AGENDA

18700 Ward St.
Fountain Valley, CA 92708
(714) 378-3200

WATER ISSUES COMMITTEE MEETING
WITH BOARD OF DIRECTORS *
ORANGE COUNTY WATER DISTRICT
Wednesday, September 9, 2026 12:00 p.m., Boardroom

*The OCWD Water Issues Committee meeting is noticed as a joint meeting with the Board of Directors for the purpose of strict compliance with the Brown Act and it provides an opportunity for all Directors to hear presentations and participate in discussions. Directors receive no additional compensation or stipend as a result of simultaneously convening this meeting. Items recommended for approval at this meeting will be placed on the **September 16** Board meeting Agenda for approval.

This meeting will be held in person. 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: Join the Zoom Webinar by clicking on the following link:
https://ocwd.zoom.us/j/98592928069

Webinar ID: 985 9292 8069

Telephone Audio: (213) 338 8477

Teleconference Sites:
10382 Bonnie Drive, Garden Grove
1454 Madison Street, Tustin
19 Cannery, Buena Park
20 Civic Center, Santa Ana
303 W. Commonwealth Ave., Fullerton
1502 North Broadway, Santa Ana
6148 Baja Drive, Anaheim
* Members of the public may attend and participate at all locations.

PLEDGE OF ALLEGIANCE

ROLL CALL

ITEMS RECEIVED TOO LATE TO BE AGENDIZED

RECOMMENDATION: Adopt resolution determining need to take immediate action on item(s) and that the need for action came to the attention of the District subsequent to the posting of the Agenda (requires two-thirds vote of the Board members present, or, if less than two-thirds of the members are present, a unanimous vote of those members present.)

VISITOR PARTICIPATION

Time has been reserved at this point in the agenda for persons wishing to comment for up to three minutes to the Board of Directors on any item that is not listed on the agenda, but within the subject matter jurisdiction of the District. By law, the Board of Directors is prohibited from taking action on such public comments. As appropriate, matters raised in these public comments will be referred to District staff or placed on the agenda of an upcoming Board meeting.

At this time, members of the public may also offer public comment for up to three minutes on any item on the Consent Calendar. While members of the public may not remove an item from the Consent Calendar for separate discussion, a Director may do so at the request of a member of the public.

CONSENT CALENDAR (ITEMS NO. 1 – 11)

All matters on the Consent Calendar are to be approved by one motion, without separate discussion on these items, unless a Board member or District staff request that specific items be removed from the Consent Calendar for separate consideration.

1. MINUTES OF WATER ISSUES COMMITTEE MEETING HELD AUGUST 12, 2026

   RECOMMENDATION: Approve minutes as presented

2. AWARD CONTRACT NO. FUL-2026-1 FULLERTON WELL 10 PFAS TREATMENT PROJECT TO BIG BEN INC

   RECOMMENDATION: Agendize for September 16 Board meeting:

   1. Receive and file Affidavit of Publication of Notice Inviting Bids for Contract FUL-2026-1, Fullerton Well 10 PFAS Treatment Project

   2. Ratify issuance of Addenda 1 & 2

   3. Accept bid and authorize award of Contract FUL-2026-1 to the lowest responsive bid and responsible bidder, Big Ben Inc. in the amount of $6,747,796.48

3. CONTRACT NO. SA-2026-1 CITY OF SANTA ANA WALNUT PFAS TREATMENT PLANT CATEGORICAL EXEMPTION AND REQUEST FOR PROPOSALS FOR CONSTRUCTION MANAGEMENT

   RECOMMENDATION: Agendize for September 16 Board meeting:

   1. Authorize filing of a Categorical Exemption for the City of Santa Ana Walnut PFAS Treatment Plant Project in compliance with the California Environmental Quality Act (CEQA) guidelines

   2. Authorize issuance of a Request for Proposals for Construction Management Services for the City of Santa Ana Walnut PFAS Treatment Plant Project

4. BASIN STORAGE EXPANSION EVALUATION – AGREEMENT WITH INTERA TO DEVELOP HISTORICAL GROUND SURFACE ELEVATION DATABASE

   RECOMMENDATION: Agendize for September 16 Board meeting: Authorize issuance of a services agreement to Intera, Inc. in an amount not to exceed $54,000 to review, process, and provide a geospatial-temporal database of historical ground surface benchmark elevations in support of the District's land subsidence risk evaluation

5. REPLACEMENT OF EXISTING 910 AREA MAIN SWITCHGEAR BATTERIES

   RECOMMENDATION: Agendize for September 16 Board meeting:

   1. Authorize issuance of a purchase order to Vertiv for an amount not to exceed $101,587 for services to replace, test, and certify the 910 area switchgear batteries

   2. Authorize additional funds in the amount of $1,587 for R&R account R26012

6. AUTHORIZE ISSUANCE OF AN AGREEMENT TO SMAART POWER TO PERFORM COMPREHENSIVE COORDINATION AND ARC FLASH STUDY ASSESSMENT AND UPDATE OF GWRS/FOUNTAIN VALLEY POWER DISTRIBUTION SYSTEM

RECOMMENDATION: Agendize for September 16 Board meeting: Authorize issuance of an agreement to Smaart Power in the amount of $70,270 to provide a comprehensive power system coordination and arc flash hazard study of the OCWD Fountain Valley power distribution system

7. AGREEMENT WITH ESRI TO UPDATE SPATIAL DATABASE ENGINE SOFTWARE

RECOMMENDATION: Agendize for September 16 Board meeting: Authorize execution of a services agreement with Esri in an amount not to exceed $27,400 to update OCWD's existing SDE software to the latest version

8. AMENDMENT NO.1 TO AGREEMENT 1826 WITH BENDER/CCP FOR REVERSE OSMOSIS TRANSFER PUMP A01 VERTICAL TURBINE PUMP INSPECTION AND REHABILITATION

RECOMMENDATION: Agendize for September 16 Board meeting:

1. Authorize issuance of Amendment No 1 to Agreement 1826 with Bender/CCP for an amount not to exceed $118,701 for the refurbishment of RO Transfer Pump A01

2. Authorize additional funds in the amount of $118,701 for R&R account R25015

9. AMENDMENT NO.1 TO AGREEMENT 1827 WITH BENDER/CCP FOR GWRS PRODUCT WATER PUMP A02 VERTICAL TURBINE PUMP INSPECTION AND REHABILITATION

RECOMMENDATION: Agendize for September 16 Board meeting:

1. Authorize issuance of Amendment No 1 to Agreement 1827 with Bender/CCP for an amount not to exceed $59,283 for the refurbishment of Product Water Pump A02

2. Authorize additional funds in the amount of $59,283 for R&R account R25015

10. AUTHORIZE PURCHASE ORDER TO BENDER/CCP FOR REPAIR OF MICROFILTRATION BACKWASH WASTE PUMP A03

RECOMMENDATION: Agendize for September 16 Board meeting: Authorize issuance of a purchase order to Bender/CCP in the amount of $99,859 for repair of Microfiltration Backwash Waste Pump A03

11. AUTHORIZE CHANGE ORDER 2 AND INCREASE BUDGET FOR CONTRACT BP-2026-1 BUENA PARK LINDEN WELL PACKER INSTALLATION – WELL SCREEN ISOLATION TO REDUCE PFAS

RECOMMENDATION: Agendize for September 16 Board meeting:

1. Authorize issuance of Change Order No.2 to General Pump Company, Inc, for an amount not to exceed $150,000 to furnish and

install a VFD at the Buena Park Linden Well

2. Increase project budget by $150,000 for a total project budget of $808,739

END OF CONSENT CALENDAR

INFORMATIONAL ITEM

12. BASIN STORAGE UPDATE FOR WATER YEAR 2025-26

CHAIR DIRECTION AS TO ITEMS IF ANY TO BE AGENDIZED AS MATTERS FOR CONSIDERATION AT THE SEPTEMBER 16 BOARD MEETING

DIRECTORS' ANNOUNCEMENTS/REPORTS

GENERAL MANAGER'S ANNOUNCEMENTS/REPORTS

ADJOURNMENT

WATER ISSUES COMMITTEE MEMBERS

Committee Members
Cathy Green – Chair
Erik Weigand – Vice Chair
Roger Yoh
Van Tran
Dina Nguyen

Alternates
Valerie Amezcua
Fred Jung
Natalie Meeks
Steve Sheldon
Denis Bilodeau

In accordance with the requirements of California Government Code Section 54954.2, this agenda has been posted at the guard shack entrance and in the main lobby of the Orange County Water District, 18700 Ward Street, Fountain Valley, CA and on the OCWD website not less than 72 hours prior to the meeting date and time above. All written materials relating to each agenda item are available for public inspection in the office of the District Secretary. Backup material for the Agenda is available at the District offices for public review and can be viewed online at the District's website: www.ocwd.com

Pursuant to the Americans with Disabilities Act, persons with a disability who require a disability-related modification or accommodation in order to participate in a meeting, including auxiliary aids or services, may request such modification or accommodation from the District Secretary at (714) 378-3234, by email at cfuller@ocwd.com by fax at (714) 378-3373. Notification 24 hours prior to the meeting will enable District staff to make reasonable arrangements to assure accessibility to the meeting.

As a general rule, agenda reports or other written documentation has been prepared or organized with respect to each item of business listed on the agenda and can be reviewed at www.ocwd.com. Copies of these materials and other disclosable public records distributed to all or a majority of the members of the Board of Directors in connection with an open session agenda item are also on file with and available for inspection at the Office of the District Secretary, 18700 Ward Street, Fountain Valley, California, during regular business hours, 8:00 am to 5:00 pm, Monday through Friday. If such writings are distributed to members of the Board of Directors on the day of a Board meeting, the writings will be available at the entrance to the Board of Directors meeting room at the Orange County Water District office.

MINUTES OF BOARD OF DIRECTORS MEETING
Water Issues Committee
Orange County Water District
August 12, 2026 @ 12:00 p.m.

Director Green called the Water Issues Committee meeting to order at 12:00 p.m. in the District Boardroom. Public access was also provided via Zoom webinar. The Secretary called the roll and reported a quorum as follows:

Committee Members		OCWD
Cathy Green		Mehul Patel – Executive Director of Operations
Erik Weigand		Chris Olsen – Executive Director of Engineering and Water Resources
Roger Yoh		
Van Tran	(absent)	Jason Dadakis – Executive Director of Water Quality and Technical Resources
Dina Nguyen		
		Megan Plumlee – Director of Research
Alternates		Ben Smith – Director of Recharge & Wetland Ops
Valerie Amezcua		Gina Ayala – Director of Public Affairs
Fred Jung		Jeremy Jungreis – General Counsel
Natalie Meeks		Leticia Villarreal – Assistant District Secretary
Steve Sheldon		
Denis Bilodeau	(absent)	

CONSENT CALENDAR
The Consent Calendar was approved upon motion by Director Weigand, seconded by Director Yoh and carried [5-0], as follows:

Ayes: *Green, Weigand, Yoh, Nguyen, Amezcua*

1. Minutes of Water Issues Committee Meeting

The Minutes of the Water Issues Committee meeting held July 8, 2026, were approved as presented.

2. Award Contract FV-2026-1 Research and Development Laboratory Building Flooring Services to Prospectra Contract Flooring and Budget Increase

Recommended for approval at August 19 Board meeting:

1. **Receive and file Affidavit of Publication of Notice Inviting Bids for Contract FV-2026-1 Research and Development Laboratory Building Flooring Services**

2. **Ratify issuance of Addendum No. 1**

3. **Accept bid and award contract FV-2026-1 to the lowest responsive bid and responsible bidder, Pro Installation, Inc. dba Prospectra Contract Flooring, A Diverzify Company, in the amount of $163,374.98**

4. **Increase project budget by $42,540 for a total project budget in the amount of $172,540**

3. Additional Funds for Replacement and Refurbishment Fund R25025: Anaheim Lake Pump Replacements

Recommended for approval at August 19 Board meeting:

1. **Authorize additional funds in the amount of $56,000 for R&R account R25025 for replacement of Anaheim Lake pumps**

2. **Authorize filing of a Categorical Exemption for the Anaheim Pump Replacement project in compliance with the California Environmental Quality Act (CEQA) guidelines**

4. Five Coves Flow Meters Repair and Replacement

Recommended for approval at August 19 Board meeting:

1. **Authorize issuance of Purchase Order to Brugg Rittmeyer for $216,241 to repair and replace Five Coves Flow Meters**

2. **Authorize filing of a Categorical Exemption for the Five Coves Flow Meter Repair and Replacement project in compliance with the California Environmental Quality Act (CEQA) guidelines**

5. Authorize Issuance of Request for Quotes for ION Exchange Resin Procurement, Installation, and Disposal for PFAS Treatment Systems

Recommended for approval at August 19 Board meeting: Authorize Issuance of a Request for Quotes (RFQ) for a Multi-Year Agreement for ION Exchange Resin Procurement, Delivery, Installation and Disposal for PFAS Treatment Systems.

6. Authorize Amendment No 3 to Agreement 1735 with Tait And Associates, Inc. for 2025 Asphalt Pavement Rehabilitation Design

Recommended for approval at August 19 Board meeting: Authorize issuance of Amendment No 3 to Agreement 1735 with Tait and Associates, Inc. for an amount not to exceed $5,940 for the 2025 Asphalt Pavement Rehabilitation Design.

7. Burris Pump Station 10-Year Maintenance

Recommended for approval at August 19 Board meeting: Authorize issuance of Purchase Order to OneSource for $141,976 to perform 10-year preventative maintenance on the Burris pump station drives.

8. Request for Proposals: 2026 Asphalt Pavement Rehabilitation Design

Recommended for approval at August 19 Board meeting: Authorize issuance of a Request for Proposals for the 2026 Asphalt Pavement Rehabilitation Design.

9. Agreement to Convert [6] Medium Voltage Variable Frequency Drives from Obsolete Classic Series to Supported Forge Series

Recommended for approval at August 19 Board meeting: Approve an agreement with OneSource Distributors in the amount of $646,297 for services and hardware to upgrade six VFD units at the AWPF to current, supported models.

10. Reject Bid From Living Water Well Drilling and Authorize Issuance of Services Agreement to ABC Liovin Drilling for Destruction of Monitoring Wells OM-2 And OM-2A

Recommended for approval at August 19 Board meeting: Reject bid from Living Water Industries, LLC dba Living Water Well Drilling and authorize the General Manager to execute a Services Agreement with ABC Liovin Drilling, Inc. in an amount not to exceed $44,648 for the destruction of monitoring wells OM-2 and OM-2A.

11. Authorize Amendment No 1 to Agreement 1824 with Diversified for the GWRS and Green Acres Fall Protection Improvements

Recommended for approval at August 19 Board meeting:

1. **Authorize issuance of Amendment No 1 to Agreement 1824 with Diversified Fall Protection for an amount not to exceed $65,080 for services and hardware to upgrade fall protection systems for the Field Headquarters facilities**

2. **Authorize filing of a Categorical Exemption for the GWRS and Green Acres Fall Protection Improvements project in compliance with the California Environmental Quality Act (CEQA) guidelines**

12. Authorize Amendment No 1 to Agreement 1825 with Diversified for the Field Headquarters Facilities Fall Protection Improvements

Recommended for approval at August 19 Board meeting:

1. **Authorize issuance of Amendment No 1 to Agreement 1825 with Diversified Fall Protection for an amount not to exceed $102,978 for services and hardware to upgrade fall protection systems for the Field Headquarters facilities**

2. **Authorize filing of a Categorical Exemption for the Field Headquarters Fall Protection Improvement project in compliance with the California Environmental Quality Act (CEQA) guidelines**

13. Purchase Order to Qualtrax Inc. for Multi-Year Agreement for Ideagen Quality Management Software Services

Recommended for approval at August 19 Board meeting: Authorize issuance of a Purchase Order to Qualtrax Inc. in the total amount of $121,515 ($22,888 for the first year and increasing 3% annually) for a period of 5 years beginning August 1, 2026 through July 31, 2031 plus sales tax at 8.75%.

14. Purchase Order to Thermo Electron North America LLC for Service Agreement for Lab IC and Autotrace Instruments

Recommended for approval at August 19 Board meeting: Authorize issuance of Purchase Order to Thermo Scientific in the amount of $100,189 for an annual support service agreement for August 1, 2026 to July 31, 2027.

MATTER FOR CONSIDERATION

15. Response to Orange County Grand Jury Report – PFAS and Public Awareness Closer Look at Orange County Drinking Water

Executive Director Chris Olsen reported that the Orange County Grand Jury recently released the report titled PFAS and Public Awareness: A Closer Look at Orange County Drinking Water. He advised that the District is required to respond to the report findings and reply by September 7, 2026

with recommendations in response to the report. Mr. Olsen reviewed the draft responses to the findings and recommendations with the Committee.

Upon motion by Director Weigand, seconded by Director Amezcua and carried [5-0], the Committee recommended for approval at the August 19 Board Meeting: Provide the attached letter response to the Grand Jury Report.

Ayes: Green, Weigand, Yoh, Nguyen, Amezcua

CHAIR DIRECTION AS TO ITEMS IF ANY TO BE AGENDIZED AS MATTERS FOR CONSIDERATION AT THE AUGUST 19 BOARD MEETING

ADJOURNMENT

There being no further business, the meeting was adjourned at 12:17 p.m.

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Cathy Green, Chair

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AGENDA ITEM SUBMITTAL

Meeting Date: September 9, 2026

To: Water Issues Committee
Board of Directors

From: John Kennedy

Staff Contact: R. Bouley

Budgeted: Yes
Budgeted Amount: $15,300,000
Cost Estimate: $9,133,740
Funding Source: CIP
Program/Line Item No.: C24002
General Counsel Approval: Yes
Engineers Report: Completed
CEQA Compliance: Cat. Ex.

Subject: AWARD CONTRACT NO. FUL-2026-1 FULLERTON WELL 10 PFAS TREATMENT PROJECT TO BIG BEN INC

SUMMARY

A total of four construction bids were received on August 18, 2026, for the City of Fullerton Well 10 PFAS Treatment Project, Contract No. FUL-2026-1. Staff recommend awarding a contract to Big Ben Inc. as the lowest responsible bidder in the amount of $6,747,796.48.

Attachment:

- Affidavit of Publication for Notice Inviting Bids for Contract FUL-2026-1

RECOMMENDATION

Agendize for September 16 Board meeting:

1. Receive and file Affidavit of Publication of Notice Inviting Bids for Contract FUL-2026-1, Fullerton Well 10 PFAS Treatment Project;

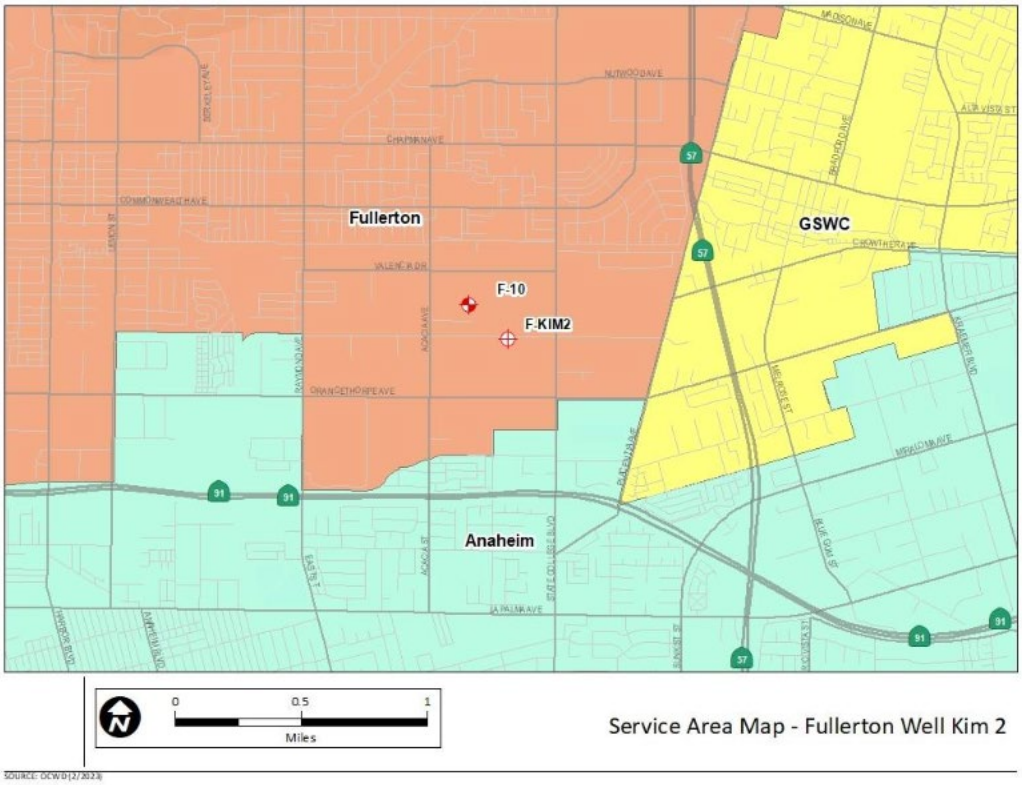
2. Ratify issuance of Addenda 1 & 2;

3. Accept bid and authorize award of Contract FUL-2026-1 to the lowest responsive bid and responsible bidder, Big Ben Inc. in the amount of $6,747,796.48.

BACKGROUND/ANALYSIS

The City of Fullerton and Tetra Tech began design of the City of Fullerton's Sunclipse Well 10 (Well 10) PFAS Treatment Project in April 2024. Due to site constraints at the Well 10 site, it was determined to build the treatment plant at the City of Fullerton's Well Kim 2 (Kim 2) site located approximately 1,600 feet to the southeast of Well 10. Raw water from Well 10 will be pumped to the Kim 2 site for treatment through a raw water pipeline. The Kim 2 site will combine treatment for Kim 2 and Well 10 using Ion Exchange treatment. The Kim 2 PFAS Water Treatment Plant is currently under construction and expected to be completed in Fall 2026. In addition to the raw water pipeline, the Project also includes a new well pump and motor, VFD and other electrical equipment, and overall site improvements at Well 10. Figure 1 shows the location of Kim 2 and Well 10.

Figure 1: City of Fullerton Well Kim 2 PFAS Treatment Site and Well 10



The Project was advertised for bid on July 7, 2026, and Addenda No. 1 & 2 were issued to provide revised project plans and specifications and to provide responses to potential bidder's questions. Four construction bids were received on August 18, 2026, and a summary of these bids is shown below in Table 1.

Table 1: FUL-2026-1 Fullerton Well 10 PFAS Treatment Project Bid Summary

Contractor	Bid Price
Big Ben Inc.	$6,747,796.48
R C Foster Corporation	$7,658,600.00
Caliagua	$8,912,526.00
Myers & Sons Construction LLC	$9,102,171.00

Staff reviewed the bid of Big Ben Inc. (Big Ben) and noted a few potential minor irregularities. Staff reviewed these potential irregularities with District's legal counsel and requested clarification from Big Ben that they intended to meet all requirements of the Contract Documents. Legal Counsel advised staff that the potential irregularities were waivable upon further explanation from Big Ben. Staff also checked Big Ben's references and confirmed that their contractor's license is current, active, and in good standing with the State of California. Staff recommend awarding the construction contract to Big Ben as the lowest responsible bidder that submitted a responsive bid in the amount of $6,747,796.48.

The project budget for the Fullerton Well 10 PFAS Treatment Project, Contract No. FUL-2026-1, including reimbursement by the City of Fullerton for project elements not required by PFAS treatment, is summarized in Table 2.

Table 2: FUL-2026-1 Fullerton Well 10 PFAS Treatment Project Budget Summary

Description	Budget
Design and Construction Management	
Design-Work Order Reimbursement (Tetra Tech – City Contract)	$715,648
CM & Inspection Services-Work Order 3 (Tetra Tech)	$698,900
Design and CM Subtotal	**$1,414,548**
Construction	
Contract FUL-2026-1	$6,747,797
IX Media	$524,064
Permits and Advertisement Costs	$50,000
Staff Expenses	$60,000
Construction Subtotal	**$7,381,861**
Project Contingency (5% of Contract Amount)	$337,331
Total Project Budget	**$9,133,740**
City of Fullerton Contribution (Approximate)	$(1,168,600)
State Water Resources Control Board Grant Funding	$(4,400,000)
Net Cost to OCWD	**$3,565,140**

The Project costs include reimbursement to the City of Fullerton for design work completed by Tetra Tech under the City of Fullerton's contract. The Project costs also include replacement of IX media in the lead vessels at the Kim 2 treatment plant (3 vessels, approximately 1,300 cubic feet of media). Based on projected media life, the IX media in the lead vessels at the Kim 2 treatment plant is expected to need replacement by the time the Well 10 Project is completed, and the inclusion of a new well source into the treatment site is an optimal time to complete the changeout. Finally, staff has secured grant funding for this project from the State Water Resources Control Board Emerging Contaminants Grant Program that will reimburse up to $4,400,000 of the project cost.

The total project budget includes design and construction of PFAS treatment for both the City of Fullerton's Sunclipse Well 10 and Christlieb Well 15A. This Project is for treatment of Well 10 only. The City of Fullerton is siting a replacement well for Well 15A, and PFAS treatment requirements for the replacement well will be determined at a future date. Therefore, no budget increase is required for this Project at this time.

The expected project schedule is shown below in Table 3.

Table 1: Fullerton Well 10 PFAS Treatment Project Schedule Summary

Description	Date
Well 10 Design	Sep 2024 – May 2026
DDW Permitting	Dec 2025 – June 2028
Well 10 Construction Contract	October 2026 – June 2028

PRIOR RELEVANT BOARD ACTIONS

6/17/26, R26-6-101: Authorize issuance of Notice Inviting Bids for Contract No. FUL-2026-1, Fullerton Well 10 PFAS Treatment Project, and filing of Categorical Exemption for the Fullerton Well 10 PFAS Treatment Project.

9/18/24, R24-9-114: Authorize publication of Notice Inviting Bids for construction of Fullerton Well Kim 2 PFAS Water Treatment Plant and Approve the Engineer's Report.

AGENDA ITEM SUBMITTAL

Meeting Date: September 9, 2026

To: Water Issues Committee
Board of Directors

From: John Kennedy

Staff Contact: R. Bouley/A. Perry

Budgeted: Yes
Proposed Budget: $1,000,000
Cost Estimate: $1,000,000
Funding Source: CIP/PFAS Grant
Program/Line Item No.: C24007
General Counsel Approval: Yes
Engineers Report: Yes
CEQA Compliance: Cat. Ex.

Subject: CONTRACT NO. SA-2026-1 CITY OF SANTA ANA WALNUT PFAS TREATMENT PLANT CATEGORICAL EXEMPTION AND REQUEST FOR PROPOSALS FOR CONSTRUCTION MANAGEMENT

SUMMARY

The plans and specifications for the City of Santa Ana Walnut PFAS Treatment Plant are currently underway. Project funding requirements require California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) review. Project complexity will require support services for construction management. Staff recommends authorizing a Categorical Exemption and filing a Notice of Exemption in compliance with the CEQA guidelines, and authorizing issuance of a Request for Proposal for a construction management firm to oversee construction and perform inspection services.

RECOMMENDATION

Agendize for September 16 Board Meeting:

1. Authorize a Categorical Exemption and filing of a Notice of Exemption for the City of Santa Ana Walnut PFAS Treatment Plant Project in compliance with the California Environmental Quality Act (CEQA) guidelines;

2. Authorize issuance of a Request for Proposals for Construction Management Services for the City of Santa Ana Walnut PFAS Treatment Plant Project.

BACKGROUND/ANALYSIS

To restore the use of groundwater supplies impacted by PFAS contaminants with minimal delay, Stantec has been issued a work order for the design of the City of Santa Ana Walnut PFAS Treatment Plant for PFAS treatment of four existing and one future City wells; 16, 29, 33, and 41. The location of the Walnut Station is shown in Figure 1, below. To accommodate treatment of the flow at the reservoir site, IX treatment with eight vessel systems (16 vessels total) has been selected for this project. Stantec is currently at 40% progress through design and is anticipated to be complete by the end of 2026.

Figure 1: City of Santa Ana Walnut PFAS Treatment Plant

The City of Santa Ana Walnut PFAS Treatment Plant will include installing IX vessel systems and pre-filtration, site piping, modifications at the City's Walnut Station reservoir to remove PFAS from several wells; replacement of an on-site sodium hypochlorite generation facility; electrical upgrades; and other appurtenant work. In addition, the project will also require the construction of a conveyance pipeline from Wells 16 and 41 to Walnut Station through existing City streets. Portions of this pipeline will be installed via jack and bore to avoid interfering with the newly constructed OC Streetcar track. The expected project schedule is shown in Table 1.

Table 1: City of Santa Ana Walnut PFAS Treatment Plant Schedule Summary

Description	Date
City of Santa Ana Walnut PFAS Treatment Plant	
Design	Dec 2025 – Dec 2026
DDW Permitting	Dec 2025 – Sep 2028
Construction Contract SA-2026-1	Mar 2026 – Sep 2029

Staff submitted a financial assistance application for a $15 Million Emerging Contaminant (EC) Principal Forgiveness Grant through the State Water Resources Control Board (SWRCB) Division of Financial Assistance. The District's Grant application was included in the EC Supplemental Intended Use Plan for the State Fiscal 2024-25 for funding consideration. The first review of the District's Grant application includes an environmental review of the proposed PFAS project. For CEQA compliance, staff must complete a Categorical Exemption and file a Notice of Exemption with the Orange County Clerk Office and the State Clearinghouse. Upon filing the Notice of Exemption, the SWRCB environmental unit will begin the required NEPA compliance process including a Section 106 consultation with the State Historical Preservation Officer.

Construction of the City of Santa Ana Walnut PFAS Treatment Plant will be complex and will require additional inspection and monitoring services to comply with the Grant funding requirements. Due to the complexity and significance of this facility and project funding, Staff recommends issuing a Request for Proposals (RFP) for a construction management firm to oversee construction and perform inspections throughout the project. The scope of work in this RFP will generally include overseeing construction activities for the District including conducting construction progress meetings; facilitating review and responses to submittals, RFIs, and change order requests; daily inspections to assure the project conforms to the plans and specifications; fill material soil testing, soil compaction testing, concrete compressive strength testing; and special inspections of steel reinforcement that the District cannot perform in-house.

Staff recommends authorizing issuance of a Request for Proposals for Construction Management Services and authorizing filing of the Notice of Exemption for the Categorical Exemption for the City of Santa Ana Walnut PFAS Treatment Plant.

PRIOR RELEVANT BOARD ACTION(S)

N/A

AGENDA ITEM SUBMITTAL

Meeting Date: September 9, 2026

To: Water Issues Committee
Board of Directors

From: John Kennedy

Staff Contact: R. Herndon/B. Leever

Budgeted: Yes
Budgeted Amount: $60,000
Cost Estimate: $54,000
Funding Source: General Fund
Program/Line Item No.: 1075.53010.9900
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: BASIN STORAGE EXPANSION EVALUATION – AGREEMENT WITH INTERA TO DEVELOP HISTORICAL GROUND SURFACE ELEVATION DATABASE

SUMMARY

Staff recently learned that environmental/engineering firm Intera possesses historical ground surface benchmark data for Orange County that staff had unsuccessfully searched for as part of the ongoing evaluation of land subsidence risk should OCWD expand the basin operating storage range. This raw data needs to be processed before it can be used by District subsidence consultant GSI to estimate critical groundwater levels below which subsidence may occur. Staff requested and received a proposal from Intera in the amount of $54,000 to review and process the raw ground surface benchmark data into a useable geospatial-temporal database.

Attachment: Proposal from Intera dated August 27, 2026

RECOMMENDATION

Agendize for September 16 Board meeting: Authorize issuance of a services agreement to Intera, Inc. in an amount not to exceed $54,000 to review, process, and provide a geospatial-temporal database of historical ground surface benchmark elevations in support of the District's land subsidence risk evaluation.

BACKGROUND/ANALYSIS

In May 2026, the Board approved proceeding with Phase 2 of a land subsidence evaluation being conducted by the firm GSI Environmental. GSI recently completed an initial evaluation of historical groundwater elevations dating to the 1930s and ground surface elevation data that was generally limited to post-1960. Because much of the Orange County groundwater basin reached maximum historical overdraft in the mid-1950s, it is likely that land subsidence occurred as a result; however, the amount of historical subsidence is unknown due to the apparent lack of early-1900s ground surface elevation data. This lack of data would add uncertainty to GSI's estimation of critical groundwater levels below which land subsidence could be triggered.

In July, OCWD staff were in a meeting on a different topic with representatives of Intera and happened to mention that we were unable to locate historical ground surface

benchmark elevation data. Intera staff replied that they have the raw (unprocessed) historical benchmark data as far back as 1906 and have on staff a retired employee of the National Geodetic Survey who knows the data and how to process it into a useable format. Suffice it to say that this was a very fortuitous encounter. When informed of this, GSI staff readily agreed that this historical benchmark data would provide valuable history of the basin's ground surface response to historically low groundwater levels in the 1950s.

At OCWD staff's request, Intera provided a proposal in the amount of $54,000 to review and process the raw historical Orange County benchmark data and provide it in a geospatial time-series database that can be used by GSI to estimate critical groundwater elevations.

PRIOR RELEVANT BOARD ACTIONS

5/20/26 R26-5-82: Authorize issuance of Amendment No. 1 to Agreement No. 1716 with GSI Environmental in an amount not to exceed $97,693 to estimate threshold groundwater levels below which subsidence may occur in different areas of the Orange County groundwater basin.

3/19/25 R25-3-44: Authorize issuance of a professional services agreement to GSI Environmental in an amount not to exceed $34,333 to evaluate land subsidence in the Orange County groundwater basin.

2/19/25 R25-2-19: Receive and file the OCWD Resilience Plan and authorize filing of Notice of Exemption in compliance with CEQA.

3/21/07 M07-44: Receive and file staff report, titled "Evaluation of Orange County Groundwater Basin Storage and Operational Strategy," and adopt new three-layer storage change methodology with the associated new full basin condition.

INTERA Incorporated
9600 Great Hills Trail, Suite 300W
Austin, TX 78759
+1 (512) 425 2000
INTERA.com

MEMORANDUM

TO: Mesa Water District

FROM: John Ellis, PG, National Subsidence Lead

DATE: August 27, 2026

RE: Scope of Work – Historical Leveling Adjustment and Subsidence Reconstruction

---

Introduction and Purpose

INTERA Incorporated proposes to reconstruct historical land-surface elevation changes within the Orange County Water District (OCWD) study area using repeated geodetic leveling conducted primarily by the National Geodetic Survey (NGS) and the U.S. Coast and Geodetic Survey (predecessor agency). The historical leveling archive will provide a unique record of vertical land-surface movement extending back many decades, including numerous benchmarks that were resurveyed repeatedly along the same leveling corridors.

Historically published benchmark elevations were developed to establish and maintain the national vertical-control network using the control available at the time of each survey. In areas affected by subsidence, tectonic movement, or other vertical land motion, however, benchmarks historically treated as vertical control may themselves have moved between survey epochs. Direct comparison of historically published elevations can therefore incorporate changes in the control network in addition to actual land-surface movement.

