agency, organized and maintained a centralized SharePoint system for efficient data collection and tracking, authored several sections of the UWMPs, and facilitated internal team collaboration to provide timely and high-quality deliverables. For agencies that opted into additional support, she prepared public notification materials for the agencies to do public notifications and notifications to cities and counties and handled the plan submittals to the DWR's Water Use Efficiency Data Portal.

Shivani and MWM received positive feedback from MWDOC and multiple participating agencies for their responsiveness, organization, and thoroughness throughout the planning process.

PROJECT BUDGET:
~$900k - $1M

COMPLETED WITHIN BUDGET?
Yes

COMPLETED WITHIN SCHEDULE?
Yes

TEAM INVOLVEMENT:
Shivani Shrotriya, Michelle Maddaus, Nicki Powell

PROJECT RELEVANCE:

- Utilization of a pilot UWMP.
- Effective coordination with 22 agencies.
- In-depth knowledge of the plans and tables that will be updated in this project.
- Knowledge of MWDOC's project manager's preferred work style.

One Water LA 2040 Plan

Los Angeles Sanitation (LASAN) and Department of Water and Power (LADWP), CA



Carollo prepared this landmark One Water Plan through a stakeholder driven process to develop a comprehensive roadmap to achieve the Mayor's water-related Sustainable City Plan goal for water supply resilience, conservation, recycling, stormwater capture and water quality. The plan required **unprecedented coordination between 20 different entities,** including LASAN, LADWP, 12 other City Departments, six Regional Agencies, and 29 wastewater contract agencies. Additionally, the community engagement effort involved over 500 active stakeholders representing 200 organizations with a wide range of interests.

To conduct the long-range water supply analysis task, Carollo developed a city-wide water mass balance tool using our **innovative Blue Plan-it® platform.** This tool incorporated **large data sets** from many different City departments to model the City's entire water cycle, including indoor and outdoor water demands, conservation programs, wastewater flows, recycled water demands, stormwater flows, as well as existing and new supply projects. The tool optimized for lowest unit cost ($/AF) combination of supply projects, while meeting the City's future demands and the Mayor's sustainability goals.

The project received multiple industry awards that attest to the quality of work and innovative nature of the effort.

PROJECT BUDGET:
$6.9M

COMPLETED WITHIN BUDGET?
Yes

COMPLETED WITHIN SCHEDULE?
Yes

TEAM INVOLVEMENT:
Inge Wiersema, Dan Rodrigo

PROJECT RELEVANCE:

- First ever city-wide demand and flow balance tool that includes the entire water cycle.
- Blue Plan-it model platform with user-friendly dashboards to analyze supply portfolio combinations balancing demands, supplies, capital and O&M cost, and timing variables.

2020 UWMP and WSCP

San Diego Public Utilities Department, CA



CDM Smith prepared this 2020 UWMP and WSCP in full compliance with DWR guidelines. The effort included a new, parcel-based water demand forecast for increased geographic and customer resolution and accuracy. Water conservation evaluations accounted for both passive and active efficiencies. The UWMP also included detailed estimation of climate change impacts on imported water, local reservoir storage, and water demands. This plan also served to reinforce the need and benefits of Pure Water San Diego. A Water Supply Assessment Tool was developed to assist the Department tied back to the UWMP. The WSCP was tied to shortage tiers of both the San Diego County Water Authority and Metropolitan Water District of Southern California. Shortage levels reflected droughts and seismic events, to which San Diego is very vulnerable given its location. **CDM Smith supported the UWMP public workshop and City Council presentation for adoption and was responsible for all UWMP/WSCP data uploads to the DWR.**

2025 UWMP

Following the 2020 UWMP cycle, Carollo was retained by the City of San Diego to develop its **2025 UWMP**, as well as the long-term Water Supply Portfolio Plan, with planning horizons of 2050 and 2100, respectively. As part of our team's current work on the 2025 UWMP, we are proactively working on the anticipated 2025 UWMP Guidebook changes.

PROJECT BUDGET:
$800,000

COMPLETED WITHIN BUDGET?
Yes

COMPLETED WITHIN SCHEDULE?
Yes

TEAM INVOLVEMENT:
2020 UWMP: Dan Rodrigo, Bill Fernandez, Brian Shepard, Andria Loutsch, Jessica Fritsche

2025 UWMP: Inge Wiersema, Jessica Fritsche, Becky Gates, Mayra Lara

PROJECT RELEVANCE:

- Parcel-based water demand forecast.
- Climate change impacts on supplies and demands.
- Water Supply Assessment Tool.

Water Resources Assessment and Adaptation Plan (25 agencies)

California Water Service Company, CA



California Water Service Company (CalWater) operates 25 water districts throughout California that utilize groundwater, surface water, and/or imported water to meet their potable demand, as well as recycled water to meet non-potable demands.

CalWater retained Carollo as the prime consultant to complete a water resources climate change vulnerability assessment of all **43 different water supply sources** used to meet **projected water demands in each of the 25 districts.** The expected impact to each water supply source was compared across all 25 districts to allow for prioritization of adaptation strategies for all 25 districts to mitigate near-term, medium-term, and long-term impacts based on adaptation pathways and investment considerations.

This study involved **extensive data gathering, review, and organization** of existing studies and datasets for all 25 districts. As some districts utilize the same water supply sources, in-depth quality control procedures were implemented to deliver consistency and accuracy. **The findings of this plan will be utilized by CalWater to develop their 2025 UWMP.**

PROJECT BUDGET:
$500,000

COMPLETED WITHIN BUDGET?
Yes

COMPLETED WITHIN SCHEDULE?
Yes

TEAM INVOLVEMENT:
Inge Wiersema

PROJECT RELEVANCE:

- Data gathering for 25 different water districts.
- Development of consistent templates of common supply sources.
- Understanding of SoCal's water supply sources.
- Demand and supply comparisons under normal and drought conditions.

Orange County Water Reliability Study

Municipal Water District of Orange County, CA



CDM Smith prepared the 2023 Orange County Water Reliability Study, as a comprehensive update to its 2016 and 2018 efforts, for MWDOC. This **work was in collaboration with MWDOC's member agencies, the cities of Anaheim, Fullerton, and Santa Ana, and the Orange County Water District.** The work involved a comprehensive assessment of supply reliability from MWD and of the Orange County groundwater basin under various scenarios of water demand growth, water efficiency, success of MWD regional projects, and climate change. The climate change work was especially comprehensive and complex, in partnership with Dr. David Yates from the National Center for Atmospheric Research. To address potential water supply gaps for the planning scenarios, CDM Smith summarized the timing, supply yields and costs of planned water supply projects in Orange County. A value of water cost comparison was done to further justify the need for these projects.

As part of this effort, **CDM Smith developed water demand forecasts for all of the water agencies in Orange County to support 2020 UWMPs.** These forecasts involved collaboration with OCWD and each of the utilities for data verification and validity of results.

For both the Water Reliability Study and Orange County water demand forecasts, dozens of meetings were held with water agencies to solicit input.

PROJECT BUDGET:
$560,000

COMPLETED WITHIN BUDGET?
Yes

COMPLETED WITHIN SCHEDULE?
Yes

TEAM INVOLVEMENT:
2018 & 2023 Study:
Dan Rodrigo, Bill Fernandez

2020 Demand Forecast:
Dan Rodrigo, Jessica Fritsche

PROJECT RELEVANCE:

- Characterization of Orange County groundwater and South Orange County local water supplies.
- Supply reliability assessment.
- Climate change resiliency.
- Water demand forecasting.

2020 UWMP and WSCP

Los Angeles Department of Water and Power (LADWP), CA



CDM Smith prepared this 2020 UWMP and WSCP in full compliance with DWR guidelines. LADWP also utilizes its UWMPs as its water supply master plan. The effort included a statistical water demand forecast, estimation of climate change impacts on water supplies and demands, and a summary of water conservation, both passive and active. The UWMP served to reinforce the need and benefit of LADWP's groundwater and recycled water investments, including indirect potable reuse for groundwater recharge.

The WSCP was tied to the shortage tiers of the Metropolitan Water District of Southern California. The shortage levels reflected droughts and seismic events. **CDM Smith facilitated several public workshops for the UWMP and WSCP.** CDM Smith was responsible for all UWMP/WSCP data uploads to DWR.

2025 UWMP

Following the 2020 UWMP cycle, Carollo was retained by LADWP to develop a new demand forecasting model through year 2050 in support of **LADWP's 2025 UWMP.**

PROJECT BUDGET:
$400,000

COMPLETED WITHIN BUDGET?
Yes

COMPLETED WITHIN SCHEDULE?
Yes

TEAM INVOLVEMENT:
2020 UWMP:
Dan Rodrigo, Bill Fernandez, Brian Shepard, Andria Loutsch, Jessica Fritsche

2025 Demand Forecast:
Inge Wiersema, Jessica Fritsche

PROJECT RELEVANCE:

- Statistical water demand forecast.
- Climate change impacts on supplies and demands.
- WSCP tied to wholesale water agency shortage tiers.

C. Project Approach and Scope of Work

Project Understanding

We understand that the goal of this project is to prepare the 2025 UWMPs for MWDOC and the Participating Agencies. Based on discussions with MWDOC staff, we anticipate that this project will likely involve around twenty individual UWMPs that all must be completed and submitted to the California DWR by the submittal deadline of July 1, 2026.

The 2025 UWMP must meet all the requirements of the Final 2025 UWMP Guidebook, which will be published by DWR no later than July 1, 2025. Although the final guidebook is not available yet, our team has a good understanding of the upcoming changes through our involvement in the guidebook development process and access to the interim tables released for review. As shown on the graphic below, there are several key changes that either increase (shown in **orange**) or decrease (shown in **green**) the level of effort for the 2025 UWMPs compared to the 2020 UWMP cycle.

Based on these draft tables released by DWR, we believe that the top three changes are:

1. Chapter 8: The **Water Supply Shortage Levels** are now standardized to 6 levels and do not require details on response actions anymore. The currently adopted versions of the WSCPs are now considered acceptable. However, if MWDOC or any of the PAs wants to make any changes, then an update and recertification process will be needed *(refer to potential triggers at right)*.
2. Chapter 4: The projection of **Passive Water Conservation Savings** is a new optional table that could require some extensive analysis to estimate water savings from already adopted and/or anticipated changes to plumbing codes and regulations.
3. Chapter 4: Progress towards the **2028 Water Loss Performance Standard** is a new table to report on whether a retail agency has met the new distribution system loss performance standard enacted by the California State Water Resources Control Board.

Potential triggers that would warrant a WSCP update include:

- **Changes in water supplies.** For example, water shortage contingency tiers may need to be modified for agencies that had stopped using groundwater in anticipation of the PFAS regulation, but have brought their groundwater wells back online since the publication of the 2020 UWMP.
- **Changes in** Metropolitan Water District of Southern California's **(MET's) shortage triggers**.
- **Updates to** an agency's **Hazard Mitigation Plan or Climate Action Plans** to ensure consistency and avoid conflict in drought and other system vulnerability response actions.
- **Updates to** an agency's **Communication Protocols** following the drought in 2021/22 and recent wildfires.

TOP 10 Changes anticipated in the 2025 UWMP Guidebook

Based on a detailed side-by-side comparison, we have identified 30 changes between the 2020 and 2025 UWMP tables.
The UWMP Table of Contents below calls out the top 10 changes that either increase or decrease the anticipated level of effort.

CHAPTER 4

Decreased **Table 4-1: Wholesale:** Total Uses for Potable and Non-Potable Water - Actual and **Table 4-2 Wholesale:** Uses for Potable and Non-Potable Water - Projected are now optional.

Increased **Table 4-4 Retail:** Passive Water Savings Projection is a new optional table to document projected water savings from adopted codes over the next 25 years, in five-year increments.

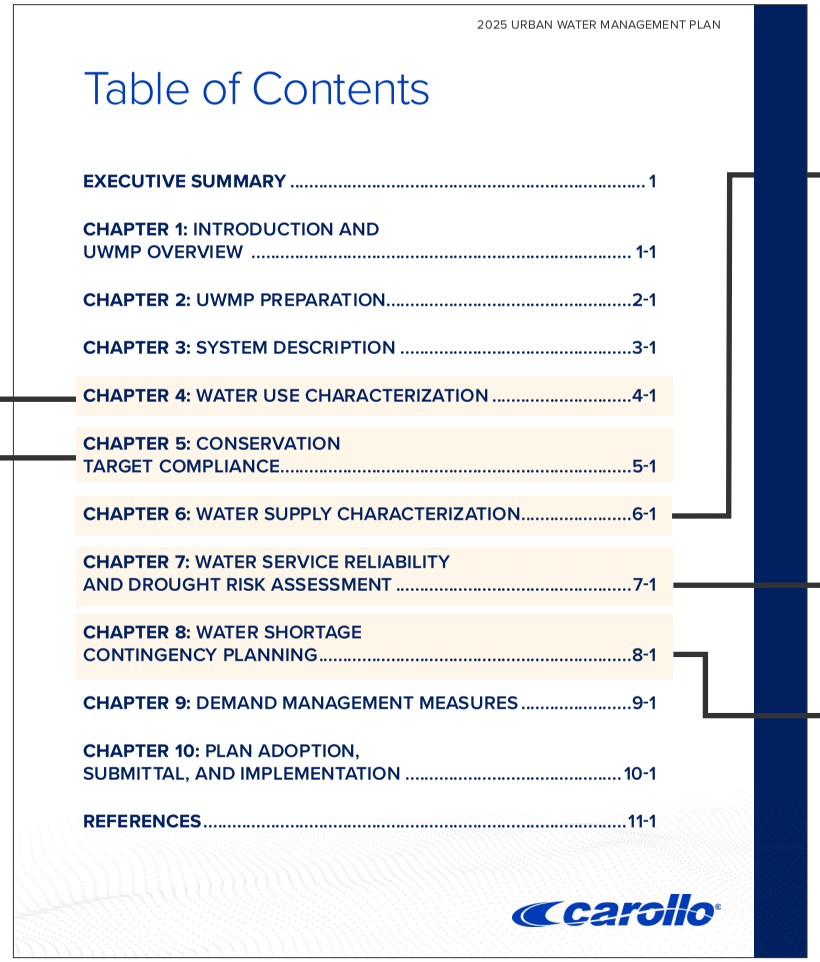
Decreased **Table 4-4:** Last Five Years of Water Loss Audit Reporting, optional for Wholesale and mandatory for Retail in 2020 have been removed.

Increased **Table 4-5:** Water Loss Auditing (optional for Wholesale and mandatory for Retail) is now added to document whether a water loss audit for each of the past 5 years for each public water system served by the agency was submitted to DWR.

Increased **Table 4-6 Retail:** Progress Towards 2028 Water Loss Performance Standard is a new table to report on whether a retail agency has met the new distribution system loss performance standard enacted by the California State Water Resources Control Board.

CHAPTER 5

Decreased **Table 5-1:** Baseline and Targets Summary From SB X 7-7 Verification Form and 2020 Table 5-2: 2020 Compliance From SB X 7-7 2020 Compliance Form from 2020 have been removed and a new Table 5-1 Retail: SB X7-7 2020 Target Progress table is included to report the progress in meeting the urban water use target from 2020.



2025 URBAN WATER MANAGEMENT PLAN

Table of Contents

EXECUTIVE SUMMARY 1

CHAPTER 1: INTRODUCTION AND UWMP OVERVIEW 1-1

CHAPTER 2: UWMP PREPARATION 2-1

CHAPTER 3: SYSTEM DESCRIPTION 3-1

CHAPTER 4: WATER USE CHARACTERIZATION 4-1

CHAPTER 5: CONSERVATION TARGET COMPLIANCE 5-1

CHAPTER 6: WATER SUPPLY CHARACTERIZATION 6-1

CHAPTER 7: WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT 7-1

CHAPTER 8: WATER SHORTAGE CONTINGENCY PLANNING 8-1

CHAPTER 9: DEMAND MANAGEMENT MEASURES 9-1

CHAPTER 10: PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION 10-1

REFERENCES 11-1

carollo

CHAPTER 6

Decreased **Table 6-1: Wholesale:** Groundwater Volume Pumped has now been made mandatory.

CHAPTER 7

Decreased **Table 7-1:** Basis of Water Year Data (Reliability Assessment) is now optional for both Retail and Wholesale.

Increased **Table 7-2:** Normal Year Supply and Use Comparison, **Table 7-3:** Single Dry Year Supply and Demand Comparison, **Table 7-4:** Five Consecutive Dry Years Supply and Demand Comparison and **Table 7-5:** Five-Year Drought Risk Assessment for both Retail and Wholesale have now an optional section to provide WSCP supply augmentation benefit, WSCP water use reduction savings and revised surplus/shortfall over the next 20 years, in five-year increments.

CHAPTER 8

Decreased **Table 8-1:** Cross-reference for Standard vs Supplier Shortage Levels is now a modified table with no entry for describing the shortage response actions and new columns to list the supplier's own shortage levels (if these differ from the standard shortage levels) and corresponding percent shortage ranges.

Based on our experience from previous guidebook updates since our involvement in the 2005 UWMP cycle, and our ongoing work on the 2025 UWMP for San Diego, our team has concluded that the changes for the 2025 UWMP cycle are much less substantive than in previous cycles. As a result, we understand most of the work effort will involve updating information and tables, rather than new types of analysis or major narrative overhauls like in 2020.

Due to the large number of UWMPs that need to be prepared in parallel within the 11-month project duration per the timeline in the RFP, we understand that a key challenge of this project is centered around organization.

It will be critical to streamline data gathering, coordination with member agencies, and the preparation and reviews of the deliverables. To meet this challenge, MWDOC needs an experienced team that has gone down this road before. Our team brings this specific experience through Shivani Shrotriya, who worked with Sarina Sriboonlue for MWDOC while at Arcadis in the preparation of 22 UWMPs during the 2020 UWMP cycle.

Lastly, we also understand that the key objective of most of your participating member agencies is to "check the box" and get this regulatory requirement completed and be eligible for state funding programs. It is our job as the consulting team to deliver these 2025 UWMPs with minimal effort from your member agencies, while getting all the tables and information accurately updated that meet the 2025 UWMP Guidebook requirements and extend the planning horizon to 2050 such that these Plans can also be used for future Water Supply Assessment until the 2030 UWMP cycle.

San Diego 2025 UWMP

Carollo is currently working on the 2025 UWMP for the City of San Diego. With the first draft of the UWMP planned for the end of May 2025, we have built off the comprehensive 2020 UWMP (prepared by CDM Smith) and developed the plan in accordance with the 2020 Guidebook, while tracking/flagging potential changes identified through our connections with parties involved in the 2025 Guidebook development.

In parallel, we have compiled, reviewed, and organized the City's data and information sources such that when the 2025 Guidebook is released, we will be able to quickly generate the Draft UWMP by linking our spreadsheet information to new table formats and word chapters (see page 14). The remaining gaps will the directly inform the additional information needs to meet all 2025 Guidebook requirements.



Our ongoing work on the San Diego 2025 UWMP has resulted in proactive and efficient methods to quickly incorporate anticipated guidebook changes once released.

Our Tailored Approach to Project Success

We have developed a tailored project approach that meets the critical success factors of this project, namely:

1. **Efficient and On-Time Project Delivery**
2. **Streamlined Data Management and Organization**
3. **Sound Quality Control that Promotes Smooth DWR Approval**

Each of these approach elements are described in more detail on the following three pages.

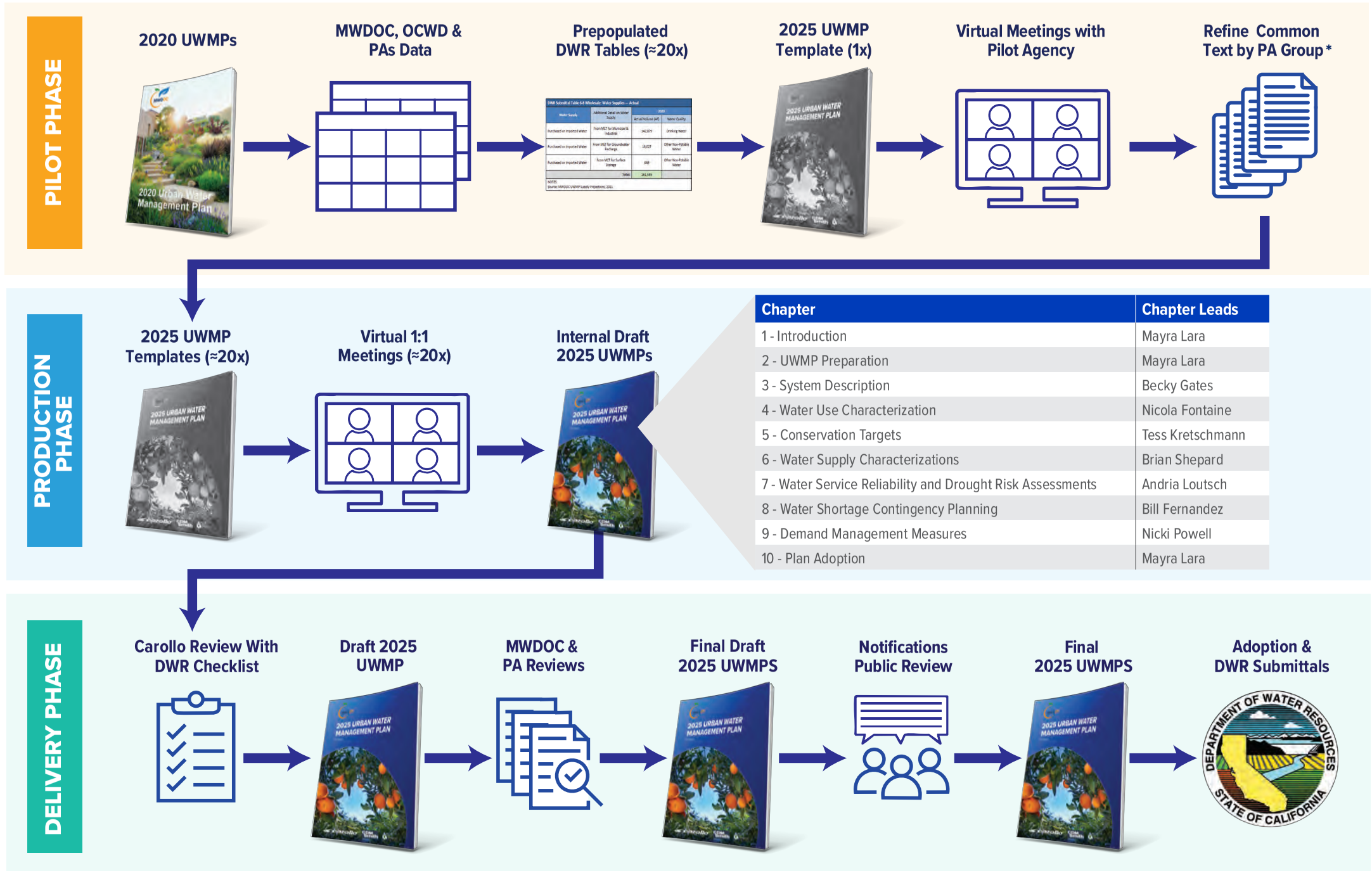
Project Approach

1 Efficient and On-Time Project Delivery

Leveraging the knowledge and experience from our proposed project engineer, Shivani Shrotriya, who worked on the successful delivery of your 2020 UWMPs, we prepared the flowchart shown below to visually display the steps we envision for the efficient preparation of likely more than 20 2025 UWMPs.

The 2025 UWMP development process will first be piloted with one PA. Although the pilot approach takes time in a tight schedule, we have accounted for this in our overall schedule (see page 18). We advise taking this more cautious approach, so we can repeat and accelerate the project delivery process for the remaining UWMPs with confidence. In this way we **Plan the Work** so we can then **Work the Plan.**

This pilot could be completed with the City of Buena Park like in 2020, or another agency may be selected by MWDOC as desired. To take full advantage of the piloting phase, it will be important to use an agency that uses both groundwater and imported water such that the common narrative updates for these water supplies can be used for all UWMPs that need to describe these same water supply sources. For example, the impact of new PFAS regulations and changes in water reuse with the Groundwater Replenishment System Phase 3 expansion in 2023 will need to be incorporated consistently for all respective member agencies.



Chapter	Chapter Leads
1 - Introduction	Mayra Lara
2 - UWMP Preparation	Mayra Lara
3 - System Description	Becky Gates
4 - Water Use Characterization	Nicola Fontaine
5 - Conservation Targets	Tess Kretschmann
6 - Water Supply Characterizations	Brian Shepard
7 - Water Service Reliability and Drought Risk Assessments	Andria Loutsch
8 - Water Shortage Contingency Planning	Bill Fernandez
9 - Demand Management Measures	Nicki Powell
10 - Plan Adoption	Mayra Lara

Upon completion of the pilot phase, the delivery process will be refined as needed before being replicated for the 2025 UWMPs of MWDOC and all PAs simultaneously. The three key takeaways of our efficient project delivery process shown in the flowchart below are:

1. **Prepopulated UWMP Tables:** Before we meet with any of the member agencies, we will combine the information from the 2020 UWMPs, water supply and demand information from MWDOC and online sources. This will allow us to make tailored data requests for each Participating Agency, reducing their data gathering time and effort as much as possible. The tables will be reviewed in the 1:1 meetings and updated information will be directly linked to tables in the 2025 UWMP documents (see sidebar on page 14).
2. **Dedicated Chapter Leads:** As shown in the flowchart, we have dedicated chapter leads (dedicated UWMP leads) assigned who will work in assembly line style to produce their respective chapters for the 20-ish UWMPs. Only chapters 1, 2, and 10 are combined because of the limited content and preparation timeline. Through repetition, this enhances efficiency and promotes consistency for all common narrative content.
3. **Early DWR Checklist Review:** Each of our three technical advisors has a clear responsibility (UWMP, WSCP, and DWR reviews). We will conduct the DWR Checklist review prior to the Draft UWMP delivery to verify completeness. This avoids surprises, the need for additional meetings, and potential delays.

Our UWMP delivery process with a pilot phase and dedicated chapter leads is a proven process that will result in on-time project delivery.

Our proven delivery process with a pilot phase and dedicated chapter leads will result in on-time project delivery of 20+ UWMPs by DWR's deadline.

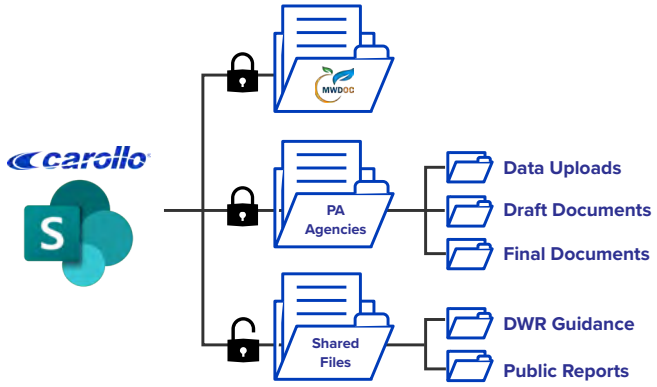
**PA = Participating Agency;*
**Refer to Schedule (pg 18) for identification of Groups*

2 Streamlined Data Management and Organization

Despite the anticipated relatively minor changes in the 2025 UWMP Guidebook compared to the changes between 2015 and 2020, the preparation of likely more than 20 UWMPs in 11 months with multiple revisions in each remains a big undertaking. This is especially true when it comes to data and document management. In addition to the volume of files, the security of the information must be considered. It is therefore critical to apply the principal ***"Plan the Work, Work the Plan".***

The three key elements and benefits of how the Carollo team will streamline data management and organization are as follows:

1. **Secure SharePoint Site:** Carollo will set up and host a project SharePoint Site to manage all project files from start to finish. At the end of the project, files can be transferred back in a single zip file to MWDOC and the respective agencies, as desired. As depicted in the graphic below, we propose using dedicated locked channels for MWDOC and each of the participating member agencies. These channels can be used to **securely upload and download files by approved members.** Public and non-sensitive information will be stored in an open shared folder to avoid unnecessary duplication of data. For example, the 2025 UWMP Guidebook and Water Use Efficiency reports can be saved in the shared folder for easy reference.

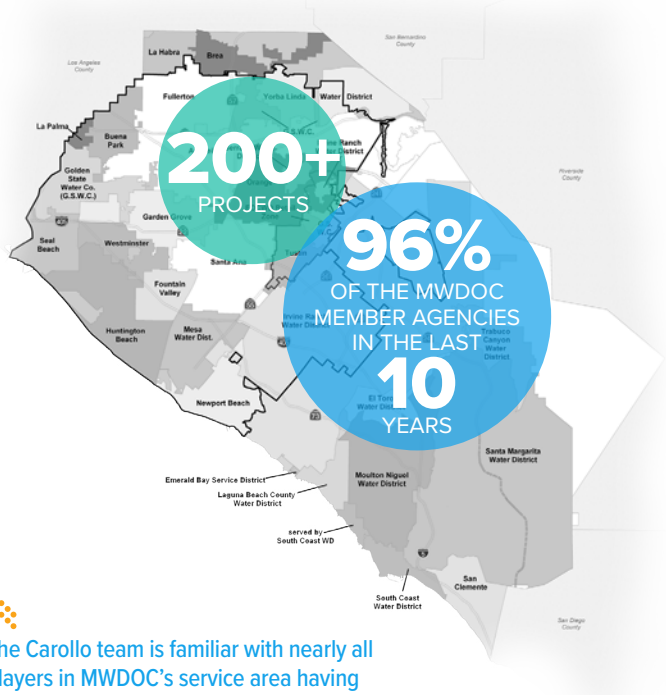


Carollo will host and manage all the data and documents in an organized manner, such that MWDOC and the participating agencies only have to focus on providing raw data and conducting reviews. It is our job to make it easy for you!

