MEETING OF THE BOARD OF DIRECTORS OF THE
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
Jointly with the
PLANNING & OPERATIONS COMMITTEE
18700 Ward Street, Conference Room 101, Fountain Valley, CA 92708
May 4, 2026, 8:30 a.m.

Teleconference Sites:
17420 Walnut Street, Fountain Valley, CA 92708
25652 Paseo De La Paz, San Juan Capistrano, CA 92675

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**
Webinar ID: **882 866 5300#**

P&O Committee:
Director Seckel, Chair
Director McVicker
Director Yoo Schneider

Staff: H. De La Torre, M. Baum-Haley, A. Crespi, C. Busslinger, V. Osborn, K. Pham

Ex Officio Member: President Dick

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 THE 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 ITEM

1. MAKING CONSERVATION A CALIFORNIA WAY OF LIFE FRAMEWORK AND MWDOC TECHNICAL ASSISTANCE UPDATE

ACTION ITEMS

2. NV5 GEOSPATIAL LANDSCAPE CLASSIFICATION AND MAPPING CONTRACT CHANGE ORDER

3. ADOPT A RESOLUTION TO SUPPORT A BUREAU OF RECLAMATION 2026 WATERSMART SMALL-SCALE WATER EFFICIENCY PROJECTS GRANT APPLICATION

4. AWARD OF CONTRACT FOR GEOGRAPHIC INFORMATION SYSTEM (GIS) IMPLEMENTATION ASSISTANCE

5. SCHEDULE PUBLIC HEARING FOR CONSIDERATION OF RESOLUTIONS TO ADOPT THE 2025 WATER SHORTAGE CONTINGENCY PLAN AND 2025 URBAN WATER MANAGEMENT PLAN

INFORMATION ITEMS

6. JUNE 15 WATER POLICY FORUM

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 18700 Ward Street, Unit B, Fountain Valley, CA 92708. 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
May 4, 2026

TO: **Planning & Operations Committee**

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

Staff Contact: Rachel Waite-Harvey, WUE Programs Supervisor

SUBJECT: **MAKING CONSERVATION A CALIFORNIA WAY OF LIFE FRAMEWORK AND MWDOC TECHNICAL ASSISTANCE UPDATE**

STAFF RECOMMENDATION

Staff recommends the Planning & Operations Committee receive the presentation.

REPORT

Purpose

This presentation item will provide an update to the Planning & Operations Committee on the Making Conservation a California Way of Life Framework (Way of Life Framework) and how the Municipal Water District of Orange County (MWDOC or District) supports its Member Agencies, as well as the cities of Anaheim, Fullerton, and Santa Ana (Three Cities), with compliance.

Background

In 2018, the California State Legislature enacted two policy bills, Assembly Bill (AB) 1668 and Senate Bill (SB) 606, establishing a new foundation for long-term improvements in water conservation and drought planning. The regulation, also known as the Way of Life Framework, does not replace SBx7-7 (2008), which called for a 20% reduction in water use by 2020; instead, it focuses on a water budget-based approach.

Under the Way of Life Framework, an Urban Water Supplier is defined as a public or private entity that provides municipal water to more than 3,000 customers or supplies more than 3,000 acre-feet annually. There are 26 Urban Water Suppliers in Orange County, including the cities of Anaheim, Fullerton, and Santa Ana.

The Way of Life Framework requires each Urban Water Supplier to calculate and report its specific Urban Water Use Objective (UWUO), and to stay within its calculated annual water budget, as shown in Figure 1 below.



Figure 1*. An Urban Water Supplier will calculate its UWUO and actual water use. Actual use must be less than or equal to the annual UWUO.*

The UWUO is the aggregate efficient water use of the following, as demonstrated in Figure 2 below.

- Indoor Residential Use (population x Gallons Per Capita per Day (GPCD) standard);
- Outdoor Residential Use (measurements of irrigated/irrigable area, local weather data, and a landscape efficiency factor);
- Outdoor Use with Dedicated Irrigation Meters (measurements of irrigated area, local weather data, and a landscape efficiency factor);
- Distribution System Water Losses;
- Approved Variances; and
- Potable Reuse Bonus.

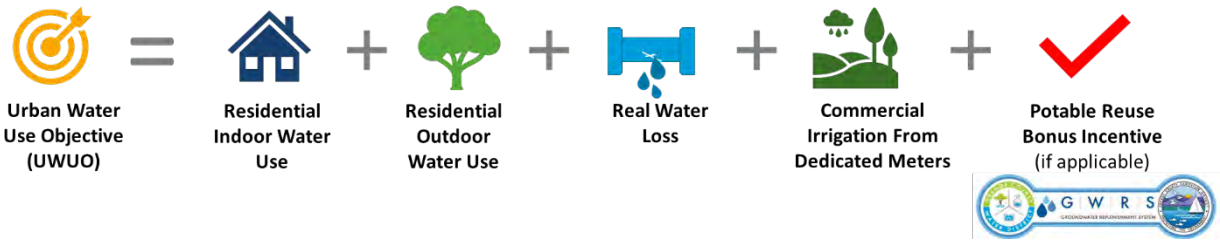


Figure 2. *Water efficiency standards were set for residential indoor and outdoor use, real water loss, and commercial and public landscapes irrigated with dedicated meters. The UWUO is the aggregate efficient water use of these sectors, and Orange County Basin agencies may receive a bonus for accessing potable reuse water through Orange County Water District's Groundwater Replenishment System. Variances are not listed in this graphic due to their infrequency of use in Orange County.*

Additionally, the Way of Life Framework includes commercial, industrial, and institutional (CII) non-volumetric Performance Measures, including CII customer account classifications, thresholds for converting mixed-use CII meters (MUMs) irrigating over one-half of an acre of landscape to dedicated meters or in-lieu technologies, CII best management practices (BMPs), and identification of and information sharing with disclosable buildings.

Urban Water Suppliers must submit annual reports detailing their UWUO, actual water use, CII Performance Measures, and related components.

Discussion

MWDOC staff will provide an overview presentation on how the District supports its Member Agencies and the Three Cities in complying with the Way of Life Framework, covering the history of water efficiency regulations, the technical assistance services MWDOC provides, current compliance reporting status, and projections as standards become more stringent.

MWDOC offers both in-house-run programs and technical assistance through the Choice Program's shared services to help Orange County Urban Water Suppliers comply with the Way of Life Framework. The consultant services are provided by Environmental Incentives and NV5 Geospatial (NV5G).

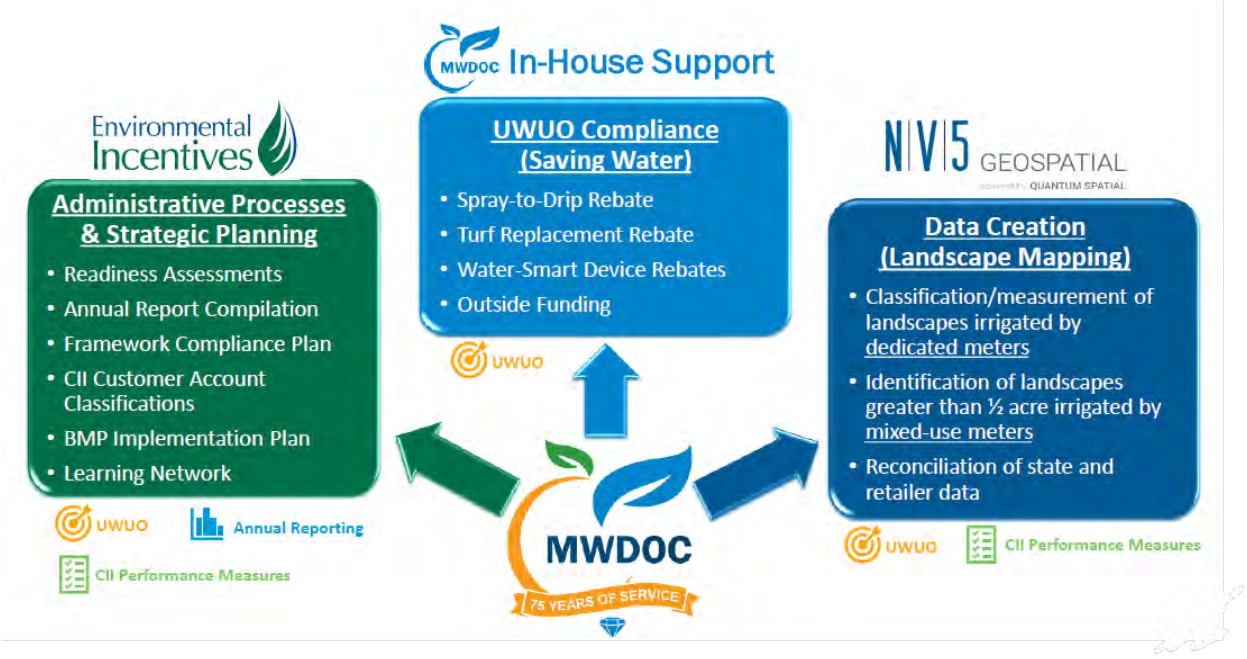


Figure 3. *Urban Water Use Objective implementation Choice Program shared services to help Orange County Urban Water Suppliers comply with the Way of Life Framework.*

MWDOC's Way of Life Framework Technical Assistance shared services have been accessed by 24 of the 26 Urban Water Suppliers in Orange County. The collaboration and coordination among MWDOC, its Member Agencies, the Three Cities' staff, and the Environmental Incentives and NV5G consultants have been highly beneficial. Urban Water Suppliers' participation and feedback have been overwhelmingly positive.

Next Steps

To date, substantial work has been completed, and the Orange County Urban Water Suppliers are on the right path forward. However, additional work is required to ensure long-term compliance with the Way of Life Framework. Staff will continue to coordinate technical assistance through shared services to assist with compliance.

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

- ☒ *Clarifying MWDOC's mission and role; defining functions and actions.*
- ☐ *Balance support for Metropolitan's regional mission and OC values and interests.*
- ☒ *Strengthen communication 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.*

Attachments/Links:
Attachment 1: Way of Life Framework Update & MWDOC Technical Assistance Update Presentation



Way of Life Framework & MWDOC Technical Assistance Update

Planning & Operations Committee
May 4, 2026

Presentation Content

1. Way of Life Framework
2. Framework Technical Assistance
3. Landscape Area Measurements
4. Compliance Status & Projections
5. Timeline & Next Steps

Water Efficiency Regulations

MWELO (1990) *Model Water Efficient Landscape Ordinance*
Sets new development and retrofitted landscape water efficiency standards (design requirements).

SB x7-7 (2008) *Water Conservation Act*
Implemented the plan to reduce state-wide water use 20% by 2020.

Key MWELO Update (2015)
More stringent water standards; lowers maximum turf coverage and enhances irrigation efficiency.

SB 555 (2015)
Requires water suppliers to submit annual Water Loss Audits.

Drought State of Emergency
(2014) Mandatory conservation actions; reduce water use 20% statewide; required water suppliers to activate Water Shortage Contingency Plans.
(2015) Statewide mandatory water reductions.

Executive Order B-37-16 (2016)
Call to move from temporary, emergency conservation to a long-term, customized approach.

AB 1668 & SB 606 (2018)
Making Conservation a CA Way of Life
Supplier-Level framework comprising water-efficiency standards and best practices.

SB 1157 (2022)
Establishes stricter, long-term indoor residential water use standards for Way of Life Framework.

AB 1572 (2023)
Potable irrigation ban for nonfunctional turfgass in commercial landscapes.

MWDOC
75 YEARS OF SERVICE

Water Efficiency Regulations

AB 1572 (2023)
Potable irrigation ban for nonfunctional turfgass in commercial landscapes.

SB 1157 (2022)
Establishes stricter, long-term indoor residential water use standards for Way of Life Framework.

AB 1668 & SB 606 (2018)
Making Conservation a CA Way of Life
Supplier-level framework comprising water-efficiency standards and best practices.

- **Volumetric water budget**
  Urban Water Use Objective (UWUO)
- **Non-volumetric** administrative tasks
  CII Performance Measures
- **Reporting** progress, status, and results
  Annual Reporting

MWDOC
75 YEARS OF SERVICE

In-House Support

Environmental Incentives

Administrative Processes & Strategic Planning

- Readiness Assessments
- Annual Report Compilation
- Framework Compliance Plan
- CII Customer Account Classifications
- BMP Implementation Plan
- Learning Network

UWUO | Annual Reporting | CII Performance Measures

UWUO Compliance (Saving Water)

- Spray-to-Drip Rebate
- Turf Replacement Rebate
- Water-Smart Device Rebates
- Outside Funding

UWUO



NV5 GEOSPATIAL

powered by QUANTUM SPATIAL

Data Creation (Landscape Mapping)

- Classification/measurement of landscapes irrigated by dedicated meters
- Identification of landscapes greater than ½ acre irrigated by mixed-use meters
- Reconciliation of state and retailer data

UWUO | CII Performance Measures



In-House Support

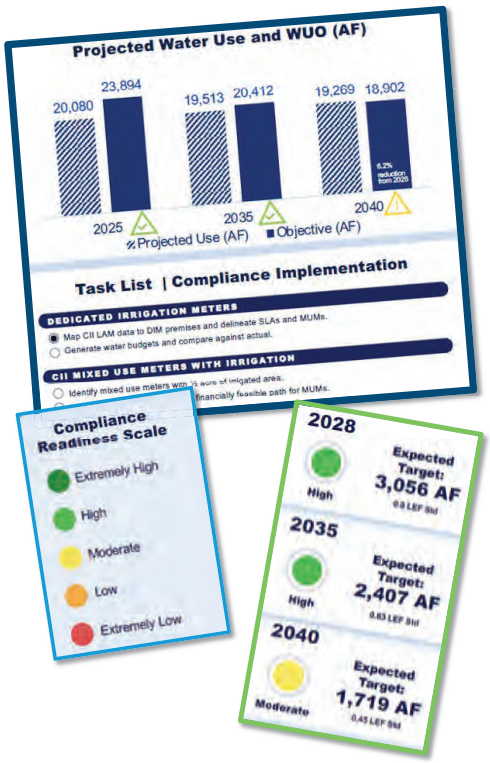
UWUO Compliance (Saving Water)

- ✓ **6.6M square feet** of irrigated area converted from **Spray-to-Drip** irrigation
- ✓ **31M square feet** of **Turfgrass Replaced** with OC-Friendly landscapes
- ✓ **1.6M** Water-Smart Devices installed
- ✓ **$124M** of outside funding provided since 2001
- ✓ Saving **19.5B** gallons annually!

UWUO







Environmental Incentives

Administrative Processes & Strategic Planning

- ✓ **21** Readiness Assessments created
- ✓ **16** Annual Reports compiled
- ✓ **8** Framework Compliance Plans underway
- ✓ **25,000** CII Customer Accounts classified (more underway)
- ✓ **8** BMP Implementation Plans in progress
- ✓ **4** in-person Learning Network Workshops; **3** more planned in 2026

UWUO | Annual Reporting | CII Performance Measures





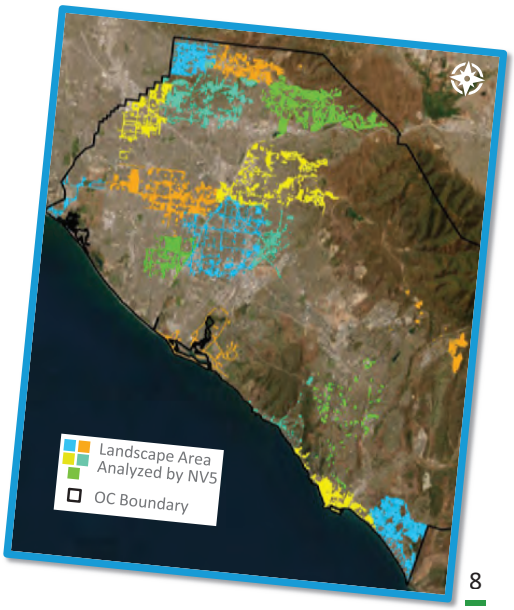
NV5 GEOSPATIAL

powered by QUANTUM SPATIAL

Data Creation (Landscape Mapping)

- ✓ Classification/measurement of landscapes irrigated by **10,200** dedicated meters for **18** agencies; **2** agencies in progress
- ✓ From **5,000** meters, identification of **560** landscapes greater than ½ acre irrigated by mixed-use meters; more in progress
- ✓ Reconciliation of state and retailer data for **3** agencies; more in progress

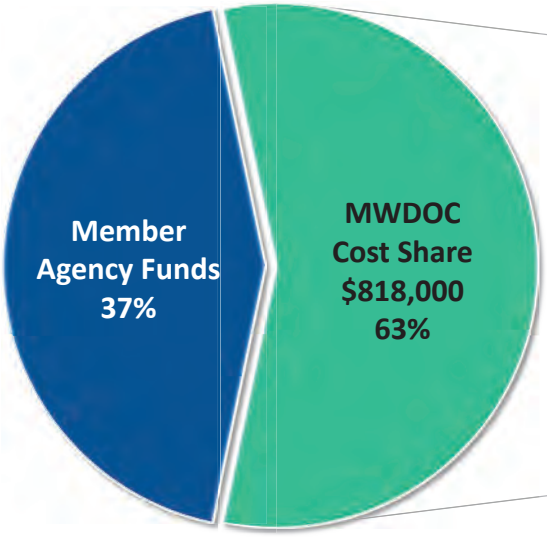
UWUO | CII Performance Measures

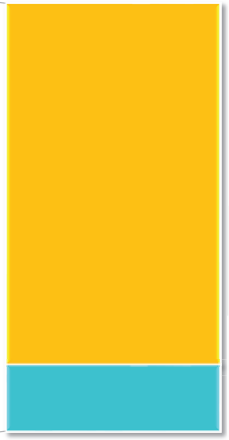


Value of Framework Shared Services for Member Agencies

Costs Incurred To Date: $1.3m

(July 2023 – April 2026)