INTERA will apply an epoch-based readjustment methodology developed during its reconstruction of historical leveling in California's Central Valley for the Department of Water Resources. The approach uses NGS geodetic leveling observations and the NGS LOCUS least-squares adjustment software but differs from the historical NGS adjustment strategy in the selection and treatment of vertical control. Rather than automatically carrying forward previously published inland benchmark elevations, INTERA will preferentially reference individual survey epochs to the most stable available external control and will develop epoch-specific interpolated or extrapolated constraints where direct ties to suitable control are unavailable. The resulting adjusted benchmark elevations will provide a more internally consistent basis for evaluating historical vertical land-surface change through time.

Scope of Services

Task 1 - Historical Leveling Data Compilation and Network Development

INTERA will compile available historical geodetic leveling data within and adjacent to the OCWD study area and develop the survey networks required for individual historical adjustment epochs. Work will include:

- Compile available NGS leveling observations, benchmark information, line descriptions, survey dates, and associated metadata
- Identify benchmarks within the study area and benchmarks outside the study area that are required to connect historical leveling routes to suitable vertical control

- Group leveling observations into representative survey epochs based on survey timing, network connectivity, and available control
- Evaluate whether individual survey years should be subdivided into separate adjustment networks where leveling campaigns were not sufficiently connected to support a single adjustment
- Review benchmark histories for evidence of monument replacement, disturbance, resetting, renaming, or other changes that could affect interpretation of the historical record

Historical leveling in the study area generally followed a limited number of recurring survey corridors (**Figure 1**). This provides strong temporal control where the same benchmarks were repeatedly occupied, but spatial coverage is correspondingly more limited away from those corridors.

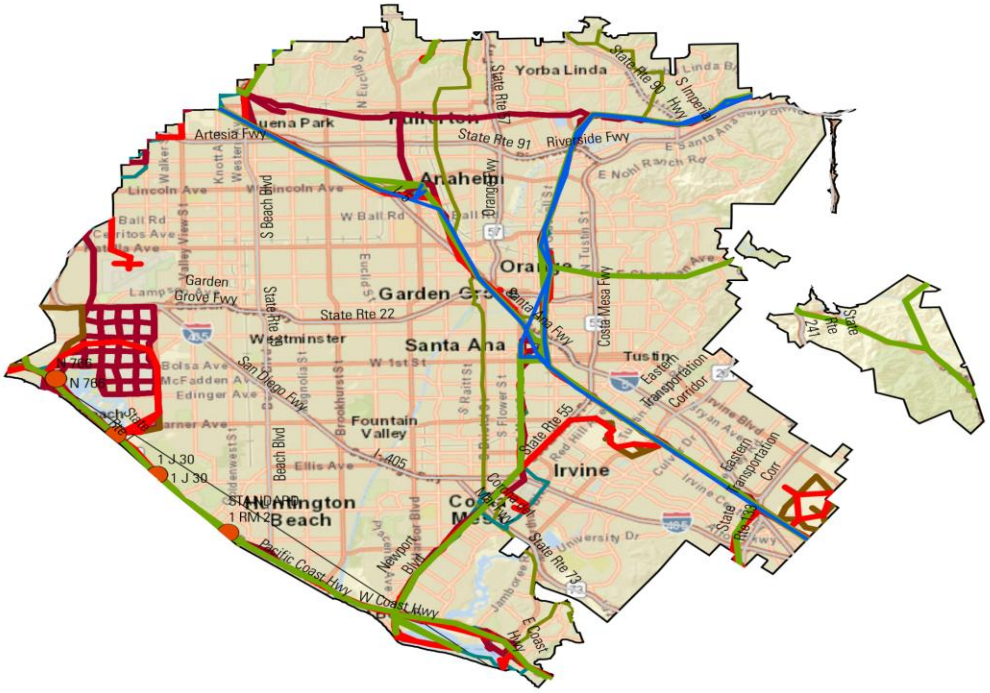


Figure 1. Map of the Orange County Water District area and historical leveling lines

Task 2 - Historical Control Evaluation and INTERA Adjustment Framework

A central component of the investigation will be development of an appropriate vertical-control framework for each historical survey epoch. The adjustment strategy will distinguish between the historical purpose of the NGS vertical-control network and INTERA's retrospective objective of reconstructing vertical land-surface movement.

Historical NGS Adjustment Approach

Historically, NGS leveling surveys were adjusted within the vertical-control network that existed at the time of each survey. New leveling was generally tied to existing network benchmarks meeting applicable order- and class-based requirements. This approach was appropriate for establishing and maintaining a national geodetic control network; however, in areas experiencing land subsidence or other vertical movement, benchmarks satisfying geodetic network requirements may not necessarily have remained

vertically stable through time. Use of a moving inland benchmark as a constraint can transfer that benchmark's elevation change into the remainder of the adjusted network and obscure the magnitude of historical land subsidence.

INTERA Adjustment Approach

INTERA's methodology is designed specifically to reconstruct historical vertical land-surface movement rather than simply reproduce the original geodetic network realization. For each adjustment epoch, INTERA will:

- Use stable external control located outside areas of known or suspected subsidence where appropriate connections are available (proposed use of the San Pedro tidal station)
- Use repeated observations from older and younger adjusted epochs to estimate epoch-specific constraint elevations where a survey line does not directly connect to suitable external control
- Preferentially select benchmarks exhibiting relatively small elevation changes between bounding epochs when developing interpolated constraints
- Use extrapolated constraints only where interpolation is not possible and document the additional uncertainty associated with those assumptions
- Evaluate multiple prospective constraints using free or minimally constrained adjustments where appropriate and remove inconsistent control points where technically justified
- Use the average survey date or representative epoch date when calculating temporally interpolated or extrapolated benchmark elevations

This retrospective framework is intended to place successive leveling epochs into a common and defensible vertical reference framework before elevation differences are interpreted as land-surface movement. The exact control used for each OCWD epoch will be determined from the available network geometry and benchmark history rather than prescribed in advance.

Deliverable: Documented vertical-control strategy in the leveling report (Task 7)

Task 3 - LOCUS Adjustment of Historical Leveling Epochs

INTERA will perform least-squares adjustment of the historical leveling observations using NGS LOCUS software. Although LOCUS is an NGS adjustment platform, the adjustment strategy will follow INTERA's retrospective historical-reconstruction methodology described above rather than simply reproducing the original NGS control configuration. Each survey epoch will be evaluated as an independent historical realization of the leveling network, with constraints selected specifically to minimize the influence of vertically unstable control on the reconstructed land-surface elevation history. For each selected survey epoch, INTERA will:

- Prepare and quality-control the historical leveling observations for adjustment
- Organize the leveling observations into representative yearly or survey-specific epochs
- Identify direct connections to suitable external vertical control
- Develop interpolated or extrapolated epoch-specific constraints where direct stable control is unavailable
- Perform free or minimally constrained adjustments where appropriate to evaluate internal network consistency and prospective constraints
- Perform final constrained LOCUS adjustments using the selected INTERA control framework

- Review adjustment residuals, observation statistics, network closures, and benchmark behavior
- Investigate observations or benchmarks exhibiting anomalous residuals or inconsistent elevation histories
- Revise constraints or network configuration where technically justified
- Produce final adjusted elevations in the NGVD29 and NAVD88 datums for benchmarks included in each historical epoch. The NAVD88 elevations can then be used in Task 4.

Deliverable: Epoch-specific LOCUS adjustment results for benchmark elevations.

Task 4 - Integration of OPUS/GPS Benchmark Elevations

INTERA will extend the adjusted historical benchmark elevation records into the modern GPS era by compiling available NGS OPUS solutions and other documented GPS-derived elevations for benchmarks within the study area that have been occupied by GPS. These observations will be evaluated before the historical subsidence reconstruction so that accepted GPS-derived elevations can be incorporated directly into the benchmark elevation-change and subsidence time series. For each benchmark with an available GPS/OPUS elevation, INTERA will:

- Identify and compile available OPUS solutions and associated survey dates, benchmark identifiers, solution metadata, and reported vertical data
- Review the datum, reference frame, geoid model, and elevation type associated with each GPS solution and document the vertical reference used
- Screen OPUS solutions for internal consistency, monument continuity, and apparent outliers before incorporating them into the historical record
- Identify accepted GPS-derived elevations suitable for extending individual benchmark records beyond the period of conventional leveling

The GPS/OPUS observations will provide modern elevation control at benchmarks that have been resurveyed using GPS and will allow the historical leveling record to be extended where suitable observations exist. Spatial and temporal coverage will depend on the availability and quality of GPS surveys at individual benchmarks; this task does not include collection of new field GPS observations.

Deliverable: Accepted OPUS/GPS benchmark elevations and associated source, datum, reference-frame, geoid, and quality-control metadata for incorporation into the historical subsidence reconstruction.

Task 5 - Historical Subsidence Reconstruction

Following completion of the LOCUS adjustments and evaluation of available OPUS/GPS observations, INTERA will reconstruct historical vertical land-surface movement using the combined benchmark elevation record. Adjusted leveling elevations will provide the historical foundation of each record, and accepted OPUS/GPS elevations will be used to extend the time series into the modern period where available.

- Difference adjusted benchmark elevations between successive survey epochs;
- Develop cumulative elevation-change and subsidence time series for benchmarks having sufficient historical observations
- Evaluate spatial patterns of historical subsidence along the available leveling corridors
- Evaluate consistency among adjacent benchmarks and intersecting survey routes

Deliverable: Historical elevation-change and subsidence time series for benchmarks with repeated observations, together with spatial summaries of reconstructed movement along the available leveling network.

Task 6 - Historical Leveling Database and Mapping

INTERA will combine the adjusted historical leveling elevations and accepted OPUS/GPS elevations into a single geospatial and tabular dataset suitable for subsequent evaluation and future updates. The integrated dataset will preserve the source and vertical-reference information needed to distinguish conventionally leveled elevations from more recent GPS/OPUS-derived elevations. The database will include:

- Benchmark designation and PID
- Benchmark location
- Survey epoch
- Adjusted elevation;
- Elevation datum or reference framework
- Change from the previous adjusted epoch
- Cumulative reconstructed elevation change
- Benchmark status or relevant monument-history notes

INTERA will prepare maps showing the historical leveling network, benchmark locations, and available survey epochs. Selected representative benchmark time series will also be prepared to illustrate the historical evolution of subsidence within different parts of the study area.

Deliverable: Electronic leveling database, GIS-ready results, maps, and representative benchmark time-series figures at selected sites.

Task 7 - Documentation and Technical Memorandum

INTERA will prepare a technical memorandum documenting the historical leveling reconstruction and integration of modern GPS observations. The memorandum will summarize the historical leveling and GPS/OPUS data, adjustment epochs, vertical-control selection, LOCUS adjustment procedures, quality control, reconstructed benchmark elevations and subsidence histories.

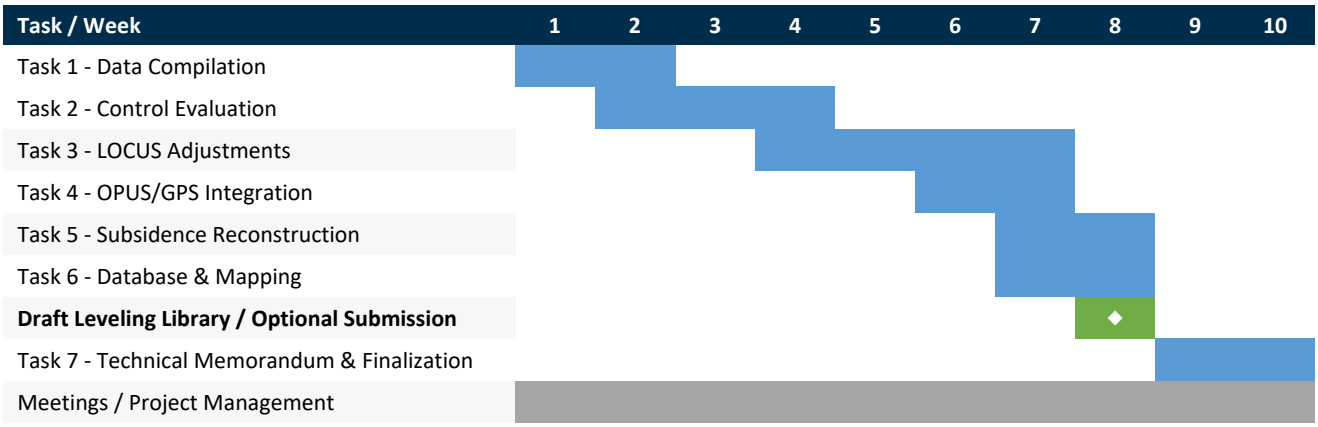
Deliverable: Technical memorandum documenting methods, assumptions, elevation and subsidence results, and data limitations with one client review meeting.

Summary of Deliverables

- Historical leveling database containing compiled benchmark, survey, and adjustment information
- Epoch-specific LOCUS adjustment results and adjusted historical benchmark elevations
- Historical elevation-change and subsidence time series for repeatedly surveyed benchmarks
- GIS data and figures showing the leveling network, benchmarks, and reconstructed historical subsidence
- Technical memorandum documenting the adjustment process
- Client review meeting

Timeline

INTERA anticipates completing the work within approximately 10 weeks. Tasks will proceed concurrently where practical. The draft leveling library, including adjusted historical leveling elevations, accepted OPUS/GPS elevations, and preliminary reconstructed benchmark time series, is planned for completion by the end of Week 8 and may be submitted to OCWD at that time. Weeks 9 and 10 will be used to complete the technical memorandum, final quality control, and the final integrated dataset and figures.



Fee and Billing

INTERA proposes to perform the services on a time-and-materials basis with a labor not-to-exceed amount of $54,000. The estimated allocation by task is provided below. INTERA may reallocate budget among tasks as needed without increasing the total not-to-exceed amount.

Task	Estimated Fee
Task 1 - Historical Leveling Data Compilation and Network Development	$4,000
Task 2 - Historical Control Evaluation and INTERA Adjustment Framework	$4,000
Task 3 - LOCUS Adjustment of Historical Leveling Epochs	$31,000
Task 4 - Integration of OPUS/GPS Benchmark Elevations	$3,000
Task 5 - Historical Subsidence Reconstruction	$3,000
Task 6 - Historical Leveling Database and Mapping	$4,000
Task 7 - Documentation and Technical Memorandum	$3,000
Meetings and Project Management	$2,000
Total	**$54,000**

AGENDA ITEM SUBMITTAL

Meeting Date: September 9, 2026

To: Water Issues Committee
Board of Directors

From: John Kennedy

Staff Contact: M. Patel/R. Raley

Budgeted: Yes
Budgeted Amount: $100,000
Cost Estimate: $101,587
Funding Source: R26012
Program/ Line Item No.: 23
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: REPLACEMENT OF EXISTING 910 AREA MAIN SWITCHGEAR BATTERIES

SUMMARY

The Orange County Water District currently operates a large 12KV distribution system that provides power to the Fountain Valley campus and the GWRS process. This system is reliant on 125 volt DC battery control power for switching and protection. These batteries have been in service over eight years and reaching their end of life. Proactive replacement reduces the likelihood of switchgear failing to operate when needed, protects personnel and equipment, and supports the continued reliability of the facility's electrical protection system.

Attachment: Vertiv Proposal

RECOMMENDATION

Agendize for September 16 Board meeting:

1. Authorize issuance of a purchase order to Vertiv for an amount not to exceed $101,587 for services to replace, test, and certify the 910 area switchgear batteries.

2. Authorize additional funds in the amount of $1,587 for R&R account R26012.

BACKGROUND/ANALYSIS

The Orange County Water District (OCWD) operates an extensive 12 kV electrical distribution system that supplies power to the Fountain Valley campus and the Groundwater Replenishment System (GWRS) process. Reliable operation of this system depends on 125-volt DC battery control power to operate protective relays, circuit-breaker trip and close mechanisms, alarms, and other essential switching and protection functions. During an electrical fault or loss of normal AC power, the DC battery system must remain available and deliver sufficient current to isolate affected equipment and protect personnel, critical assets, and process operations.

The existing valve-regulated lead-acid (VRLA) batteries were installed in 2018 and are approaching nine years of service. As VRLA batteries age, internal plate corrosion, electrolyte dry-out, increased internal resistance, and gradual capacity loss can reduce their ability to support critical control loads. These conditions may not be evident from

routine float-voltage measurements and can result in an unexpected failure when high current is required for breaker operation. Because the batteries serve a safety-critical distribution system supporting both the Fountain Valley campus and continuous GWRS operations, an age-related battery failure could prevent proper switching or fault isolation, increase equipment damage and safety risks, and contribute to a prolonged process outage.

The proposed replacement procedure is therefore a preventive-maintenance measure intended to renew the reliability of the 125-volt DC control-power system before the batteries exceed their expected service interval. Replacing the batteries in a planned and controlled manner will reduce the risk of an in-service failure, preserve dependable switchgear protection and operation, and support the continued reliability and resilience of OCWD's electrical distribution and water-treatment infrastructure.

The replacement of the 910 area main switchgear batteries is budgeted in Refurbishment & Replacement as project R26012 in the amount of $100,000. Staffing is requesting authorization of a purchase order to Vertiv in the amount of $101,587 for services to replace, test and certify the 910 area main switchgear batteries. Staff is also requesting increasing the budget for R26012 by $1,587 to cover the total cost of the replacement batteries which slightly exceeded the budgeted amount. Vertiv is the supplier of several of the existing battery systems around the Groundwater Replenishment System facility and purchasing from them allows for uniformity in asset management.

PRIOR RELEVANT BOARD ACTION(S)

N/A

ELECTRICAL RELIABILITY SERVICES
A VERTIV Company

Proposal For Service

PREPARED FOR:
ORANGE COUNTY WATER DISTRICT
Robert Raley
18700 Ward Street
Fountain Valley, CA 92708
714-378-8214
rraley@ocwd.com

RFP Number:
Orange County Water District Battery Replacements - 910

PREPARED BY:
Electrical Reliability Services

Proposal #: VRT-25012096	**Proposal Date:** September 3, 2026
Version #: 3	
Site Address: Orange County Water District 18700 Ward Street Fountain Valley CA 92708	

NETA ACCREDITED COMPANY

September 3, 2026

Dear Robert Raley,

Thank you for your interest in Electrical Reliability Services (ERS). We are pleased to offer the attached proposal for your consideration. ERS will furnish personnel, materials and equipment necessary to complete the project outlined in this proposal. This proposal does not include any state or local taxes that may apply.

Several factors set us apart in the industry including our unsurpassed experience, safety record, state-of-the-art training programs, and applicable professional credentials. As a full charter member of the InterNational Electrical Testing Association (NETA), a recognized leader and ANSI standards developer for the electrical testing industry, you are assured that all testing is performed objectively according to NETA/ANSI standards.

ERS delivers the most complete solutions for electrical system reliability and safety including commissioning and startup services, acceptance and maintenance testing, power system studies (where offered), and electrical and safety training. From testing for problems that could disable your system, to complete turnaround execution, you'll quickly understand how we are your single source solution for all your electrical reliability needs. With a network of more than 30 service locations in North America, ERS has experienced professionals when and where you need them. For more information, visit us on the web at http://www.electricalreliabilityservices.com.

If you have any questions regarding the attached proposal, please contact me directly at the phone number shown below. I look forward to your response and the opportunity to work together.

Respectfully Submitted,

Bryan Peraza
Senior Sales Engineer

Electrical Reliability Services, Inc.
12130 Mora Drive Unit 1
Santa Fe Springs, CA 90670

PHONE (562) 236-9555
CELL (562) 236-6700
EMAIL bryan.peraza@vertiv.com

1.0 PROJECT DETAILS

This service proposal is designed using industry standards to provide ORANGE COUNTY WATER DISTRICT with economic and safety-related benefits. ERS will furnish personnel, materials and equipment necessary to complete the project outlined in this proposal.

2.0 QUALIFICATIONS

2.1 **ACCREDITATIONS / CERTIFICATIONS:** ERS is a full charter member of the InterNational Electrical Testing Association (NETA), a recognized leader and ANSI standards developer for the electrical testing industry. ERS field engineers and technicians must meet the rigorous standards of NETA to become NETA certified. Once certified, they must undergo continuing education to maintain their NETA Certification level and keep abreast of the latest technologies.

2.2 **PERSONNEL:** The ERS team is comprised of registered professional engineers, degreed electrical engineers, and NETA certified Level II, III, and IV technicians that are experienced in the operation and maintenance of electrical distribution systems. Resumes are available upon request.

2.3 **TEST EQUIPMENT AND CALIBRATION:** ERS maintains a large inventory of state-of-the-art test equipment and diagnostic software. To ensure the accuracy of the test results, all of our field test equipment and secondary standard laboratory equipment are calibrated according to NETA Maintenance Testing Specifications Section 5.3 and are traceable to the National Institute of Standards and Technology (NIST).

2.4 **PROPRIETARY TEST SOFTWARE:** ERS's proprietary testing software improves the speed and efficiency of the data acquisition process, saving both time and money. The intelligent forms and built-in quality control ensure the accuracy of the test data through automatic identification of test values outside of the acceptable parameters. The application also stores and organizes millions of test values for various types of electrical equipment--providing an unprecedented historical database of test values critical for trending purposes.

3.0 SAFETY

We are committed to the safety of our employees and yours. Personal safety involves the application of policies and procedures combined with the right attitude, knowledge, and tools that will help you manage risk. ERS's safety organization includes a dedicated Environmental, Health & Safety Manager at the corporate level as well as safety officers and committees at the local level. ERS's Safety Program Includes:

- Written Electrical Safety-Related Work Practices/Procedures
- Training for qualified workers
- Protective equipment and materials
- Safety Records indicating attendees of all training, re-training, shop safety meetings, and tailgate safety meetings
- Mandatory safety meetings
- Safety Compliance including *unannounced* audits of this program
- Accident investigation and reporting

4.0 SCOPE OF WORK

4.1 For the DC Power Batteries portion of the project scope of work, the following equipment will be tested or evaluated in accordance with the included DC Power Batteries Specifications. Please refer to section 4.0 of the specifications section for all Project specific clarifications and exceptions.

Item	Qty	Device Summary
1		*910A Battery*
1.1	1	Battery
1.2	1	Remove and recycle qty 60 cells Fiamm 2SLA250
1.3	1	Procure and install qty 60 cells EnerSys DDMP50-13 in a 8 high 8 wide configuration
1.4	1	Procure and install qty 1 Enviroguard HWK21-53 spill containment
1.5	1	Customer is responsible for disposing of the battery cabinet.
2	1	120vdc 100a temp battery with 50 ft of cable provided during battery replacement
1		*910B Battery*
1.1	1	Battery
1.2	1	Remove and recycle qty 60 cells Fiamm 2SLA250
1.3	1	Procure and install qty 60 cells EnerSys DDMP50-13 in a 8 high 8 wide configuration
1.4	1	Procure and install qty 1 Enviroguard HWK21-53 spill containment
1.5	1	Customer is responsible for disposing of the battery cabinet.
2	1	120vdc 100a temp battery with 50 ft of cable provided during battery replacement
1	1	With Battery Backup, Acceptance Rating: 120VDC Acceptance Test 120vdc DDMP50-13 @ 1HR rate of 184A to 1.75vpc 910A Battery
2	1	With Battery Backup, Acceptance Rating: 120VDC Acceptance Test 120vdc DDMP50-13 @ 1HR rate of 184A to 1.75vpc 910bBattery
3	1	120vdc 100a temp battery provided during testing

5.0 PROJECT COST

The program specified in this proposal can be performed for the sum(s) of:

Base Scope of Work - DC Power Batteries - Orange County Water District 910 Battery Replacements	**$ 96,619.00**

Any optional work scope will be billed 100% at time of completion of those services.

Breakdown - Included in Base Price	
Material and Freight	$ 64,097.00
Labor	$ 32,522.00

Optional Services Pricing - Not Included in Base Price

Eagle Eye Battery Monitor system installed 910A battery	**$ 38,000.00**
Eagle Eye Battery Monitor system installed 910A battery	**$ 38,000.00**

Unless otherwise noted above payment terms: Net 30 days from date of Seller's invoice.

6.0 GENERAL CUSTOMER RESPONSIBILITIES

In support of the project described herein, we ask that ORANGE COUNTY WATER DISTRICT provide the following as applicable:

6.1 **EQUIPMENT ACCESS:** Convenient access to the equipment covered by the Scope of Work, and shall provide any special lifting or racking devices needed prior to start of any work by ERS.

6.2 **PERSONNEL:** Qualified personnel trained in arc flash protection with appropriate arc flash personal protective equipment (PPE) to gain access to energized electrical conductors and circuit parts required for ERS to perform the proposed scope of work.

6.3 **DOCUMENTATION:** Documents listing all protective device settings, any necessary electrical drawings and manufacturer's instruction manuals. If drawings and settings are not available, ERS can update one-line drawings and perform a coordination study for an additional fee.

6.4 **UTILITY OUTAGES:** Arrange and pay for any utility outages that may be required to de-energize equipment to be tested by ERS.

6.5 **SWITCHING:** Customer shall perform all switching required to de-energize or energize equipment associated with this project. If ERS is required to perform switching, customer must sign and submit an ERS Switching Agreement. ERS shall not perform energized switching of any electrical distribution equipment as part of this or any other Scope of Work without a signed Switching Agreement relieving ERS of any and all liability associated with such switching activity.

6.6 **DATA COLLECTION:** Breakers/Switches are occasionally tripped by accident during removal of equipment covers. In instances where the customer chooses to have ERS remove equipment covers, the customer holds ERS harmless of any and all liability associated with said activity.

6.7 **SITE ACCESS:** Prior to start of work, provide all site specific and generic safety training and security requirements for ERS employees to perform work at customer site. Any additional training requirements not specifically listed in customer specification or Request for Proposal will be charged as an additional fee.

7.0 GENERAL CLARIFICATIONS AND ASSUMPTIONS

7.1 **NOTICE:** To allow the proper scheduling of both manpower and test equipment necessary to perform this work on a mutually agreeable date, please allow a minimum of four weeks advance notice prior to scheduling. Dependent upon ERS's current work load and availability, additional charges for travel labor/expenses and test equipment may be required for work that is requested to be scheduled with less than two weeks advance notice.

7.2 **PRICE:** The price above is based on assumption of accuracy of the electrical system data supplied to ERS by ORANGE COUNTY WATER DISTRICT (e.g. single-line diagram, equipment list or other source). Any unplanned time necessitated by inaccuracies of this information due to restricted site access, deficiencies discovered or failure of ORANGE COUNTY WATER DISTRICT to follow OSHA 1910 and NFPA 70E safety guidelines (e.g. safety equipment, procedures) will result in a work stoppage additionally billed on a time and material basis in accordance with our current published rates for applicable class of service.

7.3 **STANDBY TIME:** Any unplanned standby time necessitated by ORANGE COUNTY WATER DISTRICT operating conditions will be additionally billed on a time and material basis in accordance with straight, overtime or premium rates.

7.4 **RETESTING / REPAIRS:** Any equipment found to be defective requiring re-tests, repairs, non-routine troubleshooting or other work not specifically listed in this proposal shall be considered additional workscope, and a chargeable fee.

7.5 **DELAYS / CANCELLATION:** ERS is not responsible for any delays or cancellations due to weather. It is the client's responsibility to communicate the re-scheduling of any work due to adverse weather. The client will be charged for any time incurred by ERS due to weather delays or cancellations.

7.6 **CORRECTIVE ACTION:** Much of the work proposed is investigative in nature and could reveal a need for corrective maintenance, replacement of parts, or even replacement of complete system elements to improve the distribution system's reliability, operation, and safety. If any defects found during this project require immediate attention, and ERS proposes to correct such defects, the costs incurred by ERS for these repairs will be billed additional. However, no such work will be performed without your prior approval.

7.7 **SCOPE CHANGES:** The price is based on the work scope at the time of quotation. Any changes in work scope that occur prior to the job acceptance will require a separate quotation and change order.

7.8 **PARTS:** Any parts found defective during the maintenance will be quoted separately.

7.9 **METHOD OF PROCEDURE:** This proposal does not include any method of procedure (MOP) development or meeting time. ERS would be pleased to offer assistance or develop any required MOP's for an additional fee.

7.10 **MOBILIZATION:** This proposal includes a limited amount of mobilizations that result in the most cost effective and efficient execution of the project. Any additional mobilizations, or additional trips requested by the customer will incur additional mobilization charges.

7.11 **TRAVEL NOTIFICATION:** Pricing for all project travel in this proposal assumes notification of dates to ERS at least two weeks in advance of any travel requirement. Should ERS receive notifications with less than two weeks advance notice, impacting travel costs (airline tickets, hotel costs, etc.), the added costs may be considered additional to the original proposal.

7.12 **PERMITS AND REGULATORY APPROVALS:** Obtaining permits, approvals, and inspections are excluded from the ERS scope.

7.13 **STAMPING AND SEALING:** Stamping and/or sealing of documents are excluded.

8.0 TERMS AND CONDITIONS

8.1 **CONFIDENTIAL INFORMATION:** The information contained in this proposal is considered to be of a confidential and proprietary nature, the rights of which belong to ERS and are protected under copyright and trade secret laws. This information is being provided to the purchaser to evaluate ERS's proposal and performance should a contract be awarded to ERS. Neither this proposal nor any information contained herein nor any proprietary information furnished pursuant thereto, shall be disclosed to others or used for any purpose other than set forth above without the prior written approval of Electrical Reliability Services.

8.2 **GENERAL PROVISIONS:** All work shall be performed in accordance with ERS Terms and Conditions, which are attached to this proposal. No other terms and conditions are acceptable unless agreed to by ERS in writing.

8.3 **EXPIRATION OF PROPOSAL:** This proposal shall remain valid for 60 days from the date of issue.

ACCEPTANCE OF PROPOSAL

ORANGE COUNTY WATER DISTRICT has read Proposal No.VRT-25012096 in its entirety, and hereby authorizes , and/or its affiliates, to proceed with executing the Scope of Work referenced herewith in the amount of **$ 96,619.00**.

All work will be performed in accordance with ERS Standard Terms and Conditions, which are attached to this proposal. No other terms and conditions are acceptable, unless agreed to by Electrical Reliability Services in writing. The signatory below is duly appointed by and authorized by ORANGE COUNTY WATER DISTRICT to execute this agreement and to bind same to the terms and conditions of this proposal.

We look forward to working with ORANGE COUNTY WATER DISTRICT on this project. Should you have any questions regarding this proposal, please do not hesitate to contact me at (562) 236-9555 or email me at bryan.peraza@vertiv.com .

ORANGE COUNTY WATER DISTRICT		Buyer Signature Required	Date
Printed Name	Title	Printed Name	Title

Purchase Order must be assigned to:
Electrical Reliability Services
610 Executive Campus Dr
Westerville OH 43082

FID# 94-1742896

Payment Remittance address:
Electrical Reliability Services
24865 Network Place
Chicago, IL 60673-1248

PO should be mailed to:
Electrical Reliability Services
12130 Mora Drive, Unit 1
Santa Fe Springs, CA 90670
Attn: Bryan Peraza

Please provide the following information:

Purchase Order Number*:	Phone:
Billing Contact Person:	Fax:
Person Authorizing Payment:	Phone:
Billing Company Name:	Federal Tax ID:
Billing Address:	Taxable? Yes / No
Billing City, ST Zip:	If non-taxable, fax copy of tax exempt certificate
Site Contact Person:	Phone:
Email Invoices? Yes/No	Email Address:

* If a Purchase Order is provided, a hard copy must be included.

Specifications - DC Power Batteries

Orange County Water District 910 Battery Replacements

1.0 PROJECT DETAILS

The NFPA Standard 70B Electrical Equipment Maintenance guidelines states "Electrical equipment deterioration is normal, but failure is not inevitable." An effective electrical maintenance testing program identifies and recognizes factors leading to deterioration and provides measures for coping with these factors. A well-administered testing program can reduce accidents, save lives and minimize costly breakdowns and unplanned shutdowns of production equipment. Benefits of an effective electrical testing program fall into two categories: a) direct measurable economic benefits are derived by reduced cost of repairs and reduced down time. b) less measurable but very real benefits result from improved safety in the operation of the electrical system.

2.0 PROCEDURES

ERS will complete the work per the following specifications for each of the items listed in the equipment inventory section. These specifications were developed from standard NETA Specifications, customer input, past experience and customized for your budget, equipment condition and time considerations. Where applicable, the associated NETA testing specification section has been included for reference only and is not intended to be all inclusive.

2.1 STANDARD

Installation

Battery Acceptance Testing

3.0 CUSTOMER RESPONSIBILITIES

In support of the project described herein, we ask that ORANGE COUNTY WATER DISTRICT provide the following:

3.1 **PROTECTIVE DEVICE SETTINGS:** Prior to ERS mobilization, customer shall provide the protective device settings to be used during the maintenance testing. In the absence of engineered settings, the devices will be tested and left on an "as found" basis. Note: It must be considered that the system may not operate properly without engineered settings. Additional mobilizations to install settings and retest protective devices will result in additional cost.

3.2 **MV CABLE TESTING:** When MV cables are included in the scope of work for this proposal, Customer shall be responsible for the preparation of medium voltage cables for testing prior to start of any work by ERS.

3.3 **TEST POWER:** Test power will be provided by the client, as required, within 50 feet of the equipment to be tested. This may require up to 150kW, (125A at 480VAC single phase), and DC power as required for function testing.

4.0 CLARIFICATIONS AND ASSUMPTIONS

4.1 **PARTS:** Any parts found defective during the maintenance will be quoted separately.

4.2 **THERMOGRAPHIC INSPECTION:** If ERS is to perform an Infrared Survey or Thermographic Inspection, unless otherwise specified in this proposal, customer must provide a qualified representative for purposes of providing access to all electrical equipment, including the removal , opening, and reinstall of all panel covers as required for the inspection. The site representative must be trained and knowledgeable on OSHA Electrical Safe Work Practices, NFPA 70E electrical Arc Flash Safety, and must don the appropriate PPE for the hazards associated with all tasks while performing the survey/inspection.

SERVICES TERMS AND CONDITIONS

Electrical Reliability Services Inc. is herein referred to as the "Seller" and the customer or person or entity purchasing services ("Services") and parts required for Services ("Parts") from Seller is referred to as the "Buyer." These Services Terms and Conditions, any applicable Fee Schedule, quotation, acknowledgment, Seller's scope of work, or invoice from Seller relevant to the provision of Services and all documents incorporated by specific reference herein or therein, constitute the complete and exclusive statement of the terms of this agreement ("Agreement") governing the sale of Services and Parts by Seller to Buyer. Any discrepancies between the terms of the above referenced documents shall be resolved by Seller. Seller's acceptance of Buyer's purchase order is expressly conditional on Buyer's assent to all of the terms of this Agreement, including terms and conditions that are different from or additional to the terms and conditions of Buyer's purchase order. Buyer's acceptance of the Services and Parts will manifest Buyer's assent to the terms of this Agreement. Seller reserves the right in its sole discretion to refuse orders.