2. **Consistent Folder Structures:** We will work with MWDOC's project manager at the start of the project to review and refine our draft proposed folder structure that will be used for all UWMPs. This makes it easy for all team members to quickly find the right files for any member agency, which **enhances efficiency and allows support staff to quickly ramp up during peak production periods.**

3. **File Naming Protocol:** A document naming protocol will be launched at the kickoff meeting so that all data, spreadsheets, chapters, UWMP versions, and comment logs are kept in the correct folders and with the correct file name extensions. **This avoids version control issues and potential duplicate work.**

Last, but not least, we understand that it is the consultant's role to make the data gathering and 2025 UWMP preparation as easy as possible. As members of our team have not only worked on the 2020 UWMPs but also completed 200+ projects for all but one of your member agencies, we bring exceptionally strong relationships in your entire service area. Our personal and working relationships will help with data gathering and result in efficient project delivery.



The Carollo team is familiar with nearly all players in MWDOC's service area having collectively delivered more than 200 projects for the PAs in just the last decade. We will leverage our institutional knowledge and relationships in the 2025 UWMP updates.

3 Sound Quality Control that Promotes Smooth DWR Approval

Quality control is clearly important on any project we deliver. The unique project elements that make a robust and well-thought-out quality control and quality assurance (QAQC) process extra critical for this project are:

- The accelerated timeline of 11 months;
- A regulatory deadline that is truly fixed; and
- The simultaneous preparation of 20-ish plans that all roughly follow the same timeline, creating "waves" of deliverables and subsequent reviews.

To address the challenge of the "waves" of internal reviews, we plan to take a 2-pronged approach:

1. **Staggered UWMP Delivery Schedule.** We have separated the anticipated participating member agencies into four (4) groups based on their respective supply mix complexity. The delivery of the Draft, Final Draft, and Final UWMPs in each group are staggered by 1 week to phase both production and reviews. In addition, this allows more time to complete the more complicated plans and accelerates the UWMP of member agencies with fewer supplies and less complexity. The group allocations are consistent with Attachment A of the RFP and are shown on the project schedule on page 18.

2. **Dedicated Technical Advisory Roles:** As shown in our organization chart on page 2 we have included three technical advisors on our team. The advisors are not involved in the day-to-day project activities or meetings to maintain a truly independent review perspective. Each advisor has a unique and clearly defined responsibility as follows:



Dan Rodrigo: Conduct detailed review of narrative, numbers, and calculations of all Draft and Final Draft, and Final UWMPs. Assure consistency with MWDOC's Water Reliability Study.



Michelle Maddaus: Conduct detailed review of narrative, numbers, and calculations of all Draft and Final Draft, and Final WSCPs.

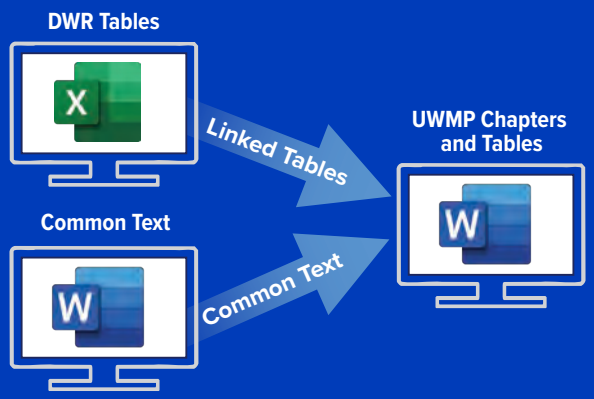


Jessica Fritsche: Conduct comprehensive review of the Final Draft and Final UWMPs and WSCPs from the DWR perspective, using the DWR checklist.

Smart Links Improve Efficiency, Accuracy, and Consistency

In addition, we plan to employ available document processing tools by setting up all the 2025 UWMP word documents such that the tables in the MS Word files are automatically linked to the corresponding master MS Excel workbook. As the UWMP tables are the core of these plans, we will be using the MS Excel workbooks as the master data repository from start to finish. We can then change numbers in excel when we get new information from a report or during the 1:1 meetings with the member agencies, and that automatically updates the corresponding report tables.

Similarly, we will link common text narratives in a master word document (e.g. about the project Basin Pumping Percentage with the Final GWRS Expansion) to the word documents of the applicable member agencies. The automatic updates via linked tables and common text improves efficiency, accuracy, and consistency between the various UWMPs.



Automatic updates via linked tables and common text improves efficiency, accuracy, and consistency.

Scope of Work

Task 1: Project Management

This task includes effort to communicate and coordinate with MWDOC and all the Participating Agencies on project issues and project status, maintain the project schedule, and complete monthly invoices and progress reports. Our quality control measures will be conducted under this task as well.

Task 1A - Meetings

We have scoped the following meetings:

- One 1-hour kickoff meeting with MWDOC.
- One 1-hour kickoff meeting with all Participating Agencies (PA).
- One 1:1 meeting with each individual PAs for UWMP.
- 30-minute biweekly check-in meetings with MWDOC's PM.
- 30-minute biweekly consultant team check-in meetings.

Task 1B - Invoicing and Progress Reporting

This task includes invoicing and creating monthly progress reports to describe accomplishments for the month and activities planned for the next month. Invoices will include a budget tracker table that provides budget spent, budget remaining, and percent complete by PA and for the overall project.

Task 1C – Quality Control

Carollo will follow a rigorous quality control process. Before the project begins, the project manager will prepare a project checklist. The checklist outlines key project steps and guides the team on quality management requirements. The checklist helps confirm that the project follows our quality management procedures.

As a minimum, quality management milestones are:

- **Work Plan.** A work plan will be developed to establish the work sequence effort, when work needs to occur within the project schedule, meeting times, discussion topics at the meetings, key decisions that need to be made, and the project deliverables.
- **Project Management Plan (PMP).** The PMP will include lines of communication, schedule, scope, budget, staffing plan, and special requirements. The project management plan will be distributed to the entire project team and include quality review assignments by person, deliverable, and review period dates based on the kickoff meeting schedule.
- **Independent Final Checks.** Senior technical advisors, who are not involved in the project activities or meetings, will conduct independent technical review of the final draft and final deliverables using Carollo's "redlining" checking procedures as well as DWRs formal UWMP Checklist.

Task 1D - Data Management and Organization

Carollo will a setup secure SharePoint site with a logical folder structure to facilitate easy data sharing and deliverables reviews throughout the project. This will include secure folders for MWDOC and each PA, as well as an open shared folder. All raw data, UWMP spreadsheets, meeting materials, and UWMP document files will be stored in their respective folders.

Key Assumptions

- All meetings will be virtual.
- 11-month project duration (8/1/2025 – 7/1/2026).
- Up to 20 bi-weekly check-in calls with MWDOC, considering holidays and review times.
- MWDOC will provide a contact list of all team members from MWDOC and the PAs that need access to the SharePoint Site.

Key Deliverables

- Meeting agenda, PowerPoint presentation, and notes for both kickoff meetings (2x).
- Meeting agenda and summary of action items for each 1:1 meeting with the PAs.
- Monthly invoice, budget tracker, and progress report (11).
- Master Action and Decision Item log with ongoing updates.

Task 2: Data Collection and Information Review

Carollo will make use of the 2020 UWMPs, where possible. Carollo will access the 2020 UWMPs and previous water loss audits and Urban Water Use Objective Reports from the DWR's Water Use Efficiency (WUE) Data Portal website. Carollo will also request the following documents from MWDOC for review:

- Metropolitan's 2025 UWMP draft.
- 2025 Orange County Water Agencies Demand Forecast by agency.

- 2025 Orange County Water Agencies Demand Forecast Technical Memorandum.
- MWDOC's 2022 The Economic Impacts of Water Shortages on Orange County Report.
- 2025 Orange County Water and Wastewater Multi-Jurisdictional Local Hazard Mitigation Plan (MJHMP) with each PA's annex.
- MWDOC's water use efficiency programs information, including activities related to Making Conservation a California Way of Life framework and Urban Water Use Objective compliance approaches.
- MWDOC's water loss control programs information, including leak detection activities summaries for each PA that participates in this program.

Key Assumptions

- MWDOC will provide the following files in native format for both MWDOC and all PAs:
  - » 2020 UWMP report files in MS Word.
  - » 2020 UWMP tables in MS Excel.
  - » 2020 WSCP report files in Word.
  - » 2020 WSCP tables in MS Excel (if optional updates are requested).
  - » 2025 UWMP demand forecasts in MS Excel (prepared by Hazen and Sawyer).
- Native 2020 UWMP and WSCP files will be provided within 1 month of the NTP.
- Carollo will access relevant Orange County Water District (OCWD) documents available through the OCWD website. For any documents and information not available on the OCWD website, Carollo will include those in the data request to MWDOC
- Carollo will request additional PA-specific documents e.g., Water Master Plans, Recycled Water Master Plans, Hazard Mitigation Plans, etc. from the PAs to support the preparation of the 2025 UWMPs.

Key Deliverables

- Prioritized Data Request matrix in Excel with updates.

Task 3: Draft and Final Draft 2025 UWMP

Carollo will write and format all sections of the 2025 UWMPs in accordance with the CWC requirements following the guidance from DWR's 2025 UWMP Guidebook once released. This includes preparation of the reports that will allow easy uploading to DWR in the required electronic format.

Carollo will respond/revise the 2025 UWMP in case DWR considers the submittal to be non-compliant with the Guidebook requirements and Carollo was provided with the necessary information to meet the Guidebook requirements. Carollo will address the comments to the satisfaction of the PA and DWR within 3 months of receiving comments from DWR.

Task 3A – Draft UWMP

- Carollo will prepare the Draft 2025 UWMP including all necessary appendices and DWR tables for MWDOC and each PA and relevant agencies for review and comment.
- Carollo will complete the DWR UWMP Preparation Checklist for MWDOC and each PA.
- Carollo will submit the Draft UWMP in native format (MS Word) via posting on the project SharePoint Site.

Task 3B – Final Draft UWMP

- Carollo will address all the comments received on Draft 2025 UWMP, appendices and DWR tables to prepare the Final Draft 2025 UWMP.
- Carollo will submit two versions of the Final Draft UWMP in native MS Word format (one with track changes and one clean copy with all changes accepted).
- Carollo will create a consolidated PDF document of the Final Draft UWMP and corresponding attachments for public comment.

Key Assumptions

- Comments on the Draft and Final Draft UWMPs will be provided within 15 working days.
- MWDOC and each PA will provide consolidated comments in one single document using track changes in the native Word files.
- All deliverables will be submitted in electronic format only via posting on the project SharePoint Site.
- Comments from DWR will be addressed outside the 11-month project window.

Key Deliverables

- Draft 2025 UWMP.
- Final Draft 2025 UWMPs.

Task 4: Final 2025 UWMP

As part of this task, Carollo will incorporate public comments received during the public hearing process, and as approved and instructed by the respective PA. Carollo then will prepare the Final 2025 UWMP for MWDOC and all PAs with the inclusion of Adoption Notices. A consolidated PDF of the Final UWMP will all appendices, along with the native files will be uploaded to the SharePoint Site such that MWDOC and PAs can complete submittal to DWR.

Key Assumptions

- MWDOC and all PAs will each coordinate their Public Hearings and subsequently gather and consolidate any public comments received.
- Carollo will receive one consolidated electronic copy of all public comments that must be incorporated within 2 weeks of the public hearing and no later than June 1, 2026.

Key Deliverables

- Final 2025 UWMPs.

Optional Services

MWDOC and PAs may opt to have any of the following services in addition to those described under Tasks 1 through 4.

Optional Task 1: In-Person Individual Meetings

Carollo will schedule and attend individual in-person meetings with MWDOC and/or PAs. It is assumed that these meetings would not exceed 1 hour in duration.

Optional Task 2: Additional Virtual 1:1 Meetings

Carollo will attend one extra virtual 1:1 meeting of up to 1 hour with MWDOC and/or PAs. It is assumed that these would take place during the preparation of the Final Draft UWMPs.

Optional Task 3: Additional Coordination

This task can be utilized to accommodate additional coordination effort required for agencies that have complicated arrangements, limited staff and/or competing interests. For budgeting purposes, this effort is limited to $5,000 per Plan.

Optional Task 4: Incorporating Ripple Effects

This task would provide additional budget to process changes that might arise from Metropolitan or other sources requiring changes that might ripple through multiple tables and/or chapters. For budgeting purposes, this effort is limited to $5,000 per Plan.

Optional Task 5: WSCP Revisions

This task can be utilized by PAs who decide to update their WSCP, following one or more of the four triggers described on page 10, namely changes in water supplies, MET's shortage triggers, Hazard Mitigation Plans, Climate Action Plans, and Communication Plans.

The Carollo team will revise the 2020 WSCP and revisit the 6 shortage levels or other requirements as defined in the draft guidebook tables. Additional 1:1 meetings with the PA may be required in case this optional task is elected after the PA kickoff meeting. It is assumed that the need for all/most WSCP updates will be known at the project kickoff meeting, but at least three months before the UWMP adoption hearing is scheduled.

Optional Task 6: Adoption Process Support

For PAs who elect this optional task, Carollo will coordinate and prepare the public notifications, as well as notifications to cities and county and the resolution for 2025 UWMP Adoption.

Optional Task 7: Prepare Public Hearing Presentations

As part of this optional task, Carollo will prepare a 10-minute PowerPoint presentation that summarizes the 2025 UWMP and that can be used by MWDOC or PA to present the report to their Executive Management, Board of Directors, or General Public. Carollo will attend and/or present at one virtual Management/Board/Public Hearing meeting.

Optional Task 8: Public Hearing Meetings

As part of this task, Carollo would attend the 2025 UWMP Public Hearing to provide backup and answer any questions at the end of the public hearing process at the meeting where the 2025 UWMP is on the agenda for adoption.

Optional Task 9: DWR Submittal

Carollo will submit the 2025 UWMP data to the DWR WUE Portal online.

Optional Task 10: 2025 UWMP Hard Copies

Carollo will print and deliver up to 10 hardcopies of the 2025 UWMPs with appendices.

Optional Task 11: Incorporate Climate Impacts

Carollo will incorporate climate change impacts in the supply availability for each PA that elects this optional task, consistent with the assumptions and findings of MWDOC's Water Reliability Study and 2025 UWMP demand forecast.

D. Project Schedule

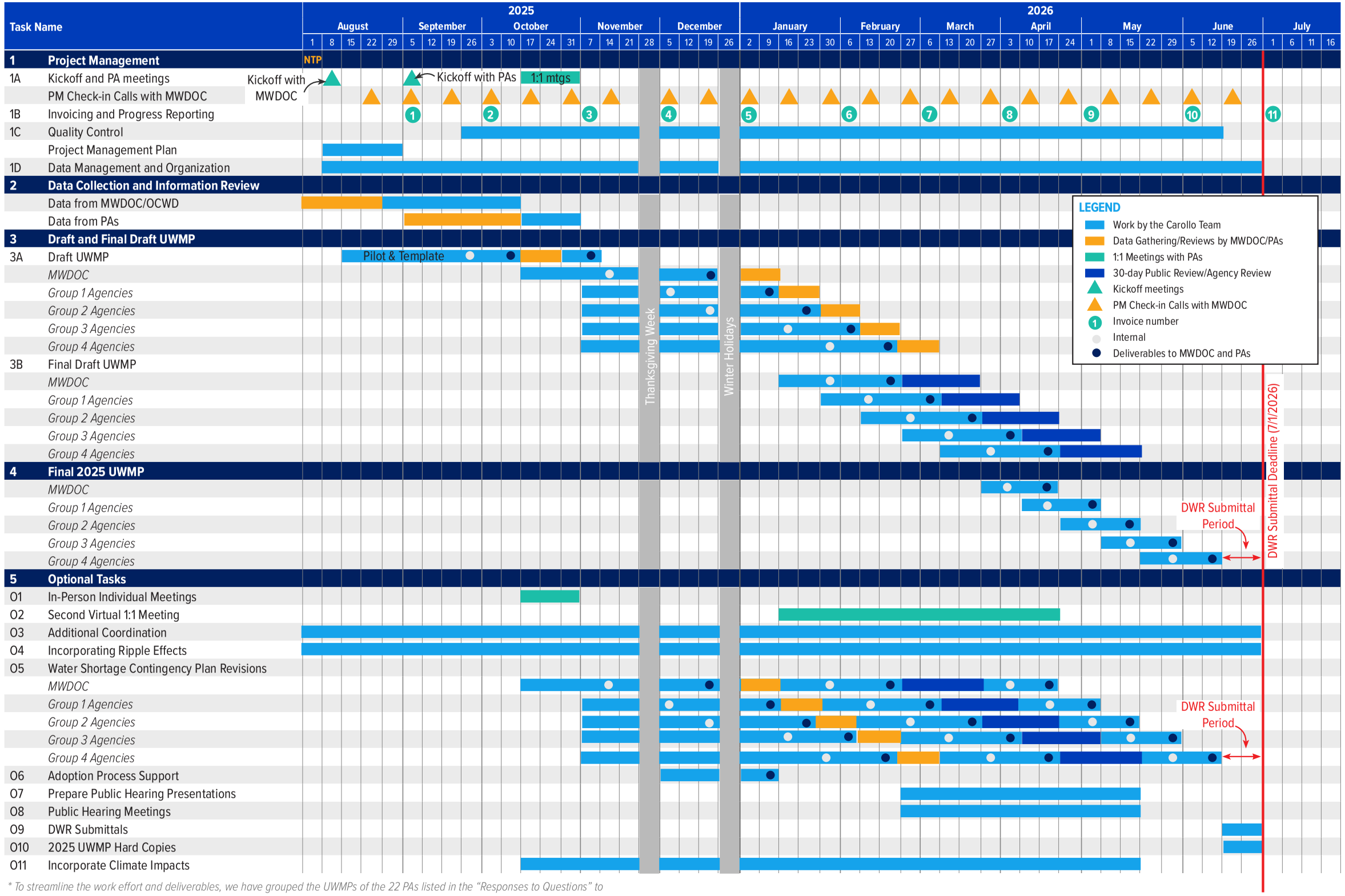
Project Schedule

Meeting the aggressive project schedule of 11 months is one of the key project challenges. Our team has completed many complex planning efforts with multi-agency coordination of similar and larger scope/scale successfully under tight schedules. With the specialty expertise and availability of our team, we are committed to completing the **final 2025 UWMPs by June 12, 2026 such that there ample time for submittal to DWR by the deadline of July 1, 2026.**

The proposed project schedule is based on our project understanding and a contract award by August 1, 2025 as noted in the RFP. The work effort to be completed by the Carollo team is shown in blue bars, while the MWDOC and participating agencies (PAs) reviews are shown in orange. All key deliverables are shown with white (draft) and dark blue (final) dots.

The project schedule aligns with the work plan, our approach, and meets the timeline listed in the RFP. This schedule is based on the following key assumptions:

- The project kick-off meeting with MWDOC is held in the week of August 8, 2025.
- The project kick-off meeting with the PAs is held in the week of September 5.
- The virtual bi-weekly PM meetings with MWDOC will be held starting in the week of August 22, 2025 through the week of June 19, 2026.
- The one-on-one meetings with the PAs will be completed within a 3-week period, with 1-hour time slots per PA.
- MWDOC and PA staff will review all deliverables within 2 weeks.
- All project meetings will be scheduled at the start of the project and take place virtually using MS Teams (or similar), unless in-person meetings are requested by MWDOC and PAs as part of the optional tasks.



** To streamline the work effort and deliverables, we have grouped the UWMPs of the 22 PAs listed in the "Responses to Questions" to the RFP into 4 groups. The grouping will be finalized at the kickoff meeting with MWDOC based on the final list of PAs. For example:*
Group 1: Approximately 5 of 11 OCWD Groundwater Agencies
Group 2: Approximately 6 of 11 OCWD Groundwater Agencies
Group 3: Approximately 5 OCWD Groundwater Agencies with Recycled Water
Group 4: Approximately 6 South County Agencies with Recycled Water & Non-OCWD Groundwater Agencies

E. Fee Schedule

Fee Proposal

The Fee Proposal presented herein is based on our current understanding of the anticipated Guidebook Changes presented in the project understanding (page 10) and the scope of work presented on pages 15-17. It should be noted that although this is not a technically challenging project, the combined effort is still an extensive undertaking. This project will involve a lot of coordination with 20+ agencies and 3 versions of each UWMP with quality control of all 60+ plans to ensure accuracy and consistency. Our fee proposal reflects the necessary effort to ensure smooth approval of the 2025 UWMPs by DWR, such that MWDOC and all Participating Agencies (PAs) maintain full eligibility for state grants and loans. Any significant changes incorporated in the Final 2025 UWMP Guidebook and/or requests to include optional tables, could require a change in the level of effort and budget. We look forward to the opportunity to negotiate these changes upon notice of selection and release of the Final Guidebook.

The table shown below summarizes our estimated costs to complete the 2025 UWMPs by agency group as requested in the RFP. A detailed fee estimate with a breakdown of labor hours by task, subtask, and team member is provided on the next page.

Our key assumptions that affect our labor estimate for this cost proposal include:

- 11-month duration.
- 22 biweekly project management calls of ½ hour duration.
- All meetings will take place virtually using MS Teams or similar platform, except for in-person meetings included in Optional Task 1.
- To streamline data gathering and deliverable production, all PAs will be known at the kickoff meeting with MWDOC.
- The virtual/in-person 1:1 coordination meetings with each of the PAs do not exceed 1 hour.
- The virtual 1:1 coordination calls will take place in designated meeting blocks of 4 hours each. MWDOC will coordinate with the PAs to get all virtual and/or in-person meetings scheduled.
- The PAs will deliver all requested data using the data gathering template (in Excel) provided via the secure project SharePoint site, setup and hosted by Carollo.
- All deliverables will be delivered electronically. Comments will be returned as a compiled set of consolidated comments using track changes on word documents and the comment response log spreadsheet template provided by Carollo.
- The optional tables and/or task items included in the Scope of Work can be added individually by each PA as desired, and/or modified or supplemented with other optional task ideas as desired by MWDOC and the PAs.
- Printing of hard copy UWMPs are estimated to cost $250 each, including shipping.

FEE SUMMARY PROPOSAL - COST PER CATEGORY OF UWMP

UWMP Category	Minimum of 15 Agencies	More than 20 Agencies
MWDOC	$74,727	
Group 1 - OCWD Groundwater Agencies	$41,488	$40,433
Group 2 - OCWD Groundwater Agencies with Recycled Water	$44,637	$43,582
Group 3 - South Orange County Agencies with Recycled Water	$47,251	$46,196
Group 4 - South Orange County Agencies without Recycled Water	$42,369	$41,314
Group 5 - Non-OCWD North County Groundwater Basin Agencies	$47,251	$46,196

Task Description	CAROLLO ENGINEERS								CDM SMITH						MADDAUS WATER MANAGEMENT					OTHER DIRECT COSTS				TOTALS	
	Principal-in-Charge Graham Juby	**Project Manager** Inge Wiersema	**Project Engineer** Shivani Shrotriya	**QC Lead** Jessica Fritsche	**Chapter 4 Lead** Nicola Fontaine	**Chapter Lead and Document Support** Myra Lara	**Chapter 3 Lead** Becky Gates	**Administrative Support**	**UWMP QC Lead** Dan Rodrigo	**Chapter 6 Lead** Brian Shepard	**Chapter 7 Lead** Andria Loutsch	**Chapter 8 Lead** Bill Fernandez	**WSCP Lead** Bill Fernandez	**Administrative Support**	**WSCP QC Lead** Michelle Maddaus	**Chapter 5 Lead** Tess Kretschmann	**Chapter 9 Lead** Nicki Powell	**WSCP Ch 3 Lead** Nicki Powell	**WSCP Ch 1/2/4 Lead** Victoria Bravo	**Subconsultant Markups (5%)**	**PECE***	**Travel, Printing, Miscellaneous**	**Total ODCs***	**Labor Hours**	**Fee Estimate**
Hourly Rates ($/hr)	*$350*	*$350*	*$225*	*$285*	*$225*	*$175*	*$200*	*$150*	*$340*	*$165*	*$250*	*$240*	*$240*	*$165*	*$340*	*$240*	*$165*	*$165*	*$135*	*5%*	*$15.00*				
Task 1 - Project Management	**8**	**40**	**85**	**4**	**0**	**61**	**0**	**2**	**15**	**12**	**8**	**3**	**0**	**11**	**4**	**11**	**11**	**0**	**11**	**$946**	**$3,000**	**$-**	**$3,946**	**286**	**$70,901**
Kickoff with MWDOC	*1*	*2*	*5*	*0*	*0*	*4*	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*$34*	*$195*	*$-*	*$229*	*15*	*$3,934*
Kickoff with all PAs	*1*	*2*	*5*	*0*	*0*	*4*	*0*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*$42*	*$195*	*$-*	*$237*	*16*	*$4,107*
1:1 Meeting with Individual PAs	*0*	*0*	*2*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*$0*	*$60*	*$-*	*$60*	*4*	*$860*
Internal Biweekly Meetings	*0*	*11*	*11*	*0*	*0*	*11*	*0*	*0*	*0*	*11*	*8*	*3*	*0*	*0*	*0*	*0*	*11*	*0*	*0*	*$318*	*$495*	*$-*	*$813*	*66*	*$15,413*
Biweekly PM Checkins with MWDOC	*0*	*11*	*11*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*$0*	*$330*	*$-*	*$330*	*22*	*$6,655*
Task 1B - Invoicing and Progress Reporting	6	11	11	0	0	0	0	0	11	0	0	0	0	11	0	11	0	0	11	$484	$420	$-	$904	72	$19,009
Task 1C - Quality Control per UWMP	0	0	0	4	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	$68	$60	$-	$128	8	$2,628
Task 1D - Data Management and Organization	0	3	40	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	$0	$1,245	$-	$1,245	83	$18,295
Task 2 - Data Collection and Review (per UWMP)	**0**	**0**	**4**	**0**	**2**	**0**	**2**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$42**	**$120**	**$-**	**$162**	**12**	**$2,742**
Task 3 - Draft and Final UWMP - MWDOC	**0**	**6**	**52**	**0**	**28**	**8**	**6**	**44**	**4**	**28**	**28**	**16**	**0**	**0**	**4**	**6**	**8**	**0**	**0**	**$1,047**	**$2,160**	**$-**	**$3,207**	**238**	**$53,447**
Develop Pilot Template	0	2	40	0	16	0	0	32	4	4	4	4	0	0	4	0	0	0	0	$267	$1,350	$-	$1,617	110	$25,057
Task 3A - Draft UWMP	0	2	8	0	8	4	4	8	0	16	16	8	0	0	0	4	6	0	0	$526	$510	$-	$1,036	84	$18,546
Task 3B - Final Draft UWMP	0	2	4	0	4	4	2	4	0	8	8	4	0	0	0	2	2	0	0	$255	$300	$-	$555	44	$9,845
Task 3 - Draft and Final UWMP - Group 1 Agencies	**0**	**4**	**10**	**0**	**6**	**6**	**6**	**12**	**0**	**20**	**12**	**6**	**0**	**0**	**0**	**6**	**8**	**0**	**0**	**$525**	**$660**	**$-**	**$1,185**	**96**	**$20,735**
Task 3A - Draft UWMP	0	2	6	0	4	4	4	8	0	12	8	4	0	0	0	4	6	0	0	$345	$420	$-	$765	62	$13,305
Task 3B - Final Draft UWMP	0	2	4	0	2	2	2	4	0	8	4	2	0	0	0	2	2	0	0	$181	$240	$-	$421	34	$7,431
Task 3 - Draft and Final UWMP - Group 2 Agencies	**0**	**4**	**10**	**0**	**14**	**6**	**6**	**12**	**0**	**18**	**18**	**6**	**0**	**0**	**0**	**6**	**8**	**0**	**0**	**$584**	**$780**	**$-**	**$1,364**	**108**	**$23,884**
Task 3A - Draft UWMP	0	2	6	0	8	4	4	8	0	12	12	4	0	0	0	4	6	0	0	$395	$480	$-	$875	70	$15,315
Task 3B - Final Draft UWMP	0	2	4	0	6	2	2	4	0	6	6	2	0	0	0	2	2	0	0	$189	$300	$-	$489	38	$8,569
Task 3 - Draft and Final UWMP - Group 3 Agencies	**0**	**4**	**10**	**0**	**14**	**6**	**6**	**12**	**0**	**24**	**24**	**6**	**0**	**0**	**0**	**6**	**8**	**0**	**0**	**$708**	**$780**	**$-**	**$1,488**	**120**	**$26,498**
Task 3A - Draft UWMP	0	2	6	0	8	4	4	8	0	16	16	4	0	0	0	4	6	0	0	$478	$480	$-	$958	78	$17,058
Task 3B - Final Draft UWMP	0	2	4	0	6	2	2	4	0	8	8	2	0	0	0	2	2	0	0	$231	$300	$-	$531	42	$9,441
Task 3 - Draft and Final UWMP - Group 4 Agencies	**0**	**4**	**10**	**0**	**10**	**6**	**6**	**12**	**0**	**15**	**15**	**6**	**0**	**0**	**0**	**6**	**8**	**0**	**0**	**$521**	**$720**	**$-**	**$1,241**	**98**	**$21,616**
Task 3A - Draft UWMP	0	2	6	0	6	4	4	8	0	10	10	4	0	0	0	4	6	0	0	$353	$450	$-	$803	64	$13,963
Task 3B - Final Draft UWMP	0	2	4	0	4	2	2	4	0	5	5	2	0	0	0	2	2	0	0	$168	$270	$-	$438	34	$7,653
Task 3 - Draft and Final UWMP - Group 5 Agencies	**0**	**4**	**10**	**0**	**14**	**6**	**6**	**12**	**0**	**24**	**24**	**6**	**0**	**0**	**0**	**6**	**8**	**0**	**0**	**$708**	**$780**	**$-**	**$1,488**	**120**	**$26,498**
Task 3A - Draft UWMP	0	2	6	0	8	4	4	8	0	16	16	4	0	0	0	4	6	0	0	$478	$480	$-	$958	78	$17,058
Task 3B - Final Draft UWMP	0	2	4	0	6	2	2	4	0	8	8	2	0	0	0	2	2	0	0	$231	$300	$-	$531	42	$9,441
Task 4 - Final 2025 UWMP - MWDOC	**0**	**2**	**4**	**0**	**2**	**4**	**2**	**8**	**0**	**6**	**4**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**$148**	**$330**	**$-**	**$478**	**36**	**$7,778**
Task 4 - Final 2025 UWMP - Group 1 Agencies	**0**	**2**	**4**	**0**	**2**	**2**	**2**	**6**	**0**	**4**	**2**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**$106**	**$270**	**$-**	**$376**	**28**	**$6,196**
Task 4 - Final 2025 UWMP - Group 2 Agencies	**0**	**2**	**4**	**0**	**2**	**2**	**2**	**6**	**0**	**4**	**2**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**$106**	**$270**	**$-**	**$376**	**28**	**$6,196**
Task 4 - Final 2025 UWMP - Group 3 Agencies	**0**	**2**	**4**	**0**	**2**	**2**	**2**	**6**	**0**	**4**	**2**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**$106**	**$270**	**$-**	**$376**	**28**	**$6,196**
Task 4 - Final 2025 UWMP - Group 4 Agencies	**0**	**2**	**4**	**0**	**2**	**2**	**2**	**6**	**0**	**4**	**2**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**$106**	**$270**	**$-**	**$376**	**28**	**$6,196**
Task 4 - Final 2025 UWMP - Group 5 Agencies	**0**	**2**	**4**	**0**	**2**	**2**	**2**	**6**	**0**	**4**	**2**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**$106**	**$270**	**$-**	**$376**	**28**	**$6,196**
Optional Tasks																									
Task O1: In-Person Individual Meetings	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	$0	$150	$100	$250	10	$2,700
Task O2: Additional Virtual 1:1 Meetings	0	1	2	0	0	3	0	0	0	1	0	1	0	0	0	0	2	0	0	$37	$90	$0	$127	10	$2,187
Task O3: Additional Coordination	0	4	4	0	2	2	2	1	0	1	1	1	0	0	0	1	1	0	0	$53	$225	$152	$430	20	$5,140
Task O4: Incorporating Ripple Effects	0	4	4	0	2	2	2	1	0	1	1	1	0	0	0	1	1	0	0	$53	$225	$152	$430	20	$5,140
Task O5: Water Shortage Contingency Plan Revisions	0	2	4	2	0	0	0	8	2	0	0	0	12	0	4	0	0	20	24	$573	$240	$0	$813	78	$15,643
Task O6: Adoption Process Support	0	2	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	$0	$150	$0	$150	10	$2,450
Task O7: Prepare Public Hearing Presentations	0	2	4	0	0	4	0	2	0	1	0	0	0	0	0	0	1	0	0	$17	$180	$0	$197	14	$3,127
Task O8: Public Hearing Meetings	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	$0	$60	$100	$160	4	$1,560
Task O9: DWR Submittal	0	2	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	$0	$120	$0	$120	8	$2,070
Task O10: 2025 UWMP Hard Copies	0	2	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	$0	$75	$2,500	$2,575	5	$3,775
Task O11: Incorporate Climate Impacts	0	2	4	0	0	0	0	0	2	16	4	0	0	0	0	0	0	0	0	$216	$90	$15	$321	28	$6,241

** ODCs include $15.00 per labor hour Project Equipment and Communication Expense (PECE).*

Appendix
Resumes



Inge Wiersema, PE, ENV SP

Inge Wiersema serves as Carollo's Water Resources Practice Director and is an environmental engineer with 30 years of experience. She specializes in delivering integrated One Water solutions built on decades of water resources and utility master planning experience involving potable water, recycled water, wastewater, groundwater, and stormwater systems. She has also worked on groundwater and watershed management plans, water supply studies, and climate vulnerability assessments. Inge has extensive stakeholder engagement and facilitation experience from her work on One Water Planning efforts for utilities across the US.