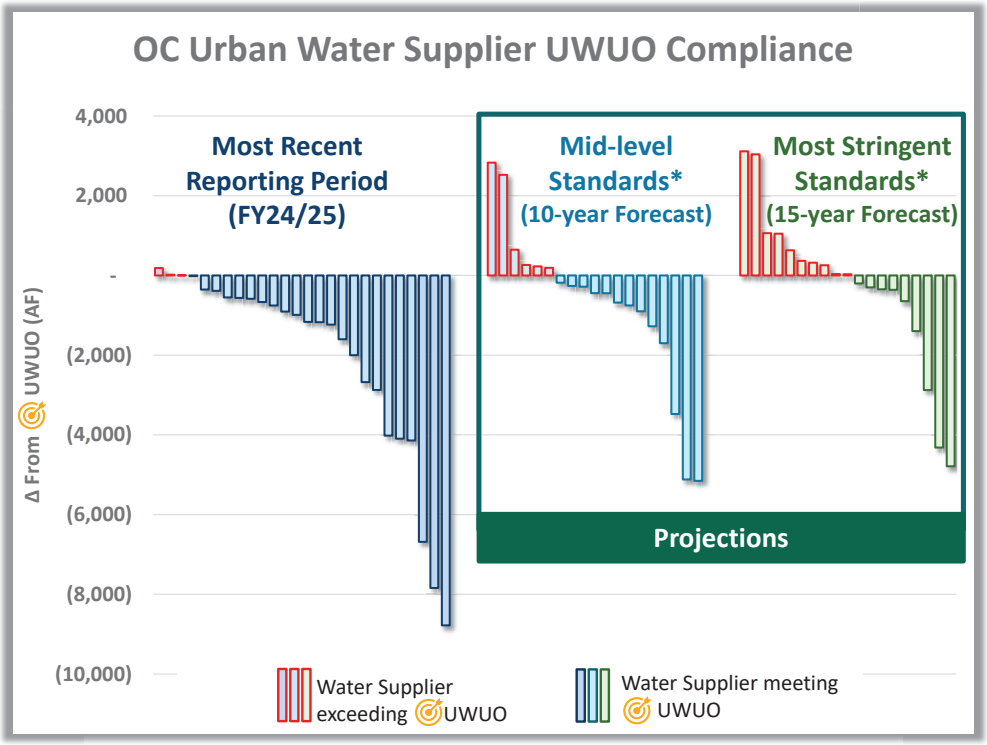


Metropolitan Member Agency Administered (MAA)

- $690,000
- 84% of MWDOC Cost Share

MWDOC State and Federal Grants

- $128,000
- 16% of MWDOC Cost Share



*Data unavailable for 7 OC Urban Water Suppliers

Key takeaways

- Suppliers are benefiting from investments in recycled water and potable reuse through the GWRS.
- Projected long-term compliance across suppliers is diverse.
- The residential landscape standard is difficult for many water suppliers.
- **OC is on the right track; however, additional work is needed to ensure long-term compliance.**

Way of Life Framework Timeline

January 2024
1st annual report due

January 2025
Standards begin tightening

January 2027
4th Annual report due; Compliance with UWUO must be demonstrated

July 2028

Water supplier must have CII Dedicated Irrigation Meter (DIM) landscapes identified and measured

July 2040
Standards are most stringent

We Are Here

Continues Annually

Regulation adopted by State Water Board
July 2024

Water supplier must identify their highest CII water users
July 2025

Water supplier to identify CII Mixed-Use Meter (MUM) large landscapes ≥ ½ acre

Water supplier must classify CII customers
July 2027

Water supplier must convert MUM large landscapes to DIM or employ in-lieu technologies and BMPs
July 2039

Urban Water Use Objective (UWUO) | CII Performance Measures | Annual Reporting

11



Thank you for your attention.

Questions?

MWDOC 75 YEARS OF SERVICE

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Item No. 2

ACTION ITEM
May 13, 2026

TO: **Board of Directors**

FROM: **Planning & Operations Committee**

Harvey De La Torre, General Manager

Staff Contact: Rachel Waite-Harvey, WUE Programs Supervisor

SUBJECT: **NV5 GEOSPATIAL LANDSCAPE CLASSIFICATION AND MAPPING CONTRACT CHANGE ORDER**

STAFF RECOMMENDATION

Staff recommends the Board of Directors approve a contract change order with NV5 Geospatial in the amount of $200,000, for a total revised not to exceed amount of $1.6 million, to provide landscape classification and mapping requirements and to extend the contract term for an additional two years through June 30, 2028 and authorize the General Manager to execute the contract.

COMMITTEE RECOMMENDATION

(To be determined at Committee Meeting)

REPORT

Purpose

This item requests the Municipal Water District of Orange County (MWDOC or District) Board of Directors (Board) approve a contract change order with NV5 Geospatial (NV5G, previously known as Quantum Spatial) for landscape classification and mapping requirements technical assistance through the Choice Program Shared Services to help Orange County Urban Water Suppliers comply with the Making Conservation a California Way of Life Framework (Way of Life Framework).

Background

At the April 21, 2021 meeting, the Board awarded a contract to Quantum Spatial in an

amount not to exceed $1.4 million to provide landscape classification and mapping requirements technical assistance. The contract was established to support Assembly Bill (AB) 1668 and Senate Bill (SB) 606, known as the Way of Life Framework, which requires each Urban Water Supplier to calculate and report its Urban Water Use Objective (UWUO) and remain within its calculated annual water budget. Additionally, the Framework contains commercial, industrial, and institutional (CII) non-volumetric Performance Measures, including thresholds for converting mixed-use CII meters (MUMs) that irrigate more than one-half acre of landscape to dedicated meters or in-lieu technologies.

Urban Water Suppliers are responsible for classifying and measuring landscapes irrigated by dedicated meters by July 2028 and for identifying landscapes irrigated by MUMs larger than one-half acre by July 2027.

Discussion

MWDOC offers technical assistance for landscape classification and mapping requirements through Choice Program Shared Services to help Orange County Urban Water Suppliers comply with the Way of Life Framework. Expenses are paid by participating retailers, and cost-share is provided by MWDOC, sourced through Metropolitan Water District of Southern California (Metropolitan) Member Agency-administered funds and MWDOC-procured state and federal grants.

Completing landscape classification and mapping efforts is essential for Orange County Urban Water Suppliers' compliance with the Way of Life Framework. Accessing these technical assistance services as a Shared Service provides Orange County Urban Water Suppliers with cost savings through economies of scale and MWDOC-provided cost share. There are no direct MWDOC costs associated with this Choice Program Shared Services. The extension of the contract term and the increase in the contract not-to-exceed limit will ensure that all participating agencies can complete their mapping project with NV5G.

As of April 2026, services totaling $1.24 million have been completed for 20 of the 26 Urban Water Suppliers in Orange County, including the cities of Anaheim, Fullerton, and Santa Ana. Technical assistance for 16 retailers is ongoing and is anticipated to exceed the current contract limit of $1.4 million and the term ending June 30, 2026.

Next Steps

To facilitate the projected additional $360,000 in technical support, staff recommends the Board of Directors select Option # 1 and approve a contract change order with NV5G in the amount of $200,000, for a total revised not to exceed amount of $1.6 million, to provide landscape classification and mapping requirements and to extend the contract term for an additional two years through June 30, 2028 and authorize the General Manager to execute the contract.

If approved, staff will work with NV5G to execute the change order and continue project planning and implementation with participating Orange County Urban Water Suppliers.

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

☒ *Clarifying MWDOC's mission and role; defining functions and actions.*
☐ *Balance support for Metropolitan's regional mission and OC values and interests.*
☒ *Strengthen communication 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: Approve a contract change order with NV5G in the amount of $200,000, for a total revised not to exceed amount of $1.6 million, to provide landscape classification and mapping requirements and to extend the contract term for an additional two years through June 30, 2028 and authorize the General Manager to execute the contract.

Fiscal Impact: There are no direct MWDOC costs associated with this Choice Program Shared Services. MWDOC will provide staff time and cost-share sourced from external funding.

Option #2: Do not approve the contract change order with NV5G to provide landscape classification and mapping requirements.

Fiscal Impact: Orange County Urban Water Suppliers will experience higher costs to complete mapping requirements independently.

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

Attachments/Links:
N/A

Item No. 3

ACTION ITEM
May 20, 2026

TO: **Board of Directors**

FROM: **Planning & Operations Committee**

Harvey De La Torre, General Manager

Staff Contact: Rachel Waite-Harvey, WUE Programs Supervisor

SUBJECT: **ADOPT A RESOLUTION TO SUPPORT A BUREAU OF RECLAMATION 2026 WATERSMART SMALL-SCALE WATER EFFICIENCY PROJECTS GRANT APPLICATION**

STAFF RECOMMENDATION

Staff recommends the Board of Directors adopt a resolution supporting a Bureau of Reclamation 2026 WaterSMART Small-Scale Water Efficiency Projects Grant Application.

COMMITTEE RECOMMENDATION

(To be determined at Committee Meeting)

REPORT

Purpose

This item requests the Municipal Water District of Orange County (MWDOC or District) Board of Directors (Board) adopt a resolution supporting a Bureau of Reclamation 2026 WaterSMART Small-Scale Water Efficiency Projects Grant Application. The potential grant funding supports MWDOC's mission to promote water efficiency and helps MWDOC Member Agencies comply with the Making Conservation a California Way of Life Framework (Way of Life Framework).

Discussion

In March 2026, the Bureau of Reclamation released its WaterSMART Small-Scale Water Efficiency Funding Opportunity No. R25AS00279, which requires all applicants to include

an official Board resolution supporting the grant application. Staff is prepared to submit a grant proposal for the Orange County Irrigation Efficiency Program (IE Program) by the June 2 deadline. This proposal seeks the maximum award of $125,000 and requires a 50% grantee cost-share requirement. MWDOC's $125,000 cost-share will be met by outside funding from Metropolitan Water District of Southern California's (Metropolitan) Conservation Credits Program and MWDOC staff time.

The proposed IE Program will facilitate the conversion to drip irrigation at residential, commercial, and public properties across Orange County. Using MWDOC's Spray-to-Drip Rebate Program infrastructure, federal funds will help incentivize property owners and managers to convert from traditional spray irrigation to an efficient drip system.

The primary benefit of the proposed IE Program is a reduction in outdoor water consumption, contributing to overall water supply reliability. Additionally, increased landscape water efficiency and the program availability will support MWDOC Member Agencies in meeting their Urban Water Use Objective (UWUO) and performance measure requirements, as mandated by the Way of Life Framework.

If awarded, staff is well prepared to work with the Bureau of Reclamation to implement and manage grant funds, as demonstrated by MWDOC's successful federal awards of $6.2 million over the last ten years.

Next Steps

Staff recommends the Board of Directors adopt a resolution supporting a Bureau of Reclamation 2026 WaterSMART Small-Scale Water Efficiency Projects Grant Application.

If approved, staff will include the resolution in the application package and submit it to the Bureau of Reclamation on or before the June 2 deadline. Notice of award is anticipated in December 2026. If the project is selected for an award, the anticipated project start date is June 2027.

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

- ☐ *Clarifying MWDOC's mission and role; defining functions and actions.*
- ☐ *Balance support for Metropolitan's regional mission and OC values and interests.*
- ☒ *Strengthen communication 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: Adopt a resolution supporting a Bureau of Reclamation 2026 WaterSMART Small-Scale Water Efficiency Projects Grant Application.

Fiscal Impact: The grant proposal may result in an award of $125,000 in federal funds. Required match funding of $125,000 will be sourced from outside funding from Metropolitan's Conservation Credits Program.

Option #2: Do not adopt a Resolution supporting a Bureau of Reclamation 2026 WaterSMART Small-Scale Water Efficiency Projects Grant Application.

Fiscal Impact: A loss of potential federal grant funds totaling $125,000.

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

Attachments/Links:
Attachment 1: Draft resolution supporting a Bureau of Reclamation 2026 WaterSMART Small-Scale Water Efficiency Projects Grant Application

RESOLUTION NO. ____

RESOLUTION OF THE BOARD OF DIRECTORS OF MUNICIPAL WATER DISTRICT OF ORANGE COUNTY SUPPORTING A BUREAU OF RECLAMATION 2026 WATERSMART SMALL-SCALE WATER EFFICIENCY PROJECTS GRANT APPLICATION

WHEREAS, the Municipal Water District of Orange County (MWDOC) will submit an application to the Bureau of Reclamation requesting funding for the Orange County Irrigation Efficiency Program to promote water conservation in the MWDOC service area through the conversion from traditional spray to drip irrigation; and

WHEREAS, MWDOC is committed to developing and implementing an irrigation efficiency program designed to meet our local water supply reliability goals, Making Conservation a California Way of Life, and meet water efficiency standards as established by SB 606 and AB 1668; and

NOW, THEREFORE**,** BE IT RESOLVED, that the MWDOC Board of Directors designates the General Manager as the official who has reviewed and supports the application submittal and the legal authority to enter into an agreement on behalf of the District, and designates the Water Use Efficiency Programs Supervisor, as the District's representative to sign the progress reports and approve reimbursement claims; and

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the MWDOC Board of Directors assures its capability to provide the amount of funding and in-kind contributions specified in the funding plan; and

NOW, THEREFORE, BE IT FURTHER RESOLVED, that MWDOC will work with the Bureau of Reclamation to meet established deadlines for entering into a cooperative agreement.

PASSED AND ADOPTED by the Board of Directors of the Municipal Water District of Orange County at its regular meeting held on May 20, 2026, by the following roll call vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____

Angela Crespi
District Secretary
Municipal Water District of Orange County

Item No. 4

ACTION ITEM
May 20, 2026

TO: **Board of Directors**

FROM: **Planning & Operations Committee**

Harvey De La Torre, General Manager

Staff Contact: Charles Busslinger, Dir. of Engineering/District Engineer

SUBJECT: **AWARD OF CONTRACT FOR GEOGRAPHIC INFORMATION SYSTEM (GIS) IMPLEMENTATION ASSISTANCE**

STAFF RECOMMENDATION

Staff recommends the Board of Directors award Hazen and Sawyer a 1-year contract, for $144,260 plus a 10% contingency for a total not to exceed amount of $158,686, to provide Geographic Information System implementation assistance and authorize the General Manager to execute the contract, with the option for an additional 1-year renewal.

COMMITTEE RECOMMENDATION

(To be determined at Committee Meeting)

REPORT

Purpose

This item requests the Municipal Water District of Orange County (MWDOC or District) Board of Directors (Board) award a contract for Geographic Information System (GIS) implementation assistance to Hazen and Sawyer.

Background

MWDOC and its consultant, FLO Analytics, completed its GIS Needs Assessment in August 2025 to evaluate the District's current GIS environment, determine organizational and departmental GIS needs, and provide a prioritized roadmap for future implementation.

The assessment confirmed that MWDOC operates in an inherently spatial environment but is currently underutilizing GIS capabilities across its programs, planning functions, emergency response coordination, and shared services. The GIS Needs Assessment recommended establishing an enterprise-level GIS program supported by strong governance, standardized data management practices, and software architecture built on Environmental Systems Research Institute. Inc. (Esri) Enterprise and ArcGIS Online. It further recognized that external consultant support would be required in the initial phases to implement the system, migrate data, configure tools, and train staff, ensuring MWDOC can progressively assume day-to-day GIS administration over time.

The recommended GIS Implementation Assistance contract represents the next phase of MWDOC's multi-year GIS initiative and is a direct continuation of the Needs Assessment recommendations. While the Needs Assessment defined the organizational requirements, technical direction, and broad implementation strategy, this next phase focuses on executing that strategy, establishing GIS governance frameworks, configuring the Esri system architecture, and delivering initial applications that provide operational value and demonstrate early wins.

Awarding this contract will enable MWDOC to build the foundational GIS capabilities necessary to improve cross-departmental efficiency, enhance collaboration with member agencies and WEROC partners, and support long-term data-driven decision-making across the District.

How MWDOC Utilizes GIS

As a regional wholesale water agency and administrator of multiple Shared Services Programs, MWDOC employs GIS as a foundational tool for data integration, spatial analysis, and cross-agency coordination across its core operational areas. GIS applications span several departments with the following functions:

- **Reliability Planning and Engineering** — GIS enhances the work of MWDOC Engineering by providing spatial and temporal tools for recurring projects and ongoing operations (e.g., water quality platform and dashboard, Shared Services programs, pipeline shutdown coordination), helping improve analysis, communication, and coordination between MWDOC, Metropolitan, and member agencies.

- **Water Loss Control** — While GIS is already the backbone of MWDOC's Water Loss Control Program, providing data, the reporting platform, and field assignment workflows, the current process could be improved and optimized with help from GIS architecture expertise.

- **Water Use Efficiency** — GIS capabilities will significantly enhance the work of MWDOC's Water Use Efficiency Programs, specifically in managing two broad categories of data: rebate program data, and Conservation as a Way of Life Framework compliance data.

- **Water Emergency Response of Orange County (WEROC)** — GIS capabilities are increasingly critical to WEROC's function. GIS will provide WEROC with new tools and resources to better manage larger emergency incidents, enhance situational awareness, quickly and more effectively improve damage assessment, and identify appropriate stakeholders as incidents arise.

Discussion

Pursuant to Section 8000 of the Administrative Code, "It is MWDOC's policy that purchasing and contracting shall be conducted in a fair, open, and transparent manner so as to maximize benefits to MWDOC. All contracts should be reviewed and rebid at least every five years, except in situations with documented significant benefits to MWDOC." The GIS implementation assistance contract has not previously been competitively bid; therefore, a competitive Request for Proposals (RFP) process was implemented.

Staff prepared and issued an RFP for GIS implementation assistance under the schedule below:

RFP PROJECT TIMELINE	
Task Item	**Completion Date**
1. MWDOC completion of draft in-house RFP	November 11, 2025
2. RFP release	November 21, 2025
3. Closing date for submittal of questions	December 18, 2025
4. Proposals due	January 20, 2026
5. Convene a review panel to review proposals and select candidates for interviews	February 25, 2026
6. Interviews with firms and review panel rankings	March 20, 2026
7. Recommendation to the P&O Committee	May 4, 2026
8. Authorization by MWDOC Board	May 20, 2026
9. Contract starts	June 15, 2026

Proposal Evaluation Process

On November 21, 2025, staff released an RFP seeking a qualified firm to provide GIS implementation assistance. The goal is to establish a robust foundation for MWDOC's GIS program, encompassing internal GIS governance and standards, GIS software planning and licensing review, implementation of an ESRI GIS system incorporating ArcGIS Online for emergency response and member collaboration opportunities, and data migration.

The RFP was posted on the MWDOC website and distributed to firms known to have GIS expertise. A total of three proposals were received by the closing date. All three proposals met the initial qualifying criteria and were reviewed by the internal review panel consisting of MWDOC staff from the following departments: Reliability Planning and Engineering, Water Emergency Response of Orange County (WEROC), Water Loss Control, Water Resources, and Water Use Efficiency.

