

LAS VIRGENES TRIUNFO JOINT POWERS AUTHORITY
Las Virgenes Municipal Water District Board Room, 4232 Las Virgenes Road,
Calabasas, CA 91302

AGENDA
JOINT POWERS AUTHORITY - REGULAR MEETING
MONDAY, MARCH 4, 2024 – 5:00 PM

PUBLIC PARTICIPATION: The public may join this meeting virtually or attend in person in the Board Room. Teleconference participants will be muted until recognized at the appropriate time by the Chair. To join via teleconference, please use the following Webinar ID:

Webinar ID: <https://us06web.zoom.us/j/86217301948>

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862 1730 1948

For members of the public wishing to address the Board during Public Comment or during a specific agenda item, please press "Raise Hand" if you are joining via computer; or press *9 if you are joining via phone; or inform the Executive Assistant/Clerk of the Board if attending in person.

Members of the public can also access and request to speak at meetings live on-line, with audio and limited video, at www.lvmwd.com/livestream. To ensure distribution of the agenda, please submit comments 24 hours prior to the day of the meeting. Those comments, as well as any comments received during the meeting, will be distributed to the members of the Board of Directors and will be made part of the official public record of the meeting. Contact Josie Guzman, Executive Assistance/Clerk of the Board, at (818) 251-2123 or jguzman@lvmwd.com with any questions.

ACCESSIBILITY: If requested, the agenda and backup materials will be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), and the federal rules and regulations adopted in the implementation thereof. Any person who requires a disability-related modification or accommodation, in order to attend or participate in a meeting, including auxiliary aids or services, may request such reasonable modification or accommodation by contacting the Executive Assistant/Clerk of the Board by telephone at (818) 251-2123 or via email to jguzman@lvmwd.com at least 48 hours prior to the meeting.

Members of the public wishing to address the Board of Directors are advised that a statement of Public Comment Protocols is available from the Clerk of the Board. Prior to speaking, each speaker is asked to review these protocols, complete a speakers' card, and hand it to the Clerk of the Board. Speakers will be recognized in the order the cards are received. A live webcast of the meeting will be available at LVMWD.com. Also, a web-based version of the speaker card is available for those who would like to submit written comments electronically or request to make public comment by telephone during the meeting.

PLEDGE OF ALLEGIANCE

1. **CALL TO ORDER AND ROLL CALL**
2. **APPROVAL OF AGENDA**
3. **PUBLIC COMMENTS**

*Members of the public may now address the Board of Directors **ON MATTERS NOT APPEARING ON THE AGENDA**, but within the jurisdiction of the Board. No action shall be taken on any matter not appearing on the agenda unless authorized by Subdivision (b) of Government Code Section 54954.2*

4. **CONSENT CALENDAR**

Matters listed under the Consent Calendar are considered to be routine, non-controversial and normally approved with one motion. If discussion is requested by a member of the Board on any Consent Calendar item, or if a member of the public wishes to comment on an item, that item will be removed from the Consent Calendar for separate action.

- 4.A **Minutes: Special Meeting of January 31, 2024 and Regular Meeting of February 5, 2024 (Pg. 5)**
Approve.

- 4.B **Statement of Revenues, Expenses and Changes in Net Position: January 2024 (Pg. 15)**
Receive and file the Statement of Revenues, Expenses and Changes in Net Position for the period ending on January 31, 2024.

- 4.C **Replacement Tractor for Rancho Las Virgenes Farm Sprayfields: Authorization (Pg. 18)**
Authorize the Administering Agent/General Manager to issue a purchase order to Quinn Company, in the amount of \$90,021, for a Massey Ferguson 6712 CAB tractor for the Rancho Las Virgenes Farm Sprayfields.

5. **ILLUSTRATIVE AND/OR VERBAL PRESENTATION OF AGENDA ITEMS**

- 5.A **Recognition of Director Janna Orkney's Service to the Las Virgenes-Triunfo Joint Powers Authority**

- 5.B **State and Federal Legislative Update (Pg. 57)**

6. **ACTION ITEMS**

6.A **Pure Water Project Las Virgenes-Triunfo: Authorization for Local Resources Program Funding (Pg. 98)**

Pass, approve and adopt proposed Resolution No. 33, authorizing the Administering Agent/General Manager to enter into an agreement with the Metropolitan Water District of Southern California for participation in the Local Resources Program, in a form approved by the General Counsel, to supplement funding for the Pure Water Project Las Virgenes-Triunfo.

RESOLUTION NO. 33

A RESOLUTION OF THE GOVERNING BOARD OF LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY AUTHORIZING THE ADMINISTERING AGENT/GENERAL MANAGER, OR DESIGNEE, TO RECEIVE FUNDS, ENTER INTO A COOPERATIVE AGREEMENT, AND ADMINISTER A GRANT WITH THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA FOR PARTICIPATION IN THE LOCAL RESOURCES PROGRAM TO SUPPLEMENT FUNDING FOR THE PURE WATER PROJECT LAS VIRGENES-TRIUNFO

(Reference is hereby made to Resolution No. 33 on file in the JPA's Resolution Book and by this reference the same is incorporated herein.)

6.B **Pure Water Project Las Virgenes-Triunfo: Contract Amendment No. 2 for Owner's Advisor Services (Pg. 110)**

Accept the proposal from Jacobs Engineering Group, Inc., and authorize the Administering Agent/General Manager to execute Contract Amendment No. 2, in the amount of \$7,294,443, for Owner's Advisor services during final design of the Pure Water Project Las Virgenes-Triunfo.

6.C **Pure Water Project Las Virgenes-Triunfo: Award of Phase 1 Progressive Design Build Contract (Pg. 198)**

Accept the proposal from the Walsh Construction, Brown and Caldwell, and Carollo Engineers progressive design-build team, and authorize the Administering Agent/General Manager to execute a contract, in the amount of \$21,430,215, for Phase 1 design-build services for the Pure Water Project Las Virgenes-Triunfo.

6.D **Construction Management and Inspection Services for Malibou Lake Siphon Replacement Project: Award (Pg. 287)**

Accept the proposal from Cannon Corporation and authorize the Administering Agent/General Manager to execute a professional services agreement, in the amount of \$261,540, for construction management and inspection services for the Malibou Lake Siphon Replacement Project; and re-appropriate funding from CIP No. 10795, Tapia Final Effluent Pump Station Rehabilitation Project, to CIP No. 10803, Malibou Lake Siphon Replacement Project, in the amount of \$261,540.

7. **BOARD COMMENTS**

8. **ADMINISTERING AGENT/GENERAL MANAGER REPORT**

9. **FUTURE AGENDA ITEMS**

10. **PUBLIC COMMENTS**

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11. **ADJOURNMENT**

Pursuant to Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), and applicable federal rules and regulations, requests for a disability-related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting, should be made to the Executive Assistant/Clerk of the Board in advance of the meeting to ensure availability of the requested service or accommodation. Notices, agendas, and public documents related to the Board meetings can be made available in appropriate alternative format upon request.

**LAS VIRGENES – TRIUNFO
JOINT POWERS AUTHORITY
MINUTES
SPECIAL MEETING**

10:00 AM

January 31, 2024

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance to the Flag was led by James Wall.

1. CALL TO ORDER AND ROLL CALL

The meeting was called to order at **10:01 a.m.** by Chair Jane Nye in the Board Room at Las Virgenes Municipal Water District headquarters at 4232 Las Virgenes Road, Calabasas, CA 91302. Josie Guzman, Clerk of the Board, conducted the roll call.

Present: Directors Burns, Caspary, Coradeschi, Lewitt, Nye, Polan, Shapiro, Tjulander (arrived at 10:02 a.m.), and Wall

Absent: None

2. APPROVAL OF AGENDA

Director Caspary moved to approve the agenda. Motion seconded by Director Polan. Motion carried 9-0 by the following vote:

AYES: Burns, Caspary, Coradeschi, Lewitt, Nye, Polan, Shapiro, Tjulander, Wall

NOES: None

ABSTAIN: None

ABSENT: None

3. PUBLIC COMMENTS

None.

4. PURE WATER PROJECT LAS VIRGENES-TRIUNFO

A Pure Water Project Las Virgenes-Triunfo Elements and Program Update

Administering Agent/General Manager David Pedersen provided introductory remarks.

Oliver Slosser, Engineering Program Manager, and Eric Schlageter, Principal Engineer, provided a PowerPoint presentation of the Pure Water Project Las Virgenes-Triunfo Project Update and Key Decision Points.

The JPA Board provided comments, and no actions were taken.

5. ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at **12:52 p.m.**

Jay Lewitt, Chair

ATTEST:

James Wall, Vice Chair

**LAS VIRGENES – TRIUNFO
JOINT POWERS AUTHORITY
MINUTES
REGULAR MEETING**

5:00 PM

February 5, 2024

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance to the Flag was led by Charles Caspary.

1. CALL TO ORDER AND ROLL CALL

The meeting was called to order at **5:00 p.m.** by Chair Jane Nye in the Board Room at Triunfo Water & Sanitation District headquarters at 370 N. Westlake Boulevard, Westlake Village, California, 91362. Josie Guzman, Clerk of the Board, conducted the roll call.

Present: Directors Burns, Caspary, Coradeschi, Lewitt, Nye, Polan, Shapiro,
Tjulander, and Wall

Absent: None

2. CHAIR/VICE CHAIR

A Annual Transition of JPA Chair and Vice Chair

Recognize the Las Virgenes Municipal Water District Board President as Chair of the Las Virgenes-Triunfo Joint Powers Authority and as Triunfo Water & Sanitation District Chair Vice Chair of the Las Virgenes-Triunfo Joint Powers Authority for calendar year 2024.

The JPA Board transitioned its officers with Las Virgenes Municipal Water District Board President Jay Lewitt assuming the Chair position and Triunfo Water & Sanitation District Chair James Wall assuming the Vice Chair position for calendar year 2024.

3. APPROVAL OF AGENDA

Administering Agent/General Manager David Pedersen asked that Item 6A be deferred to the next JPA Board Meeting as former Director Janna Orkney was unable to attend the meeting to receive her proclamation.

Director Polan moved to approve the agenda as amended. Motion seconded by Director Wall. Motion carried 9-0 by the following vote:

AYES: Burns, Caspary, Coradeschi, Lewitt, Nye, Polan, Shapiro, Tjulander, Wall
NOES: None
ABSTAIN: None
ABSENT: None

4. PUBLIC COMMENTS

None.

5. CONSENT CALENDAR

A Minutes: Regular Meeting of December 4, 2023: Approve

B Statement of Revenues, Expenses, and Changes in Net Position: December 2023

Receive and file the Statement of Revenues, Expenses, and Changes in Net Position for the period ending December 31, 2023.

C Budget Planning Calendar for Fiscal Years 2024-25 and 2025-26

Receive and file the Budget Planning Calendar for Fiscal Years 2024-26.

D Bond Counsel Services: Amendment to Agreement

Authorize the Administering Agent/General Manager to execute an engagement letter with Stradling Yocca Carlson & Rauth, in the amount of \$100,000, for services related to Water Infrastructure Finance and Innovation Act financing of the Pure Water Project Las Virgenes-Triunfo and miscellaneous bond counsel services specific to the Las Virgenes-Triunfo Joint Powers Authority.

Director Caspary moved to approve the Consent Calendar. Motion seconded by Director Tjulander. Motion carried 9-0 by the following vote:

AYES: Burns, Caspary, Coradeschi, Lewitt, Nye, Polan, Shapiro, Tjulander, Wall
NOES: None
ABSTAIN: None
ABSENT: None

6. ILLUSTRATIVE AND/OR VERBAL PRESENTATION AGENDA ITEMS

A Recognition of Director Janna Orkney's Service to the Las Virgenes-

Triunfo Joint Powers Authority

This item was deferred to the March 4, 2024 JPA Board Meeting.

B State and Federal Legislative Update

Ana Schwab, federal lobbyist for the JPA with Best Best & Krieger, LLP, reported that Congress delayed the 2024 appropriations to March with laddered funding deadlines on March 2nd and 8th. She noted that President Joe Biden would give his State of the Union Address on March 7th. She stated that BBK was monitoring grant programs of importance to the JPA, such as the Title XVI Program.

Lowry Crook, federal lobbyist for the JPA with BBK, reported that progress was being made by the Interior and Environment Subcommittees for water and energy bills. He noted that the President's budget was scheduled to be released on March 11th.

Ms. Schwab also reported that BBK would monitor proposed regulations related to per- and polyfluoroalkyl substances PFAS and Contaminants of Emerging Concerns (CECs) to ensure that the JPA and its ratepayers are well protected. She noted that Congressman Jared Huffman was preparing to introduce the Water Conservation Rebate Tax Parity Act, which would create a water conservation rebate program. She responded to a question regarding H.R. 480 Wildfire Recovery Act by stating that this bill would amend the disaster relief legislation statute to allow flexible cost share for fire management and response. She also responded to a question regarding H.R. 482 Western Wildfire Reform Act by stating that this bill and its companion bill, S. 1764, was related to federal agency management in response to mitigating wildfires. She also responded to a question regarding H.J. Res. 27 relating to revised definition of the Waters of the United States (WOTUS) by stating that this was directly in response to the Administration's WOTUS rule changes following the Sacket v. U.S. Environmental Protection Agency ruling, which narrowed the criteria by which certain wetlands and waterways may qualify as WOTUS. She stated that this bill would not likely pass in the Senate.

Syrus Devers, state lobbyist for the JPA with Syrus Devers Advocacy, LLC, reported no new 2024 bills had been proposed to date. He stated that SB 366 (Caballero), The California Water Plan Long-Term Supply Projects, and other water rights bills would have until July 3rd to move forward. He also stated that February 16th would be the deadline to introduce new bills.

7. ACTION ITEMS

A Update to Legislative Policy Principles: Approval

Approve the proposed update to the Legislative Policy Principles.

Jeremy Wolf, Legislative Program Manager, presented the report.

Ana Schwab, federal lobbyist for the JPA with Best Best & Krieger, LLP, responded to a question regarding the status of Build America, Buy America (BABA) legislation by stating that there was an opportunity last year to provide comments to the U. S. Department of the Interior and the Environmental Protection Agency regarding implementation of BABA waivers, and comments were submitted for the Pure Water Project Las Virgenes-Triunfo for Water Infrastructure Finance and Innovation Act (WIFIA) funding and the Title XVI Program. She noted that the WIFIA program has a waiver for BABA, which the JPA falls under as the waiver is for eligible projects to be financed by the WIFIA program that have initiated project design planning prior to May 14, 2022. She also noted that a comment letter was submitted supporting the proposed waiver, and the JPA's support successfully led to the adoption of the WIFIA program waiver. She stated that the Department of the Interior did recognize that they would be following cognizant agency if the majority of funds came from another agency, and the project falls under a BABA waiver under the cognizant agency.

A discussion ensued regarding zero emission vehicles legislation being included under climate change legislative policy principles.

Director Caspary moved to approve Item 7A. Motion seconded by Director Nye.

Motion carried 9-0 by the following vote:

AYES: Burns, Caspary, Coradeschi, Lewitt, Nye, Polan, Shapiro, Tjulander, Wall

NOES: None

ABSTAIN: None

ABSENT: None

B Hydrodynamic Modeling of Las Virgenes Reservoir: Award

Accept the proposal from Flow Science, and authorize the Administering Agency/General Manager to execute a professional services agreement, in the amount of \$199,656, for hydrodynamic modeling of Las Virgenes Reservoir to support the Pure Water Project Las Virgenes-Triunfo.

Oliver Slosser, Engineering Program Manager, presented the report.

Director Polan moved to approve Item 7B. Motion seconded by Director Caspary.

A discussion ensued regarding coordinating with the Natural Ocean Well Company's pilot project to test a water life protection filtration system at Las Virgenes Reservoir.

Motion carried 9-0 by the following vote:

AYES: Burns, Caspary, Coradeschi, Lewitt, Nye, Polan, Shapiro, Tjulander, Wall
NOES: None
ABSTAIN: None
ABSENT: None

C Malibou Lake Siphon Replacement Project: Construction Award

Award a construction contract to Mladen Buntich Construction Company, Inc., in the amount of \$3,339,000, and reject all remaining bids upon receipt of duly executed documents; appropriate funding from CIP No. 10795 – Tapia Effluent Pump Station Rehabilitation to CIP No. 10803 – Malibou Lake Siphon Replacement Project, in the amount of \$1,730,624; authorize the Administering Agent/General Manager to execute Contract Amendment No. 4 with HDR, Inc., in the amount of \$102,800, for engineering support during construction; accept the proposal from Padre Associates, Inc., and authorize the Administering Agent/General Manager to execute a professional services agreement, in the amount of \$58,690, for environmental compliance monitoring during construction for the Malibou Lake siphon Replacement Project.

Alex Leu, Senior Engineer, presented the report.

Director Coradeschi moved to approve Item 7C. Motion seconded by Director Burns.

A discussion ensued regarding noise attenuation during construction and acquisition of the necessary easements.

Motion carried 9-0 by the following vote:

AYES: Burns, Caspary, Coradeschi, Lewitt, Nye, Polan, Shapiro, Tjulander, Wall
NOES: None
ABSTAIN: None
ABSENT: None

8. BOARD COMMENTS

Director Coradeschi congratulated Triunfo Water & Sanitation District on its new Board Room.

9. ADMINISTERING AGENT/GENERAL MANAGER REPORT

Administering Agent/General Manager David Pedersen reported that over 8.5 inches of rain was measured at the Tapia Water Reclamation Facility during the recent rainstorm. He stated that there was no notable damage to JPA facilities.

Veronica Hurtado, Water Reclamation Manager, provided a PowerPoint presentation of how the Tapia Water Reclamation Facility was able to manage the storm flow during the recent rainstorm. She noted that most of the rain flow occurred on February 4th from 3:00 p.m. to 6:00 p.m., and the peak flow at Malibu Creek measured 17,670 cubic feet per second (CFS). She stated that the peak flow at the effluent was 38 million gallons per day (MGD), and the average effluent flow in the past 24 hours was 28.5 MGD. She shared the efforts taken by the Operators to prepare available space in the primary and secondary clarifiers, balance the pond with tertiary effluent, and mobilize the pump to recirculate tertiary effluent from the balancing pond to the headworks.

The JPA Board acknowledged staff for their efforts during the rainstorm.

10. FUTURE AGENDA ITEMS

None

11. PUBLIC COMMENTS

None.

12. ADJOURNMENT

Seeing no further business to come before the Board, the meeting was duly adjourned at **6:05 p.m.**

Jay Lewitt, Chair

ATTEST:

James Wall, Vice Chair

DATE: March 4, 2024
TO: JPA Board of Directors
FROM: Finance and Administration

SUBJECT: Statement of Revenues, Expenses and Changes in Net Position: January 2024

SUMMARY:

This report provides a year-to-date summary of unaudited Fiscal Year 2023-24 financial results for the JPA.

Through the first seven months of Fiscal Year 2023-24, the JPA generated operating revenues of \$1.6 million, 8.4 percent below prior year operating revenues of \$1.8 million through January 2024. Operating revenues were in line with budgeted expectations 58 percent through the fiscal year. Year-to-date operating expenses were \$14.0 million for the current fiscal year, 5.0 percent above prior year expenses of \$13.3 million and closely aligned to budgeted expectations through January 2024.

As of January 31, 2024, the JPA's net position (excess of assets over liabilities) was \$100 million. The entirety of the net position consisted of the JPA's investment in capital assets by its participants, Las Virgenes Municipal Water District (LVMWD) and Triunfo Water & Sanitation District (TWSD).

RECOMMENDATION(S):

Receive and file the Statement of Revenues, Expenses and Changes in Net Position for the period ending on January 31, 2024.

FINANCIAL IMPACT:

There is no financial impact associated with the report.

DISCUSSION:

JPA operating revenues, comprised primarily of wholesale recycled water sales, were \$1.6 million through January of Fiscal Year 2023-24, 8.4 percent below prior year sales for the same time period of \$1.8 million. JPA recycled water deliveries to its customers Las Virgenes Municipal Water District and Triunfo Water & Sanitation District were down 9.9 percent year-over-year through the first seven months of the fiscal year, driving the decrease in revenues year-over-year.

JPA operating expenses year-to-date through January 2024 were \$14.0 million, which were

\$0.7 million (or 5.0 percent) above the prior year's operating expenses of \$13.3 million. Actual expenses encompassed 57.6 percent of the \$24.4 million annual operating budget, in line with expectations through 58 percent of the fiscal year.

Tapia Water Reclamation Facility operating expenses of \$2.8 million in the current fiscal year were \$0.2 million (or 6.5 percent) above prior year expenses of \$2.6 million through January. The increase was driven mainly by increased costs for the purchase of sodium hypochlorite chemicals in the current fiscal year versus prior year.

Recycled water transmission and distribution expenses were \$1.4 million year-to-date through January 2024, up \$0.1 million (or 7.8 percent) versus prior year expenses of \$1.3 million. The increase was due mainly to higher energy costs in the current fiscal year versus prior year.

Expenses of \$1.6 million year-to-date through January 2024 at the Rancho Las Virgenes Composting Facility were down \$0.4 million versus the prior year expenses of \$2.0 million. The decrease was driven mainly by a one-time cost of \$110,000 for the purchase and replacement of biofilter media in the prior year along with less outside service repair costs incurred during the first seven months of Fiscal Year 2023-24 versus prior year.

General and administrative (G&A) expenses were \$7.9 million through the first seven months of the fiscal year, which equated to 57.5 percent of the \$13.7 million budgeted for Fiscal Year 2023-24, consistent with expectations through 58 percent of the fiscal year.

In the non-operating section of the statement, "other revenues" decreased by approximately \$515,000 through December of Fiscal Year 2023-24 versus the prior year. The decrease in revenues year-over-year was due mainly to a one-time insurance claim payment of \$581,000 received by the JPA in August of the prior year. The payment compensated the JPA for building damage repair costs at the Rancho Composting Facility that resulted from the Woolsey Fire in 2018.

As of January 31, 2024, the JPA's net position (excess of assets over liabilities) was \$100 million. The entirety of the net position consisted of the JPA's investment in capital assets by its participants, Las Virgenes Municipal Water District (LVMWD) and Triunfo Water & Sanitation District (TWSD).

The attached statement summarizes the JPA's Fiscal Year 2023-24 year-to-date financial results through January 31, 2024.

GOALS:

Ensure Effective Utilization of the Public's Assets and Money

Prepared by: Brian Richie, Finance Manager

ATTACHMENTS:

[Statement of Revenues, Expenses and Changes in Net Position: January 2024](#)

LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY
Statements of Revenues, Expenses, and Changes in Net Position
For the Months Ended January 31, 2024 (Preliminary) and 2023
(dollars in thousands)



	Annual Budget 2023/24	Through 58% of fiscal year Actual Year-to-Date		Variance with Prior Year Positive (Negative)
		2023/24	2022/23	2023/24 to 2022/23
OPERATING REVENUES:				
Wholesale recycled water sales	\$ 2,734	\$ 1,616	\$ 1,764	\$ (148)
Other income	65	32	30	2
Total operating revenues	2,799	1,648	1,794	(146)
OPERATING EXPENSES:				
Treatment Plant	4,574	2,783	2,613	170
Recycled water transmission and distribution	2,121	1,418	1,315	103
Compost Plant	3,539	1,591	2,008	(417)
Sewer	175	116	96	20
General and administrative	13,666	7,862	7,071	791
Other operating expenses	271	244	246	(2)
Total operating expenses	24,346	14,014	13,349	665
OPERATING INCOME (LOSS) BEFORE BILLING TO PARTICIPANTS	(21,547)	(12,366)	(11,555)	(811)
Billing to Participants	21,547	11,737	10,746	991
OPERATING INCOME (LOSS)	-	(629)	(809)	180
NONOPERATING REVENUES (EXPENSES):				
Interest income (expense)	-	218	103	115
Other revenues (expenses)	-	71	586	(515)
Total nonoperating revenues (expenses)	-	289	689	(400)
CHANGES IN NET POSITION	-	(340)	(120)	(220)
NET POSITION:				
Beginning of fiscal year	100,333	100,333	101,133	(800)
Ending Net Position	\$ 100,333	\$ 99,993	\$ 101,013	\$ (1,020)

DATE: March 4, 2024
TO: JPA Board of Directors
FROM: Engineering and External Affairs

**SUBJECT: Replacement Tractor for Rancho Las Virgenes Farm Sprayfields:
Authorization**

SUMMARY:

The current John Deere tractor utilized for maintenance operations at the Rancho Las Virgenes Farm Sprayfields has reached the end of its useful life. The tractor is 22 years old and has logged approximately 20,000 hours of service. Staff obtained quotations from three different vendors for a replacement tractor. Based on the quotes, staff recommends authorization to purchase a Massey Fergusson 6712 CAB tractor from Quinn Company, in the amount of \$90,021. The proposed purchase price includes tax and reflects a 33 percent discount from the Manufacturer’s Suggested Retail Price (MSRP).

RECOMMENDATION(S):

Authorize the Administering Agent/General Manager to issue a purchase order to Quinn Company, in the amount of \$90,021, for a Massey Ferguson 6712 CAB tractor for the Rancho Las Virgenes Farm Sprayfields.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The cost for purchase of the tractor is \$90,021, which would be allocated 70.6 percent to LVMWD and 29.4 percent to Triunfo Water & Sanitation District. Sufficient funding for the purchase is included in the adopted Fiscal Year 2023-24 JPA Budget.

DISCUSSION:

W. Litten Land Preparation (Litten) provides effluent disposal services for recycled water at the Rancho Las Virgenes Farm Sprayfields as required by the discharge permit for the Tapia Water Reclamation Facility. The services include planting and harvesting of crops for nutrient removal, management of the irrigation system for the sprayfields, maintenance of catch basins

to prevent off-site runoff, and general up-keep of the facility. Litten also performs maintenance including tree removal and weed abatement services at other JPA facilities as needed.

To perform most of the above services, Litten utilizes a JPA-furnished John Deere tractor that was purchased in 2002. Over the past few years, the JPA and Litten have used their expertise to repair the tractor, when necessary, to minimize costs to the JPA. However, the tractor has reached the end of its useful life after logging approximately 20,000 hours over 22 years. Replacement parts for the tractor are becoming increasingly difficult and sometimes altogether unavailable.

Staff sent a Request for Quotes to three different companies for comparable replacement tractors. Due to on-going supply chain issues and inflation, tractor prices have significantly increased since the JPA's last purchase.

Following is a summary of the quotes:

<u>Item</u>	<u>Total Price</u>
Massey Ferguson 6712 CAB	\$90,021.00
John Deere 6130M Open Operator Station Tractor	\$96,007.13
John Deere 6120M Cab Tractor	\$120,103.45
John Deere 6130M Open Operator Station Tractor (Flange-Type Rear Axle)	\$124,142.78
Fendt 312 4WD CAB Power SN-WAM35222P00F02625	\$160,671.00

The lowest quote was submitted by Quinn Company for a Massey Ferguson 6712 CAB tractor, in the amount of \$90,021. The Massey Ferguson tractor specifications meet the current workload requirements for existing operations.

Although operations at the Rancho Las Virgenes Farm Sprayfields are anticipated to change as early as 2028 once the Pure Water Project Las Virgenes-Triunfo is on-line, staff anticipates some level of maintenance will continue to require the use of a tractor, especially if the sprayfields are used for occasional back-up to dispose of excess recycled water. This scenario could arise when the future Advanced Water Purification Facility (AWPF) is off-line. Should the tractor no longer be required in the future, it would be sold at auction, and the proceeds would be returned to the JPA.

GOALS:

Construct, Manage and Maintain all Facilities and Provide Services to Assure System Reliability and Environmental Compatibility

Prepared by: Cindy Chau, Management Analyst

ATTACHMENTS:

[Fendt 312 4WD CAB Quote](#)

[John Deere 6130M Open Operator Station Tractor Flange Type Rear Axle Quote](#)

[John Deere 6130M Open Operator Station Tractor Quote](#)

John Deere 6120M Cab Tractor Quote
Massey Ferguson 6712 CAB Quote

Las Virgines MWD BuyBoard (#611-20) Pricing Breakdown

Date: 8/10/23

Item	List Price
Fendt 312 4WD CAB Power SN- WAM35222P00F02625	\$212,426
Tires: F14.9R24 R18.4R34	\$0
2 Mech Contr Spool Valves	inc
TOTAL	\$212,426

Additional Items

BuyBoard Discount (33% off List):	\$142,325
AGCO Freight Charge:	\$2,200
Halagen Light Package:	
AGCO Assembly:	\$750
Dealer PDI (Pre-Delivery Inspection):	\$1,200
Dealer Delivery to Customer:	\$250
Subtotal:	\$146,725
Sales Tax 9.5%:	\$13,939
Tire Fee:	\$7
TOTAL:	\$160,671



Prepared for:
 Good Through: 08-31-2023
 Dealer Representative: John Alamillo
 Representative Email: john.alamillo@quinncompany.com
 Representative Phone:

Model #	MSRP
312 Gen 4 Tractor	\$ 212,426.00
<ul style="list-style-type: none"> ● 312 Gen 4 Tractor ● Fendt 312 Vario Gen4 ● F420/85R24 Fixed MI ● R460/85R38 Fixed MI ● Ball Bush Cat 2 (Upper Link) ● REG FRT POWER LIFT CAT2 SA/D 	<ul style="list-style-type: none"> ● LED Amber Warning Light-LH ● LED Amber Warning Light-RH ● Battery Disconnect Electrica ● Power Setting2 Pkg-No Termin ● Interior Mirror Front ● Backup Alarm
Total Prep and Delivery	\$ 2,588.00
Total Retail Price	\$ 215,014.00

Lowest Payment \$2,668.00/Month
Cash Price \$190,661.00



Low Rate

Finance Low Rate	
Sale Price	\$ 182,682.00
Down Payment + Trade-In:	\$ 0.00
Net Price	\$ 182,682.00
+Taxes and Fees	\$ 0.00
Amount Financed	\$ 182,682.00

Financing Options*	
4.09% for 24 months	
5.24% for 36 months	
5.44% for 48 months	
5.59% for 60 months	
5.84% for 72 months	
5.99% for 84 months	

Monthly Payment	
	\$ 7,940.00
	\$ 5,495.00
	\$ 4,244.00
	\$ 3,497.00
	\$ 3,014.00
	\$ 2,668.00

3 YEAR

Comprehensive Warranty

Cash Price

Cash Price	
Sale Price	\$ 190,661.00
Trade-In:	\$ 0.00
Net Price	\$ 190,661.00
Taxes	\$ 0.00
Final Customer Price	\$ 190,661.00



ASK ABOUT EXTENDED COVERAGE

Finance Rate

Finance Rate	
Sale Price	\$ 190,661.00
Down Payment + Trade-In:	\$ 0.00
Net Price	\$ 190,661.00
+Taxes and Fees	\$ 0.00
Amount Financed	\$ 190,661.00

Financing Options*	
8.09% for 24 months	
8.09% for 36 months	
8.09% for 48 months	
8.09% for 60 months	
8.09% for 72 months	
8.09% for 84 months	

Monthly Payment	
	\$ 8,631.00
	\$ 5,983.00
	\$ 4,663.00
	\$ 3,874.00
	\$ 3,351.00
	\$ 2,980.00



CONNECTED SERVICES

This Letter is a non-binding indication of interest regarding a possible transaction on the general terms and conditions outlined herein and is not a legal commitment. This Letter is intended for the use of the Customer only. *The following is a proposal for financing for the customer named herein ("Customer") regarding the equipment described herein ("Equipment") by AGCO Finance LLC for discussion purposes only. Customer participation subject to credit qualification and approval by AGCO Finance LLC. Not all Customers may qualify for this rate or term. This proposal is not a statement of all terms and conditions of any financing that may be approved. This Letter is intended for the use of the Customer only. This Letter is valid until "Good Through" date listed above and thereafter shall automatically be deemed to be null and void. ***The cash price is a good faith dealer estimate only. See dealer for details.