1. PRICES: Unless otherwise specified in writing by Seller, the price quoted or specified by Seller for the Services shall remain in effect for ninety (90) days after the date of Seller's quotation, Seller's scope of work or acknowledgment of Buyer's order for the Services, whichever occurs first, provided an unconditional authorization from Buyer for the performance of the Services is received and accepted by Seller within such time period. If authorization is not received by Seller within such ninety (90) day period, Seller shall have the right to change the price for the Services. All prices are exclusive of taxes, which are to be borne by Buyer. Unless otherwise specified by Seller, Parts will be furnished at Seller's then prevailing prices.

2. TAXES: Any current or future tax or governmental charge (or increase in same) affecting Seller's costs of Services or costs of production, sale, delivery or shipment of Parts, or which Seller is otherwise required to pay or collect in connection with the provision of Services and Parts, shall be for Buyer's account and shall be added to the price or billed to Buyer separately, at Seller's election.

3. TERMS OF PAYMENT: Buyer shall be billed monthly. Seller, at its discretion, may require monthly progress payments for services requiring more than thirty (30) days to complete. Terms of payment are net 30 days from date of Seller's invoice. Seller shall have the right, among other remedies, either to terminate this Agreement or to suspend further performance under this Agreement and/or other agreements with Buyer in the event Buyer fails to make any payment when due, which other agreements Buyer and Seller hereby amend accordingly. Buyer shall be liable for all expenses, including attorneys' fees, relating to the collection of past due amounts. If any payment owed to Seller is not paid when due, it shall bear interest, at a rate to be determined by Seller, which shall not exceed the maximum rate permitted by law, from the date on which it is due until it is paid. Seller may preserve its interests in payment by enforcing any applicable mechanic's, construction or similar lien rights. Should Buyer's financial responsibility become unsatisfactory to Seller, cash payments or security satisfactory to Seller may be required by Seller for future performance of Services or provision of Parts. If such cash payment or security is not provided, in addition to Seller's other rights and remedies, Seller may discontinue performance of Services and provision of Parts.

4. SHIPMENT AND DELIVERY: While Seller will use all reasonable commercial efforts to maintain the performance dates acknowledged or quoted by Seller, all performance dates are approximate and not guaranteed. Seller, at its option, shall not be bound to tender delivery of any Parts for which Buyer has not provided shipping instructions and other required information. If the provision of Services or shipment of the Parts is postponed or delayed by Buyer for any reason, Buyer agrees to reimburse Seller for any and all storage costs and other additional expenses resulting therefrom.

5. LIMITED WARRANTY: Seller warrants to Buyer that the Services will be performed by trained personnel using proper equipment and instrumentation for the particular service. Seller warrants that any analysis of data, subsequent recommendations and other services will be in accordance with applicable established industry standards and practices. Seller warrants the proper performance of the Services for a period of ninety (90) days from the completion of the Services. Warranties applicable to third party equipment, parts or materials furnished by Seller shall be that of the manufacturer of such Parts and only to the extent assignable to Buyer. **EXCEPT AS SPECIFIED ABOVE, THIRD PARTY SERVICES AND/OR PARTS ARE FURNISHED AS-IS, WHERE-IS, WITH NO WARRANTY WHATSOEVER. THE WARRANTY SET FORTH IN THIS SECTION IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY SELLER WITH RESPECT TO THE SERVICES AND PARTS AND IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHETHER OR NOT THE PURPOSE OR USE HAS BEEN DISCLOSED TO SELLER IN SPECIFICATIONS, DRAWINGS OR OTHERWISE.**

This warranty does not extend to any losses or damages due to misuse, accident, abuse, neglect, normal wear and tear, negligence (other than Seller's), unauthorized modification or alteration, use beyond rated capacity, unsuitable power sources or environmental conditions, improper installation, repair, handling, maintenance or application or any other cause not the fault of Seller. To the extent that Buyer or its agents have supplied specifications, information, representation of operating conditions or other data to Seller that is used in (i) the selection of the Services and/or Parts and (ii) the preparation of Seller's quotation and/or scope of work, and in the event that actual operating conditions or other conditions differ from those represented by Buyer, any warranties or other provisions contained herein that are affected by such conditions shall be null and void.

If within thirty (30) days after Buyer's discovery of any warranty defects within the warranty period, Buyer notifies Seller thereof in writing, Seller shall, at its option, repair, correct or replace F.O.B. point of manufacture, or refund the purchase price for, that portion of the services or equipment found by Seller to be defective. Failure by Buyer to give such written notice within the applicable time period shall be deemed an absolute and unconditional waiver of Buyer's claim for such defects. Equipment repaired or replaced during the warranty period shall be covered by the foregoing warranties for the remainder of the original warranty period or thirty (30) days from the date of shipment, whichever is longer.

Buyer assumes all other responsibility for any loss, damage, or injury to persons or property arising out of, connected with, or resulting from the use of Services or Parts, either alone or in combination with other parts.

6. LIMITATION OF REMEDY AND LIABILITY: **THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY WARRANTY HEREUNDER SHALL BE LIMITED TO, AT SELLER'S SOLE OPTION, EITHER CORRECT PERFORMANCE FOR THAT PORTION OF THE SERVICES FOUND BY SELLER TO BE DEFECTIVE OR REFUND OF THE PRICE PAID FOR SERVICES.**

SELLER SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE AND THE REMEDIES OF BUYER SET FORTH IN THIS AGREEMENT ARE EXCLUSIVE. IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), SHALL SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXCEED THE PRICE PAID BY BUYER FOR THE SPECIFIC SERVICES OR PARTS PROVIDED BY SELLER GIVING RISE TO THE CLAIM OR CAUSE OF ACTION. BUYER AGREES THAT SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS SHALL NOT EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES. The term "consequential damages" shall include, but not be limited to, loss of anticipated profits, business interruption, loss of use, revenue, reputation and data, costs incurred, including without limitation, for capital, fuel, power and loss or damage to property or equipment.

Buyer expressly acknowledges and agrees that Seller has set its prices and entered into this Agreement in reliance upon the limitations of liability and other terms and conditions specified herein, which allocate the risk between Seller and Buyer and form a basis of this bargain between the parties. It is expressly understood that any technical advice furnished by Seller with respect to the use of the Parts and/or Services is given without charge, and Seller assumes no obligation or liability for the advice given, or results obtained, all such advice being given and accepted at Buyer's risk.

7. EXCUSE OF PERFORMANCE: Seller shall not be liable for delays in performance or for non-performance due to acts of God; war; epidemic; fire; flood; weather; sabotage; strikes or labor disputes; civil disturbances or riots; governmental requests, restrictions, allocations, laws, regulations, orders or actions; unavailability of or delays in transportation; default of suppliers; or unforeseen circumstances; acts or omissions of Buyer, including, without limitation, those specified in Section 19; or any events or causes beyond Seller's reasonable control. Performance of Services and deliveries of Parts may be suspended for an appropriate period of time or canceled by Seller upon notice to Buyer in the event of any of the foregoing, but the balance of this Agreement shall otherwise remain unaffected as a result of the foregoing. If Seller determines that its ability to supply the total demand for the Services or Parts or to obtain material used directly or indirectly in the manufacture of the Parts is hindered, limited or made impracticable due to causes set forth in the preceding paragraph, Seller may delay performance of Services or allocate its available supply of the Parts among its purchasers on such basis as Seller determines to be equitable without liability for any failure of performance which may result therefrom.

8. CANCELLATION: Buyer may cancel orders only upon reasonable advance written notice and upon payment to Seller of Seller's cancellation charges which include, among other things, all costs and expenses incurred and to cover commitments made by the Seller, and a reasonable profit thereon. Seller's determination of such cancellation charges shall be conclusive.

9. CHANGES: Buyer may request changes or additions to the Services. In the event such changes or additions are accepted by Seller, Seller may revise the price and performance dates. Seller reserves the right to change designs and specifications for the Parts without prior notice to Buyer, except with respect to Parts being made-to-order for Buyer. Seller shall have no obligation to install or make such change in any Parts manufactured prior to the date of such change.

10. NUCLEAR/MEDICAL: **SERVICES AND PARTS SOLD HEREUNDER ARE NOT FOR USE IN CONNECTION WITH ANY NUCLEAR, LIFE-SUPPORT AND RELATED APPLICATIONS.** Buyer accepts Services and Parts with the foregoing understanding, agrees to communicate the same in writing to any subsequent purchasers or users and to defend, indemnify and hold harmless Seller from any claims, losses, suits, judgments and damages, including incidental and consequential damages, arising from such use, whether the cause of action be based in tort, contract or otherwise, including allegations that the Seller's liability is based on negligence or strict liability.

11. ASSIGNMENT: Buyer shall not assign its rights or delegate its duties hereunder or any interest herein without the prior written consent of Seller, and any such assignment or delegation, without such consent, shall be void.

12. INSPECTION: Buyer shall have ten (10) days from the date of completion of each portion of the Services to inspect the Services, and in the event of any non-conformity, Buyer must give written notice to Seller within said period stating why the Services are not conforming. Failure by Buyer to give such notice constitutes unqualified acceptance of the Services.

13. BILLABLE SERVICES: Additional charges will be billed to Buyer at Seller's then prevailing labor rates for any of the following: a) any Services not specified in Seller's quotation, Seller's order acknowledgement, Seller's scope of work, or other documents referenced herein and therein; b) any Services performed at times other than Seller's normal service hours; c) if timely and reasonable site and/or equipment access is denied the Seller service representative; or d) Seller's performance is made more burdensome or costly as a result of Buyer's failure to comply with its obligations herein.

14. NON-SOLICITATION: Buyer shall not solicit, directly or indirectly, or employ any employee of Seller during the period any Services are being provided to Buyer and for a period of one (1) year after the last provision of Services. In the event that an employee of Seller is hired or leaves the employ of Seller in such circumstances, the Buyer shall pay Seller, as compensation for the cost incurred by Seller in recruiting and training the employee, the sum equivalent to six (6) months pay for each employee hired from or leaving the employment of Seller.

15. GENERAL PROVISIONS: These Services Terms and Conditions supersede all other communications, negotiations and prior oral or written statements regarding the subject matter of these Services Terms and Conditions. No change, modification, rescission, discharge, abandonment, or waiver of these Services Terms and Conditions shall be binding upon the Seller unless made in writing and signed on its behalf by a duly authorized representative of Seller. No conditions, usage of trade, course of dealing or performance, understanding or agreement purporting to modify, vary, explain, or supplement this Agreement shall be binding unless hereafter made in writing and signed by the party to be bound, and no modification or additional terms shall be applicable to this Agreement by Seller's receipt, acknowledgment, or acceptance of purchase orders, shipping instruction forms, or other documentation containing terms at variance with or in addition to those set forth herein. Any such modifications or additional terms are specifically rejected and deemed a material alteration hereof. If this document shall be deemed an acceptance of a prior offer by Buyer, such acceptance is expressly conditional upon Buyer's assent to any additional or different terms set forth herein. Seller reserves the right to subcontract Services to others. No waiver by either party with respect to any breach or default or of any right or remedy, and no course of dealing, shall be deemed to constitute a continuing waiver of any other breach or default or of any other right or remedy, unless such waiver be expressed in writing and signed by the party to be bound. All typographical or clerical errors made by Seller in any quotation, acknowledgment or publication are subject to correction.

The validity, performance, and all other matters relating to the interpretation and effect of this Agreement shall be governed by the law of the state of Ohio without regard to its conflict of laws principles. Buyer and Seller agree that the proper venue for all actions arising in connection herewith shall be only in the county of Franklin, state of Ohio, and the parties agree to submit to such jurisdiction. No action, regardless of form, arising out of transactions relating to this contract, may be brought by either party more than two (2) years after the cause of action has accrued. The U.N. Convention on Contracts for the International Sales of Goods shall not apply to this Agreement.

16. ADDITIONAL SERVICE CONDITIONS: The Buyer shall furnish to Seller, at no cost, suitable working space, storage space, adequate heat, telephone, light, ventilation, regulated electric power and outlets for testing purposes. The facilities shall be within a reasonable distance from where the Services are to be provided. Seller and its representatives shall have full and free access to the equipment in order to provide the necessary Services. Buyer shall provide the means to shut-off and secure electric power to the equipment and provide safe working conditions. Buyer shall not require Seller or its employees, as a condition to site access or otherwise, to further agree or enter into any agreement, which waives, releases, indemnifies or otherwise limits or expands any rights or obligations whatsoever. Any such agreements shall be null and void. Seller is under no obligation to remove or dispose of Parts or equipment unless specifically agreed upon in Seller's scope of work. Seller removed Parts become the property of Seller. Seller shall not perform any electrical power switching or services on energized electrical equipment unless specifically requested by Buyer, under the supervision of the Buyer, and subject to procedures jointly agreed to in advance. Notwithstanding Buyer's request, Seller may refuse to perform power switching or services on energized electrical equipment, if in the opinion of Seller, such action would be unsafe. **IN THE EVENT THAT SELLER PERFORMS POWER SWITCHING OR SERVICES ON ENERGIZED ELECTRICAL EQUIPMENT, TO THE FULLEST EXTENT PERMITTED BY LAW, BUYER SHALL INDEMNIFY, DEFEND, AND HOLD SELLER HARMLESS FROM ANY AND ALL LIABILITY, ACTIONS, SUITS, CLAIMS, DEMANDS, DAMAGES, COSTS, AND EXPENSES ("LOSSES") ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR RESULTING FROM SELLER'S PERFORMANCE OF POWER SWITCHING OR SERVICES ON ENERGIZED ELECTRICAL EQUIPMENT, REGARDLESS OF WHETHER THE LOSSES RESULT FROM SELLER'S NEGLIGENCE (WHETHER ACTIVE OR PASSIVE, AND WHETHER SOLE, JOINT, OR CONCURRENT), AND EVEN THOUGH CAUSED IN WHOLE OR IN PART BY A PRE-EXISTING DEFECT, STRICT LIABILITY, OR OTHER LEGAL FAULT OF SELLER. THIS INDEMNITY SHALL APPLY TO ANY ACTS OR OMISSIONS OR NEGLIGENT CONDUCT, WHETHER ACTIVE OR PASSIVE, ON THE PART OF EITHER THE SELLER OR THE BUYER.** If OSHA or any other federal, state or local government, trade association, or contractual regulations or standards require a "safety person" to be on site during the performance of services, or in the event of a trade union jurisdictional dispute where trade union represented personnel are required to assist or stand by during the performance of services by Seller, Buyer shall be responsible for providing for and paying for any charge or wages for such person(s), as applicable. Buyer shall immediately inform Seller, in writing, at the time of order placement and thereafter, of any unsafe or hazardous substance or condition at the site, including, but not limited to, the presence of asbestos or asbestos-containing materials, and shall provide Seller with any applicable Material Data Safety Sheets regarding the same. Any losses, costs, damages, claims and expenses incurred by Seller as a result of Buyer's failure to so advise Seller shall be borne by Buyer. Seller, in its sole discretion and without cost or penalty, reserves the right to cancel its performance under this Agreement or any order immediately upon written notice to Buyer following Seller discovery of unsafe or hazardous site substance or condition or any other circumstance altering Seller performance of Services. Buyer shall appoint a representative familiar with the site and the nature of the Services to be performed by Seller to be accessible at all times that Seller personnel are at the site. Seller shall not be liable for any expenses incurred by Buyer in removing, replacing or refurbishing any Buyer equipment or any part of Buyer's building structure that restricts Seller access. Buyer personnel shall cooperate with and provide all necessary assistance to Seller. Seller shall not be liable or responsible for any work performed by Buyer.

17. INSURANCE: Seller shall maintain the following insurance or self-insurance coverage: Worker's Compensation in accordance with the statutory requirements of the state in which the work is performed. Employer's Liability with a limit of liability of $1,000,000 per occurrence for bodily injury by accident or bodily injury by disease. Commercial General Liability (CGL) for bodily injury and property damage with a limit of $1,000,000 per occurrence and aggregate. Automobile Liability insurance that covers usage of all owned, non-owned and leased vehicles and which is subject to a combined single limit per occurrence of $1,000,000. Automobile Liability insurance includes Contractual Liability, but no special endorsements.

18. INDEMNITY: Each party shall indemnify and hold the other party harmless from loss, damage, liability or expense resulting from damage to personal property of a third party, or injuries, including death, to third parties to the extent caused by a negligent act or omission of the party providing indemnification or a party's subcontractors, agents or employees during performance of services hereunder. Such indemnification shall be reduced to the extent damage or injuries are attributable to others. The indemnifying party shall defend the other party in accordance with and to the extent of the above indemnification, provided that the indemnifying party is: i) promptly notified by the other party, in writing, of any claims, demands or suits for such damages or injuries; ii) given all reasonable information and assistance by the other party; iii) given full control over any resulting negotiation, arbitration or litigation, including the right to choose counsel and settle claims, or the indemnifying party's obligations herein shall be deemed waived.

19. PRIVACY: Seller will collect and process personal data of those employed by or otherwise affiliated with Buyer in accordance with Seller's "Privacy Notice for Customers and Suppliers – California" available here at www.vertiv.com/ca-privacy, which Notice the Buyer hereby acknowledges having received, read, and understood. In the event of any queries or concerns with its contents, Buyer must contact Seller at the contact details provided in the Notice prior to entering into this Agreement or the commencement of performance hereunder, in failure of which, the terms of the Notice will be deemed accepted and consented to in their entirety.

AGENDA ITEM SUBMITTAL

Meeting Date: September 9, 2026

To: Water Issues Committee
Board of Directors

From: John Kennedy

Staff Contact: M. Patel/R. Raley

Budgeted: Yes
Budgeted Amount: $100,000
Cost Estimate: $70,270
Funding Source: R&R
Program/Line Item No.: R26013
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: AUTHORIZE ISSUANCE OF AN AGREEMENT TO SMAART POWER TO PERFORM COMPREHENSIVE COORDINATION AND ARC FLASH STUDY ASSESSMENT AND UPDATE OF GWRS/FOUNTAIN VALLEY POWER DISTRIBUTION SYSTEM

SUMMARY

Staff issued a Request for Proposals (RFP) to perform a comprehensive relay coordination and arc flash hazard assessment as is required at 5-year intervals. This assessment of the OCWD Fountain Valley power distribution system from the top level of 66 KV down to utilization equipment and structures will serve to identify deficiencies or necessary changes to ensure employee safety and proper system coordination on breaker trip time / current curves. As a result of the RFP an agreement is required to the highest rated proposer.

Attachment: Proposal from Smaart Power

RECOMMENDATION

Agendize for September 16 Board meeting: Authorize issuance of an agreement to Smaart Power in the amount of $70,270 to provide a comprehensive power system coordination and arc flash hazard study of the OCWD Fountain Valley power distribution system.

BACKGROUND/ANALYSIS

The assessment of the OCWD Fountain Valley campus' electrical coordination and arc flash study is required to be updated every 5 years to meet National Fire Protection Association standards for electrical safety. Updating this study is essential to maintaining regulatory compliance, ensuring personnel safety, and preserving the reliability of our electrical infrastructure.

Industry standards—most notably NFPA 70E and Institute of Electronics and Electrical Engineers (IEEE) 1584—require reviewing and updating arc flash studies at least every five years. These standards form the basis for the Occupational Safety and Health Administration (OSHA) electrical safety expectations. The last arc flash study assessment done on the Fountain Valley campus electrical systems was performed nearly five years ago (as part of the GWRS Final Expansion construction project) so an updated within the next year is needed. Keeping the arc flash study current reduces district liability and ensures the district remains audit-ready for any inspections by OSHA or other regulatory agencies.

Even without major projects, normal operational changes affect electrical system performance. Utility fault levels, load additions, equipment aging, and modifications to protective devices can significantly alter incident energy calculations and coordination results. An updated study will accurately reflect current real system conditions. A 5-year update to the electrical coordination and arc flash study is a required and responsible action.

Upon Board approval in May 2026, staff issued an RFP to provide a comprehensive power system coordination and arc flash hazard study of the OCWD Fontain Valley power distribution system. As a result of the RFP, five proposals were received. Three District staff from the Water Production Department rated the proposals based on four categories, which included project approach and schedule, experience and qualifications, price, and record of success on similar projects. The final reviewer ratings are shown in Table 1 below. The highest rated proposal was from Smaart Power.

Company Name	Overall Rated Score
Smaart Power	83%
Enercon	73%
Goss EngineeringA	69%
Ayres Associates	63%
Roshanian & Associates	51%

Table 1 – Score Ratings for Each Proposal

Table 2 below shows the pricing from each of the five proposals. The price from Smart Power was the second lowest of the five proposers. The lower price proposal from Ayres Associates lacked sufficient detail and the list of references were for smaller retail facilities and not for more complex industrial systems like the GWRS Advanced Water Purification Facility.

Company Name	Total Price for Three Years
Smaart Power	$70,270
Enercon	$157,691
Goss Engineering	$97,383
Ayres Associates	$48,605
Roshanian & Associates	$276,395

Table 2 – Three-Year Pricing Received

As a result of the staff evaluations, an award to Smaart Power is recommended in the amount of $70,270. The comprehensive power system coordination and arc flash hazard study of the OCWD Fountain Valley power distribution system is budgeted in the Refurbishment & Replacement budget for fiscal year 2026-2027 under R26013 in the amount of $100,000. The highest rated proposal from Smart Power is under the budgeted amount for this study.

PRIOR RELEVANT BOARD ACTION(S)

N/A

SMAART POWER
INTELLIGENT & INVENTIVE ENGIEERING

PROPOSAL FOR

RFP-25-018
COMPREHENSIVE COORDINATION AND ARC FLASH STUDY
ASSESSMENT AND UPDATE OF GWRS/FOUNTAIN VALLEY POWER DISTRIBUTION SYSTEM 2026

Orange County Water District

Project	Comprehensive Coordination and Arc Flash Study Assessment and Update of GWRS/Fountain Valley Power Distribution System 2026
RFP No.	RFP-25-018
Proposal Due	Tuesday, July 7, 2026 by 10:00 AM PT
Submittal Location	Orange County Water District, Administration Office Building, Attn: Marcus Villalobos, Buyer, 18700 Ward Street, Fountain Valley, CA 92708
Submitted By	SMAART POWER LLC | 300 Spectrum Center Dr., Suite 400, Irvine, CA 92618
Contact	Ali Halimi, President | 949.209.7299 | ali@smaartpower.com

1. Table of Contents

1. Cover Letter

Orange County Water District

Attention: Marcus Villalobos, Buyer

18700 Ward Street, Fountain Valley, CA 92708

Title: Proposal for RFP-25-018 - Comprehensive Coordination and Arc Flash Study Assessment and Update of GWRS/Fountain Valley Power Distribution System 2026

Submittal Due Date: Tuesday, July 7, 2026 by 10:00 AM PT

Dear Selection Committee:

SMAART POWER LLC is pleased to submit this proposal to the Orange County Water District (OCWD) for RFP-25-018, Comprehensive Coordination and Arc Flash Study Assessment and Update of GWRS/Fountain Valley Power Distribution System 2026. We understand that OCWD is seeking a qualified and experienced firm to update the power system coordination study and arc flash hazard analysis for the Fountain Valley campus, including the Groundwater Replenishment System (GWRS) facilities.

SMAART POWER understands that the GWRS/Fountain Valley electrical distribution system is a mission-critical operating environment with electrical infrastructure ranging from high-voltage transmission at 66 kV down to low-voltage distribution and process equipment. Our approach is to review the previous GWRS study, validate current field conditions, update the system model, evaluate protective device coordination, calculate arc flash incident energy, provide updated labels, and deliver clear recommendations that support personnel safety, regulatory compliance, and reliable continuous operation.

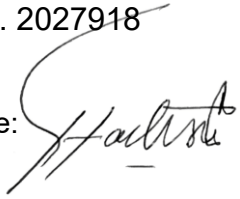
SMAART POWER LLC is a full-service electrical engineering and consulting firm located in Irvine, California with extensive experience in the electrical and energy sectors. The firm supports public agencies, water/wastewater facilities, industrial facilities, commercial facilities, utility-related systems, generation facilities, and critical infrastructure clients with a variety of services, including power system studies, SKM/ETAP/EasyPower modeling, field data collection, power quality assessment, electrical safety support, one-line diagram review/update, design and drafting support, commissioning support, smart automation and integration, and practical electrical infrastructure recommendations.

SMAART POWER confirms that staffing is available to begin work immediately upon authorization and notice to proceed, and that key personnel identified in this proposal will not be substituted or reassigned without OCWD approval. SMAART POWER is committed to providing complete, accurate, and responsive services in accordance with IEEE 1584, NFPA 70E, OSHA/CalOSHA requirements, NEC labeling requirements, and OCWD requirements.

SMAART POWER confirms attendance at the mandatory pre-proposal meeting held on Tuesday, June 2, 2026, at 9:00 AM PT at OCWD’s District Office in Fountain Valley.

Sincerely,

Ali Halimi - President
SMAART POWER LLC
949.209.7299 | ali@smaartpower.com
300 Spectrum Center Dr., Suite 400, Irvine, CA 92618
SBE No. 2027918

Signature:  Date: 7/3/2026

2. Firm Background

1.0 Firm Background

SMAART POWER LLC provides comprehensive electrical engineering, design and drafting support, advanced power system studies including modeling, short-circuit, coordination, arc flash, harmonics analysis, transient studies, power quality surveys, circuit tracing, interconnection studies and applications, smart power system automation, third-party testing and commissioning support, field-oriented electrical consulting services, and load monitoring. The firm was established in 2020 and is located in Irvine, California.

SMAART POWER combines engineering analysis with practical field knowledge, allowing the project team to gather accurate field data, understand equipment limitations, and deliver recommendations that can be safely and efficiently implemented in active facilities.

SMAART POWER is certified as a Small Business Enterprise by the State of California, SBE No. 2027918.

- SMAART POWER has successfully developed and studied sizeable power system models for commercial, industrial, and nuclear plant customers. Customers have also included very large utility transmission and distribution systems such as Seattle City Light, EPCOR Utility, Oman Grid, NOIDA Power Company Grid, Occidental Petroleum (OXY), Saudi ARAMCO, and more.
- SMAART POWER has designed and conducted complex power system studies for a wide range of low-voltage, medium-voltage, and high-voltage systems.
- SMAART POWER fully complies with all the latest applicable standards for power system engineering and studies, including IEEE-1584, NEC & NFPA-70E, ANSI-C37, UL-489, IEEE-242, IEEE-446, and many related standards.
- SMAART POWER has a seasoned engineering team, Ph.D. electrical engineers, and project managers experienced with complex power systems problems and solutions with backgrounds spanning across utility companies, the Department of Energy, and consulting firms for advanced studies. Studies have included protection, coordination, power quality, and transient stability studies.
- SMAART POWER is dedicated to providing high-quality work and reports with practical solutions to the problems and applicable recommendations to save time and money on projects without compromising the feasibility.
- SMAART POWER has a high level of customer satisfaction for all the provided services.
- SMAART POWER has provided electrical engineering services and solutions to many customers in the U.S. and internationally, including projects in Asia, South America, the Middle East, Europe, and other regions.

- SMAART POWER is categorized as a small local business with high-quality engineers and staff. We are always accessible and ready to provide support to our customers, which has continuously increased our customer's satisfaction to the highest level.
- SMAART POWER and its key personnel have direct and extensive experience of more than 85 years of combined experience with performing short-circuit studies, protective device coordination studies, arc flash analyses, equipment evaluation, field data collection, labeling, electrical safety support, and power system modeling for municipal, water/wastewater, transportation, federal, industrial, utility, and critical infrastructure facilities.

3. Experience and Record of Past Performance

The projects below emphasize public agency and complex facility experience relevant to OCWD.

Client / Agency	Facility Type	Date / Amount	Relevant Scope	Contact
City of Santa Ana Public Works	Municipal public works/water facilities	Ongoing / approx. $380,000	Multi-site field data collection, power system studies, arc-flash analysis, labeling, electrical testing, power quality survey, and safety support.	Kyle Bushhousen, Associate Engineer | kbushhousen@santa-ana.org | 714-647-3397
Los Angeles Metropolitan Transportation Authority	Public agency transportation infrastructure	2023 / approx. $58,000	Station-based electrical system modeling, protective device coordination, and arc-flash evaluation for medium-to-low voltage systems.	Angel Dominguez | ebsinc@ebs-la.com | 818-763-9179
NAVFAC / Naval Air Weapons Station Ridgecrest	Federal critical infrastructure	2021 / approx. $87,000	Power system studies, SEL relay programming, substation replacement studies, and commissioning support.	Tom Edgar | tom@consultingspecialties.us | 760-223-9206

California public agency and critical infrastructure experience over the past five years includes City of Santa Ana Public Works, Leucadia Wastewater District, Los Angeles Metropolitan Transportation Authority, NAVFAC / Naval Base San Diego, NAVFAC / NAWS Ridgecrest, and other public and critical infrastructure facilities supported by SMAART POWER personnel.

Additional project references are provided in the attachments.

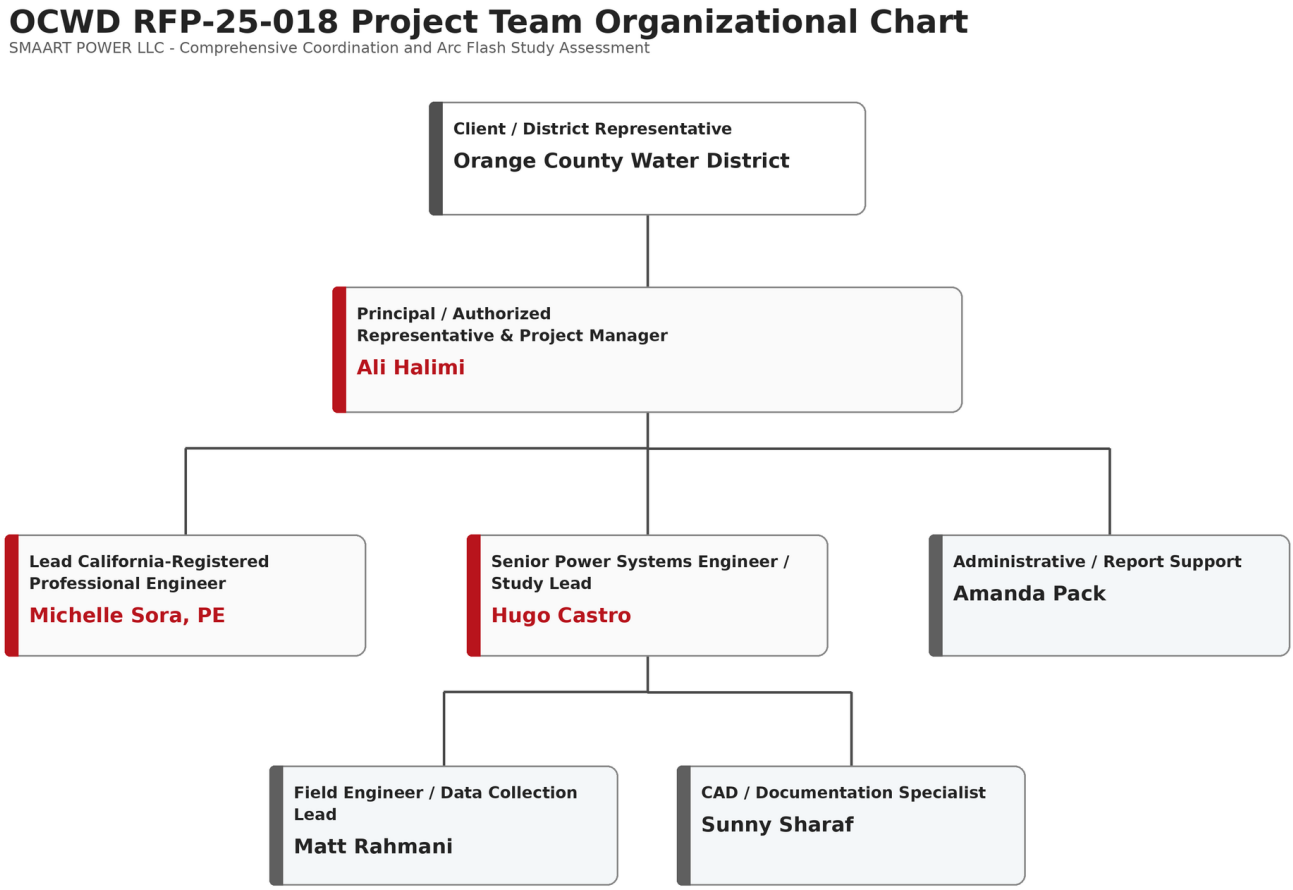
4. Project Team, Organization, and Qualifications

1.0 Organization and Key Personnel

Role	Name / Firm	Office Location	Contact info	Responsibilities
Principal / Authorized Representative	Ali Halimi, SMAART POWER	Irvine, CA	ali@smaartpower.com 949.209.7299	Contract oversight, authorized representative, executive coordination, resource allocation, final management review, and QA/QC oversight.
Project Manager / Main Point of Contact	Ali Halimi, SMAART POWER	Irvine, CA	ali@smaartpower.com 949.209.7299	Primary point of contact for OCWD; coordinates scope, schedule, site access, meetings, submittals, comments, and final deliverables.
Lead California-Registered Professional Engineer	Michelle Sora, PE	California	michelle@smaartpower.com 520.471.3855	Supervises and approves the short-circuit, protective device coordination, and arc-flash studies; reviews calculations, recommendations, and final work products.
Senior Power Systems Engineer / Study Lead	Hugo Castro	Project support office	hugo@smaartpower.com 949.600.7160	Leads model development, short-circuit analysis, coordination study, arc-flash calculations, device evaluation, and technical recommendations.
Field Engineer / Data Collection Lead	Matt Rahmani	Field / project office	matt@smaartpower.com 949.500.7240	Coordinates field data collection, nameplate verification, field measurements, photos, equipment documentation, and condition observations.
CAD / Documentation Specialist	Sunny Sharaf	Project support office	sunny@smaartpower.com 714.717.7805	Supports SKM/PDF single-line diagram updates, study markups, and CAD/PDF documentation as required. Full CAD/as-built drawing updates will be provided only if specifically authorized.
Administrative / Report Support	Amanda Pack	Project support office	amanda@smaartpower.com 605.750.0404	Provides documentation, scheduling, production, and reporting support as needed.

Key personnel listed above will perform the work described in this proposal and will not be substituted or reassigned without prior OCWD approval. If substitution becomes necessary,

SMAART POWER will submit a proposed replacement with equal or greater qualifications for OCWD review and approval before any change is made.



2.0 Resume Summaries

- **Ali Halimi** - President / Principal: 25+ years of electrical engineering, power systems, studies, automation, commissioning, project management, and technical delivery leadership. Representative experience includes NAVFAC San Diego, NAWS Ridgecrest, LA Metro, Seattle City Light, Occidental Petroleum, Aera Energy, TVA Sequoyah Nuclear Plant, and B. Braun Medical Manufacturing Plant.
- **Michelle Sora** - California Professional Engineer / Senior Electrical Engineer: 27+ years of electrical engineering experience across power systems, utility power delivery, mining, water/wastewater, transportation, solar, battery energy storage, and conventional power generation. Experience includes ETAP/SKM studies, short circuit, coordination, arc flash, relay settings, substation design, commissioning, and project delivery.
- **Hugo E. Castro** - Senior Power Systems Engineer / Study Lead: 27+ years of power system analysis, ETAP-based modeling, automation, SCADA, EMS, microgrid control, load shedding, energy storage management, and technical training experience. Experienced in load flow, short circuit, relay coordination, harmonic analysis, motor starting, transient stability, and power management systems.