The review panel met twice to review, rank, and discuss the proposals. Two firms were shortlisted for selection. Panel members independently ranked the firms and then met to discuss the results. Proposals were evaluated based on the following: the proposal cover letter (executive summary), firm experience, qualifications, and record of performance, project understanding and approach, interview performance, and willingness to accept standard agreement terms. Based on the combined rankings, Hazen and Sawyer was unanimously selected.

Selected Firm Overview

Hazen and Sawyer is a civil/environmental engineering firm founded in 1951 that specializes in water, wastewater, and stormwater infrastructure solutions from planning to construction. Hazen and Sawyer has successfully delivered several projects for MWDOC and water agencies in Orange County. Most recently, these include the Orange County 2025 Demand Projection Model and the Lead and Copper Rule Revisions Service Line Inventory Assistance, both of which required GIS expertise and interface.

Hazen and Sawyer's GIS expertise includes a resource pool of 400 GIS users and 29 GIS Analysts. Specific to MWDOC's GIS Implementation Assistance, Hazen and Sawyer's National Director of Geospatial Services will serve as the Technical Advisor, and their Principal GIS Analyst will serve as the Implementation Lead for this project. Hazen and Sawyer was unanimously selected based on their qualifications and approach, which focuses on implementing a foundational, maintainable ArcGIS Online–based system that delivers early wins while building the long-term GIS governance, data standards, and architecture recommended in MWDOC's GIS Needs Assessment. Their proposal emphasizes a secure and scalable platform for interagency data sharing, particularly valuable for WEROC, and minimizes administrative burden on MWDOC by leveraging Esri's Software-as-a-Service (SaaS) environment and Hazen and Sawyer's in-house expertise in enterprise GIS design, data modeling, and multi-agency data integration.

Next Steps

Staff recommends the Board of Directors select Option #1 to award Hazen and Sawyer a 1-year contract, for an amount of $144,260 plus a 10% contingency for a total not to exceed amount of $158,686, to provide GIS implementation assistance and authorize the General Manager to execute the contract with the option for an additional 1-year renewal.

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

☒ *Clarifying MWDOC's mission and role; defining functions and actions.*
☐ *Balance support for Metropolitan's regional mission and OC values and interests.*
☐ *Strengthen communication 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 award Hazen and Sawyer a 1-year contract, for $144,260 plus a 10% contingency for a total not to exceed amount of $158,686, to provide GIS implementation assistance and authorize the General Manager to execute the contract, with the option for an additional 1-year renewal.

Fiscal Impact: The GIS Implementation Project has been budgeted at $130,0000 and $150,000 for FYs 2025-26 and 2026-27, respectively. Funds are budgeted and available for the additional 1-year renewal.

Option #2: Do not award Hazen and Sawyer a contract, which will delay MWDOC's GIS Implementation.

Fiscal Impact: None.

Budgeted: ☒ Yes ☐ No ☐ N/A		Budgeted amount: $130,000 for FY 2025-26; $150,000 for FY 2026-27
Core: ☒	Choice: ☐	Movement between Cost Centers: ☐ Yes ☒ No
Action item amount: $158,686		

Attachments/Links:
Attachment 1: Hazen and Sawyer Proposal
Link 1: MWDOC GIS Implementation Assistance RFP: https://go.mwdoc.com/sz8iLS

Hazen and Sawyer
7700 Irvine Center Drive, Suite 200
Irvine, CA 92618 • 949.557.8549

April 3, 2026

Sarina Sriboonlue
Principal Engineer
Municipal Water District of Orange County
18700 Ward Street, Unit B
Fountain Valley, CA 92708

Re: Geographic Information System (GIS) Implementation Assistance RFP ENG. 2005-03

Dear Ms. Sriboonlue:

Hazen and Sawyer appreciates the opportunity to respond to this RFP and looks forward to supporting the Municipal Water District of Orange County (MWDOC) in development of a foundational GIS. Hazen understands the need to complete an initial implementation, with early wins, that also lays the building blocks of a robust GIS.

Hazen will follow the steps shown in the figure to the right, making sure to develop important data management and standard operating procedure documentation. Ultimately, for the implemented GIS to be successful, it will provide the following to MWDOC:

- A **secure platform for spatial data sharing** between member agencies and within agency groups such as WEROC.
- A **maintainable system** that minimizes the need for MWDOC support during initial phases of work.
- **Flexibility for future growth** as MWDOC matures in spatial data management and staff capabilities.

Having worked with other water utilities performing transboundary planning and wholesale water, as well as MWDOC and its 27 member agencies, Hazen is uniquely situated to assist in the creation of a successful GIS.



Sincerely,

Kirsten Plonka, PE
Senior Associate

Cindy Miller, PE
Vice President

Hazen Acknowledges:
- Receipt of Addendum 1 and Addendum 2.
- Review of MWDOC's professional services agreement (Attachment B in the RFP). See comments in Appendix B.

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Geographic Information Systems (GIS) Implementation Assistance

*Hazen and Sawyer is a civil engineering firm **focused on water**. This concentration means we are dedicated to delivering GIS solutions in the water sector and are ready to support MWDOC in development of a comprehensive GIS that sets a foundation for future enhancement and provides a quick start for MWDOC staff to harness the power of geospatial intelligence.*

B. Experience and Qualification

B.a Hazen's Specific Experience

With over 400 Geographic Information System (GIS) users and 29 GIS Analysts, Hazen has a significant resource pool of water focused GIS practitioners ready to support the Municipal Water District of Orange County (MWDOC). The Geospatial Services Group, led by Technical Advisor Ryan O'Banion, specializes in the development of critical components to this RFP:

- Data model development and management
- Extract, Transform, and Loading (ETL) between data models and systems
- Enterprise and ArcGIS Online deployments
- Web application development

esri Partner Network Gold

As an Esri Gold Partner, Hazen has demonstrated our skill and commitment to GIS. This partnership allows Hazen to have close contact with Esri developers and staff so we can better support MWDOC when making GIS decisions.

Hazen also has a long history of working with MWDOC, understanding the unique challenges faced by a wholesale water provider and resource agency with 27 different member agencies. Through projects like the recently completed Water Demand Forecast and Lead and Copper Rule tasks, Hazen has interfaced with MWDOC member agencies and has a direct understanding of the varied needs of each member agency. Based on this directly relevant experience with MWDOC and its member agencies, coupled with national experience in working with regional water agencies, Hazen is well prepared to deliver a comprehensive and maintainable GIS. The following projects highlight our approach to foundational GIS development, integration of multi-agency sourced data management, and local Southern California projects.

Enterprise GIS Development – Nantucket, MA

Hazen is responsible for the design and implementation of an Enterprise GIS solution to collect, manage, analyze, and visualize spatial data for the Town of Nantucket. The Nantucket GIS includes an Esri geodatabase based on Hazen's Water Data Model and customized to meet town needs and future uses.

Working from Nantucket's existing sewer, stormwater, and water GIS data, Hazen collaborated with the Town to draft and migrate data to the new comprehensive water data model that supports fieldwork and modeling. The Towns GIS enterprise database is hosted in an ArcGIS Portal, and the project teams use Portal-based Esri web applications to review, edit and generate reports.
Project Relevance: Enterprise System Administration, Data Modeling, Web Applications

Enterprise ArcGIS System – Passaic Valley Sewerage Commission (PVSC), NJ

Hazen implemented a cloud-based Enterprise ArcGIS system for PVSC, designed to enhance the Commission's GIS capabilities for asset management, data analysis, and operations. Hazen worked with PVSC and Esri to design and implement Enterprise ArcGIS in the PVSC Azure cloud with integrations to SCADA, Autodesk (Innovyze) ICM Live modeling data, and other PVSC data sources. Hazen worked with PVSC to implement the Hazen GIS Data Model for Water that helps standardize data format and improve data quality for water-related assets by using PACP and other industry standards as foundations. Hazen translated and loaded the existing PVSC GIS data to the new PVSC ArcGIS Enterprise Geodatabase in Azure and helped PVSC establish editing workflows for ArcGIS Pro (Desktop), web, and mobile users.
Project Relevance: Enterprise System Administration, Data Modeling, Web Applications

Linear Asset Management Plan – El Torro Water District, CA

Hazen supported the El Toro Water District in developing a comprehensive Linear Asset Management Plan (AMP) by leading the creation of a digital, data-driven framework for prioritizing rehabilitation and replacement of water distribution assets. GIS played a central role in this effort: the team utilized GIS-based tools to build, integrate, and visualize asset risk, enabling the District to review, validate, and adjust results in real time based on system knowledge and field feedback. The final GIS outputs—supporting spatial analysis, consolidated datasets, and risk visualization—were incorporated into the District's asset register, forming a defensible foundation for capital planning and long-term asset sustainability.
Project Relevance: ArcGIS Online, Data Modeling, Web Applications

LCRR Lead Service Line Inventory – Western Municipal Water District, CA

Hazen supported the Western Municipal Water District by leading the development of a comprehensive LSL inventory. The team conducted extensive data gathering, records review, and GIS-based inventory development, integrating potable meters, service lines, water mains, and parcel data through a multi-stage ArcGIS ModelBuilder workflow to produce an accurate, traceable, and regulatory-ready inventory. Advanced GIS techniques were central to building Western's preliminary and final inventory layers. Hazen's GIS-enabled approach allowed Western to efficiently compile and validate its baseline inventory for submission to DDW by the October 2024 deadline.
Project Relevance: ArcGIS Online, Web Application, Data Modeling

B.b Key Personnel

Hazen has carefully chosen a team of GIS professionals and engineers with national expertise and local experience required to understand the needs of MWDOC while delivering a comprehensive water GIS.

Hazen is committed to keeping the staff included in this proposal committed to MWDOC for the duration of the tasks. Please refer to the appendix to see full resumes of staff in the following table.

		Multi-Jurisdiction Data Management	Comprehensive Data Model	ArcGIS Enterprise	ArcGIS Online	ArcGIS Web Applications	Communications
Cindy Miller, PE	Project Director	●					●
Kirsten Plonka, PE*	Project Manager	●	●				●
Ryan O'Banion, GISP*	Technical Advisor	●	●	●	●	●	●
Ken Camacho, GISP*	Implementation Lead	●	●	●	●	●	
Claire Waller	GIS Analyst	●	●	●	●	●	
Zack Webb	GIS Analyst	●	●		●	●	
Nicklaus Nielsen	GIS Analyst	●		●	●	●	
Megan Drummey	Communications Advisor						●

*Key personnel assigned to this project

B.c Proposed Subcontract Arrangements

Given Hazen's local staff expertise and national support structure, Hazen will complete this scope of work entirely with in-house staff, streamlining coordination and quality of delivery.

B.d Assurance of Firm's Ability to Complete Work

Hazen is a private employee-owned engineering firm celebrating our 75th anniversary this year. Our longevity is tied to Hazen's proven ability to deliver high quality work and complete it within allotted timelines. One way we ensure efficient and timely delivery is our structure as a single profit center. This means that regardless of the staff member's location, if they are best suited for the project, they will be assigned to the task. Senior leadership for this project, including Project Director Cindy Miller and Project Manager Kirsten Plonka, can pull resources as needed to meet MWDOC's project demands.

B.d.i Completion of Reports, Analyses, and Documentation

Hazen is prepared and able to deliver the completion of all reports, analyses, and supporting documentation for software and hardware purchasing recommendations by November 20, 2026, for MWDOC Board consideration. Intrinsic to meeting this deadline is the prompt review of draft deliverables and support in coordination of meetings with member agencies and stakeholders as seen in Section E. Project Schedule. If these critical path items are delayed due to MWDOC availability limitations, the deadline may be at risk.

B.d.ii Implementation of Software/Hardware

Implementation of ArcGIS Online organization SaaS solution will be completed within 90 days of notification of MWDOC receipt. Prior to the 90-day window, it will be necessary for Hazen staff, identified at project kickoff, to have security credentials and access to mutually agreed upon MWDOC IT systems.

C. Record of Performance

As highlighted in Section B, the Hazen team has worked together to successfully deliver projects across the United States. This record of performance ranges from multi-agency data modeling of water systems to ArcGIS Online and full ArcGIS Enterprise deployments. As seen in the projects discussed below, the Hazen team has direct experience supporting MWDOC, ArcGIS Online deployments, and GIS delivery to agencies with large consitutiencies.

C.a Project Team's Past Performance

Assistance with Completion of Lead and Copper Rule Revisions – MWDOC, CA

Hazen supported MWDOC by conducting a comprehensive assessment of member agency service areas and developing the materials, processes, and GIS tools needed to complete and submit lead service line inventories. As part of this project, Hazen's team developed and implemented a field assessment program including design of a GIS based inventory database, along with a phone app and dashboards to facilitate data collection and QA/QC. Hazen also facilitated virtual meetings, coordinated data requests, and provided structured guidance to help water systems determine levels of effort, meet regulatory deadlines, and move efficiently toward full LCRR compliance.

Project Team
Cindy Miller
Kirsten Plonka
Ryan O'Banion
Claire Waller

Project Relevance: ArcGIS Online, Multi-Agency Data ETL, Web Application

Water GIS Development - Beulah, AL

The small town of Beulah, AL has limited staff but major asset renewal and management needs. As a water distributor, the Town required a way to better understand their system through hydraulic modeling and tracking of assets. Hazen worked with Beulah to develop an ArcGIS Online-based GIS deployment and provide spatial awareness of their water distribution system. Leveraging the ArcGIS Online SaaS solution, Hazen deployed our Hazen Water Data model as a basis for web-based GIS, without the need for on-premise servers or Town expertise in systems administration. Hazen is continuing to provide the town with administration and training services.

Project Team
Ryan O'Banion
Ken Camacho

Project Relevance: ArcGIS Online, Data Modeling, System Administration, Web Applications

District-Wide Stormwater Management Infrastructure Mapping - Metropolitan North Georgia Water Planning District (MNGWPD)

Project Team
Ryan O'Banion
Ken Camacho

As a regional water planning district, MNGWPD, needed a way to see and analyze the spatial data associated with their 117 member agencies. Hazen is currently working with MNGWPD to develop a comprehensive stormwater schema and Python-based data loading tool to integrate stormwater GIS from 23 pilot agencies. The GIS schema, based on Hazen's Water Data Model as a starting point, is being managed within ArcGIS Online to promote secure inter-agency sharing and limit MNGWPD staff administration tasks. Hazen is working with a technical advisory working group, consisting of agency stakeholders, to develop consensus on the chosen approach.
Project Relevance: ArcGIS Online, Multi-Agency Data ETL, Data Modeling, Web Applications

Public Water System LSL Inventory – New Hampshire Department of Environmental Services (NHDES)

Project Team
Ryan O'Banion
Ken Camacho
Megan Drummy

Hazen worked with NHDES to compile and deliver lead service line inventories for 213 small communities using a single ArcGIS Online deployed data model. The data model, combined with an Esri Hub Site and dashboards, leveraged table views and group-based access for sharing. This structure allowed NHDES to see comprehensive data while limiting potentially sensitive information to individual small system data owners. Additionally, a Python-based export script was developed to automate the creation of inventories, compatible with New Hampshire's strict reporting requirements.
Project Relevance: ArcGIS Online, Multi-Agency Data ETL, Data Modeling, Web Applications

C.b References

Katherin Atteberry **Metro North Georgia Planning District** Stormwater Planning Mgr. 470-378-1572 KAtteberry@atlantaregional.org	***Dominador Elefante*** **Passaic Valley Sewerage Commission** Geographic Information Systems 973-466-2928 DElefante@pvsc.com	***Lyndy Lewis*** **Western Municipal Water District** Environmental and Regulatory Compliance Manager 951-571-7288 llewis@wmwd.com	***Hannah Ford*** **El Toro Water District** Director of Engineering 949-837-7050 x247 hford@etwd.com

D. Project Work Plan

Creating a successful GIS from scratch requires careful consideration of user needs, IT/OT requirements, and long-term administration and staffing. **Based on Hazen's review of provided documentation and our knowledge of MWDOC and member agencies, we believe that developing GIS architecture in ArcGIS Online is the best approach.** Deployed as a scalable Software-as-a-Service (SaaS), ArcGIS Online relies on servers and applications managed by Esri on Amazon Web Services. This allows for minimal maintenance of systems and administration by MWDOC staff while supporting the sharing of web services and applications to member organizations or the public (as necessary). Starting with an ArcGIS Online environment will also allow for future investment into ArcGIS Enterprise if needs change

and the GIS team at MWDOC matures. Therefore, Hazen's workplan is focused on the implementation of ArcGIS Online.



Developing an understanding of MWDOC user needs is essential to delivering a comprehensive and successful GIS. Hazen will review the existing needs assessment with careful consideration to the following updates:

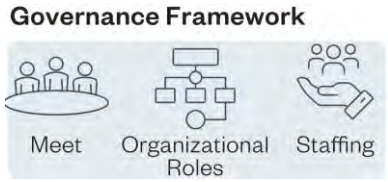
- The Water Use Efficiency Department no longer needs to host large imagery datasets.
- The Water Emergency Response Organization of Orange County (WEROC), administered by MWDOC, has specific needs for a Common Operating Procedure (COP) that captures live data and provides a flexible platform for sharing.

After review, Hazen will update the MWDOC planned system architecture, hardware, and software. This revised architecture, leveraging ArcGIS Online, will provide secure group sharing capabilities while limiting system administration and maintenance requirements.

By default, ArcGIS Online allows 20 partnered collaborations. However, through correspondence with Esri, more than 50 can be permitted without performance impacts. This will enable simple coordination with MWDOC's member agencies through web GIS.

Deliverables:

- Draft and final technical memorandum documenting a modified plan leveraging ArcGIS Online.



Building consensus between MWDOC's seven (7) departments and member associations on GIS data governance is a key component to the long-term success of its GIS implementation. Fortunately, MWDOC has already completed a number of interviews and outreach as part of the original needs assessment. Hazen will use this report to:

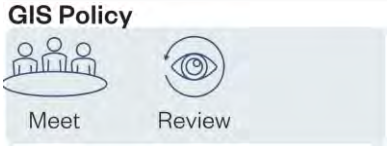
- Meet with the MWDOC project manager to obtain any recent updates from member organizations.
- Create an organizational structure for GIS at MWDOC. The structure will be documented in the form of a chart and associated text describing roles.
- Define governance for the key domains of Strategy, Platform, Data, Workforce, Delivery, and Investment. Across these domains, highlight:
    - Alignment with organizational goals
    - Roles and responsibilities
    - Policy and standards
    - Policy review cadence
    - Member agency engagement
    - Key decision points from planning phase
- Propose recommendations for future GIS staffing by MWDOC.