Model Number: FT312G4
 Model Year: 2023

QQ Number: QQ-0779001
 Serial Number: WAM35222P00F02625

Invoice Number: 92241135
 Order Number: 1850704

Dealership Name: Quinn Company
 Location: Oxnard (632510)



Prepared for:
Good Through: 08-31-2023
Dealer Representative: John Alamillo
Representative Email: john.alamillo@quinncompany.com
Representative Phone:

Additional Components on 312 Gen 4 Tractor

- 2 Additional Coaxial Speaker
- Full LED Package
- Ballast Wt, Additional 1250 kg
- Without Front Axle Weight

BASE MACHINE EQUIPMENT**ENGINE**

- AGCO Power 4.4L Tier 4F, 4-Cylinder Engine
DPF+SCR+DOC
- Electronically Controlled Turbocharger Wastegate
- Common Rail Multi-Point Injection with 26,000 PSI (1,800 Bar) Injection Pressure
- Fuel Tank Capacity: 55.5 Gallons (210 L)
- Def (Diesel Exhaust Fluid) Tank Capacity: 5.8 Gallons (22 L)

HORSEPOWER

(Rated ECE R120 Engine HP @ 1800 RPM and PTO HP @2100 RPM)

- **311:** 100 Rated Engine HP, 80.4 PTO HP
- **312:** 113 Rated Engine HP, 91 PTO HP
- **313:** 123 Rated Engine HP, 99 PTO HP
- **314:** 132 Rated Engine HP, 114 PTO HP
152 Max HP with Dynamic Performance

POWER TRAIN

- ML75 Stepless Vario Transmission (CVT)
 - Forward Speeds: 65 ft/h To 25 MPH
(20 Meters/h To 40 KPH)
 - Reverse Speeds: 65 ft/h To 15.5 MPH
(20 Meters/h To 25 KPH)
- Independent PTO, 540/540e/1000 RPM Flanged Shafts
 - 1000 RPM 1-3/8" 21 Spline
- Planetary Final Drives

AXLES AND WHEELS

- Front: 420/85R24 Michelin
Rear: 460/85R38 Michelin
- 4wd and Differential Lock with Automatic Mode
- Front Axle Suspension
- Mechanical Parking Brake
- Flange Rear Axle

HITCH

- 3-Point Hitch: Category 2/3 Hook Ends
 - Electronic Position Controlled (EPC)
 - Single Acting (SA)
 - Adjustable Stabilizers
 - 13,399 lbs (6,078 kg) Lift Capacity @ Hook Ends
- Drawbar: Adjustable, Straight Category 2
(1.2 in/30 mm Pin)

OPERATOR AREA

- Panorama Visioplus Cab (Five Pillar)
- Rubber Isolator Cab Suspension
- Air Conditioner and Heater
- Segment Windshield Wiper
- Comfort Air Ride Seat
- Throttle / Driving Pedal
- Tilt / Telescopic Steering Wheel
- Dual Manually Adjustable Outside Mirrors
- Comfort Instructor Seat
- 4 Deluxe Speakers (without Radio)
- SMV Emblem

OPERATOR ELECTRONICS

- **POWER Version**
 - 10" Digital Dashboard
 - Multifunction Armrest
 - No Armrest Terminal
 - Load Limit Control 2.0
 - Integrated Joystick Control, Including 2 Valve Controls
 - Crossgate Lever for 2 Valve Controls
 - Hand Throttle
 - PTO and Three Point Controls
 - Auto 3-Point and PTO

HYDRAULICS

- 29 GPM (110 LPM) Hydraulic Pump
- Three (3) Hydraulic Remote Valves with Couple and Uncouple under Pressure ISO Couplers with Electro-Hydraulic Valve Actuation and Flow Control

ELECTRICAL

- Four (4) Hood Lights
- Two (2) Cab-Roof Mounted Work Lights
- Four (4) A Column and Mudguard Work Lights
- Brake Lights (LED)
- Front and Rear Turn Signal Lights
- Four (4) Amber Flashing Warning Lights
- Rear Extremity Lighting with Flashing Warning Lights
- 150 Amp Alternator
- Single Battery

Not For Sale In Nebraska

JANUARY 2023

Model Number: FT312G4
Model Year: 2023

QQ Number: QQ-0779001
Serial Number: WAM35222P00F02625

Invoice Number: 92241135
Order Number: 1850704

Dealership Name: Quinn Company
Location: Oxnard (632510)



2023 FENDT TRACTORS - HIGH HP 312G4

Deal #: QQ-0779001

MFR Base Warranty Start Date: August 31, 2023

Plan Type: New

Current Engine Hours: 4

Deal Date: August 31, 2023

Equipment Retail Value: \$143,000.00

Customer Name: Tyler Hehr

Equipment Usage: Agricultural Purpose

Salesperson Name: John Alamillo

Note:

- The Protection Period shown includes the Manufacturer's base warranty period.
- Amounts shown below are in \$USD.

Protection Period	Plan Option	Deductible	Starting Cost	Bundle Discount	Additional Costs	Customer Cost	Selected Plan
60 / 5000	Gold Star+	\$0.00	\$22,975.77	-\$3,446.07	\$1,900.00	\$21,429.70	

Quotes are valid for the following periods (whichever occurs first):

- 30 days
- Expiration of the Manufacturer's Base Warranty Period
- Otherwise Expiration of any existing Service Contract

I hereby acknowledge that I agree to purchase the Extended Service Plan selected above. _____ (customer initial)

I hereby acknowledge that I have reviewed the Extended Service Plans shown above and choose to decline the purchase of any plan at this time. _____ (customer initial)

Customer Name: _____ Signature: _____ Date: _____
(Please Print)

Salesperson Name: _____ Signature: _____ Date: _____
(Please Print)

The above information is descriptive in nature. The precise protection purchased is subject to the terms, conditions and exclusions of the contract. Participation is subject to underwriting requirements. Plans may be changed or cancelled without notice. Capitalized terms used in this literature, unless defined herein, have the meanings assigned to them in the contract as issued.



Fendt Gold Star+ Extended Warranty

NEW EQUIPMENT PLAN

FENDT TRACTORS

This plan excludes protection for any component that is not listed on the Covered Component Matrix, including any resulting or collateral damages to a "covered component" that is caused by or results from the failure of a component not listed on the Covered Component Matrix for the Plan Option selected. In the event of an eligible failure, the deductible will be applied once per visit. Please see Terms and Conditions documents, as issued, for Complete Plan Details.

Ultimate

Powertrain Group (power to ground)		
<ul style="list-style-type: none"> Core Engine (Except Hang-On Attachments & Mounting Brackets) Engine Lubrication System (Excludes Oil and Oil Filter) Engine Fan and Flywheel (Includes Fan Clutch and Bearing) (Excludes Tensioners and Pulleys) Engine Drive-Line Coupler Engine Water Pump and Water Temperature Regulator Fuel Injection Components (High Pressure) 	<ul style="list-style-type: none"> Fuel System Components Including Fuel Pump, Fuel Rail and Lines, Fuel Injectors, Lift Pump and Fuel Filter Base (Excludes Filters, Low Pressure Lines/Hoses, Fuel Tanks and Fuel Caps) Turbo Air Induction and Exhaust System (Excludes Muffler, Hoses/Tubes, Exhaust Stack and Air Filter) Engine Electronic Controls and Sensors Transmission Transmission Charge Pumps, Valves, Controls, Sensors & Switches (Includes Joystick and ECU) Hydro Propel Pumps, Motors, Controls, Sensors and Lines/Hoses (Power - Ground Engaging Only) 	<ul style="list-style-type: none"> Creeper Drive Components, Controls and Sensors Internal Wet Brakes and Clutches for Hydraulic, Mechanical and Air Assist (Excludes any Normal Wear) Non-Powered Front Axles (Wheeled Machines Only, Excludes all Track Components) Power Take Off (PTO) Internal Components, Controls and Sensors Final Drives and Drive Axles (includes internally lubricated parts, housing & seals, Excludes all Track Components) Differential Steering Components, Controls & Sensors (Track Tractors Only) Drive-Line Shafts, U-Joints, Transfer Gears and Differential Additional Emission Parts (NEW Coverage Plans only. Does not apply to USED Coverage Plans. See attached)
Hydraulic Group		
<ul style="list-style-type: none"> Hydraulic Tanks, Pumps, Oil Coolers, Motors, Controls and Sensors (Includes Joystick and Electronic Controllers) (Excludes Hydraulic Cap) 	<ul style="list-style-type: none"> Hydraulic Valves, Cylinders, Accumulators, Hoses/Lines, Quick Couplers and Swivels 	<ul style="list-style-type: none"> Hydraulic Oil Filter Bases (Excludes Filter)
Electrical Group		
<ul style="list-style-type: none"> Engine Starting Aid, Starter, Alternator Engine Block Heater Electronic Control Units (ECU) Electric Motors Electronic Transmission and Powertrain Controllers Fuel Sender GPS Receiver, Antenna, Telemetry Module & Monitor (if factory or dealer installed and purchased through AGCO Parts, sold at time of retail purchase, with serial # registered with AP Contract) 	<ul style="list-style-type: none"> Switches Senders Sensors Solenoids Controllers 	<ul style="list-style-type: none"> Gauges Display Wiring Harnesses Back-Up Alarm
Air Conditioning Group		
<ul style="list-style-type: none"> Air Conditioning Compressor, Condenser, Dryer, Evaporator and Connecting Lines (Excludes Drain Hoses & Fitting) 	<ul style="list-style-type: none"> Temperature Control Programmers and Heater Valves (Electronic Controlled Valves) 	<ul style="list-style-type: none"> A/C Compressor Clutch
Major Components		
<ul style="list-style-type: none"> Engine Radiator, Coolant Reservoir and Coolant Hoses/Lines (Excludes Pressure Caps) Fuel Tanks & Attached Fuel Lines 4 Hours of Travel Time per Repair* 	<ul style="list-style-type: none"> Cab Main Frame and Cab Suspension * Note: For each Travel Reimbursement request AGCO Protection will pay up to four (4) hours of labor for travel time per eligible repair, regardless of the actual travel time or number of trips required to complete the repair. (Please see the Dealer Procedure Manual for complete plan details) 	<ul style="list-style-type: none"> ROPS, FOPS

Exclusions

Filters, Belts, Lubricants, Antifreeze, Breathers, Batteries, Loose/Broken bolts, Gas Struts, Brackets, Hardware, Electrical Components Not Listed Above, Dry Clutches, Hose Chafing, Wear Items, Hawkeye and License Agreements, Adjustments, and Software Downloads and Updates. Specs & Parts that are NOT eligible for Emission Parts coverage under this plan: equipment 25 horsepower or less, and Parts and Components not covered under the OEM Emission Warranty.



Engine Components Covered After the Emission Warranty

Emission Warrantable Components **ONLY as Outlined by the AGCO Emission Warranty. New Coverage Plans Only.*

Aftertreatment Control Module & Support Unit (ACM & ASU)
Catalytic Converter
Charge Air Cooler, Hoses, & Pipes
Cold Start Enrichment System
Crank Case Ventilation Oil Separator & Pipes, Before Separator
Diesel Exhaust Fluid Tank & Dispensing System
Diesel Oxidation Catalyst (DOC)
Diesel Particulate Filter
EGR System Manifold, Valve, Cooler, Mixer, & Flow Meter
Electronic Engine Control Module (ECM)
Engine Wiring Harness (Emission Warrantable Circuits)
Fuel Injection Pump
Fuel Injection Lines, Manifold, & Rail
Fuel Injectors
Intake & Exhaust Manifold
PCV Valve
Selective Catalytic Reduction System
Turbocharger, Gasket, Actuator, Valve
Sensors, Solenoids, & Wiring Harnesses (Emission Warrantable Circuits)
Gaskets, Seals, & Clamps (Emission Warrantable Components)

**Please refer to the AGCO Emission Warranty Parts List for a complete list of Emission Warrantable Components. Any Parts and Components not covered under the AGCO Emission Warranty are not subject to reimbursement under the AGP plan. Any machine equal or below 19Kw (25hp) qualifies only for the manufacturer emission warranty and is not eligible for extended emission coverage.*



NO cab
to spec. (2)
order
\$124,000

Customer:

Quotes are valid for 30 days from the creation date or upon contract expiration, whichever occurs first.

A Purchase Order (PO) or Letter of Intent (LOI) including the below information is required to proceed with this sale. The PO or LOI will be returned if information is missing.

- Vendor: Deere & Company
- 2000 John Deere Run
Cary, NC 27513
- Signature on all LOIs and POs with a signature line
- Contract name or number; or JD Quote ID
- Sold to street address
- Ship to street address (no PO box)
- Bill to contact name and phone number
- Bill to address
- Bill to email address (required to send the invoice and/or to obtain the tax exemption certificate)
- Membership number if required by the contract

For any questions, please contact:

Albert Cendejas

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030

Tel: 805-981-2866

Fax: 805-981-2876

Email: albertcendejas@jdccm.com

Quotes of equipment offered through contracts between Deere & Company, its divisions and subsidiaries (collectively "Deere") and government agencies are subject to audit and access by Deere's Strategic Accounts Business Division to ensure compliance with the terms and conditions of the contracts.



ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
 2000 John Deere Run
 Cary, NC 27513
 FED ID: 36-2382580
 UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

Cal-Coast Machinery, Inc.
 2450 Eastman Avenue
 Oxnard, CA 93030
 805-981-2866
 OXoffice@jdccm.com

Quote Summary

Prepared For:

LAS VIRGENES WATER DISTRICT
 4232 LAS VIRGENES RD
 CALABASAS, CA 91302
 Business: 818-251-2115

Delivering Dealer:

Cal-Coast Machinery, Inc.
 Albert Cendejas
 2450 Eastman Avenue
 Oxnard, CA 93030
 Phone: 805-981-2866
 albertcendejas@jdccm.com

Quote ID: 30092131
Created On: 12 December 2023
Last Modified On: 12 December 2023
Expiration Date: 12 January 2024

Equipment Summary	Suggested List	Selling Price	Qty	Extended
JOHN DEERE 6130M Open operator station Tractor	\$ 148,778.07	\$ 113,373.01 X	1 =	\$ 113,373.01
Contract: Sourcewell Ag Tractors 082923-DAC (PG 1P CG 70)				
Price Effective Date: December 11, 2023				
Equipment Total				\$ 113,373.01

* Includes Fees and Non-contract items

Quote Summary

Equipment Total	\$ 113,373.01
Trade In	
SubTotal	\$ 113,373.01
Sales Tax - (9.50%)	\$ 10,769.77
Est. Service	\$ 0.00
Agreement Tax	
Total	\$ 124,142.78
Down Payment	(0.00)
Rental Applied	(0.00)
Balance Due	\$ 124,142.78

Salesperson : X _____

Accepted By : X _____



JOHN DEERE

Selling Equipment

Quote Id: 30092131

Customer Name: LAS VIRGENES WATER DISTRICT

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030
805-981-2866
OXoffice@jdccm.com

JOHN DEERE 6130M Open operator station Tractor

Hours:

Suggested List *

Stock Number:

\$ 148,778.07

Contract: Sourcewell Ag Tractors 082923-DAC (PG 1P CG 70)

Selling Price *

\$ 113,373.01

Price Effective Date: December 11, 2023

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
00R6L	6130M Open operator station Tractor	1	\$ 138,095.00	24.00	\$ 33,142.80	\$ 104,952.20	\$ 104,952.20
Standard Options - Per Unit							
183E	JDLink™ Modem	1	\$ 600.00	24.00	\$ 144.00	\$ 456.00	\$ 456.00
185A	Less Subscription	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
0202	United States	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
0409	English	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1424	PowrQuad™ 16F/16R - 30 km/h	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1755	No ISOBUS Ready / GreenStar™ Ready	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1950	Less Application	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
2075	Open Operator Station Flat Platform	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
2100	Economy Seat	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
3232	Hydraulic Pump - 80 l/min	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
3320	2 Mechanical SCVs (2 SCV 450 Series)	1	\$ 170.00	24.00	\$ 40.80	\$ 129.20	\$ 129.20
3820	Rear Independent 540/1000rpm PTO	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4120	Draft Links with Telescopic Ball End - Category 2	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4210	Center Link with Ball End - Category 2	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4410	Sway Control Blocks	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
5010	Flange-Type Rear Axle	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
5093	2-Position Steel Wheels	1	\$ -772.00	24.00	\$ -185.28	\$ -586.72	\$ -586.72
5234	Rear Wheels 460/85R38	1	\$ 2,706.00	24.00	\$ 649.44	\$ 2,056.56	\$ 2,056.56



JOHN DEERE

Selling Equipment

Quote Id: 30092131

Customer Name: LAS VIRGENES WATER DISTRICT

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030
805-981-2866
OXoffice@jdccm.com

5999	Rear and Front Tire Brand - No preference	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
6045	4WD Front Axle - Unsuspended	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
6232	Front Wheels 420/85R24	1	\$ 466.00	24.00	\$ 111.84	\$ 354.16	\$ 354.16
7702	Shipment Preparation - by Ship Overseas	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
8011	Front Fenders 4WD - Rigid	1	\$ 845.00	24.00	\$ 202.80	\$ 642.20	\$ 642.20
8385	Heavy-Duty Rear PTO	1	\$ 449.00	24.00	\$ 107.76	\$ 341.24	\$ 341.24
8951	Front Base Weight - 110 kg	1	\$ 520.00	24.00	\$ 124.80	\$ 395.20	\$ 395.20
Standard Options Total			\$ 4,984.00		\$ 1,196.16	\$ 3,787.84	\$ 3,787.84
Technology Options/Non-Contract/Open Market							
1880	Less StarFire Receiver	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1900	Less Display	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
Technology Options Total			\$ 0.00		\$ 0.00	\$ 0.00	\$ 0.00
Dealer Attachments/Non-Contract/Open Market							
BL16222	2 Front Fenders, 420 mm Width (Large)	1	\$ 1,086.10	24.00	\$ 260.66	\$ 825.44	\$ 825.44
AL119968	Mounting Parts For 12, 14 Quick Tatch Weights	1	\$ 357.98	24.00	\$ 85.92	\$ 272.06	\$ 272.06
BL15699	Swinging Drawbar With Hammer Strap	1	\$ 919.83	24.00	\$ 220.76	\$ 699.07	\$ 699.07
R127764	Counterweight - COUNTERWEIGHT, QUICK-TATCH	12	\$ 173.18	24.00	\$ 41.56	\$ 1,579.44	\$ 1,579.44
Canopy	Canopy	1	\$ 1,250.00	0.00	\$ 0.00	\$ 1,250.00	\$ 1,250.00
Dealer Attachments Total			\$ 5,692.07		\$ 1,066.06	\$ 4,626.01	\$ 4,626.01
Value Added Services Total			\$ 0.00			\$ 0.00	\$ 0.00
Fees							
	CA Tire Fee	1	7.00			7.00	7.00
Equipment Fees Total			\$ 7.00			\$ 7.00	\$ 7.00
Total Selling Price			\$		\$ 35,405.02	\$	\$
			148,778.07			113,373.05	113,373.05



Customer:

Quotes are valid for 30 days from the creation date or upon contract expiration, whichever occurs first.

A Purchase Order (PO) or Letter of Intent (LOI) including the below information is required to proceed with this sale. The PO or LOI will be returned if information is missing.

- Vendor: Deere & Company
- 2000 John Deere Run
Cary, NC 27513
- Signature on all LOIs and POs with a signature line
- Contract name or number; or JD Quote ID
- Sold to street address
- Ship to street address (no PO box)
- Bill to contact name and phone number
- Bill to address
- Bill to email address (required to send the invoice and/or to obtain the tax exemption certificate)
- Membership number if required by the contract

For any questions, please contact:

Albert Cendejas

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030

Tel: 805-981-2866

Fax: 805-981-2876

Email: albertcendejas@jdccm.com

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JOHN DEERE

Quote Id: 29348620

**ALL PURCHASE ORDERS MUST BE MADE OUT
TO (VENDOR):**

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

**ALL PURCHASE ORDERS MUST BE SENT
TO DELIVERING DEALER:**

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030
805-981-2866
OXoffice@jdccm.com

Prepared For:

LAS VIRGENES WATER DISTRICT

Proposal For:

Delivering Dealer:

Albert Cendejas

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030

OXoffice@jdccm.com

Quote Prepared By:

Albert Cendejas
albertcendejas@jdccm.com

Date: 02 August 2023

Offer Expires: 27 October 2023

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
 2000 John Deere Run
 Cary, NC 27513
 FED ID: 36-2382580
 UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

Cal-Coast Machinery, Inc.
 2450 Eastman Avenue
 Oxnard, CA 93030
 805-981-2866
 OXoffice@jdccm.com

Quote Summary
Prepared For:

LAS VIRGENES WATER DISTRICT
 4232 LAS VIRGENES RD
 CALABASAS, CA 91302
 Business: 818-251-2115

Delivering Dealer:

Cal-Coast Machinery, Inc.
 Albert Cendejas
 2450 Eastman Avenue
 Oxnard, CA 93030
 Phone: 805-981-2866
 albertcendejas@jdccm.com

Quote ID: 29348620

Created On: 02 August 2023

Last Modified On: 28 September 2023

Expiration Date: 27 October 2023

Equipment Summary

JOHN DEERE 6130M Open operator
 station Tractor

Contract: Sourcewell Ag Tractors 110719-JDC (PG 1P CG 70)

Price Effective Date: September 27, 2023

Selling Price	Qty	Extended
\$ 86,536.80 X	1 =	\$ 86,536.80

Equipment Total
\$ 86,536.80

* Includes Fees and Non-contract items

Quote Summary

Equipment Total \$ 86,536.80

Trade In

SubTotal **\$ 86,536.80**

Sales Tax - (9.50%) \$ 8,220.33

Est. Service \$ 0.00

Agreement Tax

Total \$ 94,757.13

Down Payment (0.00)

Rental Applied (0.00)

Balance Due \$ 94,757.13

Additional \$1250.00
 For canopy
 No cab Model

Accepted By : X _____



JOHN DEERE

Selling Equipment

Quote Id: 29348620

Customer Name: LAS VIRGENES WATER DISTRICT

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030
805-981-2866
OXoffice@jdccm.com

JOHN DEERE 6130M Open operator station Tractor

Hours:

Stock Number:

Contract: Sourcewell Ag Tractors 110719-JDC (PG 1P CG 70)

Selling Price *
\$ 86,536.80

Price Effective Date: September 27, 2023

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
00R4L	6130M Open operator station Tractor	1	\$ 106,111.00	24.00	\$ 25,466.64	\$ 80,644.36	\$ 80,644.36
Standard Options - Per Unit							
0202	United States	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
0409	English	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1424	PowrQuad - 16/16, 30 km/h	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
2075	Open Operator Station Flat Platform	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
2100	Economy Seat	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
3223	Hydraulic Pump - 114 l/min	1	\$ 1,917.00	24.00	\$ 460.08	\$ 1,456.92	\$ 1,456.92
3338	3 Mechanical SCVs (3 SCV 450 Series)	1	\$ 1,107.00	24.00	\$ 265.68	\$ 841.32	\$ 841.32
3820	Rear Independent 540/1000rpm PTO	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4121	Draft Links with Telescopic Ball End - Category 3N / Category 3	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4213	Center Link with Ball End - Category 3	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4421	Stabilizer Bars - Adjustable Both Sides	1	\$ 671.00	24.00	\$ 161.04	\$ 509.96	\$ 509.96
5040	R&P Rear Axle - 79 mm Shaft	1	\$ 2,750.00	24.00	\$ 660.00	\$ 2,090.00	\$ 2,090.00
5090	Adjustable Steel Wheels (Steel Disk)	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
5220	Rear Wheels Size 320/90R42	1	\$ 686.00	24.00	\$ 164.64	\$ 521.36	\$ 521.36
5999	Rear and Front Tire Brand - No preference	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00



JOHN DEERE

Selling Equipment

Quote Id: 29348620

Customer Name: LAS VIRGENES WATER DISTRICT

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030
805-981-2866
OXoffice@jdccm.com

6045	4WD Front Axle - Unsuspended	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
6215	Front Wheels Size 320/85R28	1	\$ -222.00	24.00	\$ -53.28	\$ -168.72	\$ -168.72
7702	Shipment Preparation - by Ship Overseas	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
8284	Floor Mat	1	\$ 128.00	24.00	\$ 30.72	\$ 97.28	\$ 97.28
8457	Higher Hitch Lift Capacity	1	\$ 425.00	24.00	\$ 102.00	\$ 323.00	\$ 323.00
8950	Front Base Weight - 60 kg	1	\$ 282.00	24.00	\$ 67.68	\$ 214.32	\$ 214.32
Standard Options Total			\$ 7,744.00		\$ 1,858.56	\$ 5,885.44	\$ 5,885.44
Value Added Services Total			\$ 0.00			\$ 0.00	\$ 0.00
			Fees				
	CA TIRE FEE	1	7.00			7.00	7.00
Equipment Fees Total			\$ 7.00			\$ 7.00	\$ 7.00
Total Selling Price			\$ 113,862.00		\$ 27,325.20	\$ 86,536.80	\$ 86,536.80

Customer:

Quotes are valid for 30 days from the creation date or upon contract expiration, whichever occurs first.

A Purchase Order (PO) or Letter of Intent (LOI) including the below information is required to proceed with this sale. The PO or LOI will be returned if information is missing.

- Vendor: Deere & Company
- 2000 John Deere Run
Cary, NC 27513
- Signature on all LOIs and POs with a signature line
- Contract name or number; or JD Quote ID
- Sold to street address
- Ship to street address (no PO box)
- Bill to contact name and phone number
- Bill to address
- Bill to email address (required to send the invoice and/or to obtain the tax exemption certificate)
- Membership number if required by the contract

For any questions, please contact:**Albert Cendejas**

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030

Tel: 805-981-2866

Fax: 805-981-2876

Email: albertcendejas@jdccm.com

Quotes of equipment offered through contracts between Deere & Company, its divisions and subsidiaries (collectively "Deere") and government agencies are subject to audit and access by Deere's Strategic Accounts Business Division to ensure compliance with the terms and conditions of the contracts.