RELEVANT EXPERIENCE

> **24 Urban Water Management Plans (UWMPs) in the 2005, 2010, 2015, and 2020 cycles.** Agencies include the cities of Buena Park, Big Bear Lake, Camarillo, Chino, Corona, Hesperia, Hughson, Ontario, and Victorville, as well as Elsinore Valley MWD, Las Virgenes MWD, and Walnut Valley MWD.

> **Technical advisor for the ongoing 2025 UWMP and long-term Water Supply Portfolio Plan for the City of San Diego.**

> **Principal-in-charge and technical advisor for the Water Demand Forecasting Model for the Los Angeles Department of Water and Power (LADWP), California.** This project involves the development of a new demand forecasting model through year 2050 in support of their 2025 UWMP.

> **Project manager for the One Water LA 2040 Plan for the City of Los Angeles, California.** The Plan is a collaborative effort of the Los Angeles Sanitation and Department of Water and Power that takes a holistic approach to consider all types of water as "One Water." The Plan was developed through a stakeholder driven process and broad collaboration with the One Water Steering Committee (14 City Dept. and 6 regional entities) and the One Water Stakeholder Group (200 organizations), incl. non-governmental organizations, the community, academia, and city executives. Inge was responsible for coordination of the work effort with City staff from multiple departments and 23 subconsultants. The final plan included a trigger-based implementation plan to guide the City with multi-billion-dollar decisions to make LA a more water resilient and sustainable City.

> **Technical advisor for the California Water Service, California, Climate Change Water Resources Monitoring and Adaptation Plan.** Inge guided the project team's water supply and demand assessment work for 25 different water districts across California, analyzing how climate change is expected to impact surface water, groundwater, and imported water supplies. Adaptation strategies were identified to reduce vulnerabilities to climate threats and how to prioritize strategies based on adaptation pathways and investment considerations for all 25 districts.

> **Project manager for the University of California Irvine (UCI) 2017 Water and Recycled Water Master Plan.** The project included creation and calibration of water and recycled water system models of the UCI campus. CAD drawings were converted to GIS to develop two brand new hydraulic models that were used to analyze what system improvements are required to handle projected campus growth. This is the first model and master plan for UCI.

> **Project manager for the City of Buena Park, California, 2005 and 2010 Urban Water Management Plans.**

EDUCATION

MSc Environmental Engineering, Wageningen University, The Netherlands, 1997

MSc Water Management, Technical University Delft, The Netherlands, 1996

BS Environmental Engineering, Hogeschool Van Utrecht, The Netherlands, 1995

LICENSES

Civil Engineer, California, Hawaii

CERTIFICATIONS

Environmental Sustainability Professional (ENV SP)

PROFESSIONAL AFFILIATIONS

American Academy of Water Resources Engineers

American Society of Civil Engineers

American Water Works Association

Association of Women in Water, Energy, and Environment

Institute for Sustainable Infrastructure

Water Environment Federation

WateReuse Association

Inge Wiersema, PE, ENV SP

> **Project engineer for the East Orange County Water District, California, 2015 Water Wholesale and Retail Master Plans.** The project included water demand forecasting for the District's wholesale and retail customers, hydraulic model update, hydraulic modeling analysis, emergency system analysis, pipeline condition assessment, age-based pipeline replacement analysis, capital improvement program development, and preparation of a comprehensive master plan report.

> **Principal-in-charge for the Mesa Water District, California, 2025 Capital Improvement Update.** This ongoing project is an update of the 2014 Water Master Plan and includes similar elements as described below for the 2014 WMP.

> **Project manager for the Mesa Water District, California, 2014 Water Master Plan and associated Water Supply Demand Optimization Model Development.** The project included demand projections, water supply analysis, hydraulic model update and calibration, extensive field condition assessment, and development of an optimization model. Findings of the modeling and condition assessment analysis were combined in a comprehensive capital improvement program and water master plan report.

> **Project manager for the City of Garden Grove, California, Water Master Plan.** The project included water demand projections, development of a complete water system GIS, creation of a hydraulic model system analysis, capital improvement program development, and preparation of a master plan report.

> **Project manager for the City of Anaheim, California, Recycled Water Feasibility Study.** This project involved performing an alternative supply source evaluation for recycled water from the Orange County Groundwater Replenishment System and non-potable shallow groundwater.

> **Project manager for the Yorba Linda Water District, California, Hydraulic Model Development and Northeast Planning Study.**

> **Technical advisor for the City of Orange, California, Initial Distribution System Analysis Plan and Report** using a hydraulic model. The project included water-age analysis and selection of monitoring sites.

> **Staff engineer for the Yorba Linda Water District, California, Highland Reservoir Design.** The project included a hydraulic analysis to evaluate the impact of temporary use of a reservoir located at a lower hydraulic grade line on water system pressures.

> **Staff engineer for the City of Fountain Valley, California, Water Master Plan.** Participated in the water demand projections, allocation of future demands in the hydraulic model, and hydraulic system analysis.

> **Task manager for the Inland Empire Utilities Agency, California, Recycled Water Implementation Plan.** The project defined the layout and sizing of the regional backbone recycled water system for IEUA's 7 member cities as well as some unincorporated areas of San Bernardino County. Inge led the data gathering and analysis effort with all 8 member agencies to identify potential recycled water users, develop and calibrate a hydraulic model that was used to size pipelines and facilities, and the preparation of the final Plan, including a $320 million CIP and operational strategy.



carollo

EDUCATION

MS Civil Engineering, University of California, Los Angeles, 2018

BTech Civil Engineering, Aligarh Muslim University, 2017

LICENSES

Professional Engineer, British Columbia

Shivani Shrotriya, P.Eng.

Shivani Shrotriya, a Staff Professional with Carollo Engineers, has 6 years of experience in several water, wastewater and stormwater projects. Shivani has led or participated in multiple urban water management plans (UWMPs), water supply assessments (WSAs), water master plans, sewer master plans, water and sewer system capacity assessment studies, operation plans, condition assessment plans, water bank development, stormwater pollution prevention plans (SWPPPs), green infrastructure conceptual designs, stormwater management, and water treatment projects for various clients across the US and Canada. Shivani also has experience with project management work including managing project budgets, preparing invoices and progress reports, developing scope of work, and writing proposals.

RELEVANT EXPERIENCE

> **Deputy project manager and project engineer for the development of 2020 Urban Water Management Plans for Municipal Water District of Orange County (MWDOC), its 19 member agencies, the cities of Fullerton and Santa Ana in California.** Worked with the clients to ensure that all 22 UWMPs were completed and were in compliance with the California Water Code. Conducted project management including management of project budget and scope and preparation of invoices.

> **Task lead for Water Supply Assessment for the City of Buena Park, California.** Developed the water supply assessment for the client's service area, associated with a proposed development project, 'The Village at Buena Park'.

> **Task lead for Water Supply Assessment for El Toro Water District, California.** Developed the water supply assessment for the client's service area, associated with a proposed development project, 'The Village at Laguna Hills'.

> **Project engineer for Chino Basin Water Bank Development for Inland Empire Utilities Agency, Chino, California.** Assisted in preparing the report on the evaluation of the existing facilities required for operating the Bank. Generated GIS figures for the proposed water banking scenarios. Put together the operations plan for the Bank development. Prepared reports and presentations for internal team and client meetings. Conducted project management including management of project budget and scope and preparation of progress reports and invoices.

> **Project Engineer for Regional District of North Okanagan, British Columbia, Mabel Lake Water and Sewer System Capacity Assessment.** Responsible for identifying capacity upgrade requirements for the water system and remaining capacity for the sewer system, cost estimates for identified improvement plans including filtration treatment for the water system, and secondary treatment for the sewer system, as well as recommendation for new service connection fees.

> **Shortage Planning Lead for the County of Maui Department of Water Supply (DWS) Water Shortage and Conservation Plan.**

> **Support staff for the 2022 Wastewater Collection System Master Plan Update for City of Henderson, Nevada.**

> **Task lead for the 2021 calendar year Water Loss Audit Validation for the City of Norwalk, California.** Shivani

prepared the Level 1 Validation Report following the California Department of Water Resources protocol for the certified Water Audit Validator in the team to review and sign.

> **Task lead for the 2021 calendar year Water Loss Audit Validation for San Francisco Public Utilities Commission, San Francisco, California.** Shivani prepared the Level 1 Validation Report following the California Department of Water Resources protocol for the certified Water Audit Validator in the team to review and sign.

> **Support staff for Santa Monica Urban Runoff Recycling Facility (SMURRF) Condition Assessment task for the City of Santa Monica, California.** Shivani developed the summary of findings for the SMURRF's condition assessment, which was conducted to quantify the remaining useful life of facilities and prioritize rehabilitation at the SMURRF and its adjacent Moss Avenue Pump Station. Helped project team in developing technical specifications for the proposed upgrades and changes at SMURRF and conducted the visual impact assessment to analyze the potential visual impacts to the landscape and landscape views, resulting from the proposed upgrades to the SMURRF with a modular containerized reverse osmosis treatment unit, advanced oxidation treatment, and solar panel array. Prepared cover sheets to help the client obtain the Envision credits for the project.

> **Task lead for SWPPP development for Columbian Chemicals Company Carbon Facility, Mojave, California.** Led the development of SWPPP for the remedial actions to be conducted at the former Columbian Chemicals Company Carbon Facility.

> **Task lead for SWPPP development for the plugging and abandonment of the Bloedel Ruddock well, located in the City of Forks in Washington.**

> **Task lead to review the existing SWPPP and stormwater monitoring results for Schneider Electric, Costa Mesa, California.** Assisted the QISP with conducting the Exceedance Response Action (ERA) evaluation, preparation of the ERA Level 1 Report, and updating SWPPP with recommendations to use additional Best Management Practices (BMPs).

> **Support staff for the Los Angeles River Pro Bono project for The Nature Conservancy, Los Angeles, California.** Developed the GIS basemaps for the entire Los Angeles River watershed that laid the groundwork for the evaluation of individual sites. Generated maps and data for the potential sites for implementing green infrastructure. Prepared the conceptual designs for the proposed green infrastructure elements at selected locations.

Project engineer for Treatment Plants HVAC System Evaluation for Metropolitan Water District of Southern California, Los Angeles, California. Shivani conducted site evaluation of the existing HVAC system for Jensen Water Treatment Plant. Documented the necessary improvements in a 50% preliminary design report (PDR) and final PDR to reduce smoke entering the control rooms through the points of infiltration. Evaluated the need for a dedicated HVAC system at Eagle Rock OCC, Weymouth, Mills, and Skinner water treatment plants and documented the findings and suggestions in technical memorandums. Prepared presentations on progress updates and next steps for client meetings.



Graham J.G. Juby, PhD, PE

Dr. Graham Juby, a vice president with Carollo Engineers, has 42 years of experience in planning, testing, and process design for water and wastewater treatment facilities, with an emphasis on water reuse. He has focused on advanced treatment processes such as low- and high-pressure membrane systems (microfiltration and reverse osmosis), nutrient removal, and the application of ozone, granular activated carbon (GAC), biological filtration, ion exchange, and ultraviolet (UV). His background in these technologies includes both pilot plant and full-scale design experience. His experience also includes many planning projects. He has also been involved with several fast-track and alternative delivery projects.

EDUCATION

PhD Engineering, University of Pretoria, South Africa, 1995

BS Eng Hons Water Utilization Engineering, University of Pretoria, South Africa, 1992

BS Hons Biomedical Engineering, University of Cape Town, South Africa, 1985

BS Chemical Engineering, University of Cape Town, South Africa, 1982

LICENSES

Civil Engineer, California

Professional Engineer, Texas, South Africa

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

American Water Works Association

International Water Association

South African Institute of Chemical Engineers

Water Environment Federation

Water Institute of Southern Africa (Fellow)

RELEVANT EXPERIENCE

> **Principal-in-charge and technical advisor for the City of Corona, California, 2010 Urban Water Management Plan.**

> **Principal-in-charge and project manager for the 2019 Water System Master Plans for East Orange County Water District, California.** The master planning effort included a 20-year outlook for both the wholesale and retail zones for the District. The project also included the preliminary design of a new replacement water treatment plant for the District, and a condition assessment of their existing reservoirs.

> **Principal-in-charge for the 2014 and 2024 Water System Master Plans for Mesa Water District, California**. This assignment involves demand projections, water supply analysis, hydraulic model update and calibration, extensive field condition assessment, and development of an optimization model. As part of the field condition assessment, all water system facilities (8 groundwater wells, 1 treatment plant, 2 reservoirs, 2 booster stations, and imported water connections) were visited. In addition, 2 miles of non-destructive pipeline testing was done. The findings of the modeling and condition assessment analysis were combined into a comprehensive CIP and water master plan report.

> **Principal-in-charge for the 2015 Facilities Master Plan Update Report for the Inland Empire Utilities Agency (IEUA), California.** This assignment involved demand projections, analysis, hydraulic modeling, and evaluation of technology needs and cost estimates for five IEUA treatment facilities through the planning horizon of 2060.

> **Project manager for the preparation of a Water System Master Plan for the Mesa Water District, California**. He worked directly with Mesa staff to prepare a Water System Supply Plan, an Emergency Supply Plan, and a Water System Operations Plan for the master plan. He assisted Mesa staff in completing the Capital Improvement/ Replacement Plan to identify budgetary requirements through the year 2010.

> **Technical advisor for the PFAS Treatment Systems Planning Study for the Orange County Water District (OCWD), California**. This project involved planning and siting studies for PFAS treatment facilities for ten agencies that pump water from the OC Groundwater Basin, incorporating 66 impacted wells.

> **Principal-in-charge for On-Call Recycled Water Modeling, IEUA, California**. The Agency's recycled water hydraulic model is utilized to simulate the effects of existing and future demands in addition to proposed facilities on the recycled water distribution system within the Agency's service area. Carollo has provided hydraulic analyses on an on-call basis for more than 8 years when

changes to demands, operations and facilities are under evaluation. The system-wide analyses will be used for future planning of facilities under the Recycled Water Program Strategy and its subsequent updates.

> **Principal-in-charge and technical advisor for the University of California Irvine (UCI) 2017 Water and Recycled Water Master Plan.** The project included creation and calibration of water and recycled water system models of the UCI campus. CAD drawings were converted to GIS to develop two brand new hydraulic models that were used to analyze what system improvements are required to handle projected campus growth. This is the first model and master plan for UCI.

> **Project manager for the joint Orange County Water District and the Orange County Sanitation District, California,** evaluation of a novel integrated membrane and anaerobic digestion treatment process for wastewater treatment and production of high-quality reclaimed water. The process train, called the IMANS® system, was tested as a possible treatment approach for a future phase of Orange County's 150-mgd Groundwater Replenishment System project.

> **Treatment plant lead for Yorba Linda Water District, California, PFOA/PFAS Treatment System.** Prepared the Project Technical Requirements for procuring a design-build contractor for the project.

> **Project lead for the Inland Empire Utilities Agency, California, RP-1 Liquid and Solids Capacity Recovery**. The project includes preliminary and final design to recover capacity to 40 mgd from the current 28 mgd. The evaluations include both hydraulic modeling and biological modeling. Expansion components include a new fine screen facility, new membrane facilities (conversion to MBR), new acid phase digesters, and rehabilitation of various existing unit processes.

> **Project manager for the 2016 Peters Canyon Water Treatment Plant (PCWTP) Feasibility Project for East Orange County Water District, California**. The project evaluated the technical and financial feasibility of constructing a new PCWTP to treat a blend of Lake Mathews water and water off the Baker Pipeline. Nine treatment trains were evaluated including both MF/UF membrane treatment, and ozone followed by direct filtration. Multiple selection criteria were identified, and weighting factors were developed using the paired-wise selection approach and used to select the preferred treatment approach. The conceptual design of a new 6 mgd treatment facility was developed together with capital and O&M costs that were used for the financial analysis.

> **Principal-in-charge for the preliminary and final design for the Water Reliability Facility Technology Replacement and Expansion project for Mesa Water District, California.** The project involved designing a new 9-and nanofiltration (NF) treatment facility to treat higher-level colored water from two on-site wells at the Orange County Groundwater Basin by replacing the existing ozone and biologically enhanced activated carbon (BAC) filtration system. The process will recover up to 98 percent of the feed water as potable water and includes hydrogen sulfide and methane stripping facilities and the use of the existing on-site storage and pumping equipment.



Jessica R. Fritsche

Jessica Fritsche is a supervising water resource planner with 17 years of experience in urban, regional, statewide, and national planning projects that model future water resource demand and economic outputs, and integrate risk and uncertainty. She specializes in identifying the key drivers of historical water use, characterizing existing water use, and projecting demand into the future. She has forecasted water demands for dozens of studies across the U.S, designed to capture the most appropriate spatial scale and level of effort while reflecting the critical changes in demographic and climatic conditions. Jessica brings expertise in project management, statistical analysis and mathematical modeling, benefit-cost analysis, GIS analysis, methodology and study design, database management, planning tool and model development; preparation of technical documents and reports, and stakeholder outreach and support. She developed an algorithm for estimating the impacts of federal and state laws that set standards for plumbing fixture flow rates and has applied the method to more than a dozen studies across the US. She is a skilled econometric modeler and brings innovative and technical excellence to projects to solve complex water resource challenges.

carollo

EDUCATION

MS Geography/ Environmental Resource Management, Southern Illinois University, 2007

BA Philosophy, Southern Illinois University, 2004

PROFESSIONAL AFFILIATIONS

American Water Works Association

- Sustainability Division member (2022 to current)
- Water Resources Planning and Management Committee member (2016 to current)
- Co-chair for the M50 Manual Update, Water Resources Planning (ongoing)

RELEVANT EXPERIENCE

> **Planner for the Municipal Water District of Orange County, California, Conservation Assessment Model.** For the MWDOC, Jessica developed a statistical model of historical water production for three service areas in order to estimate conservation-saving achievements over time. The variables in the statistical models included departures in average temperature and precipitation, conservation savings estimates, drought restriction binaries, and the unemployment rate (as an indicator of economic activity). Jessica utilized the results of the modeling efforts to produce an Excel-based planning tool that is used by the MWDOC staff for tracking and analyzing conservation achievements over time through statistical normalization of production to remove impacts of drought, recession, and weather responses.

> **Water demand task lead for the City of San Diego, California, Water Demand Study and Urban Water Management Plan.** The City of San Diego required an updated long-range water demand forecast in support of its 2020 UWMP. Additionally, the City desired a robust water demand forecasting model in the short term for projecting increases across the 135 pressure zones. Jessica brought innovation to the City's model by projecting future demand per a tailored, mixed-mode method. The City's model includes econometric modeling for the residential sector that estimates water use per parcel based on characteristics such as temperature, lot size, building footprint, persons per household, presence of a pool, number of dwelling units on the parcel, and median household income.

> **Water demand task lead for the Los Angeles Department of Water and Power, California, Urban Water Management Plan.** Jessica worked with LADWP to update their water demand model and produce updated projections for 2050 in support of their 2020 UWMP. The model utilized the adjusted unit use with elasticity method and incorporated water demand impacts from conservation, housing growth increases in the price of water, lot size changes (densification), family size, and affluence as well as impacts from potential climate change.

Jessica R. Fritsche

> **Technical lead for the AWWA Guidebook for Modeling Climate Change Effects on Water Demands.** This project developed a guidebook for utilities that illustrates approaches to modeling the effects of climate change on water demands. The guidebook will be freely available to AWWA membership.

> **Project lead for the County of Maui, Hawaii, Water Shortage and Conservation Plan.** Carollo was selected to formulate a Water Shortage and Conservation Plan to prepare the County's Department of Water Supply and its residents in times of low supply and to further advance water conservation adoption. The plan will help the department to plan for sustainable and efficient use of groundwater and surface water resources and protect public trust uses. Carollo is engaged with stakeholders to align the plan with community values.

> **Technical director for the Los Angeles Department of Water and Power, California, Water Demand Forecasting Model.** Leading the technical team to create econometric functions and a forecasting model and tool to support LADWP in its UMWP update as well as other long-range planning efforts.

> **Water conservation and demand task lead for the Metro Vancouver, British Columbia, Comprehensive Regional Water System Plan.** Through development of econometric statistical methods, Jessica developed models of member jurisdiction water demand for multiple sectors which are inputs into the regional water supply planning process. The demand models include data representing 17-member jurisdiction and required collection of 20-years of historical water use data. The econometric models explain water use as a function of the main drivers of demand in the Vancouver region: weather, household characteristics, increasing densification, changes in plumbing fixture flow rates, affluence, changes in allowable outdoor watering, and impacts from residential metering programs.

> **Demand task lead for the City of Long Beach, California, Long Beach Water Resources Plan.** To support analysis of potential water supply options, Jessica was responsible for developing innovative sector-level econometric water demand forecasting models to 2050.

> **Project manager for the Tarrant Regional Water District (TRWD), Fort Worth, Texas, Integrated Water Supply Plan.** Jessica is leading the Carollo team and multiple consultants to update TRWD's Integrated Water Supply Plan. The project includes analysis of water demands, existing supplies, water supply needs, and detailed evaluation of over 20 water supply strategies. These strategies are being combined to determine several alternative portfolios of future supplies that meet reliability, affordability, and community goals.

> **Task lead for the Oklahoma Water Resources Board, Oklahoma, Oklahoma Comprehensive Water Plan.** Carollo is projecting potential water supply shortages for each of the state's 82 planning basins. This includes 50-year decadal population and water demand projections for each of seven water use sectors. Anticipated benefits include coordinated water management between users and basins, and defined strategies for meeting anticipated water supply shortages.

Dan Rodrigo

Senior Vice President

Mr. Rodrigo is CDM Smith's global One Water Practice Leader. He has over 35 years of experience in integrated water resources management, water supply planning, scenario planning, climate resiliency, resource economics, and stakeholder process design. Mr. Rodrigo is an expert in system integration models, multi-criteria decision analysis, triple bottom line evaluations, and adaptive pathways for dynamic implementation of projects. For water plans in Southern California, he oversaw the development of CDM Smith's comprehensive systems model of Metropolitan Water District's water supply reliability, which incorporates scenarios of growth, climate change and success of planned projects. Mr. Rodrigo is also proven practitioner in preparing California Urban Water Management Plans (UWMPs) and Water Shortage Contingency Plans (WSCPs)—having led 10 UWMPs since 2005.

Project Technical Lead, Water Supply Reliability Studies (Various Districts), Cal Water Service. CDM Smith prepared water supply reliability studies for Cal Water's King City/Salinas District (2022), Northern California Districts (2024), and currently working on its Southern California Districts. These studies forecasted water demands, assessed existing water supplies under climate change, and evaluated supply alternatives such as reuse, desalination, water banking and expanded groundwater. For the Southern Districts, CDM Smith used a systems model of MWD's imported water, simulating shortages from the State Water Project and Colorado River under climate change. Adaptive management plans were developed for implementation of top-ranked alternatives, using triggers for decision-making. These studies also provided inputs into Cal Water's UWMPs.

Project Manager, Integrated Resources Plan (IRP), Elsinore Valley Municipal Water District. CDM Smith is updated the IRP for Elsinore Municipal Water District, focusing on incorporating climate change and other uncertainties in imported and local water supplies in Riverside County. Water supply gaps were estimated under five-planning-scenarios to identify resiliency strategies that can be implemented in the near, medium, and long-term future. A systems model was used to estimate probability of water shortages and estimate the benefits of supply alternatives in terms of yield, climate resilience, cost, and water quality. An adaptive management strategy was developed for implementation of top-ranked alternatives.

Project Manager, Orange County Water Reliability Study (OC Study), Municipal Water District of Orange County. In 2018, CDM Smith prepared the OC Study to estimate supply reliability for the County and evaluate regional and local projects for increased resiliency. This 2018 OC Study conducted a benefit-cost analysis of proposed water supply projects within Orange County based on scenario planning. In 2023, CDM Smith updated the OC Study to include a more robust estimate of climate change impacts using its own hydrologic models of the Bay Delta and Colorado River to estimate climate threats such as droughts and reduced snowpack. CDM Smith also incorporated economic impacts of water shortages within Orange County to businesses and residents to estimate the value of water supply reliability. Water demand forecasts of MWDOC's member agencies developed by CDM Smith for the 2023 OC Study were also utilized for the 2020 UWMPs in Orange County.

Education

MS – Environmental Planning, Southern Illinois University, 1988

BS – Geography/ Economics, Southern Illinois University, 1986

Experience Highlights

- Integrated Water Resources Management
- California Urban Water Management Plans
- Water Shortage Contingency Plans
- Scenario Planning
- Climate Change Resiliency
- Financial Planning and Resource Economics
- Stakeholder Engagement

Professional Involvement

- Member One Water Council, U.S. Water Alliance
- Member, Climate Change Committee, American Water Works Association
- Member, Water Environment Federation

Project Manager, Integrated Water Resources Plan, South Coast Water District. This forward-looking plan evaluated imported water supply risks from the State Water Project under droughts and climate change, as well as the rising cost of imported water from the wholesale water agency MWD. A systems model was used to estimate the probability of water shortages under different planning scenarios of growth and climate change impacts. Alternatives evaluated to mitigate these risks included seawater desalination, additional water conservation, expanded reuse, and water banking. The results of this plan were used to gain 100% approval from the California Coastal Commission for the Doheny Seawater Desalination project, the top-ranked alternative of the plan.

Project Lead, One Water LA, City of Los Angeles. Mr. Rodrigo has been involved in all phases of One Water LA, including its predecessor the Integrated Resources Plan. Mr. Rodrigo's involvement in these efforts included assessing water demands and supplies, stakeholder facilitation, use of multi-criteria decision analysis to rank portfolios of projects, and overseeing feasibility of distributed recycled water and stormwater capture alternatives.

Project Manager, 2020 Urban Water Management Plans for City of San Diego and Los Angeles Department of Water and Power. Mr. Rodrigo led the preparation of 2020 UWMPs for City of San Diego and LADWP, including new WSCPs to be compliant with DWR guidelines. These plans included demand forecasting, water supply reliability assessments, impacts of climate change on water demands and supplies, assessment of water savings from conservation programs, and conducting public workshops.