As an alternative to 12 initial stakeholder meetings, Hazen proposes the development of a Stakeholder Advisory Committee. This committee, composed of agencies and MWDOC staff, will meet quarterly.

Hazen will lead these virtual quarterly meetings and provide progress updates and obtain feedback from stakeholders on goals, end use requirements, next steps, and sharing requirements/limitations. For each meeting, Hazen will provide an agenda one week in advance of the meeting date, develop meeting minutes, and roll key decisions into the governance framework. Through these sessions, Hazen will gather the information and consensus needed to recommend governance structure and processes that are flexible to the needs of stakeholders while aligning with MWDOC's mission and internal needs.

Deliverables

- GIS Governance Framework Document. In draft and final, incorporating two rounds of stakeholder review and feedback.
- Quarterly stakeholder meetings to build governance consensus.



Guiding principles and rules for data quality, retention, availability, security, and user access will help MWDOC's GIS become a secure, trusted data source and integral component of organizational operations. To develop the policy document, Hazen will rely on information gathered from the Stakeholder Advisory Committee, our previous experience developing GIS and data governance policy, and the following activities:

- Review written organization policies for IT security and data management (as provided to Hazen by MWDOC).
- Interview up to three (3) key users and decision makers during 1-hour virtual meetings to document existing workflows and specific policy needs.

When considering documentation, setting standards for data hosted in GIS is vital to ensuring appropriate use. Hazen has found that going beyond basic metadata, and into details such as naming conventions, usage level, tags, and even standardization of **thumbnails** is crucial to a well-structured and manageable organization.



Deliverables

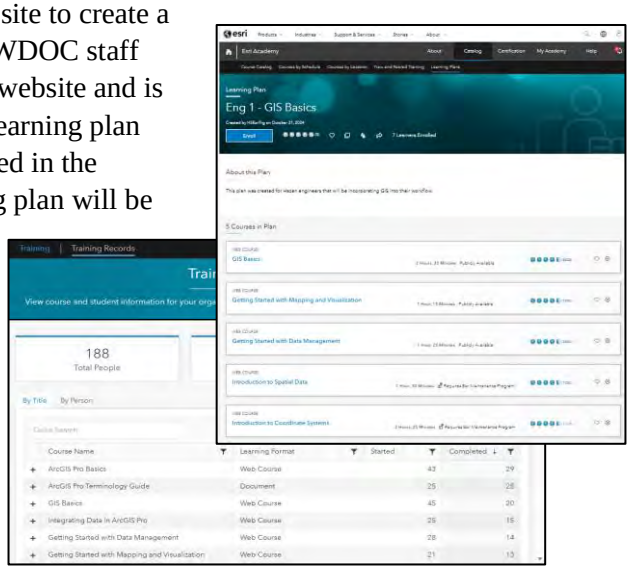
- Draft and final GIS Policy document based on one round of review by stakeholders. The policy will address key concerns such as security, data management, documentation requirements, and archiving.



The development of a three-year implementation plan will provide a path forward for MWDOC as it grows an established GIS within the organization. Key components of the roadmap will include prioritized tasks, timelines, milestones, and forward-thinking pathways.

As part of the Implementation Plan, Hazen will also develop a three-year budget, to match traditional Esri licensing windows, estimating costs of software and training. Given the implementation of ArcGIS Online, MWDOC will not need to purchase additional server hardware.

Hazen will leverage Esri Academy, Esri's e-learning site to create a custom leaning plan for MWDOC staff. Licensed MWDOC staff will be able to take lessons on demand from the Esri website and is expected to take between 8 to 12 hours to take. The learning plan will be documented in the e-learning site and described in the Implementation plan. Courses selected in the learning plan will be chosen based on user needs at MWDOC. Hazen expects up to three learning plans to be developed based on Publisher, Viewer, and Admin user roles. No customized training will be developed under this scope of work. To track progress towards training, MWDOC can leverage the MyEsri training records. This approach will allow MWDOC managers to see key performance indices (KPIs) for staff who started and finished the learning plans.



As an **optional task**, Hazen can create an ArcGIS Dashboard that is fed by exports of Esri Training records to allow simple KPI tracking and progress updates of staff training.

Deliverables

- Draft and final GIS Implementation Plan, incorporating one round of comments from MWDOC.
- *OPTIONAL DELIVERABLE* – ArcGIS Online dashboard to show training by MWDOC staff.



When licensing Esri software, MWDOC has the option to buy a-la-carte or enter into an Enterprise Agreement. Hazen will work with MWDOC to explain the difference between approaches and associated cost implications.

A major part of the licensing equation is understanding the number of users associated with different roles. Hazen will coordinate with MWDOC to identify the number of core team members requiring ArcGIS Pro (Creator, Professional, Professional Plus), Mobile Workers, and Viewers.

Depending on named user needs, and organizational qualification criteria for Esri's licensing models, an Esri Programmatic Enterprise Agreement such as the Small Utility Cloud-Based EA Program may be the best approach for MWDOC. This licensing provides savings compared to purchasing individual licenses and includes uncapped self-paced e-Learning training as well as further discounts for additional licensing. If MWDOC's licensing needs fall outside of programmatic agreements, individually negotiated licenses are also possible. Hazen's Gold Partner status allows Hazen to act as a third-party advisor and assist with the evaluation of best options. However, Hazen will not negotiate or actively participate in negotiation meetings between Esri and MWDOC under this scope of work.

Hazen will also include the cost of licensing GEO Jobe's Backup My Org software. This backup utility will allow for efficient and restorable backups of ArcGIS Online content.

Deliverables

- A short Technical Memorandum outlining an approach to Esri Licensing to be used as a reference for MWDOC's Board of directors for purchasing approvals.

Hardware, Server, and Network Requirements



As a SaaS solution, ArcGIS Online will remove the need for server hardware associated with Enterprise Portal. With the elimination of physical or cloud-based server configuration, the hardware requirements for MWDOC's initial GIS will be greatly reduced.

Desktop computer hardware considerations include minimum computing requirements to run ArcGIS Pro. Beyond the recommended requirements shown here, Esri also provides optimal computing hardware for heavy GIS processing. Hazen will work with MWDOC to determine if obtaining a few of these workstations will be beneficial to power desktop GIS users.

Recommended Desktop Requirements
CPU – 4 Cores
Platform – x64
Memory – 32GB

One concern for MWDOC is where to store local files, such as file geodatabases. Currently Esri does not recommend the use of cloud storage (SharePoint or OneDrive) to support geospatial data. However, they do provide a workaround and direct connection to cloud storage is in the Esri roadmap. Hazen will discuss options with MWDOC IT and make a recommendation.

Finally, mobile hardware is expected to be iPad/iPhone or Android tablets/phones. Since MWDOC is a bring your own device organization, devices will need to meet the minimum requirements listed here. If needs are identified requiring more accurate GPS data collection, a low-cost option for improving reception is the Garmin GLO-2 devices. If centimeter-level accuracy is required, RTK GNSS devices such as EOS Skadi series of handheld devices are recommended to integrate with mobile devices and ArcGIS Field Maps.

Minimum Mobile Device Requirements
Android
- Android 10.0 or later
- Processor ARMv7 or later
- OpenGL ES 2.0 support

iOS
- iOS 18 or later
- iPhone, iPad

Hazen will not implement the purchase of any hardware under this scope of work but will make recommendations and provide contacts to device sellers such as EOS. Additionally, the configuration of purchased devices and training on the development of field maps and use of data collection tools is excluded from this scope of work.

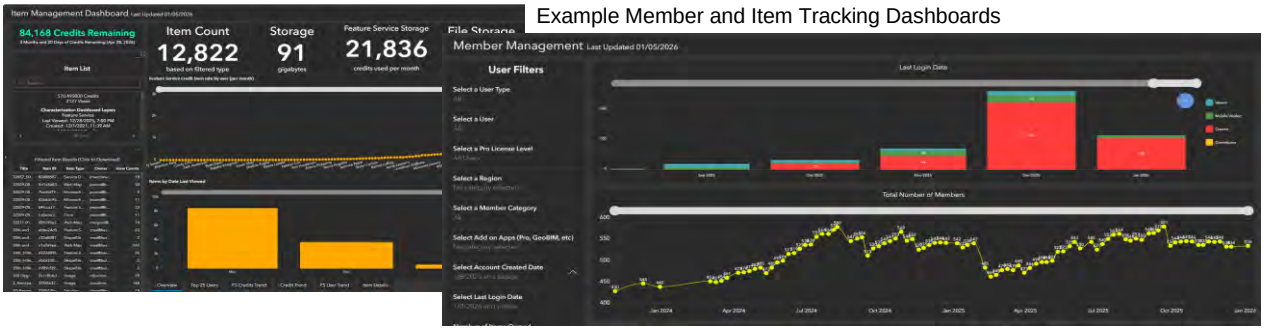
Deliverables

- Recommendations documented in a short Technical Memorandum.



Hazen will act in a system administrator role for the configuration of MWDOC's ArcGIS Online. As an administrator, Hazen will use MWDOC's existing Security Assertion Markup Language (SAML) logins for sign-in. Additionally, custom user roles will be developed and created to support MWDOC's unique user needs. A feature class will be chosen as initial testing data to publish into the ArcGIS Online organization. This will allow Hazen to:

- Configure the landing page of the ArcGIS Online organization to display MWDOC names, logos, and color scheme.
- Deploy and test Backup My Org for backup and archiving of hosted data.
- As proof of configuration, create two dashboards: a member management dashboard and an item tracking dashboard. These dashboards will provide Hazen and MWDOC with an understanding of user licensing and credit consumption for the duration of the contract.



Example Member and Item Tracking Dashboards

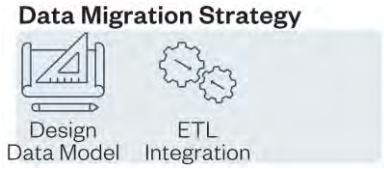
Because ArcGIS Online does not use registered data from a SQL database, integrations with on-prem software solutions like Microsoft Power BI are handled through other means, such as data replication or the ArcGIS for Power BI data visualization tool. Once signed in with ArcGIS Online accounts, users will be able to add content from ArcGIS Online groups to BI for visualization and data manipulation. Hazen will add the test hosted feature layer to a BI for demonstration purposes. Hazen is not responsible for configuration of Power BI software and infrastructure. This scope of work covers using previously established Power BI and demonstrating the integration of ArcGIS Online content.

Hazen will not develop a data hub under this scope of work, but this can be deployed under future development tasks. Additionally, integrations are limited to testing ArcGIS for Power BI data visualization. Other integrations, via REST services or APIs can be completed with additional efforts. Hazen assumes that MWDOC IT maintains and will provide a password manager, such as NordPass, to allow for the secure saving and sharing of key passwords associated with the ArcGIS Online organization. If a password manager is not deployed by MWDOC, Hazen will follow MWDOC IT standard operating procedures for the secure sharing of passwords.

Deliverables

- Configured ArcGIS Online organization

- Member Management and Credit Consumption ArcGIS Online dashboards
- Documentation of organization in a short Technical Memorandum.



Hazen understands the importance of the proofing out the data governance requirements developed in previous tasks under this scope of work using real data implementation in the ArcGIS Online organization. Migrating data into ArcGIS Online is the best way to demonstrate its potential and show early wins to stakeholders and users. For this task, Hazen has allotted 20 hours of GIS analyst time to:

- Complete a review of existing data using Hazen custom Data Reviewer tool to identify compliance with basic data quality standards such as attribute completeness and adherence to domains. Results of this tool, in HTML format, will be shared with MWDOC.
- Meet with MWDOC to determine the best "early win" dataset for publishing.
- Provide feedback and recommendations on the existing data model.

Hazen expects that the effort to complete these activities for all of the Water Use Efficiency, Water Loss Control, and WEROC data to be significantly greater than the level of effort available under this scope of work. Therefore, Hazen will complete the review of existing data for up to three data sources and meet with MWDOC to agree on the best dataset to update and publish within the hour allocation.

The development of a detailed plan, outlining all processes for ETL, quality control, and testing can be completed with additional funding if required. Hazen proposes to track ETL through Esri Model Builder, FME, and/or Python scripts and leverage populated metadata for tracking.

Deliverables

- HTML documentation of Water Use Efficiency, Water Loss Control, and WEROC data.
- Documented data model and migration strategy.

5.9 Optional Project: WEROC Information-Sharing Platforms

The scope and fee for the optional project to develop WEROC Information Sharing Platform will be informed by tasks 5.1 through 5.8. The scope and fee for 5.9 is non-binding and for planning purposes only. The final scope will be negotiated separately as a new task order.

ArcGIS Velocity, Esri's solution for IoT and real-time data ranges in price from $20,600 to $46,350 per year based on the number of real-time feeds required. Based on discussions with MWDOC, true real-time feeds are not necessary at this time. Therefore, the use of Velocity is not included in cost estimates.

5.9.1 Discovery and Requirements Gathering

- Hazen will conduct up to four meetings with WEROC stakeholders.
- Focus will be on the types and sources of data required as part of this platform.

5.9.2 Group Sharing Architectural Design

- Development of a group-based architecture in ArcGIS Online for the WEROC Information Sharing Platform. We will consider Experience Builder and ArcGIS Hub Site as the front-end for access, applications, and data views.
- Hazen will develop a visual diagram of the proposed architecture, in the form of a swim lane diagram, that shows connectivity of feature services and applications.

5.9.3 Data Sharing Schema Development and Documentation

- Hosted data sources will generally take the form of shared feature layers from internal and external sources. Hazen will develop up one web map to facilitate their inclusion into the platform.
- Hazen will develop a data collection application with Survey123 or Field Maps to assess emergency damage assessment.
- Hazen will develop up to two custom data integrations to pull contextual data such as fire perimeters and evacuation data using web APIs to source data and feature layers to store data.

5.9.4 Platform Configuration and Development

- Develop up to two web applications such as Experience Builder, Dashboard, or Instant App.
- All applications will be developed in the MWDOC ArcGIS Online platform.

5.9.5 Testing and QA

- Up to 20 hours to test functionality of the WEROC Information Sharing Platform.
- Implementation of one round of feedback from WEROC user acceptance testing.

5.9.6 Training

- Hazen will develop and conduct up to two training sessions to show access and survey population. The sessions will be recorded.
- Creation of documentation in the form of User Guide for the access of data and population of forms.

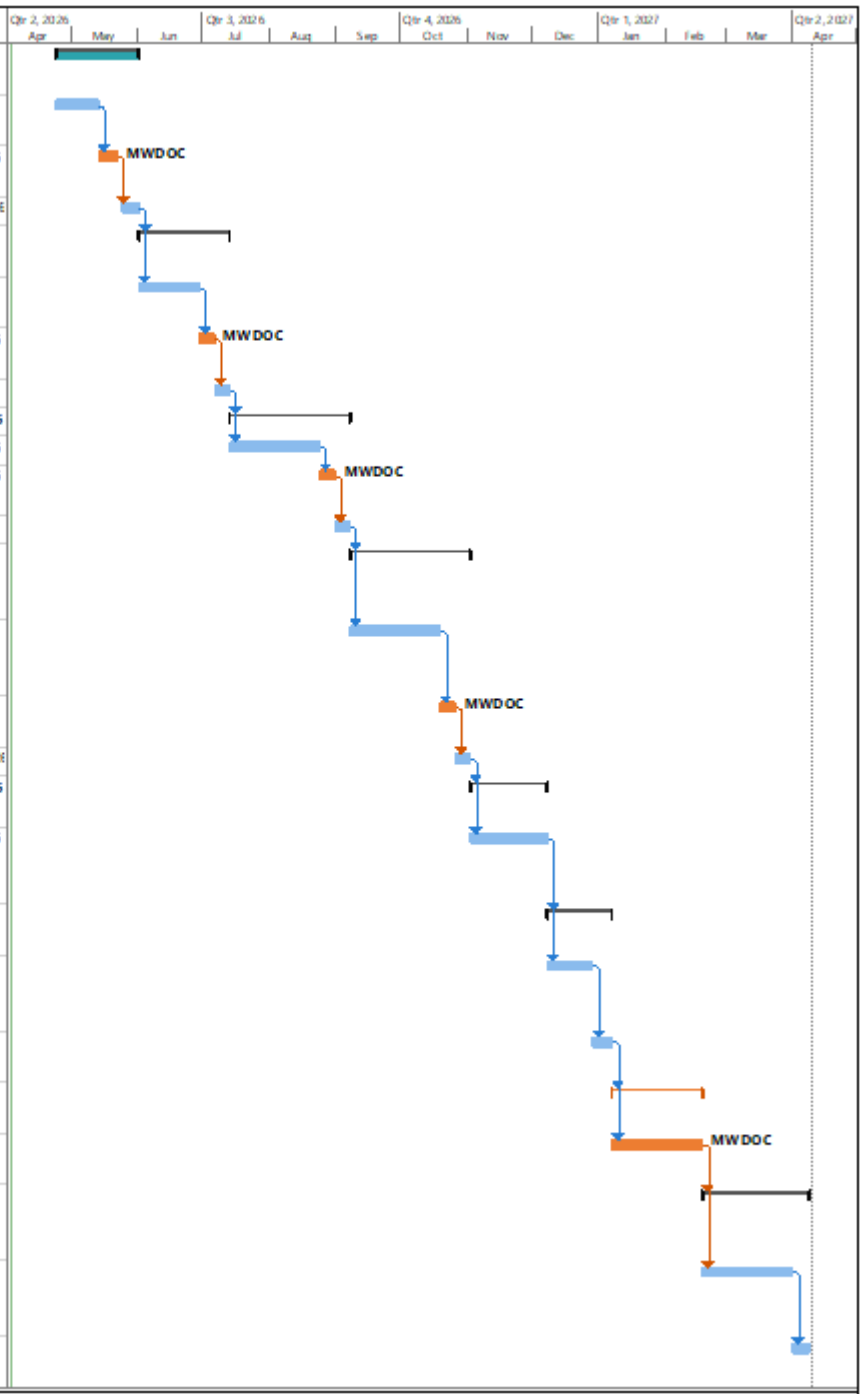
5.9.7 Deployment and Ongoing Support

- Up to 16 hours of GIS Analyst time to support the go-live and address needs as identified.