JOHN DEERE

Quote Id: 29348620

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030
805-981-2866
OXoffice@jdccm.com

Prepared For:

LAS VIRGENES WATER DISTRICT

Proposal For:

Delivering Dealer:

Albert Cendejas

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030

OXoffice@jdccm.com

Quote Prepared By:

Albert Cendejas
albertcendejas@jdccm.com

Date: 02 August 2023

Offer Expires: 01 September 2023



ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030
805-981-2866
OXoffice@jdccm.com

Quote Summary

Prepared For:

LAS VIRGENES WATER DISTRICT
4232 LAS VIRGENES RD
CALABASAS, CA 91302
Business: 818-251-2115

Delivering Dealer:

Cal-Coast Machinery, Inc.
Albert Cendejas
2450 Eastman Avenue
Oxnard, CA 93030
Phone: 805-981-2866
albertcendejas@jdccm.com

Quote ID: 29348620

Created On: 02 August 2023

Last Modified On: 08 August 2023

Expiration Date: 01 September 2023

Equipment Summary

JOHN DEERE 6120M Cab Tractor

Selling Price

\$ 109,684.12 X

Qty

1 =

Extended

\$ 109,684.12

Contract: Sourcewell Ag Tractors 110719-JDC (PG 1P CG 70)

Price Effective Date:

Equipment Total

\$ 109,684.12

* Includes Fees and Non-contract items

Quote Summary

Equipment Total

\$ 109,684.12

Trade In

SubTotal

\$ 109,684.12

Sales Tax - (9.50%)

\$ 10,419.33

Est. Service

\$ 0.00

Agreement Tax

Total

\$ 120,103.45

Down Payment

(0.00)

Rental Applied

(0.00)

Balance Due

\$ 120,103.45

Salesperson : X _____

Accepted By : X _____



JOHN DEERE

Selling Equipment

Quote Id: 29348620

Customer Name: LAS VIRGENES WATER DISTRICT

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

Cal-Coast Machinery, Inc.
2450 Eastman Avenue
Oxnard, CA 93030
805-981-2866
OXoffice@jdccm.com

JOHN DEERE 6120M Cab Tractor

Hours:

Stock Number:

Contract: Sourcewell Ag Tractors 110719-JDC (PG 1P CG 70)

Selling Price *
\$ 109,684.12

Price Effective Date:

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
4297L	6120M Cab Tractor	1	\$ 146,712.00	24.00	\$ 35,210.88	\$ 111,501.12	\$ 111,501.12

Standard Options - Per Unit

183E	JDLink™ Modem	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
185A	Less Subscription	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
0202	United States	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
0409	English	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
0501	No package	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1437	PowrQuad™ PLUS 16F/16R - 30 km/h	1	\$ -2,708.00	24.00	\$ -649.92	\$ -2,058.08	\$ -2,058.08
1755	No ISOBUS Ready / GreenStar™ Ready	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1950	Less Application	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
2083	6M Cab - Basic Cab with RH Console	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
2141	Economy Seat	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
2510	Mirrors - Standard	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
2665	Standard Radio	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
3232	Hydraulic Pump - 80 l/min	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
3319	2 Mechanical SCVs (2 SCVs 200 Series)	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
3820	Rear PTO - 540/1000 rpm	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4120	Draft Links with Telescopic Ball End - Category 2	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4210	Center Link with Ball End - Category 2	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4410	Sway Blocks	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
5010	Flange-Type Rear Axle	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00



Selling Equipment

Quote Id: 29348620 Customer Name: LAS VIRGENES WATER DISTRICT

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):
 Deere & Company
 2000 John Deere Run
 Cary, NC 27513
 FED ID: 36-2382580
 UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:
 Cal-Coast Machinery, Inc.
 2450 Eastman Avenue
 Oxnard, CA 93030
 805-981-2866
 OXoffice@jdccm.com

5090	Adjustable Steel Wheels (Steel Disk)	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
5207	Rear Wheels 380/80R38	1	\$ 558.00	24.00	\$ 133.92	\$ 424.08	\$ 424.08
5999	Rear and Front Tire Brand - No preference	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
6045	4WD Front Axle - Unsuspended	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
6092	Adjustable Steel Wheels	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
6215	Front Wheels 320/85R28	1	\$ -250.00	24.00	\$ -60.00	\$ -190.00	\$ -190.00
7702	Shipment Preparation - by Ship Overseas	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
Standard Options Total			\$ -2,400.00		\$ -576.00	\$ -1,824.00	\$ -1,824.00
Technology Options/Non-Contract/Open Market							
1801	No AutoTrac™ Package	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1880	Less Receiver	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1900	Less Display	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
Technology Options Total			\$ 0.00		\$ 0.00	\$ 0.00	\$ 0.00
Value Added Services Total			\$ 0.00			\$ 0.00	\$ 0.00
Fees							
	CA TIRE FEE	1	7.00			7.00	7.00
Equipment Fees Total			\$ 7.00			\$ 7.00	\$ 7.00
Total Selling Price			\$		\$ 34,634.88	\$	\$
			144,319.00			109,684.12	109,684.12

Las Virgines MWD (#611-20) Pricing Breakdown

Date: 8/10/23

Item	List Price
Massey Ferguson 6712 CAB SN AGCMC190KNC000097	\$86,110
Tires: F380/85R28 R460/85R38	See below
2 Mech Contr Spool Valves	See below
TOTAL	\$86,110

*See weight
10,187 lbs*

Additional Items

BuyBoard Discount (33% off List):	\$57,694
AGCO Freight Charge:	\$5,460
AGCO Assembly:	\$750
Tire and Wheels	\$7,800
Front weight package	\$6,200
Rear Remotes	\$2,800
Dealer PDI (Pre-Delivery Inspection):	\$1,200
Dealer Delivery to Customer:	\$300
 Subtotal:	 \$82,204
Sales Tax 9.5	\$7,810
Tire Fee:	\$7
TOTAL:	\$90,021



MASSEY FERGUSON



Prepared for:
 Good Through: 08-31-2023
 Dealer Representative: John Alamillo
 Representative Email: john.alamillo@quinncompany.com
 Representative Phone:

Model #		MSRP
MF6712 Tractor	\$	92,047.00
<ul style="list-style-type: none"> MF6712 PFA Cab Deluxe 13.68:1 Super Creep Red Gear F&R Shipping Wheels (4WD) Cup Holder - for Cab Proposition 65 Decal 		
Total Retail Price	\$	92,047.00

Lowest Payment \$1,101.00/Month
Cash Price \$80,587.00



Low Rate	Finance Low Rate	
	Sale Price	\$ 80,587.00
	Down Payment + Trade-In:	\$ 0.00
	Net Price	\$ 80,587.00
	+Taxes and Fees	\$ 0.00
	Amount Financed	\$ 80,587.00

Financing Options*	Monthly Payment
0.00% for 36 months	\$ 2,239.00
0.00% for 48 months	\$ 1,679.00
1.99% for 60 months	\$ 1,412.00
2.49% for 72 months	\$ 1,206.00
3.99% for 84 months	\$ 1,101.00

2 YEAR
Comprehensive Warranty

Cash Price	Cash Price	
	Sale Price	\$ 80,587.00
	Trade-In:	\$ 0.00
	Net Price	\$ 80,587.00
	Taxes	\$ 0.00
Final Customer Price	\$ 80,587.00	

AGCO PROTECTION
ASK ABOUT EXTENDED COVERAGE

Finance Rate	Finance Rate	
	Sale Price	\$ 80,587.00
	Down Payment + Trade-In:	\$ 0.00
	Net Price	\$ 80,587.00
	+Taxes and Fees	\$ 0.00
	Amount Financed	\$ 80,587.00

Financing Options*	Monthly Payment
8.09% for 36 months	\$ 2,529.00
8.09% for 48 months	\$ 1,971.00
8.09% for 60 months	\$ 1,637.00
8.09% for 72 months	\$ 1,416.00
8.09% for 84 months	\$ 1,260.00

FUSE
 Connected Services
CONNECTED SERVICES

This Letter is a non-binding indication of interest regarding a possible transaction on the general terms and conditions outlined herein and is not a legal commitment. This Letter is intended for the use of the Customer only. *The following is a proposal for financing for the customer named herein ("Customer") regarding the equipment described herein ("Equipment") by AGCO Finance LLC for discussion purposes only. Customer participation subject to credit qualification and approval by AGCO Finance LLC. Not all Customers may qualify for this rate or term. This proposal is not a statement of all terms and conditions of any financing that may be approved. This Letter is intended for the use of the Customer only. This Letter is valid until "Good Through" date listed above and thereafter shall automatically be deemed to be null and void. ***The cash price is a good faith dealer estimate only. See dealer for details.





MASSEY FERGUSON

MF 6700 PLATFORM

(F.O.B. PORT OF ENTRY)

DELUXE TRACTOR FEATURES

ENGINE SYSTEM

- 4.4L 4-Cylinder AGCO Power
- EPA Tier 4 Final and CARB Certified
- Air Cleaner: Dual Element Dry Type
- Air Cleaner Intake, Under Hood
- Vertical Exhaust
- Cooling System: Antifreeze 50/50 Mix
- Cold Starting Aid: Intake Heater

HORSEPOWER

(Max Engine @ 2000 RPM; Rated Engine & PTO @ 2200 RPM)

MF6712 Deluxe Powershuttle:

120 Max Engine HP, 115 Engine HP, 99 PTO HP

MF6713 Deluxe Powershuttle:

130 Max Engine HP, 125 Engine HP, 109 PTO HP

FRONT AXLE

- 4wd: Dana 730 Center Driveline, Open Differential, Standard Hydraulically Actuated Differential Lock Push Button 4WD Engagement

POWERTRAIN

- Transmission: 25 mph (40 kph) 12 X 12 Power Shuttle with Electro-Hydraulic Shuttle Lever, 6 Synchronized Gears, 2 Ranges
- Rear Axle: Inboard Planetary Final Drives, with Push Button Operated Mechanical Differential Lock, Flanged Rear Axle
- Brakes: Independent Oil Immersed Wet Disc Brakes with Independent Foot Pedal Operation
- Hook and Lever Parking Brake
- PTO: Independent 540/540E/1000 RPM Speeds, 6 and 21 Spline Flanged Shafts standard (1.375 In. Diameter), Independent Wet Disc Clutch, Electro-hydraulic Engagement

HYDRAULIC SYSTEM

- Implement System: Open Center System, Engine Driven Gear Pump, 15.1 GPM, combined to 26 GPM (98 LPM) Flow Optional Cable-controlled Loader Joystick with Mid Valves
- 2 Mechanical Controlled Spool Valves (1 x DA KO FL + 1 x DA KO FL)
- Rear Linkage: ASAE Category III / II with Telescopic Ball Ends Lift Capacity at 24": 9392 lbs (4260 kg) 2 Adjustable Rear Linkage Turnbuckles, Top Line Draft Sensing Standard Telescopic Stabilizers
- Swing Offset Drawbar with 350/400/500mm Positions, Cat 2 Clevis

ELECTRICAL

- 12 Volt DC, Negative Ground
- Intake Air Pre Heater
- High Capacity Wet Charge, Maintenance Free SAE 720 CCA Battery
- 80 AMP Alternator
- Ignition: Key with Safety Start
- Keyed Engine Shutoff
- Lighting: 4 Headlights, 2 Rear Marker Light Assemblies
- 2 Mid Mounted Worklights
- Engine RPM Memory Switch
- Rear Brake Lights
- Standard 1 Rear Work Light
- 7 Pin ASAE Outlet Socket
- 30 Amp Auxiliary Electrical Socket

INSTRUMENTS

- Digital and Analog Dash Display with Performance Monitor
- Analog Engine Tachometer
- Analog Fuel Gauge
- Analog Engine Temperature
- Digital Transmission Display
- Digital Hour Meter
- Operation and Service Lights

OPERATOR ENVIRONMENT (PLATFORM MODELS)

- Flat Floor Platform - ISO Mounted
- Rubber Floor Mat
- Hand Rails with Glass Heat Shields
- Lever Controlled 3-Point Linkage with Easy Lift/Lower Option and Draft Control
- 2 Post Folding ROPS
- Tilt Steering Column
- Mechanical Spring Suspension Seat with Armrests and Wider Seat Cushion
- Retractable Seat Belt
- Cup Holder
- Pendant Style (Suspended) Foot Pedals
- Hand and Foot Throttle
- Left Side and Right Side Foot Step Entry
- External 3-Point Lift Control on Left Hand Side Fender

OTHER STANDARD FEATURES

- One-Piece Tilting Hood
- Rear Fender Side Extensions
- Fuel Tank Guard
- Rear Oil Catcher
- Tool Box
- SMV Sign

MF6713 NOT FOR SALE IN STATE OF NEBRASKA

March 2022

Model Number: MF6712
Model Year: 2022

QQ Number: QQ-0779027
Serial Number: AGCMC190KNC000097

Invoice Number: 92241363
Order Number: 1750357

Dealership Name: Quinn Company
Location: Oxnard (632510)

MF 6700 PLATFORM

(F.O.B. PORT OF ENTRY)



MASSEY FERGUSON

LOADER FEATURES

MF941X AND MF946X LOADERS

FITS ALL MF5700 / MF6700 GLOBAL SERIES TRACTORS

- One Piece Main Frame with Tapered Arms and Single Cross Member, Powder Painted with Corrosion Protection
- Quick Attach Loader Frame Mount with Pin Lock and Built in Parking Stands
- 5 mm High Tensile, Tapered Box Section Frame
- 70 mm Arm Profile
- 75 mm Double Acting Lift Cylinders (**MF941X**)
- 70 mm Double Acting Lift Cylinders (**MF946X**)
- 75 mm Double Acting Bucket Cylinders (**MF941X**)
- 75 mm Double Acting Bucket Cylinders, Equal Displacement (**MF946X**)
- Hydraulic Lines Routed Inside Main Frame for Protection and Visibility
- Pivots have Recessed Greasable Galvanized Steel Pins with Bushings at Key Points
- 4-Flat Face Hydraulic Tips on Boom and Bucket Circuits
- Protective Hose Cover
- Bucket Level Indicator
- **MF941X**: 2220 lbs (1007 kg) Lift Capacity to Full Height, 31.5 inches, (800 mm) Forward of Pivot Pin per ASABE 301.3 at 2828 PSI
- **MF946X**: 3500 lbs (1588 kg) Lift Capacity to Full Height, 31.5 inches, (800 mm) Forward of Pivot Pin per ASABE 301.3 at 2828 PSI
- Maximum Lift Height: 148 inches at Pivot
- Rated Hydraulic Pressure: 2828 PSI
- Maximum Roll Back Angle: 49 Degrees
- Maximum Dump Angle: 42 Degrees
- Universal Euro Hook Type Implement Attachments
- Grille Guard Standard

MFFL.3723 AND MFFL.3819 LOADERS

FITS ALL MF5700 / MF6700 GLOBAL SERIES TRACTORS

- One Piece 5 mm High Tensile Main Frame with Tapered and Emboss Arms
- Quick Attach Implement Mounting with Euro Style Single Lever Locking System
- 80 mm Arm Profile
- 80 mm Double Acting Lift Cylinders (**FL.3723**)
- 75 mm Double Acting Lift Cylinders (**FL.3819**)
- 80 mm Double Acting Bucket Cylinders (**FL.3723**)
- 80 mm Double Acting, Equal Displacement Bucket Cylinders (**FL.3819**)
- Industrial Grade Hydraulic Fittings and Twin Braided Hoses, Incorporated Internally Inside Loader Boom
- Central Valve, Equalized Oil Distribution Valve with Incorporated Relief Valves
- 4-Flat Face Hydraulic Tips on Boom and Bucket Circuits
- Protective Hose Cover
- Powder Painted with Corrosion Protection
- Bucket Level Indicator
- Lock and Go Loader / Subframe Connection System
- Pivots Are Greasable and Include Industrial Grade Pins and Bushings
- Front Bumper Guard (with Subframe Set)
- Buckets Have Heavy Duty, Welded-On Cutting Edge, Box Beam Section for Stiffness and Torsional Rigidity and Lateral Reinforcing Bars
- 149" (3.79 m) Lift Height to Pivot Pin
- **FL.3723**: 2840 lbs (1288 kg) Lift Capacity to Full Height, 31.5", (800 mm) Forward of Pivot Pin per ASABE 301.3 @ 2828 PSI
- **FL.3819**: 4230 lbs (1919 kg) Lift Capacity to Full Height, 31.5", (800 mm) Forward of Pivot Pin per ASABE 301.3 @ 2828 PSI
- Maximum Roll Back Angle: 58 Degrees
- Maximum Dump Angle: 60 Degrees

March 2022

Model Number: MF6712
Model Year: 2022

QQ Number: QQ-0779027
Serial Number: AGCMC190KNC000097

Invoice Number: 92241363
Order Number: 1750357

Dealership Name: Quinn Company
Location: Oxnard (632510)



MASSEY FERGUSON

MF 6700 CAB

(F.O.B. PORT OF ENTRY)

DELUXE TRACTOR FEATURES

ENGINE SYSTEM

- 4.4L 4-Cylinder AGCO Power
- EPA Tier 4 Final and CARB Certified
- Air Cleaner: Dual Element Dry Type
- Air Cleaner Intake, Under Hood
- A-Pillar Exhaust with Heat Shield
- Cooling System: Antifreeze 50/50 Mix
- Cold Starting Aid: Intake Heater

HORSEPOWER

(Max Engine @ 2000 RPM; Rated Engine & PTO @ 2200 RPM)

MF6712 Deluxe Powershuttle:

120 Max Engine HP, 115 Engine HP, 99 PTO HP

MF6713 Deluxe Powershuttle:

130 Max Engine HP, 125 Engine HP, 109 PTO HP

FRONT AXLE

- 4wd: Dana 720 Center Driveline, Open Differential, Standard Hydraulically Actuated Differential Lock Push Button 4WD Engagement

POWERTRAIN

- Transmission: 25 mph (40 kph) 12 X 12 Power Shuttle with Electro-Hydraulic Shuttle Lever, 6 Synchronized Gears, 2 Ranges
- Rear Axle: Inboard Planetary Final Drives, with Push Button Operated Mechanical Differential Lock, Flanged Rear Axle
- Brakes: Independent Oil Immersed Wet Disc Brakes with Independent Foot Pedal Operation
- Hook and Lever Parking Brake
- PTO: Independent 540/540E/1000 RPM Speeds, 6 and 21 Spline Flanged Shafts standard (1.375 In. Diameter), Independent Wet Disc Clutch, Electro-hydraulic Engagement

HYDRAULIC SYSTEM

- Implement System: Open Center System, Engine Driven Gear Pump, 15.1 GPM, combined to 26 GPM (98 LPM) Flow, Optional Cable-controlled Loader Joystick with Mid Valves and 3rd Function Ready Buttons
- 2 Mechanical Controlled Spool Valves (1 x DA KO FL + 1 x DA KO FL)
- Rear Linkage: ASAE Category III / II with Telescopic Ball Ends Lift Capacity at 24": 9392 lbs (4260 kg) 2 Adjustable Rear Linkage Turnbuckles, Top Link Draft Sensing Standard Telescopic Stabilizers
- Swing Offset Drawbar with 350/400/500mm Positions, Cat 2 Clevis

ELECTRICAL

- 12 Volt DC, Negative Ground
- Intake Air Pre Heater
- High Capacity Wet Charge, Maintenance Free SAE 720 CCA Battery
- 120 AMP Alternator
- Ignition: Key with Safety Start
- Keyed Engine Shutoff
- Lighting: 4 Headlights, 2 Rear Marker Light Assemblies
- 2 Mid Mounted Worklights
- Engine RPM Memory Switch
- Rear Brake Lights
- 7 Pin ASAE Outlet Socket
- 30 Amp Auxiliary Electrical Socket

INSTRUMENTS

- Digital and Analog Dash Display with Performance Monitor
- Analog Engine Tachometer
- Analog Fuel Gauge
- Analog Engine Temperature
- Digital Transmission Display
- Digital Hour Meter
- Operation and Service Lights

OPERATOR ENVIRONMENT (CAB MODELS)

- Standard Cab Roof, HVAC with Manual Controls, 2 Low Mounted Doors, Aerial and Speakers, 2 Front and 2 Rear Roof Mounted Work Lights
- Electric Controlled 3-Point Linkage with Draft Control
- Rubber Floor Mat
- Telescopic Large Side Mirrors
- Internal Mirror
- Dual Adjustment Steering Column (Tilting and Telescopic)
- Air Suspended Swiveling Seat with Armrests
- Retractable Seat Belt
- Instructors Seat
- Cup Holder
- Pendant Style (Suspended) Foot Pedals
- Hand Rails
- Hand and Foot Throttle
- Left Side and Right Side Foot Step Entry
- External 3-Point Lift Control on Left/Right Hand Side Fenders
- Rear Wiper/Washer

OTHER STANDARD FEATURES

- One-Piece Tilting Hood
- Rear Fender Side Extensions
- Fuel Tank Guard
- Rear Oil Catcher
- Tool Box
- SMV Sign

MF6713 NOT FOR SALE IN STATE OF NEBRASKA

March 2022

Model Number: MF6712
Model Year: 2022

QQ Number: QQ-0779027
Serial Number: AGCMC190KNC000097

Invoice Number: 92241363
Order Number: 1750357

Dealership Name: Quinn Company
Location: Oxnard (632510)

MF 6700 CAB

(F.O.B. PORT OF ENTRY)



MASSEY FERGUSON

LOADER FEATURES

MF941X AND MF946X LOADERS

FITS ALL MF5700 / MF6700 GLOBAL SERIES TRACTORS

- One Piece Main Frame with Tapered Arms and Single Cross Member, Powder Painted with Corrosion Protection
- Quick Attach Loader Frame Mount with Pin Lock and Built in Parking Stands
- 5 mm High Tensile, Tapered Box Section Frame
- 70 mm Arm Profile
- 75 mm Double Acting Lift Cylinders (**MF941X**)
- 70 mm Double Acting Lift Cylinders (**MF946X**)
- 75 mm Double Acting Bucket Cylinders (**MF941X**)
- 75 mm Double Acting Bucket Cylinders, Equal Displacement (**MF946X**)
- Hydraulic Lines Routed Inside Main Frame for Protection and Visibility
- Pivots have Recessed Greasable Galvanized Steel Pins with Bushings at Key Points
- 4-Flat Face Hydraulic Tips on Boom and Bucket Circuits
- Protective Hose Cover
- Bucket Level Indicator
- **MF941X**: 2220 lbs (1007 kg) Lift Capacity to Full Height, 31.5 inches, (800 mm) Forward of Pivot Pin per ASABE 301.3 at 2828 PSI
- **MF946X**: 3500 lbs (1588 kg) Lift Capacity to Full Height, 31.5 inches, (800 mm) Forward of Pivot Pin per ASABE 301.3 at 2828 PSI
- Maximum Lift Height: 148 inches at Pivot
- Rated Hydraulic Pressure: 2828 PSI
- Maximum Roll Back Angle: 49 Degrees
- Maximum Dump Angle: 42 Degrees
- Universal Euro Hook Type Implement Attachments
- Grille Guard Standard

MFFL.3723 AND MFFL.3819 LOADERS

FITS ALL MF5700 / MF6700 GLOBAL SERIES TRACTORS

- One Piece 5 mm High Tensile Main Frame with Tapered and Emboss Arms
- Quick Attach Implement Mounting with Euro Style Single Lever Locking System
- 80 mm Arm Profile
- 80 mm Double Acting Lift Cylinders (**FL.3723**)
- 75 mm Double Acting Lift Cylinders (**FL.3819**)
- 80 mm Double Acting Bucket Cylinders (**FL.3723**)
- 80 mm Double Acting, Equal Displacement Bucket Cylinders (**FL.3819**)
- Industrial Grade Hydraulic Fittings and Twin Braided Hoses, Incorporated Internally Inside Loader Boom
- Central Valve, Equalized Oil Distribution Valve with Incorporated Relief Valves
- 4-Flat Face Hydraulic Tips on Boom and Bucket Circuits
- Protective Hose Cover
- Powder Painted with Corrosion Protection
- Bucket Level Indicator
- Lock and Go Loader / Subframe Connection System
- Pivots Are Greasable and Include Industrial Grade Pins and Bushings
- Front Bumper Guard (with Subframe Set)
- Buckets Have Heavy Duty, Welded-On Cutting Edge, Box Beam Section for Stiffness and Torsional Rigidity and Lateral Reinforcing Bars
- 149" (3.79 m) Lift Height to Pivot Pin
- **FL.3723**: 2840 lbs (1288 kg) Lift Capacity to Full Height, 31.5", (800 mm) Forward of Pivot Pin per ASABE 301.3 @ 2828 PSI
- **FL.3819**: 4230 lbs (1919 kg) Lift Capacity to Full Height, 31.5", (800 mm) Forward of Pivot Pin per ASABE 301.3 @ 2828 PSI
- Maximum Roll Back Angle: 58 Degrees
- Maximum Dump Angle: 60 Degrees

March 2022

Model Number: MF6712
Model Year: 2022

QQ Number: QQ-0779027
Serial Number: AGCMC190KNC000097

Invoice Number: 92241363
Order Number: 1750357

Dealership Name: Quinn Company
Location: Oxnard (632510)



2022 MASSEY FERGUSON 6712

Deal #: QQ-0778960

MFR Base Warranty Start Date:	August 31, 2023	Plan Type:	New
Current Engine Hours:	5	Deal Date:	August 31, 2023
Equipment Retail Value:	\$90,000.00	Customer Name:	LVMWD
Equipment Usage:	Agricultural Purpose	Salesperson Name:	John Alamillo

Note:

- The Protection Period shown includes the Manufacturer's base warranty period.
- Amounts shown below are in \$USD.

Protection Period	Plan Option	Deductible	Assistance Discount	Genuine Care Discount	Customer Cost	Selected Plan
48 / 5000	Ultimate	\$0.00	-\$2,000.00	-\$1,320.00	\$6,029.00	
48 / 5000	Ultimate	\$250.00	-\$2,000.00	-\$1,161.00	\$5,124.00	
48 / 5000	Ultimate	\$500.00	-\$2,000.00	-\$1,107.00	\$4,821.00	
48 / 5000	Enhanced	\$0.00	-\$1,000.00	-\$802.00	\$3,902.00	
48 / 5000	Enhanced	\$250.00	-\$1,000.00	-\$691.00	\$3,205.00	
48 / 5000	Enhanced	\$500.00	-\$1,000.00	-\$654.00	\$2,973.00	
48 / 5000	Basic	\$0.00	-\$500.00	-\$387.00	\$1,865.00	
48 / 5000	Basic	\$250.00	-\$500.00	-\$338.00	\$1,555.00	
48 / 5000	Basic	\$500.00	-\$500.00	-\$322.00	\$1,454.00	

Quotes are valid for the following periods (whichever occurs first):

- 30 days
- Expiration of the Manufacturer's Base Warranty Period
- Otherwise Expiration of any existing Service Contract

I hereby acknowledge that I agree to purchase the Extended Service Plan selected above. _____ (customer initial)

I hereby acknowledge that I have reviewed the Extended Service Plans shown above and choose to decline the purchase of any plan at this time. _____ (customer initial)

Customer Name: _____ Signature: _____ Date: _____
(Please Print)

Salesperson Name: _____ Signature: _____ Date: _____
(Please Print)

The above information is descriptive in nature. The precise protection purchased is subject to the terms, conditions and exclusions of the contract. Participation is subject to underwriting requirements. Plans may be changed or cancelled without notice. Capitalized terms used in this literature, unless defined herein, have the meanings assigned to them in the contract as issued.



COVERED COMPONENT MATRIX

NEW / USED EQUIPMENT PLAN

TRACTORS

This plan excludes protection for any component that is not listed on the Covered Component Matrix, including any resulting or collateral damages to a "covered component" that is caused by or results from the failure of a component not listed on the Covered Component Matrix for the Plan Option selected. In the event of an eligible failure, the deductible will be applied once per visit. Please see Terms and Conditions documents, as issued, for Complete Plan Details.

Basic	New / Used	
<ul style="list-style-type: none"> ■ Core Engine (Except Hang-On Attachments & Mounting Brackets) ■ Engine Lubrication System (Excludes Oil and Oil Filter) ■ Engine Fan and Flywheel (Includes Fan Clutch and Bearing) (Excludes Tensioners and Pulleys) ■ Engine Drive-Line Coupler ■ Engine Water Pump and Water Temperature Regulator ■ Fuel Injection Components (High Pressure) 	<ul style="list-style-type: none"> ■ Fuel System Components Including Fuel Pump, Fuel Rail and Lines, Fuel Injectors, Lift Pump and Fuel Filter Base (Excludes Filters, Low Pressure Lines/Hoses, Fuel Tanks and Fuel Caps) ■ Turbo Air Induction and Exhaust System (Excludes Muffler, Hoses/Tubes, Exhaust Stack and Air Filter) ■ Engine Electronic Controls and Sensors ■ Transmission ■ Transmission Charge Pumps, Valves, Controls, Sensors & Switches (Power - Ground Engaging Only) (Includes Joystick and ECU) ■ Hydro Propel Pumps, Motors, Controls, Sensors and Lines/Hoses (Power - Ground Engaging Only) 	<ul style="list-style-type: none"> ■ Creeper Drive Components, Controls and Sensors (Power - Ground Engaging Only) ■ Non-Powered Front Axles (Wheeled Machines Only, Excludes all Track Components) ■ Power Take Off (PTO) Internal Components, Controls and Sensors ■ Final Drives and Drive Axles (includes internally lubricated parts, housing & seals, Excludes all Track Components) ■ Differential Steering Components, Controls & Sensors (Track Tractors Only) ■ Drive-Line Shafts, U-Joints, Transfer Gears and Differential ■ Additional Emissions Parts (New Equipment only. See attached)
Enhanced – all components listed under the Basic Plan, plus...	New	
<ul style="list-style-type: none"> ■ Air Conditioning Compressor, Condenser, Dryer, Evaporator and Connecting Lines (Excludes Drain Hoses & Fittings) ■ Hydraulic Tanks, Pumps, Oil Coolers, Motors, Controls and Sensors (Includes Joystick and Electronic Controllers) (Excludes Hydraulic Cap) ■ Hydraulic Valves, Cylinders, Accumulators, Hoses/Lines, Quick Couplers and Swivels ■ Hydraulic Oil Filter Bases (Excludes Filter) 	<ul style="list-style-type: none"> ■ Engine Starting Aid, Starter, Alternator Engine Block Heater ■ Fuel Tanks and Tank Attached Fuel Lines and Fuel Sender ■ Engine Radiator, Coolant Reservoir and Coolant Hoses/Lines (Excludes Pressure Caps) ■ Internal Wet Brakes and Clutches for Hydraulic, Mechanical and Air Assist (Excludes any Normal Wear) 	<ul style="list-style-type: none"> ■ Cab Main Frame and Cab Suspension ■ ROPS, FOPS and Back-Up Alarm
Ultimate – all components listed under the Basic and Enhanced Plans, plus...	New	
<ul style="list-style-type: none"> ■ Electronic Control Units (ECU) ■ Electric Motors ■ Electronic Transmission and Powertrain ■ Controllers ■ A/C Compressor Clutch ■ GPS Receiver, Antenna, Telemetry Module & Monitor (if factory or dealer installed and purchased through AGCO Parts, sold at time of retail purchase, with serial # registered with APP Contract) ■ 4 Hours of Travel Time per Repair* 	<ul style="list-style-type: none"> ■ Temperature Control Programmers and Heater Valves (Electronic Controlled Valves) ■ Switches ■ Senders ■ Sensors ■ Solenoids 	<ul style="list-style-type: none"> ■ Gauges ■ Display ■ Wiring Harnesses
<p style="text-align: center;">* Note: For each Travel Reimbursement request AGCO Protection will pay up to four (4) hours of labor for travel time per eligible repair, regardless of the actual travel time or number of trips required to complete the repair. (Please see the Dealer Procedure Manual for complete plan details)</p>		
<p style="text-align: center;"><u>Exclusions</u></p> <p>Filters, Belts, Lubricants, Antifreeze, Breathers, Batteries, Loose/Broken bolts, Gas Struts, Brackets, Hardware, Electrical Components Not Listed Above, Dry Clutches, Hose Chafing, Wear Items, Hawkeye and License Agreements, Adjustments, and Software Downloads and Updates. Specs & Parts that are NOT eligible for Emissions Parts coverage under this plan: equipment 25 horsepower or less, and Parts and Components not covered under the OEM Emissions Warranty.</p>		



Engine Components Covered After the Emissions Warranty

Emissions Warrantable Components **ONLY as Outlined by the AGCO Emissions Warranty. New Equipment Only.*

Aftertreatment Control Module & Support Unit (ACM & ASU)

Catalytic Converter

Charge Air Cooler, Hoses, & Pipes

Cold Start Enrichment System

Crank Case Ventilation Oil Separator & Pipes, Before Separator

Diesel Exhaust Fluid Tank & Dispensing System

Diesel Oxidation Catalyst (DOC)

Diesel Particulate Filter

EGR System Manifold, Valve, Cooler, Mixer, & Flow Meter

Electronic Engine Control Module (ECM)

Engine Wiring Harness (Emissions Warrantable Circuits)

Fuel Injection Pump

Fuel Injection Lines, Manifold, & Rail

Fuel Injectors

Intake & Exhaust Manifold

PCV Valve

Selective Catalytic Reduction System

Turbocharger, Gasket, Actuator, Valve

Sensors, Solenoids, & Wiring Harnesses (Emissions Warrantable Circuits)

Gaskets, Seals, & Clamps (Emissions Warrantable Components)

**Please refer to the AGCO Emissions Warranty Parts List for a complete list of Emissions Warrantable Components. Any Parts and Components not covered under the AGCO Emissions Warranty are not subject to reimbursement under the AGP plan. Any machine equal or below 19Kw (25hp) qualifies only for the manufacturer emission warranty and is not eligible for extended emissions coverage.*

Prepared For:	Tyler hehr	Model #:	MF6712
Proposal Number:	GC1075115	Model Description:	GenuineCare Massey Ferguson 6700 GS
Good Through:	09-09-2023	Current Machine Hours:	5
		Maximum Machine Hours:	10000
Dealership Name:	Quinn Company	Number of Months:	60
Dealer Representative:	John Alamillo		
Representative Email:	john.alamillo@quinncompany.com		

Service intervals included

Up To Service Hours	Total Cost
50	\$566.81
500	\$1,532.67
1000	\$1,774.11
1500	\$2,656.37
2000	\$1,774.11
2500	\$1,193.41
3000	\$3,609.64
3500	\$1,193.41
4000	\$1,774.11
4500	\$2,656.37
5000	\$1,774.11
5500	\$1,193.41
6000	\$3,609.64
6500	\$1,193.41
7000	\$1,774.11
7500	\$2,656.37
8000	\$1,774.11
8500	\$1,193.41
9000	\$3,609.64
9500	\$1,193.41
10000	\$1,774.11
Service Cost	\$40,476.74
GenuineCare Discount	(\$6,071.51)
Travel Fee	\$2,520.00
Total	\$36,925.23
Final Price	\$36,925.23