Project Manager, 2016 Long-Range Water Reliability Plan, Moulton Niguel Water District. Mr. Rodrigo led the preparation of Moulton Niguel Water District's first water reliability plan. This effort included water demand forecasting, use of CDM Smith's systems model of MWD's water supplies, and evaluation of various portfolios of water supply projects to meet future needs through 2050.

Project Manager, 2015 Urban Water Management Plans for City of San Diego and Los Angeles Department of Water and Power. Mr. Rodrigo led the preparation of 2015 UWMPs for City of San Diego and LADWP. These plans included demand forecasting, water supply reliability assessments, impacts of climate change on water demands and supplies, assessment of water savings from conservation programs, and conducting public workshops.

Project Manager, 2010 Urban Water Management Plans for Los Angeles Department of Water and Power, City of Pasadena, and San Gorgonio Pass Water Agency. Mr. Rodrigo led the preparation of 2010 UWMPs for LADWP, Pasadena and San Gorgonio Pass Water Agency. These plans included demand forecasting, water supply reliability assessments, impacts of climate change on water demands and supplies, assessment of water savings from conservation programs, and conducting public workshops.

Project Manager, 2005 Urban Water Management Plans for Rancho California Water District and City of San Bernardino. Mr. Rodrigo led the preparation of 2010 UWMPs for Rancho California Water District and San Bernardino. These plans included demand forecasting, water supply reliability assessments, impacts of climate change on water demands and supplies, assessment of water savings from conservation programs, and conducting public workshops.



MICHELLE MADDAUS, P.E., M.B.A.

President/Principal Water Resources Engineer

MADDAUS WATER MANAGEMENT INC.
Making a Difference in the World of Water

LICENSE

Professional Engineer, California, No. C60047, 2000

EXPERIENCE

25 years

EDUCATION

M.B.A, UC Davis, 2003
B.S., Civil and Environmental Engineering, UC Davis, 1999
Study Abroad, University of New South Wales, Sydney, Australia, 2003
Study Abroad, University of Oxford, UK, 1997

AWARDS

AWWA, Outstanding Achievement Service and Initiative in Sustainability of Water Resources, 2012
AWWA, 2022 Representing Innovative People and Promotions that Lead to Increased Water Efficiency Award

AREAS OF EXPERTISE

Water Resources Planning Management
Demand and Conservation Planning
Integrated Water Resources Planning
Commercial, Industrial, and Institutional (CII)
Advanced Metering Infrastructure (AMI)
Drought

RELEVANT EXPERIENCE

Urban Water Management Plans (UWMPs) and Water Shortage Contingency Plans (WSCPs), Municipal Water District of Orange County (MWDOC), CA

2020

MWM worked with Arcadis, MWDOC and MWDOC's retail agencies to support the retail agencies' 2020 UWMPs and WSCPs. Michelle led the MWM team in the development of 23 UWMPs for retail members of MWDOC and assisted with development of the WSCPs. This project also involved coordinating with MWDOC's retail agencies to develop a draft template water shortage model ordinance and included support on customizing the agencies' individual model ordinances.

Urban Water Management Plans (UWMPs)/Water Shortage Contingency Plans

2000-2025

Michelle has been working with urban water management plans since 2000. She has been involved in plans with the City of Sacramento (2000), Calistoga (2005), Suisun-Solano Water Authority (2005, 2010, 2015, 2020), South Tahoe Public Utilities (2010), Liberty Utilities (2015, 2020), Mid-Peninsula Water District (2015, 2020), City of Sonoma (2015), City of Hayward (2020), City of Milpitas (2020, 2025); including City of Hillsborough, Marin Municipal Water District, North Marin County Water District, City of Santa Rosa, City of Petaluma, City of Rohnert Park, Town of Windsor, City of Sonoma, Valley of the Moon, City of Cotati; and Water Shortage Contingency Plan development during the 2020 UWMP process for 21 of the 28 Metropolitan Water District of Orange County agencies, the City of Foster City/EMID, City of Hayward, and Town of Windsor.

Advanced Metering Infrastructure (AMI) Business Case Development, Santa Margarita Water District, CA

2025-Current

Maddaus Water Management (MWM) teamed with Arcadis, with Michelle as MWM project manager and lead the Water Conservation and Funding Team. MWM assisted Arcadis with an AMI Needs Assessment, Business Case development including a cost-benefit analysis, an AMI Roadmap and Risk Assessment and a Business Case Report for this project to meet SMWD's AMI goals and objectives.

Water Conservation California Legislation Webinar Series, San Diego County Water Authority (SDCWA), CA

2021–Present

Michelle led the 17 webinars hosted by MWM on behalf of SDCWA, to support information sharing and facilitate open dialogue about the potential impact of the water conservation legislation on retail water agencies. Workshop topics include providing regulatory updates on the water use efficiency standards, breaking down the urban water use objective, and mapping out what agencies should do to prepare for future requirements. Open to statewide attendance, the series has been well attended with over 100 individuals participating in the series.

Advanced Metering Infrastructure Feasibility Study and Business Development Plan, Irvine Ranch Water District, CA
2023-2024

Working with Arcadis, Michelle and the MWM Team are conducting an analysis of metering equipment and systems to develop a feasibility and needs assessment to include detailed findings and recommendations on AMI vendors, technologies, and system architectures. Following that the team will commence on a Business Case for AMI which includes a cost-benefit analysis and ROI applied to various implementation scenarios and an impact assessment for processes, personnel, and technology. Additional components of the project are a roadmap for AMI implementation and a complete business development plan addressing all project phases, including procurement and implementation with multiple implementation scenarios.

Commercial Water Audit Program Design and Training, Water Conservation Strategic Plan and 2020 Urban Water Management Plan Technical Assistance, City of Santa Barbara, CA
2014, 2018–2021, 2025-Present

MWM, with Michelle as project manager, worked with the City on their "Making Conservation a Santa Barbara Way of Life," intended to support the City's compliance with the G480 Standard and joining the AWE Leaderboard. This was a complement to and continuation of previous work between the City and MWM. Historical and ongoing water use was tracked and analyzed for various demand projection scenarios, and water conservation estimates were developed for over 25 conservation measures and 3 conservation program scenarios for the 2018-2021 effort. The 2014 effort included a water conservation analysis, which explored water use and conservation water savings estimates for two scenarios: (1) Long Term Conservation Plan for 2014–2040 (26 years), and (2) Drought Program for 2014–2015 (1 year). Currently, Michelle is again serving as project manager to assist the City of Santa Barbara with updates including CII technical support.

Integrated Plan including Water and Sewer Master Plan, Water Conservation Master Plan, City of Santa Monica, CA
2018, 2021-2024

Michelle worked with Arcadis for the City of Santa Monica (City). Michelle has been senior Engineer and project manager for the City through multiple contracts, first while training City staff to use and populate the DSS Model (providing training videos and virtual meetings), then to help update the model through the latest development of a complete Water Conservation Master Plan which includes revised forecasts and community input on conservation measure design. Michelle's role included supervising data collection, water demand forecasts, conservation measure design, conservation program development, and redesign. Michelle was also in charge of integration of key results from the Water and Sewer Master Plan team and the Water Conservation Plan team. Michelle's responsibility was to ensure that planned water savings were included throughout the City water planning efforts.

WaterSmart Guidebook for Businesses Technical Update, East Bay Municipal Utility District (EBMUD), CA
2025

With Michelle providing technical review, a team of Maddaus Water Management (MWM) staff and experts reviewed the East Bay Municipal Utility District's (EBMUD's) WaterSmart Guidebook for Business, revising or rewriting each chapter to update the guidebook in alignment with industry standards and water using technologies. MWM added three new chapters including one on cost considerations that helped to define methodologies to calculate payback periods for equipment upgrades. Other new chapters were on data (primarily Advanced Metering Infrastructure). Some chapters were entirely rewritten or largely updated for legislation, regulations and recommendations that changed since the previous Guidebook release in 2014.

Water Use Efficiency Master Plan, Liberty Utilities (formerly Park Water Company), CA
2014, 2016, 2021

Michelle was Project Manager for this Liberty Utilities – Park Water (LU-PW) system plan. The plan identified programs and projects to effectively meet water use requirements. It was built on the 2010, 2015 and 2020 Urban Water Management Plans (UWMPs) prepared in accordance with the California Urban Water Management Planning Act. With the use of MWM's DSS Model, the plan provided detailed information for 20 individual conservation measures, giving LU-PW the flexibility to use this plan as a guide to implement additional measures to help increase water savings should the statewide drought worsen significantly.

William S. Fernandez, PE
Water Resources Engineer

Mr. Fernandez, CDM Smith's Discipline Leader for Water Resources Modeling & Decision Support Systems, is a water resources engineer with 25 years of technical and management experience in water resources, including research, analysis, planning, and implementation. He has extensive experience in scenario planning addressing future water needs under potential pressures such as population growth, climate change and evolving regulations and developing adaptive management strategies to address these issues. Mr. Fernandez also has experience in developing California Urban Water Management Plans (UWMPs) and Water Shortage Contingency Plans (WSCPs).

Project Manager. 2020 Urban Water Management Plan and Water Shortage Contingency Plan, Los Angeles Department of Water and Power (LADWP). Mr. Fernandez managed the development of the 2020 UWMP and WSCP for LADWP. In addition to being compliant with California Department of Water Resources (DWR) guidelines, LADWP utilizes its UWMP as a water supply planning document. This effort included water demand forecasting, estimating water savings from conservation programs, and estimating water supply reliability under average, dry and multiple dry year conditions. A summary of climate change impacts on water demands and supplies was also part of LADWP's 2020 UWMP. A new WSCP for LADWP was developed based on DWR guidelines. CDM Smith was responsible for all data submittals to DWR.

Task Lead. 2020 Urban Water Management Plan and Water Shortage Contingency Plan, City of San Diego. Mr. Fernandez managed the development of the 2020 UWMP and WSCP for City of San Diego. In addition to being compliant with California Department of Water Resources (DWR) guidelines, San Diego utilizes its UWMP as a water supply planning document. This effort included water demand forecasting, estimating water savings from conservation programs, and estimating water supply reliability under average, dry and multiple dry year conditions. A summary of climate change impacts on water demands and supplies was also part of San Diego's 2020 UWMP. A new WSCP was developed for San Diego based on DWR guidelines. CDM Smith was responsible for all data submittals to DWR.

Technical Lead. Integrated Resource Plan (IRP) Update, Elsinore Valley Municipal Water District, California. Mr. Fernandez served as the technical lead on an update to EVMWD's 2017 IRP to account for a variety of changing conditions including rapid growth projections within their service area, climate change impacts on both demands and water supply, as well as uncertainty surrounding the development of regional projects such as Delta Conveyance and Pure Water So Cal that will impact the availability of imported water. Mr. Fernandez oversaw the project team and worked with EVMWD staff and stakeholders to identify criteria to evaluate a number of water supply options include reuse, desalination, and groundwater banking and develop an adaptive management plan for future capital decisions.

Education

MS – Water Resources Engineering, Tufts University, Medford, MA, 2000

BS – Engineering, Harvey Mudd College, Claremont, CA, 1998

Registration

Professional Engineer: California, 2009

Technical Lead. 2023 Orange County Water Reliability Study, Municipal Water District of Orange County. Mr. Fernandez served as the technical lead for 2023 the Orange County Water Reliability Study. He was responsible for QA/QC of the CDM Smith water supply systems model of the Metropolitan Water District of Southern California, which was used to estimate supply reliability to Orange County under various scenarios of growth, climate change, and success of planned state and regional supply projects.

Technical Review. 2015 and 2020 Urban Water Management Plans. Mr. Fernandez provided technical review for 2015 UWMPs for Benicia and Diablo Water District, and 2020 UWMP for Diablo Water District for compliance with DWR guidelines.

Project Manager, Water Resources Plan, Long Beach Water Department. Mr. Fernandez worked with LBWD to create a water resources plan (WRP) that includes: the development of demand projections with demand forecasting tool; the evaluation of future supply gaps in the context of multiple scenarios with and without climate change and the implementation of large regional supply projects like Delta Conveyance and Regional Recycled Water projects; and identifying local supply projects that will serve to meet those supply gaps. Mr. Fernandez was responsible for all technical aspects of the project from start to finish and coordinated a multi-disciplinary team. The development of the WRP involved input from a diverse stakeholder group as well as the Board of Water Commissioners.

Task Leader, Water Master Plan, Honolulu Board of Water Supply. Mr. Fernandez led the water source evaluation to assess the resilience of the Honolulu Board of Water Supply groundwater supply to drought and saltwater intrusion. This analysis resulted in the client understanding the optimal operation of their critical groundwater wells under uncertain hydrology conditions and climate change. Other plan features included condition assessment of reservoirs, sources, water quality and treatment, and SCADA as well as CIP development.

Lead Modeler, Eastern Municipal Water District Integrated Resource Plan and Strategic Plan. To aid in the development of water supply portfolios evaluated for the District's Integrated Resource Plan, Mr. Fernandez developed a dynamic system model using the Powersim software. The model simulates the operation of the District's treated water, raw water, recycled water and groundwater supply systems including all imported water sources and regional and local treatment plants. The model is being used to compare water supply portfolios and to prioritize, and potentially phase, projects using a 30-year planning horizon. The impact of climate change and imported supply availability on the supply system operation is also being explored.

Technical Lead. Strategic Water Resources Plan, San Jose Water Company. Mr. Fernandez led the water resources modeling for this strategic plan. The modeling captured a range of scenarios such as climate change, regulations, demands and conservation. Potential projects to meet supply gaps out to 2050 were evaluated based on reliability, cost, ease of implementation, and environmental impact. An adaptive management strategy was developed to phase implementation of selected projects that addresses uncertainty in climate change and availability of regional supply projects will help guide capital planning for SJW.



Nicola A. Fontaine, PE

Nicola Fontaine is a principal technologist with 22 years of experience in disinfection, water reuse, and technology evaluation. She has served as a technologist, project manager, and engineer supporting a variety of water, wastewater, and reclaimed water engineering projects, with a background in ultraviolet (UV)/chemical disinfection of viruses, bacteria, bacterial spores, and protozoa in water, reclaimed water, wastewater, and biosolids.

EDUCATION

MS Civil and Environmental Engineering, University of New Hampshire, 2004

BS Microbiology, University of New Hampshire, 1997

LICENSES

Civil Engineer, California

Civil Engineer, New Hampshire

PROFESSIONAL AFFILIATIONS

American Water Works Association, Standards Committee on Reclaimed Water

Central Valley/Sierra Foothills WateReuse California Chapter, Past President

Water Environment Federation

WateReuse Association

RELEVANT EXPERIENCE

> **Project manager/project engineer responsible for analysis and preparation of the following Urban Water Management Plans (UWMPs) to meet the California Water Code requirements, including SB610, SB221, and AB190.** These plans include descriptions of the city's service area; water supply; population and water use projections; reliability planning; water use, supply, and demand comparison; water demand management measures; water shortage contingency plan; and water recycling. Other tasks include providing public presentations, addressing questions, electronic online submittal to the California Department of Water Resource (DWR), and responding to DWR comments.

- 2010 – Bella Vista Water District, Redding (population 17,620).
- 2010 – City of Sacramento (population 486,200).
- 2010 and 2015 – City of West Sacramento (population 49,504).
- 2010 and 2015 – City of Yuba City (population 71,070).
- 2010 and 2015 – City of Galt (population 23,556).
- 2010, 2015, and 2020 – City of Shasta Lake (population 10,626).
- 2015 and 2020 – City of Red Bluff (population 14,391).
- 2020 – City of Big Bear Lake (population 29,589).
- 2020 – Tahoe City Public Utility District (population 8,028).
- 2020 – City of American Canyon (population 19,524).
- 2025 UWMP and Water Supply Study – City of San Diego

> **Technologist and project manager for the City of Riverside, California, Chlorine Contact Basin Tracer Study and CT Study**. Work included full-scale tracer testing at 46 mgd and bench-scale free chlorine studies with indigenous coliforms and seeded virus to determine the lowest free chlorine level to meet permit requirements and Title 22 requirements for tertiary recycled water. Testing involved three effluent scenarios, MBR, granular media filter, and a blend of the two. Full-scale confirmation testing of the revised CT and reporting and regulatory support including a Title 22 Engineering Report were provided to allow the facility to operate at the lower CT to reduce disinfection byproduct formation and chemical usage. The facility was approved for a free chlorine CT of 30 mg-min/L.

> **Technologist and project manager for the City of Santa Rosa, California, Chlorine Contact Basin Tracer Study and CT Study**. Work included full-scale tracer testing at 10 mgd and bench-scale free chlorine studies with indigenous coliforms and seeded virus to determine the lowest free chlorine level to meet permit requirements and Title 22 requirements for tertiary

recycled water. Results showed that a low CT met all compliance requirements.

> **Technologist and project manager for the Santa Clara Valley Water District, California, Membrane Bioreactor (MBR) Study.** The project included extensive sampling of pathogens, surrogates, and monitoring parameters at four full-scale MBR facilities in California. Testing was also done to evaluate the impact of damaged membranes on pathogen removal. That testing was performed on an MBR pilot in King County, Washington, which allowed for cutting of fibers and specific isolation of modules. Fibers were cut to simulate large membrane failures, allowing for a better understanding of monitoring (turbidity spikes), pathogen removal, and time to "heal" through plugging of the fibers. Conclusions from the work indicated robust, consistent removal of pathogens at the four full-scale facilities to the extent that they met and exceeded current regulations for recycled water. The pilot work showed that the membrane damage was rapidly detected by turbidity monitoring and that the membranes appeared to “heal” after fiber cutting with turbidities returning to baseline levels. Regardless of turbidity, surrogate organisms used to mimic human viruses (coliphages) were near or below method detection limits and Giardia log reductions ranged from 2.2 to 3.3 logs.

> **Technical support and project manager for the San Francisco Public Utilities Commission (PUC), California, PureWaterSF project.** The effort includes design, operation, testing, and reporting of a demonstration-scale direct potable reuse system installed at PUC headquarters. Included in this grant funded effort (PUC, U.S. Bureau of Reclamation, Water Research Foundation, Water Environment & Reuse Foundation) is advanced process and monitoring equipment and emerging analytical methods, such as bioassays and non-target analysis.

> **Principal analyst on the U.S. Environmental Protection Agency (EPA) Information Collection Rule Study – Detection of Enteric Viruses in Source Waters.** Performed cell culture methods for enteric viruses in source water samples nationwide. Successfully passed performance evaluations, audits, and inspections by EPA during the study.

> **Principal analyst on the U.S. Environmental Protection Agency Nationwide Groundwater Study.** Performed coliphage analysis and integrated cell culture nested polymerase chain reaction (ICC-nPCR) testing on enteric viruses. Successfully passed performance evaluations during the study.

> **Technical consultant for point-of-use treatment validation studies for the U.S. Environmental Protection Agency certification of hand-held water purifiers.**

> **Project controls lead and QA/QC contributor for the Sacramento Regional County Sanitation District, California, EchoWater Project Tertiary Treatment Facilities Project.** Responsible for project controls and QAQC of documents. Reviewed CT Pilot Report (prepared by others), low CT Carollo review comments and conclusions, and Title 22 Engineering Report.



Rebekah T. Gates

Becky Gates is a water resources planning engineer with more than two years of experience developing state regional water plans. She specializes in delivering assessments of water supply and demand under a variety of projected conditions for state water providers and utilities. She is also adept at providing water conservation support, data management, decision support tools, and water supply modeling, including dashboard development for customer-facing applications. Becky routinely interacts with clients to develop strategies to meet their water resources needs.

EDUCATION

MS Environmental Engineering, University of Connecticut, 2020

BS Environmental Engineering, Wheaton College, Illinois, 2018

LICENSES

Engineer-in-Training, TX

RELEVANT EXPERIENCE

> **Engineer for the Tarrant Regional Water District, Texas, Integrated Water Supply Plan Update.** Carollo updated the 2014 Integrated Water Supply Plan to account for changes within TRWD's service area, regional growth, political climate and other factors which heavily influence water demand and water supply planning for TRWD. The updated plan will look holistically at TRWD's existing water supply system and projected water demands through 2070 and develop a comprehensive approach to effectively and efficiently provide a reliable supply of water to all TRWD customers for the planning horizon.

> **Engineer for the City of San Diego, California – North City Pure Water Facility (NCPWF).** Carollo provided the final design of $30 million NCPWF, the Pure Water Program's premier project and the first of its kind in California. The project included the design of the first potable water reuse advanced water treatment plant in the program, NCPWF, that will purify 34-mgd of tertiary effluent from the North City WRP to meet Title 22 California Code of Regulations for surface water augmentation indirect potable reuse (IPR) to discharge to Miramar Reservoir.

> **Engineer for the Recycled Water Intertie for Otay Water District, California.** Carollo provided study and master planning services to prepare a Recycled Water Project Report for OWD. Key tasks included identifying and quantifying existing freshwater sources, wastewater collection, and JPA recycled water production; developing existing and future water demand predictions and distribution alternatives for seasonal demand variations; and compiling a final Project Report based upon the JPA's selected alternative, including proposed infrastructure and facilities, design criteria, useful life, and various costs.

> **Engineer for the 2026 Region D Water Planning for Riverbend Water Resources District, Texas.** Carollo provided an evaluation of the impacts on water supply from a new volumetric survey of Lake Wright Patman, including developing updated reservoir characteristics and modeling storage and firm yield.

> **Engineer for the 2026 Brazos G Regional Water Planning for Brazos River Authority, Texas.** Plan development included the description and quantification of groundwater resources, evaluation of current and projected water supply and demand, identification of critical groundwater areas, development of water management strategies, development of a water supply plan, use of TWDB GAMs to assess groundwater availability, use of the TWDB Unified Costing Model Tool to calculate project infrastructure costs, environmental impact assessments of projects, public interaction and presentations, and report preparation.

Rebekah T. Gates

> **Engineer for the 2026 Region J Water Plan for Upper Guadalupe River Authority, Texas.** Plan development included the description and quantification of groundwater resources, evaluation of current and projected water supply and demand, identification of critical groundwater areas, development of water management strategies, development of a water supply plan, use of TWDB GAMs to assess groundwater availability, use of the TWDB Unified Costing Model Tool to calculate project infrastructure costs, environmental impact assessments of projects, public interaction and presentations, and report preparation.

> **Engineer for the 2026 Region E Water Plan for the Rio Grande Council of Governments, Texas.** Plan development included the description and quantification of groundwater resources, evaluation of current and projected water supply and demand, identification of critical groundwater areas, development of water management strategies, development of a water supply plan, use of TWDB GAMs to assess groundwater availability, use of the TWDB Unified Costing Model Tool to calculate project infrastructure costs, environmental impact assessments of projects, public interaction and presentations, and report preparation.

> **Engineer for the Master Plan for the North Harris County Regional Water Authority, Texas.**

> **Engineer for Freese and Nichols in Houston, Texas** supporting regional water utilities in long-term planning efforts. As part of these efforts, she analyzed trends in population growth and municipal demand and developed water right accounting plans, water conservation and drought contingency plans, and integrated water management plans. She worked with a regional water authority to develop a decision support tool in Power BI to stream real-time river discharge, reservoir levels, weather, and projected drought and precipitation data from publicly available web APIs in addition to water rights and contracts. The tool was used to manage dam-release decisions. She also developed a novel Disaster Habitation Model used to facilitate more accurate allocation of state and federal aid for disaster mitigation projects by quantifying the habitability of homes after a disaster event. This involved using GIS and a systems dynamics model to assess the relationships between habitation variables and storm scenarios. She assisted in the development of Senate Bill 1 Regional Water Planning for Texas Region H involving projected water supplies and demands and developing water management strategies.

> **USGS Contractor for the United States Geological Survey Hydrogeophysics Branch in Storrs, Connecticut.** She managed multi-year watershed thermal monitoring study involving the deployment and analysis of time series temperature data. She designed and constructed resistivity probes to trace and quantify the infiltration rate of eco-friendly permeable pavement.

> **Field technician for the Department of Natural Resources, Storrs, Connecticut.** Work involved mapping groundwater seeps in the Farmington River watershed using FLIR infrared imaging. She designed and implemented water sampling study of identified groundwater seeps to assess water chemistry and identify subsurface flow vectors.



TESS KRETSCHMANN

Senior Water Resources Analyst

MADDAUS WATER MANAGEMENT INC.
Making a Difference in the World of Water

EXPERIENCE

20 years

EDUCATION

B.S. in Civil Engineering, Duke University, 2004

AREAS OF EXPERTISE

Water Resources Planning
Management
Demand and Conservation Planning
Integrated Water Resources Planning
Commercial, Industrial, and Institutional (CII)
Drought
Shared Vision Planning

RELEVANT EXPERIENCE

Urban Water Management Plans, Water Shortage Contingency Plans, CA

2004–Present

As water resources analyst, project Engineer, and technical QAQC Specialist, Tess has prepared Urban Water Management Plans (UWMP) on an ongoing repeat basis for numerous cities and water districts in California. Some of these include full UWMPs for Suisun-Solano Water Authority (2015, 2020, 2023), City of Milpitas (2020, 2025), City of Hayward (2020), Liberty Utilities (formerly Park Water) (2015), Mid-Peninsula Water District (2015, 2020), City of Sonoma (2015), Cambria Community Services District (2016), City of Davis (2006-project manager), Sacramento Suburban Water District (2005), Placer County Water Agency (2005), City of Roseville (2005), Sonoma County Water Agency (2005–2007), El Dorado Irrigation District (2005), City of Placerville (2007-project manager); and the technical demand analysis portion of the UWMPs for several agencies including City of Oceanside, City of Santa Barbara, City of Santa Cruz, Marin Municipal Water District, North Marin County Water District, City of Santa Rosa, and Town of Windsor. California Department of Water Resources (DWR) requires water suppliers to forecast their water supplies and demands. She was required to describe the water system and existing and planned sources of water available; develop projected water demands for residential, commercial and industrial users; evaluate water conservation measures; present water supply reliability data for normal and dry years; and quantify current and projected amounts of wastewater and potential recycled water uses. She also facilitated municipal and public meetings and presented plans to City Councils and Board of Directors for adoption. During the 2020 UWMP process, Tess was part of the development of Water Shortage Contingency Plans for the City of Foster City/EMID, City of Hayward, Town of Windsor, and SSWA.

Water Supply Assessment, City of El Segundo, CA

2023

Tess was technical lead/project Engineer for a Water Supply Assessment (WSA) for the City of El Segundo (City) Downtown Specific Plan (DSP) Update Draft Environmental Impact Report (DEIR). The DSP Update is a revision to the existing El Segundo Downtown Specific Plan, which guides land use and zoning. The WSA evaluated the projected water demand associated with the DSP Update, in addition to existing and planned uses in the City's water service area, including residential, mixed-residential, and commercial sites, and in some cases part of the City's 2021-2029 Housing Element. The effort included the confirmation of development projects and data gathering; a water supply assessment data collection and analysis workbook; numerous virtual meetings; the development of a draft demand forecast; a comparison of supply and demand; and a WSA document outline, draft report, and final WSA. Support for public meetings and coordination with other stakeholder agencies like West Basin was also provided.

Suisun Solano Water Authority, Solano Irrigation District, CA
2015–2023

As a water resources analyst, Tess has prepared Urban Water Management Plans (UWMP) on an ongoing repeat basis for Suisun-Solano Water Authority in 2015 (fully), 2020 (partially, then project was delayed), and 2023 (fully completed MWM supported municipal and public meetings presenting the plans to City Council for adoption. For the 2020 UWMP process, MWM helped develop a new Water Shortage Contingency Plan that is now required by DWR.

Demand Forecasts and Conservation Savings Evaluation for BAWSCA Members, CA 2014, 2020, and 2022

Tess was on the project team that developed future water demand projections for agencies served by SFPUC. The project utilized the DSS software to model 30 different cities and water agencies that supply 1.8 million people. The demand forecasts were just updated in 2020 for all the agencies with individual DSS Models incorporating regression analysis to explain trends of climate change, economic growth, weather, price increases, and population growth. The project is currently doing an update to the demand analysis in 2022. http://bawsca.org/water/reliability.

Water Conservation Analysis and Strategic Plan, City of Santa Barbara, CA
2014 & 2018–2025

As the lead project Engineer, Tess and MWM explored water use and conservation water savings estimates for two scenarios: 1) Long Term Conservation Plan for 2014–2040, and 2) Drought Program for 2014–2015. Using MWM's DSS Model, the analysis was performed from various perspectives, including the utility and community. More recently, Tess has supported the development of a Water Conservation Strategic Plan, completed in August 2020, designed to assist the City in adhering to the G480 Standard and joining the AWE Leaderboard. Historical and ongoing water use was tracked and analyzed for various demand projection scenarios, and water conservation estimates were developed for 25+ conservation measures and 3 conservation program scenarios. Tess is supporting the most recent phase of 2025 WUE strategic planning with the City to align with the "Making Conservation a California Way of Life" laws.

Water Use Efficiency Strategic Planning and Demand Forecasting Services, Demand Forecasting, Santa Clarita Valley Water Agency, CA
2013–2022

Tess was the lead project Engineer and lead modeler on these Santa Clarita Valley Water Agency (SCV Water; formerly CLWA) projects. In 2015, Tess helped update the projected demands for the four SCV Water retailer agencies to comply with the 2015 UWMP Act. In 2018, MWM provided technical assistance for the SCV Water- Water Use Efficiency program as well as water resources planning services with the specific purpose of investigating indoor water use and the consequential wastewater generation for multiple water and wastewater service areas. The effort helped address California regulations SB 606 and AB 1668 (May 2018). A review of past assumptions for determining indoor water use and an estimate of new development indoor water use and wastewater generation were conducted, and model training videos and guidance were provided. In 2021, MWM completed a demand factor technical memo to support continued water supply planning by SCV Water and provide the basis for the unallocated new development demands in the SCV Water service area. In 2022, MWM determined overall water demand and attributed indoors and outdoors to new users in the service area.