Project Schedule

A detailed schedule for tasks 5.1 through 5.8 and a planning level schedule for optional task 5.9 is seen on the following pages.

ID	Task Name	Duration	Start
1	**5.1 Review of MWDOC GIS Needs**	**27 days**	**Fri 4/24/26**
2	Review of Needs Assessment	14 days	Fri 4/24/26
3	MWDOC Review of Draft TM	7 days	Thu 5/14/26
4	Final TM	6 days	Mon 5/25/26
5	**5.2 Governance Framework**	**30 days**	**Tue 6/2/26**
6	Governance Framework	20 days	Tue 6/2/26
7	MWDOC Review of Draft TM	5 days	Tue 6/30/26
8	Final TM	5 days	Tue 7/7/26
9	**5.3 GIS Policy**	**40 days**	**Tue 7/14/26**
10	GIS Policy	30 days	Tue 7/14/26
11	MWDOC Review of Draft	5 days	Tue 8/25/26
12	Final TM	5 days	Tue 9/1/26
13	**5.4 GIS Implemenatalon Plan**	**40 days**	**Tue 9/8/26**
14	GIS Implementation Plan	30 days	Tue 9/8/26
15	MWDOC Review of Draft	5 days	Tue 10/20/26
16	Final TM	5 days	Tue 10/27/26
17	**5.5 Software License Procurement**	**26 days**	**Tue 11/3/26**
18	Software License Review and Procurement	26 days	Tue 11/3/26
19	**5.6 Software Requirements**	**22 days**	**Wed 12/9/26**
20	Hardware, Server, and Network Requirements	15 days	Wed 12/9/26
21	Final Documentation	7 days	Wed 12/30/26
22	**MWDOC PROCUREMENT**	**30 days**	**Fri 1/8/27**
23	MWDOC Procurement	30 days	Fri 1/8/27
24	**5.7 Esri Software Installation and Configuration**	**36 days**	**Fri 2/19/27**
25	Esri Software Installation and Configuration	30 days	Fri 2/19/27
26	Admin Dashboards	6 days	Fri 4/2/27



	Months									
Optional Task: WEROC	1	2	3	4	5	6	7	8	9	10
Task 5.9.1 - Discover and Requirements Gathering	■	■								
Task 5.9.2 - Group Sharing Architectural Design		■								
Task 5.9.3 - Data Sharing Schema Development and Documentation			■							
Task 5.9.4 - Platform Configuration and Development				■	■	■				
Task 5.9.5 - Testing and QA						■	■			
Task 5.9.6 - Training								■		
Task 5.9.7 - Deployment and Ongoing Support									■	■

E. Project Fee Schedule

A detailed project fee schedule as well as rates for each staff member associated with the project are seen below. These rates are good through April 2027.

Title	Rate
Vice President	$395
Senior Associate II	$345
Principal GIS Analyst II	$180
Principal GIS Analyst I	$170
Senior GIS Analyst	$150
GIS Analyst	$145
Communications Manager	$215

Hazen MWDOC GIS Governance		Project Director Cindy Miller	Project Manager Kirsten Plonka	Technical Advisor /QAQC Ryan O'Banion	Implementation Lead Ken Camacho	GIS Analyst Zach Webb	GIS Analyst Nicklaus Nielsen	Communications Advisor Megan Drummey				
Task	Description	$395	$345	$345	$180	$150	$150	$215	Labor Hours	Labor	Expenses	Total
1	Project Management and Coordination	2	16	0	0	0	0	0	18	$ 6,310	$ 300	$ 6,610
2	Review of the MWDOC GIS Needs Assessment Hardware and Software Recommendations	0	1	4	5	0	16	0	26	$ 5,025	$ -	$ 5,025
3	GIS Governance Framework Design	1	12	26	34	0	64	16	153	$ 32,665	$ -	$ 32,665
4	GIS Policy Document	0	4	8	8	8	24	0	52	$ 10,380	$ -	$ 10,380
5	GIS Implementation Plan	0	1	8	8	0	24	0	41	$ 8,145	$ -	$ 8,145
6	Software License Review and Procurement Recommendations	0	1	4	2	0	16	0	23	$ 4,485	$ -	$ 4,485
7	Hardware, Server, and Network Requriements	0	1	1	2	0	20	0	24	$ 4,050	$ -	$ 4,050
8	Esri Software Installation and Configuration	0	1	2	8	8	32	0	51	$ 8,475	$ -	$ 8,475
	Total	3	37	53	67	16	196	16	388	$ 79,535	$ 300	$ 79,835
OT 1	Dashboard for Tracking Education	1	0	2	0	8	16	0	27	$ 4,685	$ -	$ 4,685
	Total with Optional Tasks	4	37	55	67	24	212	16	415	$84,220	$300	$84,520

Hazen WEROC Information-Sharing Platform		Project Director Cindy Miller	Project Manager Kirsten Plonka	Technical Advisor /QAQC Ryan O'Banion	Implementation Lead Ken Camacho	GIS Analyst Nicklaus Nielsen	GIS Analyst Claire Waller	GIS Analyst Zack Webb				
Task	Description	$395	$345	$345	$180	$150	$145	$170	Labor Hours	Labor	Expenses	Total
1	Project Management and Coordination	2	12	0	0	0	0	0	14	$ 4,930	$ 300	$ 5,230
2	Discovery and Requirements Gathering	0	0	12	12	4	0	6	34	$ 7,920	$ -	$ 7,920
3	Group Sharing Architectural Design	0	0	4	4	4	0	8	40	$ 4,060	$ -	$ 4,060
4	Data Sharing Schema Development and Documentation	0	0	4	12	4	4	16	40	$ 7,440	$ -	$ 7,440
5	Platform Configuration and Development (up to 2 Apps)	0	0	4	16	4	50	20	94	$15,510	$ -	$15,510
6	Testing and QA	0	4	4	4	2	12	14	40	$ 7,900	$ -	$ 7,900
7	Training	0	0	2	0	0	28	12	42	$ 6,790	$ -	$ 6,790
8	Deployment and On-Going Support		2	4	0	2	8	8	24	$ 4,890	$ -	$ 4,890
	Total	2	18	34	48	20	102	84	328	$59,440	$ 300	$59,740

Appendix A: Resumes

Full resumes for key staff and all potential staff to work under this project are included in the following pages.



Cindy Miller, PE

Vice President and Operations Manager

Cindy is an experienced Project Manager with a long resume of leading the most challenging water supply projects to successful completion.

Education

B.S., Civil Engineering, University of California, Irvine

Certification/License

Professional Engineer: CA

Areas of Expertise

- Project Management
- Program Management
- Groundwater Supply
- Well Equipping Planning and Design
- Pipeline Planning and Design

Water Master Plan Update and GIS Conversion Project, City of Chino, Chino, San Bernardino County, CA

Principal in Charge. The City of Chino serves over 12 million gallons per day of potable water to a population of approximately 74,000. Key components of this project include the creation of a GIS geodatabase of the City's potable water distribution system, preparation of a Water Master Plan Report, and completion of a Risk and Resiliency Assessment for compliance with America's Water Infrastructure Act requirements. The Water Master Plan effort includes hydraulic model development and calibration; comprehensive hydraulic analysis of the City's conveyance, pumping, and storage facilities; and development of a prioritized Capital Improvement Program for the planning horizon including preliminary cost estimates.

Chino Hills Water and Recycled Water Master Plan, Chino Hills, CA

Principal in Charge. Hazen and Sawyer is currently delivering the City's Water and Recycled Water Master Plan Update. In July 2008, the City of Chino Hills approved and adopted the October 2005 Water, Recycled Water, and Sewer Master Plan. Since 2008, the City has evolved into a more fully developed and almost "built-out" community. Several of the CIP and recommended actions identified in the 2005 Master Plan have been implemented. The City's goal is to create a comprehensive updated Citywide water and recycled water master plan complete with a new GIS-based hydraulic model and mapping tools.

Ridgeline Booster Pump Station, Trabuco Canyon Water District, Lake Forest, CA

Principal in Charge. The Ridgeline Booster Pump Station (RBPS) is a critical facility within Trabuco Canyon Water District's system. The RBPS is the primary means of delivering water from Dimension Water Treatment Plant (DWTP) to the Harris Grade pressure zone and tanks. The project includes preliminary design, final design, and construction support services for the RBPS Project. The project includes complete replacement of the pumps, piping, valving, pump station site improvements, security, and electrical and controls, and additionally, a building analysis and associated structural and architectural upgrades to accommodate the mechanical and electrical improvements at the site.



Kirsten Plonka, PE

Project Manager

Kirsten brings over 20 years of experience in planning, design, and management of water, wastewater, and recycled water systems.

Education

BS, Civil Engineering, California Polytechnic State University, San Luis Obispo

MS, Management, Colorado State University, Global Campus (in-process)

Certification/License

Professional Engineer: CA

Utility Risk & Resilience Certified by AWWA

Advanced Water & Wastewater Modeling Certified by Autodesk

Areas of Expertise

- Water Supply Planning and Modeling
- Water Resource Planning
- Water and Collection System Master Planning
- Risk, Resiliency, and Emergency Response Planning
- Feasibility Studies
- Funding

Professional Activities

American Society of Engineers

American Public Works Association

Engineers without Borders (former Southern California State Representative)

Lead and Copper Rule Revisions, Western Municipal Water District, Riverside, CA

Deputy Project Manager. Responsible for identifying lead service lines, including collaborating with the March Air Force Base. She led a team that reviewed historical codes, utilized GIS technology, and employed geo-spatial statistical analysis to compile an accurate inventory of lead lines. Kirsten also worked closely with the Division of Drinking Water (DDW) to ensure compliance and provided regulatory advice. Additionally, she developed educational materials and played a key role in evaluating project costs to maintain transparency and public health standards.

Comprehensive System Master Plan and Asset Management Program, San Antonio Water Company, Upland, CA

Project Manager. Lead for master plan and asset management program that guided SAWCo's annual planning and rate structure. Key focus areas included: assessing the current supply portfolio under multiple risk and resilience scenarios; developing recommendations to reinforce current supplies or develop alternative emergency supply sources; delivering a new, calibrated, hydraulic model of the system in conjunction with GIS datasets to improve system operations and CIP development.

Assistance with Water Demand Forecasts, Metropolitan Water District of Orange County, Fountain Valley, CA

Project Manager. Development of long-range water demand forecasts and forecast updates for 30 member agencies across Orange County, in support of the Agency's periodic development of its Urban Water Management Plan. Efforts involved the development of econometric models of M&I water demands, analysis of climate change impacts on water demand and the development and application of risk-based simulation procedures to support long-term supply reliability and capital improvement planning.



Ryan O'Banion, GISP

Senior Associate

Ryan serves as Hazen's Director of Geospatial Services. He is an experienced environmental scientist who leverages GIS for spatial analysis, field data collection, and program management to help clients make informed decisions about their water resources.

Education

MEM, Water Resources, Duke University - Nicholas School of the Environment

BS, Environmental Studies, Bates College

Certification/License

Geographic Information System Professional

Areas of Expertise

- Geographic Information Systems (GIS)
- Geospatial Data Analysis
- ArcGIS Online
- ArcGIS Enterprise

District-Wide Stormwater GIS Development, Metropolitan North Georgia Water Planning District, GA

GIS Technical Advisor. Collaborated with a regional district encompassing over 100 jurisdictions to design and implement a comprehensive stormwater schema in ArcGIS Online (AGO). Developed an ETL process to standardize and convert jurisdictional data into a unified district schema. Delivered a pilot dashboard that supports district-wide visualization and decision-making, laying the foundation for scalable stormwater management solutions.

Water System GIS Development, Beulah, AL

Technical Advisor. Implemented Hazen's water data model for the Town of Beulah, creating a robust GIS framework and deploying it in ArcGIS Online. Built interactive dashboards and web maps to streamline water distribution management and improve operational visibility. Designed the solution to minimize staffing requirements, enabling efficient maintenance for a resource-limited team.

LCRR, MWDOC, Orange County, CA

QA/QC. MWDOC's lead service line inventory project encompasses a partnership of 12 individual water agencies. The project includes development of LSL inventory in GIS, web applications for field collection, and alternative verification methods (geospatial statistical analysis and interpolation). Reviewed ArcGIS sites to test data access across multiple jurisdictions.

LADWP LCRR, Los Angeles Department of Water and Power, Los Angeles, CA

QA/QC. Supported with compliance with LCRR including the service line inventory development in GIS, collaborating with engineers for QC of service line identification, and the use of alternative verification methods (predictive modeling and geospatial statistical analysis).



Ken Camacho, GISP

Principal GIS Analyst

Ken specializes in architecting and developing technology solutions blending commercial off-the-shelf and custom-developed tools.

Education

MS, Geography, Michigan State University

BS, Environmental Science, Colby-Sawyer College

Certification/License

Geographic Information Systems Professional

Areas of Expertise

- Technology solutions development
- Data collection and storage
- Cloud services
- ArcGIS Enterprise
- Python

Public Water System LCRR Compliance Support, New Hampshire Department of Environmental Services, Manchester NH
GIS Administrator/Developer. Set up new ArcGIS Online subscription dedicated to managing service line inventories and providing guidance to 213 public water systems of varying size in New Hampshire. Created data management plan for collecting, updating, and templatizing disparate data from these water systems. Deployed service line inventories with known data and developed mobile and web-based GIS applications for facilitating service line updates. Developed scripts to create applications tailored to each community, manage users, and control access to different content on the platform. Worked with graphics team to develop hub website front-end for users to access their LCRR content.

CMOM Program, Town of Nantucket, MA
GIS Databse Administrator. Worked closely with the Hazen GIS and Technical Applications team in an effort to reconcile versions of Nantucket's GIS system, creating a unified, single database. Also contributed by committing field-based GIS revisions to the GIS database replica, which the Town will be able to incorporate into their geodatabase.

Enterprise GIS Deployment, Passaic Valley Sewerage Commission, Newark NJ
GIS Administrator/Developer. Worked closely with client to assess needs for the configuration and upgrade of an Enterprise GIS system hosted on Azure client. Wrote python code and developed the digital infrastructure to integrate live sensor data with Enterprise GIS environment. Used GeoEvent server with python to detect, log, and send email alerts in response to changing system conditions.

Enterprise GIS Deployment, Lowell Regional Wastewater Utility, Lowell MA
GIS Administrator. Worked with client to develop Enterprise GIS infrastructure architecture plan and coordinated with Esri to perform implementation. Provided training and support services following implementation on desktop and field workflows, GIS administration, security best practices, and GIS tool development. Performed data cleaning and mi-



Claire Waller

GIS Analyst

Claire serves as a GIS Analyst in the San Francisco. She is committed to providing essential support in data analysis and GIS for water and wastewater projects, contributing to Hazen's digital strategies and solutions.

Education

BS, Anthropology and Geography, Concentration in Environmental Studies and Sustainability, California Polytechnic State University

Areas of Expertise

- Geographic Information Systems
- Data Analysis
- Asset Management

CRR Support, Arizona Department of Environmental Quality, Arizona

GIS Analyst. Developed LSL inventories for over 50 small jurisdictions using GIS models. Collaborated with a large team to gather records, collect data, and qc model and inventory development. Ensured the development of inventories in line with national and state level regulations

Long-Term Water Demand Forecasts, Municipal Water District of Orange County, Fountain Valley, CA

GIS Analyst. Supported development of water demand forecasts for Orange County water agencies in coordination with the Municipal Water District of Orange County (MWDOC). Contributions included developing demographic projections for member agencies, analyzing historical water consumption trends at the individual agency level, and providing technical support during forecast development and review.

CMOM Program, Town of Nantucket, MA

GIS Analyst. Assisted the Town of Nantucket with a stormwater drainage system assessment. Supported Hazen in the continued maintenance of a CMMS within ArcGIS Enterprise Portal, used by both contractors and City staff during field assessments. Ensured QA/QC by reviewing and validating contractor-submitted updates to stormwater assets (e.g., pipes, manholes, inlets), incorporating approved changes into the City's GIS. Successfully synchronized verified updates to Nantucket's SQL-based enterprise data source.



Zack Webb

Principal GIS Analyst

Zach has experience developing static and web solutions across the ESRI suite of products including ArcGIS Pro, ArcMap, ArcGIS Online, Field Maps, and Survey123.

Education

BS, Environmental Resource Management with minor in GIS
Pennsylvania State University

BS, Computer Science, Oregon State University

Areas of Expertise

- Desktop GIS
- Field Data Collection
- Web Based GIS
- Computer Science

District-Wide Asset Management Plan, El Toro Water District, Lake Forest, CA

GIS Analyst. Extended a pumping asset management program to the force main system, including the implementation of a GIS script tool for risk assessment. This information was used to identify and prioritize the District's capital improvement program. Deliverables of the work included an updated asset register, written asset management plan, ArcGIS Online web applications, and a Power BI dashboard.

Botanical Surveys and Jurisdictional Delineation, Redonda/Bajada/ Savira Solar Project, Riverside County, CA

Supported botanical surveys and delineations for jurisdictional wetland/ waters of the U.S. for construction of a proposed solar project on BLM and private land in Riverside California, to support the application for an individual permit under Sections 404 and 401 of the CWA, and to determine the presence of ephemeral washes, desert dry wash woodlands, and other high quality and sensitive resources present within the project boundary to inform mitigation and conservation measures. Identified and mapped ordinary high-water mark (OHWM) along waters, laterals, and ephemeral drainages. Evaluated area for federally listed, state listed, and BLM sensitive species habitat, including populations of several BLM sensitive plant species. Exceptionally high amounts of Eriastrum harwoodii was found and dramatically changed the potential project boundary. Additionally, a detailed sand transport dataset was created using 3 other sand transport datasets.

Botanical and Wildlife Surveys and Permitting Support, Nivloc Solar Project Proposed Development, Esmeralda County, NV

Zack worked with the GIS team to develop a data management plan for use on the project. Additionally, a data sharing group in ArcGIS online was established with teaming partners to facilitate the ease of sharing data and deliverables. Leveraging a suite of field data collection methods using Esri software Survey123 and Field Maps along with other remote sensing equipment including Bat acoustic surveys. Data analysis will fulfill all applicable permits required on BLM land.