- Sunny Sharaf - CAD / Documentation Specialist: Experienced in preparing detailed CAD drawings, redline revisions, as-built documentation, site plans, equipment markups, and permit/construction documentation for residential, commercial, and industrial projects. Supports engineering teams with accurate drawing updates, PDF/CAD markups, and organized documentation for study and report deliverables.
- Matt Rahmani - Field Engineer / Data Collection Lead: 20+ years of electrical testing, maintenance, commissioning, field surveys, power quality study coordination, infrared inspection, equipment documentation, and NETA-based testing support.

5. Project Understanding - OCWD GWRS/Fountain Valley Power Distribution System

SMAART POWER understands that OCWD operates critical water treatment and groundwater replenishment facilities at the Fountain Valley campus, including GWRS. The electrical distribution system supports continuous operation and includes high-voltage transmission-level service and downstream medium-voltage and low-voltage distribution equipment used for process operations, treatment, pumping, and facility support.

The purpose of this project is to update the existing power system coordination study and arc flash hazard analysis so that OCWD has current study results, current protective device evaluation, updated arc flash incident energy calculations, updated labels, and actionable recommendations for worker safety and system reliability. The updated study will also support compliance with OSHA/CalOSHA, NFPA 70E, IEEE 1584, NEC 110.16, CFR 1910.132, and applicable OCWD standards.

SMAART POWER will review and validate the previous GWRS Final Expansion coordination and arc flash study as the baseline for the 2026 update. We will compare prior model data against current field conditions, the two deficiencies identified during the walk-through, available equipment changes, protective device settings, load changes, drawings, labels, and OCWD-provided utility/power company data to identify required model and documentation updates.

SMAART POWER understands from Addendum No. 1 that the existing SKM model and current settings are assumed to be valid except for the two deficiencies identified during the walk-through. The updated study will be based on the existing study/model, OCWD-provided SCE/Kiwi Sub short-circuit data, Addendum No. 1 documents, and the three existing study scenarios.

Addendum No. 1 Alignment: The base scope is understood to be analysis, documentation of deficiencies, recommendations, reporting, and labeling. Implementation of setting changes, field testing/commissioning, or corrective construction work will be performed only under separate written authorization or separate contract. OCWD will provide in-house electrical staff for inspections/items that can be safely executed, and a medium-voltage contractor is not required for the base proposal.

SMAART POWER confirms that the proposed project team has sufficient availability to perform the work within OCWD’s required schedule. The Project Manager and Lead PE will remain actively involved throughout the project, with the Study Lead, Field Lead, and CAD/documentation support assigned as required by each task.

6. Technical Approach and Methodology

1.0 Data Aggregation and Existing Study Review

- Review the previous GWRS coordination and arc flash study package and the OCWD-provided SKM model as the baseline model and documentation set.
- Review available one-line diagrams, equipment lists, prior protective device settings, utility/power company data, manufacturer data, and existing labels.
- Develop a field verification plan and data collection forms before mobilization.
- Identify missing information indicated and marked in the provided single lines by OCWD, the two walk-through deficiencies, Addendum No. 1 updates, known system changes, equipment replacements, possible load additions, protective device setting changes, and discrepancies requiring confirmation.
- Coordinate site access, safety requirements, work windows, and OCWD operational constraints prior to field work.

2.0 Field Verification and Equipment Data Collection

- Field verify existing electrical distribution system components that affect the short-circuit study, protective device coordination study, and arc-flash analysis.
- Document equipment identified above with names/IDs, voltage, ratings, interrupting ratings, SCCR/withstand ratings, protective device types, trip settings, relay settings, fuse sizes, switchgear/switchboard/MCC data, transformer data, feeder/conductor data, motors, VFDs, reduced-voltage starters, generators, ATSs, and other relevant equipment.
- Collect photographs and field notes for equipment, labels, nameplates, protective devices, and drawing discrepancies.
- Confirm equipment required to be labeled, including equipment not currently labeled.
- Field work involving electrical equipment access will be coordinated with OCWD. Per Addendum No. 1, OCWD will provide in-house electrical staff for inspections/items that can be safely executed; no CSLB contractor license or medium-voltage contractor is required for the base scope.

3.0 Electrical Model Update

- Update and re-run the OCWD-provided SKM model for the 2026 study; new modeling will be developed only as needed to address Addendum No. 1 information, the two walk-through deficiencies, field-verified corrections, and OCWD deliverable requirements.
- Incorporate verified field data, OCWD-provided SCE/Kiwi Sub short-circuit data, existing protective device settings, transformer data, conductor impedances, two on-site generators, motor contributions, VFDs, reduced-voltage starters, and the three existing study operating scenarios.
- The model update and scope verification will include review of Addendum No. 1 attachments, including the provided single-line diagram, Kiwi Sub short-circuit data, Gap 800 hp pump additions, and T-21 MSA/MSB lab feeder additions.

- Use the OCWD-provided SCE/Kiwi Sub short-circuit data issued to attendees. Additional utility coordination will be provided only if OCWD requests updated or supplemental information.
- Maintain clear source-of-information documentation, assumptions, and calculation basis for OCWD review.

4.0 Short-Circuit Analysis

The updated SKM model will be used to calculate maximum available fault currents for the required study scenarios at each applicable fault location.

All the scenarios will be presented in the report in a tabular format with notes for ease of identifying the cases.

Low voltage and medium voltage equipment will be presented in separate tables identifying the device evaluation results in a color coded format for the failed equipment against their short circuit withstand capabilities along with the practical notes to address the issues or possible summarized solution(s). Equipment with Marginal device evaluation condition also will be identified for considerations.

All the identified problems, solutions and recommendations including possible replacement of the existing equipment, upgrading the equipment to the higher SCCR rating, addition of current limiting devices or device series rating recommendations based on the approved and published manufacturer's tested tables will be mentioned in the executive summary section of the report.

- Calculate available fault current at required buses and nodes throughout the distribution system.
- Evaluate equipment duty versus interrupting and withstand ratings for switchgear, switchboards, MCCs, panelboards, transformers, fuses, relays, circuit breakers, starters, and other protective devices.
- Include three-phase and applicable line-to-ground fault calculations, X/R ratios, motor contribution, generator contribution, and operating configurations as required.
- Prepare device evaluation tables identifying acceptable, marginal, deficient, or further-review conditions.
- Provide recommendations for deficiencies, including priority, safety implication, outage risk, operational impact, and dependability considerations.

5.0 Protective Device Coordination Study

The protective device coordination study will evaluate existing overcurrent protective relay, fuse, circuit breaker, VFD, starter, transformer, generator, and related protection settings to assess selective coordination, equipment protection, and arc-flash performance based on the existing SKM model and Addendum No. 1 assumptions.

Existing fixed and adjustable protective device settings will be incorporated into the study model. Existing TCCs will be reviewed and re-run, and revised or additional time-current curves (TCCs) will be generated as needed to document coordination results, deficiencies, and recommendations.

- TCCs will be reviewed or generated for each applicable device zone of protection. For a typical switchboard, the upstream, main, and downstream protective devices will be shown to demonstrate selectivity and coordination from upstream to downstream.
- The curves will be in different colors for the ease of identifying. The devices' labels along with their settings will be organized in a way that devices are easy to distinguish and follow in an orderly fashion from upstream to downstream.
- Fault clipping currents will be displayed in the TCC for each individual bus identifying the max level of fault current that each device can clear.
- Each piece of one-line associated with the TCC will be neatly placed next to the TCC for ease of identifying and associating the curves with the devices.
- Each TCC will be individually reviewed for potential miscoordination or selectivity issues. If setting adjustments are recommended, they will be documented for OCWD consideration; actual implementation, setting changes, field testing, and commissioning are excluded from the base scope and will be handled under separate authorization or contract.
- A list of all the created TCCs will be included in the report with their TCC identifier tag so the client can easily find the TCCs per their page number in the report.
- Not all the devices and their settings can be adjusted to achieve desired coordination and/or selectivity therefore additional recommendations may be provided such as replacing the equipment, upgrading the trip devices or rating plugs, etc.
- The format of the TCCs can be consulted with the OCWD and accommodated as desired in advance.
- Each TCC will demonstrate the phase settings of the devices following to the next TCC with the ground settings (if applicable) and also following a TCC with the recommended settings (if applicable).

Existing settings and any recommended changes for OCWD consideration will be presented in tabular format following the TCC section of the report in separate tables for low-voltage and medium-voltage equipment. Other device types, such as vacuum interrupters or differential relays, will be presented in separate tables as applicable. This format can be adjusted in advance based on OCWD requirements.

All the findings, recommendations and solutions will be presented in the executive summary section of the report.

6.0 Arc-Flash Hazard Analysis

The following outlines SMAART POWER's practical approach to the arc-flash hazard analysis:

- All the guidelines required by the latest IEEE-1584 and NFPA-70E will be followed in order to calculate the incident energies for each individual equipment included in the models.
- As required by IEEE-1584 2018 the enclosure dimensions (width, depth and height) will be measured during the data collection (or obtained from the shop drawings/submittals) to accurately calculate the incident energies per IEEE-1584 requirements. The dimensions of the enclosures and the worst case electrode configurations will be displayed in the arc flash results table.

- The model will be evaluated using the three existing study scenarios identified in Addendum No. 1 to determine worst-case incident energy for each applicable equipment location.
- Decrement curve method will be used in case of calculating the incident energies from the generator sources using the dynamic characteristic impedances of the generators.
- Single phase circuits/devices will be calculated separately for the incident energies and combined to the final report.
- All the scenarios will be listed with notes in a table in the report so they can be easily identified.
- Arc flash results will be presented in the report in a tabular format displaying the incident energy with the existing device settings next to the incident energy results based on the recommended device settings. Client will be easily able to identify the differences.
- The results will be color coded in the arc flash table based on the following:
    - Incident energy results > 40cal/cm^2 – magenta color
    - Difference between incident energies of the existing vs. recommended settings – blue color
    - Fault clearing time capped at 2 sec – yellow color
- For each identified issue for the arc flash results, recommendations or solutions there will be an individual note at the bottom of the table.
- All problems, recommendations and solutions will be presented in the executive summary section of the report.
- Adjustments or approximation will be considered upon OCWD's approval in case the information needs to be assumed.

7.0 Arc Flash Labeling

- Provide new arc flash labels for electrical equipment, including equipment required to be labeled that is not currently labeled.
- Labels will comply with ANSI Z535.4, NFPA 70E, NEC 110.16, and applicable OSHA/CFR requirements referenced by the RFP.
- Labels will include, at minimum, equipment name, nominal system voltage, arc flash boundary distance, worst-case incident energy, corresponding working distance, date of analysis, and other required safety information. Equipment with arc-reduction maintenance mode switches will include dual-label information as required by the RFP.
- Label printing and installation will be coordinated with OCWD after approval of the Arc Flash Hazard Report and in accordance with the accepted cost proposal.

8.0 Comprehensive Reporting and Recommendations

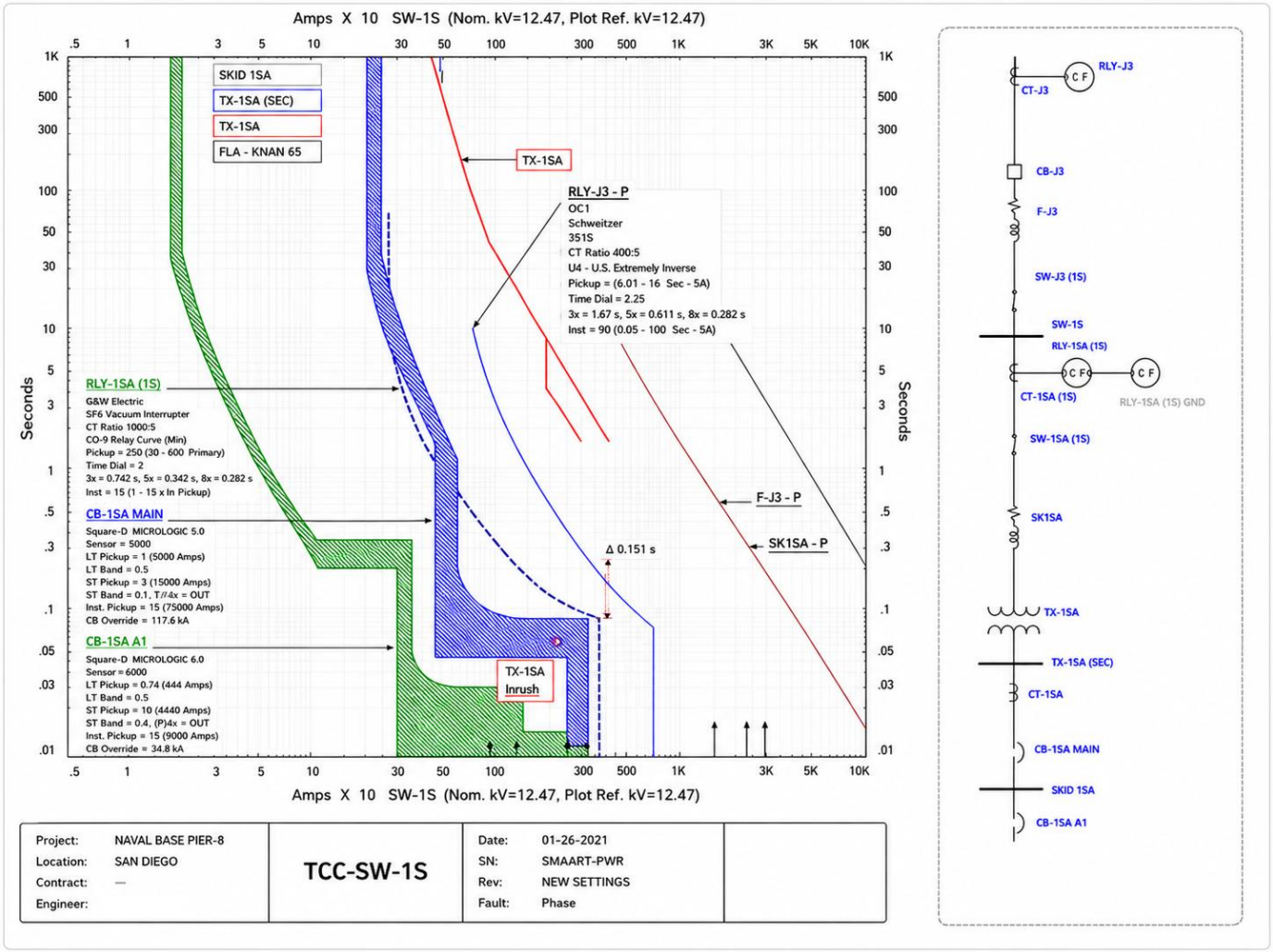
- Prepare a comprehensive final report summarizing methodology, model basis, source data, assumptions, calculation results, coordination findings, arc flash results, label schedule, and recommendations.
- Provide input data, output data, calculation results, device evaluation table, coordination curves, recommended actions report, and updated single-line diagram deliverables.

- Present recommended corrective actions for deficiencies, including priority, safety implication, reliability impact, outage risk, and operational dependability considerations.
- Submit electronic and hard-copy deliverables as required, including searchable PDF files, hard copies, two copies of the updated SKM electronic model file, and native/exportable outputs where applicable.
- Revision History: includes information regarding revisions made to the report.
- Table of contents
- Executive Summary: includes results and recommendations in a tabular, color-coded format for each study section. Each table will include a short memo of the finding, applicable code or standard concern, equipment type/ID, equipment location, description of the issue, and recommendations. Where applicable, photos of the equipment and/or condition will be included.

1.3. Memo: Panelboard Cover – Code Violation	
Equipment: Panel IC	**Location:** Fed from SWBD MSB
Description	**Recommendation**
Panel IC has a front cover which is not properly secured to the enclosure box and does not comply with manufacturer's recommended securing methods. The panelboard also lacks proper breaker space covers plates and is in violation of *NEC 110.27 Guarding from Live Parts*.	Due to current condition of panelboard IC, panelboard shall be replaced with new panelboard with same ratings, voltage, amperage, phase, and AIC rating.

- Short-Circuit Analysis: this section presents device duty calculations, methodology per IEEE/ANSI standards, scenario summaries, results, and supporting notes.
- Protective Device Coordination Study: this section includes coordination methodology, list of TCCs, TCC graphs, and existing/recommended protective device settings in tabular format for

low-voltage and medium-voltage devices. The following snapshots show sample TCC and protective device settings tables provided in the report:



TCC#	Designated Bus	LVCB ID	Revision ID	Manufacturer	Breaker		Thermal		Magnetic (Inst.)	
					Model	Size	Setting	Trip (Amps)	Setting	Trip (Amps)
	MSA	MSA_MCB	As-Found	Square-D	MAL	800	Fixed	800.000	10X	8000.000
	MCC B	PUMP#2_CB	As-Found	Cutler-Hammer	HMCP-F	30			A	90.000
	MCC B	PUMP#2_CB	RECOM	Cutler-Hammer	HMCP-F	30			H	300.000
	MCC B	PUMP#1_CB	As-Found	Cutler-Hammer	HMCP-F	30			A	90.000
	MCC B	PUMP#1_CB	RECOM	Cutler-Hammer	HMCP-F	30			H	300.000
	MCC B	PUMP#4_CB	As-Found	Cutler-Hammer	HMCP-F	30			A	90.000
	MCC B	PUMP#3_CB	As-Found	Cutler-Hammer	HMCP-F	30			A	90.000
	MCC B	PUMP#6_CB	As-Found	Cutler-Hammer	HMCP-F	30			A	90.000
	MCC B	PUMP#5_CB	As-Found	Cutler-Hammer	HMCP-F	30			A	90.000
	MSB	MSB_MCB	As-Found	Square-D	MHL	600	Fixed	600.000	10X	6000.000
	MCC-1	WELL PUMP_LINE_CB	As-Found	Square-D	KAL	250	Fixed	250.000	5X	1250.000
	MCC-1	WELL PUMP_LINE_CB	RECOM	Square-D	KAL	250	Fixed	250.000	9X	2250.000

- Arc-Flash Study: this section includes the arc-flash methodology, list of scenarios, and tabular incident energy results. The summary of findings will be provided in the report similar to the following:

Arc Flash Risk Assessment – Executive Summary of Findings

Item	Study Section	Equipment ID	Location	Finding / Issue	Risk Level	Recommendation	Priority
1	3.2 – 12.47 kV Switchgear	SWG-1	Main Street Substation	Available incident energy of 24.6 cal/cm² exceeds facility threshold (8.0 cal/cm²).	HIGH	Install additional arc flash mitigation or increase working distance / barriers.	1 – Critical
2	3.3 – Motor Control Centers (MCC)	MCC-2A	Water Treatment Plant	Equipment duty deficiency – main breaker rated 800 A, calculated continuous load 920 A.	HIGH	Replace main breaker with 1000 A device or reduce connected load.	1 – Critical
3	4.1 – Protective Device Coordination	SWG-2 Feeder 3	Riverside Substation	Miscoordination between upstream OC relay and downstream MCC trip unit (clearing time exceeds 0.1 s).	MEDIUM	Adjust time-current settings to achieve selective coordination.	2 – High
4	5.2 – Arc Flash Labeling	PNL-PP-1	Public Works Facility	Arc flash label missing on panel door. No incident energy or PPE requirements posted.	HIGH	Install NFPA 70E compliant arc flash label.	1 – Critical
5	2.4 – One-Line Diagrams	One-Line OL-1	Citywide	One-line diagram is outdated. Does not reflect recent photovoltaic intertie and battery storage.	MEDIUM	Update one-line diagram to reflect current system configuration.	2 – High
6	4.3 – Generator Coordination	GEN-1	Wastewater Treatment Plant	Generator contribution increases incident energy to 18.2 cal/cm² at SWBD-3.	MEDIUM	Verify generator protective settings; consider setting limits or zone selective interlocking.	2 – High
7	3.1 – Transformers	XFMR-2	Main Street Substation	Transformer secondary protection fuse size allows excess let-through energy (I^2t).	LOW	Replace fuses with current-limiting type to reduce let-through energy.	3 – Moderate
8	5.3 – PPE Requirements	SWBD-1	City Hall	PPE category 3 required. Current stock of category 3 PPE is limited.	LOW	Maintain adequate inventory of arc-rated PPE (Cat 3).	3 – Moderate

NOTE: This table is a sample format for clear communication of arc flash study findings and recommended corrective actions. Actual findings will be based on field data, calculations, and current standards (NFPA 70E, IEEE 1584).

- System Data: this section identifies the resources and documentation used for equipment data gathering, modeling, and assumptions.
- Utility Data: this section documents OCWD-provided SCE/Kiwi Sub fault current information and any additional utility data used for the study.
- Short-Circuit Input/Output Reports: this section presents input/output reports and associated calculations. This section can be added as an attachment and not incorporated into the main report upon OCWD's request.
- One-Line Diagrams: this section presents updated single-line diagram output from the computer model showing equipment names, ratings, settings, and other applicable information. Full CAD as-built drawing development is excluded from the base scope unless separately authorized.

7. Project Management, Communication, Schedule, and QA/QC

1.0 Project Management and Communications

- Ali Halimi will serve as Project Manager and OCWD's primary point of contact for assigned tasks throughout the Agreement.

- SMAART POWER will hold a kickoff meeting to confirm scope, schedule, site access, communication protocol, data needs, safety requirements, previous study information, field work plan, and deliverable expectations.
- SMAART POWER will provide periodic status updates, maintain an action-item log, track open data requests, coordinate field access, and escalate schedule risks early.
- The project team will coordinate internally through the Project Manager and responsible California PE to maintain consistency between field data, model inputs, study results, labels, and report deliverables.

2.0 Preliminary Schedule

The final schedule will be coordinated with OCWD after award, review of the previous study, field access planning, data availability, and OCWD operational constraints. SMAART POWER understands that the work is expected to commence on September 10, 2026, under a one-year Professional Services Agreement. The preliminary task sequence is shown below.

Phase	Activity	Estimated Timeframe	Key Milestone / Dependency
1	Notice to Proceed / kickoff / OCWD coordination	Week 1	Confirm scope, communication protocol, safety requirements, access, and schedule
2	Request and review previous GWRS study	Weeks 1–2	Review prior study, available model, one-lines, device data, and labels
3	Field data collection and verification	Weeks 2–5	Verify accessible equipment ratings, nameplates, conductor data, existing labels, and protective device settings where required, with OCWD electrical staff support for safe equipment access.
4	OCWD-provided SCE/Kiwi Sub utility data review	Weeks 1–6	Use OCWD-provided SCE/Kiwi Sub short-circuit data; coordinate supplemental utility information only if requested by OCWD.
5	SKM model update / re-run	Weeks 4–7	Update/re-run OCWD-provided SKM model using verified corrections, Addendum No. 1 information, and three existing scenarios.
6	Short-circuit analysis	Weeks 7–8	Calculate available fault current and evaluate equipment ratings
7	Protective device coordination study	Weeks 8–10	Update/re-run existing SKM coordination study and TCCs; generate revised or additional TCCs as needed to document coordination findings and recommendations.
8	Arc-flash hazard analysis	Weeks 10–12	Calculate incident energy, arc-flash boundary, PPE, and working distances
9	Draft report and recommended actions	Weeks 12–14	Submit draft report, device evaluation table, assumptions, results, and recommended actions
10	OCWD review / comment resolution	Weeks 14–16	Respond to OCWD comments and finalize report approach
11	Final report and SKM model delivery	Weeks 16–18	Submit final sealed report, electronic files, two copies of the updated SKM model, input/output data, and related deliverables.

Phase	Activity	Estimated Timeframe	Key Milestone / Dependency
12	Arc-flash label printing and installation	Weeks 18–20	Install labels after report approval

3.0 QA/QC Process

- Field data review against photos, nameplates, drawings, and prior study records.
- Independent review of model inputs including transformer data, conductor data, protective devices, equipment ratings, and operating configurations.
- Coordination curve review by the senior power systems engineer and responsible California PE.
- Arc-flash output review for reasonable incident energy values, clearing times, voltage levels, working distances, dual-label requirements, and label schedule accuracy.
- Final report review for consistency between calculations, tables, drawings, recommendations, labels, and deliverables before submission to OCWD.

8. Deliverables

SMAART POWER will provide deliverables aligned with Exhibit A-1 and Exhibit A-2, including the following:

Deliverable	Description
Arc flash labels	All new arc flash labels for required electrical equipment, including equipment not currently labeled. Labels will include dual-label information where arc-reduction maintenance mode switches apply.
Device evaluation table	Comprehensive table summarizing protective device ratings, settings, calculated duties, and recommendations.
Coordination curves	Electronic and hard copies of color-coded coordination curves prepared using calculation software.
Input data	Input data used for the analysis, including source data, equipment data, protective device data, conductor data, and model basis.
Output data	Output data and calculation results for short-circuit, coordination, and arc-flash analyses.
Recommended actions report	Report detailing corrective actions for deficiencies, including priority and operating/safety implications.
Updated diagram	Updated single-line diagram output from the SKM/computer model for the GWRS/Fountain Valley power distribution system, subject to available source files and OCWD format requirements. Full CAD as-built drawings are excluded unless separately authorized.
Final comprehensive report	Detailed report summarizing study results, methodologies, findings, assumptions, labels, recommendations, tabulated results, software parameters, and PPE selection information.
Native/exportable files	Two copies of the updated SKM electronic model file, searchable PDF files, Word report files, and exportable model outputs as applicable and agreed with OCWD. CAD source files will be provided only if available and specifically required.

Deliverable	Description
Bound report copy	Arc Flash Hazard Analysis report will be provided in a standard 8-1/2 by 11 inch three-ring binder in conjunction with the electronic version, consistent with Exhibit A-2.

9. Additional Services / Optional Services

The following services can be provided as optional enhancements if OCWD determines they would be beneficial. Optional tasks are not included in the base analysis scope unless specifically included in the accepted cost proposal or authorized separately by OCWD.

- NFPA 70E / arc flash safety training for OCWD personnel, including arc flash label interpretation, PPE awareness, approach boundaries, energized work considerations, and maintenance-related safety practices.
- Support with implementation planning for recommended protective device setting changes, breaker upgrades, fuse replacements, relay setting updates, equipment modifications, or other corrective actions identified during the study.
- Power quality, harmonic, and transient evaluation where VFDs, large motors, nonlinear loads, standby generators, sensitive equipment, or operational concerns warrant additional analysis.
- Short-term or long-term load monitoring to support capacity evaluation, future expansion planning, demand analysis, equipment loading review, and operational decision-making.
- Electrical system field verification, equipment inventory, and documentation updates for future maintenance, compliance, and planning purposes.
- Development or update of single-line diagrams, three-line diagrams, panel schedules, equipment schedules, and electrical as-built drawings based on available record drawings and field-verified information.
- SKM model handover support, model orientation, staff training, model maintenance procedures, and future model update support as OCWD's electrical system changes over time.
- Review of existing protective device settings and assistance with coordination of recommended setting changes with OCWD operations, maintenance staff, contractors, and equipment vendors.
- Assistance with electrical equipment testing, commissioning support, infrared scanning coordination, breaker testing, relay testing, transformer testing, cable testing, and other electrical maintenance-related activities, all under separate authorization or separate contract if requested by OCWD.
- Support with utility coordination, service information requests, available fault current data, interconnection considerations, and coordination with utility representatives where applicable.
- Electrical design support for recommended system improvements, including replacement equipment, panel upgrades, switchgear modifications, generator integration, grounding improvements, and electrical infrastructure upgrades.
- Evaluation of standby generation, emergency power systems, automatic transfer switches, load-shedding strategies, backup power reliability, and operational sequencing.

- Future solar PV, battery energy storage system, microgrid, and distributed energy resource feasibility review, if requested separately by OCWD, including high-level technical evaluation, interconnection considerations, operational benefits, and cost-saving opportunities.
- Future digital twin and real-time power monitoring roadmap using the updated electrical model as the foundation for future SCADA, EMS, BMS, HMI, alarming, event playback, predictive maintenance, and operational visibility, if requested separately by OCWD.
- Support with advanced power management solutions, including intelligent load shedding, generation management, energy optimization, equipment health monitoring, and real-time electrical system analytics.
- Capital improvement planning support based on study findings, equipment condition, system limitations, reliability concerns, safety priorities, and future operational needs.
- SMAART POWER's experience also extends beyond modeling to the procurement, configuration, and integration of required hardware and software components, including power meters, RTUs/PLCs, protective relays, servers/workstations, networking equipment, real-time software modules, and related SCADA/power management interfaces. For many facilities, these solutions have provided significant long-term value by improving system visibility, reducing outage response time, supporting energy and demand-cost optimization, improving maintenance planning, and allowing operators to make faster, data-driven decisions.

10. Required Statements and Compliance Items

Compliance Item	Statement
OCWD Standard Agreement	SMAART POWER has reviewed OCWD's form of Services Agreement included as Exhibit C and is prepared to proceed using OCWD's agreement form, subject to final review and coordination during award.
Insurance Compliance	SMAART POWER will meet the insurance requirements listed in OCWD's Services Agreement and will provide required insurance documentation upon notice of award.
Billing Compliance	SMAART POWER will invoice by authorized task and include the Purchase Order Number, Agreement Number, itemized task summary, and percent completion for each task or deliverable as required by OCWD.
Conflict of Interest	SMAART POWER, its employees, and proposed subconsultants/subcontractors do not have a known conflict of interest with this project. SMAART POWER will notify OCWD immediately if any potential conflict is identified.
Equal Employment Opportunity / Affirmative Action	SMAART POWER maintains equal employment opportunity practices and will not discriminate in employment or performance of work based on race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, sexual preference, sex, or other protected status.
Submittal Format	SMAART POWER understands that OCWD requires three hard copies and one electronic flash drive copy in a sealed envelope, and that faxed or emailed submissions will not be accepted.
Addenda	SMAART POWER will include the signed Acknowledgment of Addendum No. 1 form issued by OCWD as part of the final submittal package. Confirm signed form is attached in Appendix D before submission.
CA Registered Engineer	SMAART POWER confirms that engineering analyses affecting safety parameters, equipment ratings, protective device settings, coordination recommendations, and arc-flash results will be performed under the responsible charge and final review of a California-registered Professional Engineer. Final engineering deliverables will be signed and sealed by the California PE as required.
Page Limit / Proposal Format	SMAART POWER understands that the proposal body is limited to 25 single-sided pages, excluding the title page, table of contents, cover letter, appendices, dividers, and resumes; Exhibit A-3 and required statements count toward the 25-page limit per Addendum No. 1.
Scope Clarification	Base scope is analysis, reporting, recommendations, and labeling. Implementation of setting changes, field testing/commissioning, or corrective construction work will be performed only under separate written authorization or separate contract.
Prevailing Wage / Contractor License	Per Addendum No. 1, prevailing wage does not apply, a contractor license is not required for the base scope, and OCWD will provide electrical staff for inspections/items that can be safely executed.

11. Exhibit A-3 Cost Proposal Sheet

COST PROPOSAL SHEET

COMPREHENSIVE COORDINATION AND ARC FLASH STUDY ASSESSMENT AND UPDATE OF GWRS/FOUNTAIN VALLEY POWER DISTRIBUTION SYSTEM 2026

(RFP-25-018)

Item	Description	Type	Cost
1.0	**Project Management & Planning**	**Lump Sum**	**$5,550**
1.1	Kick-off meeting, project scheduling, scope definition.	$5,550	$5,550
2.0	**Data Collection (Field Work)**	**Per Hour/Day**	**$16,830**
2.1	Two-person crew (Electrical Technician+ Buddy) for safety.	$165/hr; 2-person	$7,920
2.2	Field verification, 1-line diagram updates, nameplate data, conductor lengths.	$165	$4,950
2.3	Mobilization, lodging, and travel expenses.	$165	$3,960
3.0	**Engineering & Analysis**	**Per Node**	**$34,020**
3.1	Short Circuit Analysis (checking equipment ratings).	$12.95	$4,920
3.2	Protective Device Coordination Study (TCC curves).	$43.16	$16,400
3.3	Arc Flash Incident Energy Analysis (IEEE 1584-2018).	$21.58	$8,200
3.4	Engineering review, report generation, and professional seal (PE).	$11.84	$4,500
4.0	**Reporting & Labeling**	**Per Label**	**$13,120**
4.1	Printing of NFPA 70E compliant labels (vinyl/metal).	$4.00	$1,600
4.2	Installation of labels on equipment (optional but recommended).	$17.37	$6,600
4.3	Final comprehensive report with findings and recommendations.	$12.95/node	$4,920
5.0	**Training (Optional)**	**Optional - Per Session**	**$1,200**
5.1	NFPA 70E Training for site employees (up to 20 pax).	$300	$1,200

TOTAL ESTIMATED PROJECT PRICE **$70,720**

12. Appendices and Attachments

Appendix A

1. State of California Registration

California Secretary of State
Electronic Certified Copy

I, ALEX PADILLA, Secretary of State of the State of California, hereby certify that the attached transcript of 1 page is a full, true and correct copy of the original record in the custody of the California Secretary of State's office.

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California on this day of July 31, 2020

ALEX PADILLA
Secretary of State

Verification Number: PAVKIV
Entity (File) Number: 202021310820

To verify the issuance of this Certificate, use the Verification Number above with the Secretary of State Electronic Verification Search available at *bizfile.sos.ca.gov*

California Secretary of State
Electronic Filing

FILED
Secretary of State
State of California

LLC Registration – Articles of Organization

Entity Name:	SMAART POWER LLC
Entity (File) Number:	202021310820
File Date:	07/29/2020
Entity Type:	Domestic LLC
Jurisdiction:	California

Detailed Filing Information

1. Entity Name: SMAART POWER LLC

2. Business Addresses:
   a. Initial Street Address of Designated Office in California: 3400 COTTAGE WAY, STE G2 #3108 SACRAMENTO , California 95825 United States
   b. Initial Mailing Address: 3400 COTTAGE WAY, STE G2 #3108 SACRAMENTO , California 95825 United States

3. Agent for Service of Process: LEGALINC REGISTERED AGENTS, INC. (C4249296)

4. Management Structure: All LLC Member(s)

5. Purpose Statement: The purpose of the limited liability company is to engage in any lawful act or activity for which a limited liability company may be organized under the California Revised Uniform Limited Liability Company Act.