Water Use Efficiency Plan, Liberty Utilities (Apple Valley Ranchos Water) Corporation, Apple Valley, CA
2017, 2021

Tess was part of the project team for the 2017 and 2021 Liberty Utilities (Apple Valley Ranchos Water) Corporation Water Use Efficiency Plan, which identified programs that would be most effective and efficient in meeting Liberty Utilities' water use requirements. Tess was part of the modeling effort using MWM's DSS Model, which provided detailed information for 19 individual conservation measures, giving Liberty the flexibility to use this plan as a guide to implement additional measures to manage water savings.

Water Conservation Master Plan and Training, Cambria Community Services District (CCSD), CA
2013–2016, 2021, 2025

Tess was a technical reviewer for the water conservation program scenarios for maximizing future water conservation for the community. At MWM direction CCSD staff performed an assessment of remaining conservation potential for large customers. MWM also prepared a supplemental technical analysis using County assessor data of water use by property size and other demographic data to support an update to CCSD municipal code for its retrofit points system for approval of new developments. In 2016, MWM assisted CCSD with completion of a DSS Model update for the Urban Water Management Plan. In 2021, MWM provided a revised demand forecast in the most recent DSS Model update for the 2021 UWMP submission to the California Department of Water Resources (DWR).



EDUCATION

MS Civil and Environmental Engineering, University of California, Berkeley, 2024

BS Civil Engineering, University of California, Los Angeles, 2023

Mayra Lara

Mayra Lara is a staff engineer with experience in water system planning including both potable water and recycled water systems. She has also worked on climate vulnerability assessments, temperature studies, stormwater management, and infrastructure projects. Mayra's master's coursework included graduate-level courses focused on environmental fluid mechanics, environmental physical-chemical and unit processes, surface water hydrology, climate resilient infrastructure design, flood risk management, and water resources management.

RELEVANT EXPERIENCE

> **Staff engineer for Mesa Water District, California 2024 Capital Improvement Program (CIP).** Evaluated potable water supply capacities and assisted water supply analysis and determining of future water supply source options. Evaluated District's compliance for state and national water quality, air quality, and risk management regulations pertinent to their operations.

> **Staff engineer for Los Angeles World Airports 2024 (LAWA) Utility Strategic Plan (USP).** Conducted analysis of future water demand projections based on passenger counts to analyze existing and future water and fire water system deficiencies for Los Angeles International Airport.

> **Staff engineer for Inland Empire Utilities Agency (IEUA) on-call task orders.** Assisted in evaluating IEUA's customer agency recycled water demands to guide future recycled water infrastructure planning.

> **Staff engineer for the hydraulic analysis of a new development for the City of South Pasadena.** Conducted hydraulic analyses to determine if the City's water distribution system can provide the desired demand under normal and fire flow conditions and to determine if the City's sewer collection systems have sufficient capacity to accommodate the development's additional flows.

> **Staff engineer for the City and County of Honolulu, One Water Honolulu. Developed climate hazard maps for key climate hazards affecting water, stormwater, and sewer infrastructure on the island of Oahu.** Assisted in identifying key infrastructure to develop potential regional/multi-benefit projects

> **Assisted in identifying facilities at the Regional Water Quality Control Plant (RWQCP)** vulnerable to sea level rise and flooding for the City of Palo Alto Long Range Facilities Plan Update (LRFP-U).

> **Assisted in development of Risk and Resilience Assessments (RRAs) for water agencies across the United States.** Conducted assessments evaluating agencies' critical assets' risks towards natural hazards.

> **Staff engineer for Los Angeles County Sanitation Districts (LACSD) temperature studies of their Saugus and Valencia Water Reclamation Plants (WRPs).** Led data analyses of river, plant effluent, and plant process flow and temperature data of both WRPs to determine amount of cooling needed to meet new effluent temperature regulations. Assisted in research of nature-based solutions for temperature cooling.

> **Staff engineer for Los Angeles Sanitation & Environment (LASAN) and City of Burbank temperature studies of three WRPs tributary to the Los Angeles River.** Led data analyses of river

Mayra Lara

and plant effluent temperature data to determine amount of cooling needed to meet new effluent temperature regulations. Assisted in alternatives analysis of potential temperature cooling solutions.

> **Assisted in coordination and review of drawing package for Pure Water Los Angeles Program Phase 1A – Recycled Water Foundational Infrastructure Project.**

> **Conducted interdisciplinary review of design drawings for the Advanced Water Purification Facility (AWPF) at Donald C. Tillman WRP for the Los Angeles Sanitation and Environment, California.**

> **Assisted in development of stormwater report in support of the environmental resource permit application for ozone facility improvements to the David L. Tippin Water Treatment Facility in Tampa, Florida.**

> **Assisted in updating project designs and final feasibility study for the Los Angeles Sanitation & Environment (LASAN) Eldridge-Harding Storm Drain (Mission College) Project**. The project proposed the implementation of a storm drain extension and green street elements such as drywells to increase water supply, improve water quality, and mitigate flood risk.

> **Developed and maintained utility database on ArcGIS Pro for the design of projects outlined in the Sepulveda Basin Vision Plan.** Led by the Bureau of Engineering (BOE), the plan was created to transform the Sepulveda Basin into a climate-resilient park, with projects set to increase ecosystem function, improve water quality, and mitigate flood risk.

> **Aided in sewer shed and septic data mapping efforts for the San Diego Regional Water Equity Project.** The project conducted a regional assessment of drought management and water use strategies to address local needs and opportunities in the San Diego region.

> **Developed water quality monitoring reports and organized and assisted in water quality sampling during construction of the Bending the River project.** Bending the River is an art installation that redirects a small portion of the low flow channel of the Los Angeles River and conveys it to a nearby offsite treatment facility. The treated water is then delivered to the adjacent Los Angeles State Historic Park for irrigation.

> **Researched on-going regional stormwater infrastructure projects within Los Angeles County** to aid in prioritization of potential project partner collaborations for projects applying for funding through the Safe, Clean Water Program.

Andria R. Loutsch, AICP, PMP

Senior Water Resources Planner

Ms. Loutsch is a water resource planner and project manager with over 25 years of experience in water supply planning, water resources studies, recycled water planning, grant funding and financing, and environmental documentation. Ms. Loutsch has developed over a dozen water resources plans in the western United States, successfully working with multi-disciplinary teams of planners, engineers, and scientists on complex plans. She is also proficient in the development of California Urban Water Management Plans (UWMPs) and Water Shortage Contingency Plans (WSCPs).

Project Manager, 2022 Strategic Water Resources Plan, San Jose Water Company (SJW). Ms. Loutsch led the preparation of the Strategic Water Resources Plan, which assessed future water supply reliability and evaluated different strategies that SJW could take to continue to provide highly reliable and clean water to its customers. The project team developed an econometric model for water demand forecasts from 2020 to 2050 and independently assessed and characterized the hydrologic reliability of SJW's groundwater and surface water supplies under historical conditions and climate change scenarios. Our systems model then determined the range of future supply gap under the planning scenarios. Ms. Loutsch led the conceptual development and cost estimates for future supply options to meet the projected gap, including non-potable reuse, indirect and direct potable reuse, brackish and bay water desalination, and water transfers. Ms. Loutsch led our series of biweekly technical team meetings to review progress and gather input with SJW staff, targeted workshops with the Board of Directors, and presentations to the external stakeholder group made up of neighboring municipalities, business leaders, environmental groups, and academics. The Strategic Water Resources Plan recommended a portfolio of options for SJW to move forward over time for detailed engineering evaluation to meets its projected supply gap in 2030 and 2050, with signposts for reassessing assumptions on climate change and Bay-Delta reliability.

Project Manager, 2005, 2015 and 2020 Urban Water Management Plans, Diablo Water District, Oakley. Ms. Loutsch has worked on DWD's UWMPs since 2005, serving as Project Manager since 2010. She oversaw the analysis of historical water services and demands, future projections for water usage and connections, and available supplies and supply reliability from multiple water sources. She managed the team to determine DWD's compliance with the requirement for a 20 percent reduction in per capita water demand by 2020, developed the energy intensity analysis, prepared the Drought Risk Assessment, and developed the WSCP. She also conducted all presentations of the UWMPs and WSCPs for the District Board and the public hearing.

Technical Reviewer, 2020 Urban Water Management Plan/Water Shortage Contingency Plan, City of San Diego, CA. Ms. Loutsch performed technical review on CDM Smith's UWMP and WSCP for the City of San Diego. She leveraged her extensive experience with UWMP preparation and knowledge of the current UWMP and WSCP regulations to review the technical accuracy of the reports.

Education

BS – Economics, Massachusetts Institute of Technology, 1996

Certifications

American Institute of Certified Planners (AICP)

Project Management Professional, Project Management Institute (PMP)

Technical Reviewer, 2020 Urban Water Management Plan/Water Shortage Contingency Plan, Los Angeles Department of Water and Power. Ms. Loutsch performed technical review on CDM Smith's 2020 UWMP and WSCP for LADWP. She leveraged her extensive experience with UWMP preparation and knowledge of the current UWMP and WSCP regulations to review the technical accuracy of the reports.

Project Manager, 2020 Facilities Plan, Diablo Water District. Ms. Loutsch led the preparation of the District's 2020 Facilities Plan, an update to the 2006 plan also prepared by CDM Smith. The Facilities Plan established water demand projections, identified facilities to serve future growth, and provided phased capital projects for implementation of improvements. Ms. Loutsch managed the team in: evaluating future land use in the service area; developing corresponding water demands by customer class to 2040; assessing current and future water supplies; developing and running the hydraulic model of the system to evaluate storage needs, fire flows, and existing and future distribution system capacity; and identifying and costing needed improvements. She led the preparation of the 2020 Facilities Plan documenting these evaluations and recommended capital improvements.

Task Manager, Long-Term Reliable Water Supply Strategy, Bay Area Water Supply & Conservation Agency (BAWSCA), California. CDM Smith developed the Long-Term Water Supply Strategy (Strategy) to develop water supply projects and implementation plans for BAWSCA and its 25 member agencies to ensure reliable water supplies to 2040. Ms. Loutsch led the evaluation of local recycled water, groundwater, and desalination projects that could contribute to meeting BAWSCA's projected supply need during drought conditions. She met with each of the 25 member agencies, developed a common-level of information on each of their potential supply projects, and screened out projects that did not fit the Strategy's needs. She then developed a series of sensitivity analyses that evaluated both the individual projects and portfolios against evaluation criteria to reveal the highest performing portfolios across various priorities. Ms. Loutsch also assisted in developing the implementation plan and provided oversight of final report preparation.

Project Manager, 2005 and 2010 Urban Water Management Plans, City of Benicia. Ms. Loutsch led the project teams to prepare the 2005 and 2010 UWMPs for the City of Benicia. These UWMPs summarized the City's population and water demand projections out to 2035 and described the City's supply sources and supply reliability. She conducted presentations on the plan to the City's Community Sustainability Commission and updated the City Council on the plan's content and findings during the public hearing. She prepared the City's methodology for meeting California's "20x2020" water conservation goals. She also worked closely with City staff on responding to rounds of comments from the City Council and Community Sustainability Commission.



NICKI POWELL

Water Resources Project Manager

MADDAUS WATER MANAGEMENT INC.
Making a Difference in the World of Water

EXPERIENCE

8 years

EDUCATION

B.S., Environmental Science,
B.A., Biostatistics,
University of Virginia, 2017

CERTIFICATIONS/ TRAINING

Water Use Efficiency Practitioner Grade I, AWWA California-Nevada Section

AREAS OF EXPERTISE

Conservation Planning, Program Design, and Implementation
Commercial Water Auditing
California Water Policy & State Regulations
Drought Response
Water Data Analysis
AMI Water Data Analysis
Commercial, Industrial, and Institutional (CII)

RELEVANT EXPERIENCE

Water Shortage Contingency Model Ordinance Technical Assistance, Municipal Water District of Orange County (MWDOC), CA

2021–2022

Nicki provided technical support on this project to help align MWDOC member agencies' codes with their 2020 Water Shortage Contingency Plans (WSCPs) to ensure compliance and enforcement procedures are triggered in the code language in response to shortage declaration. Nicki reviewed and enhanced ordinances for five MWDOC member agencies to facilitate integration of the code with the WSCPs.

Supply and Demand Projections Analysis, West Basin Municipal Water District, CA

2021–2022

Nicki prepared six DSS Models for five identified service areas within the district as well as a District-wide model, using data compiled through coordination with District staff, retail member agencies, and its' wholesaler the Metropolitan Water District. During the modeling process, she also reviewed the district's existing conservation efforts and led District staff in a conservation measure screening analysis to assess and prioritize future conservation activities. Additionally, Nicki prepared Google Surveys and PowerPoint presentations to solicit input from and facilitate communication between the member agencies and the district.

Water Conservation California Legislation Webinar Series, San Diego County Water Authority (SDCWA), CA

2021–Present

Nicki has assisted with 17 webinars so far hosted by MWM on behalf of SDCWA, to support information sharing and facilitate open dialogue about the potential impact of the water conservation legislation on retail water agencies. Workshop topics include providing regulatory updates on the water use efficiency standards, breaking down the urban water use objective, and mapping out what agencies should do to prepare for future requirements. Open to statewide attendance, the series has been well attended with over 100 individuals participating in the series with Nicki both presenting and facilitating breakout sessions.

California Water Efficiency Partnership (CalWEP) and SoCalGas CII Utility Audit Training Modules, CA

2024-Current

Nicki is serving as project manager in collaboration with the California Water Efficiency Partnership (CalWEP) and SoCalGas to provide professional services to develop and teach two two-day training classes focused on commercial, industrial, and institutional (CII) water auditing techniques for California water agencies. In addition, Nicki is leading short two-hour training modules for industry professionals on topics such as hospitality water and energy efficiency, pool training for HOAs, and non-functional turf training sessions. As part of this effort, Nicki develops the training curriculum and conducts the in-person classes and assists with customized training requests.

Los Osos Offset Study, County of San Luis Obispo, CA

2022-2023

Nicki was lead modeler and worked with County staff to update the water offset requirements for the community of Los Osos. As part of the process, MWM reviewed County-provided monthly water production and billing consumption, historical conservation efforts, future water use estimates, and fixture saturation data. MWM then updated the average annual residential water usage estimates and estimated the basin-wide water savings potential. MWM validated estimates by leveraging flume device flow data via the Los Osos CSD program to best understand efficient indoor water usage rates and leakage for more than 100 accounts. MWM also referenced water purveyor usage and wastewater inflow data to ultimately update the existing water saving measures framework and water savings estimate calculation methodology.

Building Water Auditing Educational Courses, International Association of Plumbing and Mechanical Officials, National

2024-Current

Nicki serves as the project manager and supporting instructor for this project, leading the team with Bill Hoffman & Associates, Doug Pushard with HarvestH2O, and Michelle Maddaus to build a national training and certification platform for commercial water auditing. The training is hosted through the International Association of Plumbing and Mechanical Officials (IAPMO), a California not-for-profit corporation that, among other activities, develops and provides educational courses for code professionals. Nicki, along with the project team, developed course materials, wrote exam questions to be used for certification, recruited attendees, identified training sites, and provided three days of curricula. In January of 2025, Nicki co-led the first national IAPMO training course in person in Ontario, California, with 28 out of 30 students becoming certified commercial water auditors.

Water Conservation Master Plan, City of Santa Monica, CA

2022-2024

Nicki was the lead modeler for the City of Santa Monica's Water Conservation Master Plan, providing a refined demand forecast and conservation savings analysis utilizing the DSS Model. Nicki worked collaboratively with City staff to design various conservation program scenarios, and she also created a Google Survey for the City that was distributed to customers to seek their input on conservation measures that they would like to have. Nicki and the MWM team also worked with Arcadis, on behalf of the City, to develop a Water and Sewer Master Plan utilizing the results of the DSS Model forecast. These integrated planning efforts will help the City to meet its short-term and long-term water conservation, water self-sufficiency, and sustainability goals.

Water Conservation Master Plan and Ongoing Technical Support, Stanford University, CA

2024–Current

Nicki worked as a modeler and trainer on the MWM project team for the Stanford DSS Model latest update and supported their 20-year conservation plan summary. MWM Support for Stanford University dates back to 2000, where water conservation was required to comply with a general land use permit. To support this most recent phase planning effort, Nicki completed a site visit in January 2024 to review new potential water efficiency projects. Stanford University's Water Efficiency website can be found here: https://suwater.stanford.edu/efficiency-overview.

Urban Water Management Plan and Water Shortage Contingency Plan, Suisun-Solano Water Authority (SSWA), CA

2020-2023

As a water resources analyst for SSWA's 2020 UWMP, Nicki provided technical support to the SSWA team. She helped develop the Water Shortage Contingency Plan (WSCP), advising on the Plan's contents and incorporating SSWA feedback. Nicki was also a part of the editing team that produced the final document.

Alameda County Water District, Water Efficiency Master Plan, CA

2023-2024

Nicki served as lead modeler on this project, supporting MWM's analysis and documentation of water use efficiency activities to-date and estimated savings achieved. In addition, Nicki reviewed the district's demand forecast and plumbing code impact assessment, saturation of low-flow fixtures/devices and level of adoption of other water use efficiency measures. Nicki additionally reviewed the water use efficiency potential in the service area, as well as the updated DSS model for District use, which included demand forecasts, plumbing code and climate change impacts.

Brian Shepard, AICP

Environmental Planner

Mr. Shepard is an environmental planner specializing in water demand forecasting, water conservation modeling, demand-side management strategies, water supply option analysis, and other aspects of integrated water resource planning. Mr. Shepard is also experienced in GIS, remote sensing, cartography, spatial analysis, data collection, demographic analysis, climate modeling and weather analysis. Mr. Shepard has also been responsible for survey implementation and administration, building internet-hosted surveys, managing contact information databases, and statistical analysis of results.

Education

BS – Geography and Environmental Resources, Southern Illinois University, 2018

AS – College of DuPage, 2016

Certifications

American Institute of Certified Planners (AICP)

Water Resources

Environmental Planner, Orange County Water Demand Forecast, Municipal Water District of Orange County, California, 2020-2021. Mr. Shepard was responsible for analyzing historical water use from 29 water utilities and developing a per capita water demand forecast for each utility based on single-family, multifamily, commercial, industrial, institutional, irrigation, and recycled water demand. The single-family and multifamily components of the demand forecast were created using calculations of residential end uses of water on a per capita basis and then converted into a per household use rate. The demand forecasts also include non-revenue water projections based on historical trends by utility. Mr. Shepard was also responsible for calculating the impacts of future water conservation.

Environmental Planner, SJW Integrated Water Resource Plan, San Jose Water Company, 2021–2022. Mr. Shepard was responsible for creating a water demand forecast based on statistical analysis of historical water use, demographics, and other explanatory factors of water use. He was also responsible for a detailed analysis of over 250,000 customer billing data records to properly separate residential and nonresidential water use to improve the accuracy of the demand forecast. The demand forecast was used as the basis for the supply gap analysis portion of the Plan.

Environmental Planner, 2020 Long-Range Water Resource Plan & Urban Water Management Plan, City of San Diego Public Utilities, San Diego, California, 2020-2023. Mr. Shepard calculated the water demand forecast for the five service zones and 136 pressure zones that comprise the City's potable water service area based on growth projections from a parcel-level based analysis. The demand forecast required manipulating large datasets in Excel for aggregating the large datasets and numerous variables of the demand model. Variables included weather data, population projections, unemployment rate, employment by major sectors, housing data, passive and active conservation indexes, and variables based on fixed effects coefficients of specific geographic zones. Mr. Shepard also developed an Excel-based tool to allow the client to perform Water Supply Assessments on their own in the future using data derived from analysis developed during creation of the 2020 Urban Water Management Plan.

Environmental Planner, Update of the Integrated Water Resources Plan, Elsinore Valley Municipal Water District, 2023. Mr. Shepard was responsible for reviewing an existing demand forecast for reasonableness and suggested alternative forecasts to account for parameters not captured by the existing forecast. Mr. Shepard conducted

statistical analysis of historical demands and weather to determine the impact of climate change on projected demands. The results were used to create future climate scenarios, which were paired with different supply possibilities, to estimate the projected supply gap for the District. Using this information, Mr. Shepard also reviewed potential supply options and conceptualized new supply options not previously considered, generating construction and O&M cost estimates for each option.

Environmental Planner, City of Brentwood Water Supply Options Study, City of Brentwood, California, 2022-2024. Mr. Shepard was responsible for reviewing all potential supply options available to the municipality, researching the applicable water rights laws and regulations, and creating conceptualizations for supply infrastructure requirements for each supply option. Working in close coordination with the client, Mr. Shepard revised the potential supply options and conducted meetings with outside agencies to discuss potential water supply partnerships or agreements with the City in the future. He was also responsible for generating cost estimates for each supply option, working closely with senior level engineers to refine estimates based on specific constraints and parameters for each supply option.

Environmental Planner, Northern California Water Supply Reliability Study, California Water Service Company, 2023. Mr. Shepard was responsible for conceptualizing the potential water supply options available to the various districts in the Northern California region of the Cal Water service area. Mr. Shepard was also responsible for using a combination of Google Earth, ArcGIS, and Excel to generate elevation profiles for conveyance alignments. He then calculated the number of pump stations required for conveyance depending on pump head, elevation change, friction loss due to pipe material, and pipe diameter. Mr. Shepard worked with senior staff to refine the potential supply options, generate cost estimates based on the analysis, evaluate water quality data, and present findings to the client.

Environmental Planner, Regional Water Plan, Old Colony Planning Council, Massachusetts, 2024. Mr. Shepard was responsible for statistical analysis of historical water demands for 17 municipalities within the OCPC planning area and developing a baseline demand forecast using an econometric demand model. Mr. Shepard analyzed the impact of climate, water use efficiency, economic trends, and demographics to develop a water demand forecast for each community and the entire planning area. Adjustment factors were derived and applied to account for unique seasonal peaking factors by community. Mr. Shepard then incorporated the potential impact of climate change to the demand forecast to generate a range of possible future demands across the planning horizon under various possible scenarios for climate change, population growth, water use efficiency, and water loss control.

Environmental Planner, Integrated Water Resource Plan, City of Waco, Texas, 2023-2024. Mr. Shepard was responsible for reviewing a demand forecast created by a senior staff member, suggesting revisions to assumptions used in the forecast, and making revisions based on client feedback. He also reviewed water conservation strategies planned for implementation by the City to estimate water savings over the planning horizon for use in supply gap analysis. Mr. Shepard researched several potential supply options for the City, and summarized their cost, benefits, implementation barriers, and yield in the final report.

Appendix

Proposed Revisions to Standard PSA

Proposed Revisions to Standard PSA

Contract Additions

Carollo does not take any exceptions to the contract, but wish to make the following additions:

- **Section I, add the following new subsections:**
  - **D. Standard of Care.** CONSULTANT shall perform the services required hereunder in accordance with the prevailing engineering standard of care by exercising the skill and ability ordinarily required of engineers performing the same or similar services, under the same or similar circumstances, in the State of California.
  - **E. DISTRICT-Provided Information and Services.** The DISTRICT shall furnish CONSULTANT available studies, reports and other data pertinent to CONSULTANT's services; obtain or authorize CONSULTANT to obtain or provide additional reports and data as required; furnish to CONSULTANT services of others required for the performance of CONSULTANT's services hereunder, and CONSULTANT shall be entitled to use and rely upon all such information and services provided by the DISTRICT or others in performing CONSULTANT's services under this AGREEMENT.
  - **F. Estimates and Projections.** CONSULTANT has no control over the cost of labor, materials, equipment or services furnished by others, over the incoming water quality and/or quantity, or over the way the DISTRICT's plant and/or associated processes are operated and/or maintained. Data projections and estimates are based on CONSULTANT's opinion based on experience and judgment. CONSULTANT cannot and does not guarantee that actual costs and/or quantities realized will not vary from the data projections and estimates prepared by CONSULTANT and CONSULTANT will not be liable to and/or indemnify the DISTRICT and/or any third party related to any inconsistencies between CONSULTANT's data projections and estimates and actual costs and/or quantities realized by the DISTRICT and/or any third party in the future.
- **Section VII, Indemnification:**
  - **Paragraph after subsection c:** The following language should be added to the end of the paragraph: "Notwithstanding the foregoing, in no event shall the cost to defend charged to Consultant exceed Consultant's proportionate percentage of fault. The duty to indemnify, including the duty and the cost to defend, is limited as provided in this section."
  - **New Subsection d:** "d. Consultant shall not be responsible for warranties, guarantees, fitness for a particular purpose, breach of fiduciary duty, loss of anticipated profits or for economic, incidental or consequential damages to the DISTRICT or any third party arising out of breach of contract, termination, or for any other reason whatsoever. Additionally, CONSULTANT shall not be responsible for acts and decisions of third parties, including governmental agencies, other than CONSULTANT's subconsultants, that impact project completion and/or success."
- **Section XII, 1st paragraph:** Add the following to the end of the 1st paragraph (this language was previously included in MWDOC's standard agreement), "Reuse of documents by DISTRICT or others on extensions or modifications of this project or on other sites or use by others on this project, shall be at the user's sole risk, without liability to CONSULTANT."
- **New Section XVIII: Add the following new section to the end of the agreement:**
  - **"XVIII. THIRD PARTIES.** The services to be performed by CONSULTANT are intended solely for the benefit of the DISTRICT. No person or entity not a signatory to this AGREEMENT shall be entitled to rely on CONSULTANT's performance of its services hereunder, and no right to assert a claim against CONSULTANT by assignment of indemnity rights or otherwise shall accrue to a third party as a result of this AGREEMENT or the performance of CONSULTANT's services hereunder."

carollo.com

STANDARD AGREEMENT FOR CONSULTANT SERVICES

This **AGREEMENT** for consulting services dated _____, which includes all exhibits and attachments hereto, "**AGREEMENT**" is made on the last day executed below by and between **MUNICIPAL WATER DISTRICT OF ORANGE COUNTY**, hereinafter referred to as "**DISTRICT**," and, _____ hereinafter referred to as "**CONSULTANT"** for _____ hereinafter referred to as **"SERVICES**."[1] **DISTRICT** and **CONSULTANT** are also referred to collectively herein as the **"PARTIES"** and individually as **"PARTY"**. The **PARTIES** agree as follows:

I PURPOSE AND SCOPE OF WORK

A. Consulting Work

DISTRICT hereby contracts with **CONSULTANT** to provide general or special **SERVICES**, as more specifically set forth in **Exhibit "B"** attached hereto and incorporated herein, and in coordination with "PARTICIPATING AGENCIES", as more specifically set forth in **Exhibit "C**"[2]. Tasks other than those specifically described therein shall not be performed without prior written approval of **DISTRICT's** General Manager.

B. Independent Contractor

CONSULTANT is retained as an independent contractor for the sole purpose of rendering professional and/or special **SERVICES** described herein and is not an agent or employee of **DISTRICT**. **CONSULTANT** shall be solely responsible for the payment of all federal, state and local income tax, social security tax, Workers' Compensation insurance, state disability insurance, and any other taxes or insurance **CONSULTANT,** as an independent contractor, is responsible for paying under federal, state or local law. **CONSULTANT** is thus not eligible to receive workers' compensation, medical, indemnity or retirement benefits, including but not limited to enrollment in CalPERS. Unless, expressly provided herein, **CONSULTANT** is not eligible to receive overtime, vacation or sick pay. **CONSULTANT** shall not represent or otherwise hold out itself or any of its directors, officers, partners, employees, or agents to be an agent or employee of **DISTRICT**. **CONSULTANT** shall have the sole and absolute discretion in determining the methods, details and means of performing the **SERVICES** required by **DISTRICT**. **CONSULTANT** shall furnish, at his/her own expense, all labor, materials, equipment and transportation necessary for the successful completion of the **SERVICES** to be performed under this **AGREEMENT. DISTRICT** shall not have any right to direct the methods, details and means of the **SERVICES;** however, **CONSULTANT** must receive prior written approval from **DISTRICT** before using any sub-consultants for **SERVICES** under this **AGREEMENT**.

CONSULTANT represents and warrants that in the process of hiring **CONSULTANT's** employees who participate in the performance of **SERVICES**, **CONSULTANT** conducts such lawful screening of those employees (including, but not limited to, background checks and Megan's Law reviews) as are appropriate and standard for employees who provide **SERVICES** of the type contemplated by this Agreement.

[1] Pursuant to Section 8002 of the District's Administrative Code, the District's "Ethics Policy" set forth at sections 7100-7111 of the Administrative Code is attached hereto as Exhibit "A" and incorporated herein by this reference.

[2] The PARTIES acknowledge that the list of PARTICIPATING AGENCIES as set forth in **Exhibit "C**" is subject to modification by addendum.

C. **Changes in Scope of Work**

If **DISTRICT** requires changes in the tasks or scope of work shown in **Exhibit "B"** or additional work not specified therein, **DISTRICT** shall prepare a written change order. If **CONSULTANT** believes work or materials are required outside the tasks or scope of work described in **Exhibit "B,"** it shall submit a written request for a change order to the **DISTRICT**. A change order must be approved and signed by the **PARTIES** before **CONSULTANT** performs any work outside the scope of work shown in **Exhibit "B."** **DISTRICT** shall have no responsibility to compensate **CONSULTANT** for such work without an approved and signed change order. Change orders shall specify the change in the budgeted amount for **SERVICES.**

II TERM

This **AGREEMENT** shall commence upon the date of its execution and shall extend thereafter for the period specified in **Exhibit "B"** or, if no time is specified, until terminated on thirty (30) days notice as provided herein.

III BUDGET, FEES, COSTS, BILLING, PAYMENT AND RECORDS

A. **Budgeted Amount for Services**

CONSULTANT is expected to complete all **SERVICES** within the Budgeted Amount set forth on **Exhibit "B."** The total compensation for the **SERVICES** to be performed under this **AGREEMENT** shall not exceed the Budgeted Amount unless modified as provided herein. Upon expending and invoicing the **DISTRICT 80%** of the Budgeted Amount, **CONSULTANT** shall prepare and provide to **DISTRICT** a "cost to complete" estimate for the remaining **SERVICES**. The **PARTIES** shall work together to complete the project within the agreed-upon Budgeted Amount, but the obligation to complete the **SERVICES** within the Budgeted Amount lies with the **CONSULTANT**.