Nick Nielsen

Senior GIS Analyst

Nick delivers enterprise-level systems administration support and leverages GIS technology to streamline workflows and address complex technical challenges.

Education

BS, Geography and Geospatial Science, Oregon State University

Areas of Expertise

- Esri's ArcGIS Enterprise
- ArcGIS Online
- ArcGIS Pro
- ArcGIS Server Manager
- SQL Server Management Studio

Production Data Maintenance State of Colorado DOT, Denver, CO
Senior GIS Analyst. Provided consulting services on annual processes and reporting requirements for publication workflows including management of ArcGIS Enterprise for Portal (Test, Dev, and Prod), ArcGIS Server, and SQL databases via SSMS. Formalized documentation for training on developed processes to internal users. Performed the client's migration from ArcMap to ArcGIS Pro, leveraging ModelBuilder and Python to create custom tools essential for maintaining data integrity within Enterprise feature service environments. Created various Python script tools for validations and workflow streamlining during editing processes, improving process times for editor workflows to meet reporting requirements and timelines.

RAISI Project for New South Wales, Sydney, NSW
Senior GIS Consultant. Managed ETL functionality and logic accuracy for asset data migration to GIS. Managed LRS processes and accuracy, providing workflow documentation to the GIS team, and documentation for test script scenarios. Created a provisioning document required for architecture and design of UAT and Production environments. Acted as a subject matter expert on a required statewide datum transformation, providing the client with guidance on implementation timelines.

Crash Handler Development State of Kansas DOT, Topeka, KS
GIS Analyst. A custom developer tool was requested to leverage ArcGIS APIs that would consume live data via ArcGIS Portal. This tool identifies changes in emergency response data on a nightly basis to help pinpoint areas of concern based on spatial location and type. Activities involved providing QA/QC to developers, documenting bugs and their potential solutions. Created a custom QA/QC tool using ModelBuilder and provided supporting workflow documentation to the client that communicated proper tool functionality and outputs for client-level verification.



Megan Drummy

Communications Manager

Megan has experience leading public outreach and engagement for water, wastewater, and water reuse infrastructure projects. She specializes in developing strategic communication plans, translating technical content for public audiences, and fostering community support for complex infrastructure initiatives.

Education

B.A., Literary Journalism, University of California

Areas of Expertise

- Community outreach and public engagement
- Development and implementation of outreach programs for water infrastructure projects
- Writing and editing
- Stakeholder research
- Stakeholder outreach (tours, presentations, etc.)
- Event planning and execution (in person and virtual)
- Construction relations
- Materials development (communication plans, fact sheets, press releases, etc.)
- Website content and social media writing
- Youth program development

Drought Response Planning; Santa Clara Valley Water District
Outreach Lead. Megan has supported Valley Water in their stakeholder engagement process that is part of their drought response planning. She has developed agendas and materials for stakeholder meetings and facilitated virtual meetings and breakout sessions for groups including a community task force.

Alvarado 2nd Pipeline Extension Project; City of San Diego, CA
Outreach Lead. Megan led the outreach program during the design of this project, which will extend and replace aging water pipelines for San Diego's coastal communities and impact a major thoroughfare in the center of the city. She provided day-to-day strategic counsel; wrote a public outreach plan and key project messages; developed a community presentation and coordinated presentations for planning groups throughout the city; identified key stakeholders and participated in stakeholder meetings; and created materials including a project fact sheet, stakeholder mailers, and a dedicated project webpage. She also served as the project Public Information Officer, managing and responding to questions received via the project email address and hotline number.

Regional Recycled Water Program (now Pure Water Southern California), Metropolitan Water District of Southern California; Los Angeles, CA
Outreach Lead. Megan advised communications staff about the design of their water purification demonstration facility, including developing the facility tour pathway and public tour experience. She also developed messages, worked on community network mapping, and developed an outreach plan for the launch of their community education program. Following this initial work, she worked with the client team to develop an action plan for outreach to the disadvantaged communities that would be impacted by pipeline construction for a full-scale program, and to create a more inclusive public involvement plan that addressed environmental justice concerns.

Item No. 5

ACTION ITEM
May 20, 2026

TO: **Board of Directors**

FROM: **Planning & Operations Committee**

Harvey De La Torre, General Manager

Staff Contact: Sarina Sriboonlue, Principal Engineer
Charles Busslinger, Dir. of Engineering/Dist. Engineer

SUBJECT: **SCHEDULE PUBLIC HEARING FOR CONSIDERATION OF RESOLUTIONS TO ADOPT THE 2025 WATER SHORTAGE CONTINGENCY PLAN AND THE 2025 URBAN WATER MANAGEMENT PLAN**

STAFF RECOMMENDATION

Staff recommends the Planning & Operations Committee direct staff to proceed with the scheduling of a public hearing for the May 20 Regular Board meeting to receive input from the public and consider adoption of the proposed plans.

COMMITTEE RECOMMENDATION

(To be determined at Committee Meeting)

REPORT

Purpose

This item requests the Planning & Operations Committee direct staff to proceed with the scheduling of a public hearing for the May 20 Regular Board meeting to receive public input and consider adoption of the proposed 2025 Water Shortage Contingency Plan (WSCP) and the proposed 2025 Urban Water Management Plan (UWMP).

Background

The State of California requires all water suppliers (including wholesalers, either publicly or privately owned) that provide water for municipal purposes to more than 3,000

customers or supply more than 3,000 acre-feet annually to submit an updated UWMP to the Department of Water Resources (DWR) at least once every five years, in years ending in six and one. To meet the requirements of the California Urban Water Management Planning Action (Act), MWDOC must adopt and submit its 2025 UWMP and 2025 WSCP to DWR by July 1.

Discussion

MWDOC prepared its 2025 UWMP, fulfilling state requirements under the Act. The UWMP evaluates long-term projected demands, water supply reliability, and preparedness for water shortages for the 2025–2050 planning horizon.

Findings confirm that MWDOC is projected to meet water demands within its service area under normal, single-dry, and multiple-dry year conditions through 2050, supported by Metropolitan Water District of Southern California's (Metropolitan) regional portfolio for imported water, robust local groundwater production, and expanded recycled water programs.

The key technical elements of the 2025 UWMP encompass long-term projections of regional water demands and supplies through 2050, a comprehensive assessment of supply reliability under varying hydrologic conditions, a near-term drought risk evaluation for 2026–2030, documentation of regional wholesaler implementation of demand management measures, and an updated WSCP.

Water Demand and Supply Outlook (2025–2050)

- A modest population growth of 2.6% is projected for the MWDOC service area from 2.36 million in 2025 to ~2.43 million by 2050. Housing units are projected to increase from ~911,000 in 2025 to ~1,017,000 in 2050 with densification and Accessory Dwelling Units (ADU) growth reflected in demand projections.
- Average annual total water use within the MWDOC service area over the past five years is 406,563 acre-feet (AF) (FY 2020–2021 to 2024–25). Total water demand is projected to 414,936 AF by 2050.
- Imported water demand is projected to decrease by 7.7% from 123,753 AF (2025) to 114,275 AF (2050).
- Groundwater remains the backbone of regional local supply in north-central Orange County, supported by the Orange County Water District's expanded Groundwater Replenishment System (GWRS) to 130 million gallons per day (MGD). The Orange County Groundwater Basin's (OC Basin) Basin Production Percentage (BPP) is projected to remain at 85% through 2050. Overall, local groundwater is expected to provide ~51% of total supplies by 2050 within the MWDOC service area.
- Recycled water use is projected to remain stable countywide, with moderate increases in South Orange County.

Water Supply Reliability

- MWDOC is projected to meet all imported water demands under normal, single-dry, and five-consecutive-dry year scenarios through 2050, based on Metropolitan's 2025 UWMP reliability assessment.
- Metropolitan's reliability is supported by diversified supplies, including the Colorado River Aqueduct, State Water Project, strong storage reserves (>3.8 million AF), as well as groundwater banking and transfer programs.
- Metropolitan's supply augmentation (e.g. storage withdrawals) closes any dry-year gaps to avoid shortages.
- Local reliability is enhanced by OC Basin management, increased recycled water, and new local supply projects, such as Doheny Ocean Desalination (5,600 AFY beginning 2030).

Water Shortage Contingency Plan

- The 2025 WSCP contains minor updates from the 2020 WSCP to reference updated resources, such as the MWDOC 2024 Multijurisdictional Hazard Mitigation Plan.
- The WSCP still maintains DWR's six standardized shortage levels (up to >50% reduction). The demand reduction and supply augmentation actions by shortage level in the 2025 WSCP remain consistent with the 2020 WSCP.
- Procedures for the Annual Water Supply and Demand Assessment (due to DWR every July 1), communication protocols, and emergency response also remain consistent.

Demand Management Measures

- MWDOC continues to support and implement a comprehensive suite of Demand Management Measures (DMMs) that help reduce potable water use, improve water system efficiency, reduce system losses, and help retail agencies meet state water conservation and water loss standards.
- As the regional wholesaler, MWDOC facilitates the implementation of DMMs throughout Orange County. MWDOC's efforts focus on three areas: Regional Program Implementation, Local Program Assistance, and Research and Evaluation.

Public Notification

A notice of public hearing regarding the proposed 2025 Water Shortage Contingency Plan and 2025 Urban Water Management Plan is scheduled to be published in the Orange County Register on May 6 and republished on May 13. In accordance with state guidelines, a notice inviting public review of the draft plans and providing information regarding the upcoming meetings was emailed to Orange County agencies.

Should the Board decide to adopt the proposed 2025 Water Shortage Contingency Plan and 2025 Urban Water Management Plan following the May 20 public hearing, staff will carry out the following to fulfill the requirements of the Act:

- Finalize and submit the 2025 UWMP and 2025 WSCP to DWR by July 1;
- Provide copies to the California State Library and to any city or county within which MWDOC provides water supplies; and
- Make the 2025 UWMP and 2025 WSCP available for public review at MWDOC's offices and on its website.

Next Steps

Staff recommends the Planning & Operations Committee direct staff to proceed with the scheduling of a public hearing for the May 20 Regular Board meeting to receive public input and consider adoption of the proposed 2025 WSCP and the proposed 2025 UWMP.

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

☒ *Clarifying MWDOC's mission and role; defining functions and actions.*
☒ *Balance support for Metropolitan's regional mission and OC values and interests.*
☐ *Strengthen communication 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: Direct staff to proceed with the scheduling of a public hearing for the May 20 Regular Board meeting to receive input from the public and consider adoption of the proposed 2025 WSCP and the proposed 2025 UWMP.

Fiscal Impact: $1,680 for the notice of public hearing regarding the proposed 2025 WSCP and 2025 UWMP to be published in the Orange County Register.

Option #2: Defer the public hearing and adoption of the 2025 UWMP and 2025 WSCP to the June 17 Regular Board meeting.

Fiscal Impact: Depending on the reason for the deferral, additional funds may be needed to have MWDOC's consultants revise the documents. In addition, there could be fiscal impacts to MWDOC's Member Agencies, depending on the revisions.

Budgeted: ☒ Yes ☐ No ☐ N/A		Budgeted amount: $82,000
Core: ☒	Choice: ☐	Movement between Cost Centers: ☐ Yes ☒ No
Action item amount: $1,680		

Attachments/Links:
Attachment 1: 2025 UWMP & 2025 WSCP Public Hearing Presentation
Link 1: MWDOC 2025 UWMP Webpage https://www.mwdoc.com/your-water/urban-water-management-plan/







MWDOC's 2025 Urban Water Management Plan & 2025 Water Shortage Contingency Plan

Regular Board Meeting

UWMP Requirements

- **State of California, Department of Water Resources (DWR) requirement:**
  - **Who:** Every water supplier, publicly or privately owned, that provides water for municipal purposes to **>3,000 customers or >3,000 acre-feet annually**.
  - **What:** "UWMPs support suppliers' long-term resource planning to ensure adequate water supplies are available to meet existing and future water needs."
  - **When:** Every **5-years**, ending in 1 and 6, on July 1st.
  - **Why:** Statutory requirement in the Water Code. Non-submission impacts eligibility for state grants



UWMPs Through the Years: Early Years

	Drivers	UWMP Requirements	Agencies' Implications
1980s	• **1976-77 drought** • Rapid statewide growth in the 1970s/80s. • Recognized need for standardized statewide water supply planning	• **1983 UWMP Act established.** Requires urban water suppliers (≥3,000 connections or ≥3,000 AFY) to file a 5-yr UWMP covering normal, single-dry & multi-dry years	• **Formalize 20-25 yr planning** that integrates supply portfolios, demand projections, and reliability assessment into one document. • **Standardize public process** (notification, hearing, adoption).
1990s 2000s	• **1987-1992 drought**. Recurring droughts late 90s early 2000s. • Growing statewide emphasis on conservation as a resource. • Push for consistent statewide water planning	• **1990s – 2000s: Expanded content** Formalized reliability assessment (3 hydrologic scenarios) • Conservation programs reporting • Tied compliance to state grants	• **Compliance + funding:** Preserve eligibility for state funding and demonstrates accountability to regulators and the public.

UWMPs Through the Years: Later Years

	Drivers	UWMP Requirements	Agencies' Implications
2010s	• **2007-2009 drought led to SBX7-7** 20% per capita reduction by 2020 • State push for efficient water use • Fed and state interest in long-term sustainability of the Delta	• **2010 UWMPs to document compliance to SBX7-7**, associated WUE[1] & conservation programs. • **2015 UWMPs to include Reduced Delta Reliance** Reporting	• **Greater wholesale-retail coordination:** regional alliances for SBx7-7 compliance • **UWMP as a planning reference** to justify new develop (WSA[2]), and capital investments (CIP[3]) of local projects, storage, interties, etc.
2020s	• **2013-2016 drought** led to statewide emergency drought declarations & mandatory cutbacks. • **2018-2020 Making Conservation a Way of Life** (SB 606 and AB 1668) established.	• **2020 UWMPs added new major requirements for shortage planning**: 5-yr near-term Drought Risk Assessment, standalone WSCP[4], Annual Supply & Demand Assessment, water loss reporting	• **Increased Regional Alignment:** Retailers and wholesalers align assumptions, share demand modeling, and coordinate drought response

[1] WUE – Water Use Efficiency
[2] WSA – Water Supply Assessment (SB 610)
[3] CIP – Capital Improvement Plan/Program
[4] WSCP – Water Shortage Contingency Plan

MWDOC's Regional Approach

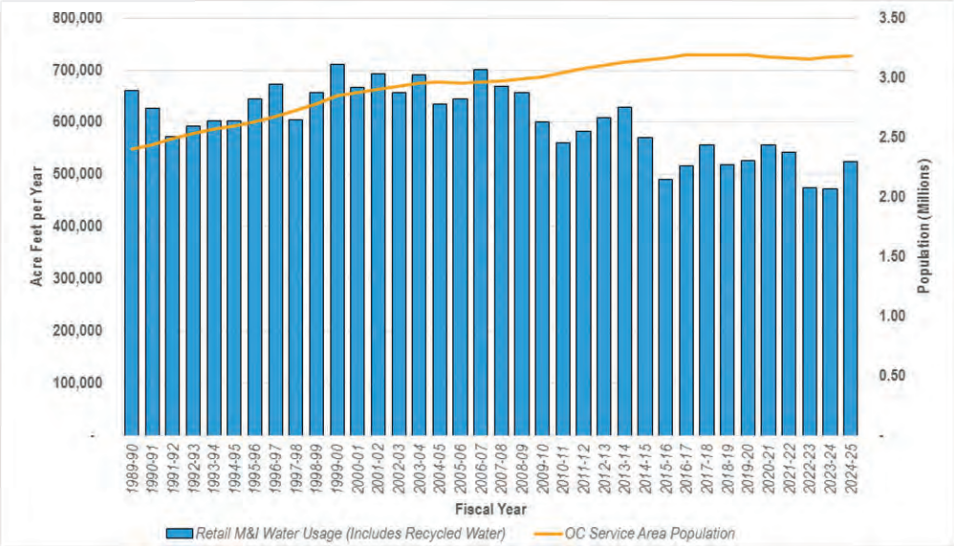
- **MWDOC's UWMP is a regionally focused plan.**
- **Provides analysis and information at the regional level**
  - OC Demand Model informed UWMP demand projections and supply analysis
  - MWDOC service area wide water use efficiency and public education activities and efforts
  - Coordination of Water Shortage Contingency Plans
- **Coordination among OC water agencies**
- **Coordination with Metropolitan**

UWMP Key Elements

Water Use Characterization	• Historical, current, and projected water use by customer category for the next 20-25 years
Water Supply Characterization	• Historical, current, and projected water supply portfolio + planned projects and potential supply for the next 20-25 years
Water Service Reliability & Drought Risk Assessment	• Assessment of water service reliability for 3 hydrologic scenarios: normal year, single-dry, and 5 consecutive dry years; focus on 2026-2030
Water Shortage Contingency Plan	• Structured guide to deal with water shortages, standardized shortage stages with implementation actions to augment supply and/or reduce demand
Demand Management Measures	• Documentation of water use efficiency program implementation; SBX7-7 recap

Water Use Characterization

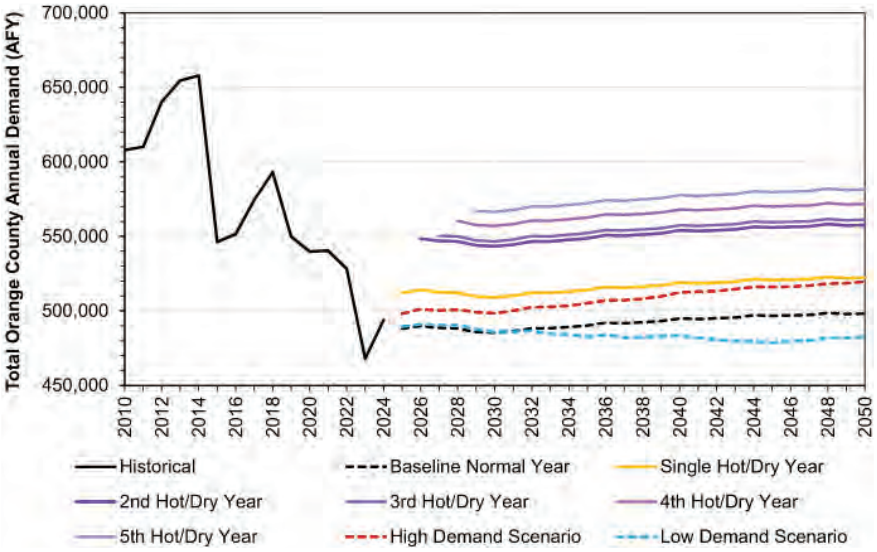
- FY 20-21 and FY 21-22: highest water use over last 5 years due to drought
- FY 22-23 and FY 23-24: lowest water use in 40-yr history
- MWDOC's service area **total** demand over last 5 years: 406,563 AF
- MWDOC's service area **imported** water demand FY24-25: 123,753 AF (31% of total demand)
- Long-term demand trends remain flat