WHAT IS COVERED

- Any maintenance component required per interval found in the operating manual. Based on intervals purchased this may include AGCO Genuine Filters, Lubricants, Fluids, etc.
- Some services may be shortened or occur more frequent than recommended on the Service Schedule found in the Operator Manual Service Schedule
- Most contracts EXCLUDE valve clearance adjustments. Reference GenuineCare Service Guides or Fendt Gold Star+ Guides for complete listings of maintenance service items.
- Parts Only contracts will include parts required for primary maintenance items at given intervals. Lubricants required may be provided at the nearest package quantity that is equal or greater to sump capacities.
- Annual contracts maintenance may vary by model and are based on package purchased. Each service is intended to be delivered within a 12 month period or sooner.
- Maintenance intervals may include a machine inspection and report based on contract type purchased.
- Repairs found during inspection are EXCLUDED and NOT COVERED in this maintenance agreement

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Prepared For:	Tyler hehr	Model #:	MF6712
Proposal Number:	GC1075115	Model Description:	GenuineCare Massey Ferguson 6700 GS
Good Through:	09-09-2023	Current Machine Hours:	5
<hr/>		Maximum Machine Hours:	10000
Dealership Name:	Quinn Company	Number of Months:	60
Dealer Representative:	John Alamillo		
Representative Email:	john.alamillo@quinncompany.com		

Service intervals summary

Service Interval	Maintenance Description
50	Change the transmission high-pressure filter
50	Change the 60-micron PowerShuttle filter element
50	Lubricate all points
500	Change the engine oil and filter
500	Change the transmission high-pressure filter
500	Change the regulator filter
500	Lubricate all points
500	Complete fluid sample analysis on major sumps
500	Change the fuel prefilter; Change the fuel filter.
1000	Change the engine oil and filter
1000	Change the transmission high-pressure filter
1000	Change the regulator filter
1000	Change the SCR Technology main urea filter
1000	Change the oil in the front axle and final drives
1000	Lubricate all points
1000	Complete fluid sample analysis on major sumps
1000	Change the fuel prefilter; Change the fuel filter.
1500	Change the 150 micron suction strainer
1500	Lubricate all points
1500	Complete fluid sample analysis on major sumps
1500	Drain, flush and refill the radiator with coolant
1500	Change the engine oil and filter
1500	Change the transmission high-pressure filter
1500	Change the regulator filter
1500	Change the transmission/hydraulic oil
1500	Change the cab air filter element
1500	Change the dry air main filter element
1500	Change the 60-micron PowerShuttle filter element
1500	Change the transmission oil breather
1500	Change the fuel prefilter; Change the fuel filter.
2000	Change the engine oil and filter
2000	Change the transmission high-pressure filter
2000	Change the regulator filter
2000	Change the SCR Technology main urea filter
2000	Change the oil in the front axle and final drives

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- 2000 Lubricate all points
- 2000 Complete fluid sample analysis on major sumps
- 2000 Change the fuel prefilter; Change the fuel filter.
- 2500 Change the engine oil and filter
- 2500 Change the transmission high-pressure filter
- 2500 Change the regulator filter
- 2500 Lubricate all points
- 2500 Complete fluid sample analysis on major sumps
- 2500 Change the fuel prefilter; Change the fuel filter.
- 3000 Change the engine oil and filter
- 3000 Change the transmission high-pressure filter
- 3000 Change the regulator filter
- 3000 Change the SCR Technology main urea filter
- 3000 Change the oil in the front axle and final drives
- 3000 Drain, flush and refill the radiator with coolant
- 3000 Change the transmission/hydraulic oil
- 3000 Change the cab air filter element
- 3000 Change the dry air main filter element
- 3000 Change the 60-micron PowerShuttle filter element
- 3000 Change the transmission oil breather
- 3000 Change the 150 micron suction strainer
- 3000 Change the dry air safety filter element
- 3000 Change the rubber mounts
- 3000 Lubricate all points
- 3000 Complete fluid sample analysis on major sumps
- 3000 Change the fuel prefilter; Change the fuel filter.
- 3500 Change the engine oil and filter
- 3500 Change the transmission high-pressure filter
- 3500 Change the regulator filter
- 3500 Lubricate all points
- 3500 Complete fluid sample analysis on major sumps
- 3500 Change the fuel prefilter; Change the fuel filter.
- 4000 Change the engine oil and filter
- 4000 Change the transmission high-pressure filter
- 4000 Change the regulator filter
- 4000 Change the SCR Technology main urea filter
- 4000 Change the oil in the front axle and final drives
- 4000 Lubricate all points
- 4000 Complete fluid sample analysis on major sumps
- 4000 Change the fuel prefilter; Change the fuel filter.
- 4500 Change the engine oil and filter
- 4500 Change the transmission high-pressure filter
- 4500 Change the regulator filter
- 4500 Drain, flush and refill the radiator with coolant
- 4500 Change the transmission/hydraulic oil
- 4500 Change the cab air filter element
- 4500 Change the dry air main filter element
- 4500 Change the 60-micron PowerShuttle filter element
- 4500 Change the transmission oil breather
- 4500 Change the 150 micron suction strainer
- 4500 Lubricate all points

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4500 Complete fluid sample analysis on major sumps
4500 Change the fuel prefilter; Change the fuel filter.
5000 Change the engine oil and filter
5000 Change the transmission high-pressure filter
5000 Change the regulator filter
5000 Change the SCR Technology main urea filter
5000 Change the oil in the front axle and final drives
5000 Lubricate all points
5000 Complete fluid sample analysis on major sumps
5000 Change the fuel prefilter; Change the fuel filter.
5500 Change the engine oil and filter
5500 Change the transmission high-pressure filter
5500 Change the regulator filter
5500 Lubricate all points
5500 Complete fluid sample analysis on major sumps
5500 Change the fuel prefilter; Change the fuel filter.
6000 Change the engine oil and filter
6000 Change the transmission high-pressure filter
6000 Change the regulator filter
6000 Change the SCR Technology main urea filter
6000 Change the oil in the front axle and final drives
6000 Drain, flush and refill the radiator with coolant
6000 Change the transmission/hydraulic oil
6000 Change the cab air filter element
6000 Change the dry air main filter element
6000 Change the 60-micron PowerShuttle filter element
6000 Change the transmission oil breather
6000 Change the 150 micron suction strainer
6000 Change the dry air safety filter element
6000 Change the rubber mounts
6000 Lubricate all points
6000 Complete fluid sample analysis on major sumps
6000 Change the fuel prefilter; Change the fuel filter.
6500 Change the engine oil and filter
6500 Change the transmission high-pressure filter
6500 Change the regulator filter
6500 Lubricate all points
6500 Complete fluid sample analysis on major sumps
6500 Change the fuel prefilter; Change the fuel filter.
7000 Change the engine oil and filter
7000 Change the transmission high-pressure filter
7000 Change the regulator filter
7000 Change the SCR Technology main urea filter
7000 Change the oil in the front axle and final drives
7000 Lubricate all points
7000 Complete fluid sample analysis on major sumps
7000 Change the fuel prefilter; Change the fuel filter.
7500 Change the engine oil and filter
7500 Change the transmission high-pressure filter
7500 Change the regulator filter
7500 Drain, flush and refill the radiator with coolant

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7500	Change the transmission/hydraulic oil
7500	Change the cab air filter element
7500	Change the dry air main filter element
7500	Change the 60-micron PowerShuttle filter element
7500	Change the transmission oil breather
7500	Change the 150 micron suction strainer
7500	Lubricate all points
7500	Complete fluid sample analysis on major sumps
7500	Change the fuel prefilter; Change the fuel filter.
8000	Change the engine oil and filter
8000	Change the transmission high-pressure filter
8000	Change the regulator filter
8000	Change the SCR Technology main urea filter
8000	Change the oil in the front axle and final drives
8000	Lubricate all points
8000	Complete fluid sample analysis on major sumps
8000	Change the fuel prefilter; Change the fuel filter.
8500	Change the engine oil and filter
8500	Change the transmission high-pressure filter
8500	Change the regulator filter
8500	Lubricate all points
8500	Complete fluid sample analysis on major sumps
8500	Change the fuel prefilter; Change the fuel filter.
9000	Change the engine oil and filter
9000	Change the transmission high-pressure filter
9000	Change the regulator filter
9000	Change the SCR Technology main urea filter
9000	Change the oil in the front axle and final drives
9000	Drain, flush and refill the radiator with coolant
9000	Change the transmission/hydraulic oil
9000	Change the cab air filter element
9000	Change the dry air main filter element
9000	Change the 60-micron PowerShuttle filter element
9000	Change the transmission oil breather
9000	Change the 150 micron suction strainer
9000	Change the dry air safety filter element
9000	Change the rubber mounts
9000	Lubricate all points
9000	Complete fluid sample analysis on major sumps
9000	Change the fuel prefilter; Change the fuel filter.
9500	Change the engine oil and filter
9500	Change the transmission high-pressure filter
9500	Change the regulator filter
9500	Lubricate all points
9500	Complete fluid sample analysis on major sumps
9500	Change the fuel prefilter; Change the fuel filter.
10000	Change the engine oil and filter
10000	Change the transmission high-pressure filter
10000	Change the regulator filter
10000	Change the SCR Technology main urea filter
10000	Change the oil in the front axle and final drives

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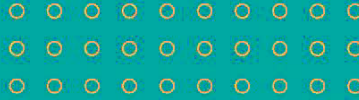


- 10000 Lubricate all points
- 10000 Complete fluid sample analysis on major sumps
- 10000 Change the fuel prefilter; Change the fuel filter.

* All intervals include 1.5 hour inspection *

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Las Virgenes-Triunfo Joint Powers Authority

February 21, 2024

John Freshman, Ana Schwab, Lowry Crook, and Chris Keosian

Congress

Following passage of a short-term Continuing Resolution (CR) to avoid a government shutdown in January, the month of February has been dominated a continuation of the gridlock which has hampered the 118th Congress' ability to pass legislation. Significant attention has been paid to the push for a bipartisan immigration reform and foreign aid negotiations in the Senate, as well as the impeachment of the Secretary of Homeland Security Alejandro Mayorkas, in the House. While both efforts suffered initial defeat on the floor of their respective chambers, the Senate was eventually able to pass a stand-alone foreign aid package, dropping all proposed border and immigration reforms, and the House later garnered enough votes to impeach Secretary Mayorkas. However, with the lack of border and immigration measures in the foreign aid package, Speaker Johnson is unlikely to take up the bill. Senate rules require the Senate undertake the impeachment trial of Secretary Mayorkas before any additional Senate business can be considered – the Senate will begin this trial when they return to Washington, D.C. at the end of this month.

These actions have left little oxygen for FY24 government funding discussions—and their fast approaching deadlines—or FY25 appropriations; which must be passed by the end of September.

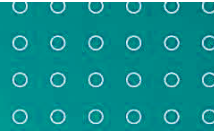
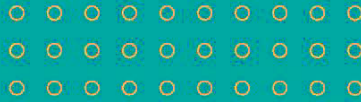
Senate GOP Sinks Border Deal, Secures Passage of \$95 Billion Foreign Aid Package

On February 7, 2024, Senate Republicans blocked a comprehensive package which included, border security and foreign-aid for Ukraine, Israel, and Taiwan package by a vote of 49-50; falling below the required 60-vote threshold. This outcome appears to mark the conclusion of a four-month-long negotiation on comprehensive immigration reform and increased resources to secure the southern border. Following the unsuccessful passage, Majority Leader Chuck Schumer and Minority Leader Mitch McConnell quickly turned their attention to a revised \$95 billion foreign-aid package that allocates \$60.1 billion for Ukraine, \$14.1 billion for Israel, \$9.2 billion for humanitarian aid, and \$4.8 billion in aid for the Taiwan and the Indo-Pacific region. The foreign-aid package successfully passed the Senate by a



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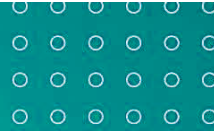
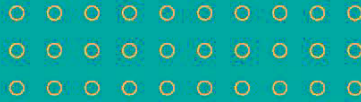
FEDERAL REPORT

vote of 70-29 in the early morning hours of Tuesday, February 13, 2024, after a long weekend of tense negotiations, and delay tactics via parliamentary procedure by Sen. Rand Paul (R-KY).

Despite the Senate's approval, the foreign aid package faces limited prospects in the House, as House Republicans insist on separating aid for Israel and Ukraine and Speaker Johnson's requirement that the package include border measures. On February 6, 2024, Speaker Mike Johnson made an unsuccessful attempt to pass his own independent \$17.6 billion bill for aid to Israel. However, due to hardline conservatives holding the majority of seats on the powerful House Committee on Rules—which controls what legislation comes to the floor—Speaker Johnson was forced to bring the Israel aid legislation to the floor under a suspension of the rules, which requires a two-thirds vote to pass. Therefore, the legislation was rejected despite receiving 250 affirmative votes, and only 180 votes against. Democrats opposing the bill called for a more comprehensive package to provide aid to Ukraine, while Republicans voting against it insisted on offsets for the funds provided. This demand by the Republicans aligned with Speaker Johnson's prior October 2023 proposal for \$14.3 billion in aid for Israel, offset by a \$14.5 billion reduction in funding to the Internal Revenue Service (IRS). Speaker Johnson has shown little urgency to resolve these foreign-aid disagreements quickly, saying attention must now turn to the pending government funding deadlines in early March.

House Democratic Majority Leader Hakeem Jeffries (D-NY-08) has discussed utilizing a discharge petition, which requires the signature of at least 218 Members of Congress, to bring the foreign-aid package to the floor without the Speaker's approval. However, opposition to funding aid for Israel may lead to some Democrats not signing on, necessitating significant Republican rebellion against their own leadership to reach the required 218; rendering the strategy unlikely to succeed.

Over the President's Day congressional recess, nearly 50 lawmakers from both parties and chambers traveled to Munich, Germany to participate the annual Munich Security Conference. In Munich, members of the U.S. delegation was the subject of intense scorn by the international community for their inaction on Ukraine funding, and more broadly, for their wavering display of commitment to the U.S.'s NATO allies. This international frustration prompted a bipartisan group of 10 House members, led by Reps. Brian Fitzpatrick (R-PA-01) and Jared Golden (D-ME-02), to offer their own their bipartisan foreign-aid and border security proposal, designed to be responsive to House GOP leadership's current opposition to Ukraine aide. While it remains to be seen if this proposal will take root, bipartisan groups of rank-and-file lawmakers have achieved great success in



negotiating compromise packages in the Senate on a wide array of legislation in recent years, and this group of House members will try to replicate their efforts.

House E&C Subcommittee Holds Hearing on Drinking Water System Cybersecurity

On January 31, 2024 the House Energy and Commerce (E&C) Committee, Manufacturing, and Critical Materials Subcommittee held a hearing on status of cybersecurity in drinking water systems around the United States. This was held in response to the recent cyberattack on the Municipal Water Authority of Aliquippa, Pennsylvania, attributed to Iranian-linked cybercriminals. The primary goal of the hearing was to outline potential risks, spanning from compromising customer data through ransomware threats to taking control of water systems, posing a threat to water quality. Additionally, it provided a platform to discuss the required resources and coordination for enhancing cybersecurity across various sizes of drinking water systems.

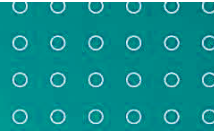
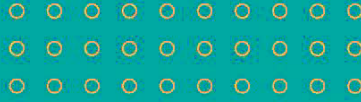
Drinking Water System Capacity and Feasibility

Kevin Morley of the American Water Works Association (AWWA) spoke on the need for a tiered framework in cybersecurity for water utilities, considering the sector's technical challenges and ability to upgrade their facilities. The challenge lies in the gap between the hardware and software of small to medium water systems, with operational technology in many being behind. Numerous water utilities face what Morley referred to as a "digital canyon" that requires extensive and costly overhauls to transition to newer operating platforms. In his written testimony he referenced a larger water system undergoing a similar project where estimates included a five-year duration with an \$80 million cost.

Mr. Morley went on to discuss how smaller systems with limited budgets must also navigate multiple regulatory obligations on the horizon, such as the revised lead and copper rule and pending PFAS standards. The costs related to these regulatory hurdles are not factored into the estimated \$1.2 trillion needed over 20 years for repairing and replacing distribution and transmission lines across all drinking water systems, as estimated by AWWA.

Federal Funding Opportunities

Throughout the hearing, multiple sources of federal funding were referenced that have received funding, or that have only been authorized, to help address cybersecurity concerns. The Infrastructure Investment and Jobs Act (IIJA) authorized \$250 million over five years for the Midsize and Large Drinking Water System Resilience and Sustainability



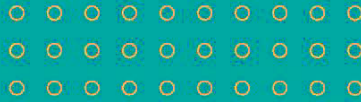
Program. This program provides grant assistance to public water systems serving communities of 10,000 or more people, aiming to enhance resilience to extreme weather threats and reduce vulnerability to cyber-attacks. Unfortunately, Congress has only allocated \$5 million to date, with the EPA expected to solicit grant applications in the 2024 fiscal year. Providing the full annual \$50 million authorization would enable more water systems to enhance cybersecurity through initiatives like software upgrades, investments in security personnel, and the implementation of threat detection procedures.

The America's Water Infrastructure Act of 2018 (AWIA) established the Drinking Water Infrastructure Risk and Resilience Program, offering EPA grants to help community water systems increase resilience to identified vulnerabilities. However, despite a two-year, \$50 million authorization, the program was never funded and expired after FY21. Congress has also allocated just over \$1 billion to FEMA's State and Local Cybersecurity Grant Program (SLCGP), however this pool of funding is available to a broad array of sectors and only has \$400 million remaining for FY24 and FY25. Rep. Raul Ruiz (D-CA-25) during his testimony called for increased support for funding to these already authorized programs if we are going to take the cybersecurity threat to this sector seriously.

Regulatory Framework

A main talking point from all the witnesses on the issue of cybersecurity was that the issue of cybersecurity requires funding and technical assistance from the federal government, not increased regulatory burdens for small to medium water systems. Mr. Jeffares, who is also the President of the Georgia Rural Water Association, discussed how that in Georgia's context, cybersecurity is not a top concern for these communities due to factors like population size, limited use of Supervisory Control and Data Acquisition (SCADA) systems, and limited internet connectivity. With already insufficient personnel to conduct mandatory compliance testing, handle reporting, and respond to routine emergencies, small communities need targeted assistance to address their most pressing needs, not more regulatory burdens. Cathy Tucker-Vogel of the Association of State Drinking Water Administrators (ASDWA) pointed in her written testimony that unlike traditional contaminants regulated under the Safe Drinking Water Act (SDWA), cybersecurity requires an approach outside of the SDWA's regulatory processes like the Maximum Contaminant Level (MCL).

Another issue with that could come with increased regulation are the concerns about protecting sensitive information, as violations and enforcement actions are publicly accessible and may expose vulnerabilities identified through assessments. Ms. Tucker-Vogel discussed how many states lack adequate authorities to safeguard sensitive



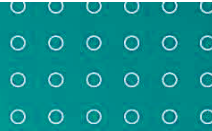
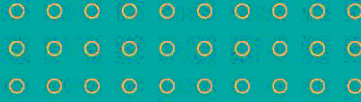
infrastructure information, particularly concerning cybersecurity risks that could be exploited if made public. Revealing the cyber vulnerabilities of systems could provide a roadmap for potential attacks, even if the specific nature of the vulnerability remains undisclosed.

Resource Sharing and Coordination

In the realm of cybersecurity within the drinking water sector, effective resource sharing and coordination play pivotal roles in fortifying defenses against emerging threats and ensuring the resilience of critical infrastructure. Mr. Jeffares pointed out that with over 50,000 community water systems in the country, to adequately address cybersecurity on this scale will require industry participation at all levels, both urban and rural with all levels of government.

Scott Dewhirst, of the Association of Metropolitan Water Agencies (AMWA), highlighted sector-specific resources such as the Water Information Sharing and Analysis Center (WaterISAC). Since the cyberattack on the Aliquippa water system last year, WaterISAC has actively responded by issuing multiple reports, updates, and advisories. These reports reference the incident and provide specific recommendations for water systems to address similar vulnerabilities in their utilities. At present, only about 400 of the nation's nearly 50,000 community water systems and 16,000 wastewater systems are WaterISAC members that enjoy full access to the complete library of threat and vulnerability alerts, subject matter expertise, and other information.

Established in 2002 with initial federal funding and subsequent congressional appropriations, WaterISAC's membership includes drinking water and wastewater utilities that serve approximately 60% of the U.S. population. The center is sustained through member dues, determined by system size to enable any drinking water system to afford membership. Later in the hearing, Rep. Jan Schakowsky (D-IL-09) discussed her bill, the Water System Threat Preparedness and Resilience Act (H.R. 1367). This proposed legislation aims to authorize an EPA program encouraging eligible entities to participate in WaterISAC by allowing the EPA to offset costs incurred with maintaining or initiating WaterISAC memberships. It would also direct the EPA to collaborate with WaterISAC on incident data collection and analysis of threats to the water sector. This follows with Subcommittee Ranking Member Paul Tonko's (D-NY-20) suggestion that larger water systems need to work with smaller entities to share information and resources to improve cybersecurity in the sector as a whole.



House Transportation and Infrastructure (T&I) Full Committee Markup on Legislation Intended to “Increase Clean Water Act Permitting Efficiency”

The Transportation and Infrastructure Committee met on Wednesday, January 31, 2024, to consider a package of bills intended to “Increase Clean Water Act Permitting Efficiency.” However, during the session—which was at-times fraught—Democrats on the panel characterized the proceedings as, “ill-advised attacks on the Clean Water Act.”

The highest priority legislation under consideration was an Amendment in the Nature of a Substitute (ANS) to H.R. 7023, *Creating Confidence in Clean Water Permitting Act*. The ANS, drafted by the committee’s Republican majority staff, is comprised of the text of five standalone bills previously introduced in the House: the *Water Quality Criteria Development and Transparency Act*, the *Confidence in Clean Water Permits Act*, the *Reducing Permitting Uncertainty Act*, the *Nationwide Permitting Improvement Act*, and the *Judicial Review Timeline Clarity Act*. Text of the legislation can be found [here](#).

During the Markup, the committee also considered the following bills of significance:

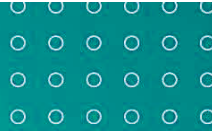
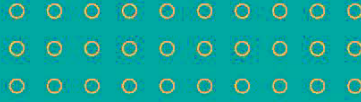
- H.R. 5089, *Reducing Regulatory Burdens Act*. [Text](#)
- H.R. 7070, *Wildfire Response Improvement Act*. [Text](#)

Below is a synopsis of each piece of legislation, the committee proceedings, and a discussion of relevant amendments which were offered during the Markup.

H.R. 7023, *Creating Confidence in Clean Water Permitting Act*

Introduced by Water Resources and Environment Subcommittee Chairman David Rouzer (R-NC-07), the collection of bills was characterized as an attempt to ease and clarify “overbearing” regulation on industries by clarifying clean water permitting practices, while balancing “sound environmental policy.” Moreover, Mr. Rouzer suggested the package was an attempt to “modernize” the Clean Water Act (CWA), and protect the CWA from “weaponization” beyond its original intent by “radical environmental groups”, who Mr. Rouzer suggested use the CWA and Endangered Species Act (ESA) to engage in costly litigation and slow down the permitting processes for industrial and transportation needs. This sentiment was echoed by Transportation and Infrastructure Committee Chairman Sam Graves (R-MO-06) who said in his opening statement, “Clean water supports healthy communities, and a variety of industries.”

Ranking Member Rick Larson (D-WA-02) opposed the legislation, arguing that it would not only impede regulatory efficiency but also restrict the EPA's ability to set water quality standards, shield industrial polluters from accountability for hazardous discharges,



eliminate the EPA's power to veto projects permanently, and reduce scrutiny of significant and potentially harmful endeavors. In his comments, Mr. Larson specifically mentioned municipal wastewater utilities saying, "Proponents of this legislation say it will enhance regulatory certainty for municipal wastewater treatment facilities, however in doing so, the legislation also weakens requirements on mining operations and landfills, while also removing any incentive for industrial and toxic dischargers to report to federal and state agencies the unregulated chemical mixtures that may emanate from their facilities."

The five bills in the ANS include:

Nationwide Permitting Improvement Act (H.R. 7023)

Introduced by Water Resources and Environment Subcommittee Chairman David Rouzer (R-NC-07), this bill intends to simplify the Nationwide Permit (NWP) process. It extends the reissuance period for general permit holders from five to ten years, specifies that only categories under [CWA Section 404](#) authority are considered when issuing NWPs, and outlines a straightforward reissuance procedure.

Reducing Permitting Uncertainty Act (H.R. 7026)

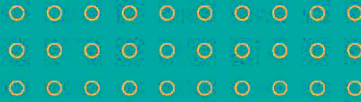
Introduced by Rep. Pete Stauber (R-MN-08), this bill restricts the EPA's authority to veto Clean Water Act Section 404 dredge and fill permits. It prohibits preemptive vetoes before permit applications are filed or revocations after permits are issued by the Army Corps of Engineers. The bill ensures that the EPA can only exercise veto authority while a permit application is pending through the regular permitting process, as outlined in the CWA.

Water Quality Criteria Development and Transparency Act (H.R. 7021)

Introduced by Rep. Burgess Owens (R-UT-04), this bill creates a new process for EPA's development of water quality criteria, commonly applied in National Pollutant Discharge Elimination System (NPDES) permits. The new procedure aims to enhance public participation and constrain judicial review. Currently, the EPA formulates recommended water quality criteria under the Clean Water Act (CWA), which numerous states utilize for NPDES permitting tasks.

Judicial Review Timeline Clarity Act (H.R. 7008)

Introduced by Rep. Eric Burlison (R-MO-07), this bill imposes time limits on judicial review for Clean Water Act Section 404 dredge and fill permits to prevent project delays due to litigation. It mandates that lawsuits challenging a permit must be filed within sixty days of its issuance. If a court finds that the Secretary of the Army didn't comply with the statute when issuing a permit, the bill requires the Secretary to take court-ordered action within 180 days.



Confidence in Clean Water Permits Act (H.R. 7013)

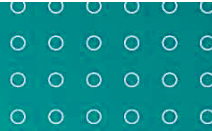
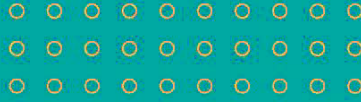
Introduced by Rep. John Duarte (R-CA-13), mandates that NPDES permits must include only clear, objective, concrete limits on specific pollutants or waterbody conditions, and that as long as permit holders are adhering to these clear effluent limitations, they are in compliance. Additionally, the bill shields permit holders from liability as long as they are following the terms in their NPDES permits, and have provided all relevant information to the EPA during the application process.

During the proceedings, several amendments were offered by members of the committee as outlined below:

- Rep. Greg Stanton (D-AZ-04) offered an amendment pausing the implementation of any changes in the bill until the EPA determined that its provisions would not negatively impact surface waters used in the drinking water supply in arid regions of the country. The amendment failed on a party line vote of 32-30.
- Rep. Chris Pappas (D-NH-01) offered an amendment requiring any CWA permit holder to monitor for PFAS discharge, in order to be in compliance with their permit. The amendment failed by a voice vote.
- Rep. Pat Ryan (D-NY-18) offered an amendment preventing the legislation from taking effect until the EPA determined whether or not the legislation would increase the discharge into water of any forever chemical (such as PFAS) or nutrient known to negatively impact reproductive or developmental health, or increase the likelihood of contracting diseases such as cancer. The amendment failed along a party line vote of 32-30.
- Rep. Jared Huffman (D-CA-02) offered an amendment to re-name the legislation the *Dirty Water Permitting Act*. This amendment drew a rise from Republican members of the committee and was chastised for being too partisan and inappropriate. The amendment failed by a voice vote.
- Rep. Garrett Graves (R-LA-06) offered an amendment compelling the Army Corps of Engineers and the EPA to issue guidance on the implementation of the final revised “Waters of the United States” (WOTUS) rule following the decision of the Supreme Court in *Sackett v. EPA*. This amendment revived bipartisan support and was passed by a voice vote.

The ANS to H.R. 7023 was passed by the committee on a party line vote of 32-30, and now must be considered by the whole House.

H.R. 5089, Reducing Regulatory Burdens Act



Introduced by Chairman David Rouzer (R-NC-07), this bill alters pesticide regulations concerning navigable waters. The proposed legislation prohibits the Environmental Protection Agency (EPA) or states from mandating permits under the National Pollutant Discharge Elimination System (NPDES) of the Clean Water Act (CWA) for pesticide discharges into navigable waters if the pesticides are registered, used appropriately, and comply with label requirements.

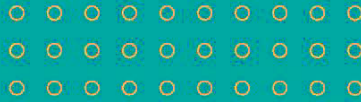
However, Ranking Member Rick Larson (D-WA-02) cautioned that the bill would eliminate Clean Water Act permitting requirements for pesticide discharges into U.S. waters, potentially exposing rivers, lakes, and streams to harmful pollutants.

- Rep. Grace Napolitano (D-CA-32) offered an amendment to retain current CWA requirements for waters which states as currently failing to meet water quality standards related to pesticides or pesticide residues. Specifically, Ms. Napolitano cited her concern for, “An increase in costs for water agencies and ratepayers to clean pesticides out of drinking water.” The amendment failed by a party line vote of 32-30.
- Rep. Emilia Sykes (D-OH-13) offered an amendment to reinstate the requirement for a NPDES permit if the discharge may result in increased costs to treat wastewater or drinking water, “To protect ratepayers from corporate pollution.” The amendment was opposed by Republicans on the panel due to concern of the potential for increased litigation. The amendment failed by a party line vote of 32-30.

H.R. 5089 was passed by the committee along a party line vote of 32-30, and now must be considered by the whole House.

H.R. 7070, Wildfire Response Improvement Act

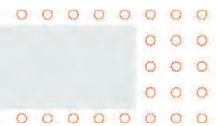
The legislation, introduced by Reps. Greg Stanton (D-AZ-04) and Doug LaMalfa (R-CA-01), requires the Federal Emergency Management Agency (FEMA) to update its regulations and guidance concerning wildfire response and mitigation programs. These updates aim to enhance FEMA's support for wildfire recovery, including debris removal, emergency measures, and protection of drinking water resources. Additionally, the bill proposes adjustments to FEMA's benefit-cost analysis for wildfire mitigation projects, making them more competitive for federal funding. Currently, FEMA assistance for wildfires ceases once the flames are extinguished, leaving state and local governments to shoulder the financial burden of post-fire risks like mudslides and flooding. The legislation seeks to align wildfire post-disaster funding with FEMA's protocols for other severe weather events, recognizing the escalating challenges posed by wildfires in the American West due to climate change.



- Rep. John Garamendi (D-CA-08) offered an amendment brought to him by Sen. Alex Padilla (D-CA) and Rep. Joe Neguse (D-CO-02) requiring FEMA to provide 75% assistance of total costs for wildfire recovery. However, given the budgetary implications of the amendment, it needed a “score” from the Congressional Budget Office (CBO) in order to be made “in order.” Since the amendment did not have a CBO score, it was forced to be withdrawn from consideration.
- Rep. Scott Perry (R-PA-10) offered an amendment prohibiting federal disaster recovery funds from going to states which had “repeatedly failed” to adhere to a wildfire suppression plan. By nature, the amendment was designed to make a political point against the State of California, and was widely criticized by bipartisan members of the committee. The amendment failed by a voice vote.