B. **Fees**

Fees shall be billed per the terms and conditions and at the rates set forth on **Exhibit "B"** for the term of the **AGREEMENT.** Should the term of the **AGREEMENT** extend beyond the period for which the rates are effective, the rates specified in **Exhibit "B"** shall continue to apply unless and until modified by consent of the **PARTIES**.

C. **Notification Clause**

Formal notices, demands and communications to be given hereunder by either **PARTY** shall be made in writing and may be effected by personal delivery or by registered or certified mail, postage prepaid, return receipt requested and shall be deemed communicated as of the date of mailing. If the name or address of the person to whom notices, demands or communication shall be given changes, written notice of such change shall be given, in accordance with this section, within five (5) working days.

Notices shall be made as follows:

Municipal Water District of Orange County
Harvey De La Torre
General Manager
18700 Ward Street, P.O. Box 20895
Fountain Valley, CA 92708

D. **Billing and Payment**

CONSULTANT's fees shall be billed by the 25th day of the month for the previous month's activities. Invoices received by the 25th day of the month will be paid by **DISTRICT** by the end of the following month. Invoices shall reference the Purchase Order number from **DISTRICT**.

DISTRICT shall review and approve all invoices prior to payment. **CONSULTANT** agrees to submit additional supporting documentation to support the invoice if requested by **DISTRICT**. If **DISTRICT** does not approve an invoice, **DISTRICT** shall send a notice to **CONSULTANT** setting forth the reason(s) the invoice was not approved. **CONSULTANT** may re-invoice **DISTRICT** to cure the defects identified in the **DISTRICT** notice. The revised invoice will be treated as a new submittal. If **DISTRICT** contests all or any portion of an invoice, **DISTRICT** and **CONSULTANT** shall use their best efforts to resolve the contested portion of the invoice.

E. **Billing Records**

CONSULTANT shall keep records of all **SERVICES** and costs billed pursuant to this **AGREEMENT** for at least a period of seven (7) years and shall make them available for review and audit if requested by **DISTRICT**.

IV DOCUMENTS

All **MATERIALS** as defined in Paragraph XI below, related to **SERVICES** performed under this **AGREEMENT** shall be furnished to **DISTRICT** upon completion or termination of this **AGREEMENT**, or upon request by **DISTRICT**, and are the property of **DISTRICT**.

V TERMINATION

Each **PARTY** may terminate this **AGREEMENT** at any time upon thirty (30) days written notice to the other **PARTY**, except as provided otherwise in **Exhibit "B."** In the event of termination: (1) all work product prepared by or in custody of **CONSULTANT** shall be promptly delivered to **DISTRICT**; (2) **DISTRICT** shall pay **CONSULTANT** all payments for services performed and due under this **AGREEMENT** on the effective date of termination; (3) **CONSULTANT** shall promptly submit a final invoice to the **DISTRICT**, which shall include any and all non-cancelable obligations owed by **CONSULTANT** at the time of termination, (4) neither **PARTY** waives any claim of any nature whatsoever against the other for any breach of this **AGREEMENT**; (5) **DISTRICT** may withhold 125 percent of the estimated value of any disputed amount pending resolution of the dispute, consistent with the provisions of section III D above, and; (6) **DISTRICT** and **CONSULTANT** agree to exert their best efforts to expeditiously resolve any dispute between the **PARTIES**.

VI INSURANCE REQUIREMENTS

CONSULTANT shall obtain prior to commencing work and maintain in force and effect throughout the term of this **AGREEMENT**, all insurance set forth below.

A. Workers' Compensation Insurance

By his/her signature hereunder, **CONSULTANT** certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and that **CONSULTANT** will comply with such provisions before commencing the performance of the **SERVICES** under this **AGREEMENT**.

CONSULTANT and sub-consultant will keep workers' compensation insurance for their employees in effect during all work covered by this **AGREEMENT** in accordance with applicable law. An ACORD certificate of insurance or other certificate of insurance satisfactory to **DISTRICT**, evidencing such coverage must be provided (1) by **CONSULTANT** and (2) by sub-consultant's upon request by **DISTRICT**.

B. Professional Liability Insurance

CONSULTANT shall file with **DISTRICT**, before beginning professional **SERVICES**, an ACORD certificate of insurance, or any other certificate of insurance satisfactory to **DISTRICT**, evidencing professional liability coverage of not less than $1,000,000 per claim and $1,000,000 aggregate, requiring 30 days notice of cancellation (10 days for non-payment of premium) to **DISTRICT**.

Such coverage shall be placed with a carrier with an A.M. Best rating of no less than A: VII, or equivalent. The retroactive date (if any) of such insurance coverage shall be no later than the effective date of this **AGREEMENT**. In the event that the **CONSULTANT** employs sub-consultants as part of the **SERVICES** covered by this **AGREEMENT**, **CONSULTANT** shall be responsible for requiring and confirming that each sub-consultant meets the minimum insurance requirements specified herein.

C. **Other Insurance**

CONSULTANT will file with **DISTRICT**, before beginning professional **SERVICES**, ACORD certificates of insurance, or other certificates of insurance satisfactory to **DISTRICT**, evidencing general liability coverage of not less than $1,000,000 per occurrence for bodily injury, personal injury and property damage; automobile liability (owned, scheduled, non-owned or hired) of at least $1,000,000 for bodily injury and property damage each accident limit; workers' compensation (statutory limits) and employer's liability ($1,000,000) (if applicable); requiring 30 days (10 days for non payment of premium) notice of cancellation to **DISTRICT**. For the coverage required under this paragraph, the insurer(s) shall waive all rights of subrogation against **DISTRICT**, the **PARTICIPATING AGENCIES**, and its directors, officers, agents, employees, attorneys, consultants or volunteers. **CONSULTANT's** insurance coverage shall be primary insurance as respects **DISTRICT**, the **PARTICIPATING AGENCIES**, and its directors, officers, agents, employees, attorneys, consultants and volunteers for all liability arising out of the activities performed by or on behalf of the **CONSULTANT**. Any insurance pool coverage, or self-insurance maintained by **DISTRICT**, the **PARTICIPATING AGENCIES**, and its directors, officers, agents, employees, attorneys, consultants or volunteers shall be excess of the **CONSULTANT's** insurance and shall not contribute to it.

The general liability coverage shall give **DISTRICT**, the **PARTICIPATING AGENCIES**, and its directors, officers, agents, employees, attorneys, consultants and authorized volunteers additional insured status using ISO endorsement CG2010, CG2033, or equivalent. Coverage shall be placed with a carrier with an A.M. Best rating of no less than A: VII, or equivalents. In the event that the **CONSULTANT** employs sub-consultant as part of the work covered by the **AGREEMENT**, it shall be the **CONSULTANT's** responsibility to require and confirm that each sub-consultant meets the minimum insurance requirements specified herein.

D. **Expiration of Coverage**

If any of the required coverages expire during the term of the **AGREEMENT**, **CONSULTANT** shall deliver the renewal certificate(s) including the general liability additional insured endorsement to **DISTRICT** at least ten (10) days prior to the expiration date.

VII INDEMNIFICATION

To the fullest extent permitted by applicable law, **CONSULTANT** shall indemnify, defend and hold harmless **DISTRICT**, its officers, Directors and employees and authorized volunteers, and each of them from and against:

a. When the law establishes a professional standard of care for the **CONSULTANT's** services, all claims and demands of all persons that arise out of, pertain to, or relate to the **CONSULTANT's** negligence, recklessness or willful misconduct in the performance (or actual or alleged non-performance) of the work under this agreement. **CONSULTANT** shall defend itself against any and all liabilities, claims, losses, damages, and costs arising out of or alleged to arise out of **CONSULTANT's** performance or non-performance of the **SERVICES** hereunder, and shall not tender such claims to **DISTRICT** nor its directors, officers, employees, or authorized volunteers, for defense or indemnity.

b. Any and all actions, proceedings, damages, costs, expenses, penalties or liabilities, in law or equity, of every kind or nature whatsoever, arising out of, resulting from, or on account of the violation of any governmental law or regulation, compliance with which is the responsibility of **CONSULTANT**.

c. Any and all losses, expenses, damages (including damages to the work itself), attorney's fees incurred by counsel of the **DISTRICT's** choice and other costs, including all costs of defense, which any of them may incur with respect to the failure, neglect, or refusal of **CONSULTANT** to faithfully perform the work and all of the **CONSULTANT's** obligations under the agreement. Such costs, expenses, and damages shall include all costs, including attorneys' fees, incurred by counsel of the **DISTRICT's** choice, incurred by the indemnified parties in any lawsuit to which they are a party.

CONSULTANT shall immediately defend, at **CONSULTANT's** own cost, expense and risk, any and all such aforesaid suits, actions, or other legal proceedings of every kind that may be brought or instituted against **DISTRICT** or its directors, officers, employees, or authorized volunteers with legal counsel reasonably acceptable to **DISTRICT**, and shall not tender such claims to **DISTRICT** nor its directors, officers, employees, or authorized volunteers.

CONSULTANT shall immediately pay and satisfy any judgment, award or decree that may be rendered against **DISTRICT** or its directors, officers, employees, or authorized volunteers, in any and all such suits, actions, or other legal proceedings.

CONSULTANT shall immediately reimburse **DISTRICT** or its directors, officers, employees, or authorized volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing indemnity herein provided.

CONSULTANT's obligation to indemnify shall survive the termination or completion of this agreement for the full period of time allowed by law and shall not be restricted to insurance proceeds, if any, received by **DISTRICT**, the **PARTICIPATING AGENCIES**, or its directors, officers, employees, or authorized volunteers.

VIII FINANCIAL DISCLOSURE AND CONFLICTS OF INTEREST

Although **CONSULTANT** is retained as an independent contractor, **CONSULTANT** may still be required, under the California Political Reform Act and **DISTRICT's** Administrative Code, to file annual disclosure reports. **CONSULTANT** agrees to file such financial disclosure reports upon request by **DISTRICT**. Further, **CONSULTANT** shall file the annual summary of gifts required by Section 7105 of the **DISTRICT's** Ethics Policy, attached hereto as **Exhibit "A**.**"**

Failure to file financial disclosure reports upon request and failure to file the required gift summary are grounds for termination of this **AGREEMENT.** Any action by **CONSULTANT** that is inconsistent with **DISTRICT's** Ethic's Policy current at the time of the action is grounds for termination of this **AGREEMENT**. The Ethics Policy as of the date of this **AGREEMENT** is attached hereto as **Exhibit "A**.**"**

IX PERMITS AND LICENSES

CONSULTANT shall procure and maintain all permits, licenses and other government-required certification necessary for the performance of its **SERVICES**, all at the sole cost of **CONSULTANT**. None of the items referenced in this section shall be reimbursable to **CONSULTANT** under the **AGREEMENT**. **CONSULTANT** shall comply with any and all applicable local, state, and federal regulations and statutes including Cal/OSHA requirements.

X LABOR AND MATERIALS

CONSULTANT shall furnish, at its own expense, all labor, materials, equipment, tools, transportation and other items or services necessary for the successful completion of the **SERVICES** to be performed under this **AGREEMENT**. **CONSULTANT** shall give its full attention and supervision to the fulfillment of the provisions of this **AGREEMENT** by its employees and sub-consultant and shall be responsible for the timely performance of the **SERVICES** required by this **AGREEMENT**. All compensation for **CONSULTANT's SERVICES** under this **AGREEMENT** shall be pursuant to **Exhibit "B"** to the **AGREEMENT**.

Only those **SERVICES,** materials, administrative, overhead and travel expenses specifically listed in **Exhibit "B"** will be charged and paid. No other costs will be paid. **CONSULTANT** agrees not to invoice **DISTRICT** for any administrative expenses, overhead or travel time in connection with the **SERVICES, unless agreed upon and listed in Exhibit "B"**.

XI CONFIDENTIALITY AND RESTRICTIONS ON DISCLOSURE

A. Confidential Nature of Materials

CONSULTANT understands that all documents, records, reports, data, or other materials (collectively **"MATERIALS"**) provided by **DISTRICT** and **PARTICIPATING AGENCIES** to **CONSULTANT** pursuant to the **AGREEMENT**, including but not limited to draft reports, final report(s) and all data, information, documents, graphic displays and other items that are not proprietary to **CONSULTANT** and that are utilized or produced by **CONSULTANT** pursuant to the **AGREEMENT** are to be considered confidential for all purposes.

B. No Disclosure of Confidential Materials

CONSULTANT shall be responsible for protecting the confidentiality and maintaining the security of **DISTRICT MATERIALS** and records in its possession. All **MATERIALS** shall be deemed confidential and shall remain the property of **DISTRICT** and **PARTICIPATING AGENCIES**. **CONSULTANT** understands the sensitive nature of the above and agrees that neither its officers, partners, employees, agents or sub-consultants will release, disseminate, or otherwise publish said reports or other such data, information, documents, graphic displays, or other materials except as provided herein or as authorized, in writing, by **DISTRICT's** representative and the **PARTICIPATING AGENCY's** representative. **CONSULTANT** agrees not to make use of such **MATERIALS** for any purpose not related to the performance of the **SERVICES** under the **AGREEMENT**. **CONSULTANT** shall not make written or oral disclosures thereof, other than as necessary for its performance of the **SERVICES** hereunder, without the prior written approval of **DISTRICT** and the **PARTICIPATING AGENCY**. Disclosure of confidential **MATERIALS** shall not be made to any individual, agency, or organization except as provided for in the **AGREEMENT** or as provided for by law.

C. Protections to Ensure Control Over Materials

All confidential **MATERIALS** saved or stored by **CONSULTANT** in an electronic form shall be protected by adequate security measures to ensure that such confidential **MATERIALS** are safe from theft, loss, destruction, erasure, alteration, and any unauthorized viewing, duplication, or use. Such security measures shall include, but not be limited to, the use of current virus protection software, firewalls, data backup, passwords, and internet controls.

The provisions of this section survive the termination or completion of the **AGREEMENT**.

XII OWNERSHIP OF DOCUMENTS AND DISPLAYS

All original written or recorded data, documents, graphic displays, reports or other **MATERIALS** which contain information relating to **CONSULTANT's** performance hereunder and which are originated and prepared for **DISTRICT** and **PARTICIPATING AGENCIES** pursuant to the **AGREEMENT** are instruments of service and shall become the property of **DISTRICT** and **PARTICIPATING AGENCIES** upon completion or termination of the Project. **CONSULTANT** hereby assigns all of its right, title and interest therein to **DISTRICT** and **PARTICIPATING AGENCIES**, including but not limited to any copyright interest. In addition, **DISTRICT** and **PARTICIPATING AGENCIES** reserve the right to use, duplicate and disclose in whole, or in part, in any manner and for any purpose whatsoever all such data, documents, graphic displays, reports or other **MATERIALS** delivered to **DISTRICT** and **PARTICIPATING AGENCIES** pursuant to this **AGREEMENT** and to authorize others to do so.

To the extent that **CONSULTANT** utilizes any of its property (including, without limitation, any hardware or software of **CONSULTANT** or any proprietary or confidential information of **CONSULTANT** or any trade secrets of **CONSULTANT**) in performing **SERVICES** hereunder, such property shall remain the property of **CONSULTANT**, and **DISTRICT** and **PARTICIPATING AGENCIES** shall acquire no right or interest in such property.

CONSULTANT hereby assigns to **DISTRICT, PARTICIPATING AGENCIES** or its designee, for no additional consideration, all **CONSULTANT**'s intellectual property rights, including, but not limited to, copyrights, in all deliverables and other works prepared by the **CONSULTANT** under this agreement. **CONSULTANT** shall, and shall cause its employees and agents to, promptly sign and deliver any documents and take any actions that **DISTRICT, PARTICIPATING AGENCIES,** or its designee reasonably requests to establish and perfect the rights assigned to **DISTRICT, PARTICIPATING AGENCIES** or its designee under this provision.

XIII EQUAL OPPORTUNITY

DISTRICT is committed to a policy of equal opportunity for all and to providing a work environment that is free of unlawful discrimination and harassment. In keeping with this commitment, **DISTRICT** maintains a policy prohibiting unlawful discrimination and harassment in any form based on race, religious creed, color, national origin, ancestry, physical or mental disability, medical condition, pregnancy or childbirth, marital status, gender, sex, sexual orientation, veteran status or age by officials, employees and non-employees (vendors, contractors, etc.).

This policy applies to all employees, consultants and contractors of the **DISTRICT**. Appropriate corrective action will be taken against all offenders, up to and including immediate discharge or termination of this **AGREEMENT**. During, and in conjunction with, the performance of this **AGREEMENT**, **CONSULTANT** shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, marital status or national origin.

XIV INTEGRATION OF ALL OTHER AGREEMENTS

This **AGREEMENT**, including any Exhibits and Addenda, contains the entire understanding of the **PARTIES**, and there are no further or other agreements or understandings, written or oral, in effect between the **PARTIES** hereto relating to the subject matter hereof. Any prior understanding or agreement of the **PARTIES** shall not be binding unless expressly set forth herein and, except to the extent expressly provided for herein, no changes of this **AGREEMENT** may be made without the written consent of both **PARTIES**.

XV ELECTRONIC SIGNATURES

The Uniform Electronic Transactions Act, California Civil Code section 1633.1 et seq., authorizes **PARTIES** to conduct business electronically. In accordance with California Civil Code section 1633.5, **PARTIES** acknowledge, consent and agree that transactions subject to this **AGREEMENT** may be effectuated by electronic means through the use of electronic and/or digital signatures. For purposes of this section, an electronic signature means an electronic symbol or process logically associated with the intent to sign an electronic record pursuant to Civil Code section 1633(h). A digital signature, which is a type of electronic signature, means an electronic identifier, created by a computer, that is intended to have the same force and effect as the use of a manual signature under Government Code 16.5(d). An example of an electronic signature would be a JPG of a manual signature imposed onto this **AGREEMENT**, an example of a digital signature would be the use of DocuSign or similar provider that requires an encrypted key that certifies the authenticity of the signature.

This consent to conduct transactions by electronic means through the use of electronic and/or digital signatures extends to the execution of this **AGREEMENT** or any related contract or other document necessary for the performance of this **AGREEMENT** including, without limitation, any related offers, proposals, bids, amendments, change orders, task orders and notices.

XVI ATTORNEYS' FEES

In any action at law or in equity to enforce any of the provisions or rights under this **AGREEMENT**, the prevailing **PARTY** shall be entitled to recover from the unsuccessful **PARTY** all costs, expenses and reasonable attorney's fees incurred therein by the prevailing **PARTY** (including, without limitations, such costs, expense and fees on any appeals), and if such prevailing **PARTY** shall recover judgment in any such action or proceeding, such costs, expenses, including those of expert witnesses and attorneys' fees, shall be included as part of this judgment.

XVII JURISDICTION AND VENUE SELECTION

In all matters concerning the validity, interpretation, performance, or effect of this **AGREEMENT**, the laws of the State of California shall govern and be applicable. The **PARTIES** hereby agree and consent to the exclusive jurisdiction of the courts of the State of California and that venue of any action brought hereunder shall be in Orange County, California.

IN WITNESS WHEREOF, the **PARTIES** have hereunto affixed their names as of the day and year thereinafter, which shall be and is the effective date of this **AGREEMENT**.

APPROVED BY:

_____

Date _____

CONSULTANT ACCEPTANCE:

_____

Date _____

_____

Date _____

Internal Use Only:

Program No. _____

Line Item: _____

Funding Year: _____

Contract Amt.: _____

Purchase Order # _____

ETHICS POLICY	§7100-§7110

§7100 PURPOSE

The policy of MWDOC is to maintain the highest standards of ethics from its Board members, officers and employees (all shall be referred to as employees for the purposes of this section). The proper operation of MWDOC requires decisions and policy to be made in the proper manner, that public office not be used for personal gain, and that all individuals associated with MWDOC remain impartial and responsible toward the public. Accordingly, all employees are expected to abide by the highest ethical standards and integrity when dealing on behalf of MWDOC with fellow Board members or employees, vendors, contractors, customers, and other members of the public.

§7101 RESPONSIBILITIES OF BOARD MEMBERS

Board members are obliged to uphold the Constitution of the United States and the Constitution of the State of California and shall comply with all applicable laws regulating Board member conduct, including conflicts of interest and financial disclosure laws. No Board member or officer shall grant any special consideration, treatment, or advantage to any person or group beyond that which is available to every other person or group in the same circumstances.

§7102 PROPER USE OF MWDOC PROPERTY AND RESOURCES

Except as specifically authorized, no employee shall use or remove or permit the use or removal of MWDOC property, including MWDOC vehicles, equipment, telephones, office supplies, and materials for personal convenience or profit. No employee shall require another MWDOC employee to perform services for the personal convenience or profit of another employee. Each employee must protect and properly use any MWDOC asset within his/her control, including information recorded on paper or in electronic form. Employees shall safeguard MWDOC property, equipment, monies, and assets against unauthorized use or removal, as well as from loss due to criminal act or breach of trust.

Employees are responsible for maintaining written records, including expense reports, in sufficient detail to reflect accurately and completely all transactions and expenditures made on MWDOC's behalf. Creating a document with misleading for false information is prohibited.

Motion - 1/17/96;

§7103 CONFLICT OF INTEREST

All MWDOC Directors, officers, and employees at every level shall comply with the requirements of Section 1090 of the California Government Code which prohibits such persons from being financially interested in any contract made by them in their official

capacity, or by any body or board of which they are members, or from being a purchaser at any sale or a vendor at any purchase made by them in their official capacity.

All Directors and employees designated under MWDOC's Conflict of Interest Code ("designated employees") and employees required to report under Chapter 7, Article 2 of the Political Reform Act (Government Code Section 7300 et seq.) shall promptly and fully comply with all requirements thereof.

MWDOC employees who are not designated employees under MWDOC's Conflict of Interest Code shall refrain from participating in, making a recommendation, or otherwise attempting to influence MWDOC's selection of a contractor, consultant, product, or source of supply if the non-designated employee, or an immediate family member, has a direct or indirect financial interest in the outcome of the selection process. No employee shall use his/her position with MWDOC in any manner for the purpose of obtaining personal favors, advantages or benefits for him/herself or an immediate family member from a person or entity doing business or seeking to do business with MWDOC. Such favors, advantages, or benefits would include, but are not limited to: 1) offers of employment; 2) free or discounted goods or services; or 3) gifts.

§7104 GIFTS

No employee shall accept, directly or indirectly, any compensation, reward or gift from any source except from MWDOC, for any action related to the conduct of MWDOC business, except as set forth below:

1. Acceptance of food and refreshments of nominal value on infrequent occasions in the ordinary course of a breakfast, luncheon or dinner meeting or other meeting or on an inspection tour where the arrangements are consistent with the transaction of official business.*

2. Acceptance of transportation, lodging, meals or refreshments, in connection with attendance at widely attended gatherings sponsored by industrial, technical or professional organizations; or in connection with attendance at public ceremonies or similar activities financed by nongovernmental sources where the employee's participation on behalf of MWDOC is the result of an invitation addressed to him or her in his/her official capacity, and the transportation, lodging, meals or refreshment accepted is related to, and is in keeping with, his/her official participation.*

3. Acceptance of unsolicited advertising or promotional materials such as pens, pencils, note pads, calendars, or other items of nominal value.*

4. Acceptance of plaques and commemorative mementoes, of nominal value, or of value only to the recipient, such as service pins, recognition awards, retirement mementoes.

5. Acceptance of incidental transportation from a private organization, provided it is furnished in connection with an employee's official duties and is of the type customarily provided by the private organization.

* Nothing herein shall be deemed to relieve any Director or designated employee from reporting the value of such meals, transportation, lodging or gifts and abstaining from

participation in any decision of MWDOC which could foreseeably have a material financial effect on the donor when the value of such gifts reaches the limits set forth in MWDOC's Conflict of Interest Code and the Political Reform Act.

In no event shall any employee accept gifts from any single source, the cumulative value of which exceeds the applicable gift limit under California law.

A gift or gratuity, the receipt of which is prohibited under this section, shall be returned to the donor. If return is not possible, the gift or gratuity shall be turned over to a public or charitable institution without being claimed as a charitable deduction and a report of such action, and the reasons why return was not feasible shall be made on MWDOC records. When possible, the donor also shall be informed of this action.

Motion - 1/17/96;

§7105 PERSONS OR COMPANIES REPORTING GIFTS

All persons and companies doing business with MWDOC, with the exception of public agencies, shall submit a summary, by January 31 of each calendar year, of all gifts claimed for internal vendor audits (including meals) made to, or on behalf of, employees or Directors of MWDOC, or their immediate family members, that have occurred in the normal course of business during the previous calendar year. Failure to provide this information to MWDOC may result in the termination of MWDOC business with that person or company.

Motion - 7/21/93; Motion - 8/18/93;

§7106 USE OF CONFIDENTIAL INFORMATION

Confidential information (i.e., information which is exempt from disclosure under the California Public Records Act) shall not be released to unauthorized persons unless the disclosure is approved by the Board, President of the Board, or General Manager. Employees are prohibited from using any confidential information for personal advantage or profit.

§7107 POLITICAL ACTIVITIES

During the course and scope of their employment employees are prohibited from engaging in campaign activities associated with MWDOC Director elections, MWDOC Director appointments, the appointment of MET Directors, or from attempting to influence changes to MWDOC Division boundaries, except where such activities are expressly required in the course of official duties. Employees are otherwise free to personally, endorse, advocate, contribute to, or otherwise support any political party, candidate, or cause they may choose; however, employees are prohibited from soliciting political funds or contributions at MWDOC facilities or during the course and scope of their duties for MWDOC. In any personal political activity an employee may be involved in, it shall be made clear that the employee is acting personally and not for MWDOC. These provisions are intended to protect employees against political assessments, coerced political activities, and to prevent political activities on the part of employees from interfering with MWDOC operations. Nothing in this section shall be

interpreted or applied in a manner to unlawfully curtail the constitutional right to political activity of MWDOC employees.

Motion – 6/17/15

§7108 IMPROPER ACTIVITIES

Employees shall not interfere with the proper performance of the official duties of others, but are strongly encouraged to fulfill their own moral obligations to the public, MWDOC, and its member agencies by disclosing, to the extent not expressly prohibited by law, improper activities within their knowledge. No employee shall directly or indirectly use or attempt to use the authority or influence of his/her position for the purpose of intimidating, threatening, coercing, commanding, or influencing any person with the intent of interfering with that person's duty to disclose improper activity.

§7109 VIOLATION OF POLICY – STAFF AND STAFF OFFICERS

If an employee is reported to have violated MWDOC's Ethics Policy, the matter shall be referred to any of the following: (1) the General Manager; (2) Human Resources; (3) the Board of Directors; or (4) any member of the management staff, for investigation and consideration of any appropriate action warranted which may include employment action such as demotion, reduction in salary, or termination.

If a Board appointed officer (Secretary, Treasurer or General Manager) is reported to have violated MWDOC's Ethics Policy, the matter shall be referred to the Executive Committee for investigation and consideration of any appropriate action. The Executive Committee may make a determination and present the issue to the full Board.

Motion - 1/17/96; 6/17/15

§7110 VIOLATION OF POLICY -- DIRECTORS

A perceived violation of this policy by a Director should be referred to the President of the Board or the full Board of Directors for investigation, and consideration of any appropriate action warranted. A violation of this policy may be addressed by the use of such remedies as are available by law to MWDOC, including, but not limited to: (a) adoption of a resolution expressing disapproval of the conduct of the Director who has violated this policy, (b) injunctive relief, or (c) referral of the violation to MWDOC Legal Counsel and/or the Grand Jury.

§7111 PERIODIC REVIEW OF ETHICS, CONFLICT OF INTEREST AND ADMINISTRATIVE GUIDELINES

Pursuant to the terms of Government Code Sections 53234 through 53235.2, each Director shall receive at least two hours of training in general ethics principles every two years. Pursuant to Government Code Section 53235(c), the curricula for ethics training must be approved by the Fair Political Practices Commission (FPPC) and the Attorney General. It is the general desire of the MWDOC Board to meet and review and/or receive a presentation that addresses principles relating to reporting guidelines on compensation,

conflict of interest issues, and standards for rules of conduct during the first quarter of the year immediately following an election (every two years).

Each Director shall retain the certificate of completion from any ethics course in which he/she participates and shall provide a copy of such report to MWDOC. Such records shall be retained for five years from the date they are received.

M-12/21/05

Please note If using Consultant's proposal as Exhibit "B" please attach the proposal or complete the standard Exhibit "B" Form below, BOTH Parties must verify that all sections of this form are FULLY ADDRESSED and the appropriate Exhibit is attached and labeled accordingly

EXHIBIT "B"

SCOPE OF WORK, TERMS OF AGREEMENT AND TERMS AND CONDITIONS FOR BILLING

Company:
Name:
Address:
Phone:
Tax I.D.

1. Term – Commencement (Insert Date) _____Termination (Insert Date) _____

2. Fees/Rates to be billed - _____

3. Budgeted Amount – Compensation is "lump sum", not to exceed $_____. **CONSULTANT's** fees shall be billed by the 25th day of the month for the previous month's activities. Invoices received by the 25th day of the month will be paid by **DISTRICT** by the end of the following month. Invoices shall reference the Purchase Order number from **DISTRICT**.

   Consultant shall prepare a breakdown of percent complete by task by Participating Agency to submit with each monthly invoice.

   Upon invoicing **DISTRICT** 80% of the contract amount, **CONSULTANT** shall prepare and provide to **DISTRICT** a "cost to complete" estimate for the remaining work.