***Total Orange County** demand continues to trend down since early 2000s, while population has increased more than 700,000 (+30%) since early 90s.*

Water Use Projections

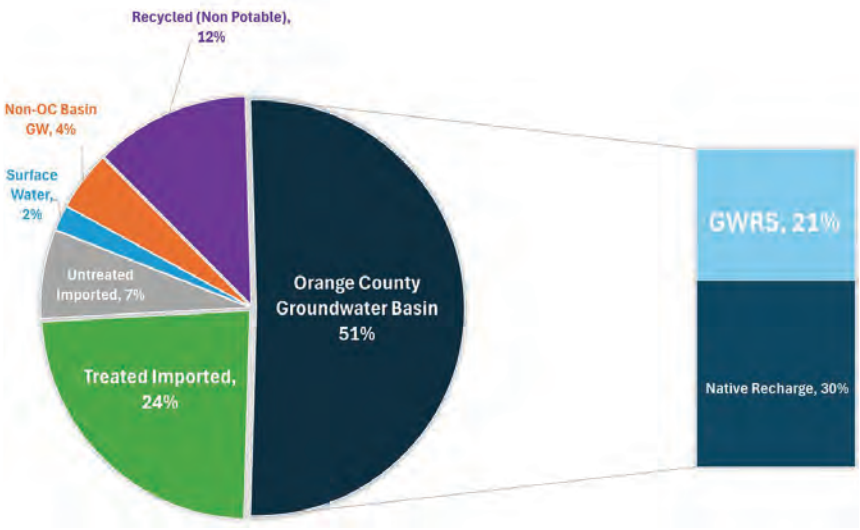
- MWDOC, OCWD & OC retail agencies developed the 2025 OC Water Demand Projection Model.
- Normal year demands projected to be relatively flat through 2050 (baseline demand)
- **Single-dry year**: **5%** increase from normal year demand
- **Five consecutive dry years**: **12-17%** increase from normal year demand
- Demand for MWDOC imported water is projected to **decrease** **7.7%** over 25 yrs:
  - 2025: 123,753 AF
  - **2050: 114,275 AF**



***Total Orange County** water demands under varying hydrologic scenarios*

Water Supply Characterization

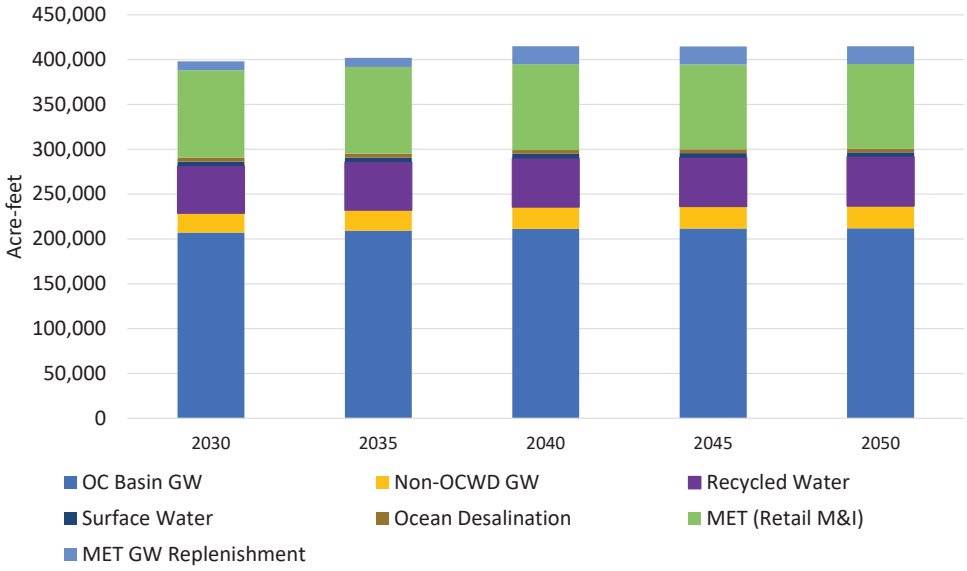
- MWDOC's imported water deliveries FY24-25: 123,753 AF
- Imported water from MET represents ~31% of FY24-25 supply
- Groundwater represents ~55% of FY24-25 supply
- Groundwater pumped within MWDOC's service area has reduced ~4% over last 5 years.



FY 2024-25 supply mix within MWDOC's service area

Water Supply Projections

- Groundwater represents ~57% of future supply. OC Basin BPP[1] projected to remain at 85%.
- Recycled water supply ~13% thru 2050 (54,975 AFY)
- Doheny Ocean Desal (5 mgd or 5,600 AFY) expected online 2030.
- MET imported water ~25% in 2030 ~23% by 2050 (94,275 AFY)



[1] BPP = Basin Pumping Percentage

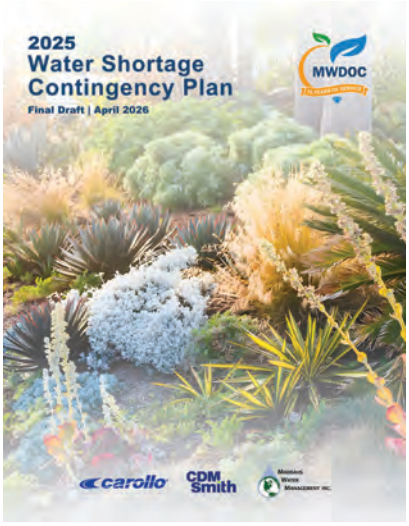
*Supply portfolio to meet demands within **MWDOC's service area** (2030 – 2050)*

Water Supply Reliability Assessment

- MWDOC is projected to meet all imported water demands under normal, single-dry, and five-consecutive-dry year scenarios through 2050.
- MET's reliability is supported by diversified supplies, including Colorado River Aqueduct, State Water Project, storage reserves (>3.8 MAF), groundwater banking, and transfer program.
- Supply augmentation (e.g. storage withdraws) closes any dry-year deficits.
- Local reliability is enhanced by OC Basin management, water reuse, and new local supply projects (e.g., Doheny Desal).

Water Shortage Contingency Plan

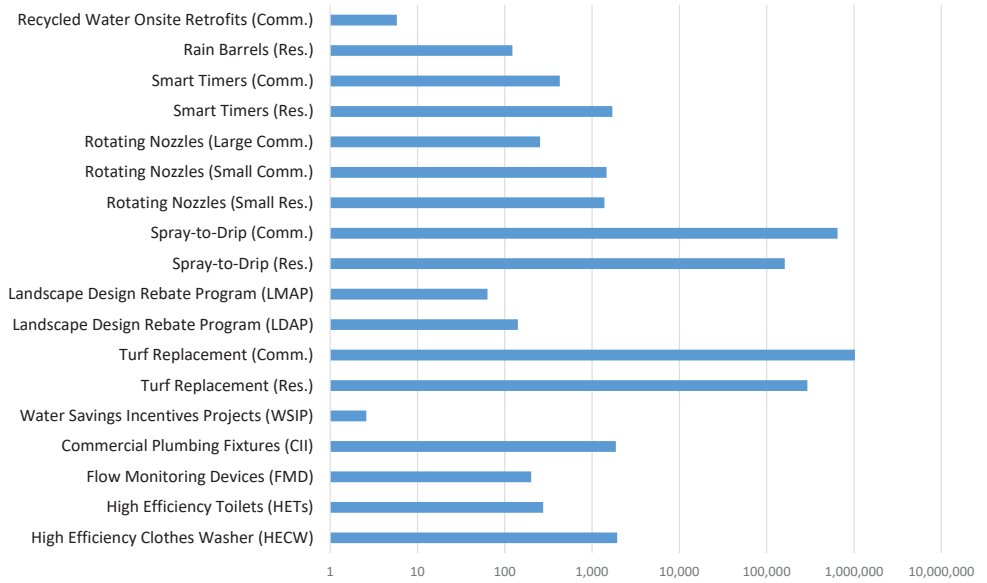
- No new DWR requirements this year.
- Six standardized shortage levels from 10% to >50% shortage).
- Prescriptive supply augmentation and demand reduction actions by shortage level.
- Procedures for Annual Water Supply & Demand Assessments, communication protocols, and emergency response.
- Alignment with MET's Water Supply Allocation Plan and Water Surplus and Drought Management Plan.



MWDOC's Water Shortage Contingency Plan

Demand Management Measures (DMMs)

- As a regional wholesaler, MWDOC's efforts focus on three areas:
  - Regional Program Implementation
  - Local Program Assistance
  - Research and Evaluation
- MWDOC continues to support a comprehensive suits of DMMs.

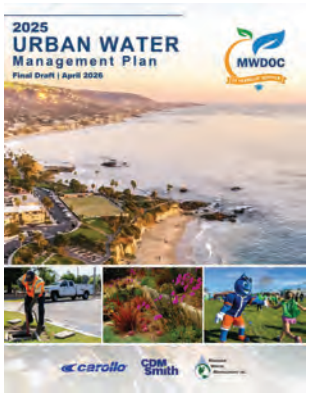


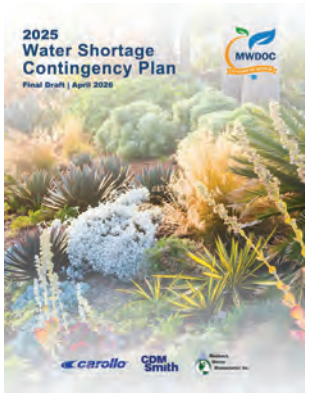
[1] Turf replacement is measured in square feet while other programs are measured in number of devices or projects

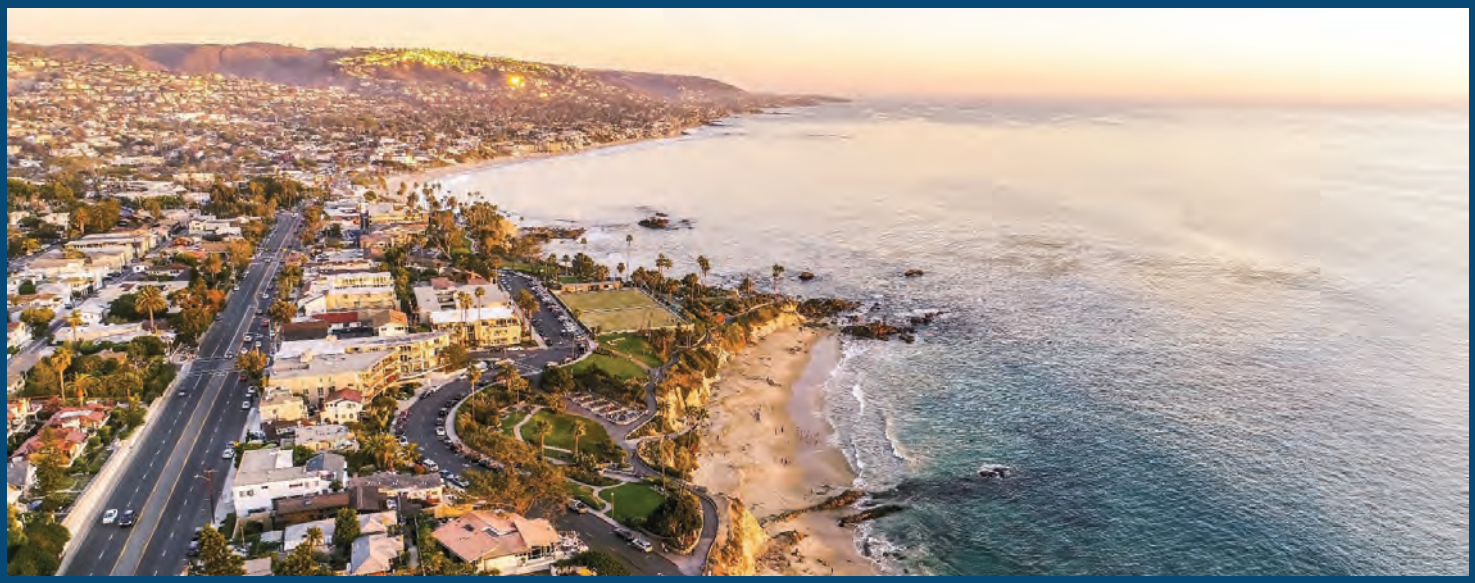
Staff Recommendation

Staff recommends the Board of Directors:

- Open the public hearing (as noticed) regarding the proposed 2025 Urban Water Management Plan and proposed 2025 Water Shortage Contingency Plan to receive input from the public;
- Discuss and consider the proposed plans and resolutions;
- Adopt a resolution Approving the Adoption of the 2025 Water Shortage Contingency Plan; and
- Adopt a resolution Approving the Adoption of the 2025 Urban Water Management Plan.







Thank you!

Item No. 6

INFORMATION ITEM
May 4, 2026

TO: **Planning & Operations Committee**

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

Staff Contact: Damon Micalizzi, Director of Public Affairs

SUBJECT: **JUNE 15 WATER POLICY FORUM**

STAFF RECOMMENDATION

Staff recommends the Planning & Operations Committee receive and file the information.

REPORT

Purpose

The purpose of this item is to inform the Planning & Operations Committee of the panel discussion and participants for the June 15 Water Policy Forum.

Summary

The next Water Policy Forum will be on June 15 at the Westin South Coast Plaza. At the direction of the Water Policy Forum Ad Hoc Committee (Directors Dick, Nederhood, and Seckel), staff is preparing a panel discussion focused on the Sites Reservoir Project. The panel will provide insight into the project's significance to Southern California, anticipated costs, governance considerations, and next steps following the expected release of the Draft Water Rights Decision and Permit.

Background

The Sites Reservoir Project is anticipated to reach a key milestone with the expected release of the Draft Water Rights Decision and Permit by the end of May. This milestone will provide greater clarity on project feasibility and is expected to increase stakeholder interest statewide.

In coordination with regional partners, staff identified an opportunity to convene a panel of subject matter experts to discuss the implications of this development, particularly for

Southern California agencies involved in funding, operations, and long-term water supply planning.

Discussion

President Larry Dick will serve as the event's emcee and will also moderate the discussion. Based on stakeholder outreach, the following individuals have been identified as panelists:

- Brian Thomas, Consultant to the Sites Project Authority and former Chief Financial Officer at Metropolitan Water District
- Heather Dyer, General Manager, San Bernardino Valley Municipal Water District
- Randall Neudeck, Manager of Bay-Delta Programs, Metropolitan Water District of Southern California
- Paul A. Weghorst, Executive Director of Water Policy, Irvine Ranch Water District

All proposed speakers have been **tentatively confirmed**.

The panel is anticipated to address the following topics:

- Importance of the project to Southern California and the state
- Water rights as a key component of project success
- Expected benefits, challenges, and stakeholder considerations
- Forecasted project costs and financing structure
- Next steps and timeline for project advancement

The timing of the Water Policy Forum, shortly after the anticipated release of the Draft Water Rights Decision, positions the event to serve as a timely and relevant forum for discussion.

Next Steps

Staff will finalize speaker confirmations and refine the panel agenda. Event logistics at The Westin South Coast Plaza will continue to be coordinated to ensure a successful Water Policy Forum.

ALIGNMENT WITH BOARD STRATEGIC PRIORITIES

☒ *Clarifying MWDOC's mission and role; defining functions and actions.*
☒ *Balance support for Metropolitan's regional mission and OC values and interests.*
☒ *Strengthen communication 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.*

Budgeted: ☒ Yes ☐ No ☐ N/A		Budgeted amount: $10,000
Core: ☒	Choice: ☐	Movement between Cost Centers: ☐ Yes ☒No
Action item amount: N/A		

Attachments/Links:
N/A

Public Affairs Department: Activity Highlights



Municipal Water Leader Feature



Project WET OC Facilitator Training



Booth at Santiago Canyon College Earth Fest



Panelist at the CSU-WATER Conference



Hands-on Activities at OCWD's Children's Water Education Festival



Booth at UCI Health Day Fair



April eCurrents
6,325 opens
49% open rate



Booth at OC Coastkeeper's Earth Day Beach Cleanup



8.5% Social Media Engagement Rate

April 1-28, 2026. View this PDF online at go.mwdoc.com/PA-Apr2026

ENGINEERING & PLANNING	
2025 Urban Water Management Plans and 2025 Water Shortage Contingency Plans	See May 4, 2026, Planning & Operations (P&O) Committee Agenda for Action Item No. 4: staff will recommend scheduling a public hearing for the May 20, 2026 Regular Meeting to receive public input and consider adoption of the proposed 2025 Urban Water Management Plan (UWMP) and proposed 2025 Water Shortage Contingency Plan (WSCP).
Geographic Information Systems (GIS) Implementation	See May 4, 2026, P&O Committee Agenda for Action Item No. 5: staff will provide recommendations for the consultant contract award to the Board of Directors (Board).
Upcoming Metropolitan Water District of Southern California (Metropolitan) Shutdowns	Metropolitan completed two shutdowns in the Spring 2026 with impacts to Orange County, including the Diemer Water Treatment Plant Shutdown (March 2-8, 2026) to install backup chlorine feed lines, diffusers, and additional sampling lines to provide additional redundancy, and the Irvine Cross Feeder Shutdown (April 8-10, 2026) to inspect the pre-stressed concrete cylinder pipe (PCCP). Both shutdown events were successful. Metropolitan staff have begun planning for the FY 2026-27 shutdown season. They are coordinating with Municipal Water District of Orange County (MWDOC) staff on the MWDOC agencies' ability to accommodate a 7-day shutdown of portions of the Allen-McColloch Pipeline to perform pipeline inspection, either in October 2026 or February 2027.