H.R. 7070 enjoyed bipartisan support by the committee, and was passed by a voice vote. It now must be considered by the whole House.

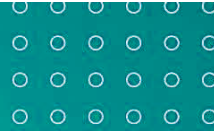
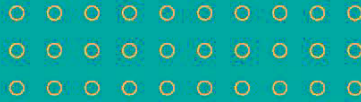
Federal Budget/Appropriations



As time winds down on two major federal funding deadlines in early March, Congress has made little progress towards resolving differences which have thwarted the passage of recent funding attempts, and shown minimal urgency in addressing the situation. The House adjourned for a Presidents Day recess on February 15, 2024, and does not return until the evening of February 28, 2024. Upon their return, there will be only three days to fund significant portions of the federal government, or face a partial shutdown. A week later, there’s a second federal funding deadline.

By **March 1, 2024**, Congress must pass funding for the following funding bills: Agriculture, Energy and Water, Transportation-HUD, & Veterans Affairs. Likewise, by **March 8, 2024**, they must fund: Commerce-Justice-Science, Defense, Financial Services & General Government, Homeland Security, Interior-Environment, Labor-HHS-Education, the Legislative Branch, & State & Foreign Operations.

In addition, reauthorization deadlines for the Federal Aviation Administration (FAA) and Foreign Intelligence Surveillance Act (FISA) still loom; hamstrung by a failed effort to consider FISA reauthorization on the House Floor this week. Furthermore, discussions are ongoing surrounding the House Agriculture Committee seeking passage of the Farm Bill this Spring, despite marginal progress and legislative time running out.



Administration/Regulatory



Biden Administration Announces \$6 Billion for Water and Wastewater Infrastructure

On Monday, February, 20, 2024, the Vice President Kamala Harris and Environmental Protection Agency (EPA) Administrator Michael Regan announced \$5.8 billion in funding for clean water infrastructure, made possible by the Bipartisan Infrastructure Law. The \$5.8 billion will be distributed among all states through the Drinking Water and Clean Water State Revolving Funds. California is set to receive the largest allotment, and it is intended to speed up the replacement of lead pipes, upgrade aging water and wastewater infrastructure, and remove forever chemicals, such as PFAS, from drinking water. Nearly half of the funds—\$2.6 billion—will be aimed at improving wastewater and sanitation infrastructure, and will come in the form of grants or forgivable loans through the Drinking Water and Clean Water State Revolving Funds. Likewise, over \$1 billion will be earmarked specifically for removing emerging contaminants, like PFAS, from drinking water and wastewater, also via grants or forgivable loans.

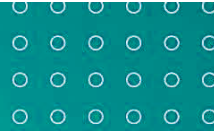
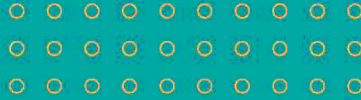
EPA Names Bruno Pigott Acting Assistant Administrator for Water

The U.S. EPA Office of Water will be under new leadership following the departure of the current Assistant Administrator for Water, Radhika Fox, at the end of February. Mr. Bruno Pigott, the current Principal Deputy Assistant Administrator, and second-in-command at the Office of Water, will take on the role in an acting capacity following two years at EPA and a twenty year career at the Indiana Department of Environmental Management, where he served as the Commissioner of the department from 2017–2021.

The announcement of Mr. Pigott's promotion received positive reactions from both environmental groups and water agencies. Given the election year, it is not certain that the White House will nominate Mr. Pigott to fill the role permanently, which would require Senate approval.

The transition comes as the administration is undertaking an aggressive regulatory push in the water sector; including national drinking water standards for “forever chemicals” such as PFAS, and the replacement of lead pipes.

EPA Proposes Rule Expanding Number of PFAS Listed under RCRA



On February 8, 2024 the Environmental Protection Agency (EPA) proposed a rule that would designate nine PFAS as “hazardous constituents” under the Resource Conservation and Recovery Act (RCRA). This rule would represent a boost in the number of PFAS receiving this designation from four to nine, after an initial rule that was approved by the White House Office of Management and Budget (OMB) on December 21, 2023. Initially committing to listing four PFAS, including PFOA, PFOS, PFBS, and GenX, the EPA has broadened the roster to include five more substances: PFNA, PFHxS, PFDA, PFHxA, and PFBA. This move would seek to empower regulators to enforce cleanup actions at approximately 1,740 waste additional facilities where these PFAS may be released. This proposal is expected to increase alarm for industry groups concerned over potential Superfund liabilities.

USDA Announces \$500M for Wildfire Reduction

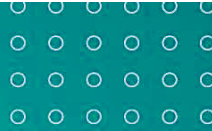
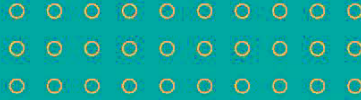
On Monday, February, 20, 2024, the Biden administration unveiled [plans](#) to allocate an additional \$500 million towards mitigating wildfire risks, predominantly in Western states, calling for a new focus on the [wildland-urban interface](#). The majority of the funding, appropriated via the Inflation Reduction Act and the Bipartisan Infrastructure Law, will bolster the Forest Service's existing [10-year wildfire strategy](#), supplementing the over \$1 billion already invested. The program is comprised of two portions of funding: \$400 million designated for projects in twenty-one “high-priority landscapes” across fire-prone Western regions, and \$100 million set aside for a new collaborative wildfire risk reduction program; specifically targeting areas in the wildland-urban interface and restricted to National Forest System land, where 24 states would be eligible to receive funding, including the state of California.

Agriculture Secretary Tom Vilsack emphasized the funding's role in a broader strategy aimed at mitigating wildfire fuel, safeguarding communities, and preserving watersheds amidst escalating climate-related fire threats, further noting the programs contribution to protecting carbon-sequestering old-growth forests.

Judicial/Courts

Judge Approves DuPont’s \$1.185 Billion PFAS Deal With Water Providers

On February 8, 2024, Judge Richard Gergel of the U.S. District Court for the District of South Carolina approved a \$1.185 billion class action settlement between water providers and DuPont as part of massive multi-district PFAS litigation (MDL). Further, he indicated he is



also likely to approve an even bigger proposed settlement, worth between \$10.5 billion and \$12.5 billion, concerning providers and 3M, another manufacturer of PFAS.

The DuPont settlement includes all U.S. public water systems with source water that was found to have PFAS prior to the settlement date, and all U.S. public water systems that, as of the settlement date, are subject to PFAS monitoring under EPA's unregulated contaminants monitoring rule. Approximately 924 public water systems opted out of the proposed settlement –preserving their right to future litigation.

Particular concern was raised by the wastewater and stormwater sector, who are also passive receivers of PFAS, that the release of claims against the manufacturers granted as part of this class action settlement may be applied to them, despite parties in that sector never intending to be part of the settlement. However, these concerns were dismissed by Judge Gergel as, "factually incorrect."

Funding Opportunities



Bureau of Reclamation

WaterSMART: Planning and Project Design

The Bureau of Reclamation opened their funding opportunity for WaterSMART: Planning and Project Design. This grant opportunity is available to assist in improving water management operations, and planning activities related to water supply. This includes water access for disadvantaged communities, project-specific design elements, and comprehensive drought contingency plans. Proposals received after October 17, 2023, and before **April 2, 2024**, at 4:00 p.m. (MT) will be considered for FY 2024 funding, contingent on appropriations. More information can be found [here](#).

WaterSMART Water and Energy Efficiency Grants for Fiscal Year 2025

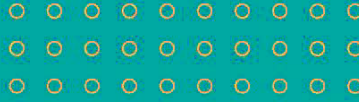
The Bureau of Reclamation has opened their WaterSMART Water and Energy Efficiency Grants for Fiscal Year 2025. This program seeks to provides financial assistance to support projects that result in quantifiable and sustained water savings, implement renewable energy components, and support broader sustainability benefits. The funding structure comprises three groups:

Funding Group I (2 year projects): Up to \$500,000 per agreement



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Funding Group II (3 year projects): Up to \$2,000,000 per agreement
Funding Group III (3 year projects): Up to \$5,000,000 per agreement

The number of approved projects is estimated to be around 40-50, contingent upon the availability of funds. Applicants must be capable of cost sharing 50 percent or more of the total project costs at the time of award. Applications are due **October 30, 2024**. More information can be found [here](#).

Sewer Overflow and Stormwater Reuse Municipal Grants Program

The Environmental Protection Agency's (EPA) Sewer Overflow and Stormwater Reuse Municipal Grants Program is a government initiative aimed at addressing the challenges associated with sewer overflows and stormwater management in municipalities. This program focuses on providing financial assistance and resources to local governments and communities to implement effective solutions for controlling and mitigating sewer overflows, as well as promoting the sustainable reuse of stormwater. Regions must obligate funds under interagency agreements or direct grants to state entities by **September 30, 2024**, or the funds may be subject to Congressional rescission. More information can be found [here](#).



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February 2024 Bill Tracking Matrix

Legislation	Summary	Status	Cosponsors	# of Cosponsors
H.R. 186 Water Supply Permitting Coordination Act	This bill would authorize the Secretary of the Interior to coordinate Federal and State permitting processes related to the construction of new surface water storage projects on lands under the jurisdiction of the Secretary of the Interior and the Secretary of Agriculture and to designate the Bureau of Reclamation as the lead agency for permit processing, and for other purposes.	01/09/2023 Introduced by Rep. Tom McClintock (R-CA-4) 2/21/2023 Referred to the Subcommittee on Water, Wildlife, and Fisheries.	Rep. Doug LaMalfa (R-CA-1); Rep. David Valadao (R-CA-21); Rep. Cliff Bentz (R-OR-2); Rep. Burgess Owens (R-UT-4); Rep. Pete Stauber (R-MN-8);	5
H.R. 215 WATER for California Act	This bill would provide long-term water supply and regulatory reliability to drought-stricken California, and for other purposes.	1/09/2023 Introduced by Rep. David Valadao (R-CA-21) 10/26/2023 Passed House within H.R. 4394, Energy and Water Appropriations Act. Awaiting consideration in the Senate.	Rep. Ken Calvert (R-CA-42); Rep. John Duarte (R-CA-13); Rep. Mike Garcia (R-CA-25); Rep. Darrell Issa (R-CA-50); Rep. Kevin Kiley (R-CA-3); Rep. Young Kim (R-CA-39); Rep. Doug LaMalfa (R-CA-1); Rep. Kevin McCarthy (R-CA-23);	11
H.R. 250 Clean Water SRF Parity Act	This bill expands the state revolving fund established under the Clean Water Act, including by allowing low-interest loans to be given to privately owned treatment works to address wastewater. Currently, loans are given to wastewater systems that are publicly owned.	01/10/2023 Introduced by Rep. John Garamendi (D-CA-8) 02/01/2023 Referred to the Subcommittee on Water Resources and Environment.	Rep. Mike Bost (R-IL-12); Rep. Donald Norcross (D-NJ-1); Rep. Donald Payne (D-NJ-10); Rep. Mary Peltola (D-AK-1); Rep. Hillary Scholten (D-MI-3); Rep. Abigail Spanberger (D-VA-7)	6
H.R. 369 NIST Wildland Fire Communications and Information Dissemination Act	This bill would require the National Institute of Standards and Technology to conduct research on public safety communication coordination standards among wildland firefighters and fire management response officials.	01/17/2023 Introduced by Rep. Young Kim (R-CA-40) 09/01/2023 09/01/2023 Reported by the Committee on Science, Space, and Technology	Rep. Mike Garcia (R-CA-25); Rep. Teresa Leger Fernandez (D-NM-3); Rep. Joe Neguse (D-CO-2); Rep. Melanie Ann Stansbury (D-NM-1); Rep. Jeff Jackson (D-NC-14)	5
S.21 Community Wildfire Protection Act	This bill would amend the Healthy Forests Restoration Act of 2003 to modify the definition of the term "at-risk community".	01/23/2023 Introduced by Sen. Dianne Feinstein (D-CA) 01/23/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry.	Sen. Daines, Steve (R-MT)	1
H.R. 480 Wildfire Recovery Act	This bill would amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act to provide flexibility with the cost share for fire management assistance, and for other purposes.	01/24/2023 Introduced by Rep. Joe Neguse (D-CO-2) 02/01/2023 Referred to the Subcommittee on Economic Development, Public Buildings, and Emergency Management.	Rep. Salud Carbajal (D-CA-24); Rep. Jim Costa (D-CA-16); Rep. Mark DeSaulnier (D-CA-11); Rep. Anna Eshoo (D-CA-18); John Garamendi (D-CA-3); Rep. Josh Harder (D-CA-10); Rep. Jared Huffman (D-CA-2); Rep. Doug LaMalfa (R-CA-1);	31
H.R. 482 Western Wildfire Support Act	This bill seeks to improve Federal activities relating to wildfires, and for other purposes. <i>This bill is the House companion to S.1764.</i>	01/24/2023 Introduced by Rep. Joe Neguse (D-CO-2) 02/21/2023 Referred to the Subcommittee on Federal Lands.	Rep. Doris Matsui (D-CA-6); Rep. Jimmy Panetta (D-CA-20); Rep. Adam Schiff (D-CA-28); Rep. Steven Horsford (D-NV-4)	4
S. 64 Water Rights Protection Act of 2023	A bill to prohibit the conditioning of any permit, lease, or other use agreement on the transfer of any water right to the United States by the Secretary of the Interior and the Secretary of Agriculture, and for other purposes.	01/25/2023 Introduced by Senator John Barrasso (R-WY) 01/25/2023 Referred to the Committee on Energy and Natural Resources.	Sen. Mike Crapo (R-ID); Sen. James Risch (R-ID)	2
S.115 Clean Water Allotment Modernization Act	This bill revises the formula the Environmental Protection Agency (EPA) uses to determine how to distribute funds from the Clean Water State Revolving Fund (SRF) program. Under the program, the EPA allocates funding to states for water quality infrastructure projects, such as wastewater systems and stormwater management projects. <i>This bill is the Senate companion to H.R. 3167.</i>	01/26/2023 Introduced by Senator Marco Rubio (R-FL) 01/26/2023 Read twice and referred to the Committee on Environment and Public Works.	Sen. Kelly, Mark (D-AZ); Sen. Rick Scott (R-FL)	2



S. 188 Wildfire Emergency Act of 2023	A bill to direct the Secretary of Agriculture to select and implement landscape-scale forest restoration projects, to assist communities in increasing their resilience to wildfire, and for other purposes.	01/31/2023 Introduced by Senator Dianne Feinstein (D-CA) 01/31/2023 Referred to the Committee on Energy and Natural Resources.	Sen. Alex Padilla (D-CA) ; Sen. Steve Daines (R-MT); Sen. Ron Wyden (D-OR)	3
H.J.Res 27 Providing for congressional disapproval under chapter 8 of title 5, United States Code, of the rule submitted by the Department of the Army, Corps of Engineers, Department of Defense and the Environmental Protection Agency relating to 'Revised Definition of 'Waters of the United States'".	This joint resolution nullifies the rule titled Revised Definition of "Waters of the United States," which was submitted by the U.S. Army Corps of Engineers and the Environmental Protection Agency on January 18, 2023. The rule specifies which bodies of water fall under the scope of the Clean Water Act and are thereby under federal jurisdiction and protected. For example, the definition in the 2023 rule includes certain wetlands and ephemeral waters (e.g., waters that flow intermittently). The 2023 rule replaced the 2020 Navigable Waters Protection Rule that included a narrower definition of waters of the United States.	02/02/2023 Introduced by Rep. Sam Graves (R-MO-06). 04/18/2023 The Chair directed the Clerk to notify the Senate of the action of the House.	Rep. Ken Calvert (R-CA-42) ; Rep. John Duarte (R-CA-13) ; Rep. Mike Garcia (R-CA-25) ; Rep. Darrell Issa (R-CA-50) ; Rep. Kevin Kiley (R-CA-3) ; Rep. Doug LaMalfa (R-CA-1) ; Rep. Tom McClintock (R-CA-4) ; Rep. David Valadao (R-CA-21) ; Rep. Robert Aderholt (R-AL-4); Rep. Mark Alford (R-MO-4); Rep. Rick Allen (R-GA-12); Rep. Mark Amodei (R-NV-2); Rep. Kelly Armstrong (R-ND-1); Rep. Jodev	170
S.J. Res. 7 A joint resolution providing for congressional disapproval under chapter 8 of title 5, United States Code, of the rule submitted by the Department of the Army, Corps of Engineers, Department of Defense and the Environmental Protection Agency relating to 'Revised Definition of 'Waters of the United States'".	This joint resolution nullifies the rule titled Revised Definition of "Waters of the United States," which was submitted by the U.S. Army Corps of Engineers and the Environmental Protection Agency on January 18, 2023. The rule specifies which bodies of water fall under the scope of the Clean Water Act and are thereby under federal jurisdiction. The 2023 rule replaced a 2020 rule that included a narrower definition of waters of the United States.	02/02/2023 Introduced By Senator Shelley Moore Capito (R-WV). 02/13/2023 Star Print ordered on the joint resolution.	Sen. John Barrasso (R-WY); Sen. Marsha Blackburn (R-TN); Sen. John Boozman (R-AR); Sen. Mike Braun (R-IN); Sen. Katie Britt (R-AL); Sen. Ted Budd (R-NC); Sen. Bill Cassidy (R-LA); Sen. Susan Collins (R-ME); Sen. John Cornyn (R-TX); Sen. Thomas Cotton (R-AR); Sen. Kevin Cramer (R-ND); Sen. Mike Crapo (R-ID); Sen. Ted Cruz (R-TX); Sen. Steve Daines (R-MT); Sen. Joni Ernst (R-IA);	49
H.R. 872 FISH Act	This bill gives the Fish and Wildlife Service (FWS) the sole authority to protect endangered or threatened species that are anadromous species (species of fish that spawn in fresh or estuarine waters and that migrate to ocean waters) or catadromous species (species of fish that spawn in ocean waters and migrate to fresh or estuarine waters). Currently, the FWS shares this authority with the National Marine Fisheries Service.	02/08/23 Introduced by Rep. Ken Calvert (R-CA-41) 02/21/23 Referred to the Subcommittee on Water, Wildlife, and Fisheries.	Rep. Jim Costa (D-CA-16) ; Rep. Darrell Issa (R-CA-50) ; Rep. Doug LaMalfa (R-CA-1) ; Rep. Tom McClintock (R-CA-4) ; Rep. Jay Obernolte (R-CA-8) ; Rep. Michelle Steel (R-CA-48) ; Rep. Mike Simpson (R-ID-2);	7
H.R. 873 Water Quality and Environmental Innovation Act	To authorize the Administrator of the Environmental Protection Agency to award grants and contracts for projects that use emerging technologies to address threats to water quality, and for other purposes.	2/8/2023 Introduced by Rep. Byron Donalds (R-FL-19) 02/17/2023 Referred to the Subcommittee on Environment, Manufacturing, and Critical Materials	Rep. Josh Gottheimer (D-NJ-5); Rep. Anna Paulina Luna (R-FL-13); Rep. Troy Nehls (R-TX-22); Rep. Paul Gosar (R-AZ-9)	4
H.R.934 To require the Secretary of Agriculture to carry out activities to suppress wildfires, and for other purposes	This bill would require the Secretary of Agriculture to carry out activities to suppress wildfires, and for other purposes	02/09/2023 Introduced by Rep. Tom McClintock (R-CA-5) 09/20/2023 Ordered to be Reported (Amended) by Voice Vote.	Rep. Ken Calvert (R-CA-42) ; Rep. John Duarte (R-CA-13) ; Rep. Darrell Issa (R-CA-50) ; Rep. Doug LaMalfa (R-CA-1) ; Rep. Jay Obernolte (R-CA-8) ; Rep. Daniel Newhouse (R-WA-4)	7
H.R. 1049 Protecting Airport Communities from Particle Emissions Act	To direct the Administrator of the Federal Aviation Administration to conduct a study relating to ultrafine particles, and for other purposes.	02/14/2023 Introduced by Rep. Adam Smith (D-WA-9) 02/24/23 Referred to the Subcommittee on Environment, Manufacturing, and Critical Materials.	Rep. Suzan DelBene (D-WA-1); Rep. Pramila Jayapal (D-WA-7); Rep. Grace Meng (D-NY-6); Rep. Eleanor Norton (D-DC-1)	4
S.466 Federal PFAS Research Evaluation Act	The bill requires the National Science Foundation (NSF) to enter into an agreement with the National Academies of Sciences, Engineering, and Medicine (NASEM) to conduct a two-phase study and report on the research and development needed to advance human exposure estimation and toxicity hazard estimation of individual or total PFAS.	02/16/2023 Introduced by Sen. Gary Peters (D-MI) 02/16/2023 Read twice and referred to the Committee on Commerce, Science, and Transportation	Sen. Richard Durbin (D-IL); Sen. Jerry Moran (R-KS); Sen. Jeanne Shaheen (D-NH)	3



H.R.1142 - To amend the Endangered Species Act of 1973 to require consideration of economic impact in making a listing decision with respect to the list of threatened and endangered species, and for other purposes.	This bill would amend the Endangered Species Act of 1973 to require consideration of economic impact in making a listing decision with respect to the list of threatened and endangered species, and for other purposes.	02/21/2023 Introduced by Rep. August Pfluger (R-TX-11) 03/22/2023 Referred to the Subcommittee on Water, Wildlife, and Fisheries.	Rep. Tom McClintock (R-CA-4); 4 Rep. Ronny Jackson (R-TX-13); Rep. Tracey Mann (R-KS-1); Rep. Greg Steube (R-FL-17)
H.R. 1152 Water Quality Certification and Energy Project Improvement Act of 2023	This bill would amend the Federal Water Pollution Control Act to make changes with respect to water quality certification, and for other purposes.	02/24/2023 Introduced by Rep. David Rouzer (R-NC-7) 03/17/2023 Reported by the Committee on Transportation and Infrastructure. H. Rept. 118-10.	Rep. Garret Graves (R-LA-6); Rep. Scott Perry (R-PA-10)
H.R. 1181 To amend the Federal Water Pollution Control Act with respect to permitting terms, and for other purposes.	This bill extends the maximum term for certain permits issued under the National Pollutant Discharge Elimination System (NPDES) program. Specifically, the bill extends the maximum term for NPDES permits issued to states or municipalities from 5 to 10 years. Under the program, the Environmental Protection Agency issues permits to discharge pollutants from point sources, such as pipes, into waters of the United States.	02/24/2023 Introduced by Rep. John Garamendi (D-CA-8) 02/27/2023 Referred to the Subcommittee on Water Resources and Environment.	Rep. Eric Swalwell (D-CA-15); Rep. Ken Calvert (R-CA-42); Rep. Andre Carson (D-IN-7); Rep. Garret Graves (R-LA-6);
H.R.1367 Water System Threat Preparedness and Resilience Act	This bill requires the Environmental Protection Agency (EPA) to create a program to support increased membership and involvement of certain smaller water utilities and water treatment works (e.g., wastewater systems) in the Water Information Sharing and Analysis Center (WaterISAC). <i>This bill is the House companion to S. 660.</i>	03/03/2023 Introduced by Rep. Janice Schakowsky (D-IL-8) 03/10/2023 Referred to the Subcommittee on Environment, Manufacturing, and Critical Materials	0
S.660 Water System Threat Preparedness and Resilience Act	This bill requires the Environmental Protection Agency (EPA) to create a program to support increased membership and involvement of certain smaller water utilities and water treatment works (e.g., wastewater systems) in the Water Information Sharing and Analysis Center (WaterISAC). As background, WaterISAC is a group of water and wastewater systems and associations that coordinate with the EPA and other federal agencies to collect and analyze data on water security and threats. WaterISAC also provides analysis and resources to support response, mitigation, and resilience initiatives. <i>This bill is the Senate companion to H.R. 1367.</i>	03/06/2023 Introduced by Sen. Edward Markey (D-MA) 03/06/2023 Read twice and referred to the Committee on Environment and Public Works	0
H.R. 1430 Determination of NEPA Adequacy Streamlining Act	This bill would direct the Secretary of the Interior and the Secretary of Agriculture to use certain previously completed environmental assessments and environmental impact statements to satisfy the review requirements of the National Environmental Policy Act of 1969, and for other purposes.	03/07/2023 Introduced by Rep. David Valadao (R-CA-21) 04/25/2023 Referred to the Subcommittee on Forestry.	0
S.702 Urban Waters Federal Partnership Act	This bill provides statutory authority for the Urban Waters Federal Partnership Program. Under the program, the Environmental Protection Agency and other specified agencies must reconnect urban communities, particularly urban communities that are overburdened or economically distressed, with their waterways by improving coordination among federal agencies.	03/08/2023 Introduced by Sen. Krysten Sinema (I-AZ) 03/08/2023 Read twice and referred to the Committee on Environment and Public Works.	Sen. John Cornyn (R-TX); Sen. Mark Kelly (D-AZ)
H.R.1517 Relief for Farmers Hit with PFAS Act	This bill would authorize the Secretary of Agriculture to provide grants to States, territories, and Indian Tribes to address contamination by perfluoroalkyl and polyfluoroalkyl substances on farms, and for other purposes. <i>This bill is the House companion to S. 747.</i>	03/09/2023 Introduced by Rep. Chellie Pingree (D-ME-1) 03/09/2023 Referred to the House Committee on Agriculture	Rep. Becca Balint (D-VT-1); Rep. Joe Courtney (D-CT-2); Rep. Teresa Leger Fernandez (D-NM-3); Rep. Brian Fitzpatrick (R-PA-1); Rep. Jared Golden (D-ME-2); Rep. Val Hoyle (D-OR-4); Rep.
S.747 Relief for Farmers Hit with PFAS Act	This bill would authorize the Secretary of Agriculture to provide grants to States, territories, and Indian Tribes to address contamination by perfluoroalkyl and polyfluoroalkyl substances on farms, and for other purposes. <i>This bill is the Senate companion to H.R. 1517.</i>	03/09/2023 Introduced by Sen. Susan Collins (R-ME) 03/09/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry.	Sen. Tammy Baldwin (D-WI); Sen. Kirsten Gillibrand (D-NY); Sen. Maggie Hassan (D-NH); Sen. Angus King (I-ME); Sen. Ben Lujan (D-NM); Sen. Bernie Sanders (I-VT); Sen. Jeanne Shaheen (D-NH)



H.R. 1586 Forest Protection and Wildland Firefighter Safety Act of 2023	This bill would allow the Secretary of the Interior and the Secretary of Agriculture to use a fire retardant, chemical, or water for fire suppression, control, or prevention activities.	3/14/2023 Introduced by Rep. Doug LaMalfa (R-CA-1) 1/15/2023 Ordered to be Reported in the Nature of a Substitute by Voice Vote	Rep. Jay Obernolte (R-CA-8); Rep. David Valadao (R-CA-21); Rep. Ken Calvert (R-CA-42); Rep. Jim Costa (D-CA-16); Rep. Rick Crawford (R-AR-1); Rep. John Duarte (R-CA-13); ; Rep. John Garamendi (D-CA-3);	37
H.R. 1 Lower Energy Costs Act	To lower energy costs by increasing American energy production, exports, infrastructure, and critical minerals processing, by promoting transparency, accountability, permitting, and production of American resources, and by improving water quality certification and energy projects, and for other purposes.	03/14/2023 Introduced by Rep. Steve Scalise (R-LA-1) 03/30/2023 The Clerk was authorized to correct section numbers, punctuation, and cross references, and to make other necessary technical and conforming corrections in the engrossment of H.R. 1.	Rep. Tom McClintock (R-CA-4); Rep. Robert Aderholt (R-AL-4); Rep. Rick Allen (R-GA-12); Rep. Kelly Armstrong (R-ND-1); Rep. Troy Balderson (R-OH-12); Rep. Lauren Boebert (R-CO-3); Rep. Michael Burgess (R-TX-26); Rep. Kat Cammack (R-FL-3); Rep. Mike Carey (R-OH-15); Rep. Buddy Carter (R-GA-1); Rep. Dan Crenshaw (R-TX-2); Rep. John	49
S.806 Healthy H2O Act	This bill would amend the Consolidated Farm and Rural Development Act to establish a grant program to assist with the purchase, installation, and maintenance of point-of-entry and point-of-use drinking water quality improvement products, and for other purposes. <i>This bill is the Senate companion to H.R. 1721.</i>	03/15/2023 Introduced by Sen. Tammy Baldwin (D-WI) 03/15/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry	Sen. Alex Padilla (D-CA); Sen. Susan Collins (R-ME); Sen. Angus King (I-ME); Sen. Jeanne Shaheen (D-NH); Sen. Tina Smith (D-MN); Sen. Ron Wyden (D-OR); Sen. Ben Ray Lujan (D-NM); Sen. Peter Welch (D-VT)	10
S. 820 Protecting Consumers from PFAS Act	This bill would require the Consumer Product Safety Commission (CPSC) to be added to the Administration interagency work group that coordinates federally funded PFAS research and development.	03/15/2023 Introduced by Sen. Gary Peters (D-MI) 11/27/2023 Placed on Senate Legislative Calendar under General Orders	Sen. Susan Collins (R-ME); Sen. Cynthia Lummis (R-WY); Sen. Peter Welch (D-VT)	3
H.R.1721 Healthy H2O Act	This bill would amend the Consolidated Farm and Rural Development Act to establish a grant program to assist with the purchase, installation, and maintenance of point-of-entry and point-of-use drinking water quality improvement products, and for other purposes. <i>This bill is the House companion to S. 806.</i>	03/22/2023 Introduced by Rep. Chellie Pingree (D-ME-1) 04/25/2023 Referred to the Subcommittee on Commodity Markets, Digital Assets, and Rural Development.	Rep. Mike Levin (D-CA-49); Rep. Josh Harder (D-CA-10); Rep. David Valadao (R-CA-21); Rep. Adam Schiff (D-CA-28); Rep. Shontel Brown (D-OH-11); Rep. Brian Fitzpatrick (R-PA-1); Rep. Mike Gallagher (R-WI-8); Rep. Mike Lawler (R-NY-17);	29
H.R.1729 Water Affordability, Transparency, Equity, and Reliability Act	This bill would establish a trust fund to provide for adequate funding for water and sewer infrastructure, and for other purposes.	03/22/2023 Introduced by Rep. Bonnie Watson Coleman (D-NJ-12) 04/25/2023 Referred to the Subcommittee on Commodity Markets, Digital Assets, and Rural Development.	Rep. Kevin Mullin (D-CA-15); Rep. Jimmy Panetta (D-CA-20); Rep. Ro Khanna (D-CA-17); Rep. Barbara Lee (D-CA-13); Rep. Ted Lieu (D-CA-33); Rep. Doris Matsui (D-CA-6); Rep. Sara Jacobs (D-CA-52); Rep.	88
H.R. 1740 To amend the Water Infrastructure Finance and Innovation Act of 2014 to establish payment and performance security requirements for projects, and for other purposes.	To amend the Water Infrastructure Finance and Innovation Act of 2014 to establish payment and performance security requirements for projects, and for other purposes.	3/23/2023 Introduced by Rep. Mike Bost (R-IL-12). 03/31/2023 Referred to the Subcommittee on Environment, Manufacturing, and Critical Materials.	Rep. Julia Brownley (D-CA-26); Rep. Colin Allred (D-TX-32); Rep. Jake Auchincloss (D-MA-4); Rep. Troy Balderson (R-OH-12); Rep. Josh Gottheimer (D-NJ-5); Rep. Tom Kean (R-NJ-7); Rep. Stephen Lynch (D-MA-8); Rep. Chris Pappas (D-NH-1); Rep.	11
S. 1022 Define WOTUS Act	This bill would amend the Federal Water Pollution Control Act to modify the definition of navigable waters, and for other purposes.	03/29/2023 Introduced by Sen. Mike Braun (R-IN) 03/29/2023 Read twice and referred to the Committee on Environment and Public Works.	Sen. Joni Ernst (R-IA); Sen. Chuck Grassley (R-IA)	2
S. 1023 Farmer-Informed WOTUS Act	This bill would establish an advisory committee to inform Congress of the impact of Waters of the United States regulations on United States agriculture, and for other purposes. <i>This bill is the Senate companion to H.R 4956.</i>	03/29/2023 Introduced by Sen. Mike Braun (R-IN) 03/29/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry.	Sen. John Kennedy (R-LA); Sen. Pete Ricketts (R-NE); Sen. Mike Rounds (R-SD); Sen. Rick Scott (R-FL); Sen. Tommy Tuberville (R-AL)	5