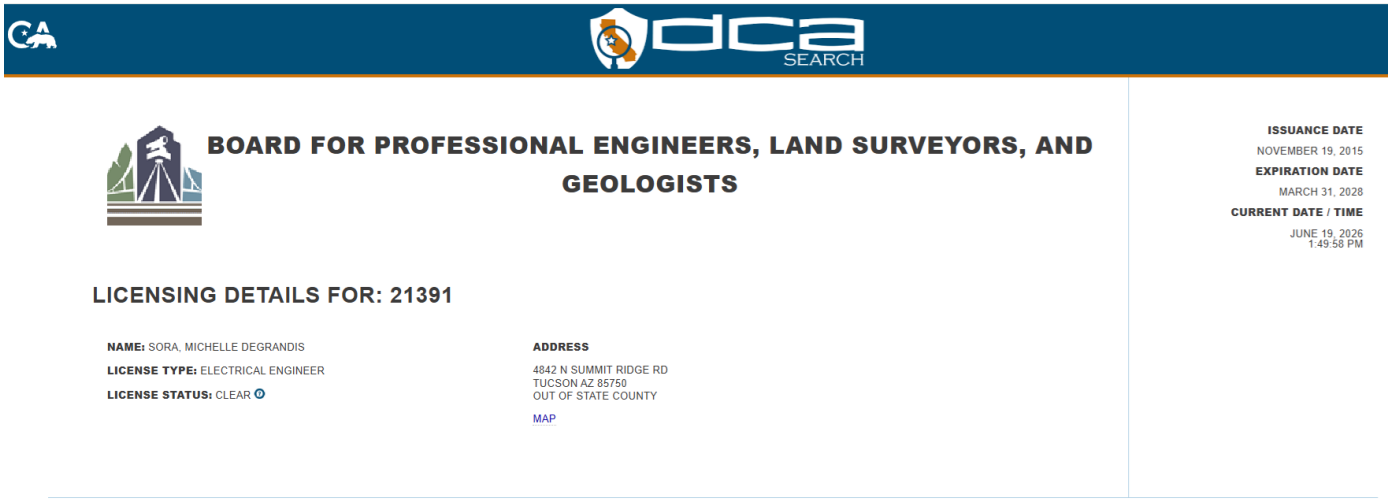
Electronic Signature:

The organizer affirms the information contained herein is true and correct.

Organizer: LOVETTE DOBSON

Certificate Verification Number: PAVKIV
Use bizfile.sos.ca.gov to verify the certified copy.

2. Lead Engineer PE License



dca SEARCH

BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

ISSUANCE DATE
NOVEMBER 19, 2015
EXPIRATION DATE
MARCH 31, 2028
CURRENT DATE / TIME
JUNE 19, 2026
1:49:58 PM

LICENSING DETAILS FOR: 21391

NAME: SORA, MICHELLE DEGRANDIS
LICENSE TYPE: ELECTRICAL ENGINEER
LICENSE STATUS: CLEAR

ADDRESS
4842 N SUMMIT RIDGE RD
TUCSON AZ 85750
OUT OF STATE COUNTY
MAP

3. SBE Certification

Certification ID: 2027918

Legal Business Name

Smaart Power

Doing Business As (DBA) Name1

Doing Business As (DBA) Name2

Office Phone Number

949/209-7299

Business Fax Number

Business Web Address

Address

300 Spectrum Center Dr.

Ste 400

Irvine

CA 92618

Email:

ali@smaartpower.com

Total Number of Employees

Business Types

Service

Service Areas

Alameda , Alpine , Amador , Butte , Calaveras , Colusa , Contra Costa , Del Norte , El Dorado , Fresno , Glenn , Humboldt , Imperial , Inyo , Kern , Kings , Lake , Lassen , Los Angeles , Madera , Marin , Mariposa , Mendocino , Merced , Modoc , Mono , Monterey , Napa , Nevada , Orange , Placer , Plumas , Riverside , Sacramento , San Benito , San Bernardino , San Diego , San Francisco , San Joaquin , San Luis Obispo , San Mateo , Santa Barbara , Santa Clara , Santa Cruz , Shasta , Sierra , Siskiyou , Solano , Sonoma , Stanislaus , Sutter , Tehama , Trinity , Tulare , Tuolumne , Ventura , Yolo , Yuba

View Keywords | View Classifications | View Supplier Diversity Information

Active Certifications

More Help

Certification Type	Status	From	To
SB(Micro)	Approved	10/25/2024	10/31/2026

Appendix B

Resumes for all project team members

SMAART POWER

Power Systems Engineering

EDUCATION

Power Systems Engineering
Tehran Azad University, 2002

REGISTRATION / MEMBERSHIPS

- Principal, SMAART POWER LLC
- President / Principal
- Electrical Engineering | Power Systems | Studies | Automation | Commissioning

CORE EXPERTISE

- Power system studies
- Power system automation and real-time solutions
- Project management and engineering team leadership
- Protection, coordination, arc flash and incident energy mitigation
- Business development and technical delivery leadership

ALI HALIMI

President / Principal

20+ Years of Experience

Power systems engineering executive with 20+ years of experience leading electrical engineering, power system studies, automation and real-time solution projects for commercial, industrial, utility and federal customers. His background includes project engineering, project management, department management, technical workshops and leadership of engineering teams supporting complex power system analysis and implementation work.

PROJECT EXPERIENCE

SMAART POWER • President / Principal • 2020-Present

Ali serves as President / Principal of SMAART POWER, leading technical delivery and business development for power system studies, automation, real-time solutions, commissioning and engineering support. His work emphasizes protection and coordination, arc flash and incident energy mitigation, project leadership and power system implementation for commercial, industrial, utility and federal clients.

Naval Base Facility (NAVFAC) • San Diego • Project Manager

Ali managed a comprehensive power system study and SEL relay programming effort, coordinating project execution, analysis, technical deliverables and implementation support for a federal facility power system.

Naval Air Weapons Station • Ridgecrest • Project Manager

Ali managed substation replacement studies and commissioning support, helping evaluate system modifications and support project delivery activities for station power infrastructure.

Los Angeles Metropolitan Transportation Authority • Project Manager

Ali led station modeling, coordination and arc flash evaluations, supporting transit power system reliability, safety and documentation for station electrical infrastructure.

ETAP Corp. • T&D Department Manager / Project Manager

Before SMAART POWER, Ali served in project manager and department manager roles at ETAP Corp., leading power system automation and real-time solutions for large industrial projects, directing engineering teams that grew from eight to twelve members and overseeing worldwide workshops for power system engineering courses and eLearning integration.

Additional Industry Experience • Utility, Industrial, Nuclear and Manufacturing

Representative experience includes work for Seattle City Light, Occidental Petroleum, Aera Energy, TVA Sequoyah Nuclear Plant and B. Braun Medical Manufacturing Plant, with responsibilities spanning power system analysis, project management, automation support and technical delivery leadership.

P.E.

HUGO E. CASTRO, P.E.

Power Systems & Automation Manager / SVP Project Execution and Delivery

27+ years of Experience

EDUCATION

B.S. Electrical Engineering
California State University
Los Angeles, CA

PROFESSIONAL REGISTRATIONS / CERTIFICATIONS

- Registered Professional Engineer: California
- IEEE, Member
- SHPE, Member

CORE EXPERTISE

- Power system analysis and electrical modeling
- Short-circuit, relay coordination and arc-flash studies
- SCADA, real-time systems and historian integration
- Power management systems, EMS, ADMS and AGC
- Microgrid control and energy storage management
- Load shedding, automation and system integration
- ETAP real-time deployment, training and project execution
- Industrial, utility, generation, data center and critical infrastructure systems

Hugo is a California Professional Engineer with more than 27 years of experience in power system analysis, automation, SCADA, power management systems, microgrid control, energy storage management, load shedding, and ETAP-based real-time system integration. His project experience includes more than 300 projects for utility, industrial, generation, transportation, data center and critical infrastructure clients.

PROJECT EXPERIENCE

SMAART POWER • Senior Power Systems Engineer / Study Lead • Power Systems, Automation and Integration
Hugo supports power system studies, protective device coordination, arc-flash analysis, electrical modeling, real-time system integration, microgrid controls, load shedding, automation and technical delivery for complex electrical infrastructure projects.

ETAP • SVP Project Execution and Delivery • Real-Time Systems / SCADA / Power Management
Since joining ETAP in 2000, Hugo has led project execution and delivery for data acquisition, SCADA, historian, alarm management, load shedding, EMS, AGC, ADMS, power plant control, microgrid control and energy storage management systems.

NASA JPL • Power Distribution / Scientific Data Acquisition • California
Hugo developed power distribution, temperature measurement and computer-interfaced units used for underwater and volcanic scientific data acquisition applications.

Southern California Edison / Caltrans • Electrical Engineering and Power Systems Support • California
Hugo has supported electrical engineering and power system assignments involving utility, transportation and critical infrastructure environments, including work associated with Southern California Edison and the California Department of Transportation.

Power System Studies • Load Flow / Short Circuit / Coordination / Harmonics / Motor Starting / Transient Stability
Hugo has extensive experience performing and supporting load flow, short-circuit, relay coordination, harmonic analysis, motor starting and transient stability studies for complex medium- and low-voltage systems.

SCADA, Load Shedding and Microgrid Projects • Industrial / Generation / T&D / Data Centers
His project portfolio includes more than 300 projects involving SCADA, automation, load shedding, EMS, AGC, ADMS, microgrid control and energy storage management across mining, refining, oil fields, generation plants, FPSOs, cement, steel, nuclear generation, T&D networks, hybrid generation and data centers.

Technical Training • ETAP / Power Management / Load Shedding • English and Spanish
Hugo has provided technical training in English and Spanish for ETAP power system analysis, data acquisition, power management and load shedding studies, helping engineering and operations teams apply software tools to practical system needs.

SMAART POWER

EDUCATION

Bachelor of Science: Electrical Engineering
Southern California Institute of Technology
Anaheim, CA | 2014

Associate of Science: Electrical Engineering
Irvine Valley College
Irvine, CA | 2010

Bachelor of Civil Engineering
University Ashrafi Esfahani | 2005

CORE SKILLS

- System-level electrical design and integration
- Power system studies: arc flash, short circuit and coordination
- ETAP modeling and analysis
- AutoCAD drafting and drawing production
- Electrical estimating
- Switchgear maintenance and acceptance testing
- Power quality studies and reporting
- On-site crew coordination

TOOLS / STANDARDS

- AutoCAD
- ETAP
- Microsoft Office Suite
- NEC
- NETA testing requirements

CONTACT

matt@smaartpower.com
949-500-7240
Corona, CA 92882

MATT
Rahmani

Electrical Engineer

20+ Years of Experience

Matt is an accomplished electrical engineer with more than 20 years of experience in electrical system design, installation, commissioning, testing and maintenance. His background includes power system studies, ETAP modeling, arc flash, short circuit and coordination studies, AutoCAD electrical drawings, electrical estimating, field testing, acceptance testing, power quality monitoring, thermographic surveys and technical reporting. He has managed electrical design packages, reviewed submittals, responded to agency and client comments and coordinated on-site work crews.

PROJECT EXPERIENCE

SMAART POWER • Electrical Engineer / Power Systems • Current • Corona, CA

Matt supports electrical engineering and power systems assignments under SMAART POWER, applying his experience in system-level electrical design, ETAP modeling, arc flash, short circuit and coordination studies, construction support, electrical testing and technical reporting. He develops electrical drawings and calculations, reviews submittals, coordinates field information, evaluates existing equipment and documents recommendations for safe, reliable operation.

Accessible Consulting Engineers Inc • Electrical Engineering Manager • Mar 2015 - Current • Corona, CA

Matt designs electrical drawing packages including load calculations, panel schedules, cable schedules and lighting panels in accordance with NEC requirements. He generates AutoCAD drawings to client standards, reviews submittals and responds to jurisdictional and client comments. He performs switchgear maintenance testing, breaker testing, insulation resistance testing, acceptance testing, power quality studies, infrared thermographic surveys, ETAP modeling and technical reports for power monitoring, ground fault, arc flash, short circuit and coordination studies.

Electrical Engineering Manager • Electrical Estimator / Electrical Project Engineer • Mar 2009 - Feb 2015 • Corona, CA

MAtt administered energized and de-energized testing for multi-design change packages and performed electrical acceptance testing of completed hardware. He conducted field surveys, reviewed drawings and diagrams, identified and corrected power system issues, prepared maintenance procedures, mentored junior engineers and produced technical documentation for industrial systems.

Accessible Consulting Engineers Inc • Electrical Designer and Testing • Feb 2007 - Aug 2009 • Irvine, CA

MAtt developed electrical designs based on client briefs, evaluated components against design parameters, performed technical research and coordinated with vendors to identify and procure equipment required for project completion.

Accessible Consulting Engineers Inc • Electrical Drafter • Dec 2005 - Feb 2007 • Irvine, CA

MAtt created and modified AutoCAD drawings, interpreted project specifications, prepared layouts for new electrical systems and converted hand-drawn sketches into detailed drawings and component information.

P.E.

MICHELLE SORA, P.E.

Principal Electrical Engineer

27 Years of Experience

EDUCATION

B.S. Biology & Electrical Engineering with honors
Northeastern University
Boston, MA

PROFESSIONAL REGISTRATIONS / CERTIFICATIONS

- Registered Professional Engineer: MA, AZ, CA, NV, NM, FL, TX, ME, UT, CO, MI
- NCEES Certification Record #48505
- Owner of certified Woman Owned Business (WBE), DBE and WOSB entities

CORE EXPERTISE

- Project delivery strategies and project management
- Construction management, contract administration and procurement
- High-voltage substation design, protection and control systems
- Power system studies: loading, short circuit, motor start and arc flash
- EV, solar, battery and solar interconnection designs
- Medium- and low-voltage distribution for water treatment, mining and transportation
- Relay settings, lighting, grounding, transmission and distribution design

Michelle is a registered Professional Engineer with more than 27 years of broad electrical engineering and project delivery experience across utility power delivery, mining, solar generation, transportation, nuclear, water, data centers and conventional power generation. She leads projects from concept through design, construction, final testing and commissioning, with responsibility for document control, procurement, engineering, construction management and quality-driven project execution.

PROJECT EXPERIENCE

SMAART POWER • Principal Electrical Engineer • Power Delivery / Studies / Design

Michelle supports electrical engineering, procurement, document control, design, commissioning and inspection services for electric utility and industrial clients. Her work emphasizes practical power system solutions, project delivery strategy, construction support and coordination of technical documentation from concept through commissioning.

Pro-Tech Services • Owner and Principal • Tucson, AZ

Michelle leads consulting services for electric utility and industrial markets, including engineering, procurement, document control, design, commissioning and inspection. Recent assignments include T&D wildfire recovery support, EV charging design, grounding evaluations, ETAP/SKM studies and plant electrical safety documentation.

PG&E • T&D Wildfire Damage Support • California

Under Qualus and earlier WorleyParsons engagements, Michelle supplied resources for transmission and distribution support related to wildfire damage on the PG&E system, including electrical inspectors, engineers and administrative support for document control and drone analysis.

City of Tempe STWTP Wastewater Plant • Electrical Studies / Design / Commissioning • Tempe, AZ

Michelle provided ETAP and SKM short circuit, coordination and arc flash studies for plant modifications, and previously managed electrical design, construction and commissioning support for replacement switchgear, load centers, MCCs, SCADA, controls, battery banks and panels.

Arlington Valley Power Generation • ETAP / NFPA 70E / Grounding Studies • Arizona

Michelle prepared short circuit, coordination and arc flash studies; gathered field data and equipment measurements; updated equipment records from as-builts; and issued grounding deficiency reporting in alignment with NFPA 70B and NFPA 70E requirements.

Freeport-McMoRan • HV Substation Modification / Construction Support • Arizona

Michelle provided project management and engineering services for 138 kV substation modifications, including design, relay settings, incident energy analysis, construction support, commissioning and turnover of construction redlines and as-built documentation.

Jacobs Engineering • Senior Electrical Division Lead • Tucson, AZ

Michelle led substation design and electrical system studies for solar, mining and water treatment projects, including loading, short circuit, transient motor start and arc flash analysis, plus calculations for voltage drop, lightning protection, duct bank design and DC batteries.

Appendix C

Detailed references and list of California public agencies served over the past five years.

City of Santa Ana Public Works - Arc Flash Assessment, Electrical Testing, and Training

Owner/Agency: City of Santa Ana Public Works | Contact: Kyle Bushhousen – Associate Engineer | Location: Santa Ana, California | Phone: 714-647-3397 | Email: kbushhousen@santa-ana.org | Schedule/Cost: Ongoing / $380,000 | Scope: Municipal public works facilities including pumping/wastewater-related infrastructure, short-circuit study, coordination study, arc-flash analysis, labels, electrical safety support, equipment testing, power quality and survey.

Los Angeles Metropolitan Transportation Authority - Station Electrical Modeling and Arc Flash

Owner/Agency: Los Angeles Metropolitan Transportation Authority | Contact/Phone/Email: Angel Dominguez/818.763.9179/ebsinc@ebs-la.com | Location: Los Angeles, California | Schedule/Cost: 2023/$58,000 | Scope: Public-agency station-based electrical system modeling, protective device coordination, and arc-flash evaluation experience.

NAVFAC / Naval Air Weapons Station Ridgecrest - Power System Studies and Commissioning Support

Owner/Agency: NAVFAC / San Diego, CA | Contact/Phone/Email: Tom Edgar/ Engineering Services Consultant/tom@consultingspecialties.us | Phone: 760.223.9206 | Schedule/Cost: 2021/$87,000 | Scope: Power system studies, SEL relay programming, substation replacement studies, and commissioning support for public/federal critical infrastructure.

Additional Project History & References:

No.	Client Name	Address	Contact name	Telephone	Email	Project Schedule	Cost	Personnel's name	Responsibility
1	Naval Air Weapon Station	1 Administrative Circle, Ridgecrest, CA 93555	Tom Rettenmaier	805-390-6245	tom.rettenmaier@treps.org	6/20 - 11/21	$72,500.00	Ali Halimi	Project Manager
2	Naval Facilities Engineering Command Southwest	311 Main Rd, NAS Point Mugu, CA 93042	Tom Rettenmaier	805-390-6245	tom.rettenmaier@treps.org	7/20 - 3/21	$38,500.00	Andrew Mirzakhanian	Project Manager
3	Leucadia Wastewater District	1960 La Costa Ave, Carlsbad, CA 92009	Barry Kimble	907-268-8127	bkimble@1sourcedist.com	11/20 - 9/21	$12,200.00	Ali Halimi	Project Manager
4	Queen of Valley Hospital	1115 S Sunset Ave, West Covina, CA 91790	Adrian Kizyma	818-330-7173	adrian@kyzima.com	10/23 – 1/24	$44,000	Ali Halimi	Project Manager
5	Occidental Petroleum - Midland Refinery	1600 Gehrig Dr, Midland, TX 79706	David Renfro	713-540-4815	david.renfro@oxy.com	1/14 - 10/17	$268,000.00	Ali Halimi	Project Manager
6	USC Norris / Norman Hospitals	1441 Eastlake Ave, Los Angeles, CA 90033	Adrian Kyzima	818-330-7173	adrian@kyzima.com	1/22 - Ongoing	$44,550.00	Andrew Mirzakhanian	Project Manager
7	UTC Aerospace Systems	11120 Norwalk Blvd, Santa Fe Springs, CA 90670	Marco Vasquez	(323) 353-6231	mvasquez@littlejohn-reuland.com	10/21 - 3/22	$30,800.00	Matt Rahmani	Project Manager
8	USC Norris / Norman Hospitals	1441 Eastlake Ave, Los Angeles, CA 90033	Adrian Kyzima	818-330-7173	adrian@kyzima.com	1/22 - Ongoing	$44,550.00	Andrew Mirzakhanian	Project Manager
9	Aera Energy Refinery	10000 Ming Ave, Bakersfield, CA 93311	Tom Edgar	760-223-9206	tom.edgar@eaton.com	5/18 - 6/19	$148,600.00	Ali Halimi	Project Manager
10	Tennessee Valley Authority - Sequoyah Nuclear Plant	2440 Igou Ferry Rd, Soddy-Daisy, TN 37379	Mark Bowman	423-593-5417	mdbowman@tva.gov	5/21 - 9/21	$55,000.00	Ali Halimi	Project Manager
11	B.Braun Medical Manufacturing Plant	2525 McGaw Ave, Irvine, CA 92614	Nima Bayan	949-278-3945	nima@bbraun.com	6/14 - 10/15	$218,000.00	Ali Halimi	Project Manager
12	Seattle City Light	700 5th Ave #3200, Seattle, WA 98104	Margaret Kirk	360-649-2429	margaret.kirk@seattlecity.gov	6/15 - 10/17	$446,800.00	Ali Halimi	Project Manager
13	Disney Studios (15 Buildings)	Glendale/Burbank, CA	Adrian Kyzima	818-330-7173	adrian@kyzima.com		$110,000.00	Andrew Mirzakhanian	Project Manager
14	Future Foam Manufacturing	2451 Cypress Way, Fullerton, CA 92831	Brad Peikert	(714) 862-5409	bpeikert@futurefoam.com	5/21-8/21	$36,500.00	Matt Rahmani	Project Manager

Appendix D

Signed OCWD addendum acknowledgments

END OF ADDENDUM

MANDATORY FORM

ACKNOWLEDGE RECEIPT OF ADDENDUM NO.1

REQUEST FOR PROPOSAL
Comprehensive Coordination and Arc Flash Study Assessment and Update of GWRS/Fountain Valley Power Distribution System 2026 (RFP-25-018)

6/16/2026

Proposer shall acknowledge receipt of this addendum by detaching, signing and attaching to his/her proposal, one (1) copy of this sheet.

I, ALI HALIMI - SMAART POWER LLC.

Name of Proposer, Company Name

300 Spectrum Center Dr. Suite 400 IRVINE CA 92618

Address, City, State, Zip

Hereby acknowledge receipt of Addendum No.1 to the **Request for Proposal Comprehensive Coordination and Arc Flash Study Assessment and Update of GWRS/Fountain Valley Power Distribution System 2026** and have considered these revisions in the preparation of my proposal. This addendum, consisting of this acknowledgement, shall become a part of any contract made pursuant thereto.

Proposer's Signature

ALI HALIMI

Printed Proposer's Name

7/4/2026

Date

Appendix E

Evidence of mandatory pre-proposal meeting attendance

PRE-PROPOSAL ATTENDANCE RECORD
FOR
COMPREHENSIVE COORDINATION AND ARC FLASH STUDY ASSESSMENT AND UPDATE OF GWRS/FOUNTAIN VALLEY POWER DISTRIBUTION SYSTEM 2026

RFP-25-018

DATE: TUESDAY, JUNE 2, 2026 AT 9:00 AM PT

Name	Email	Firm	Phone Number
David Ventura	dventura@enercon.com	ENERCON	404 702 4302
Jose Guzman	jguzman@goss-eng.com	GOSS	909 685 9390
Ryan Windham		Roshanian Associates	949 702 0369
Bahram Roshanian	bahram@roshanian.com	Roshanian & Associates	818-631-2805
ISHAQ AMEEN	ishaq.ameen@bureauveritas.com	BUREAU VERITAS NORTH AMERICA (Owen group)	657-500-8318
Hassan Razmara	razmarah@AyresAssociates.com	Ayres Associates Inc.	(310) 730-3626
RANDY VUONG	INFO@SYLINC.COM	S Y LEE Assoc.	(818) 242-2800
Ali Halimi	ali@smaartpower.com	SMAART POWER	949.209.7294
Karen Reinhardt	Karen.Reinhardt@ResaPower.com	Resa Power	(310) 365-9909

AGENDA ITEM SUBMITTAL

Meeting Date: September 9, 2026

To: Water Issues Committee
Board of Directors

From: John Kennedy

Staff Contact: R. Herndon/Z. Henderson

Budgeted: Yes
Budgeted Amount: $30,000
Cost Estimate: $27,400
Funding Source: General Fund
Program/ Line Item No.: 1075.53010.9900
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: AGREEMENT WITH ESRI TO UPDATE SPATIAL DATABASE ENGINE SOFTWARE

SUMMARY

An update of OCWD's Spatial Database Engine (SDE) software is needed to maintain geographic information system (GIS) access to the Water Resources Management System (WRMS) Oracle database. SDE is the software that allows GIS staff to access information stored in OCWD's WRMS database and use that information in OCWD's maps and GIS applications. Staff recommends contracting with Esri to perform the update to ensure proper configuration, testing, and functionality between the GIS and Oracle database.

Attachment: Quote from Esri

RECOMMENDATION

Agendize for September 16 Board meeting: Authorize execution of a services agreement with Esri in an amount not to exceed $27,400 to update OCWD's existing SDE software to the latest version.

BACKGROUND/ANALYSIS

The SDE software, developed by Esri, provides a critical connection between OCWD's GIS and the WRMS Oracle database. This connection allows GIS staff to use WRMS data in the GIS software (ArcGIS Pro and ArcGIS Enterprise) for mapping and analysis.

Updating SDE requires configuration with OCWD's WRMS database, which is maintained in Oracle. Because the update must be properly configured to work with OCWD's existing database and GIS environment, staff requested a proposal from Esri (attached) to update our existing SDE software to the latest version. In response to staff's request, Esri submitted a quote of $27,400, which staff recommends accepting and issuing an agreement with Esri not to exceed that amount.

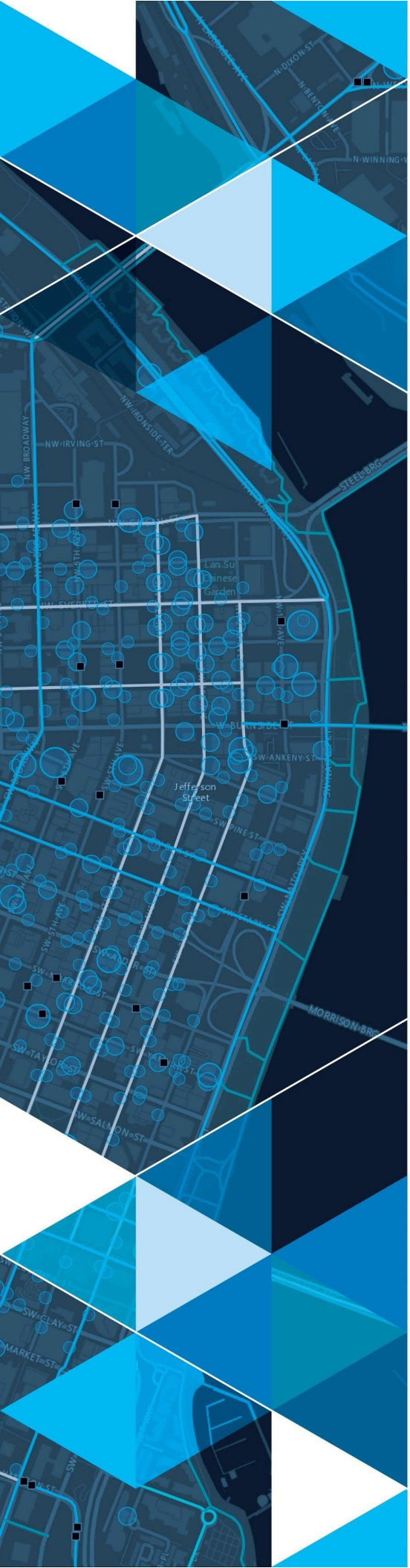
Sole Source Justification

As creator and continued provider of the SDE software, Esri is uniquely qualified to fully understand and implement the installation, configuration, and deployment within the

OCWD's GIS and Oracle database environment. Since the SDE database is critical to our mapping and visualization efforts, it is important that it be installed and configured correctly. OCWD has operated Esri software for over 35 years as the core component of its GIS. Esri is the world leader in GIS technology and supports other local agencies, including OCSan, the counties of Orange and Riverside, the San Bernardino Valley Municipal Water District, and many more. Staff believes Esri is best positioned to perform the update and ensure it is correctly configured with OCWD's existing systems. Having the software properly installed and configured will also facilitate future updates.

PRIOR RELEVANT BOARD ACTION(S)

N/A



AN ESRI
PROPOSAL

July 8, 2026

ArcGIS Enterprise Geodatabase Upgrade and Migration Support

Prepared for:

Zac Henderson, GIS Supervisor
Orange County Water District
18700 Ward Street
Fountain Valley, CA 92708

Esri Proposal Number: P023375

380 New York Street
Redlands, California 92373-8100 USA
909 793 2853
info@esri.com
esri.com

esri | THE SCIENCE OF WHERE™

Introduction:

Orange County Water District (OCWD) has requested Environmental Systems Research Institute, Inc. (Esri) to provide consulting services to support the upgrade of OCWD's legacy geodatabase to a modernized platform. Consulting support will include data assessment, migration, testing, and implementation. This effort is intended to reduce data silos, improve system integration, and enable future GIS applications and workflows. The quote below describes the scope of services, schedule, pricing, terms and conditions, and purchasing instructions.

Scope of Services:

Enterprise Geodatabase Migration and Upgrade

Esri will provide up to 64 hours of remote consulting services to assist OCWD with the migration of GIS data from an existing enterprise geodatabase environment to a new enterprise geodatabase. Consulting services will be provided collaboratively with OCWD staff and may include the following activities, as time and budget permit.

- **Project Initiation**—Esri will work with OCWD to establish project objectives, review the existing geodatabase environment, and identify migration considerations. Activities may include:
    - Conducting a project kickoff meeting to review objectives, scope, roles, responsibilities, and schedule.
    - Reviewing the existing geodatabase schema, including feature classes, tables, domains, and related datasets.
    - Identifying duplicate or conflicting domains and providing recommendations for resolution approaches.
- **Configuration and Migration Development**—Esri will assist with configuring the target enterprise geodatabase environment and developing migration processes. Activities may include:
    - Assisting with the configuration of the target enterprise geodatabase.
    - Developing baseline ETL workflows and scripts to support migration activities.
    - Configuring migration processes for feature classes, tables, domains,
    - Refining migration workflows based on testing results.

- **Testing and Validation**—Esri will support testing activities associated with the migration process. Activities may include:
    - Executing test migrations in a non-production environment.
    - Assisting with validation of migrated datasets, schema, and domain configurations.
    - Developing and executing workflow-based testing procedures
    - Supporting OCWD-led testing activities in test environment.
- **Production Migration and Knowledge Transfer**—Esri will provide guidance and support during final migration activities and transition to operational use. Activities may include:
    - Supporting execution of the production migration.
    - Providing guidance on updating ArcGIS Pro projects and data connections that reference the new enterprise geodatabase.
    - Providing knowledge transfer to support ongoing use and maintenance of the enterprise geodatabase.

This activity will be supported remotely from Esri's offices. The Esri consultant(s) will work with direction from OCWD's technical staff and management.

Esri Responsibilities

- Provide up to 64 hours of consulting services as described above.

OCWD Responsibilities

- Communicate consulting needs and priorities to the Esri consultant(s).
- Provide the appropriate OCWD staff members to work with the Esri consultant(s).
- Provide the Esri consultant(s) with access to OCWD's data and system environment, as necessary
- Install operating system and database software on the server(s) according to system requirements prior to the Esri consultant beginning any installation tasks.
- OCWD will be responsible for managing and maintaining all software licensing, infrastructure, and administrative access required to support the engagement.

Assumptions

- Pricing assumes all consulting services will be provided remotely from Esri's offices during Esri's normal business hours and no travel will be required of the Esri consultant(s).
- Remote support will be provided during the standard Esri working hours of Monday-Friday, 9 AM-5 PM Pacific Standard Time.
- The target geodatabase will reside on an Oracle 19c database.
- ArcGIS Enterprise version 11.3 or 11.5 is recommended.
- Schema changes are expected to be limited to resolving duplicate domains only.
- Esri consultant(s) will have access to the test environment for validation and testing.
- Raster data will be migrated as-is, with no modification.
- Traditional versioning will be used for editing.
- Pricing assumes all consulting services will be provided remotely from Esri's offices during standard business hours, and no travel will be required.
- Esri will not be responsible for data clean-up, if needed.
- Consulting support is limited to Esri commercial-off-the-shelf (COTS) software and does not include configuration or support of non-Esri-systems.
- Data migration activities will focus on existing enterprise geodatabase content and datasets mutually identified for migration during project initiation.
- Any activities beyond the available 64 consulting hours may require additional services under a different proposal.

Schedule:

The schedule will be mutually agreed upon between OCWD and Esri within 10 business days after contract award with anticipated end date by or before 12/31/26.

Pricing:

The pricing provided below has been estimated based upon an anticipated award of a Time-and-Materials (T&M) contract. The required labor hours, including preparation time, have been estimated based upon prior experience with work of a similar nature. The total not-to-exceed (NTE) price for the quoted Scope of Services is **$27,400**.

This price is exclusive of any applicable federal, state and/or local taxes for which Esri may collect and OCWD shall remain responsible.

Esri anticipates using staff from the Senior Technology Consultant/Engineer (S2) and Consultant/Project Manager (M1) labor categories; however, depending on the level of expertise required to perform certain activities during this engagement, Esri may be required to utilize other Esri staff members with a different skill-set and labor category.

T&M consulting services will be conducted under the following conditions:

- In the event Esri completes the Scope of Services for less than the NTE budget, OCWD will only be invoiced for the actual hours expended plus ODCs.
- In the event Esri reaches the NTE budget limit before the Scope of Services is completed, OCWD will have the option to either (a) increase the contract funding in order to allow the work to continue; or (b) instruct Esri to stop work. If OCWD chooses to stop work, Esri will do so without liability.
- Esri reserves the right to reallocate the project funding between Scope of Services activities, labor categories, and/or ODCs, as necessary to facilitate the work effort, provided the overall contract price is not exceeded.
- For activities/engagements that span more than 1 business day, if OCWD reschedules or cancels the consulting engagement within three (3) calendar days of the scheduled start date, Esri will separately invoice OCWD a cancellation fee of $2,500.

All work will be accomplished in accordance with the Scope of Services with the deliverable being consulting time. If additional work is requested by OCWD in writing beyond the scope of this quote, Esri will provide an updated quote. Esri will perform and invoice Services on a time and materials basis using the labor categories and rates specified for the performance period. Labor, including travel time, will be invoiced on a monthly basis for actual hours expended during the previous month. Meals will be invoiced on a “per diem” basis in accordance with the full daily limits stated in the most current Federal Travel Regulations. Other direct costs (ODCs), including travel-related expenses and meal per diem, will include a fifteen percent (15%) burden. Invoices are to be paid within 30 days of receipt. This quote is valid for a period of 90 days from the submittal date above.

Terms and Conditions:

By purchasing these services, the customer agrees to the **Professional Services Agreement G363CT**, which will take precedence over any other terms and/or customer ordering documents. If not attached, the terms and conditions can be found at:

https://www.esri.com/en-us/legal/terms/services

Purchasing:

To order these services as quoted, please email the following items to Anthony Amell at aamell@esri.com or fax to (909) 798-2003.

1. Purchase Order:
    - To Environmental Systems Research Institute, Inc.
    - In the amount of the Total NTE Price above
    - Referencing this Proposal No. P023375, dated July 2, 2026
2. A copy of this proposal.

Contact:

Anthony Amell
Services Programs Business Development
Esri Professional Services
380 New York Street
Redlands, CA 92373
(909) 793-2853 ext. 5089
aamell@esri.com
www.esri.com

TIME AND MATERIALS RATE SCHEDULE

Effective January 1, 2026

Hourly time and materials labor category descriptions and rates have been provided for each labor category for calendar year 2026. The hourly labor rates for services that are performed after 2026 may be escalated in an amount not to exceed five percent (5%) each year. Other direct costs, such as travel, reproduction, subcontractor, telecommunication/freight, or materials, will be charged a material handling fee and invoiced.