4. Scope of Work/Services – _____

5. Consultant Representative: _____

Item No. 4

INFORMATION ITEM
July 14, 2025

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

FROM: **Harvey De La Torre, General Manager**

Staff Contact: Damon Micalizzi, Director of Public Affairs

SUBJECT: **WATER POLICY FORUM RECAP**

STAFF RECOMMENDATION

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

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

MWDOC hosted its Water Policy Forum on June 26, 2025, at The Westin South Coast Plaza, featuring Deputy Secretary of the U.S. Department of Homeland Security, The Honorable Troy Edgar, as keynote speaker. Deputy Secretary Edgar delivered a national infrastructure security and emergency preparedness presentation, offering insights into how federal strategies intersect with local water agency priorities.

The Pledge of Allegiance was led by Orange County Sheriff Don Barnes, accompanied by the Orange County Sheriff's Department Color Guard. The event drew 180 attendees, including numerous local elected officials, agency partners, and many first-time participants, reflecting the growing interest and value of the Forum.

The MWDOC Water Policy Forum Satisfaction Survey received 14 responses, with most attendees citing interest in the speaker and networking as their primary reasons for attending. Overall satisfaction was high with 100% satisfied with the location, 92% satisfied with the timeframe, and 78% satisfied with the program and format. Food, beverage, and event value received slightly lower marks but remained generally positive. Most respondents (64%) said they will likely attend future events. Suggestions included focusing on disadvantaged communities, water supply updates, and high-profile speakers. Attendees also requested lower parking costs and more diverse meal options.

Budgeted: ☒ Yes ☐ No ☐ N/A	Budgeted amount:	Core: ☒	Choice: ☐
Action item amount: N/A	Movement between funds: ☐ Yes ☒ No		

Looking Ahead

The next Water Policy Forum will be held in January 2026 to avoid scheduling conflicts with the OC Water Summit on September 5.

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

- ☒ *Clarifying MWDOC's mission and role; defining functions and actions.*
- ☒ *Balance support for Metropolitan's regional mission and Orange County values and interests.*
- ☒ *Strengthen communications and coordination of messaging.*
- ☒ *Work with member agencies to develop water supply and demand objectives.*
- ☒ *Solicit input and feedback from member agencies.*
- ☐ *Invest in workforce development and succession planning.*

List of Attachments/Links:
Attachment 1: Water Policy Forum Satisfaction Survey

Constant Contact Survey Results

Campaign Name: 25-0626 Water Policy Dinner Satisfaction Survey

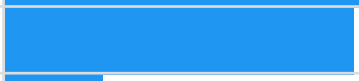
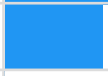
Survey Starts: 27

Survey Submits: 14

Export Date: 07/07/2025 04:11 PM

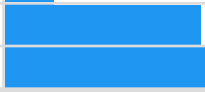
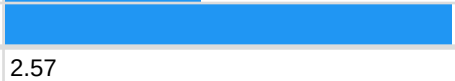
CHECKBOXES

1. What was your primary reason(s) for attending the MWDOC Water Policy Forum & Dinner?

Answer Choice	0% 100%	Number of Responses	Responses Ratio
Interest in topic/featured speaker		10	71%
Networking/business development		7	50%
General interest in learning more about water		2	14%
Other		0	0%
	Total Responses	**14**	**100%**

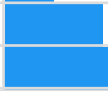
NUMERIC SCALE

2. Please rate your satisfaction with the pre-dinner reception.

Answer Choice	0% 100%	Number of Responses	Responses Ratio
1 (Unsatisfied)		1	7%
2		4	28%
3 (Satisfied)		9	64%
Mean	2.57		
Median	3.00		
	Total Responses	**14**	**100%**

NUMERIC SCALE

3. Please rate your satisfaction with the program (topic, speaker, etc.).

Answer Choice	0% 100%	Number of Responses	Responses Ratio
1 (Unsatisfied)		1	7%
2		2	14%
3 (Satisfied)		11	78%
Mean	2.71		
Median	3.00		
	Total Responses	**14**	**100%**

NUMERIC SCALE

4. Please rate your satisfaction with the program format (presentation, discussion, Q&A).

Answer Choice	0% 100%	Number of Responses	Responses Ratio
1 (Unsatisfied)		0	0%
2		3	21%
3 (Satisfied)		11	78%
Mean	2.79		
Median	3.00		
	Total Responses	**14**	**100%**

NUMERIC SCALE

5. Please rate your satisfaction with the event location.

Answer Choice	0% 100%	Number of Responses	Responses Ratio
1 (Unsatisfied)		0	0%
2		0	0%
3 (Satisfied)		14	100%
Mean	3.00		
Median	3.00		
	Total Responses	**14**	**100%**

NUMERIC SCALE

6. Please rate your satisfaction with the event timeframe.

Answer Choice	0% 100%	Number of Responses	Responses Ratio
1 (Unsatisfied)		0	0%
2		1	7%
3 (Satisfied)		13	92%
Mean	2.93		
Median	3.00		
	Total Responses	**14**	**100%**

NUMERIC SCALE

7. Please rate your satisfaction with the food and beverage.

Answer Choice	0% 100%	Number of Responses	Responses Ratio
1 (Unsatisfied)		2	14%
2		1	7%
3 (Satisfied)		11	78%
Mean	2.64		
Median	3.00		
	Total Responses	**14**	**100%**

NUMERIC SCALE

8. Please rate your satisfaction with the event price (given overall value).

Answer Choice	0% 100%	Number of Responses	Responses Ratio
1 (Unsatisfied)		0	0%
2		4	28%
3 (Satisfied)		10	71%
Mean	2.71		
Median	3.00		
	Total Responses	**14**	**100%**

MULTIPLE CHOICE

9. How likely are you to attend future MWDOC Water Policy Forum & Dinner events?

Answer Choice	0% 100%	Number of Responses	Responses Ratio
Very Likely		9	64%
Somewhat Likely		4	28%
Neutral		0	0%
Somewhat Unlikely		1	7%
Very Unlikely		0	0%
Other		0	0%
	Total Responses	**14**	**100%**

OPEN QUESTION

10. Are there specific topics or speakers you would like see for future events?

More on disadvantaged communities
DHS was great, other similar topics
No
14 Response(s)

OPEN QUESTION

11. Is there anything else you would like to tell us?

Speaker could have emphasized more of the specific relation and opportunity for water
Na
Parking
14 Response(s)

Are there specific topics or speakers you would like see for future events?
More high-level speakers like DEPSEC Edgar.
More on disadvantaged communities
New MWD GM when hired around Aug/Sep. Gov Newsom.
No
No
DHS was great, other similar topics
No
No suggestions
Update: PureWater SoCal; other major local projects
Nope
I recommend Edward Ring from CA Policy Center
Water usage/ how much net water we use
Update on water supply and portability.
Fluoridation of water

Is there anything else you would like to tell us?
Speaker could have emphasized more of the specific relation and opportunity for water
I stayed overnight and felt the parking price of $45 was too high. Please negotiate a discount for attendees.
Parking
no
Na
No
Yes, please offer a meat entree instead of the chicken entree. Thank you.
Item 10 in this survey needs to be more than 50 characters
No.
keep the forums going
Great event.
I was hoping for more educational content.
Very good event.

Item No. 5

INFORMATION ITEM
July 14, 2025

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

FROM: **Harvey De La Torre, General Manager**

Staff Contact: Damon Micalizzi, Director of Public Affairs

SUBJECT: **OC WATER SUMMIT UPDATE**

STAFF RECOMMENDATION

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

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

Final Preparations Underway
Planning for the 2025 OC Water Summit is nearing completion. This year's Summit will take place on Friday, September 5th, at the Westin South Coast Plaza, bringing together a dynamic mix of water leaders, policymakers, researchers, and stakeholders. Recognized as a premier forum in the region, the OC Water Summit offers timely and thought-provoking discussions on the critical issues shaping California's water future. The content aligns with MWDOC's mission to inform and engage on both regional and statewide water challenges.

Planning Committee Meeting Highlights
The OC Water Summit Planning Committee convened on July 8, 2025, to review key event elements. Discussions included updates on sponsorships, registration progress, speaker confirmations, and logistics for the Speaker Dinner, which will be hosted at The Capital Grille the evening before the Summit.

Program & Sessions Preview
Fritz Coleman will return as Emcee, lending his signature wit and insight to guide the day's program. The agenda will feature expert panels and presentations addressing complex water issues facing California today, including infrastructure investment, regulatory impacts, and long-term supply reliability.

Budgeted: ☒ Yes ☐ No ☐ N/A	Budgeted amount:	Core: ☒	Choice: ☐
Action item amount: N/A	Movement between funds: ☐ Yes ☒ No		

The 2025 OC Water Summit will feature four main sessions including:

Responding to PFAS – Balancing Protection, Policy, and Practicality
A panel of legal, scientific, and regulatory experts will examine the implications of enforceable PFAS standards and how agencies can adapt without overburdening ratepayers.

Moderator: Eric Sapirstein (ENS Resources)
Panelists: Dr. Sally Brown (University of Washington), G. Tracy Mehan, III (AWWA), Jimmy Slaughter (Beveridge & Diamond PC)

Rethinking the Bay-Delta: Restoration with Benefits
Presenting the latest science and management practices to restore the Bay-Delta, this session explores benefits ranging from habitat enhancement to improved salinity and water reliability.

Moderator: Stephen J. Faessel (MWD Board)
Panelists: Emily Corwin (SFEI), Randall Neudeck (MWD), Curt Schmutte (Consultant)

Is the State Prioritizing Abundant Water Supply?
With limited advancement on water supply priorities, this panel assesses the impacts of policy delays and examines what actions, including SB 72, are needed to move forward.

Moderator: Craig Miller (Western MWD)
Panelists: Darcy Burke (Elsinore Valley MWD), Ed Manning (KP Public Affairs), Jason Phillips (Friant Water Authority)

Getting Water on the Ballot
This session discusses whether current legislation is sufficient or if water agencies should pursue their own bond measures to ensure long-term water security.

Moderator: Dr. Adam Probolsky (Probolsky Research)
Panelists: Ace Smith (Bearstar Strategies), Jim Sutton (Rutan & Tucker, LLP)

Looking Ahead
The next OC Water Summit Ad Hoc Committee meeting will be held on August 11th.

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

- ☒ *Clarifying MWDOC's mission and role; defining functions and actions.*
- ☒ *Balance support for Metropolitan's regional mission and Orange County values and interests.*
- ☒ *Strengthen communications and coordination of messaging.*
- ☒ *Work with member agencies to develop water supply and demand objectives.*
- ☒ *Solicit input and feedback from member agencies.*
- ☒ *Invest in workforce development and succession planning.*

List of Attachments/Links:
N/A

Item No. 6

INFORMATION ITEM
July 14, 2025

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

FROM: **Harvey De La Torre, General Manager**

Staff Contact: Sarah Wilson, Public Affairs Supervisor

SUBJECT: **QUARTERLY MWDOC K-12 CHOICE SCHOOL PROGRAMS UPDATE**

STAFF RECOMMENDATION

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

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

SUMMARY

The Municipal Water District of Orange County's (MWDOC) K-12 Choice School Program contractors—Shows That Teach and the Orange County Department of Education's Inside the Outdoors (ITO)—have successfully concluded programming for the 2024–2025 academic year and are already scheduling interactive water lessons for the upcoming 2025–2026 school year.

This report includes a calendar of scheduled school visits for the 2024–2025 academic year (August 2024 – June 2025). To view the full calendar or request notifications for the following school year, please contact the Public Affairs Department, Education & Workforce Development Division. Program contractors continuously update the shared calendar as new visits are booked throughout the school year. Each participating agency has access to a customized view of visits scheduled within its service area and may opt to receive email notifications when new bookings occur.

All MWDOC Choice School Programs incorporate hands-on learning, pre- and post-program activities, and opportunities for family and community engagement. Programs are available in both in-person and virtual formats. A detailed breakdown of program performance and teacher feedback is included in this report. Below is a snapshot of program participation for FY 2024-2025:

Budgeted: ☒ Yes ☐ No ☐ N/A	Budgeted amount: $456,647	Core: ☐	Choice: ☒
Action item amount: N/A	Movement between funds: ☐ Yes ☒ No		

FY 2024-2025 Student Counts

Grade Level	Students Seen
K-2	19,155
3-5	16,219
6-8	3,150
9-12	681
Total	**39,205**

FY 2024-2025 Sessions

Grade Level	Sessions Completed
K-2	101
3-5	262
6-8	123
9-12	26
Total	**512**

Looking Ahead

MWDOC continues to grow its K-12 outreach efforts. Orange County Public Works (OCPW) Stormwater Program has expressed interest in joining the middle school (grades 6–8) program, citing strong alignment with their educational objectives. The MWDOC Public Affairs Department, Education & Workforce Development Division, is actively engaged in this opportunity and will coordinate implementation if the partnership proceeds.

If OCPW joins, this could open a cost-sharing opportunity for other participating agencies—expanding their program budgets and allowing for broader outreach and more middle school sessions across Orange County.

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

- ☒ *Clarifying MWDOC's mission and role; defining functions and actions.*
- ☒ *Balance support for Metropolitan's regional mission and Orange County values and interests.*
- ☒ *Strengthen communications and coordination of messaging.*
- ☐ *Work with member agencies to develop water supply and demand objectives.*
- ☒ *Solicit input and feedback from member agencies.*
- ☒ *Invest in workforce development and succession planning.*

List of Attachments/Links:

Attachment 1: MWDOC Choice Elementary School Program (Grades K-2)
Attachment 2: MWDOC Choice Elementary School Program (Grades 3-5)
Attachment 3: MWDOC Choice Middle and High School Programs (Grades 6-12)
Attachment 4: MWDOC Choice School Program Calendar of Visits (FY 2024-2025)

MWDOC Choice Elementary School Program (grades K-2)
July 14, 2025

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 2024-2025 school year.

- **In-person presentations hosted:** 101
- **Virtual presentations hosted:** 0
- **Total number of students seen:** 19,155
- **Presentations have been completed in the following service areas:** City of Anaheim, City Of Brea, City of Buena Park, East Orange County Water District, El Toro Water District, City of Fountain Valley, City of Fullerton, City of Garden Grove, City of Huntington Beach, City of La Habra, Laguna Beach County Water District, Moulton Niguel Water District, City of Orange, City of San Clemente, City of Santa Ana, Santa Margarita Water District, South Coast Water District, City of Tustin, City of Westminster

ADDITIONAL PROGRAM DETAILS AND MEASUREMENTS:

"The assembly was very engaging. The students had a lot of fun while learning all about water. It was awesome!" – *First Grade Teacher, Carrillo Elementary School, served by City of Westminster.*

"I thought the presentation was informative, engaging, and fun. My students couldn't stop talking about it!" – *Second Grade Teacher, Carrillo Elementary School, served by City of Westminster.*

"It was incredibly age appropriate, the kids were fully engaged and excited! The must and props were so fun and educational. It was the best assembly we've ever had for our littlest learners!" – *Transitional Kindergarten Teacher, Vibrant Minds Academy, served by City of Anaheim.*



A photo from Truman Benedict Elementary School served by City of San Clemente.

A teacher response video from Abiding Savior Lutheran served by El Toro Water District:

https://drive.google.com/file/d/105WVI_1Wa3ewvqpbr5hWV6QZiFpHJGwD/view?usp=sharing

MWDOC Choice Elementary School Program (grades 3-5)
July 14, 2025

Orange County Department of Education's Inside the Outdoors (OCDE/ITO) 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 2024-2025 school year.

- **In-person presentations hosted:** 262
- **Virtual presentations hosted:** 0
- **Total number of students seen:** 16,219
- **Presentations have been completed in the following service areas:** City of Anaheim, City of Brea, City of Buena Park, El Toro Water District, City of Fountain Valley, City of Fullerton, City of Garden Grove, City of Huntington Beach, City of La Habra, Moulton Niguel Water District, City of Orange, City of Santa Ana, Santa Margarita Water District, City of Tustin, City of Westminster, and Yorba Linda Water District

ADDITIONAL PROGRAM DETAILS AND MEASUREMENTS:

"I like how you provided hands-on activities for the students so they were all engaged."
- *Fifth Grade Teacher, Ocean View School District, served by City of Huntington Beach.*

"It fit in perfectly with our weather unit in science." - *Third Grade Teacher, Placentia Yorba Linda Unified School District, served by Yorba Linda Water District.*

"It was informative. The students enjoyed the hands-on experiment, and it helped them realize the job opportunities in science." - *Fifth Grade Teacher, Placentia Yorba Linda Unified School District, served by Yorba Linda Water District.*

"Thank you for providing a wonderful educational program that makes learning fun. We appreciate you!" – *Third and Fourth Teacher, Tustin Unified School District, served by City of Tustin.*



Fourth Grade Students from Parkview School, served by the City of Garden Grove

"As you can see from the picture, the students were highly engaged!" - *Fourth Grade Teacher, Garden Grove Unified School District, served by City of Garden Grove.*

MWDOC Choice Middle and High School Programs (grades 6-12)
July 14, 2025

Orange County Department of Education's Inside the Outdoors (OCDE/ITO) 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. This program is offered either in person or virtually to students in grades 6-12.

- **6th-8th Grade:** Students analyze water samples to identify sources of potential pollution and form strategies to monitor or minimize pollution.
- **9th-12th 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 2024-2025 school year.

Middle School Program (grades 6-8)

- **In-person presentations hosted:** 123
- **Virtual presentations hosted:** 0
- **Total number of students seen:** 3,150
- **Presentations have been completed in the following service areas:** City of Anaheim, City of Brea, City of Buena Park, El Toro Water District, City of Fountain Valley, City of Fullerton, City of Garden Grove, City of Huntington Beach, City of La Habra, City of San Clemente, City of Santa Ana, Santa Margarita Water District, City of Tustin, City of Westminster, and Yorba Linda Water District

High School Program (grades 9-12)

- **In-person presentations hosted:** 26
- **Virtual presentations hosted:** 0
- **Total number of students seen:** 681
- **Presentations have been completed in the following service areas:** City of Anaheim, El Toro Water District/Irvine Ranch Water District, City of Fountain Valley, City of Garden Grove, City of Santa Ana, Santa Margarita Water District, City of Westminster

ADDITIONAL PROGRAM DETAILS AND MEASUREMENTS:

"The lesson was a great supplement to what I was currently teaching the students. We are learning about the Hydrosphere and for students to learn about where their actual water comes from, makes it seem more important to them, and not just something they can easily

get when turning the faucet on." – *High School Teacher, Huntington Beach Union High School District, served by the City of Westminster*

"I found the experience to be incredibly enjoyable and enlightening. It offered valuable insights and deepened my appreciation for the subject. I highly recommend it for anyone seeking personal growth and inspiration." - *Sixth Grade Student, Placentia Yorba Linda Unified School District, served by Yorba Linda Water District*

"The best part of the program was learning possible water conservation methods, which seem very applicable in homes." - *Twelfth Grade Student, Huntington Beach Unified School District, served by the City of Westminster*

"I think the best part of the program was the experiment, because I thought it was fun to record and test the data of the water with the paper tabs." - *Seventh Grade Student, Ocean View School District, served by the City of Huntington Beach*

MWDOC K-12 Choice School Program

MWDOC School Programs

Calendars

- City of Anaheim
- City of Brea
- City of Buena Park
- City of Fountain Valley
- City of Fullerton
- City of Garden Grove
- City of Huntington Beach
- City of La Habra
- City of La Palma
- City of Orange
- City of San Clemente
- City of Santa Ana
- City of Seal Beach
- City of Tustin
- City of Westminster
- East Orange County Wate...
- El Toro Water District
- Laguna Beach County Wa...
- Moulton Niguel Water Dist...
- Santa Margarita Water Dis...
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water Di...
- Yorba Linda Water District

August 2024

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	Jul 28, 2024	29	30	31	Aug 1	2	3
32	4	5	6	7	8	9	10
33	11	12	13	14	15	16	17
34	18	19	20	21	22	23	24
35	25	26	27	28	29	30	31

Tue 27:
- Parkview Elementa
- Diamond Elementar
- Heroes Elementary

Printed on: 06/24/2025 1:24pm

Pacific Time US & Ca

Powered by teamup

MWDOC K-12 Choice School Program

MWDOC School Programs

Calendars

- City of Anaheim
- City of Brea
- City of Buena Park
- City of Fountain Valley
- City of Fullerton
- City of Garden Grove
- City of Huntington Beach
- City of La Habra
- City of La Palma
- City of Orange
- City of San Clemente
- City of Santa Ana
- City of Seal Beach
- City of Tustin
- City of Westminster
- East Orange County Wate...
- El Toro Water District
- Laguna Beach County Wa...
- Moulton Niguel Water Dist...
- Santa Margarita Water Dis...
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water Di...
- Yorba Linda Water District

September 2024

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
36	Sep 1, 2024	2	3	4	5	6	7
37	8	9 Morningside Schoo	10	11	12 St. Angela Merici S	13 Jefferson Elementa Franklin Elementary	14
38	15	16 Northcutt Elementa Adams Elementary	17	18 Leo Carrillo Elemer	19 Zeyen Elementary (Madison Elementar Red Hill Elementary Bergeson Elementa	20	21
39	22	23 Cook Elementary (K Grace Christian Sch	24 Eisenhower Elemer	25	26 Star View School (3	27 Heritage Elementar Pio Pico Dual Lang	28
40	29	30 Price School (6-8)	Oct 1 Vibrant Minds (6-8) Vibrant Minds (3-5) Carver School (3-5)	2	3	4 Jefferson School (3 Zeyen School (3-5)	5

Printed on: 06/24/2025 1:26pm

Pacific Time US & Ca

Powered by teamup

MWDOC K-12 Choice School Program

MWDOC School Programs

Calendars

- City of Anaheim
- City of Brea
- City of Buena Park
- City of Fountain Valley
- City of Fullerton
- City of Garden Grove
- City of Huntington Beach
- City of La Habra
- City of La Palma
- City of Orange
- City of San Clemente
- City of Santa Ana
- City of Seal Beach
- City of Tustin
- City of Westminster
- East Orange County Wate...
- El Toro Water District
- Laguna Beach County Wa...
- Moulton Niguel Water Dist...
- Santa Margarita Water Dis...
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water Di...
- Yorba Linda Water District

October 2024

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
40	Sep 29, 2024	30 Price School (6-8)	Oct 1 Vibrant Minds (6-8) Vibrant Minds (3-5) Carver School (3-5)	2	3	4 Jefferson School (3 Zeyen School (3-5)	5
41	6	7 Excelsior School (3 LePort Montessori S Franklin School (3-5 Barbara Benson Ele	8 College View Schoo	9	10 Northcutt School (3	11 Madison School (3- Sycamore Magnet A	12
42	13	14 Canyon High Schoo Glen Yermo Elemer	15 Vibrant Minds Char Brookhurst School (Cook School (6-8) Cook School (3-5) Liberty Christian Sc	16 Excelsior Elementa Clegg Elementary (El Cerrito Elementa	17 Canyon Rim Eleme Wakeham Elementa	18 Price Elementary (K Red Hill School (3-5 Post Elementary (K	19
43	20	21 Brookhurst School (	22 Northcutt School (6-	23 Mariposa Elementa Estock School (3-5) Panorama Element	24 Palm Lane Global A Morningside Schoo Hidden Hills Elemer	25 Columbus Tustin M	26
44	27	28	29 Nelson Elementary Robert Heideman E	30 Woodsboro Elemer Commonwealth Ele	31 Esqueda School (3-	Nov 1 Warren School (3-5	2

Printed on: 06/24/2025 1:26pm

Pacific Time US & Ca

Powered by teamup

MWDOC K-12 Choice School Program

MWDOC School Programs

Calendars

- City of Anaheim
- City of Brea
- City of Buena Park
- City of Fountain Valley
- City of Fullerton
- City of Garden Grove
- City of Huntington Beach
- City of La Habra
- City of La Palma
- City of Orange
- City of San Clemente
- City of Santa Ana
- City of Seal Beach
- City of Tustin
- City of Westminster
- East Orange County Wate...
- El Toro Water District
- Laguna Beach County Wa...
- Moulton Niguel Water Dist...
- Santa Margarita Water Dis...
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water Di...
- Yorba Linda Water District

November 2024

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
44	Oct 27, 2024	28	29 Nelson Elementary Robert Heideman E	30 Woodsboro Elemen Commonwealth Ele	31 Esqueda School (3-	Nov 1 Warren School (3-5	2
45	3	4 Edison School (3-5 OCASA Elementary	5 Centralia Elementa St. Cecilia School (	6	7	8	9
46	10	11	12	13 Brea Country Hills E Peterson Elementa	14	15	16
47	17	18	19	20	21	22 St. Jeanne de Lesto	23
48	24	25	26	27	28	29	30

Printed on: 06/24/2025 1:27pm

Pacific Time US & Ca

Powered by teamup

MWDOC K-12 Choice School Program

MWDOC School Programs

Calendars

- City of Anaheim
- City of Brea
- City of Buena Park
- City of Fountain Valley
- City of Fullerton
- City of Garden Grove
- City of Huntington Beach
- City of La Habra
- City of La Palma
- City of Orange
- City of San Clemente
- City of Santa Ana
- City of Seal Beach
- City of Tustin
- City of Westminster
- East Orange County Wate...
- El Toro Water District
- Laguna Beach County Wa...
- Moulton Niguel Water Dist...
- Santa Margarita Water Dis...
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water Di...
- Yorba Linda Water District

December 2024

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
49	Dec 1, 2024	2 Linda Vista Elemen Loma Vista Elemen	3	4	5 Palm Lane Global A	6	7
50	8	9	10	11	12 Emery Elementary Lampson School (3 Our Lady of Fatima Rosita Elementary Linda Vista Magnet	13	14
51	15	16 Acacia School (3-5)	17 Raymond Temple S	18	19	20	21
52	22	23	24	25	26	27	28
1	29	30	31	Jan 1	2	3	4

Printed on: 06/24/2025 1:27pm

Pacific Time US & Ca

Powered by teamup

MWDOC K-12 Choice School Program

MWDOC School Programs

Calendars

- City of Anaheim
- City of Brea
- City of Buena Park
- City of Fountain Valley
- City of Fullerton
- City of Garden Grove
- City of Huntington Beach
- City of La Habra
- City of La Palma
- City of Orange
- City of San Clemente
- City of Santa Ana
- City of Seal Beach
- City of Tustin
- City of Westminster
- East Orange County Wate...
- El Toro Water District
- Laguna Beach County Wa...
- Moulton Niguel Water Dist...
- Santa Margarita Water Dis...
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water Di...
- Yorba Linda Water District

January 2025

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	Dec 29, 2024	30	31	Jan 1	2	3	4
2	5	6	7 Wilson School (3-5) Montevideo School	8 Sunnyside School (Fryberger School (3 St. Edward the Con	9 Taft K-6 & Deaf and DeMille Elementary Lomarena Elementa Esencia K-8 School	10 Acacia Elementary	11
3	12	13 Grace Christian Sch Grace Christian Sch Esencia K-8 School	14	15 Glen Yermo School	16 Thomas Paine Elen Hawes Elementary Jordan Academy (K Warner Middle Sch Oxford Preparatory	17 Fremont Elementar Roosevelt-Walker S	18
4	19	20	21 Christ Lutheran Sch	22 Grace Lutheran Sch Nelson School (3-5	23	24 Ladera Palma Scho	25
5	26	27 Buena Terra Schoo	28 Olivewood Element	29 Brea Country Hills S Fern Dr School (3-5	30 Raymond Temple E Las Lomas Element	31 Beswick Elementar San Juan Elementa	Feb 1

Printed on: 06/24/2025 1:28pm

Pacific Time US & Ca

Powered by teamup

MWDOC K-12 Choice School Program

MWDOC School Programs

Calendars

- City of Anaheim
- City of Brea
- City of Buena Park
- City of Fountain Valley
- City of Fullerton
- City of Garden Grove
- City of Huntington Beach
- City of La Habra
- City of La Palma
- City of Orange
- City of San Clemente
- City of Santa Ana
- City of Seal Beach
- City of Tustin
- City of Westminster
- East Orange County Wate...
- El Toro Water District
- Laguna Beach County Wa...
- Moulton Niguel Water Dist...
- Santa Margarita Water Dis...
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water Di...
- Yorba Linda Water District

February 2025

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
5	Jan 26, 2025	27 Buena Terra Schoo	28 Olivewood Element	29 Brea Country Hills S Fern Dr School (3-5	30 Raymond Temple E Las Lomas Element	31 Beswick Elementar San Juan Elementa	Feb 1
6	2	3	4 Truman Benedict E	5 Jackson School (3- Martin School (3-5) Linda Vista School	6 John Marshall Elem San Joaquin Eleme	7 Manuel Esqueda Sc Wood Canyon Scho Las Flores TK-8 (3-	8
7	9	10	11 Hope View Element Las Palmas Elemer Wagner School (6-8	12 South JHS (6-8) Plavan Elementary Valley High School	13 Buena Terra Schoo	14 Orange Grove Scho Roosevelt School (3	15
8	16	17	18 Acacia School (6-8)	19 Rolling Hills School Smith Elementary (California Inspire Ac Marshall School (3-	20 Shorecliffs Middle S	21 Clegg School (3-5) Orange County Edu	22
9	23	24	25 Anthony School (3-	26 St. Jeanne de Lesto	27 Heritage School (3-	28 Running Springs Sc	Mar 1

Printed on: 06/24/2025 1:31pm

Pacific Time US & Ca

Powered by teamup

MWDOC K-12 Choice School Program

MWDOC School Programs

Calendars

- City of Anaheim
- City of Brea
- City of Buena Park
- City of Fountain Valley
- City of Fullerton
- City of Garden Grove
- City of Huntington Beach
- City of La Habra
- City of La Palma
- City of Orange
- City of San Clemente
- City of Santa Ana
- City of Seal Beach
- City of Tustin
- City of Westminster
- East Orange County Wate...
- El Toro Water District
- Laguna Beach County Wa...
- Moulton Niguel Water Dist...
- Santa Margarita Water Dis...
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water Di...
- Yorba Linda Water District