H.R. 2419 Canal Conveyance Capacity Restoration Act	This bill would provide financial assistance for projects to address certain subsidence impacts in the State of California, and for other purposes. <i>This bill is the House companion to S.2161.</i>	03/30/2023 Introduced by Rep. Jim Costa (D-CA-16) 05/08/2023 Referred to the Subcommittee on Water, Wildlife, and Fisheries.	Rep. John Garamendi (D-CA-3); Rep. Josh Harder (D-CA-10)	2
H.R.2521 Clean Drinking Water Equity Act	This bill would amend the Safe Drinking Water Act with respect to assistance for disadvantaged communities, and for other purposes.	04/06/2023 Introduced by Rep. Raul Ruiz (D-CA-25) 04/14/2023 Referred to the Subcommittee on Environment, Manufacturing, and Critical Materials.		0
H.R.2670 National Defense Authorization Act for Fiscal Year 2024	This bill authorizes FY2024 appropriations and sets forth policies for Department of Defense (DOD) programs and activities, military construction, and the national security programs of the Department of Energy (DOE). The bill authorizes appropriations, but does not provide budget authority, which is provided by appropriations legislation. <i>This is the House counterpart to S.2226.</i>	04/18/2023 Introduced by Rep. Mike Rogers (R-AL-3) 12/22/2023 Became Public Law No: 118-31	Rep. Adam Smith (D-WA-9)	1
H.R. 2735 Coastal State Climate Preparedness Act of 2023	This bill directs the Department of Commerce to establish a coastal climate change adaptation preparedness and response program. Under the program, Commerce must (1) assist coastal states with voluntarily developing coastal climate change adaptation plans, and (2) provide financial and technical assistance as well as training for coastal states to implement the adaptation plans.	04/20/2023 Introduced by Rep. Salud Carbajal (D-CA-24) 05/22/2023 Referred to the Subcommittee on Water, Wildlife, and Fisheries	Rep. Ted Lieu (D-CA-33); Rep. Brian Fitzpatrick (R-PA-1); Rep. Lawler, Michael (R-NY-17)	3
H.R. 2787 To amend the Consolidated Farm and Rural Development Act to modify provisions relating to rural decentralized water systems grants	This bill would amend the Consolidated Farm and Rural Development Act to modify provisions relating to rural decentralized water systems grants. <i>This bill is the House companion to S.1233.</i>	04/20/2023 Introduced by Rep. Terri Sewell (D-AL-7) 05/15/2023 Referred to the Subcommittee on Commodity Markets, Digital Assets, and Rural Development.	Rep. Mike Rogers (R-AL-3)	1
S.1233 A bill to amend the Consolidated Farm and Rural Development Act to modify provisions relating to rural decentralized water systems grants	This bill would amend the Consolidated Farm and Rural Development Act to modify provisions relating to rural decentralized water systems grants. <i>This bill is the Senate companion to H.R. 2787.</i>	04/20/2023 Introduced by Sen. Cory Booker (D-NJ) 04/20/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry	Sen. Shelley Capito (R-WV)	1
H.R. 2811 Limit, Save, Grow Act of 2023	This bill increases the federal debt limit and decreases spending. It also repeals several energy tax credits, modifies the permitting process and other requirements for energy projects, expands work requirements for the Supplemental Nutrition Assistance Program (SNAP) and other programs, and nullifies regulations for the cancellation of federal student loan debt.	04/25/2023 Introduced by Rep. Jodey Arrington (R-TX-19) 05/04/2023 Committee on the Budget. Hearings held.	Rep. Rep. Tom McClintock (R-CA-4); Rep. Stephanie Bice (R-OK-5); Rep. Michael Burgess (R-TX-26); Rep. Buddy Carter (R-GA-1); Rep. James Comer (R-KY-1); Rep. Chuck Edwards (R-NC-11); Rep. Virginia Foxx (R-NC-5); Kay Granger (R-TX-12); Rep. Sam	19
S.1360 PFAS Exposure Assessment and Documentation Act	This bill would require DOD to ensure that any periodic health assessment, physical assessment for recently separated members, pre-deployment medical examination, post-deployment medical examination, and post-deployment health reassessment provided to a member of the Armed Forces includes an evaluation of whether the member has been exposed to PFAS or was based or stationed at a military installation with a known or suspected release of PFAS during the period the member was there.	04/27/2023 Introduced by Sen. Jeanne Shaheen (D-NH) 04/27/2023 Read twice and referred to the Committee on Armed Services		0
H.R.3027 Reclamation Climate Change and Water Program Reauthorization Act	This bill would reauthorize funding for the Reclamation Climate Change and Water Program.	04/28/2023 Introduced by Rep. Katie Porter (D-CA-47) 06/14/2023 Subcommittee Hearings Held	Rep. Sydney Kamlager (D-CA-37); Rep. Mike Levin (D-CA-49); Rep. Zoe Lofgren (D-CA-19); Rep. Grace Napolitano (D-CA-32); Rep. Matsui, Doris O. (D-CA-7); Rep. Melanie Ann	9



S.1427 Agriculture PFAS Liability Protection Act	This bill would exempt certain entities from liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 with respect to releases of perfluoroalkyl and polyfluoroalkyl substances, and for other purposes.	05/03/2023 Introduced by Sen. Cynthia Lummis (R-WY) 05/03/2023 Read twice and referred to the Committee on Environment and Public Works.	Sen. John Boozman (R-AR); Sen. Kevin Cramer (R-ND); Sen. Lindsey Graham (R-SC); Sen. Markwayne Mullin (R-OK); Sen. Pete Ricketts (R-NE); Sen. Dan Sullivan (R-AK); Sen. Roger Wicker (R-MS)	7
S. 1429 Resource Management PFAS Liability Protection Act	This bill would exempt certain entities from liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 with respect to releases of perfluoroalkyl and polyfluoroalkyl substances, and for other purposes.	05/03/2023 Introduced by Sen. Cynthia Lummis (R-WY) 05/03/2023 Read twice and referred to the Committee on Environment and Public Works.	Sen. John Boozman (R-AR); Sen. Kevin Cramer (R-ND); Sen. Lindsey Graham (R-SC); Sen. Markwayne Mullin (R-OK); Sen. Pete Ricketts (R-NE); Sen. Dan Sullivan (R-AK); Sen. Roger Wicker (R-MS)	7
S. 1430 Water Systems PFAS Liability Protection Act	This bill would exempt certain entities from liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 with respect to releases of perfluoroalkyl and polyfluoroalkyl substances, and for other purposes.	05/03/2023 Introduced by Sen. Cynthia Lummis (R-WY) 05/03/2023 Read twice and referred to the Committee on Environment and Public Works.	Sen. John Boozman (R-AR); Sen. Kevin Cramer (R-ND); Sen. Lindsey Graham (R-SC); Sen. Markwayne Mullin (R-OK); Sen. Pete Ricketts (R-NE); Sen. Dan Sullivan (R-AK); Sen. Roger Wicker (R-MS)	7
S.1432 Fire Suppression PFAS Liability Protection Act	This bill would exempt certain entities from liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 for the release of certain perfluoroalkyl or polyfluoroalkyl substances, and for other purposes.	05/03/2023 Introduced by Sen. Cynthia Lummis (R-WY) 05/03/2023 Read twice and referred to the Committee on Environment and Public Works	Sen. John Boozman (R-AR); Sen. Kevin Cramer (R-ND); Sen. Lindsey Graham (R-SC); Sen. Markwayne Mullin (R-OK); Sen. Pete Ricketts (R-NE); Sen. Dan Sullivan (R-AK); Sen. Roger Wicker (R-MS)	7
S.1433 Airports PFAS Liability Protection Act	This bill would exempt certain aviation entities from liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 for the release of certain perfluoroalkyl or polyfluoroalkyl substances, and for other purposes.	05/03/2023 Introduced by Sen. Cynthia Lummis (R-WY) 05/03/2023 Read twice and referred to the Committee on Environment and Public Works	Sen. John Boozman (R-AR); Sen. Kevin Cramer (R-ND); Sen. Lindsey Graham (R-SC); Sen. Markwayne Mullin (R-OK); Sen. Pete Ricketts (R-NE); Sen. Dan Sullivan (R-AK); Sen. Roger Wicker (R-MS)	7
S. 1449 RESTART Act	This bill seeks to improve the environmental review process, and for other purposes.	05/04/2023 Introduced by Sen. Shelley Capito (R-WV) 05/04/2023 Read twice and referred to the Committee on Environment and Public Works.	Sen. John Barrasso (R-WY); Sen. John Boozman (R-AR); Sen. Kevin Cramer (R-ND); Sen. Lindsey Graham (R-SC); Sen. James Lankford (R-OK); Sen. Cynthia Lummis (R-WY); Sen. Pete Ricketts (R-NE); Sen. James Risch (R-ID); Sen. Dan	12
S.1456 SPUR Act	This bill would provide for certain energy development, permitting reforms, and for other purposes.	05/04/2023 Introduced by Sen. Joh Barrasso (R-WY) 05/04/2023 Read twice and referred to the Committee on Energy and Natural Resources.	Sen. Shelley Capito (R-WV); Sen. Bill Cassidy (R-LA); Sen. Steve Daines (R-MT); Sen. Josh Hawley (R-MO); Sen. John Hoeven (R-ND); Sen. Cindy Hyde Smith (R-MS); Sen. James Lankford (R-OK); Sen. Mike Lee	12
H.R.3167 Clean Water Allotment Modernization Act	This bill would amend the Federal Water Pollution Control Act to modify certain allotments under that Act, and for other purposes. <i>This bill is the House companion to S.115.</i>	05/09/2023 Introduced by Rep. Michael Waltz (R-FL-6) 05/10/2023 Referred to the Subcommittee on Water Resources and Environment.	Rep. Vern Buchanan (R-FL-16); Rep. Mario Diaz-Balart (R-FL-25); Rep. Anna Luna (R-FL-13); Rep. Brian Mast (R-FL-18); Rep. John Rutherford (R-FL-4); Rep. Maria Elvira Salazar (R-FL-27); Rep. Daniel Webster (R-FL-10)	7
H.R.3192 PFAS Registry Act	This bill would require the Secretary of Veterans Affairs to establish and maintain a registry for certain individuals who may have been exposed to per- and polyfluoroalkyl substances due to the environmental release of aqueous film-forming foam on military installations.	05/10/2023 Introduced by Rep. Chris Pappas (D-NH-1) 05/26/2023 Referred to the Subcommittee on Health	Rep. Brian Fitzpatrick (R-PA-1); Rep. Ann Kuster (D-NH-2); Rep. Mike Lawler (R-NY-17); Rep. Slotkin, Elissa (D-MI-7)	4



H.R.3316 To amend titles 46 and 49, United States Code, to streamline the environmental review process for major projects, and for other purposes.	This bill would amend titles 46 and 49, United States Code, to streamline the environmental review process for major projects, and for other purposes.	05/15/2023 Introduced by Rep. Rick Crawford (R-AR-1) 05/23/2023 Ordered to be Reported by Voice Vote.	Rep. John Garamendi (D-CA-3); Rep. David Rouzer (R-NC-7); Rep. Chuck Edwards (R-NC-11);	3
H.R.3389 Emergency Wildfire Fighting Technology Act	This bill would require the Secretary of Agriculture, acting through the Chief of the Forest Service, and the Secretary of the Interior to conduct an evaluation with respect to the use of the container aerial firefighting system (CAFFS), and for other purposes.	05/16/2022 Introduced by Rep. David Valadao (R-CA-22) 09/13/2023 Received in Senate after passing House on suspension of rules.	Rep. Jim Costa (D-CA-16); Rep. Mike Garcia (R-CA-25); Rep. Josh Harder (D-CA-10); Rep. Darrell Issa (R-CA-50); Rep. Kevin Kiley (R-CA-3); Rep. Doug Lamborn (R-CO-5); Rep. Daniel Newhouse (R-WA-4); Rep. Mark	9
H.R.3396 Fire Department Repayment Act	This bill would require the standardization of reciprocal fire suppression cost share agreements, and for other purposes.	05/17/2023 Introduced by Rep. Josh Harder (D-CA-10) 12/06/2023 Ordered to be Reported (Amended) by Unanimous Consent	Rep. Young Kim (R-CA-40); Rep. Julia Brownley (D-CA-26); Rep. Jim Costa (D-CA-16); Rep. Jared Huffman (D-CA-2); Rep. Sydney Kamlager (D-CA-37); Rep. Kevin Kiley (R-CA-3); Rep.	22
H.R.3439 Emergency Wildfire Act of 2023	This bill would direct the Secretary of Agriculture to select and implement landscape-scale forest restoration projects, to assist communities in increasing their resilience to wildfire, and for other purposes.	05/17/2023 Introduced by Rep. Jimmy Panetta (D-CA-20) 06/23/2023 Referred to the Subcommittee on Forestry	Rep. Adam Schiff (D-CA-28); Rep. Mike Thompson (D-CA-5); Rep. Salud Carbajal (D-CA-24); Rep. Jim Costa (D-CA-16); Rep. Mark DeSaulnier (D-CA-11); Rep. John Garamendi (D-CA-	8
H.R.3457 SUPERSAFE Act	This bill would direct the Administrator of the Environmental Protection Agency to establish a consortium relating to exposures to toxic substances and identifying chemicals that are safe to use	05/18/2023 Introduced by Rep. Zoe Lofgren (D-CA-18) 05/19/2023 Referred to the Subcommittee on Environment, Manufacturing, and Critical Materials		0
H.R.3490 - Water Infrastructure Modernization Act	This bill would amend the Federal Water Pollution Control Act and the Safe Drinking Water Act to authorize grants for smart water infrastructure technology, and for other purposes.	05/18/2023 Introduced by Rep. Ruben Gallego (D-AZ-3) 05/19/2023 Referred to the Subcommittee on Water Resources and Environment	Rep. John Duarte (R-CA-13)	1
H.R.3499 Direct Hire to Fight Fires Act	This bill would amend title 5, United States Code, to provide direct hire authority to appoint individuals to Federal wildland firefighting and firefighting support positions in the Forest Service or the Department of the Interior, and for other purposes.	05/18/2023 Introduced by Rep. Darrell Issa (R-CA-50) 07/26/2023 Ordered to be Reported in the Nature of a Substitute (Amended) by the Yeas and Nays: 32 - 0.	Rep. Doug LaMalfa (R-CA-1); Rep. Kiley, Kevin (R-CA-3)	2
S.1715 Wildfire Emergency Act of 2023	This bill would direct the Secretary of Agriculture to select and implement landscape-scale forest restoration projects, to assist communities in increasing their resilience to wildfire, and for other purposes.	05/18/2023 Introduced by Sen. Dianne Feinstein (D-CA) 05/18/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry	Sen. Alex Padilla (D-CA); Sen. Steve Daines (R-MT); Sen. Ron Wyden (D-OR)	3
H.R.3675 Western Water Accelerated Revenue Repayment Act	This bill would amend the Water Infrastructure Improvements for the Nation Act to extend certain contract prepayment authority.	05/25/2023 Introduced by Rep. Lauren Boebert (R-CO-3) 07/26/2023 Ordered to be Reported in the Nature of a Substitute (Amended) by the Yeas and Nays: 22 - 14	Rep. Tom McClintock (R-CA-4); Rep. Paul Gosar (R-AZ-4); Rep. Harriet Hageman (R-WY-1); Rep. Doug Lamborn (R-CO-5); Rep. Mike Lawler (R-NY-17); Rep. Troy Nehls (R-TX-22); Rep. Daniel Newhouse (R-WA-4);	9
H.R. 3746 Fiscal Responsibility Act of 2023	This bill would provide for a responsible increase to the debt ceiling.	05/29/2023 Introduced by Rep. Patrick McHenry (R-NC-10) 06/03/2023 Became Public Law No: 118-5.		0
S.1764 Western Wildfire Support Act	This bill seeks to improve Federal activities relating to wildfires, and for other purposes. <i>This bill is the Senate companion to H.R. 482.</i>	05/31/2023 Introduced by Sen. Catherine Cortez Masto (D-NV) 10/25/2023 Committee on Energy and Natural Resources Subcommittee on Public Lands, Forests, and Mining. Hearings held.	Rep. Doris Matsui (D-CA-6); Rep. Jimmy Panetta (D-CA-20); Rep. Adam Schiff (D-CA-28); Rep. Steven Horsford (D-NV-4)	4



H.R.3809 Cybersecurity for Rural Water Systems Act	This bill would include cybersecurity technical assistance in the national rural water and wastewater circuit rider program of Department of Agriculture	06/05/2023 Introduced by Rep. Donald David (D-NC-1) 07/10/2023 Referred to the Subcommittee on Commodity Markets, Digital Assets, and Rural Development.	Rep. Jim Costa (D-CA-16); Rep. Angie Craig (D-MN-2); Rep. Zach Nunn (R-IA-3); Rep. Abigail Spanberger (D-VA-7); Rep. Mike Gallagher (R-WI-8); Rep. David Rouzer (R-NC-7); Rep. Brian Fitzpatrick (R-PA-1)	7
H.R.3871 Research for Healthy Soils Act	This bill would amend the Food, Agriculture, Conservation, and Trade Act of 1990 to include as a high-priority research and extension area research on microplastics in land-applied biosolids on farmland. <i>This bill is the House companion to S.3623.</i>	06/06/2023 Introduced by Rep. Marie Perez (D-WA-3) 07/28/2023 Referred to the Subcommittee on Conservation, Research, and Biotechnology.	Rep. Young Kim (R-CA-40); Rep. Mike Lawler (R-NY-17); Rep. Mikie Sherrill (D-NJ-11); Rep. Brian Fitzpatrick (R-PA-1)	4
S.1853 Headwaters Protection Act	This bill would amend the Healthy Forests Restoration Act of 2003 to reauthorize and improve the Water Source Protection Program, and for other purposes. <i>This bill is the Senate companion to H.R. 4018.</i>	06/07/2023 Introduced by Sen. Michael Bennet (D-CO) 06/07/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry.	Sen. Feinstein, Dianne (D-CA); Sen. Crapo, Mike (R-ID); Sen. Risch, James E. (R-ID); Sen. Lujan, Ben Ray (D-NM); Sen. Kelly, Mark (D-AZ); Sen. Hickenlooper, John W. (D-	9
H.R.4018 Headwaters Protection Act	This bill would amend the Healthy Forests Restoration Act of 2003 to reauthorize and improve the Water Source Protection Program, and for other purposes. <i>This bill is the House companion to H.R. S.1852.</i>	06/12/2023 Introduced by Rep. Jim Costa (D-CA-21) 07/28/2023 Referred to the Subcommittee on Forestry.	Rep. David Valadao (R-CA-21); Rep. Earl Blumenauer (D-OR-3); Rep. Brittany Pettersen (D-CO-7); Rep. Kim Schrier (D-WA-8); Rep. Melanie Ann Stansbury (D-NM-1)	7
H.R.4052 National Infrastructure Bank Act	facilitate efficient investments and financing of infrastructure projects and new job creation through the establishment of a National Infrastructure Bank, and for other purposes.	06/13/2023 Introduced by Rep. Danny Davis (D-IL-7) 06/16/2023 Referred to the Subcommittee on Innovation, Data, and Commerce.	Rep. Barbara Lee (D-CA-13); Rep. Eric Swalwell (D-CA-15); Rep. John Garamendi (D-CA-3); Rep. Jimmy Panetta (D-CA-20); Rep. Chellie Pingree (D-ME-1); Rep. Adam Smith (D-WA-9);	18
H.R.4235 Wildfire Technology Demonstration, Evaluation, Modernization, and Optimization Act	This bill would direct the Secretary of Agriculture and the Secretary of the Interior to establish a wildfire technology testbed pilot program, and for other purposes.	06/21/2023 Introduced by Rep. Young Kim (R-CA-40) 11/14/2023 Hearing held in Subcommittee on Federal Lands.	Rep. Ken Calvert (R-CA-42); Rep. Jim Costa (D-CA-16); Rep. John Duarte (R-CA-13); Rep. Josh Harder (D-CA-10); Rep. Darrell Issa (R-CA-50); Rep. David Valadao (R-CA-21); Rep. Doug Lamborn (R-CO-5);	11
H.R.4247 Flood Prevention and Snowpack Management Act	This bill would direct the Secretary of the Army to establish a task force on the California snowpack and flood mitigation, and for other purposes.	06/21/2023 Introduced by Rep. Josh Harder (D-CA-9) 06/22/2023 Referred to the Subcommittee on Water Resources and Environment.	Rep. Barbara Lee (D-CA-13); Rep. Zoe Lofgren (D-CA-19); Rep. Eshoo, Anna G. (D-CA-16)	3
S.2102 Water for Conservation and Farming Act	This bill would provide for drought preparedness and improved water supply reliability.	06/21/2023 Introduced by Sen. Ron Wyden (D-OR) 07/19/2023 Committee on Energy and Natural Resources Subcommittee on Water and Power. Hearings held	Sen. Jeff Merkley (D-OR)	1
S.2127 Military Construction, Veterans Affairs, and Related Agencies Appropriations Act, 2024	This bill provides FY2024 appropriations for military construction, the Department of Veterans Affairs (VA), and related agencies. <i>This is the Senate counterpart to H.R. 4366.</i>	06/22/2023 Introduced by Sen. Patty Murray (D-WA) 06/22/2023 Placed on Senate Legislative Calendar under General Orders. Calendar No. 110		0
S.2130 PFAS Community Engagement and Transparency Act	This bill would require community engagement and reporting relating to activities of the Department of Defense with respect to perfluoroalkyl substances and polyfluoroalkyl substances, and for other purposes.	06/22/2023 Introduced by Sen. Jeanne Shaheen (D-NH) 06/22/2023 Read twice and referred to the Committee on Armed Services		0
S.2131 Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2024	This bill provides FY2024 appropriations for the Department of Agriculture (USDA), the Food and Drug Administration, and related agencies. <i>This is the Senate counterpart to H.R.4368.</i>	06/22/2023 Introduced by Sen. Martin Heinrich 06/22/2023 Placed on Senate Legislative Calendar under General Orders. Calendar No. 111		0



S.2161 Canal Conveyance Capacity Restoration Act	This bill would provide financial assistance for projects to address certain subsidence impacts in the State of California, and for other purposes. <i>This bill is the Senate companion to H.R. 2419.</i>	06/22/2023 Introduced by Sen. Dianne Feinstein (D-CA) 07/19/2023 Committee on Energy and Natural Resources Subcommittee on Water and Power. Hearings held		0
S.2162 STREAM Act.	This bill would support water infrastructure in Reclamation States, and for other purposes.	06/22/2023 Introduced by Sen. Dianne Feinstein (D-CA) 07/19/2023 Committee on Energy and Natural Resources Subcommittee on Water and Power. Hearings held	Sen. Mark Kelly (D-AZ); Sen. Kyrsten Sinema (I-AZ)	2
S.2203 ARROW Act	This bill would require the conduct of winter season reconnaissance of atmospheric rivers on the West Coast of the United States, and for other purposes.	06/22/2023 Introduced by Sen. Alex Padilla (D-CA) 06/22/2023 Read twice and referred to the Committee on Armed Services		0
H.R.4368 Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2024	This bill provides FY2024 appropriations for the Department of Agriculture (USDA), the Food and Drug Administration, and related agencies. <i>This is the House counterpart to S.2131.</i>	06/22/2023 Introduced by Rep. Andy Harris (R-MD-1) 09/28/2023 Motion to reconsider laid on the table Agreed to without objection.		0
H.R.4365 Department of Defense Appropriations Act, 2024	This bill provides FY2024 appropriations to the Department of Defense (DOD) for military activities. <i>This is the House counterpart to S.2587.</i>	06/27/2023 Introduced by Rep. Ken Calvert (R-CA-42) 10/16/2023 Received in the Senate. Read twice. Placed on Senate Legislative Calendar under General Orders. Calendar No. 226.		0
H.R.4366 Military Construction, Veterans Affairs, and Related Agencies Appropriations Act, 2024	This bill provides FY2024 appropriations for military construction, the Department of Veterans Affairs (VA), and related agencies. <i>This is the House counterpart to S.2127.</i>	06/27/2023 Introduced by Rep. John Carter (R-TX-31) 09/14/2023 Motion by Senate Majority Leader Schumer to commit to Senate Committee on Appropriations		0
H.R.4385 Drought Preparedness Act	This bill would extend authorization of the Reclamation States Emergency Drought Relief Act of 1991.	06/27/2023 Introduced by Rep. Joe Neguse (D-CO-2) 02/06/2024 Passed the House and Received in the Senate and Read twice and referred to the Committee on Energy and Natural Resources	Rep. Juan Ciscomani (R-AZ-6); Rep. Susie Lee (D-NV-3)	2
H.R.4394 Energy and Water Development and Related Agencies Appropriations Act, 2024	This bill provides FY2024 appropriations for U.S. Army Corps of Engineers civil works projects, the Department of the Interior's Bureau of Reclamation, the Department of Energy (DOE), and several independent agencies. <i>This is the House counterpart to S.2443.</i>	06/30/2023 Introduced by Rep. Chuck Fleischmann (R-TN-3) 11/01/2023 Passed House of Representatives and received in the Senate.		0
S.2226 National Defense Authorization Act for Fiscal Year 2024	This bill authorizes FY2024 appropriations and sets forth policies for Department of Defense (DOD) programs and activities, military construction, and the national security programs of the Department of Energy (DOE). The bill authorizes appropriations, but does not provide budget authority, which is provided by appropriations legislation. <i>This is the Senate counterpart to H.R. 2670.</i>	07/11/2023 Introduced by Sen. Jack Reed (D-RI) 07/20/2023 S.Amdt.685 Amendment SA 685 agreed to in Senate by Voice Vote		0
H.R.4584 National Wildland Fire Risk Reduction Program Act	This bill would improve the Federal effort to reduce wildland fire risks, and for other purposes.	07/12/2023 Introduced by Rep. Zoe Lofgren (D-CA-18) 07/13/2023 Referred to the Subcommittee on Economic Development, Public Buildings, and Emergency Management	Rep. Suzanne Bonamici (D-OR-1); Rep. Andrea Salinas (D-OR-6)	2



S.2272 - Wildland Firefighter Paycheck Protection Act	This bill would amend title 5, United States Code, to provide for special base rates of pay for wildland firefighters, and for other purposes. <i>This is the Senate counterpart to H.R. 5169.</i>	07/12/2023 Introduced by Sen. Kyrsten Sinema (I-AZ) 09/11/2023 Placed on Senate Legislative Calendar under General Orders. Calendar No. 205.	Sen. Alex Padilla (D-CA) ; Sen. John Barrasso (R-WY); Sen. Steve Daines (R-MT); Sen. Joe Manchin (D-WV); Sen. Jon Tester (D-MT); Sen. Cynthia Lummis M. (R-WY); Sen.	7
H.R.4717 Locally Led Restoration Act	This bill would amend the Healthy Forests Restoration Act of 2003 with respect to third-party contracts for wildfire hazard fuel removal, to amend the National Forest Management Act with respect to the threshold for advertised timber sales, and for other purposes.	07/18/2023 Introduced by Rep. Doug Lamborn (R-CO-5) 11/14/2023 Subcommittee Hearings Held	Rep. Jim Costa (D-CA-16) ; Rep. Doug LaMalfa (R-CA-1) ; Rep. Lauren Boebert (R-CO-3); Rep. Lori Chavez-DeRemer (R-OR-5)	5
S.2337 Plastic Pellet Free Waters Act	This bill would require the Administrator of the Environmental Protection Agency to promulgate certain limitations with respect to pre-production plastic pellet pollution, and for other purposes.	07/18/2023 Introduced by Sen. Richard Durbin (D-IL) 07/18/2023 Read twice and referred to the Committee on Environment and Public Works.	Sen. Richard Blumenthal (D-CT); Sen. Ben Cardin (D-MD); Sen. Edward Markey (D-MA); Sen. Jeff Merkley (D-OR)	4
S.2353 Responsible Wildland Fire Recovery Act	This bill would provide for cost-share waivers for projects carried out in response to wildland fires caused by certain Government actions, and for other purposes. <i>This bill is the Senate companion to H.R. 4920.</i>	07/18/2023 Introduced by Sen. Ben Ray Lujan (D-NM) 07/18/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry.	Rep. Melanie Ann Stansbury (D-NM-1)	1
S.2388 Cybersecurity for Rural Water Systems Act	This bill would amend the Consolidated Farm and Rural Development Act to establish a cybersecurity circuit rider program to provide cybersecurity-related technical assistance to certain entities that operate rural water or wastewater systems.	07/19/2023 Introduced by Sen. Catherine Cortez-Masto (D-NV) 07/19/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry	Sen. Mike Rounds (R-SD);	1
H.R.4769 PFAS Alternatives Act	This bill seeks to drive innovation in developing next-generation protection for firefighters by accelerating the development of PFAS-free turnout gear, and for other purposes.	07/20/2023 Introduced by Rep. Debbie Dingell (D-MI-6) 07/21/2023 Referred to the Subcommittee on Economic Development, Public Buildings, and Emergency Management.	Rep. Adam Schiff (D-CA-30) ; Rep. Don Bacon (R-NE-2); Rep. Jim Banks (R-IN-3); Rep. Earl Blumenauer (D-OR-3); Rep. Suzanne Bonamici (D-OR-1); Rep. Nikki Budzinski (D-IL-13); Rep. Yadira Caraveo (D-CO-8);	44
S.2443 Energy and Water Development and Related Agencies Appropriations Act, 2024	This bill provides FY2024 appropriations for U.S. Army Corps of Engineers civil works projects, the Department of the Interior's Bureau of Reclamation, the Department of Energy (DOE), and several independent agencies. <i>This is the Senate counterpart to H.R.4394</i>	07/20/2023 Introduced by Sen. Dianne Feinstein 07/20/2023 Placed on Senate Legislative Calendar under General Orders. Calendar No. 145.		0
H.R.4821 Department of the Interior, Environment, and Related Agencies Appropriations Act, 2024	This bill provides FY2024 appropriations for the Department of the Interior, the Environmental Protection Agency (EPA), and several related agencies. <i>This is the House counterpart to S.2605.</i>	07/24/2023 Introduced by Rep. Mike Simpson (R-ID-2) 11/07/2023 Received in the Senate. Read twice. Placed on Senate Legislative Calendar under General Orders. Calendar No. 239.		0
H.R.4831 Fair Pay for Federal Firefighters Act	This bill would provide a special rate of basic pay for Federal wildland firefighters during fiscal years 2024 and 2025, and for other purposes.	07/24/2023 Introduced by Rep. Doug LaMalfa (R-CA-1) 09/19/2023 Referred to the Subcommittee on Forestry.	Rep. Ken Calvert (R-CA-42) ; Rep. John Curtis (R-UT-3) ; Rep. Kevin Kiley (R-CA-3) ; David Valadao (R-CA-21) Rep. John Duarte (R-CA-13) ; Rep. Chuck Edwards (R-NC-11); Rep. Scott Franklin (R-FL-15); Rep. Mike Garcia (R-CA-2); Rep. Gabe Leland (R-CA-4);	16
H.R.4866 Fire Weather Development Act	This bill would direct the Administrator of the National Oceanic and Atmospheric Administration to establish a program to improve fire weather and fire environment forecasting, detection, and local collaboration, and for other purposes.	07/25/2023 Introduced by Rep. Mike Garcia (R-CA-27) 09/22/2023 Placed on the Union Calendar, Calendar No. 174.	Rep. Young Kim (R-CA-39) ; Rep. Yadira Caraveo (D-CO-8)	2