Technology Consultant/Engineer (S1)

Staff members in this labor category provide day-to-day technology consulting, troubleshooting, and engineering services on many aspects of project implementation. These projects include COTS software configuration, custom software development, database consulting, training development and delivery, technical documentation, and other technology consulting and engineering services. Individuals in this category have specialized skills and experience with a variety of technologies that can be applied to a broad spectrum of assignments.

Senior Technology Consultant/Engineer (S2)

Staff members in this labor category provide strategic technology consulting and engineering services across project implementation. These staff may provide technical leadership services, architecture and design services, as well as training development and delivery for small to moderately complex solutions. Individuals in this category have higher-level specialized skills and experience with a variety of technologies that can be applied to a broad spectrum of assignments.

Principal Technology Consultant/Engineer (S3)

Staff members in this labor category work as technical leads and/or senior technical advisers, providing technology vision, solution architecture, and strategic technology consulting for projects of all sizes and scopes. These staff may provide strategic technology design & planning, oversight of technical implementation activities, solution architecture and database design, system integration, and other technology training, consulting, and engineering services. Individuals in this category have advanced, diverse, and specialized skills and experience with a variety of technologies that can be applied to a broad spectrum of complex assignments. Staff members in this labor category work with senior client staff in coordination with Esri senior management to resolve issues and support a successful project completion.

Consultant/Project Manager (M1)

Staff members in this labor category provide day-to-day consulting for and management of many aspects of GIS and related technology projects. The scope of these projects may include database development and administration, training, technical support, business process design and development, definition of work plans, project management of technical and contractual deliverables, and ad hoc consulting. For complex projects, these individuals may team with senior staff to develop comprehensive work plans that address risk, schedule, and budget management and provide the framework for project implementation.

Senior Consultant/Project Manager (M2)

Staff members in this labor category provide strategic consulting and management services for complex GIS and related technology projects. These staff members have market/application domain expertise with extensive experience in various technologies required to support the successful completion of a project. Consulting activities may include strategic planning, implementation of change management methodologies and system integration, and training, as well as project management oversight of project deliverables and subcontractors. These individuals may also design comprehensive work plans that address risk, schedule, and budget management and provide the framework for project implementation.

Principal Consultant/Program Manager (M3)

Staff members in this labor category work as program directors or project advisers, providing project vision, strategic consulting, and program management activities for GIS and related technology projects. Consulting activities may include strategic planning, oversight of requirements definitions, application and database design, system integration, curriculum development and help desk system architecture. Management activities may include providing oversight on defining program requirements and objectives, establishing budgets and schedules, as well as allocating staff and other resourcing activities.

Technology Support Specialist (DB)

Staff members in this labor category work in professional entry-level roles to support definable activities of larger technology projects. Working with technical and management leads and mentors, these staff provide support to technology projects as assigned.

Current Rates by Labor Category

Labor Category	CY 2026	CY 2027
Senior Consultant/Project Manager (M2)	$511	$536
Consultant/Project Manager (M1)	$407	$427
Principal Technology Consultant/Engineer (S3)	$531	$557
Senior Technology Consultant/Engineer (S2)	$433	$454
Technology Consultant/Engineer (S1)	$335	$351
Technology Support Specialist (DB)	$283	$297

Labor Category	CY 2026	CY 2027
Executive Advisor*	$676	$709

*The Executive Advisor category is used for strategic consulting and is only used for special engagements at the client's request

Notice of Proprietary Information:

The information in the attached document is proprietary to Esri and contains commercial or financial information or trade secrets that are confidential and exempt from disclosure to the public under the Freedom of Information Act. This information shall not be disclosed outside of Customer's organization (except for consultants under a confidentiality obligation who are involved in the proposal evaluation process) without Esri's prior permission, and shall not be duplicated, used, or disclosed in whole or in part for any purpose other than to evaluate this proposal. If, however, a contract is awarded to Esri as a result of this information, the Customer shall have the right to duplicate, use, or disclose the data to the extent provided in the contract. This restriction does not limit the Customer's right to use information contained in this data if it is obtained from another source without restriction.

AGENDA ITEM SUBMITTAL

Meeting Date: September 9, 2026

To: Water Issues Committee
Board of Directors

From: John Kennedy

Staff Contact: M. Patel/R. Phillips

Budgeted: Yes
Budgeted Amount: $300,000
Cost Estimate: $418,701
Funding Source: R&R
Program/Line Item No.: R25017
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: Cat. Ex.

Subject: AMENDMENT NO.1 TO AGREEMENT 1826 WITH BENDER/CCP FOR REVERSE OSMOSIS TRANSFER PUMP A01 VERTICAL TURBINE PUMP INSPECTION AND REHABILITATION

SUMMARY

The Groundwater Replenishment System (GWRS) Advanced Water Purification Facility (AWPF) consists of six, 1,250 horsepower vertical turbine pumps. Five of the six pumps have been in service over seventeen years and are due for inspection and rehabilitation. These pumps are used to transfer water GWRS microfiltration product water from a holding tank to the reverse osmosis process. One of the five original pumps (B01) was recently rehabilitated and now a second pump, A01, has completed rehabilitation.

Attachment: Bender/CCP quotation

RECOMMENDATION

Agendize for September 16 Board meeting:

1. Authorize issuance of Amendment No 1 to Agreement 1826 with Bender/CCP for an amount not to exceed $118,701 for the refurbishment of RO Transfer Pump A01.

2. Authorize additional funds in the amount of $118,701 for R&R account R25015.

BACKGROUND/ANALYSIS

The GWRS AWPF consists of six 1,250 horsepower vertical turbine pumps called the RO Transfer Pumps. These pumps are used to transport GWRS product water from the microfiltration process, as it accumulates in a holding tank, to the reverse osmosis process building. These pumps provide enough pressure for the individual RO unit high pressure feed pumps suction requirements.

Five of the six vertical turbine pumps were put online in 2008 as part of the original GWRS project. One of the six was put into service in 2015 as part of the GWRS Initial Expansion (GWRSIE). These pumps are maintained as part of the GWRS asset management program receiving regular preventative maintenance in keeping with manufacturer recommendations. The pumps include an online vibration and

temperature monitoring system. In addition, each pump is tested for vibration and temperature analysis on a quarterly basis by an outside testing service. This has allowed five of the pumps to run successfully for over seventeen years, which is the normal recommended industry standard for performing a vertical turbine pump rehabilitation. Given the age of RO transfer pump B01, staff budgeted to have the pump removed and sent to a qualified pump repair shop for inspection and rehabilitation via Refurbishment & Replacement (R&R) budget number R21010 in the amount of $150,000. The board approved an agreement with Bender/CCP, Inc. in August 2025 to perform the rehabilitation of RO transfer pump B01 based upon being the lowest responsive bidder to a request for proposals (RFP).

The scope of the RFP for pump B01 was to pull the motor and pump, inspect, and perform rehabilitation as needed as part of a preventative maintenance effort. Since the level of rehabilitation required for the pump will not be known until a detailed inspection is performed, the quote was formatted for a base bid to remove and reinstall the pump using an external crane service, inspect the pump, and replacement of key components such as the stuffing box bearing, and main mechanical seal. Upon formal inspection of the pump, the main shaft was found to be in poor condition with pitting of the steel material and other signs of deterioration. The entire shaft required replacement with a newly fabricated main shaft assembly. In addition, the labor to fabricate a new main shaft was higher than that for normal pump rehabilitation work. Also, the motor was found to need more extensive rehabilitation than planned due to build of debris on key motor components. Due to the unforeseen damage discovered the total cost to rehabilitate RO transfer pump B01 pump and motor will exceed the $150,000 budget and come in closer to $300,000.

In anticipation that RO transfer pump A01 will be in a similar condition as B01 based upon its age and similar main shaft material as B01, staff moved forward with rehabilitation of product water pump A01. This allowed Bender/CCP, Inc. to proactively begin ordering of material for the new main shaft to limit the delay in getting RO transfer pump A01 rehabilitated and limit any additional impacts to GWRS plant production.

It was discovered during the rehabilitation effort that RO transfer pump A01 had more damage than anticipated, especially with the sole plate. It was also discovered that the sole plate needed to be replaced rather than re-machined based on its current condition, resulting in cost that exceeded the initial revised budget estimate of $300,000 originally approved by the board for this effort.

Upon completion of the rehabilitation work and resulting additional costs incurred, staff is now seeking approval for amendment number one to agreement 1826 with Bender/CCP in the amount of $118,701. This results in a total cost of $418,701 for agreement 1826 with Bender/CCP. Staff also requests authorization to increase the budget to R&R project R25017 for RO transfer pump A01 from $300,000 to $418,701.

PRIOR RELEVANT BOARD ACTION(S)

8/20/25, R-25-8-137 - Authorize issuance of an Agreement to Bender/CCP Inc. for an amount not to exceed $150,000 and establish the Product Water B01 Vertical Turbine Pump Inspection and Rehabilitation project in the amount of $150,000.

QUOTE

2150 East 37th Street
Vernon, CA 90058
323-919-5315
crobinson@benderccp.com

QUOTE 226-0035
DATE 7/22/2026
SALES REP. Cody Robinson

TO: Orange County Water District

ATTENTION: Robert Phillips

ITEM	QTY	UNIT	DESCRIPTION	UNIT COST	TOTAL
			LABOR - PRICE PER PUMP - RO Transfer Pump		
1	32	Hrs	FIELD SERVICE TO TRAVEL TO SITE AND REMOVE PUMP AND MOTOR	$ 187.00	$ 5,984.00
2	1	LS	Bragg Crane Subcontractor for Removal of Pump Price Includes Rigger / Signal Person & a Lift Plan	$ 12,563.00	$ 12,563.00
3	1	LS	TRANSPORT PUMP BACK TO BENDER CCP SHOP (Subcontractor)	$ 1,250.00	$ 1,250.00
4	6	Hrs	INSPECT SOLE PLATE FOR LEVELNESS	$ 187.00	$ 1,122.00
5	32	Hrs	DISSASEMBLE PUMP COMPLETE	$ 144.00	$ 4,608.00
6	20	Hrs	INSPECT PUMP PER REQUIRED CONTRACT SCOPE - SCOPE #'S 3,4,5,6,7 & 8	$ 144.00	$ 2,880.00
7	4	Hrs	BUILD AS-FOUND INSPECTION REPORT & BOM	$ 144.00	$ 576.00
8	1	LS	NEW MECHANICAL SEAL	$ 7,966.20	$ 7,966.20
9	1	LS	TRANSPORT PUMP BACK TO OCWD (Subcontractor)	$ 1,250.00	$ 1,250.00
10	40	Hrs	FIELD SERVICE TO TRAVEL TO SITE AND INSTALL PUMP, ALIGN AND TEST RUN PUMP	$ 187.00	$ 7,480.00
11	1	LS	Bragg Crane Subcontractor for Installation of Pump Price Includes Rigger / Signal Person & a Lift Plan	$ 12,563.00	$ 12,563.00
12	2	EA	LINE SHAFT BEARING - RUBBER	$ 715.00	$ 1,430.00
13	1	EA	SUCTION BELL BUSHING - 844 BRONZE	$ 1,250.00	$ 1,250.00
14	5	EA	SERIES BOWL BUSHINGS - 932 BRONZE	$ 635.00	$ 3,175.00
15	1	EA	CASE RING - 410 SS	$ 2,962.00	$ 2,962.00
16	1	LS	SANDBLAST AND PAINT PUMP PARTS - SKOTCHKOTE 134 FUSION BONDED EPOXY OF BOWLS - CARBOLINE 891 ON OTHER PARTS	$ 36,894.00	$ 36,894.00 $ -
17	793	HRS	LABOR FOR MACHINING NEW COMPONENTS & REPAIRS PER BOM	$ 144.00	$ 114,192.00
~~18~~	~~1~~	~~LS~~	~~FIELD MACHINING SOLEPLATE - LABOR AND MACHINE RENTAL~~	~~$ 24,874.00~~	~~$ 24,874.00~~
19	1	LS	Motor Repair per Inspection Report and SOW Attached	$ 96,798.00	$ 96,798.00
20	1	LS	Design and Manufacture 4 New Pump Shafts - 410 SS	$ 49,218.00	$ 49,218.00
21	1	LS	FIELD SERVICES TO REMOVE EXISTING SOLE PLATE - RE-INSTALL, LEVEL & GROUT IN PLACE	$ 39,040.00	$ 39,040.00
22	1	LS	SHOP WORK FOR SOLEPLATE, SANDBLAST, GRIND BOTH SIDES & PAINT	$ 15,500.00	$ 15,500.00
			FINAL PRICE FOR ROTP A01		$ 418,701.20

AGENDA ITEM SUBMITTAL

Meeting Date: September 9, 2026

To: Water Issues Committee
Board of Directors

From: John Kennedy

Staff Contact: M. Patel/R. Phillips

Budgeted: Yes
Budgeted Amount: $500,000
Cost Estimate: $559,283
Funding Source: R&R
Program/Line Item No.: R25015
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: Cat. Ex.

Subject: **AMENDMENT NO.1 TO AGREEMENT 1827 WITH BENDER/CCP FOR GWRS PRODUCT WATER PUMP A02 VERTICAL TURBINE PUMP INSPECTION AND REHABILITATION**

SUMMARY

The Groundwater Replenishment System (GWRS) Advanced Water Purification Facility (AWPF) consists of five 2,250 horsepower vertical turbine pumps known as the product water pumps. Four of the five pumps have been in service over ten years and are due for inspection and rehabilitation. These pumps are used to transfer water GWRS product water from the AWPF site in Fountain Valley to the recharge basins in Anaheim.

Attachment: Bender/CCP quotation

RECOMMENDATION

Agendize for September 16 Board meeting:

1. Authorize issuance of Amendment No 1 to Agreement 1827 with Bender/CCP for an amount not to exceed $59,283 for the refurbishment of Product Water Pump A02.

2. Authorize additional funds in the amount of $59,283 for R&R account R25015.

BACKGROUND/ANALYSIS

The GWRS AWPF consists of five 2,250 horsepower vertical turbine pumps. These pumps are used to transport GWRS product water from the AWPF site in Fountain Valley to four recharge basins in Anaheim (Kraemer, Miller, Miraloma, and La Palma) as well as to the mid basin injection well field site in Santa Ana consisting of five well sites. Three of the five vertical turbine pumps were put online in 2008 as part of the original GWRS project. One of the five was put into service in 2015 as part of the GWRS Initial Expansion (GWRSIE) and the last of the five pumps was put into service in 2023 as part of the GWRS Final Expansion (GWRSFE).

These pumps are maintained as part of the GWRS asset management program, receiving regular preventative maintenance in keeping with manufacturer recommendations. The pumps include an online vibration and temperature monitoring system. In addition, each pump is tested for vibration and temperature analysis on a

quarterly basis by an outside testing service. This has allowed four of the five pumps to run successfully for over ten years, which is the normal recommended industry standard for performing a vertical turbine pump rehabilitation. Given the age of product water pump A01, staff budgeted to have the pump removed and sent to a qualified pump repair shop for inspection and rehabilitation via Refurbishment & Replacement (R&R) budget number R24012 in the amount of $150,000. The board approved an agreement with Bender/CCP, Inc. in August 2025 to perform the rehabilitation of pump A01 based upon being the lowest responsive bidder to a request for proposals (RFP).

The scope of the RFP for pump A01 was to pull the motor and pump, inspect, and perform rehabilitation as needed as part of a preventative maintenance effort. Since the level of rehabilitation required for the pump was not known until a detailed inspection was performed, the quote was formatted for a base bid to remove and reinstall the pump using an external crane service, inspect the pump, and replacement of key components such as the stuffing box bearing, and main mechanical seal. Upon formal inspection of the pump, extensive damage was discovered with the pump's three impeller sections. Two impellers were found to be made of bronze material and one from high grade duplex stainless steel. The bronze impellers were found to have sections of the bronze metal material missing due to failure from corrosion which likely affected the pump's hydraulic performance. Also, the motor was found to need extensive rehabilitation of its components due to debris build up. Due to the damage discovered two new impeller sections were ordered in high grade duplex steel material. It is anticipated that the total cost to rehabilitate product water pump A01 will exceed the $150,000 budget and come in at closer to $500,000. In addition, the lead time for the original pump manufacturer two fabricate new impellers is twelve to twenty weeks. The removal of pump A01 for refurbishment limits the GWRS to a production of 100 mgd.

In anticipation that product water pump A02 will be in a similar condition as A01 based upon its age and its impellers being made of the same materials as A01, staff moved forward with rehabilitation of product water pump A02. This allowed Bender/CCP, Inc. to proactively begin ordering of new impellor sections to limit the delay in getting product water pump A02 rehabilitated and limit the duration of lost production from the GWRS.

It was discovered during the rehabilitation effort that product water pump A02 had more damage than anticipated, especially with impellers and wear rings. There was also additional leveling and machining needed on the sole plate resulting in cost that exceeded the initial revised budget estimate of $500,000 originally approved by the board for this effort.

Upon completion of the rehabilitation work and resulting additional costs incurred, staff is now seeking approval for amendment number one to agreement 1827 with Bender/CCP in the amount of $59,283. This results in a total cost of $559,283 for agreement 1827 with Bender/CCP. Staff also requests authorization to increase the budget to R&R project R25015 for product water pump A02 from $500,000 to $559,283.

PRIOR RELEVANT BOARD ACTION(S)

8/20/25, R 25-8-135 - Authorize issuance of an Agreement to Bender/CCP Inc. for an amount not to exceed $150,000 and establish the Product Water A01 Vertical Turbine Pump Inspection and Rehabilitation project in the amount of $150,000.

QUOTE

2150 East 37th Street
Vernon, CA 90058
323-919-5315

QUOTE 226-0034
DATE 7/8/2026
SALES REP. Cody Robinson

TO: Orange County Water District

ATTENTION: Robert Phillips

ITEM	QTY	UNIT	DESCRIPTION	UNIT COST	TOTAL
			LABOR - PRICE PER PUMP - FPWP A02		
1	40	Hrs	FIELD SERVICE TO TRAVEL TO SITE AND REMOVE PUMP AND MOTOR	$ 187.00	$ 7,480.00
2	1	LS	Bragg Crane Subcontractor for Removal of Pump Price Includes Rigger / Signal Person & a Lift Plan	$ 13,458.00	$ 13,458.00
3	1	LS	TRANSPORT PUMP BACK TO BENDER CCP SHOP (Subcontractor)	$ 1,250.00	$ 1,250.00
4	6	Hrs	INSPECT SOLE PLATE FOR LEVELNESS	$ 187.00	$ 1,122.00
5	38	Hrs	DISSASEMBLE PUMP COMPLETE	$ 144.00	$ 5,472.00
6	26	Hrs	INSPECT PUMP PER REQUIRED CONTRACT SCOPE - SCOPE #'S 3,4,5,6,7 & 8	$ 144.00	$ 3,744.00
7	4	Hrs	BUILD AS-FOUND INSPECTION REPORT & BOM	$ 144.00	$ 576.00
8	1	LS	NEW CHESTERTON 442C MECHANICAL SEAL	$ 7,082.40	$ 7,082.40
9	4	Hrs	TRANSPORT PUMP BACK TO OCWD	$ 120.00	$ 480.00
10	56	Hrs	FIELD SERVICE TO TRAVEL TO SITE AND INSTALL PUMP, ALIGN AND TEST RUN PUMP	$ 187.00	$ 10,472.00
11	1	LS	Bragg Crane Subcontractor for Installation of Pump Price Includes Rigger / Signal Person & a Lift Plan	$ 13,458.00	$ 13,458.00
12	2	EA	IMPELLER 34FKH DUPLEX SS DYNAMICALLY BALANCED W/WEAR RING INSTALLED - EXPEDITED LEAD TIME 14 WEEKS	$ 97,401.55	$ 194,803.10
13	3	EA	LINE SHAFT BEARINGS MARINE (BRONZE W/RUBBER LINING)	$ 5,175.00	$ 15,525.00
14	7	EA	BOWL BEARINGS - BRONZE 932	$ 746.00	$ 5,222.00
15	1	EA	SUCTION BELL BEARING - BRONZE 844	$ 1,201.00	$ 1,201.00
16	2	EA	CASE RINGS - 410 ANN	$ 2,415.00	$ 4,830.00
17	1	LS	SANDBLAST & PAINT ALL PUMP PARTS - SCOTCHKOTE 134 FUSION BONDED EPOXY 3 BOWLS, REMAINING COMPONENTS PAINT WITH CARBOLINE 891	$ 46,251.00	$ 46,251.00
18	537	Hrs	LABOR FOR MACHINING NEW COMPONENTS & REPAIRS PER BOM	$ 144.00	$ 77,328.00
19	1	LS	Field Machine Soleplate - LABOR AND MACHINE RENTAL	$ 25,225.00	$ 25,225.00
20	1	LS	MOTOR REPAIR SCOPE PER MOTOR REPAIR DOCUMENT ATTACHED	$ 86,903.75	$ 86,903.75
21	1	LS	LINE SHAFT COUPLING SNAP RINGS - HARDENED STAINLESS STEEL LEAD TIME - 4 WEEKS	$ 2,300.00	$ 2,300.00
					$ -
22	3	EA	LINE SHAFT COUPLINGS - SS	$ 11,700.00	$ 35,100.00
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
					$ -
			FINAL PRICE FOR GWRS PRODUCT WATER PUMP A02		$ 559,283.25

AGENDA ITEM SUBMITTAL

Meeting Date: September 9, 2026

To: Water Issues Committee
Board of Directors

From: John Kennedy

Staff Contact: M. Patel/R. Phillips

Budgeted: Yes
Budgeted Amount: $2,000,000
Cost Estimate: $99,859
Funding Source: R&R
Program/ Line Item No. R26005
General Counsel Approval:
Engineers/Feasibility Report: NA
CEQA Compliance: NA

Subject: AUTHORIZE PURCHASE ORDER TO BENDER/CCP FOR REPAIR OF MICROFILTRATION BACKWASH WASTE PUMP A03

SUMMARY

The microfiltration (MF) treatment process used in the Groundwater Replenishment System (GWRS) Advanced Water Purification Facility (AWPF) contains eight, sixty horsepower vertical turbine pumps used to remove backwash waste flows from a deep wet well. During a routine inspection, MF backwash waste pump A03 was found to be underperforming and in need of immediate repairs to ensure reliable operation of the backwash waste system. The pump was removed from service and sent to Bender/CCP for emergency repairs.

Attachment: Bender/CCP quotation

RECOMMENDATION

Agendize for September 16 Board meeting: Authorize issuance of a purchase order to Bender/CCP in the amount of $99,859 for repair of Microfiltration Backwash Waste pump A03.

BACKGROUND/ANALYSIS

The GWRS Microfiltration (MF) treatment facility consists of forty-eight individual units or cells, with each containing six hundred eighty-four MF membranes. Each cell is operated to backwash every twenty-two minutes to remove a fouling layer from the membranes that accumulates as they filter water. The waste stream generated upon completion of the backwash process in an individual cell is then discharged via gravity to a below grade wetwell located in the MF basement facility. The MF backwash waste flows accumulate in the wetwell and are then pumped out for discharge to the Orange County Sanitation District's (OC San) Plant No. 1 facility. Specifically, the flows are discharged to the OC San primary clarification process where they eventually become part of the feed supply to the GWRS.

The pumps within the wetwell are sixty horsepower vertical turbine pumps manufactured by Wehr-Floway. During a routine inspection, MF backwash waste pump A03 was found to be underperforming. Staff determined that the pump required immediate attention to prevent further deterioration and maintain reliable operation of

the MF backwash waste system. The MF backwash waste pumps are crucial to maintaining production levels for the MF system, and continued operation of A03 in its existing condition could have resulted in additional damage or an unexpected failure. Backwash waste pump A03 is over eighteen years old and was installed as part of the original GWRS construction project completed in 2008.

Pump A03 was removed from service and sent to Bender/CCP for emergency inspection and repairs. Bender/CCP had availability to perform the work in an expedited manner. Upon inspection at the Bender/CCP facility, the pump was found to require repairs and replacement of worn components to restore the pump to proper operating condition. The pump's existing sole plate was also inspected and determined to be outside of the required tolerances. As part of the repair, a new sole plate was machined to ensure the pump is properly leveled and balanced when installed. This will help maintain proper alignment, reduce vibration and uneven loading, and ensure the pump operates within the manufacturer's recommended tolerances. Key pump components will also be replaced or refurbished as necessary to restore pump performance and prolong the service life of the equipment.

Staff recommends approval of a purchase order to Bender/CCP in the amount of $99,859 to repair MF backwash waste pump A03 using funds from the current Refurbishment & Replacement (R&R) fund R26005. This R&R fund is established to cover unforeseen large cost repairs or replacement of equipment within the GWRS, Green Acres Project, and Fountain Valley building campus.

PRIOR RELEVANT BOARD ACTIONS

9/18/24, R24-9-119: Authorizing Purchase Order to DXP Enterprises for Repair of Microfiltration Backwash Waste Pump A02

9/18/24, R24-9-118: Authorize Purchase Order to Bender/CCP for Repair of Microfiltration Backwash Waste Pump B03

QUOTATION NO. **226-0778 REV# 1**

Bender Ccp, Inc.
Vernon Facility (Headquarters)
2150 East 37th Street,
Vernon, CA 90058

Tel (323) 232-2371
Fax (323)232-1790

Email:Sales@benderccp.Com

Quote For : ORA01
ORANGE COUNTY WATER DISTRICT
ACCOUNTYS PAYABLE
P.O. BOX 20845,
FOUNTAIN VALLEY, CA 92728-0845

Ship To :
Accounts Payable
P.O. Box 20845
Apinvoices@ocwd.Com
Fountain Valley, CA 92728-0845

Backwash Pump - Recieve, DCI & Create Report / Repair Quote

Ref. #224-1262

Date	Customer's Order#	Customer Req#	Job #	Terms
6/30/2026	Bob Phillips		226-0778	NET 0 Days

Item	Description	Total
1.00	Disassemble, Clean & Inspect - Create Repair Work Scope & Quote	$12,008.00
102.00	Backwash Pump Motor Repair	$12,932.88
CHANGE ORDER 226-0778-C1		
101.00	Repair, Balance, Paint, Assemble	$47,407.75
		$72,348.63

BenderCCP Terms and Conditions Apply

BENDER CCP, INC. STANDARD TERMS & CONDITION OF SALE
Fabrication, Tooling, Thermal Spray Coatings, Machining and Shop Repair Services

1.0 Terms Applicable. The Terms and Conditions of Sale ("Terms and Conditions") listed below are the exclusive terms and conditions applicable to quotations made and orders acknowledged by Bender CCP, Inc. ("BENDER CCP") for the Services in accordance with BENDER CCP fee schedules (''Schedules'') which are referenced in a Purchase Order, or if none are referenced, then the Schedule(s) which is/are in effect at the time the Services are performed.

1.1 The quotation presented by, or Purchase Order received by, BENDER CCP is expressly made conditional upon Customer's assent to these Terms and Conditions. Any of Customer's terms and conditions which are in addition to or different from those contained herein, which are not separately agreed to by BENDER CCP in writing, are hereby objected to and shall be of no effect. Objections to any terms and conditions contained herein shall be deemed waived if Customer does not receive written notice that BENDER CCP agrees to them within 20 days of the date of the quotation or Purchase Order acknowledgment. Customer in any event will be deemed to have assented to these Terms and Conditions if delivery of any Service is requested or accepted.

1.2 The term "this Agreement" as used herein means the applicable quotation or acknowledgment or Purchase Order, together with BENDER CCP's proposal and any attachment thereto, any documents expressly incorporated by reference and these Terms and Conditions. These Terms and Conditions shall in all cases, without exception, control and take precedence over any terms and conditions in Customer's acceptance.

2.0 Invoicing and Payment. Customer will pay BENDER CCP for the Services, in accordance with BENDER CCP fee schedules (''Schedules'') in effect at the time the Services are performed.

2.1 BENDER CCP shall invoice Customer monthly for its Services. In the event of a dispute over payment, customer shall pay all undisputed amounts in accordance with this Agreement. Terms are cash unless otherwise agreed upon in writing.

2.2 Invoices are due upon presentation and past-due thirty (30) days from the date of the invoice. Should any invoice for payment become past due, Customer agrees that BENDER CCP may suspend Services and/or demand prepayment of fees at BENDER CCP's option.

2.3 Customer agrees to pay a service charge of one and one-half (1- 1/2) percent per month, compounded monthly from the past due date of the invoice, on past-due accounts, not to exceed limits set by any applicable usury laws. In the event that it becomes necessary for BENDER CCP to commence action to force payment of invoices, Customer shall reimburse BENDER for its reasonable collection costs, including attorney's fees and court costs.

2.4 Prices on the products sold buy BENDER CCP are exclusive of any city, state, federal or foreign taxes or duties, of any kind. Buyer is responsible for all such taxes and duties and agrees to indemnify BENDER CCP for all taxes and duties that may be assessed upon

3.0 Warranty. BENDER CCP shall perform the Services in accordance with the standards of care and diligence customary in the industry. In the event BENDER CCP fails to perform in accordance with those standards, or there is an error in the Services resulting in a defect in fabricated items, tooled, machined or repaired parts (''Parts''), Customer shall give written notice thereof to BENDER CCP. Such notice must be given during the one-year period following the date the Services are completed, or, if Parts are provided, the date that such Parts are available for use in Customer's facility. Upon such notice, BENDER CCP shall perform all corrective Services within the original scope of Services as necessary to conform the Services to such standard. All costs of such reperformance of work shall be borne by BENDER CCP.

3.1 Notwithstanding the above, in the event that Parts are stored or remain unused for thirty (30) days or more following furnishing by BENDER CCP, BENDER CCP warranty shall be void, and BENDER CCP shall be released from all liability whatsoever in connection with the Parts unless, prior to startup of the equipment in which the Parts are used, BENDER CCP, at customer's expense, is afforded an opportunity to perform an inspection and any necessary testing to assure that the Parts can be warrantied. Customer shall compensate BENDER CCP for all costs of such inspection and testing in accordance with BENDER CCP Schedules.

3.2 EXCEPT AS EXPRESSLY STATED ABOVE, BENDER CCP MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, CONCERNING ANY OF THE SERVICES OR PARTS WHICH MAY BE FURNISHED PURSUANT TO THIS AGREEMENT. IN PARTICULAR, THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. BENDER CCP'S LIABILITY FOR WARRANTY REPAIR OR REPLACEMENT SHALL NOT EXCEED THE AMOUNT PAID BY CUSTOMER FOR THE ORGICNAL SERVICES OR PARTS PURCHASED.

3.3 BENDER CCP shall, for the protection of Customer and to the extent available, demand available warranties, indemnities and guaranties with respect to third party machinery, equipment, materials and services from all vendors and subcontractors with whom BENDER CCP contracts and shall render all reasonable assistance to Customer for the purpose of enforcing the same. BENDER CCP does not provide warranties, indemnities and guaranties with respect to third party machinery, equipment, materials and services.

4.0 Limitations. BENDER CCP's liability under any legal theory including, but not limited to contract, tort and strict liability, including that of its employees, agents, and officers shall not exceed the amounts paid to BENDER CCP under this Agreement. CUSTOMER SHALL RELEASE, DEFEND, INDEMNIFY AND HOLD BENDER CCP AND ITS EMPLOYEES, OFFICERS AND AGENTS HARMLESS FROM AND AGAINST ANY AND ALL OTHER CLAIMS, DEMANDS, LOSSES AND CAUSES OF ACTION.

5.0 Changes. In the event Customer desires to make changes in the Services, BENDER CCP will perform such changes pursuant to the terms, conditions and pricing of this Agreement, or pursuant to a written mutually agreed upon change order. Customer acknowledges that the individual signing this Agreement on its behalf, or any authorized representative of Customer, may amend or change any Scope of Work.

6.0 Termination. Either party may, prior to completion and with or without cause, terminate the Services at any time upon five (5) working days' written notice to the other. In event that Customer terminates this Agreement, BENDER CCP shall be paid for Services performed to the date of termination plus non- cancelable commitments entered into prior to BENDER CCP's receipt of notice of termination, and actual, reasonable, termination costs.

7.0 Term. The term of this Agreement is one year from its effective date; however, this Agreement shall automatically be renewed for consecutive one-year terms unless terminated by either party by providing at least 30 days' notice. Termination shall not affect the rights, obligations and remedies of the Parties.

8.0 Dispute Resolution. Any dispute arising out of, or relating to, this Agreement must be settled by mediation by a neutral person acceptable to both parties under the Commercial Mediation Rules of the American Arbitration Association (AAA). Failing resolution by mediation, such dispute shall be settled by binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association in Orange County, California. The parties shall jointly select one arbitrator and the decision of the arbitrator shall be final and binding on the parties and enforceable in any court of competent jurisdiction. Each party shall bear its own costs and expenses and an equal share of the arbitrator's and administrative fees of arbitration. The prevailing party may, at the arbitrator's sole discretion, be awarded reasonable attorney fees. Except as may be required by law, neither party nor an arbitrator may disclose the existence, content, or results of any arbitration hereunder without the prior written consent of both parties.

9.0 Entire Agreement. This Agreement constitutes the complete Agreement of the parties. No other representations of any kind, oral or otherwise, have been made. If Customer elects to utilize a Purchase Order or other order form as a convenience, for billing purposes or in accordance with its customary practice, BENDER CCP will refer to the same in invoices or correspondence, with the understanding that these Terms and Conditions supersede all inconsistent terms.

10.0 Choice of Law. The laws of the State of California shall govern this Agreement. Any mediation, arbitration or litigation arising from this Agreement shall take place in Los Angeles, California.

11.0 Severability. If any provision of this Agreement is finally determined to be contrary to, prohibited by, or invalid under applicable laws or regulations, such provision will be renegotiated so as to give effect to the original intent of the parties to the maximum possible extent. Other terms shall be modified only to the extent necessary for consistency with renegotiated terms.

12.0 No Third-Party Rights. Nothing contained in or relating to the formation of this Agreement is intended to make any person or entity that is not a signatory to the Agreement a third-party beneficiary. No one other than Customer shall be entitled to use the Parts produced hereunder.

13.0 Execution and Counterparts. This Agreement and any Scope of Work may be executed and delivered in counterparts and by each party in separate counterparts, each of which, taken together, shall constitute but one and the same instrument.

14.0 Remedies. Neither party shall be held liable for punitive, indirect, special, or consequential damages (including loss of profits) under any theory of law or of any nature whatsoever, howsoever arising. THE OBLIGATIONS, RESPONSIBILITIES, WARRANTIES, AND LIABILITIES OF THE PARTIES WITH RESPECT TO THE SERVICES AND PARTS SHALL BE SOLELY THOSE EXPRESSLY SET FORTH IN THIS AGREEMENT, AND THEY SHALL APPLY REGARDLESS OF WHETHER AN ACTION IS BROUGHT IN CONTRACT, OR IS BASED ON TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR ANOTHER THEORY OF LAW. The limitations stated in this Agreement extend collectively to the parties' partners, joint ventures, licensors, insurers, and affiliates. Customer and BENDER CCP agree that, notwithstanding the Dispute Resolution provision, above, any legal action with respect to the Services or Parts shall be brought solely against the parties, and not against affiliated companies, individual officers, employees or former employees of the parties. All legal actions by either party against the other for breach of this Agreement, or for the failure to perform in accordance with the applicable standard of care, however framed, that are essentially based upon such breach or failure shall be barred following expiration of BENDER CCP's one (1) year warranty period.