March 2025

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
9	Feb 23, 2025	24	25 Anthony School (3-	26 St. Jeanne de Lesto	27 Heritage School (3-	28 Running Springs Sc	Mar 1
10	2	3 Jefferson School (3	4	5 Marshall School (3-	6	7 Raymond Temple (	8
11	9	10 Arovista School (3- Mendez Fundamen	11 Mendez Fundamen	12 Smith School (3-5) Lomarena School (	13 Wood Canyon Elen	14 Mendez Fundamen Hayden School (3-5	15
12	16	17 Mendez Fundamen Oak Grove Elemen	18 Mendez Fundamen	19 Kinetic Academy (K	20 Mendez Fundamen	21 Christ Lutheran Sch Mendez Fundamen Cielo Vista Element	22
13	23	24 St. Anne School (K- R.H. Dana Element	25 Bolsa Grande High Mesa View Middle S Diamond School (3-	26 Carrillo School (3-5	27	28 Sierra Vista School Top Of The World E Canyon Vista Eleme	29
14	30	31 Price School (3-5) Hermosa Dr. Schoo Hebrew Academy (Bathgate Elementa Wagon Wheel Scho	Apr 1 Guin Foss School (	2	3 Orange County Edu Taft Elementary (K- St. Cecilia School (	4 Bryant Ranch Scho	5

Printed on: 06/24/2025 1:32pm

Pacific Time US & Ca

Powered by teamup

MWDOC K-12 Choice School Program

MWDOC School Programs

Calendars

- City of Anaheim
- City of Brea
- City of Buena Park
- City of Fountain Valley
- City of Fullerton
- City of Garden Grove
- City of Huntington Beach
- City of La Habra
- City of La Palma
- City of Orange
- City of San Clemente
- City of Santa Ana
- City of Seal Beach
- City of Tustin
- City of Westminster
- East Orange County Wate...
- El Toro Water District
- Laguna Beach County Wa...
- Moulton Niguel Water Dist...
- Santa Margarita Water Dis...
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water Di...
- Yorba Linda Water District

April 2025

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
14	Mar 30, 2025	31 Price School (3-5) Hermosa Dr. Schoo Hebrew Academy (Bathgate Elementa Wagon Wheel Scho	Apr 1 Guin Foss School (3	2	3 Orange County Edu Taft Elementary (K- St. Cecilia School (6	4 Bryant Ranch Scho	5
15	6	7 Carrillo School (6-8 Lakeview School (3	8 Mesa View Middle S R. F. Hazard Eleme Abiding Savior Luth Rose Drive School	9 Kinetic Academy (3 Kinetic Academy (6 Mesa View Middle S	10 Golden View Eleme Village View Eleme	11	12
16	13	14 Monroe School (3-5	15 Carr Middle School	16	17 Gilbert Elementary San Marino Elemen	18 Pendleton School (3 Capistrano Union H	19
17	20	21 San Joaquin Schoo	22 Sunset Lane Eleme Advanced Learning Carr Middle School	23 El Toro High Schoo	24 Ivy Crest Montesso Woodrow Wilson El Arroyo Vista K-8 Sc	25 Olinda Elementary (Sunnyside Element Tustin Memorial Ac	26
18	27	28	29 Olinda School (3-5) Parkview School (3	30	May 1 Harbour View Scho Oxford Prep - South	2	3

Printed on: 06/24/2025 1:32pm

Pacific Time US & Ca

Powered by teamup

MWDOC K-12 Choice School Program

MWDOC School Programs

Calendars

- City of Anaheim
- City of Brea
- City of Buena Park
- City of Fountain Valley
- City of Fullerton
- City of Garden Grove
- City of Huntington Beach
- City of La Habra
- City of La Palma
- City of Orange
- City of San Clemente
- City of Santa Ana
- City of Seal Beach
- City of Tustin
- City of Westminster
- East Orange County Wate...
- El Toro Water District
- Laguna Beach County Wa...
- Moulton Niguel Water Dist...
- Santa Margarita Water Dis...
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water Di...
- Yorba Linda Water District

May 2025

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
18	Apr 27, 2025	28	29 Olinda School (3-5) Parkview School (3	30	May 1 Harbour View Scho Oxford Prep - South	2	3
19	4	5 Gilbert School (3-5) Holy Family Catholi	6	7	8 Westminster High S Montevideo Elemer	9 Oka School (3-5)	10
20	11	12 Garfield School (3-5	13 Peters 4-6 School (	14 Canyon HS (9-12) Las Lomas School	15 Canyon HS (9-12) Monroe Elementary	16 Hope View School (	17
21	18	19 Warren School (6-8 Cielo Vista School (Las Flores TK-8 (6-	20 Las Flores TK-8 (6-	21 Olinda School (6-8)	22 Fountain Valley Hig Meaires School (3-5	23 De Portola School (	24
22	25	26	27 McFadden School (Willmore School (3-	28	29 Circle View School	30	31

Printed on: 06/24/2025 1:32pm

Pacific Time US & Ca

Powered by teamup

MWDOC K-12 Choice School Program

MWDOC School Programs

Calendars

- City of Anaheim
- City of Brea
- City of Buena Park
- City of Fountain Valley
- City of Fullerton
- City of Garden Grove
- City of Huntington Beach
- City of La Habra
- City of La Palma
- City of Orange
- City of San Clemente
- City of Santa Ana
- City of Seal Beach
- City of Tustin
- City of Westminster
- East Orange County Wate...
- El Toro Water District
- Laguna Beach County Wa...
- Moulton Niguel Water Dist...
- Santa Margarita Water Dis...
- Serrano Water District
- South Coast Water District
- Trabuco Canyon Water Di...
- Yorba Linda Water District

June 2025

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
23	Jun 1, 2025	2 Van Buren School (Van Buren School (	3 Prospect School (3-	4	5 Travis Ranch Schoo	6 California School (3	7
24	8	9	10 Hawes School (3-5)	11	12	13	14
25	15	16	17	18	19	20	21
26	22	23	24	25	26	27	28
27	29	30	Jul 1	2	3	4	5

Printed on: 06/24/2025 1:33pm

Pacific Time US & Ca

Powered by teamup









WATER POLICY FORUM & DINNER, JUNE 26
FEAT: HON. TROY EDGAR

Event Highlights:

- **Discussion on new administration's policy and the direct impact on California's water future, including federal infrastructure priorities and regional challenges**
- **180 attendees**



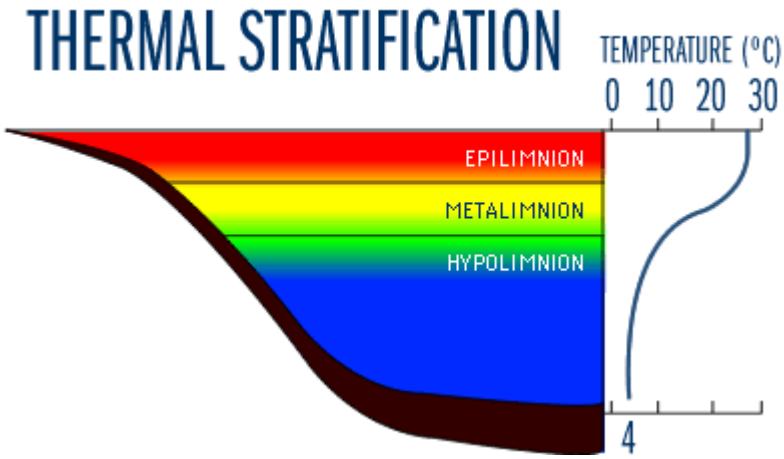






ENGINEERING & PLANNING	
Orange County Water Demand Forecast Project and 2025 Urban Water Management Plan	The Urban Water Management Planning Act enacted by the California legislature requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare, adopt, and file an Urban Water Management Plan (UWMP) with the California Department of Water Resources (DWR). These reports are required every five years. The upcoming UWMP cycle is the 2025 UWMP which will be due to DWR on July 1, 2026. On December 18, 2024, the MWDOC Board approved a contract award to Hazen and Sawyer (Hazen) to provide professional services for the 2025 Orange County Water Demand Forecast Project to support 2025 UWMP development. The project began in January 2025, and an All-Agency Kickoff Meeting took place in mid-February 2025. The project remains on schedule. A draft of the demand projections will be presented to Orange County agencies for review and comment at an all-agency workshop in August 2025, followed by a second presentation at the MWDOC Member Agencies meeting. A final presentation to the Board is anticipated in October 2025. MET water supply projections are anticipated in December 2025. The 2025 UWMP schedule aligns with the demand forecast development. MWDOC staff began the procurement process to select a consultant for the 2025 UWMPs preparation. See agenda item in this packet for details of a staff recommendation for consideration of authorization for a MWDOC Shared Services Program to assist agencies with their 2025 UWMPs. Currently 22 agencies have indicated interest in participating in the program. Pending Board authorization, final agency signups are anticipated in September 2025.
MWDOC GIS Needs Assessment	Geographic Information System (GIS) is a technology used to create, manage, and analyze many types of data. It is a necessary resource for regional water reliability planning, water operations and management, water use efficiency planning & management, and emergency response coordination, among many other uses. GIS is more than a mapping tool. Its applications cover four key components vital to MWDOC's role as a regional planner, including: **Data management -** GIS is a foundational system of record allowing for the optimization of data storage and integration from business systems and other sources in such a way that organizes and magnifies data's usefulness (e.g. integration of documents in Laserfiche to include location and temporal

	information, ability to automate some billing processes, and ability to share organized data between departments and agencies quickly and efficiently). **Spatial analysis -** GIS spatial analysis tools allow users to find hidden relationships, generate new insights, and gain the ability to analyze data in ways other methods of data storage do not provide. **Mapping and visualization -** GIS provides tools to understand real time data, and satellite imagery by way of powerful visual representations such as digital maps and dashboards. **Communication –** Maps and dashboards communicate complex ideas quickly, building common understanding, supporting collaboration and promoting problem-solving. MWDOC's current in-house GIS capabilities and use are limited and there is no formalized data governance plan, or overarching data management protocols or procedures to ensure maximum flexibility in data collaboration. Most MWDOC departments employ GIS in limited forms and operate principally in their own space with cooperation and sharing of data as projects develop and need requires (e.g. for projects under Shared Services programs). As a regional planning agency, MWDOC recognizes the need to be a central resource for data for water agencies in Orange County, primarily our retail Member Agencies. As administrator of several Shared Service Programs, MWDOC provides additional value to its Member Agencies through the processing and analyses of data to assist in meeting regulatory compliance and other goals depending on specific projects or programs. MWDOC Member Agencies vary greatly in staffing resources and capabilities as well as data formatting and hosting platforms. As a result, MWDOC needs a flexible and scalable GIS system architecture to support a wide range of data and data formats with the ability to serve a diverse customer base. On March 19, 2025, the MWDOC Board approved a contract award to FLO Analytics (FLO) to provide professional services for the MWDOC GIS Needs Assessment. The MWDOC GIS Needs Assessment will provide a high-level assessment to evaluate the current GIS environment, assess organizational and departmental GIS needs, and develop a strategy, roadmap, and business case for successful GIS implementation. The effort kicked off in early April 2025, and interviews with MWDOC staff and multiple agencies have been completed to assess how MWDOC can best serve its member agencies. Staff is currently working with FLO to finalize the assessment report, and plan to present the GIS needs assessment findings and recommendations to the Board at the August 4, 2025, P&O committee meeting. GIS implementation phase is anticipated to begin in FY 2025-26 and extend for multiple years to develop a GIS system architecture framework from which to further enhance specific GIS capabilities. This would include specific projects designed to demonstrate the value of MWDOC's GIS initiative and

	investments. Additional efforts would continue to improve upon the original framework and expand MWDOC's GIS capabilities to serve future needs as they evolve.
Lake Mathews - Upper Feeder Shutdown - Outlet Tower Repairs July 12-25, 2025.	On May 12, 2025, Metropolitan began a four-day scheduled shutdown of the Lake Mathews outlet tower #2 (the primary outlet tower) to conduct routine maintenance work associated with quagga mussels. As part of the plan, the older (alternate) outlet tower #1 was pressed into service. During the outlet tower transition, a slide gate on tower #1 seized up in a half open position and ceased movement, thereby allowing water to continuously discharge from the lake into the forebay that supplies water to the Upper and Lower Feeders. Although manageable, water quality conditions in Lake Mathews are anticipated to change as extended hot summer periods approach, leading to the need for a shutdown from July 21-25, 2025, to repair the gate and return the outlet tower to normal service. In warm weather months, lakes and surface reservoirs often develop distinct layers (stratification) due to temperature differences. The warmest, least dense water stays at the surface, while cooler, denser water sinks to the bottom.  (*Image from: https://wateronthewebb.org/*) During high summer temperature periods, the stagnant lower layer (hypolimnion in the image above) in Lake Mathews also experiences a drop in oxygen concentration. This can lead to odor issues. The subject tower #1 gate is pulling water from the lower layer of the lake and needs to be closed or returned to normal service to reduce the risk of odor issues later in the summer. The July 21-25, 2025 shutdown is to affect these repairs. Diemer and Weymouth water treatment plants are transitioning to 100% State Water Project blend to remain in service during the repairs; however, the Upper Feeder and the Santiago Lateral servicing the Trabuco Canyon Water District Dimension Water Treatment Plant and the Baker Water Treatment Plant will be out of service.

General Managers Report
WEROC Status Report

JUNE 2025

JUNE EVENTS

(EVENTS LISTED ONLY INCLUDE WEROC INVOLVEMENT. EVENTS AND INCIDENTS HAPPEN EVERYDAY, BUT MAY NOT REQUIRE REPORTING, OR COORDINATION WITH WEROC)

Grand Theft – Copper Theft Incidents
Two member agencies experienced copper theft incidents requiring WEROC coordination.

WEROC AGENCY PLANNING, COORDINATION AND PROGRAM EFFORTS

AlertOC – Orange County Mass Notification System
In coordination with the Orange County Sheriff's Department Emergency Management Division, WEROC hosted a user training session for member agencies. Janine continues to collect and process user agreements required for system renewal.

America's Water Infrastructure Act (AWIA) Compliance
June was a high-activity month, with 16 meetings held across Tier I and Tier II agency groups:

- **Tier I ERP Updates:**
  Emergency Response Plan updates are underway with Herndon Solutions Group (HSG). Agencies are completing gap assessments, and some have requested additional support. All requests for additional HSG work are due by July 31 to accommodate required change orders. Tier I agencies must self-certify ERP completion to the EPA by September 30, 2025.
- **Tier II RRA Coordination:**
  Risk and Resilience Assessment (RRA) meeting cycles are in progress. Agencies must certify RRAs to the EPA by December 31, 2025.
- **EPA Compliance Audits:**
  EPA has initiated audits based on the previous AWIA cycle. WEROC will brief the Board if any audits occur in Orange County.

Multi-Jurisdictional Hazard Mitigation Plan (MJHMP)
Vicki continues to support participating agencies as they adopt the MJHMP. As of July 1, 2025, 13 of 15 agencies have submitted adoption resolutions. FEMA is issuing updated approval letters upon each submission. The plan is effective through April 15, 2030.

Operational Area, State and Federal Activities and Meetings
WEROC staff participated in the following key events:

- June 5: OCEMO Monthly Meeting – Gabby attended and participated in the Training & Exercise Subcommittee.
- June 13: Vicki attended the CESA Legislative Committee (40+ emergency management bills reviewed).
- CalWARN Regional Chair Meeting: Vicki facilitated this month's meeting, which focused on governance updates and a website refresh.
- Water Policy Dinner (June 26): Vicki represented WEROC.
- ACC-OC Leadership Summit & Awards: Vicki attended with the MWDOC team; congratulations to the MWDOC Water Loss Program for being recognized.

WEROC Quarterly Coordination Meeting
Held: June 23, 2025
Highlights included a joint planning session with **Verizon Wireless**, focusing on fire season coordination. Two follow-up meetings are scheduled for August. Other agenda topics:

- Verizon Partnership Planning
- AWIA & MJHMP Updates
- Mobile Command Vehicle/Generator Mutual Aid Request Process
- Fire Season SOP Implementation
- OCFA Coordination (Fire Marshal & Joint Ops Briefings)
- State Fire Hazard Mapping Updates
- AlertOC Memorandum of Understanding
- Water/Wastewater Atlas Update
- UASI Grant Status
- WEROC Credentialing Program – Task Book Rollout
- Emergency Management Legislation Update
- Training & Exercise Calendar Review
- SharePoint Usage Discussion

WEROC Mapping Project
The mapping project is now complete. Janine has distributed hard copy atlases, wall maps, and GIS shapefiles of infrastructure to member agencies. These have already proven valuable in recent emergency coordination efforts, particularly with OCFA at Incident Command Posts.

WEROC Task Book & Training Program
The final Type IV Position Task Books and related training materials were released to member agencies following feedback. Gabby presented the final version at the June Quarterly Meeting.

WEROC Plans Development & Updates

- Regional Fire SOP: Finalized and distributed.
- Wildfire Water Quality Sampling Plan Template: Developed and shared with member agencies.
- WEROC EOP Update: Currently in formal revision..
- MCV & Generator Mutual Aid Policy: Finalized and in effect as of July 1.
- Resource Request Prioritization Questions: Developed to align with state mutual aid standards for personnel and equipment.

WEROC Presentations, Training and Exercises

Presentations

- June 10: Gabby and Janine showcased the Mobile EOC at the OCEMO meeting hosted by OC SAN.
- June 26: Gabby delivered a “WEROC 101” overview to the Irvine Ranch Water District Emergency Operations Team.

Training & Exercises

- June 10: Tabletop Exercise for City of Seal Beach (multi-discipline).
- June 11: Gabby briefed West County CERT teams (6 cities) on CERT roles in water distribution.
- June 12: Vicki led ICS G-402 training for elected officials and executives.
- June 18: Mentoring session with a newly transitioning military emergency manager.
- June 19: Vicki provided 800MHz radio training for Costa Mesa Sanitary District operations staff.
- June 24: EOC Management training developed and delivered to OC SAN.
- June 25: Gabby conducted a virtual AlertOC user training with County support.

Status of Water Use Efficiency Projects
June 2025

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
SoCal Water$mart Residential Indoor Rebate Program	MWDSC	Ongoing	Ongoing	In May 2025, 80 high-efficiency clothes washers and 24 residential premium high-efficiency toilets were installed in Orange County. To date, 131,036 high-efficiency clothes washers and 61,926 high-efficiency toilets have been installed through this program.
SoCal Water$mart Commercial Rebate Program	MWDSC	Ongoing	Ongoing	In May 2025, 161 commercial premium high-efficiency toilets were installed in Orange County. To date, 119,662 commercial devices have been installed through this program.
Flow-Monitoring Device Rebate Program	MWDSC	Ongoing	Ongoing	In May 2025, 21 flow-monitoring devices were installed in Orange County. To date, 993 flow-monitoring devices have been installed through this program. More than 3,300 verified flow-monitoring devices have been installed in Orange County; however, not all were installed via the rebate program.
Smart Timer Rebate Program	MWDSC	Ongoing	Ongoing	In May 2025, 70 residential and 15 commercial smart timers were installed in Orange County. To date, 35,590 smart timers have been installed through this program.
Rotating Nozzles Rebate Program	MWDSC	Ongoing	Ongoing	In May 2025, 998 rotating nozzles were installed in Orange County.

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Rotating Nozzles Rebate Program (cont.)				To date, 585,691 rotating nozzles have been installed through this program.
Rain Barrel Rebate Program	MWDSC	Ongoing	Ongoing	In May 2025, 8 rain barrels were installed in Orange County. To date, 9,066 rain barrels have been installed through this program.
Turf Replacement Program	MWDOC	Ongoing	Ongoing	In May 2025, 21 rebates were paid, representing $405,868.20 in rebates paid this month in Orange County. To date, the Turf Replacement Program has removed approximately 29.3 million square feet of turf.
Spray to Drip Rebate Program	MWDOC	Ongoing	Ongoing	In May 2025, 19 rebates were paid, representing $134,623.00 in rebates paid this month in Orange County. To date, the Spray to Drip Program has converted approximately 5.1 million square feet of standard spray irrigation to drip irrigation.
Tree Rebate Program	MWDOC	Ongoing	Ongoing	In May 2025, 33 eligible trees were planted in Turf Replacement Program project areas. To date, 221 trees have been planted through this program.
Landscape Design Rebate Program	MWDOC	Ongoing	Ongoing	In May 2025, 3 landscape designs received a rebate through the MWDOC Turf Replacement Program. To date, a total of 1,158 landscape design and/or landscape maintenance packages have been delivered to MWDOC Turf Replacement Program customers.

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Industrial Process/ Water Savings Incentive Program (WSIP)	MWDSC	Ongoing	Ongoing	This program is designed to improve water efficiency for commercial customers through upgraded equipment or services that do not qualify for standard rebates. Incentives are based on the amount of water customers save and allow customers to implement custom water-saving projects. Total water savings to date for the entire program is 1,269 AFY and 10,925 AF cumulatively.
Recycled Water Retrofit Program	MWDSC	Ongoing	Ongoing	This program provides incentives to commercial sites for converting dedicated irrigation meters to recycled water. To date, 194 sites irrigating a total of 1,756 acres of landscape have been converted. The total potable water savings achieved by these projects is 3,901 AFY and 31,171 AF cumulatively.

Public & Governmental Affairs Activities Report
May 28, 2025 – July 8, 2025

Member Agency Support	Public Affairs Staff: • Assisted with the design, printing, and dispersal of the summer bill inserts for the requesting member agencies in collaboration with the Water Use Efficiency department • Government Affairs Staff: • Circulated the Grants Tracking and Acquisition monthly report to all participating member agencies • Provided an update at the MWDOC Member Agencies General Manager on the status of the Delta Conveyance Project Budget Trailer Bill, and invited those who were not yet on the coalition letter to email staff to be added
Community and Special Events	Public Affairs Staff: • Hosted the 2025 Water Awareness Poster Contest Awards Ceremony at Shipley Nature Center: View the winning posters • Submitted artwork to The Metropolitan Water District of Southern California's annual Water is Life calendar contest • Made a Ricky Raindrop℠ appearance at Santa Margarita Water District's annual Water Festival • Made a Ricky Raindrop℠ appearance at the Fountain Valley Youth in Government Day • Attended the Association of California Cities- Orange County Leadership Summit & Golden Hub of Innovation Awards Government Affairs Staff: • Coordinated with ACC-OC, OCBC, and SOCEC to email their membership, re: support for the Delta Conveyance Plan (DCP) streamlining bill package • Participated in the OCBC Infrastructure Committee meeting • Attended the ACC-OC Leadership Summit and Golden Hub of Innovation Awards • Participated in the OCBC Government Affairs Committee meeting • Attended the ACC-OC Legislative and Regulatory Committee meeting • Met with Kris Murray, Executive Director at ACC-OC to discuss coordination and/or partnership for future events
K-12 Water Education	Public Affairs Staff: • Provided information regarding the MWDOC K-12 Choice School Program to: City of Anaheim, City of Fullerton, City of Santa Ana, Moulton Niguel Water District, Irvine Ranch Water District, and City of Fountain Valley • Met with Orange County Public Works, Stormwater Program regarding interest in opting into the MWDOC Choice School Program

	• Attended The Metropolitan Water District of Southern California's Water Education Coordinators monthly meeting • Participated in the Department of Water Resources Water Education Committee Meeting annual conference
Workforce Initiative: Water Energy Education Alliance (WEEA)	Public Affairs Staff: • **Speaker's Bureau:** Presented at the California Water Efficiency Partnership Peer to Peer 2025 Conference • Met with the California Environmental Education Foundation (CEEF) to discuss session plans for the 2025 Teacher Institute o Met with co-presenter, the Orange County Department of Education's Inside the Outdoors, to discuss our session outline and presentation plan for the CEEF 2025 Teacher Institute • Participated in the quarterly Water & Power Industry Advisory Council meeting • Participated in an interview with students from the University of California-Irvine on California water sector workforce development initiatives • Coordinated several interviews with various water agencies and participated in the California State University (CSU)-Water Career Video Series • Met with Moulton Niguel Water District to discuss sponsorship benefits of the Water Energy Education Alliance (WEEA) • Confirmed participation on a new advisory committee with the Orange Unified School District to develop a Career Technical Education (CTE) Environmental Science Pathway program at Villa Park High School • Distributed a new Workforce Development Playbook created for Human Resource professionals and industry leaders as an advisory participant in the California Water, Wastewater, and Energy Workforce Development Program led by the California Municipal Utilities Association • *For this period, LinkedIn post reach: 36,645*
Digital Communications, Publications, and Media Engagement	Public Affairs Staff: • Prepared and delivered the June edition of eCurrents o 56% Open rate (utilities average 28%) • Completed several updates for the MWDOC.com website • Developed and distributed social media content across all MWDOC social media channels • Submitted articles to the Association of California Water Agencies (ACWA) o MWDOC Celebrates 2025 Water Awareness Poster Contest Winners o MWDOC Scouts Clinics Educate Orange County Youth and Their Families

Special Projects	Public Affairs Staff: • Presented Mesa Water District with a certificate of recognition for their partnership with the Girl Scouts clinic at their facility in March • Prepared and sent the second and final invites for the MWDOC Water Policy Forum & Dinner • Hosted the MWDOC Water Policy Forum & Dinner on June 26, 2025, at The Westin South Coast Plaza featuring Hon. Troy Edgar, Deputy Secretary, U.S. Department of Homeland Security Governmental Affairs Staff: • Drafted and circulated the ISDOC Executive Committee agenda • Edited and finalized the ISDOC Executive Committee minutes • Researched past iterations of the ISDOC bylaws, going back to 2002 and shared possible updates to the current bylaws the Executive Committee could make • Staffed the ISDOC Executive Committee meeting • Staffed the WACO Planning Committee meeting • Coordinated with the June WACO speakers, re: program and background materials needed • Staffed the June WACO meeting featuring speakers Dave Pedersen from LVMWD and a representative from the Department of Insurance, re: fire preparedness • Drafted and distributed the WACO Planning Committee agenda • Along with Rachel Davis, met with EPA staff to discuss the Water Loss Control Program for a potential upcoming feature
Outreach Metrics	Public Affairs Staff: • Google Performance Analytics (GM Report Timeframe) o 306 business profile interactions o 2,001 people viewed the business profile • Website Analytics (GM Report Timeframe) o 11,616 pageviews o Top pages for this date range ▪ Home Page – 2,371 ▪ Residential Rebates – 585 ▪ Careers – 564 ▪ Agendas, Packets, Minutes – 551 ▪ Turf Replacement - 457 ▪ RFPs/RFQs – 409 o ocwatersmartparks.com: 4 site sessions • ocwatersmartgardens.com Analytics (May 2025) o 766 Sessions, 611 New Users o Top pages for this date range ▪ Eligible Sustainability Feature Trees ▪ Helpful Plant List ▪ Orange County Favorite Trees • Social Media (GM Report Timeframe) *According to Hootsuite – the global leader in social media management –a good engagement rate is between 1% to 5%.* For this period, MWDOC's engagement rate is 8.2% o 77,824 post reach (number of people)

	▪ 6,382 Post engagement (actions taken – likes, shares, etc.)
Legislative Affairs	Governmental Affairs Staff: • Worked with NRR, re: WaterSMART funding – coordinated our support position that it be funded in the budget, and potential grant funding availability • Added MWDOC member agencies to the DCP streamlining budget trailer bill (BTB) coalition letter • Met with staff at Metropolitan Water District, re: Orange County outreach on the DCP BTB efforts • Participated in the SCWC Legislative Task Force meeting • Attended the ACWA Region 10 State Legislative Committee prep meeting • Participated in the CMUA Water LIRA Strike Team meeting • Along with Director Seckel, attended the OCBC Legislative Roundtable discussion with Assemblywoman Cottie Petrie-Norris • Met with Senator Tony Strickland's staff to discuss special districts and CSDA priorities • Met with Assemblywoman Cottie Petrie-Norris's district director, re: DCP BTB • Met with Assemblyman Tri Ta's Capitol Director and Legislative Director to discuss the DCP BTB benefits to Orange County • Met with Assemblywoman Diane Dixon's District Director, re: DCP BTB • Met with staff at Assemblywoman Blanca Pacheco's office to discuss the DCP BTB benefits to Orange County • Met with staff at Senator Bob Archuletta's office to discuss the DCP BTB benefits to Orange County • Participated in the Metropolitan Legislative meeting related to DCP BTB outreach, and shared feedback received from our delegation to date • Attended the CMUA Advanced Clean Fleets Working Group meeting • Along with Stacy Taylor from Mesa Water, met with Senator Tony Strickland's Chief of Staff to discuss the DCP BTB benefits to Orange County • Along with Stacy Taylor from Mesa Water, met with Senator Tony Strickland's Chief of Staff to discuss the DCP BTB benefits to Orange County • Stacy Taylor and I also met with staff from Senator Steven Choi's office to discuss the DCP BTB benefits • Met with Assemblywoman Sharon Quirk Silva's District Director to discuss the DCP BTB benefits to Orange County • Met with staff at Assemblyman Phillip Chen's office to discuss the DCP BTB benefits to Orange County • Along with Stacy Taylor of Mesa Water, met with Senator Blakespear's Orange County staff to discuss the DCP BTB

	• Attended the CMUA Regulatory Committee meeting • Participated in the CMUA Legislative Committee meeting • Met with staff at Assemblyman Avelino Valencia's office to discuss the benefits of the DCP BTB and encouraged them to sign on to the legislator coalition letter • Participated in the CSDA Legislative Committee meeting • Coordinated with Metropolitan to add MWDOC to the Golden Mussels Budget Trailer Bill request for support letter • Attended the ACWA State Legislative Committee meeting • Coordinated with the Metropolitan DC office to be added to the coalition letter urging full funding of the WaterSMART program • Participated in the CSDA Brown Act Working Group meeting • Participated in the Metropolitan Member Agency Legislative meeting • Attended the Golden Mussels Coalition Working Group meeting