H.R. 4890 Urban Waters Federal Partnership Act	This bill would require the Administrator of the Environmental Protection Agency, the Secretary of the Interior, and the Secretary of Agriculture to maintain the Urban Waters Federal Partnership Program, and for other purposes.	07/25/2023 Introduced by Rep. Greg Stanton (D-AZ-4) 07/26/2023 Referred to the Subcommittee on Water Resources and Environment	Rep. Brian Fitzpatrick (R-PA-1)	1
H.R. 4908 Expedited Federal Permitting for California Act	This bill would amend title 23, United States Code, to make eligible airport-related projects and port development projects eligible for approval under State environmental laws and regulations instead of the National Environmental Policy Act of 1969, and for other purposes.	07/26/2023 Introduced by Rep. John Garamendi (D-CA-8) 07/27/2023 Referred to the Subcommittee on Aviation	Rep. Eric Swalwell (D-CA-15)	1
H.R. 4920 Responsible Wildland Fire Recovery Act	This bill would provide for cost-share waivers for projects carried out in response to wildland fires caused by certain Government actions, and for other purposes. <i>This bill is the House companion to S.2353.</i>	07/26/2023 Introduced by Rep. Teresa Leger Fernandez (D-NM-3) 09/25/2023 Referred to the Subcommittee on Forestry.	Rep. Melanie Ann Stansbury (D-NM-1)	1
H.R. 4956 Farmer-Informed WOTUS Act of 2023	This bill would establish an advisory committee to inform Congress of the impact of Waters of the United States regulations on United States agriculture, and for other purposes. <i>This bill is the House companion to S. 1023.</i>	07/27/2023 Introduced by Rep. Rudy Yakym (R-IN-2) 07/28/2023 Referred to the Subcommittee on Water Resources and Environment	Rep. Tracey Mann (R-KS-1); Rep. Erin Houchin (R-IN-9)	2
S. 2587 Department of Defense Appropriations Act, 2024	This bill provides FY2024 appropriations to the Department of Defense (DOD) for military activities. <i>This is the Senate counterpart to H.R.4365.</i>	07/27/2023 Introduced by Sen. John Tester (D-MT) 07/27/2023 Placed on Senate Legislative Calendar under General Orders. Calendar No. 181		0
S. 2605 Department of the Interior, Environment, and Related Agencies Appropriations Act, 2024	Making appropriations for the Department of the Interior, environment, and related agencies for the fiscal year ending September 30, 2024, and for other purposes. <i>This is the Senate counterpart to H.R.4821.</i>	07/27/2023 Introduced by Sen. Jeff Merkley (D-OR) 07/27/2023 Placed on Senate Legislative Calendar under General Orders. Calendar No. 186		0
S. 2636 Healthy Watersheds, Healthy Communities Act	This bill would amend the Watershed Protection and Flood Prevention Act to improve that Act, and for other purposes. <i>This bill is the Senate companion to H.R.6497.</i>	07/27/2023 Introduced by Sen. Michael Bennett (D-CO) 07/27/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry	Sen. Deb Fischer (R-NE); Sen. Jeff Merkley (D-OR); Sen. Jon Tester (D-MT)	3
S. 2697 Clean Drinking Water for Rural Communities Act	This bill would amend the Consolidated Farm and Rural Development Act to modify the definitions of the terms "rural" and "rural area" for purposes of grants and loans to remedy a lack of compliance with certain drinking water standards, and for other purposes.	07/27/2023 Introduced by Sen. Dianne Feinstein (D-CA) 07/27/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry	Sen. Alex Padilla (D-CA)	1
H.R. 5153 To direct the Secretary of Veterans Affairs to carry out a pilot program to employ veterans in certain wildland firefighting activities	This bill would direct the Secretary of Veterans Affairs to carry out a pilot program to employ veterans in certain wildland firefighting activities.	08/04/2023 Introduced by Rep. Joe Neguse (D-CO-2) 09/19/2023 Referred to the Subcommittee on Forestry	Rep. John Rutherford (R-FL-4); Rep. Marcus Molinaro (R-NY-19)	2
H.R. 5169 Wildland Firefighter Paycheck Protection Act	This bill would amend title 5, United States Code, to provide for special base rates of pay for wildland firefighters, and for other purposes. <i>This bill is the House companion to S.2272.</i>	08/08/2023 Introduced by Rep. Joe Neguse (D-CO-2) 09/25/2023 Referred to the Subcommittee on Forestry	Rep. Adam Schiff (D-CA-28); Rep. Mike Thompson (D-CA-5); Rep. David Valadao (R-CA-21); Rep. Katie Porter (D-CA-45); Rep. Josh Harder (D-CA-10); Rep. Mike Garcia (R-CA-25); Rep. Jack Bergman (R-MI-1);	22



H.R.5259 PFAS Exposure Assessment and Documentation Act	This bill would direct the Secretary of Defense to include in periodic health assessments of members of the Armed Forces an evaluation of whether the member has been exposed to perfluoroalkyl substances and polyfluoroalkyl substances, and for other purposes.	08/22/2023 Introduced by Rep. Elissa Slotkin (D-MI-7) 08/22/2023 Referred to the House Committee on Armed Services	Rep. Bill Posey (R-FL-8); Rep. Michael Turner (R-OH-10); Rep. Lawler, Michael (R-NY-17); Rep. David Rouzer (R-N-7)	4
H.R.5260 PFAS Free Military Purchasing Act	This bill would amend the National Defense Authorization Act for Fiscal Year 2021, to modify the prohibition on the acquisition by the Department of Defense of certain items containing a perfluoroalkyl substance or polyfluoroalkyl substance.	08/22/2023 Introduced by Rep. Elissa Slotkin (D-MI-7) 08/22/2023 Referred to the House Committee on Armed Services	Rep. Bill Posey (R-FL-8); Rep. Michael Lawler (R-NY-17)	2
H.R.5261 PFAS Training For DoD Providers and Servicemembers Act	This bill would direct the Secretary of Defense to provide to each health care provider of the Department of Defense training regarding the potential health effects of perfluoroalkyl or polyfluoroalkyl substances.	08/22/2023 Introduced by Rep. Elissa Slotkin (D-MI-7) 08/22/2023 Referred to the House Committee on Armed Services	Rep. Jack Bergman (R-MI-1); Rep. Bill Posey (R-FL-8); Rep. Michael Turner (R-OH-10); Michael Lawler (R-NY-17)	4
H.R.5262 DoD PFAS Cleanup Transparency Act	This bill would require the Secretary of Defense to publish information regarding the status of certain cleanup efforts of the Department of Defense, and for other purposes.	08/22/2023 Introduced by Rep. Elissa Slotkin (D-MI-7) 08/22/2023 Referred to the House Committee on Armed Services	Rep. Jack Bergman (R-MI-1); Rep. Chrissy Houlahan (D-PA-6); Rep. Bill Posey (R-FL-8); Michael Lawler (R-NY-17)	4
H.R.5263 PFAS Strictest Standard Act	This bill would direct the Secretary of Defense to ensure that removal and remedial actions relating to PFAS contamination result in levels meeting or exceeding certain standards, and for other purposes.	08/22/2023 Introduced by Rep. Elissa Slotkin (D-MI-7) 08/23/2023 Referred to the Subcommittee on Water Resources and Environment	Rep. Ro Khanna (D-CA-17); Rep. Bill Posey (R-FL-8); Michael Lawler (R-NY-17)	3
H.R.5329 Wildfire Smoke Emergency Declaration Act	This bill would authorize the President to declare a smoke emergency, and for other purposes.	09/01/2023 Introduced by Rep. Josh Harder (D-CA-9) 09/05/2023 Referred to the Subcommittee on Economic Development, Public Buildings, and Emergency Management	Rep. Mark DeSaulnier (D-CA-11); Rep. Robert Garcia (D-CA-42); Rep. Ted Lieu (D-CA-33); Rep. Zoe Lofgren (D-CA-19); Rep. Kevin Mullin (D-CA-15); Rep. Eric Swalwell (D-CA-15); Rep. Mark Takano (D-CA-41); Rep. Mike Thompson (D-CA-5); Sen. Dianne Feinstein (D-CA); Sen. Alex Padilla (D-CA); Ron Wyden (D-OR)	10
S.2749 Wildfire Resilient Communities Act	This bill would provide mandatory funding for hazardous fuels reduction projects on certain Federal land, and for other purposes. <i>This bill is the Senate companion to H.R. 6525.</i>	09/07/2023 Introduced by Sen. Jeff Merkley (D-OR) 09/07/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry	Sen. Dianne Feinstein (D-CA); Sen. Alex Padilla (D-CA); Ron Wyden (D-OR)	3
H.R.5355 Save Our Airports Reporting Act	This bill would require the Administrator of the Federal Aviation Administration to submit to Congress progress reports on the development and implementation of a national plan to transition to the use of a fluorine-free firefighting foam, and for other purposes.	09/08/2023 Introduced by Rep. Salud Carbajal (D-CA-24) 09/11/2023 Referred to the Subcommittee on Aviation	Rep. Mike Lawler (R-NY-17); Rep. Derrick Van Orden (R-WI-3); Rep. Marcus Molinaro (R-NY-19)	2
H.R.5356 PFAS Act	This bill would require the Secretary of Transportation to establish a PFAS replacement program at certain airports, and for other purposes.	09/08/2023 Introduced by Rep. Salud Carbajal (D-CA-24) 09/11/2023 Referred to the Subcommittee on Aviation	Rep Julia Brownley (D-CA-26); Rep. David Valadao (R-CA-22); Rep. Mike Lawler (R-NY-17); Rep. Derrick Van Orden (R-WI-3)	4
H.R.5483 Securing Access for the central Valley and Enhancing (SAVE) Water Resources Act	This bill would promote water supply reliability and improved water management for rural communities, the State of California, and the Nation, and for other purposes.	09/14/2023 Introduced by Rep. Josh Harder (D-CA-9) 09/14/2023 Referred to the House Committee on Natural Resources	Rep. Jim Costa (D-CA-16); Rep. John Garamendi (D-CA-3); Rep. Jimmy Panetta (D-CA-20); Rep. Eric Swalwell (D-CA-15)	4



H.R.5509 Electronic Permitting Modernization Act	This bill seeks to modernize permitting systems at the Department of the Interior, and for other purposes.	09/14/2023 Introduced by Rep. Katie Porter (D-CA-47) 11/15/2023 Ordered to be Reported in the Nature of a Substitute (Amended) by Unanimous Consent.	Rep. Doug LaMalfa (R-CA-1); Rep. Mary Peltola (D-AK-1); Rep. Byron Donalds (R-FL-19);	3
H.R.5664 Water Infrastructure Finance and Innovation Act Amendments	This bill would reauthorize the Water Infrastructure Finance and Innovation Act of 2014, and for other purposes.	09/21/2023 Introduced by Rep. Kim Schrier (D-WA-8) 09/22/2023 Referred to the Subcommittee on Water Resources and Environment	Rep. Jim Costa (D-CA-16); Rep. John Garamendi (D-CA-3); Rep. Josh Harder (D-CA-10); Rep. Doug LaMalfa (R-CA-1); Rep. Daniel Newhouse (R-WA-4); Rep. Lori Chavez-DeRemer (R-OR-5); Rep. Sharice	7
S.2917 Rural Water System Disaster Preparedness and Assistance Act	This bill would amend the Consolidated Farm and Rural Development Act to establish an emergency preparedness and response technical assistance program to assist entities that operate rural water or wastewater systems in preparing for and responding to natural or man-made disasters.	09/26/2023 Introduced by Sen. Catherine Cortez Masto (D-NV) 09/26/2023 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry	Sen. Cindy Hyde-Smith (R-MS); Sen. Tammy Baldwin (D-WI)	2
H.R.5764 Support Water-Efficient Strategies and Technologies Act	This bill would amend the Food Security Act of 1985 to increase payments for drought-resilient or water-saving practices and to provide additional payments for perennial production systems, and for other purposes.	09/27/2023 Introduced by Rep. Teresa Leger Fernandez (D-NM-3) 01/17/2024 Referred to the Subcommittee on Conservation, Research, and Biotechnology	Rep. David Valadao (R-CA-21); Rep. Chellie Pingree (D-ME-1)	2
H.R.5770 Water Data Improvement Act	This bill would reauthorize certain United States Geological Survey water data enhancement programs.	09/27/2023 Introduced by Rep. Joe Neguse (D-CO-2) 01/17/2024 Ordered to be Reported (Amended) by Unanimous Consent	Rep. Juan Ciscomani (R-AZ-6)	1
H.R.5793 Water Access Act	This bill would appropriate \$500 million to the low-income household water assistance program under section 2912 of the American Rescue Plan Act of 2021, and for other purposes.	09/28/2023 Introduced by Rep. Debbie Dingell (D-MI-6) 09/28/2023 Referred to the House Committee on Appropriations	Rep. Lisa Rochester (D-DE-1); Rep. Rashida Tlaib (D-MI-13); Rep. Shri Thanedar (D-MI-13); Rep. Morgan McGarvey (D-KY-3); Rep. Kim Schrier (D-WA-8)	5
S.2994 Maintaining and Enhancing Hydroelectricity and River Restoration Act	This bill would amend the Internal Revenue Code of 1986 to support upgrades at existing hydroelectric dams in order to increase clean energy production, improve the resiliency and reliability of the United States electric grid, enhance the health of the Nation's rivers and associated wildlife habitats, and for other purposes.	09/28/2023 Introduced by Sen. Maria Cantwell (D-WA) 09/28/2023 Read twice and referred to the Committee on Finance	Sen. Susan Collins (R-ME); Sen. Kirsten Gillibrand (D-NY); Sen. Angus King (I-ME); Sen. Lisa Murkowski (R-AK); Sen. Gary Peters (D-MI); Sen. Jeanne Shaheen (D-NH); Sen. Debbie Stabenow (D-MI); Sen. Dan	9
H.R.5983 Clean Water Act of 2023	This bill would amend the Federal Water Pollution Control Act to restore a national minimum standard of protection for the water resources of the United States while providing certainty to regulated entities.	10/18/2023 Introduced by Rep. Rick Larsen (D-WA-2) 10/27/2023 Referred to the Subcommittee on Water Resources and Environment.	Rep. Peter Aguilar (D-CA-31); Rep. Nanette Barragan (D-CA-44); Rep. Julia Brownley (D-CA-26); Rep. Salud Carbajal (D-CA-24); Rep. Tony Cardenas (D-CA-29); Rep. Mark DeSaulnier (D-CA-11); Rep. Debbie Dingell	130
H.R.6024 PFAS Health Study Act	This bill would amend the National Defense Authorization Act for Fiscal Year 2018 to extend the increased transfer authority for a certain study on per- and polyfluoroalkyl substances contamination in drinking water, and for other purposes.	10/24/2023 Introduced by Rep. Madeline Dean (D-PA-4) 10/25/2023 Referred to the House Committee on Armed Services	Rep. Brian Fitzpatrick (R-PA-1)	1



H.R.6053 Break Free From Plastic Pollution Act	This bill would amend the Solid Waste Disposal Act to reduce the production and use of certain single-use plastic products and packaging, to improve the responsibility of producers in the design, collection, reuse, recycling, and disposal of consumer products and packaging, to prevent pollution from consumer products and packaging from entering into animal and human food chains and waterways, and for other purposes. <i>This bill is the House companion to S.3127.</i>	10/25/2023 Introduced by Rep. Jared Huffman (D-CA-2) 10/26/2023 Referred to the Subcommittee on Water Resources and Environment.	Rep. Nanette Barragan (D-CA-44); Rep. Salud Carbajal (D-CA-24); Rep. Judy Chu (D-CA-27); Rep. Mark DeSaulnier (D-CA-11); Rep. Robert Garcia (D-CA-42); Rep. Jimmy Gomez (D-CA-34); Rep. Ro Khanna (D-CA-17); Rep. Barbara Lee (D-CA-13); Rep. Mike Levin (D-CA-49); Rep. Ted Lieu (D-CA-33); Rep. Stephen Lynch (D-MA-9);	59
S.3123 Modernizing Access to Our Public Waters Act	This bill would provide for the standardization, consolidation, and publication of data relating to public outdoor recreational use of Federal waterways among Federal land and water management agencies, and for other purposes.	10/25/2023 Introduced by Sen. John Barrasso (R-WY) 10/25/2023 Read twice and referred to the Committee on Energy and Natural Resources.	Sen. Angus King (I-ME)	1
S.3127 Break Free From Plastic Pollution Act	This bill would amend the Solid Waste Disposal Act to reduce the production and use of certain single-use plastic products and packaging, to improve the responsibility of producers in the design, collection, reuse, recycling, and disposal of consumer products and packaging, to prevent pollution from entering into animal and human food chains and waterways, and for other purposes. <i>This bill is the Senate companion to H.R. 6053.</i>	10/25/2023 Introduced by Sen. Jeff Merkley (D-OR) 10/25/2023 Read twice and referred to the Committee on Environment and Public Works.	Sen. Richard Blumenthal (D-CT); Sen. Cory Booker (D-NJ); Sen. Richard Durbin (D-IL); Sen. Kirsten Gillibrand (D-NY); Sen. Edward Markey (D-MA); Sen. Patty Murray (D-WA); Sen. Bernie Sanders (I-VT); Sen. Chris Van Hollen (D-MD); Sen. Elizabeth Warren (D-MA); Sen. Peter Welch (D-VT); Sen. Ron Wyden (D-OR)	11
H.R.6093 Weather Act Reauthorization Act	This bill seeks to improve the National Oceanic and Atmospheric Administration's weather research, support improvements in weather forecasting and prediction, expand commercial opportunities for the provision of weather data, and for other purposes.	10/26/2023 Introduced by Rep. Frank Lucas (R-OK-3) 12/11/2023 Placed on the Union Calendar	Rep. Jay Obernolte (R-CA-8); Rep. Zoe Lofgren (D-CA-19) Rep. Mike Garcia (R-CA-25); Rep. Darrel Issa (R-CA-48); Rep. Brian Babin (R-TX-36); Rep. Jim Baird (R-IN-4); Rep. Stephanie Bice (R-OK-5); Rep. Suzanne Bonamici (D-OR-1); Rep. Mike Collins (D-CA-10);	29
H.R.6095 Department of Defense PFAS Discharge Prevention Act	This bill would require the Secretary of Defense to request modifications relating to certain permits issued under the Federal Water Pollution Control Act, and for other purposes.	10/26/2023 Introduced by Rep. Jennifer McClellan (D-VA-4) 10/27/2023 Referred to the Subcommittee on Water Resources and Environment.	Rep. Brian Fitzpatrick (R-PA-1); Rep. Jen Kiggans (R-VA-2); Rep. Mike Lawler (R-NY-17); Rep. Nancy Mace (R-SC-1); Rep. Chris Pappas (D-NH-1); Rep. Deborah Ross (D-NC-2); Rep. Bobby Scott (D-VA-3); Rep. Derrick Van Orden (R-WI-3)	8
H.R.6129 Studying NEPA's Impact on Projects Act	This bill would require the Council on Environmental Quality to publish an annual report on environmental reviews and causes of action based on compliance with the National Environmental Policy Act of 1969, and for other purposes.	11/01/2023 Introduced by Rep. Rudy Yakym (R-IN-2) 11/02/2023 Sponsor introductory remarks on measure.	Rep. Jimmy Panetta (D-CA-20); Rep. John Duarte (R-CA-13); Rep. Doug LaMalfa (R-CA-1); Rep. Sam Graves (R-MO-6); Rep. Matt Rosendale (R-MT-2); Rep. Chuck Edwards (R-NC-11); Rep. Tracey Mann (R-KS-1); Rep. Ryan Zinke (R-MT-1)	8
H.R.6195 Wildland Firefighter Fair Pay Act	This bill would amend title 5, United States Code, to establish a special limitation on pay for wildland fire responders, and for other purposes.	11/02/2023 Introduced by Rep. Zoe Lofgren (D-CA-18) 11/02/2023 Referred to the Committee on Oversight and Accountability, and in addition to the Committees on Natural Resources, Agriculture, and Science, Space, and Technology,	Rep. Nanette Barragan (D-CA-44); Rep. Julia Brownley (D-CA-26); Rep. Mark DeSaulnier (D-CA-11); Rep. Jared Huffman (D-CA-2); Rep. Ted Lieu (D-CA-33); Rep. Jimmy Panetta (D-CA-20); Rep. Scott Peters (D-CA-52); Rep. Katie Porter (D-CA-45); Rep. Adam Schiff (D-CA-8)	11
H.R.6411 Innovative Materials for America's Growth and Infrastructure Newly Expanded Act	This bill would encourage the research and use of innovative materials and associated techniques in the construction and preservation of the domestic transportation and water infrastructure system, and for other purposes.	11/14/2023 Introduced by Rep. Seth Magaziner (D-RI-2) 11/20/2023 Referred to the Subcommittee on Water Resources and Environment.		0



H.R.6497 Healthy Watersheds, Healthy Communities Act	This bill would amend the Watershed Protection and Flood Prevention Act to improve that Act, and for other purposes. <i>This bill is the House companion to S.2636.</i>	11/29/2023 Introduced by Rep. Juan Ciscomani (R-AZ-6) 01/24/2024 Referred to the Subcommittee on Conservation, Research, and Biotechnology	Rep. Yadira Caraveo (D-CO-8); Rep. Mike Flood (R-NE-1); Rep. Harriet Hageman (R-WY-1); Rep. Joe Neguse (D-CO-2); Rep. Brittany Pettersen (D-CO-7)	5
H.R.6519 No PFAS in Cosmetics Act	This bill would amend the Federal Food, Drug, and Cosmetic Act to ban the use of intentionally added perfluoroalkyl or polyfluoroalkyl substances in cosmetics, and for other purposes.	11/30/2023 Introduced by Rep. Debbie Dingell (D-MI-6) 11/30/2023 Referred to the House Committee on Energy and Commerce.	Rep. Brian Fitzpatrick (R-PA-1); Rep. Ann Kuster (D-NH-2); Rep. Chris Pappas (D-NH-1)	3
H.R.6525 Wildfire Resilient Communities Act	This bill would provide mandatory funding for hazardous fuels reduction projects on certain Federal land, and for other purposes. <i>This bill is the House companion to S.2749.</i>	11/30/2023 Introduced by Rep. Val Hoyle (D-OR-4) 01/24/2024 Referred to the Subcommittee on Forestry	Rep. Josh Harder (D-CA-9); Rep. Jared Huffman (D-CA-2); Rep. Adam Schiff (D-CA-30); Rep. Joe Neguse (D-CO-2); Rep. Andrea Salinas (D-OR-6); Rep. Melanie Stansbury (D-NM-1)	6
H.R.6805 PFAS Action Act	This bill would require the Administrator of the Environmental Protection Agency to designate per- and polyfluoroalkyl substances as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.	12/14/2023 Introduced by Rep. Debbie Dingell (D-MI-6) 12/14/2023 Referred to the Committee on Energy and Commerce, and in addition to the Committee on Transportation and Infrastructure	Rep. Grace Napolitano (D-CA-32); Rep. Brendan Boyle (D-PA-2); Rep. Brian Fitzpatrick (R-PA-1); Rep. Lizzie Fletcher (D-TX-7); Rep. Ro Khanna (D-CA-17); Rep. Daniel Kildee (D-MI-5); Rep. Ann Kuster (D-NH-2); Rep. Rick Larsen (D-WA-2); ; Rep. Frank Pallone (D-NJ-6); Rep. Chris	15
H.R.6808 PFAS Risk-Communication Strategy Act	This bill would require the Administrator of the Environmental Protection Agency to develop a risk-communication strategy to inform the public about the hazards or potential hazards of perfluoroalkyl and polyfluoroalkyl substances, and for other purposes.	12/14/2023 Introduced by Rep. Lizzie Fletcher (D-TX-7) 12/14/2023 Referred to the Committee on Energy and Commerce, and in addition to the Committee on Transportation and Infrastructure		0
H.R.6861 SAFE HOME Act	This bill would amend the Internal Revenue Code of 1986 to provide a refundable credit against tax for wildfire mitigation expenditures.	12/19/2023 Introduced by Rep. Kevin Kiley (R-CA-3) 12/19/2023 Referred to the House Committee on Ways and Means		0
H.R.6946 To direct the Secretary of Defense to establish a compensation fund for military firefighters exposed to PFAS	This bill would direct the Secretary of Defense to establish a compensation fund for military firefighters exposed to PFAS.	01/10/2024 Introduced by Rep. Marilyn Strickland (D-WA-10) 01/10/2024 Referred to the House Committee on Armed Services	Rep. Bill Posey (R-FL-8)	1
H.R.7008 Judicial Review Timeline Clarity Act	This bill would amend section 404 of the Federal Water Pollution Control Act relating to judicial review of a permit issued under such section, and for other purposes.	01/17/2023 Introduced by Rep. Eric Burlison (R-MO-7) 01/17/2024 Referred to the House Committee on Transportation and Infrastructure	Rep. David Rouzer (R-NC-7)	1
H.R.7013 Confidence in Clean Water Permits Act	This bill would amend the Federal Water Pollution Control Act with respect to the scope of national pollutant discharge elimination system permit discharge authorizations and the expression of effluent limitations, and for other purposes.	01/17/2024 Introduced by Rep. John Duarte (R-CA-13) 01/17/2024 Referred to the House Committee on Transportation and Infrastructure	Rep. David Rouzer (R-NC-7)	1



H.R.7021 Water Quality Criteria Development and Transparency Act	This bill would amend the Federal Water Pollution Control Act with respect to the procedure for the development of water quality criteria, and for other purposes.	01/17/2024 Introduced by Rep. Burgess Owen (R-UT-4) 01/17/2024 Referred to the House Committee on Transportation and Infrastructure	Rep. David Rouzer (R-NC-7)	1
H.R.7023 Nationwide Permitting Improvement Act	This bill would amend section 404 of the Federal Water Pollution Control Act to codify certain regulatory provisions relating to nationwide permits for dredged or fill material, and for other purposes.	01/17/2024 Introduced by Rep. David Rouzer (R-NC-7) 01/19/2024 Referred to the Subcommittee on Water Resources and Environment	Rep. David Rouzer (R-NC-7)	0
H.R.7026 Reducing Permitting Uncertainty Act	This bill would amend the Federal Water Pollution Control Act to clarify when the Administrator of the Environmental Protection Agency has the authority to prohibit the specification of a defined area, or deny or restrict the use of a defined area for specification, as a disposal site under section 404 of such Act, and for other purposes.	01/17/2024 Introduced by Rep. Pete Stauber (R-MN-8) 01/17/2024 Referred to the House Committee on Transportation and Infrastructure	Rep. David Rouzer (R-NC-7)	1
S.3623 Research for Healthy Soils Act	This bill would amend the Food, Agriculture, Conservation, and Trade Act of 1990 to include as a high-priority research and extension area research on microplastics in land-applied biosolids on farmland. <i>This bill is the Senate companion to H.R. 3871.</i>	01/18/2024 Introduced by Sen. Jeff Merkley (D-OR) 01/18/2024 Read twice and referred to the Committee on Agriculture, Nutrition, and Forestry	Sen. Ron Wyden (D-OR); Sen. Cory Booker (D-NJ); Sen. Chris Van Hollen (D-MD); Sen. Sheldon Whitehouse (D-RI)	4
H.R.7065 Priority for Water Supply and Conservation Act	This bill seeks to include water supply and water conservation as a primary mission of the Corps of Engineers in planning, designing, constructing, modifying, operating, and maintaining water resources development projects, and for other purposes.	01/22/2024 Introduced by Rep. Grace Napolitano (D-CA-31) 01/22/2024 Referred to the House Committee on Transportation and Infrastructure	Rep. Doug LaMalfa (R-CA-1)	1
H.R.7070 Wildfire Response Improvement Act	This bill would direct the Administrator of the Federal Emergency Management Agency to conduct a review of the criteria for evaluating the cost-effectiveness of certain mitigation projects, and for other purposes.	01/22/2024 Introduced by Rep. Greg Stanton (D-AZ-4) 01/22/2024 Referred to the House Committee on Transportation and Infrastructure	Rep. Doug LaMalfa (R-CA-1)	1
H.R.7178 Water Conservation Economic Adjustment Act	This bill would amend the Public Works and Economic Development Act (PWEDA) to clarify the eligible uses of Economic Adjustment Assistance (EAA) to include assistance for limiting industrial consumptive water use in areas impacted by decreased water supplies as a result of drought and extreme heat.	01/31/2024 Introduced by Rep. Dina Titus (D-NV-1) 01/31/2024 Referred to the Committee on Transportation and Infrastructure, and in addition to the Committee on Financial Services	Rep. David Valadao (R-CA-21)	1
H.R.7194 PFAS Accountability Act	This bill would establish a cause of action under the Toxic Substances Control Act for those who have been significantly exposed to PFAS against manufacturers, make it easier for courts to award medical monitoring for victims of significant PFAS exposure, and Incentivize industry to fund PFAS safety research. <i>This bill is the House companion to S.3725.</i>	02/01/2024 Introduced by Rep. Madeline Dean (D-PA-4) 02/01/2024 Referred to the Committee on Energy and Commerce, and in addition to the Committee on the Judiciary	Rep. Daniel Kildee (D-MI-5); Rep. Jerry Nadler (D-NY-10); Rep. Elissa Slotkin (D-MI-7)	3
S.3725 PFAS Accountability Act	This bill would establish a cause of action under the Toxic Substances Control Act for those who have been significantly exposed to PFAS against manufacturers, make it easier for courts to award medical monitoring for victims of significant PFAS exposure, and Incentivize industry to fund PFAS safety research. <i>This bill is the Senate companion to H.R. 7194.</i>	02/01/2024 Introduced by Sen. Kirsten Gillibrand (D-NY) 02/01/2024 Read twice and referred to the Committee on Environment and Public Works		0



<p>H.R.7241 Rural Water System Disaster Preparedness and Assistance Act</p>	<p>This bill seeks to amend the Consolidated Farm and Rural Development Act to establish an emergency preparedness and response technical assistance program to assist entities that operate rural water or wastewater systems in preparing for and responding to natural or man-made disasters.</p>	<p>02/05/2024 Introduced by Rep. Pete Stauber (R-MN-8) 02/05/2024 Referred to the House Committee on Agriculture</p>	<p>Rep. Brad Finstad (R-MN-1); Rep. Michelle Fischbach (R-MN-7)</p>	<p>2</p>
<p>S.3753 Improving State and Local Government Access to Performance Contracting Act</p>	<p>The bill would amend the Energy Policy and Conservation Act with the goal of offering financial aid to States for enhancing energy savings performance contracting programs, including through water conservation measures. These measures involve efficient water use, conservation, recycling, wastewater or stormwater treatment, operational or maintenance improvements, retrofit activities, excluding those related to Federal hydroelectric facilities. The bill suggests annual appropriations of \$35 million for fiscal years 2024 through 2028, with allocated amounts for technical assistance and the project facilitator certification program.</p>	<p>02/07/2024 Introduced by Sen. Peter Welch (D-VT) 02/07/2024 Read twice and referred to the Committee on Energy and Natural Resources</p>	<p>Sen. Chris Coons (D-DE); Sen. Jeanne Shaheen (D-NH); Sen. Chris Van Hollen (D-MD); Sen. Tina Smith (D-MN)</p>	<p>4</p>
<p>H.R.7362 Satellites Preventing Agricultural Crises and Emergencies (SPACE) Act</p>	<p>This bill would create cooperative agreements to share satellite-based data, research, and reports between USDA and land-grant colleges and universities with wildfire research programs.</p>	<p>02/15/2024 Introduced by Rep. Suzanne Bonamici (D-OR-1) 02/15/2024 Referred to the House Committee on Agriculture</p>	<p>Rep. John Duarte (R-CA-13); Rep. David Valadao (R-CA-22); Rep. Dan Newhouse (R-WA-4); Rep. Jill Tokuda (D-HI-2); Rep. John Curtis (R-UT-3)</p>	<p>5</p>



To:	Las Virgenes - Triunfo JPA
From:	Syrus Devers
Date:	March 4th, 2024
Re:	State Legislative Report

Legislature

Bill introductions were running about 50% below historic levels up until a week before the bill introduction deadline, then the tidal wave hit. Yours truly woke up to over 1,000 new bills to review last week once they all became available online. Here then are the number of new bills for 2024: Senate–620; Assembly–1,504; Total = 2,124. This brings the grand total for the 2023-2024 biennial legislative session to 4,788. That falls within the normal range, but slightly lower than average thanks to the Senate making a sincere attempt to impose bill limits.