15.0 Force Majeure. Unless otherwise specified in this Agreement, BENDER CCP shall be obligated to perform its Services within a reasonable period of time. Schedules are estimates only. BENDER CCP shall not be responsible for delays in the completion of the Services if such delays are created by reason of any unforeseen cause or causes beyond BENDER CCP's reasonable control. In the event of delay due to any such cause, BENDER CCP shall be paid for actual out of pocket costs occasioned by such delay, including standby costs.

16.0 Compliance. BENDER CCP agrees to perform its Services in accordance with all applicable laws and regulations which are in force and effect at the time of performance.

17.0 Information Obtained from Others. BENDER CCP will be supplied with certain information and/or data by Customer and/or others, and BENDER CCP shall be entitled to rely on same. BENDER CCP shall not be responsible for verifying the accuracy of such information.

18.0 Headings and Construction. Headings used herein are for convenience of reference only and shall not affect meaning. This Agreement shall be construed according to its fair meaning and not strictly for or against any party hereto.

19.0 Independent Contractor. BENDER CCP shall perform its services as an independent contractor and not an employee or agent of Customer.

20.0 Notices. Any and all notices and other communications hereunder shall be in writing and be deemed received when delivered, or five (5) days after being mailed, via certified or registered mail, return receipt requested, postage prepaid, to the last known addresses of the parties as the parties may from time to time notify each other.

21.0 Intellectual Property: All intellectual property of Seller shall remain the exclusive property of Seller and no license to pre- existing intellectual property will be created by this Agreement. Any new intellectual property developed by Buyer that includes or incorporates the Products shall also be owned by Seller.

BENDER CCP
ENGINEERED ROTATING EQUIPMENT SPECIALISTS

QUOTATION NO. **226-0841 REV# 1**

Bender Ccp, Inc.
Vernon Facility (Headquarters)
2150 East 37th Street,
Vernon, CA 90058

Tel (323) 232-2371
Fax (323)232-1790

Email:Sales@benderccp.Com

Quote For : ORA01
ORANGE COUNTY WATER DISTRICT
ACCOUNTYS PAYABLE
P.O. BOX 20845,
FOUNTAIN VALLEY, CA 92728-0845

Ship To :
Accounts Payable
P.O. Box 20845
Apinvoices@ocwd.Com
Fountain Valley, CA 92728-0845

(1) Weir Vertical Pump Sole Plate Removal And Re-Installation / Grouting

Date	Customer's Order#	Customer Req#	Job #	Terms
6/26/2026			226-0841	NET 30 Days

Item	Description	Total
1.00	FIELD SERVICE SOLE PLATE REMOVAL AND CHIP AWAY EXISTING GROUT	$4,900.00
2.00	MANUFACTURE NEW SOLEPLATE	$2,600.00
3.00	MATERIALS FOR SOLEPLATE AND GROUTING	$7,810.00
4.00	FIELD SERVICE SOLE PLATE INSTALLATION, LEVELING & GROUTING	$12,200.00
		$27,510.00

BenderCCP Terms and Conditions Apply

BENDER CCP, INC. STANDARD TERMS & CONDITION OF SALE
Fabrication, Tooling, Thermal Spray Coatings, Machining and Shop Repair Services

1.0 Terms Applicable. The Terms and Conditions of Sale ("Terms and Conditions") listed below are the exclusive terms and conditions applicable to quotations made and orders acknowledged by Bender CCP, Inc. ("BENDER CCP") for the Services in accordance with BENDER CCP fee schedules (''Schedules'') which are referenced in a Purchase Order, or if none are referenced, then the Schedule(s) which is/are in effect at the time the Services are performed.

1.1 The quotation presented by, or Purchase Order received by, BENDER CCP is expressly made conditional upon Customer's assent to these Terms and Conditions. Any of Customer's terms and conditions which are in addition to or different from those contained herein, which are not separately agreed to by BENDER CCP in writing, are hereby objected to and shall be of no effect. Objections to any terms and conditions contained herein shall be deemed waived if Customer does not receive written notice that BENDER CCP agrees to them within 20 days of the date of the quotation or Purchase Order acknowledgment. Customer in any event will be deemed to have assented to these Terms and Conditions if delivery of any Service is requested or accepted.

1.2 The term "this Agreement" as used herein means the applicable quotation or acknowledgment or Purchase Order, together with BENDER CCP's proposal and any attachment thereto, any documents expressly incorporated by reference and these Terms and Conditions. These Terms and Conditions shall in all cases, without exception, control and take precedence over any terms and conditions in Customer's acceptance.

2.0 Invoicing and Payment. Customer will pay BENDER CCP for the Services, in accordance with BENDER CCP fee schedules (''Schedules'') in effect at the time the Services are performed.

2.1 BENDER CCP shall invoice Customer monthly for its Services. In the event of a dispute over payment, customer shall pay all undisputed amounts in accordance with this Agreement. Terms are cash unless otherwise agreed upon in writing.

2.2 Invoices are due upon presentation and past-due thirty (30) days from the date of the invoice. Should any invoice for payment become past due, Customer agrees that BENDER CCP may suspend Services and/or demand prepayment of fees at BENDER CCP's option.

2.3 Customer agrees to pay a service charge of one and one-half (1- 1/2) percent per month, compounded monthly from the past due date of the invoice, on past-due accounts, not to exceed limits set by any applicable usury laws. In the event that it becomes necessary for BENDER CCP to commence action to force payment of invoices, Customer shall reimburse BENDER for its reasonable collection costs, including attorney's fees and court costs.

2.4 Prices on the products sold buy BENDER CCP are exclusive of any city, state, federal or foreign taxes or duties, of any kind. Buyer is responsible for all such taxes and duties and agrees to indemnify BENDER CCP for all taxes and duties that may be assessed upon

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3.1 Notwithstanding the above, in the event that Parts are stored or remain unused for thirty (30) days or more following furnishing by BENDER CCP, BENDER CCP warranty shall be void, and BENDER CCP shall be released from all liability whatsoever in connection with the Parts unless, prior to startup of the equipment in which the Parts are used, BENDER CCP, at customer's expense, is afforded an opportunity to perform an inspection and any necessary testing to assure that the Parts can be warrantied. Customer shall compensate BENDER CCP for all costs of such inspection and testing in accordance with BENDER CCP Schedules.

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3.3 BENDER CCP shall, for the protection of Customer and to the extent available, demand available warranties, indemnities and guaranties with respect to third party machinery, equipment, materials and services from all vendors and subcontractors with whom BENDER CCP contracts and shall render all reasonable assistance to Customer for the purpose of enforcing the same. BENDER CCP does not provide warranties, indemnities and guaranties with respect to third party machinery, equipment, materials and services.

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8.0 Dispute Resolution. Any dispute arising out of, or relating to, this Agreement must be settled by mediation by a neutral person acceptable to both parties under the Commercial Mediation Rules of the American Arbitration Association (AAA). Failing resolution by mediation, such dispute shall be settled by binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association in Orange County, California. The parties shall jointly select one arbitrator and the decision of the arbitrator shall be final and binding on the parties and enforceable in any court of competent jurisdiction. Each party shall bear its own costs and expenses and an equal share of the arbitrator's and administrative fees of arbitration. The prevailing party may, at the arbitrator's sole discretion, be awarded reasonable attorney fees. Except as may be required by law, neither party nor an arbitrator may disclose the existence, content, or results of any arbitration hereunder without the prior written consent of both parties.

9.0 Entire Agreement. This Agreement constitutes the complete Agreement of the parties. No other representations of any kind, oral or otherwise, have been made. If Customer elects to utilize a Purchase Order or other order form as a convenience, for billing purposes or in accordance with its customary practice, BENDER CCP will refer to the same in invoices or correspondence, with the understanding that these Terms and Conditions supersede all inconsistent terms.

10.0 Choice of Law. The laws of the State of California shall govern this Agreement. Any mediation, arbitration or litigation arising from this Agreement shall take place in Los Angeles, California.

11.0 Severability. If any provision of this Agreement is finally determined to be contrary to, prohibited by, or invalid under applicable laws or regulations, such provision will be renegotiated so as to give effect to the original intent of the parties to the maximum possible extent. Other terms shall be modified only to the extent necessary for consistency with renegotiated terms.

12.0 No Third-Party Rights. Nothing contained in or relating to the formation of this Agreement is intended to make any person or entity that is not a signatory to the Agreement a third-party beneficiary. No one other than Customer shall be entitled to use the Parts produced hereunder.

13.0 Execution and Counterparts. This Agreement and any Scope of Work may be executed and delivered in counterparts and by each party in separate counterparts, each of which, taken together, shall constitute but one and the same instrument.

14.0 Remedies. Neither party shall be held liable for punitive, indirect, special, or consequential damages (including loss of profits) under any theory of law or of any nature whatsoever, howsoever arising. THE OBLIGATIONS, RESPONSIBILITIES, WARRANTIES, AND LIABILITIES OF THE PARTIES WITH RESPECT TO THE SERVICES AND PARTS SHALL BE SOLELY THOSE EXPRESSLY SET FORTH IN THIS AGREEMENT, AND THEY SHALL APPLY REGARDLESS OF WHETHER AN ACTION IS BROUGHT IN CONTRACT, OR IS BASED ON TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR ANOTHER THEORY OF LAW. The limitations stated in this Agreement extend collectively to the parties' partners, joint ventures, licensors, insurers, and affiliates. Customer and BENDER CCP agree that, notwithstanding the Dispute Resolution provision, above, any legal action with respect to the Services or Parts shall be brought solely against the parties, and not against affiliated companies, individual officers, employees or former employees of the parties. All legal actions by either party against the other for breach of this Agreement, or for the failure to perform in accordance with the applicable standard of care, however framed, that are essentially based upon such breach or failure shall be barred following expiration of BENDER CCP's one (1) year warranty period.

15.0 Force Majeure. Unless otherwise specified in this Agreement, BENDER CCP shall be obligated to perform its Services within a reasonable period of time. Schedules are estimates only. BENDER CCP shall not be responsible for delays in the completion of the Services if such delays are created by reason of any unforeseen cause or causes beyond BENDER CCP's reasonable control. In the event of delay due to any such cause, BENDER CCP shall be paid for actual out of pocket costs occasioned by such delay, including standby costs.

16.0 Compliance. BENDER CCP agrees to perform its Services in accordance with all applicable laws and regulations which are in force and effect at the time of performance.

17.0 Information Obtained from Others. BENDER CCP will be supplied with certain information and/or data by Customer and/or others, and BENDER CCP shall be entitled to rely on same. BENDER CCP shall not be responsible for verifying the accuracy of such information.

18.0 Headings and Construction. Headings used herein are for convenience of reference only and shall not affect meaning. This Agreement shall be construed according to its fair meaning and not strictly for or against any party hereto.

19.0 Independent Contractor. BENDER CCP shall perform its services as an independent contractor and not an employee or agent of Customer.

20.0 Notices. Any and all notices and other communications hereunder shall be in writing and be deemed received when delivered, or five (5) days after being mailed, via certified or registered mail, return receipt requested, postage prepaid, to the last known addresses of the parties as the parties may from time to time notify each other.

21.0 Intellectual Property: All intellectual property of Seller shall remain the exclusive property of Seller and no license to pre- existing intellectual property will be created by this Agreement. Any new intellectual property developed by Buyer that includes or incorporates the Products shall also be owned by Seller.

AGENDA ITEM SUBMITTAL

Meeting Date: September 9, 2026

To: Water Issues Committee
Board of Directors

From: John Kennedy

Staff Contact: R. Bouley

Budgeted: Yes
Budgeted Amount: $658,739
Proposed Budget: $808,000
Funding Source: CIP
Program/Line Item No.: C24015
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: AUTHORIZE CHANGE ORDER 2 AND INCREASE BUDGET FOR CONTRACT BP-2026-1 BUENA PARK LINDEN WELL PACKER INSTALLATION – WELL SCREEN ISOLATION TO REDUCE PFAS

SUMMARY

General Pump, Inc. (General Pump) has completed packer installation for the Linden Well Packer Installation project, Contract No. BP-2026-1. Staff recommends authorizing Change Order No.1 to the contract with General Pump Company, Inc. for an amount not to exceed $150,000 to install a permanent variable frequency drive (VFD) at the Buena Park Linden Well to allow the well motor to function properly with the new packer and increasing the project budget by $150,000 for a total project budget of $808,739.

RECOMMENDATION

Agendize for September 16 Board Meeting:

1. Authorize issuance of Change Order No.2 to General Pump Company, Inc, for an amount not to exceed $150,000 to furnish and install a VFD at the Buena Park Linden Well; and

2. Increase project budget by $150,000 for a total project budget of $808,739

BACKGROUND/ANALYSIS

Depth-specific flow profiling and water quality sampling conducted in April 2025 indicated it would be feasible to utilize an inflatable packer to isolate specific screened intervals in Buena Park's Linden Well (BP-LIND) and reduce PFAS concentrations below federal Maximum Contaminant Levels (MCLs). The Board authorized a Contract with General Pump in February of this year to install the packers in the well.

General Pump has removed and reinstalled the well motor and pump with the new packers and associated additional down-well piping. Upon performing step testing with the packers in place, PFAS analysis was completed and showed that the packers reduced the PFAS concentrations below MCL levels of 4.0 ng/L. Staff also realized that the well pump could not operate within the parameters necessary utilizing the solid-state pump controls that controlled the pump previously. Utilizing a VFD that can reduce pump speed to accommodate the lower flow of water due to the presence of the

packers is highly recommended to assure the well flow rate and pressure are set to maximize well efficiency. General Pump provided a proposal for supplying and installing a VFD for an amount not to exceed $150,000.

Staff recommends authorizing Change Order No.2 to General Pump for an amount not to exceed $150,000 to furnish and install a VFD at the Buena Park Linden Well, and increasing the project budget by $150,000 for a total project budget of $808,739 The combined solution of inflatable packers and a VFD to drive the pump saves OCWD $7M, compared to constructing a PFAS treatment system and associated improvements.

The project budget is summarized in Table 1:

Table 1: Buena Park Linden Well Packer Installation Budget Summary

Description	Budget	Anticipated Cost
Design, CM, Advertisement		
BESST, Inc – Design and Workplan	$ 55,300	$ 55,300
BESST, Inc – Packer purchase and CM	$ 173,815	$ 173,815
Advertisement	$ 1,395	$ 1,395
Construction		
Contract BP-2026-1	$ 352,510	$ 352,510
CCO#1	$ 40,739	$ 40,739
CCO#2	*$ 0*	*$ 150,000*
Staff Support	$ 20,000	$ 20,000
Project Contingency	$ 14,980	$ 14,980
Total Project Budget:	*$ 658,739*	*$ 808,739*

PRIOR RELEVANT BOARD ACTIONS

5/04/26, R26-2-18: Award Contract BP-2026-1 Buena Park Linden Well Packer Installation to General Pump Company, Inc. and Establish Project Budget of $618,000.

2/04/26, R26-2-18: Award Contract BP-2026-1 Buena Park Linden Well Packer Installation to General Pump Company, Inc. and Establish Project Budget of $618,000.

12/17/25, R25-12-214: Authorize publication of a Notice Inviting Bids for Buena Park Linden Well Packer Installation and Authorize Amendment to Agreement with BESST, Inc.

8/20/25, R25-8-139: Authorize Amendment to Agreement with BESST, Inc. to prepare a work plan and technical specifications to conduct packer feasibility testing at Buena Park's Linden Well

2/19/25, R25-2-13: Authorize Agreement with BESST, Inc. for depth-specific flow and water quality survey at Buena Park's Linden well

AGENDA ITEM SUBMITTAL

Meeting Date: September 9, 2026

To: Water Issues Committee
Board of Directors

From: John Kennedy

Staff Contact: Herndon/Sovich/Neel

Budgeted: N/A
Budgeted Amount: N/A
Cost Estimate: N/A
Funding Source: N/A
Program/Line Item No.: N/A
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: BASIN STORAGE UPDATE FOR WATER YEAR 2025-26

SUMMARY

Staff evaluated water level conditions throughout the basin and constructed groundwater elevation contour maps representing the end of the water year. Using the "full basin" benchmark for all three aquifer layers in the basin, an accumulated overdraft of 162,000 acre-feet (AF) was calculated as of June 30, 2026. Thus, the basin experienced a storage increase of 21,000 AF for water year (WY) 2025-26. A brief description of the water level change and accumulated overdraft calculation will be presented.

Attachment: Presentation

RECOMMENDATION

Informational

BACKGROUND/ANALYSIS

Following the methodology outlined in the March 2007 staff report entitled, "Evaluation of Orange County Groundwater Basin Storage and Operational Strategy," staff calculated the storage change and accumulated overdraft in the basin based on water levels in the three primary aquifers: Shallow, Principal, and Deep. Accumulated overdraft is essentially the volume of "empty basin storage" that is available to fill with groundwater.

Staff constructed groundwater elevation contour maps for each of the three aquifer layers in the basin. These hand-drawn contour maps representing end of June 2026 groundwater elevations were scanned and digitized into the District's GIS database and then used to calculate the accumulated overdraft from the full-basin condition and the annual change in storage for WY 2025-26 using the three-layer storage change methodology.

Findings

The calculated storage increased approximately 21,000 AF and resulted primarily from a moderate increase in Shallow aquifer groundwater levels near the Santiago Basins in Orange from June 2025 to June 2026. Elsewhere in the Shallow aquifer, groundwater levels increased by approximately 1-2 feet in the greater Anaheim/Fullerton Forebay area,

decreased by up to 1 foot in the central, coastal, and Irvine areas, and remained stable near the Talbert Barrier at or above protective elevations for seawater intrusion control.

An apparent water level increase was calculated in the Shallow aquifer in Placentia as a result of data from a new OCWD monitoring well installed for the express purpose of filling a data gap to refine the annual Shallow aquifer groundwater contour maps. The June 2026 groundwater level at this new well was over 20 feet higher than what had been contoured in that vicinity the prior year before the new well existed, causing an artificial increase in the year-to-year contour map comparison and contributed slightly to the calculated storage increase. Going forward, the new monitoring data will provide a more accurate representation of groundwater levels in the Shallow aquifer in this area.

In the Principal aquifer, groundwater levels remained stable in the Anaheim Forebay area near the OCWD recharge facilities, increased approximately 1-4 feet in the greater Anaheim/Fullerton Forebay area and 10-30 feet near the Santiago Basins. In the Pressure area of the Basin, Principal aquifer groundwater levels decreased approximately 2-8 feet throughout the central and coastal portions of the basin, 10 feet near the IRWD Dyer Road Well Field, and 5-10 feet in the Irvine sub-basin. As explained above for the Shallow aquifer, an apparent increase in Principal aquifer groundwater levels in the Placentia area reflected data from a newly installed monitoring well.

In the Deep aquifer, groundwater levels remained stable in the Anaheim Forebay area near the OCWD recharge facilities, increased up to 2 feet in the greater Anaheim Fullerton Forebay area, and decreased up to 8 feet throughout the pressure and coastal areas and approximately 2-5 feet in the Irvine sub-basin.

Since the Shallow aquifer in the Forebay area (generally north of the 5 Freeway) behaves as an unconfined water table aquifer, most of the storage change in the basin typically occurs due to the rise and fall of this uppermost Shallow aquifer water table. Sediments in this area are largely comprised of coarse sands and gravels. Although over 90% of basin pumping comes from the Principal aquifer, most of the pumped groundwater originates from the Shallow aquifer, which in turn is replenished by the District's recharge activities at the Forebay spreading grounds.

During WY 2025-26, the Shallow aquifer exhibited an estimated storage increase of 22,000 AF, primarily due to above average rainfall in conjunction with Forecast Informed Reservoir Operations (FIRO) at Prado Dam, which led to increased Santa Ana River storm flow recharge. Due to the confined or pressurized conditions in the Principal and Deep aquifers, their groundwater level changes led to much smaller changes in groundwater storage – only decreasing by 1,000 AF combined, as shown in the following table:

Aquifer	WY 2025-26 Storage Change (AF)
Shallow	+22,000
Principal	-1,000
Deep	0
Total:	**+21,000**

The total storage increase of 21,000 AF during WY 2025-26 followed a year of significant storage decrease (-50,000 AF) and was very close to the amount originally budgeted.

During WY 2025-26, 16.1 inches of rain fell at the District's field headquarters in Anaheim, 20% above the 39-year average of 13.4 inches. The estimated incidental recharge of 35,200 AF (Table 1) was slightly below expectations based on the historical best-fit correlation line of incidental recharge and field headquarters rainfall. Incidental recharge is an estimated term in the basin water budget and incorporates all unmeasured inflows and outflows to and from the basin (e.g., outflow to Los Angeles County and inflow from/outflow to the ocean). While rainfall is a key factor affecting incidental recharge, other factors include the relative basin conditions between Orange and Los Angeles counties as well as barrier operations and coastal groundwater elevations relative to sea level. For these reasons, the correlation between rainfall and incidental recharge is weak.

Since 2018, incidental recharge has been lower than its historical correlation with Field Headquarters rainfall, while SAR storm flow recharge has been higher than its historical correlation with San Bernardino rainfall. This suggests that these two trends largely offset each other and that OCWD recharge operations have been capturing more local inflows into OCWD recharge facilities that would have otherwise been accounted for in previous years as incidental recharge. Also, the higher conservation pool behind Prado Dam has contributed to increased SAR storm flow capture and recharge while reducing losses to the ocean. For example, during WY 2025-26, measured SAR storm flow recharge was approximately 32,000 AF higher than predicted by the historical best-ft trend line with 11.6 inches of San Bernardino rainfall.

Groundwater pumping was 297,000 AF, which was about 2% lower than the previous water year and exactly as budgeted with the Basin Pumping Percentage set at 85%. Total water demand was 1.5% lower than the prior year. No basin replenishment water was purchased from MWD during WY 2025-26.

Table 1 shows a comparison of budgeted versus actual inflows and outflows to and from the basin for WY 2025-26. The budgeted values were developed prior to commencement of the water year based on an assumption of average rainfall conditions.

Table 1. Groundwater Budget for Water Year 2025-26: Budgeted vs. Actual

Inflows & Outflows (acre-feet)	Original Budget (Avg. Rain ~13 in.)	Actual (Rain 16.1 in.)
SAR Base and Storm Flow Recharge	146,000	168,600(1)
Incidental Recharge	40,000	35,200
GWRS (Forebay, Barrier, and Mid-Basin)	128,000	112,200
MWD Replenishment Water Purchases	0	0
Other (Alamitos Barrier, Talbert OC-44)	3,000	2,000
Total Water into Basin	317,000	318,000
Total Basin Pumping @ 85% BPP	-297,000	-297,000
Storage Change	+20,000	+21,000
Accumulated Overdraft	163,000	162,000

(1) Includes 2,680 AF of percolation from prior year's carryover storage in recharge basins and 11,306 AF of Santiago Creek and other local inflows.

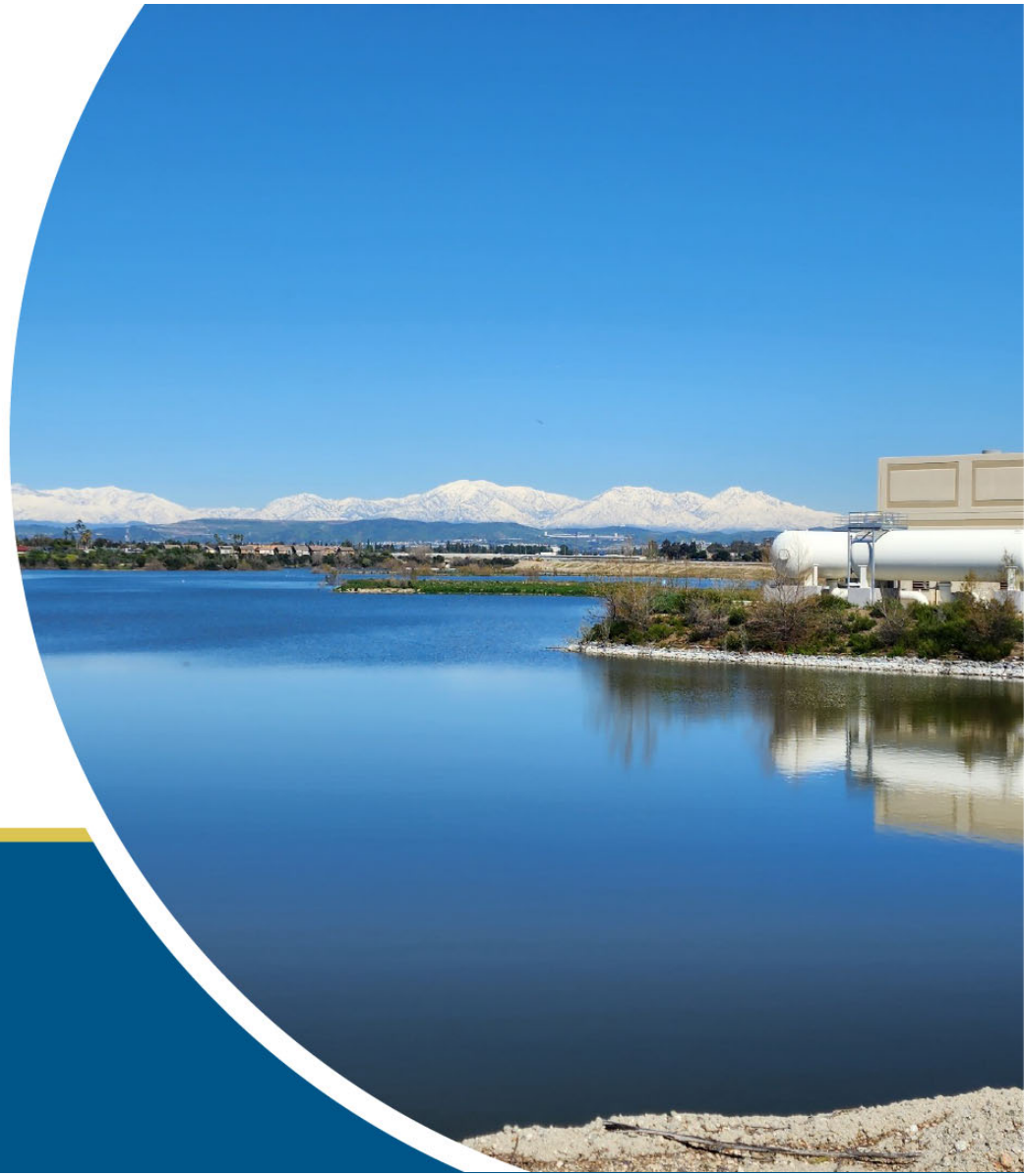
Notable variations in the original versus actual water budget include:

- 22,600 AF more SAR base and storm flow recharge than budgeted due to above average rainfall and FIRO at Prado Dam;
- 4,800 AF less incidental recharge than budgeted; and
- 15,800 AF less GWRS recharge than budgeted due to reduced injection rates, periods of reduced GWRS production during refurbishment of two product water pumps, and periods of reduced GWRS influent flows due to OC San maintenance and repairs.

PRIOR RELEVANT BOARD ACTION(S)

3/21/07 M07-44 Receive and file staff report, titled "Evaluation of Orange County Groundwater Basin Storage and Operational Strategy," and adopt new three-layer storage change methodology with the associated new full basin condition.

Basin Storage Update
Water Year 2025-26

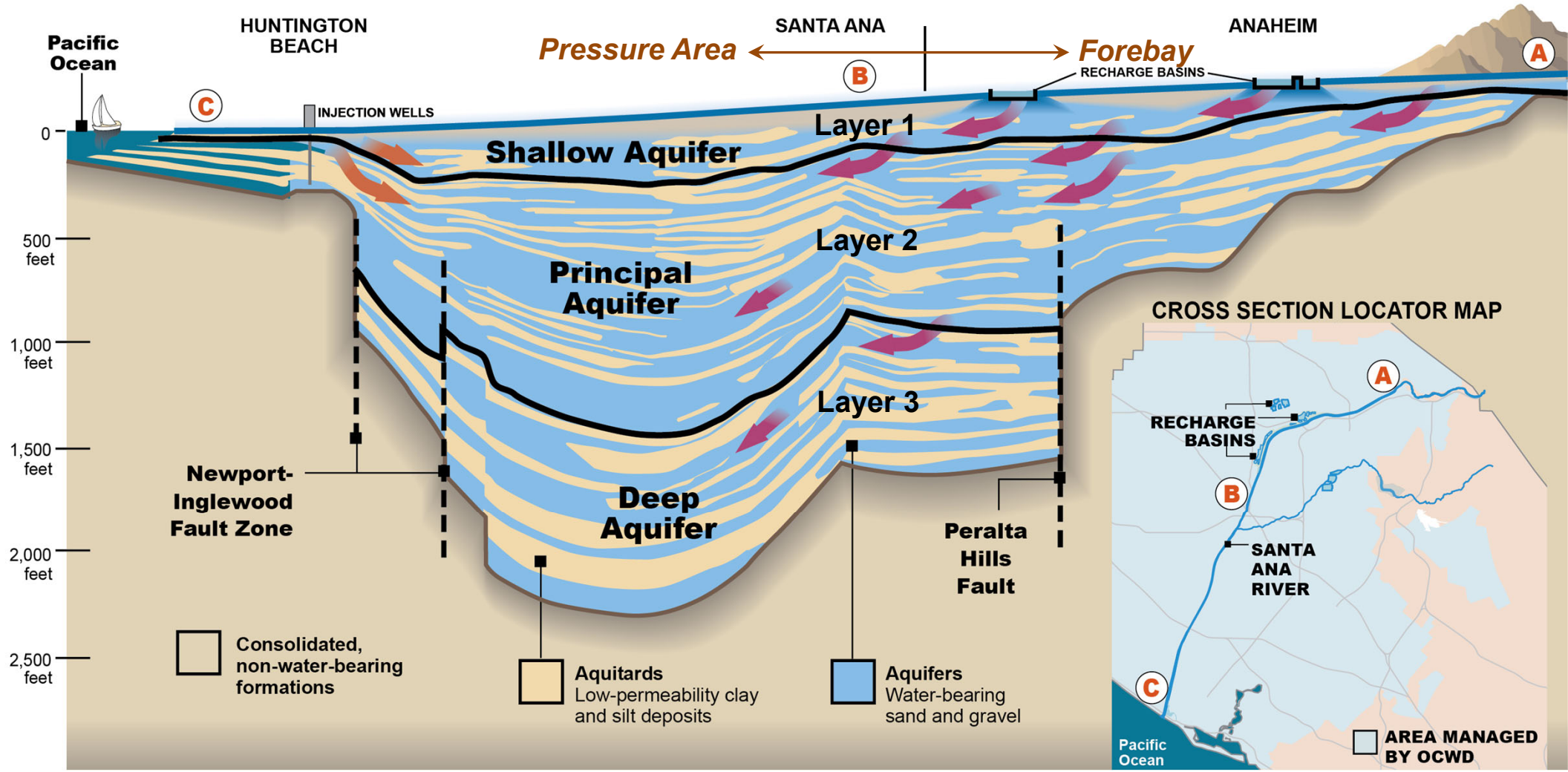


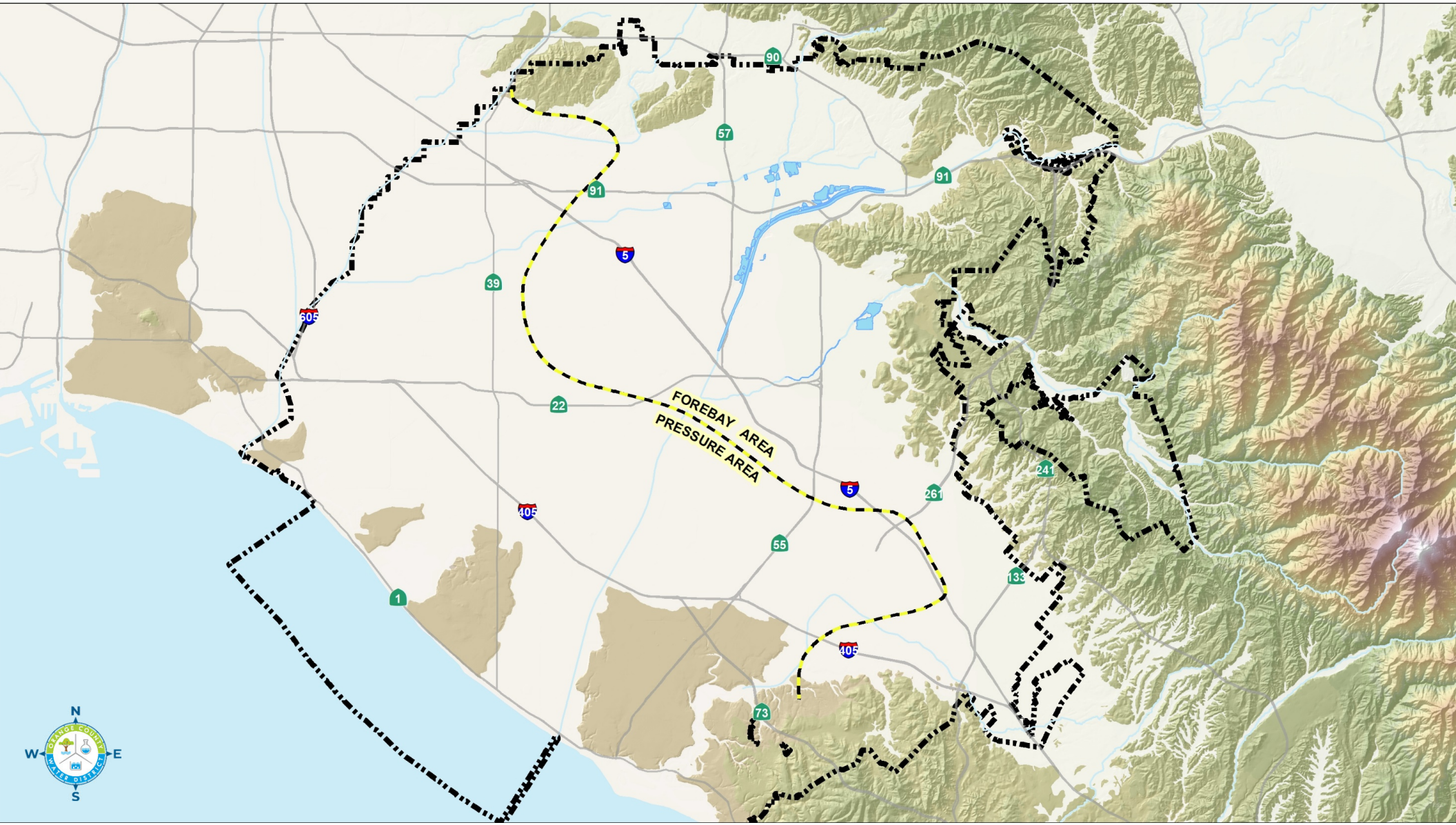
Water Issues Committee
September 9, 2026

WY 2025-26 Highlights

- Recharge 22,600 AF more than budgeted from SAR
  - 16.1 inches of rainfall at FHQ (~1.2x the 39-year average)
  - Favorable distribution & intensity of rainfall events
  - Forecast Informed Reservoir Operations at Prado Dam
- Incidental recharge 4,800 AF less than budgeted
  - Lower IR and higher storm flow recharge since 2018
- GWRS recharge 15,800 AF less than budgeted
  - Reduced GWRS influent from OC San maintenance/repairs
  - Reduced GWRS production during refurbishment of product water pumps
  - Reduced injection rates

Storage change was calculated for the three aquifer layers in the basin.