Water Emergency Response Organization of Orange County (WEROC) Activities Report

April 2026

INCIDENTS/EVENTS

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

Carbon Fire Incident – One Agency

April 25: Carbon Fire, Brea - WEROC coordinated with the City of Brea's Water Division at the onset of a vegetation fire. Updates were shared about potential threats to nearby structures. Water service was not impacted. Orange County Fire Authority used the Diemer Treatment Plant heli-hydrant for suppression efforts. The fire was contained at just over 200 acres.

Cyber Incident – Two Agencies

WEROC MEMBER AGENCY PLANNING, COORDINATION AND PROGRAM EFFORTS

America's Water Infrastructure Act (AWIA) Compliance

In April, Herndon Solutions Group (HSG) conducted Emergency Response Plan (ERP) revision workshops, including Risk and Resilience Assessments (RRAs) with Tiers 2 and Tier 3 participating agencies. The WEROC team joined in meetings to provide direct technical support and coordination assistance to member agencies. A total of nine meetings were held for this project.

WEROC Legislation Watch

Vicki provided comments during the first week of April before going out on leave.

Vicki continues to monitor state legislation and policy proposals emerging from the January 2025 Los Angeles County wildfires that impact water and wastewater emergency operations, infrastructure resilience, and mutual aid. Vicki participated in multiple calls with the American Water Works Association (AWWA), the California Municipal Utilities Association (CMUA), and the Association of California Water Agencies (ACWA).

Vicki works with partner associations to provide input, recommended language, and operational considerations on proposed legislation. This coordination is focused on ensuring alignment with real-world operations, mutual aid frameworks, and established emergency management principles.

WEROC Readiness Mobile Command Vehicle/Peters Canyon Location

The Mobile Command Vehicle is maintained through regular testing protocols to ensure sustained operational readiness. Peter's Canyon location is in a continuous state of readiness.

WEROC Presentations, Training, and Exercises

Presentations:

4/3: Chapman University - Disaster Resilience & Community Partnership Summit (Vicki)

Training and Exercises for Member and Partner Agencies in April:

4/2: Orange County Water District (OCWD) - Custom Management Training/Tabletop (Vicki)

WEROC Regional Fuel Planning Project

In early April, the Regional Fuel Plan Request For Proposals (RFP) was submitted to Legal for formal review, advancing it through the RFP approval process. In support of this initiative, staff continue to conduct open conversations with Member Agencies through meetings to identify operational gaps and strengthen fuel planning efforts. This coordination continues to be critical in ensuring the Regional Fuel Plan's operational effectiveness during emergency response. Stakeholder discussions focused on fuel types, operational protocols, and the identification and establishment of Fuel Points of Distribution (FPODs) to support emergency continuity of operations, as recommended by WEROC member agency operations staff.

At the time of this report, legal counsel has shared that they have received the RFP and is currently under review.

Operational Area, State and Federal Meetings

Airport Fire

Continuation of the Local Public Health Declaration coordination with the County Health Officer.

The WEROC team helped coordinate communications between the impacted member agency and the County Health Officer.

Disaster Resilience & Community Partnership Summit: Co-Creating Actionable Solutions for Southern California Communities at Chapman University, Orange

The WEROC team attended the Disaster Resilience & Community Partnership Summit at Chapman University, where staff engaged with subject matter experts and stakeholders on disaster resilience strategies and inter-agency collaboration. During the summit, Vicki participated in a panel presentation, and the WEROC team participated in discussions and activities to advance the critical role of water agencies in regional emergency management and community resilience. The team provided substantive input advocating for water sector representation in disaster planning, addressing how natural and human-made hazards impact communities, and positioning WEROC's collaborative approach to supporting member agencies through a community resilience framework. This engagement strengthened WEROC's visibility within academic and professional networks while reinforcing the interconnection between water infrastructure, emergency preparedness, and regional disaster resilience.

John Wayne Airport 2026 AIREX (Airport Exercise) Full-Scale Exercise

WEROC participated as both observer and evaluator in John Wayne Airport's 2026 AIREX Full-Scale Exercise, a federally mandated drill simulating a commercial aviation emergency. The exercise brought together multiple agencies to assess emergency coordination, communication protocols, and inter-agency collaboration during a complex incident response. As observers, WEROC staff gained operational insight into large-scale emergency management procedures. In the evaluator capacity, the team provided formal feedback on response systems and processes, which contribute to continuous improvement planning in future emergency response efforts.

2026 Children’s Water Education Festival

The WEROC team participated in the 2026 Children's Water Education Festival at Oak Canyon Park, presented by the Orange County Water District, to approximately 7000+ third through fifth-grade students across the two days. WEROC deployed the Mobile Command Vehicle (MCV) as an educational asset and provided substantive feedback on OCWD's event Safety Plan developed by James Event Productions, in supporting OCWD's event coordination.

The WEROC team also provided support to MWDOC’s student participants on water education, educating them on WEROC's role in regional emergency management, the critical importance of water agencies in community resilience, and foundational emergency preparedness concepts, including the development and maintenance of emergency go-bags. This engagement strengthened WEROC's community presence and advanced early awareness of emergency preparedness among local youth. In addition, the Mobile

Command Vehicle supported member agencies by providing cold drinking water and power to charge their laptops.

Other Events, Information and WEROC Activities

Federal Shutdown impacts to WEROC Agencies (Training & Grant Impacts)

Federal Emergency Management Agency's (FEMA) online Independent Study website has been restored as of April 16. While FEMA National Incident Management System (NIMS) online courses are now accessible, users experiencing technical issues accessing their accounts may not be able to receive support due to ongoing federal circumstances. WEROC will continue to provide assistance to member agencies as needed.

WEROC has been coordinating with Member Agencies to schedule state and federal training to support the adjustable training program.

Regional Water Distribution Plan - Vendor Outreach for Packaged and Bulk Potable Water

The WEROC Team continues targeted outreach to water distribution providers to enhance emergency potable water supply capabilities across Orange County. This ongoing effort is focused on identifying vendors that provide bottled and canned water, 3- and 5-gallon jug services, and bulk water hauling/tanker delivery, while gaining a general understanding of scalability, prioritization during incidents, and potential alignment with emergency procurement and mutual aid frameworks.

This work remains in progress, and no decisions or agreements have been finalized at this time. Information gathered, such as points of contact and an understanding of different providers' capabilities and capacities, will inform future considerations for a "menu of options" for emergency water distribution, including potential approaches for contracts, activation, and coordination. A more detailed update will be provided to the Board of Directors (Board) in the coming months.

WEROC Emergency Operations Center (EOC) Readiness

On March 31 the WEROC team met with Moulton Niguel Water District (MNWD), which is serving as an alternate EOC location. WEROC and MNWD looked at the site, which is still under construction, and looked at the furniture and layout as a team. The Use of Facility Agreement has also been completed.

Status of Water Use Efficiency Projects
March 2026

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
SoCal Water$mart Residential Indoor Rebate Program	Metropolitan Water District of Southern California (Metropolitan)	Ongoing	Ongoing	In March 2026, 64 high-efficiency clothes washers and 6 residential premium high-efficiency toilets were installed in Orange County. To date, 131,833 high-efficiency clothes washers and 62,026 high-efficiency toilets have been installed through this program.
SoCal Water$mart Commercial Rebate Program	Metropolitan	Ongoing	Ongoing	In March 2026, no commercial devices were installed in Orange County. To date, 119,832 commercial devices have been installed through this program.
Flow-Monitoring Device Rebate Program	Metropolitan	Ongoing	Ongoing	In March 2026, 13 flow-monitoring devices were installed in Orange County. To date, 1,112 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	Metropolitan	Ongoing	Ongoing	In March 2026, 69 residential and 7 commercial smart timers were installed in Orange County. To date, 36,467 smart timers have been installed through this program.

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Rotating Nozzles Rebate Program	Metropolitan	Ongoing	Ongoing	In March 2026, 51 rotating nozzles were installed in Orange County. To date, 586,738 rotating nozzles have been installed through this program.
Rain Barrel Rebate Program	Metropolitan	Ongoing	Ongoing	In March 2026, 3 rain barrels were installed in Orange County. To date, 9,102 rain barrels have been installed through this program.
Turf Replacement Program	Municipal Water District of Orange County (MWDOC)	Ongoing	Ongoing	In March 2026, 18 rebates totaling $699,938.50 were paid in Orange County. To date, the Turf Replacement Program has removed approximately 30.9 million square feet of turf.
Spray to Drip Rebate Program	MWDOC	Ongoing	Ongoing	In March 2026, 14 rebates totaling $189.891.02 were paid in Orange County. To date, the Spray to Drip Program has converted approximately 6.5 million square feet of standard spray irrigation to drip irrigation.
Tree Rebate Program	MWDOC	Ongoing	Ongoing	In March 2026, 16 eligible trees were planted in Turf Replacement Program project areas. To date, 550 trees have been planted through this program.
Landscape Design Rebate Program	MWDOC	Ongoing	Ongoing	In March 2026, 3 landscape designs received a rebate through the MWDOC Turf Replacement Program.

Description	Lead Agency	Status % Complete	Scheduled Completion or Renewal Date	Comments
Landscape Design Rebate Program (cont.)				To date, a total of 1,198 landscape design and/or landscape maintenance packages have been delivered to MWDOC Turf Replacement Program customers.
Industrial Process/ Water Savings Incentive Program (WSIP)	Metropolitan	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 1,302 acre-feet per year (AFY) and 12,011 acre-feet (AF) cumulatively.
Recycled Water Retrofit Program	Metropolitan	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 34,420 AF cumulatively.

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Member Agency Support

Public Affairs Staff:

- Designed and translated summer bill inserts to provide to Member Agencies.
- Engineering Department Support: Facilitated Consumer Confidence Report 1-on-1 Meetings with participating Member Agencies and Stetson Engineering.
- Sent invitations to the Public Affairs Workgroup members and planned for the April 29 meeting.
- Designed and distributed a *Writing to Win!* Grant Workshop email invitation and flyer for the MWDOC workshop on May 20, presented by Soto Resources.

Government Affairs Staff:

- Circulated the monthly Grants Tracking & Acquisition Report to all participating Member Agencies.
- Provided an overview of Assembly Bill (AB) 2215 (Calderon) and Sentae Bill (SB) 872 (McNerney), both sponsored by the State Water Contractors, to the Municipal Water District of Orange County (MWDOC) Member Agency General Managers and shared the opportunity to join both coalition letters.

Community and Special Events

Public Affairs Staff:

- Hosted information booth at:
    - OC Coastkeeper's Earth Day Beach Cleanup in Huntington Beach with over 300 volunteers in attendance on April 18;
    - Water University of California, Irvine (UCI) Health Earth Day Fair in Irvine on April 21, and engaged with over 100 attendees; and
    - Santiago Canyon College in Orange and engaged with 150 attendees.
- Coordinated an event to have MWDOC staff select the top 40 winners of the 2026 Water Awareness Poster Contest.
- Announced the winners of the 2026 Water Awareness Poster Contest.
- Provided giveaways to the Water Use Efficiency department for a booth at California Native Plant Society's 24th Annual Orange County (OC) Native Plant Garden Tour.
- Graduated from the Supervisors Academy, hosted by MWDOC and facilitated by the Centre for Organization Effectiveness.
- Attended training class, *Virtual First Amendment Auditors,* hosted by Association of California Water Agencies Joint Powers Insurance Authority (ACWA JPIA).
- Participated in The Metropolitan Water District of Southern California (Metropolitan) Public Information Officer Working Group Meeting.

Government Affairs Staff:

- Along with Director Dick and Director Erdman, attended the South Orange County Economic Coalition's "Meet the Mayors" breakfast.
- Attended the Orange County Business Council (OCBC) Government Affairs Committee meeting.

Education Initiatives

Public Affairs Staff:

General Education

- Engaged nearly 750 3rd-5th-grade students across two days at Orange County Water District's annual Children's Water Education Festival through two interactive booths: one on water stewardship (developed by the MWDOC Education & Workforce Development Division) and one on water careers (developed by Water Energy Education Alliance (WEEA)), both delivered by the MWDOC Public Affairs team.
- Hosted a Project WET (Water Education Today) Orange County Facilitators Training in partnership with Metropolitan.
- Participated in the Water Course Curriculum meeting for the Orange Unified School District's Water Career Technical Education (CTE) Pathway at Villa Park High School.
- Attended the 3rd Annual Coastline Regional Occupation Program (ROP) Open House, showcasing CTE pathways currently available to students in Irvine, Newport-Mesa, Saddleback Valley, and Tustin Unified School Districts.
- Participated in the Metropolitan Water Education Coordinator's bi-monthly meeting.
- Authored a Ten Strands article, "Where Learning Meets Livelihood."

MWDOC Choice K-12 School Programs

- Completed the Request for Proposals (RFP) Process for the Design and Implementation of K-12 Water Education School Program Services.
- Provided information regarding the MWDOC Choice K-12 School Program to the City of Anaheim, Trabuco Canyon Water District, Mesa Water District, Irvine Ranch Water District, City of Orange, Yorba Linda Water District, and the City of Orange.

Water Energy Education Alliance (WEEA)

- Designed a 20-minute, hands-on sequence connecting the environment to communities to water systems to jobs, which was piloted at the 2026 Orange County Children's Water Festival.
- Participated in the American Water Works Association (AWWA) 2050 Workforce Assessment Sub-Committee meeting.

- Panelist; industry engagement through career networking with students and faculty at the 2026 CSU-WATER Conference (California State University-Water Advocacy Through Education & Research).
- Met with an Industrial and Organizational psychologist to discuss water workforce challenges and high-interest areas of focus.
- Participated in Metropolitan's Member Agency Workforce Development Working Group.
- Developed and distributed invitations and social posts promoting the next WEEA Leadership Roundtable meeting on May 21, featuring a Sponsor Spotlight on Metropolitan.
- Shared new statewide workforce findings and recommendations developed by the Water UCI student research team in partnership with WEEA. The report is available at mwdoc.com/weea and water.uci.edu/ideal-water-uci.

Digital Communications, Publications, and Media Engagement

- Developed and distributed social media content across all MWDOC social media channels.
- Developed and distributed the **April edition** of the eCurrents Newsletter that garnered 6,325 Opens (an email open rate of 49%)

Special Projects

Public Affairs Staff:

- Delivered MWDOC-branded seed packets and giveaways to Mary Wilson Library in Seal Beach, and the City of Seal Beach staff added their branded giveaways to the display.
- Engineering Department Support:
  - Designed Front Cover Artwork for Urban Water Management Plan;
  - Design Front Cover Artwork for Water Shortage Contingency Plan;
  - Developed social media graphics and content supporting both draft publications; and
  - Posted information to the MWDOC website at mwdoc.com/uwmp.
- Board Support: Briefed MWDOC-MET board members on the kick-off of the 2026-2027 inspection trip planning.
- Continued rolling out video shorts for MWDOC's FACES campaign, celebrating 75 years of service.
- Began filming interviewees for a Water Loss Control video feature, a continuation of the 75th anniversary reflections series.
- Updated the OC Water Summit website and began soft outreach to sponsors from previous years.

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Government Affairs Staff:

- Staffed the Water Advisory Committee of Orange County (WACO) meeting featuring speaker John Cain on "Restoring Hope on the Floodplains of the Bay-Delta Watershed."
- Drafted and distributed the Independent Special Districts of Orange County (ISDOC) Executive Committee agenda and edited the monthly meeting minutes.
- Staffed the ISDOC Executive Committee meeting. Provided an update on program speakers and the upcoming luncheon.
- Working towards the California Special Districts Association (CSDA) Essential Leadership Skills Certificate Program, attended the following full-day training courses:
    - Financial Management;
    - Human Resources Management; and
    - Supervisory Skills for the Public Sector.
- Drafted and circulated the WACO Planning meeting agenda.

Outreach Metrics

Public Affairs Staff:

- Google Performance Analytics (GM Report Timeframe)
    - 149 business profile interactions
    - 1,866 people viewed the business profile
- mwdoc.com Website Analytics (GM Report Timeframe)
    - 10,171 pageviews
    - Top pages for this date range
        - Home Page – 2,196
        - Poster Awareness Contest – 626
        - Board Meetings – 593
        - Residential Rebates – 566
        - Turf Replacement Rebate – 459
        - RFPs and RFQs – 313
- ocwatersmartgardens.com Analytics (March 2026)
    - 1,132 Sessions, 907 New Users
    - Top pages for this date range
        - Guided Plant Search
        - Landing Page
        - Eligible Sustainability Feature Trees
- ocwatersmartparks.com: 7 site sessions (GM Report Timeframe)
- Social Media (GM Report Timeframe)
    - 8.5% engagement rate (a good rate is between 1% and 5%)
    - 5,131 post reach (number of people)
    - 436 post engagement (actions taken – likes, shares, etc.)

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Legislative Affairs

Government Affairs Staff:

- Participated in the Association of California Water Agencies (ACWA) Region 10 State Legislative Committee prep meeting.
- Participated in the California Municipal Utilities Association (CMUA) Water Supplier Emergency Response Strike Team: SB 1001 Discussion.
- Attended the ACWA State Legislative Committee meeting.
- Attended the CMUA discussion of the Advanced Clean Fleets (ACF) 15-Day Regulatory Language.
- Participated in the Southern California Economic Coalition Legislative Taskforce meeting.
- Attended the CSDA Annual Legislative Days in Sacramento.
- Met with the following offices to advocate for CSDA's 2026 Legislative Priorities:
    - Assemblywoman Diane Dixon
    - Senator Lena Gonzalez
    - Senator Tony Strickland
    - Senator Steven Choi
- Attended the CMUA Regulatory Committee meeting.
- Participated in the CMUA Legislative Committee meeting.
- Attended the California Council for Environmental and Economic Balance (CCEEB) Water, Chemistry & Waste Project meeting.
- Participated in the ACWA Region 10 State Legislative Committee prep meeting.
- Attended the ACWA State Legislative Committee meeting in Sacramento.
- Along with Director Crane, participated in the State Water Contractors' lobby day to advocate support for AB 2215 (Calderon), SB 872 (McNerney), and support allocation of $57M from the regional conveyance pot of Prop 4 funds for near-term conveyance and subsidence repair activity. We met with the following offices:
    - Assemblyman Tri Ta
    - Assemblywoman Sharon Quirk-Silva
    - Senator Steven Choi (staff)
    - Senator Eloise Gomez Reyes (staff)
    - Assemblyman Avelino Valencia (staff)
    - Senator Tony Strickland (staff)
    - Assemblywoman Diane Dixon
    - Assemblywoman Laurie Davies (staff)