FOREBAY AREA
PRESSURE AREA
90
57
91
91
5
39
605
22
405
55
1
5
241
261
133
405
73
N
W
E
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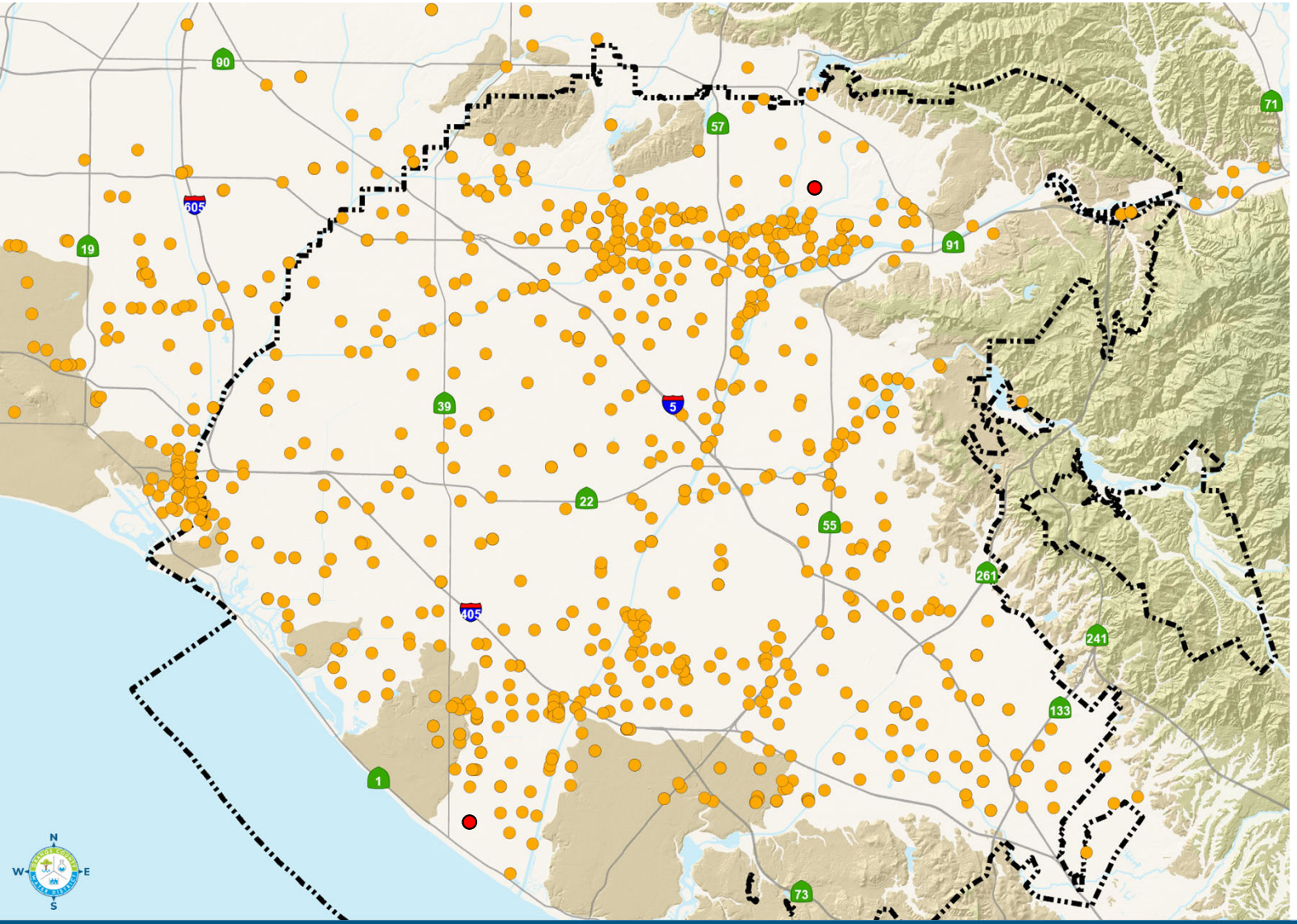
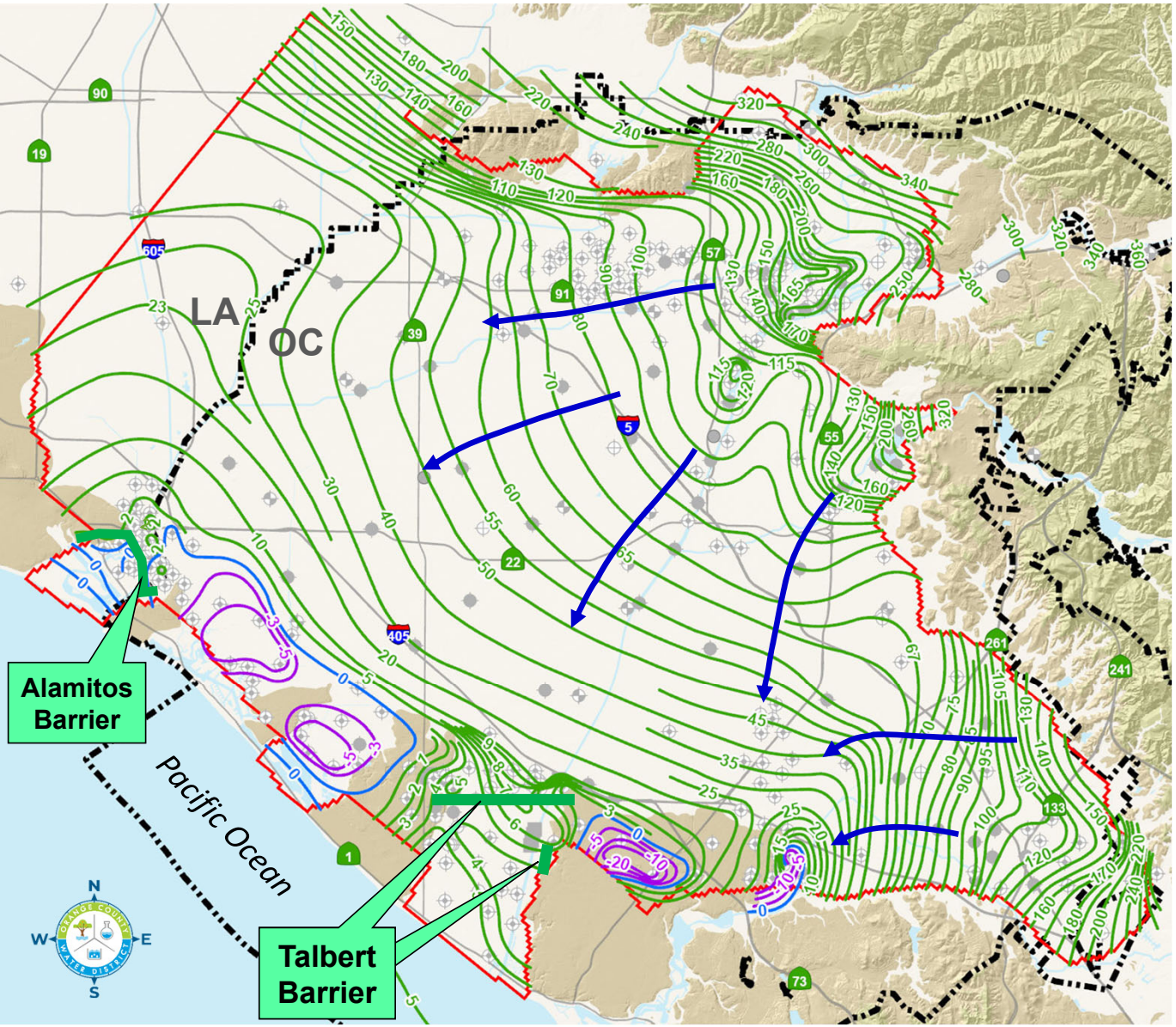


Several hundred water levels used for constructing groundwater contour maps…

Collaboratively measured near June 30:

- OCWD staff
- OC Producers
- LA Producers
- WRD

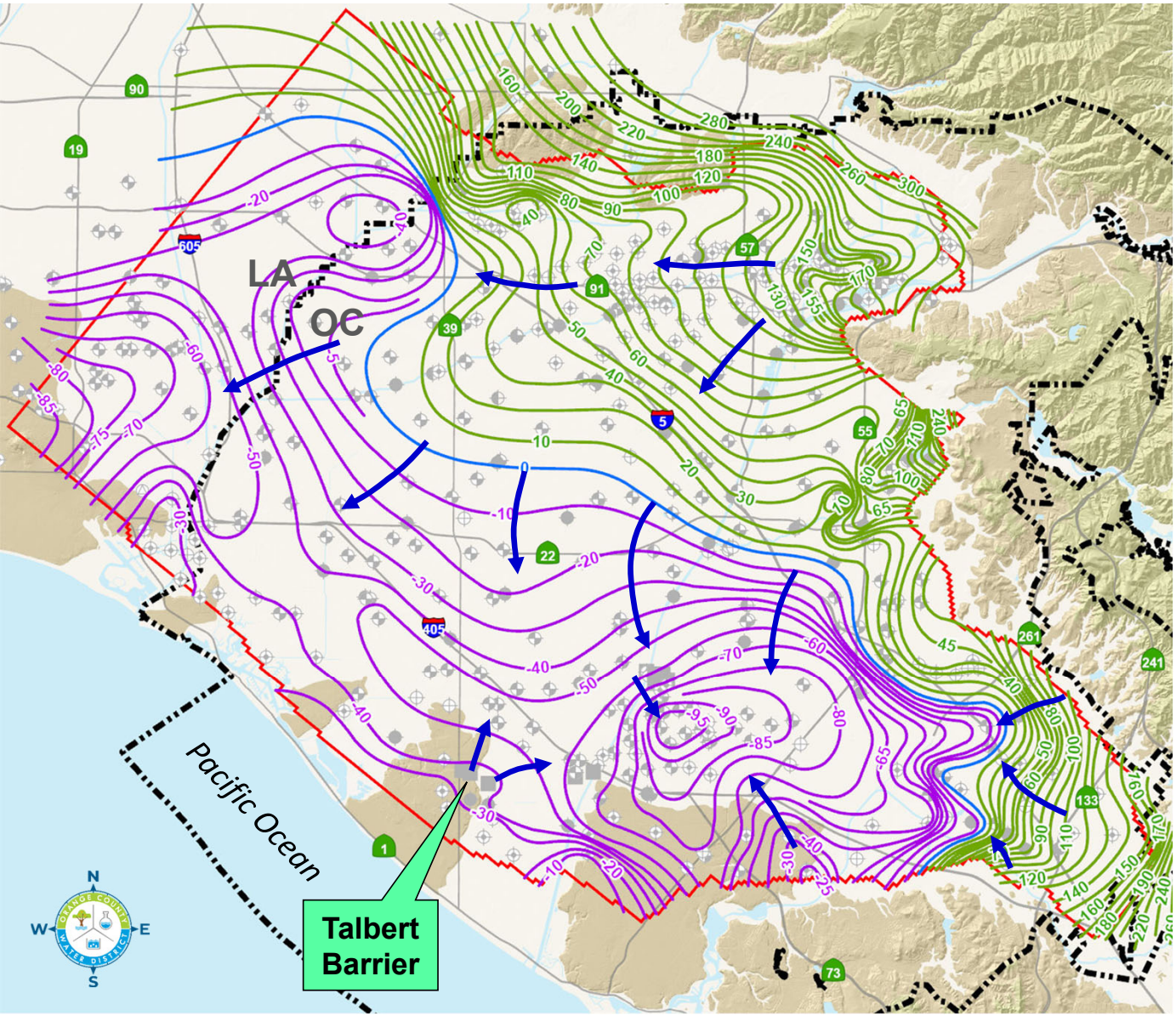


Shallow Aquifer Groundwater Elevations June 2026

Relatively smooth parallel contours since not much shallow pumping.

Groundwater flows to the SW from Forebay towards the coast.

Groundwater levels at or above protective elevations seaward of Talbert Barrier.

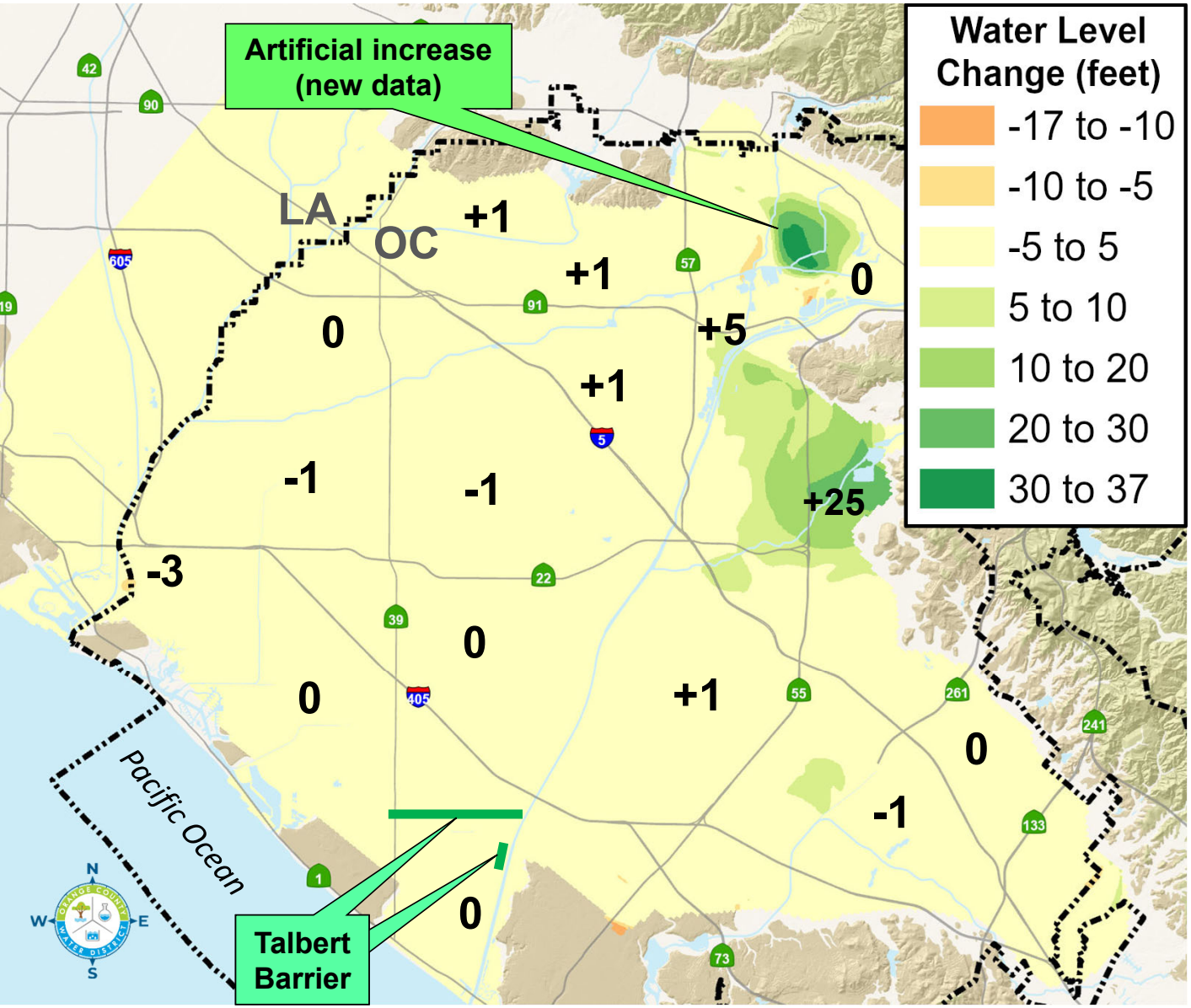


Principal Aquifer Groundwater Elevations June 2026

Groundwater flows from Forebay towards the coast and LA County

Steep hydraulic gradients and depressions below sea level due to pumping

Typical low point around IRWD DRWF and Mesa Water wells (-95 ft msl)



Shallow Aquifer Water Level Change

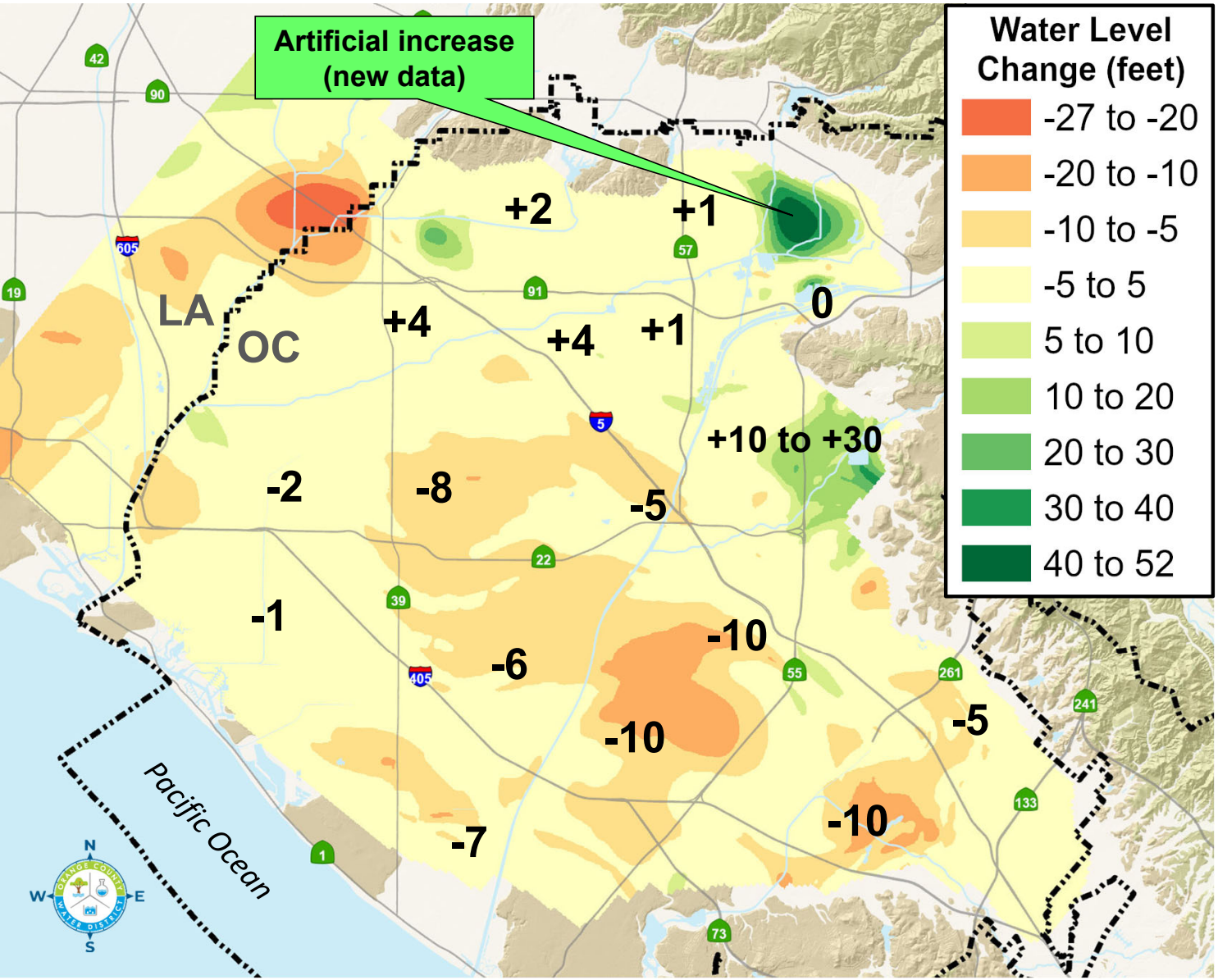
June 2025 to June 2026

Santiago Recharge Basins:
moderate increase

Greater Forebay Area:
mild increase

Pressure, Coastal and Irvine Area:
minimal change

Talbert Barrier:
stable



Principal Aquifer Water Level Change

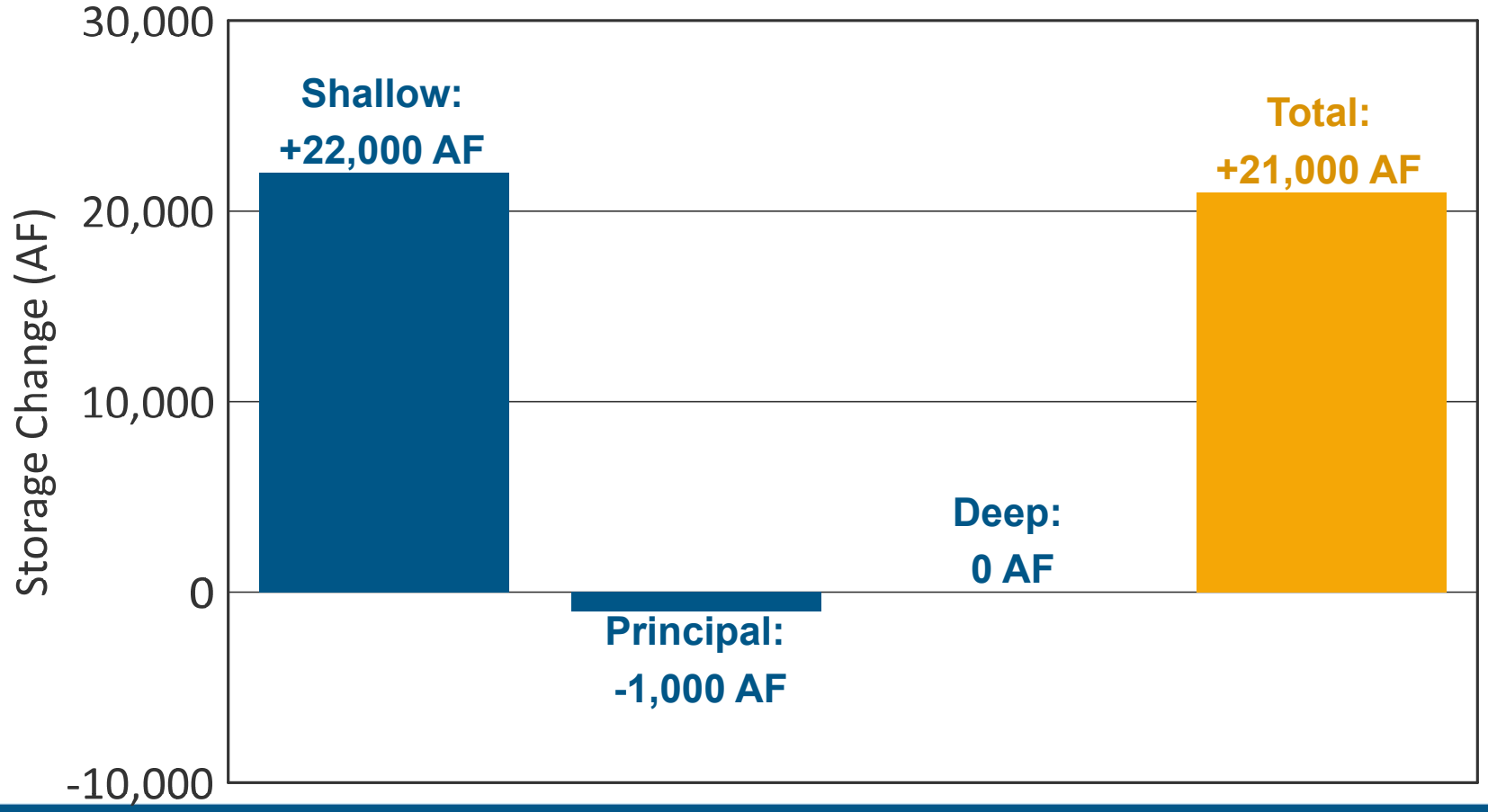
June 2025 to June 2026

Santiago Recharge Basins:
moderate increase

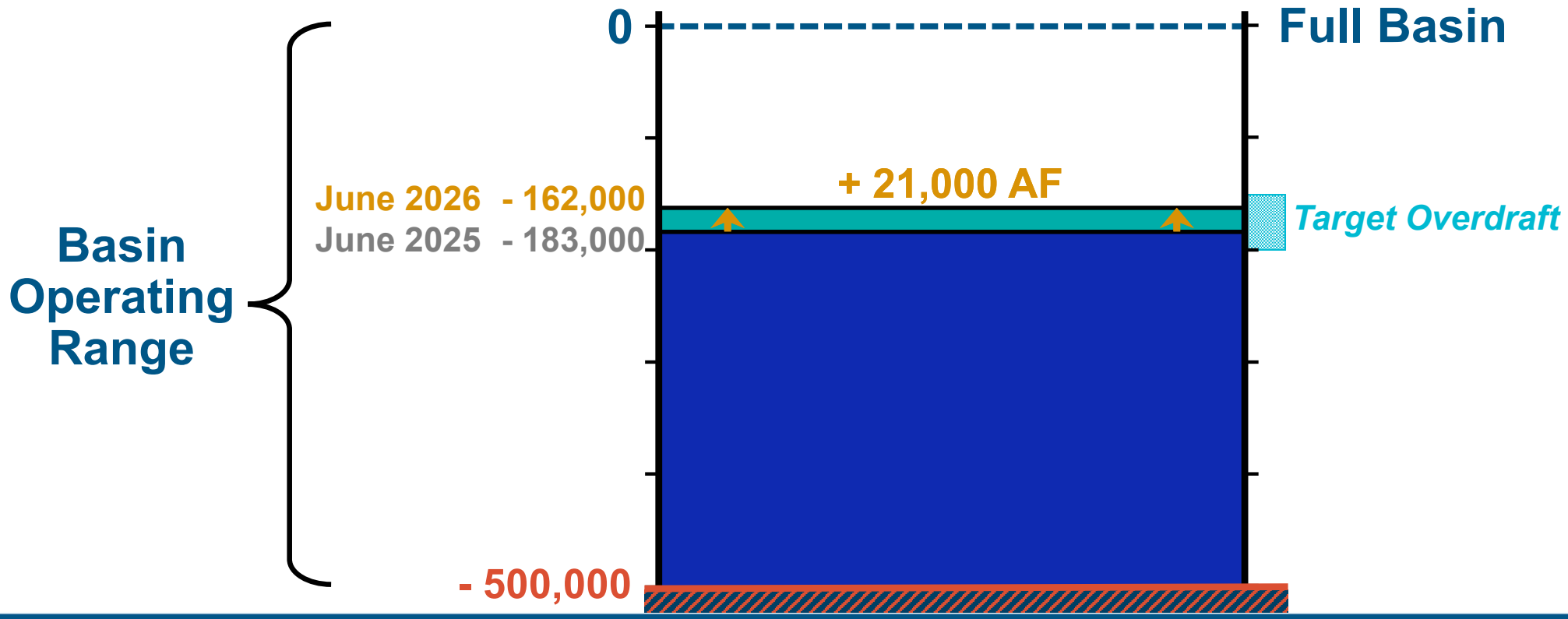
Greater Forebay Area:
mild increase

Pressure, Coastal and Irvine Areas:
small decrease

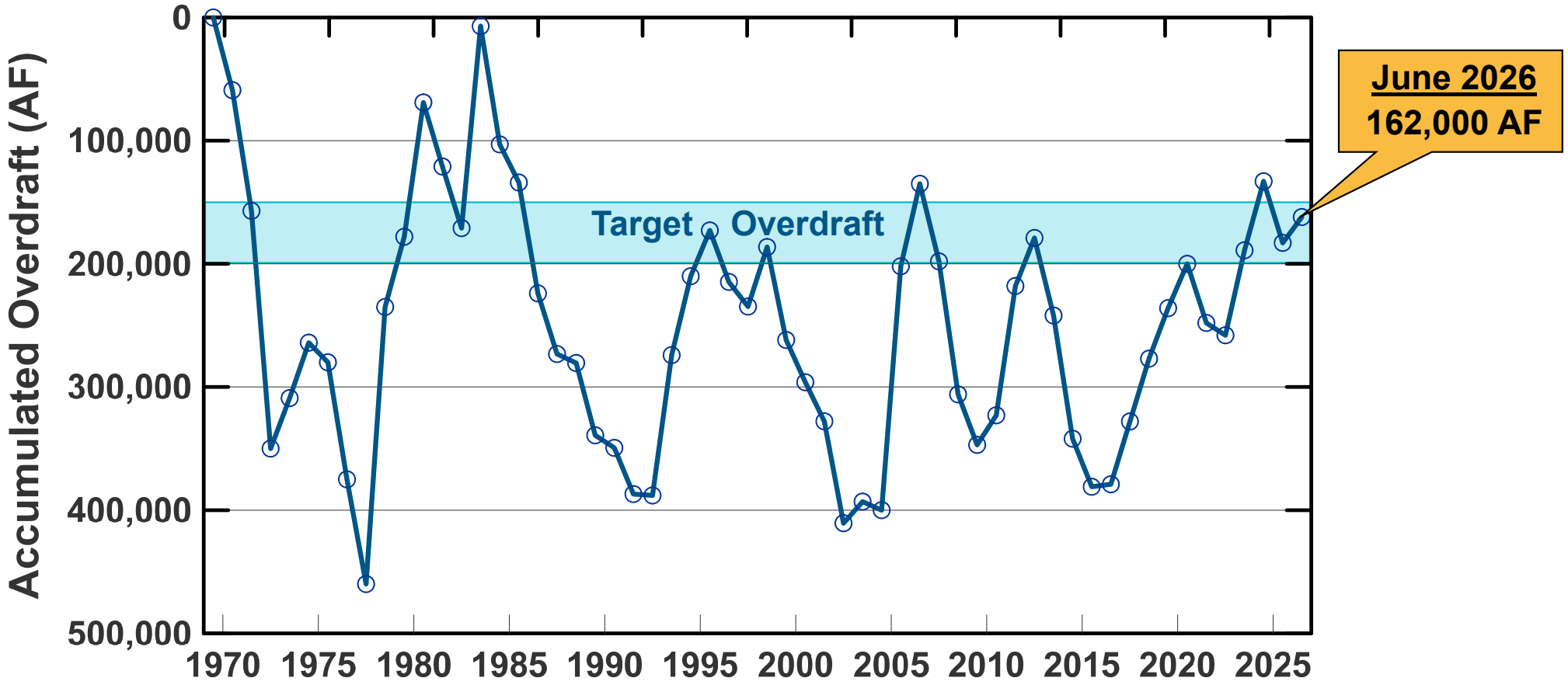
WY 2025-26 annual storage change was calculated for all three aquifer layers



Accumulated Overdraft for June 30, 2026: 162,000 AF below Full



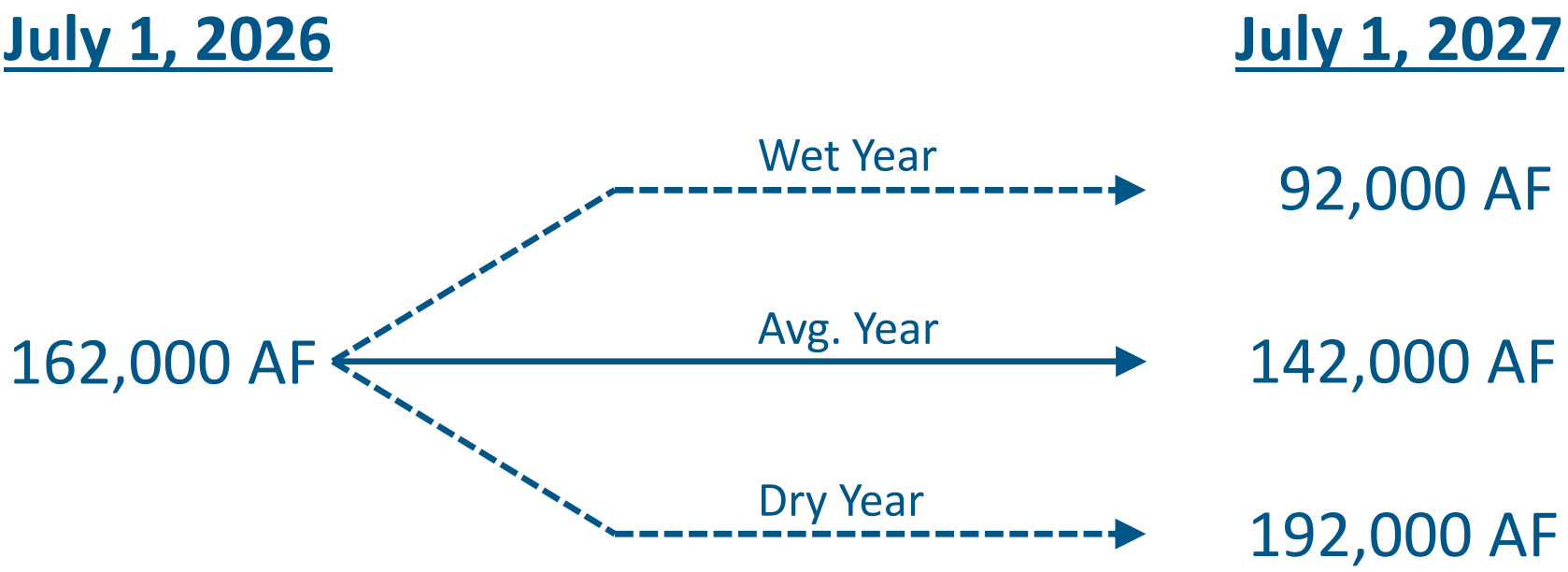
Accumulated Overdraft Since 1969



WY 2025-26 Groundwater Balance

Inflows & Outflows (acre-feet)	Budget (Rain~13 in.)	Actual (Rain 16.1 in.)	Difference
SAR Base and Storm Flow Recharge	146,000	168,600	22,600
Incidental Recharge	40,000	35,200	-4,800
GWR System (Forebay, Barrier, and MBI)	128,000	112,200	-15,800
MWD Supplies	0	0	0
Other (Alamitos Barrier, Talbert OC-44)	3,000	2,000	-1,000
Total Water Into Basin	317,000	318,000	1,000
Total Basin Pumping @ 85% BPP	-297,000	-297,000	0
Storage Change	+20,000	+21,000	
Accumulated Overdraft	163,000	162,000	

WY 2026-27 Accumulated Overdraft Projection



Thank You

Brendan Neel
Hydrogeologist
Orange County Water District
bneel@ocwd.com

FY 2026-27 Groundwater Basin Water Balance

Water Source	Amount (afy)
SAR Baseflow	74,000
SAR Stormflows	72,000
Incidental Recharge	30,000
GWR System	128,000
MWD untreated supplies	0
Other	3,000
Total Water Into Basin	307,000
Expected Pumping @ 85% BPP	299,000
Subtotal Basin Gain/(Loss)	8,000