There are themes to new legislation every year, but everything said at this stage has an asterisk attached due to the large number of spot bills. As a reminder, spot bills contain no substantive language and may or may not disclose their true purpose. A third of the bills on the matrix are spot bills.

After the groundshaking bills last year on water rights and conservation, it almost feels like the Legislature said, “Oh, nevermind”. Again, this could all change as spot bills are amended, but half of the tracked bills can be grouped under a loose heading of “administrative process.” In most of those bills, water districts are not the focus but are impacted to the extent they have a role in the permit approval process for new development. New legislation aimed at the housing crisis seems to be the issue *du jour*.

The bill introduction deadline (which was February 16th this year) marks an end to one of the more stressful periods of the year for many lobbyists. Trying to develop language and find authors for bills, while keeping an eye on 2-year bills being heard in January, and analyzing the new state budget, can be a little frenzied. But thanks to the State Constitution, bleary-eyed advocates can recover a bit because new legislation cannot be heard in committee or amended for 30 days following introduction. Expect policy committees to begin in earnest in early April once the Legislature comes back from Spring Recess.

Administration

The Newsom administration continued its forced march to get the Delta Conveyance underway. Following certification of the EIR in December, the Department of Water Resources submitted a petition to change water rights to the SWRCB last week for two proposed diversion points to allow for construction of the tunnel.

Groups opposing the tunnel responded with shock and outrage worthy of an Oscar.

Las Virgenes - Triunfo JPA

Bill Matrix - March, 2024

Priority: A. High

[AB 460](#)

(Bauer-Kahan, D) State Water Resources Control Board: water rights and usage: interim relief: procedures.

Location: 07/14/2023 - Senate 2 YEAR

Summary: Current law authorizes the State Water Resources Control Board to investigate all streams, stream systems, lakes, or other bodies of water, take testimony relating to the rights to water or the use of water, and ascertain whether water filed upon or attempted to be appropriated is appropriated under the laws of the state. Current law requires the board to take appropriate actions to prevent waste or the unreasonable use of water. This bill would authorize the board, in conducting specified investigations or proceedings to inspect the property or facilities of a person or entity, as specified. The bill would authorize the board, if consent is denied for an inspection, to obtain an inspection warrant, as specified, or in the event of an emergency affecting public health and safety, to conduct an inspection without consent or a warrant. (Based on 05/18/2023 text)

Position

Priority

watch

A. High

[AB 1337](#)

(Wicks, D) State Water Resources Control Board: water diversion curtailment.

Location: 07/14/2023 - Senate 2 YEAR

Summary: Under existing law, the diversion or use of water other than as authorized by specified provisions of law is a trespass, subject to specified civil liability. This bill would expand the instances when the diversion or use of water is considered a trespass. This bill contains other related provisions and other existing laws. (Based on 05/18/2023 text)

Position

Priority

watch

A. High

[AB 1567](#)

(Garcia, D) Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, Clean Energy, and Workforce Development Bond Act of 2024.

Location: 06/14/2023 - Senate Natural Resources and Water

Summary: Would enact the Safe Drinking Water, Wildfire Prevention, Drought Preparation, Flood Protection, Extreme Heat Mitigation, Clean Energy, and Workforce Development Bond Act of 2024, which, if approved by the voters, would authorize the issuance of bonds in the amount of \$15,995,000,000 pursuant to the State General Obligation Bond Law to finance projects for safe drinking water, wildfire prevention, drought preparation, flood protection, extreme heat mitigation, clean energy, and workforce development programs. (Based on 05/26/2023 text)

Position

Priority

watch

A. High

[AB 1573](#)

(Friedman, D) Water conservation: landscape design: model ordinance.

Location: 09/14/2023 - Senate 2 YEAR

Summary: The Water Conservation in Landscaping Act provides for a Model Water Efficient Landscape Ordinance that is adopted and updated at least every 3 years by the Department of Water Resources, unless the department makes a specified finding. Current law requires a local agency to adopt the model ordinance or to adopt a water efficient landscape ordinance that is at least as effective in conserving water as the updated model ordinance, except as specified. Current law specifies the provisions of the updated model ordinance, as provided. Current law includes a related statement of legislative findings and declarations. This bill would require the updated model ordinance to include provisions that require that plants included in a landscape design plan be selected based on their adaptability to climatic, geological, and topographical conditions of the project site, as specified. The bill would also exempt landscaping that is part of a culturally

specific project, as defined, ecological restoration projects that do not require a permanent irrigation system, mined-land reclamation projects that do not require a permanent irrigation system, and existing plant collections, as part of botanical gardens and arboretums open to the public, from the model ordinance. The bill would require the updated model ordinance to include provisions that, among other changes, prohibit the use of traditional overhead sprinklers on all new and rehabilitated landscapes and require that new and rehabilitated landscapes use only water efficient irrigation devices. (Based on 09/01/2023 text)

Position	Priority
watch	A. High

[AB 1827](#)

(Papan, D) Local government: fees and charges: water: higher-consumptive water parcels.

Location: 01/29/2024 - Assembly Local Government

Summary: The California Constitution specifies various requirements with respect to the levying of assessments and property-related fees and charges by a local agency, including requiring that the local agency provide public notice and a majority protest procedure in the case of assessments and submit property-related fees and charges for approval by property owners subject to the fee or charge or the electorate residing in the affected area following a public hearing. This bill would provide that the fees or charges for property-related water service imposed or increased, as specified, may include the incrementally higher costs of water service due to specified factors, including the higher water usage demand of parcels. The bill would provide that the costs associated with higher water usage demands, the maximum potential water use, or a projected peak water usage demand may be allocated using any method that reasonably assesses the water service provider's cost of serving those parcels that are increasing potential water usage demand, maximum potential water use, or project peak water use demand. (Based on 01/12/2024 text)

Position	Priority
watch	A. High

[AB 2257](#)

(Wilson, D) Local government: property-related water and sewer fees and assessments: remedies.

Location: 02/26/2024 - Assembly Judiciary

Summary: The California Constitution specifies various requirements with respect to the levying of assessments and property-related fees and charges by a local agency. The California Constitution includes a public notice and a majority protest procedure in the case of assessments and procedures for submitting property-related fees and charges for approval by property owners subject to the fee or charge or to the electorate residing in the affected area following a public hearing. Current law, known as the Proposition 218 Omnibus Implementation Act, prescribes specific procedures and parameters for local jurisdictions to comply with these requirements. This bill would prohibit, if a local agency complies with specified procedures, a person or entity from bringing a judicial action or proceeding alleging noncompliance with the constitutional provisions for any new, increased, or extended fee or assessment, as defined, unless that person or entity has timely submitted to the local agency a written objection to that fee or assessment that specifies the grounds for alleging noncompliance, as specified. (Based on 02/08/2024 text)

Position	Priority
watch	A. High

[AB 2334](#)

(Grayson, D) Surplus land.

Location: 02/12/2024 - Assembly PRINT

Summary: Current law prescribes requirements for the disposal of surplus land by a local agency, as defined, and requires, except as provided, a local agency disposing of surplus land to comply with certain notice requirements before disposing of the land or participating in negotiations to dispose of the land with a prospective transferee, particularly that the local agency send a written notice of availability for open-space purposes to specified entities. This bill would make a nonsubstantive change to the provisions regarding written notice of availability for open-space purposes. (Based on 02/12/2024 text)

Position	Priority
watch	A. High

[AB 2409](#)

(Papan, D) Office of Planning and Research: permitting accountability transparency dashboard.

Location: 02/12/2024 - Assembly PRINT

Summary: Would require the Office of Planning and Research, on or before January 1, 2026, to create and maintain, as specified, a permitting accountability transparency internet website (dashboard). The bill would require the dashboard to include a display for each permit to be issued by specified state agencies for all covered projects. The bill would define various terms for these purposes. The bill would also require the dashboard to include, but not be limited to, information for each permit to be issued by a state agency that is required for the completion of the project, including, among other requirements, the permit application submission date. The bill would require each state agency with a responsibility for issuing a permit for a covered project to provide information in the appropriate time and manner as determined by the office. (Based on 02/12/2024 text)

Position	Priority
B. Watch	A. High

Notes - CMUA sponsored bill

[AB 3073](#)

[\(Haney, D\)](#) **Wastewater testing: illicit substances.**

Location: 02/16/2024 - Assembly PRINT

Summary: Would require the State Water Resources Control Board to create a program to test for illicit substances, including, but not limited to, cocaine, fentanyl, methamphetamine, and morphine, in wastewater, as provided. The bill would require local sanitation agencies to collect wastewater sample for testing by the state board. By imposing additional duties on local agencies, this bill would impose a state-mandated local program. The bill would require the state board to transmit the results of its wastewater testing to the State Department of Public Health for the department to post on its internet website. (Based on 02/16/2024 text)

Position	Priority
watch	A. High

[SB 366](#)

[\(Caballero, D\)](#) **The California Water Plan: long-term supply targets.**

Location: 07/14/2023 - Assembly 2 YEAR

Summary: Current law requires the Department of Water Resources to update every 5 years the plan for the orderly and coordinated control, protection, conservation, development, and use of the water resources of the state, which is known as "The California Water Plan." Current law requires the department to include a discussion of various strategies in the plan update, including, but not limited to, strategies relating to the development of new water storage facilities, water conservation, water recycling, desalination, conjunctive use, water transfers, and alternative pricing policies that may be pursued in order to meet the future needs of the state. Current law requires the department to establish an advisory committee to assist the department in updating the plan. This bill would revise and recast certain provisions regarding The California Water Plan to, among other things, require the department to instead establish a stakeholder advisory committee and to expand the membership of the committee to include tribes, labor, and environmental justice interests. The bill would require the department to coordinate with the California Water Commission, the State Water Resources Control Board, other state and federal agencies as appropriate, and the stakeholder advisory committee to develop a comprehensive plan for addressing the state's water needs and meeting specified long-term water supply targets established by the bill for purposes of The California Water Plan. The bill would require the plan to provide recommendations and strategies to ensure enough water supply for all beneficial uses. (Based on 06/29/2023 text)

Position	Priority
support	A. High

Notes - CMUA sponsored bill from 2023

[SB 867](#)

[\(Allen, D\)](#) **Drought, Flood, and Water Resilience, Wildfire and Forest Resilience, Coastal Resilience, Extreme Heat Mitigation, Biodiversity and Nature-Based Climate Solutions, Climate Smart Agriculture, Park Creation and Outdoor Access, and Clean Energy Bond Act of 2024.**

Location: 06/20/2023 - Assembly Natural Resources

Summary: Would enact the Drought, Flood, and Water Resilience, Wildfire and Forest Resilience, Coastal Resilience, Extreme Heat Mitigation, Biodiversity and Nature-Based Climate Solutions, Climate Smart Agriculture, Park Creation and Outdoor Access, and Clean Energy Bond Act of 2024, which, if approved by the voters, would authorize the issuance of bonds in the amount of \$15,500,000,000 pursuant to the State General Obligation Bond Law to finance projects for drought, flood, and water resilience, wildfire and forest resilience, coastal resilience, extreme heat mitigation, biodiversity and nature-based climate solutions, climate smart agriculture, park creation and outdoor access, and clean energy programs. (Based on 06/22/2023 text)

Position**Priority**

support

A. High

[SB 937](#)**(Wiener, D) Development projects: permits and other entitlements: fees and charges.****Location:** 02/21/2024 - Senate Local Government

Summary: The Planning and Zoning Law requires each county and each city to adopt a comprehensive, long-term general plan for its physical development, and the development of specified land outside its boundaries, that includes, among other mandatory elements, a housing element. The Permit Streamlining Act, among other things, requires a public agency that is the lead agency for a development project to approve or disapprove that project within specified time periods. Current law extended by 18 months the period for the expiration, effectuation, or utilization of a housing entitlement, as defined, that was issued before, and was in effect on, March 4, 2020, and that would expire before December 31, 2021, except as specified. Current law provides that if the state or a local agency extended the otherwise applicable time for the expiration, effectuation, or utilization of a housing entitlement for not less than 18 months, as specified, that housing entitlement would not be extended an additional 18 months pursuant to these provisions. This bill would extend by 18 months the period for the expiration, effectuation, or utilization of a housing entitlement, as defined, that was issued before January 1, 2024, and that will expire before December 31, 2025, except as specified. The bill would toll this 18-month extension during any time that the housing entitlement is the subject of a legal challenge. (Based on 01/17/2024 text)

Position**Priority**

watch

A. High

Notes - ACWA will oppose[SB 1072](#)**(Padilla, D) Local government: Proposition 218: remedies.****Location:** 02/21/2024 - Senate Local Government

Summary: The California Constitution sets forth various requirements for the imposition of local taxes. The California Constitution excludes from classification as a tax assessments and property-related fees imposed in accordance with provisions of the California Constitution that establish requirements for those assessments and property-related fees. Under these requirements, an assessment is prohibited from being imposed on any parcel if it exceeds the reasonable cost of the proportional special benefit conferred on that parcel, and a fee or charge imposed on any parcel or person as an incident of property ownership is prohibited from exceeding the proportional cost of the service attributable to the parcel. This bill would require, if a property-related fee or charge creates revenues in excess of the local government's reasonable cost of providing the specific benefit or specific government service, that the excess revenues be used only to reduce the subsequently adopted and following property-related fee or charge. The bill would declare that this provision is declaratory of existing law. (Based on 02/12/2024 text)

Position**Priority**

watch

A. High

Priority: B. Watch[AB 805](#)**(Arambula, D) Sewer service: disadvantaged communities.****Location:** 01/30/2024 - Senate Rules

Summary: Under current law, the State Water Resources Control Board and the 9 California regional water quality control boards regulate water quality in accordance with the Porter-Cologne Water Quality Control Act and the federal Clean Water Act. Current law authorizes a regional board to order the provision of sewer service by a receiving sewer system, as defined, to a disadvantaged community served by an inadequate onsite sewage treatment system, as defined. This bill would authorize the state board to require a sewer service provider to contract with an administrator designated or approved by the state board for administrative, technical, operational, legal, or managerial services to assist a designated sewer system with the provision of adequate sewer service, as defined. The bill would also authorize the state board to order a designated sewer system to accept those services, including full management and control of all aspects of the designated sewer system, from an administrator. The bill would define "designated sewer system" for these purposes as a sewer system that serves a disadvantaged community and that the state board finds to be either an inadequate sewage treatment system or a sewer system that has demonstrated difficulty in maintaining technical, managerial, and financial capacity to prevent fraud and mismanagement, or a sewer system that voluntarily accepts financial assistance for the provision of adequate sewer service. (Based on 01/22/2024 text)

Position	Priority
watch	B. Watch

[AB 1951](#)

(Fong, Vince, R) California Environmental Quality Act: exemption: roadside wildfire prevention projects.

Location: 02/12/2024 - Assembly Natural Resources

Summary: The California Environmental Quality Act (CEQA) requires a lead agency to prepare a mitigated negative declaration for a project that may have a significant effect on the environment if revisions in the project would avoid or mitigate that effect and there is no substantial evidence that the project, as revised, would have a significant effect on the environment. This bill would exempt from CEQA a project for wildfire prevention within 50 feet of either side of a roadway. Because a lead agency would be required to determine whether a project qualifies for this exemption, the bill would impose a state-mandated local program. (Based on 01/29/2024 text)

Position	Priority
watch	B. Watch

[AB 1969](#)

(Hart, D) State Air Resources Board: Clean Off-Road Equipment Voucher Incentive Project: unmanned aerial systems.

Location: 02/20/2024 - Assembly Natural Resources

Summary: Current law creates the Air Quality Improvement Program, administered by the State Air Resources Board, for the purpose of funding, upon appropriation by the Legislature, air quality improvement projects relating to zero-emission fuel and vehicle technologies. Current law limits the program to competitive grants, revolving loans, loan guarantees, loans, and other appropriate funding measures that further the purposes of the program, including for projects that provide mitigation for off-road gasoline exhaust and evaporative emissions. As part of the program, the state board administers the Clean Off-Road Equipment Voucher Incentive Project (CORE) to provide vouchers that offset the cost of zero-emission off-road equipment, including agricultural equipment. This bill would require the state board to include unmanned aerial systems, commonly known as drones, in the meaning of agricultural equipment for purposes of CORE, which the bill would define as the program established by the state board as part of the Air Quality Improvement Program, as provided. (Based on 01/30/2024 text)

Position	Priority
watch	B. Watch

[AB 2947](#)

(Lackey, R) Water: turfgrass conversion.

Location: 02/16/2024 - Assembly PRINT

Summary: The Water Conservation in Landscaping Act provides for a model water efficient landscape ordinance that is adopted and updated at least every 3 years by the Department of Water Resources, unless the department makes a specified finding. This bill would prohibit the department, when it allocates funding for turf replacement programs, from excluding urban water suppliers' turfgrass conversion rebate programs if the rebate program requires the recipient of a rebate to achieve a net water savings and to use the most efficient turfgrass irrigation equipment, as provided. The bill would require an urban water supplier that offers a turfgrass conversion rebate program to report annually to the department on the number of turfgrass conversions that are funded through the program and the estimated water savings from the program. (Based on 02/16/2024 text)

Position	Priority
watch	B. Watch

[AB 3121](#)

(Hart, D) Urban retail water suppliers: written notice: conservation order: dates.

Location: 02/16/2024 - Assembly PRINT

Summary: Current law authorizes the State Water Resources Control Board, on and after January 1, 2025, to issue a written notice to an urban retail water supplier that does not meet its urban water use objective. Current law authorizes the board, on and after January 1, 2026, to issue a conservation order to an urban retail water supplier that does not meet its urban water use objective. This bill would instead provide that the date the board is authorized to issue a written notice to January 1, 2026 and a conservation order to January 1, 2027. (Based on 02/16/2024 text)

Position	Priority

watch

B. Watch

[SB 1110](#)

[\(Ashby, D\)](#) Urban retail water suppliers: informational order: conservation order.

Location: 02/21/2024 - Senate Natural Resources and Water

Summary: Current law authorizes the State Water Resources Control Board, on and after January 1, 2024, to issue informational orders pertaining to water production, water use, and water conservation to an urban retail water supplier that does not meet its urban water use objective. Current law requires the board to consider certain information in determining whether to issue an informational order. This bill would require the board to additionally consider lower cost actions the water supplier has implemented or will implement in order to help the water supplier achieve overall water supply resiliency in determining whether to issue an informational order. (Based on 02/13/2024 text)

Position

Priority

watch

B. Watch

[SB 1121](#)

[\(Grove, R\)](#) Recycled water: onsite treated nonpotable water systems: local jurisdiction permitting.

Location: 02/21/2024 - Senate Environmental Quality

Summary: Current law requires the State Water Resources Control Board, in consultation with the California Building Standards Commission and the Department of Housing and Community Development, to adopt regulations for risk-based water quality standards for the onsite treatment and reuse of nonpotable water, and requires a local jurisdiction that elects to establish a program for onsite treated nonpotable water systems to establish design criteria, permitting, cross-connection control, and enforcement procedures, as provided. This bill would require those local jurisdictions to ensure their permitting procedures require the approval of a permit for an onsite treated nonpotable water system within 60 days from the date the permit application is submitted if the application demonstrates that the project meets or exceeds the state board's water quality standards for the onsite treatment and reuse of nonpotable water for nonpotable uses in multifamily residential, commercial, and mixed-use buildings. (Based on 02/13/2024 text)

Position

Priority

watch

B. Watch

[SB 1255](#)

[\(Durazo, D\)](#) Public water systems: needs analysis.

Location: 02/15/2024 - Senate Rules

Summary: The California Safe Drinking Water Act provides for the operation of public water systems and imposes on the State Water Resources Control Board various responsibilities and duties relating to the regulation of drinking water to protect public health. Current law establishes the Safe and Affordable Drinking Water Fund in the State Treasury to help water systems provide an adequate and affordable supply of safe drinking water in both the near and long terms. Current law requires the state board to annually adopt a fund expenditure plan, as provided, and requires expenditures from the fund to be consistent with the fund expenditure plan. Current law requires the state board to base the fund expenditure plan on data and analysis drawn from a specified drinking water needs assessment. This bill would require the state board to develop a needs analysis of the state's public water systems on or before May 1, 2025, and on or before May 1 of each year thereafter. (Based on 02/15/2024 text)

Position

Priority

watch

B. Watch

[SB 1330](#)

[\(Archuleta, D\)](#) Urban retail water supplier: water use.

Location: 02/16/2024 - Senate Rules

Summary: Current law requires the Department of Water Resources, in coordination with the State Water Resources Control Board, to conduct necessary studies and investigations, and recommend for adoption by the board appropriate variances for unique uses that can have a material effect on an urban retail water supplier's urban water use objective. Current law requires the department, in recommending variances, to also recommend a threshold of significance for each recommended variance. Current law requires an urban retail water supplier to request and receive approval by the board for inclusion of a variance in calculating their water use objective. Current law requires the board to post specified information on its internet website relating to variances, including a list of all urban retail water suppliers with approved variances. This bill would require the board to adopt variances recommended by the department for unique uses that can have a material effect on an urban retail water supplier's urban water use objective. The bill would provide that variances adopted by the board shall not be subject to a threshold of significance. The bill would require an urban retail water supplier to self-certify the amount of water included in its urban water use objective that is attributable to a variance. The

bill would require the board to randomly audit a select number of variances each year to ensure the self-certifications are based on variances adopted by the board. (Based on 02/16/2024 text)

Position	Priority
watch	B. Watch

Priority: spot bill

[AB 2000](#)

(Mathis, R) State Water Project: permit and license conditions.

Location: 01/30/2024 - Assembly PRINT

Summary: Under current law, the State Water Resources Control Board administers a water rights program pursuant to which the State Water Resources Control Board grants permits and licenses to appropriate water. Current law requires the director of the department, in collaboration with the Secretary of the Interior, to prepare a plan, on or before January 1, 2006, to meet the existing permit and license conditions for which the department has an obligation, and to submit copies of the plan to the state board and the California Bay-Delta Authority prior to increasing the existing permitted diversion rate at the State Water Project's Harvey O. Banks Pumping Plant. This bill would make a nonsubstantive change to the latter provision. (Based on 01/30/2024 text)

Position	Priority
watch	spot bill

[AB 2171](#)

(Bennett, D) Water: Department of Water Resources.

Location: 02/07/2024 - Assembly PRINT

Summary: Current law establishes in the Natural Resources Agency the Department of Water Resources, which is under the control of the Director of Water Resources. Current law provides for the appointment of the director by the Governor, subject to confirmation by the Senate. This bill would make nonsubstantive changes to that provision. (Based on 02/07/2024 text)

Position	Priority
watch	spot bill

[AB 2661](#)

(Soria, D) Water: storage capacity.

Location: 02/14/2024 - Assembly PRINT

Summary: Current law requires the Department of Water Resources to operate the State Water Resources Development System, known as the State Water Project, to supply water to persons and entities in the state. This bill would state the intent of the Legislature to enact subsequent legislation to increase statewide water storage capacity. (Based on 02/14/2024 text)

Position	Priority
watch	spot bill

[AB 2894](#)

(Gallagher, R) Urban water use targets: indoor residential water use.

Location: 02/15/2024 - Assembly PRINT

Summary: Existing law requires the state to achieve a 20% reduction in urban per capita water use in California. Existing law requires each urban retail water supplier to develop urban water use targets and an interim urban water use target, as specified, and states the intent of the Legislature that the urban water use targets cumulatively result in a 20% reduction from the baseline daily per capita water use. Existing law requires the Department of Water Resources to develop technical methodologies and criteria, as provided, for purposes of these provisions. This bill would make a nonsubstantive change to the provision requiring the department to develop technical methodologies and criteria. (Based on 02/15/2024 text)

Position	Priority
watch	spot bill

[AB 2933](#)

(Low, D) Dwelling units: water service.

Location: 02/15/2024 - Assembly PRINT

Summary: Current law generally regulates the hiring of dwelling units and, among other things, imposes certain requirements on landlords and tenants. Under current law, if a tenant notifies the landlord, or the landlord otherwise becomes aware of a leak, drip, or water fixture that does not shut off properly, then the landlord is required to have the condition investigated, and, if warranted, to rectify the condition. This bill would make a nonsubstantive change to that provision. (Based on 02/15/2024 text)

Position	Priority
watch	spot bill

[AB 2962](#)

(Papan, D) Water appropriations: permits.

Location: 02/16/2024 - Assembly PRINT

Summary: Current law authorizes the State Water Resources Control Board to administer a water rights program pursuant to which the board grants permits and licenses to appropriate water. Current law requires the board to consider and act upon all applications for permits to appropriate water. This bill would make a nonsubstantive change to the latter provision. (Based on 02/16/2024 text)

Position	Priority
watch	spot bill

[AB 3023](#)

(Papan, D) Environmental protection: lands and coastal waters: conservation goals.

Location: 02/16/2024 - Assembly PRINT

Summary: Current law provides that it is the goal of the state to conserve at least 30% of California's lands and coastal waters by 2030. This bill would make a nonsubstantive change to this provision. (Based on 02/16/2024 text)

Position	Priority
watch	spot bill

[AB 3157](#)

(Papan, D) California Water District Law.

Location: 02/16/2024 - Assembly PRINT

Summary: The California Water District Law (CWDL) authorizes a water district, by using any water or water supplies furnished to the district or used by the district, to construct, maintain, and operate plants for the generation of hydroelectric power from those water and transmission lines for the conveyance of that power. The CWDL authorizes a water district to join with any other district engaged in distributing water in exercising the powers granted to the district pursuant to that authorization, as described, or to execute joint power agreements with any agency formed for that purpose. This bill would make a nonsubstantive change to the latter authorization. (Based on 02/16/2024 text)

Position	Priority
watch	spot bill

[AB 3219](#)

(Sanchez, R) Advanced Clean Fleets regulations: local governments.

Location: 02/16/2024 - Assembly PRINT

Summary: The California Global Warming Solutions Act of 2006 establishes the State Air Resources Board as the state agency responsible for monitoring and regulating sources emitting greenhouse gases and requires the state board to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions from those sources. Pursuant to its authority, the state board has adopted the Advanced Clean Fleets Regulation, which imposes various requirements for transitioning local, state, and federal government fleets of medium- and heavy-duty trucks, other high-priority fleets of medium- and heavy-duty trucks, and drayage trucks to zero-emission vehicles. The Advanced Clean Fleets Regulation authorizes entities subject to the regulation to apply for exemptions from its requirements under certain circumstances. This bill would state the intent of the Legislature to enact subsequent legislation that would allow a local government that declares a fiscal emergency, through an ordinance, to be provided a delay from complying with the Advanced Clean Fleets Regulation. (Based on 02/16/2024 text)

Position	Priority
watch	spot bill

[SB 1134](#)

[\(Caballero, D\)](#) Surplus land.

Location: 02/13/2024 - Senate Rules

Summary: Current law prescribes requirements for the disposal of surplus land by a local agency. Current law requires a local agency to take formal action in a regular public meeting to declare that land is surplus and is not necessary for the agency's use and to declare land as either surplus land or exempt surplus land, as supported by written findings, before a local agency may take any action to dispose of it consistent with an agency's policies or procedures. Different requirements apply to disposal, depending on the declaration as "surplus land" or "exempt surplus land" as current law defines those terms. Current law, except as specified, requires any local agency disposing of surplus land to send, before disposing of that property or participating in negotiations to dispose of that property with a prospective transferee, a written notice of availability of the property to entities specific to the purpose of the availability. This bill would correct a cross-reference in that notice provision and make other nonsubstantive changes. (Based on 02/13/2024 text)

Position

Priority

watch

spot bill

[SB 1373](#)

[\(Cortese, D\)](#) Water: public use.

Location: 02/16/2024 - Senate Rules

Summary: Current law declares that all water within the state is the property of the people of the state, but the right to the use of the water may be acquired by appropriation in the manner prescribed by law. This bill would make nonsubstantive changes to that declaration. (Based on 02/16/2024 text)

Position

Priority

watch

spot bill

Total Measures: 33

Total Tracking Forms: 33

DATE: March 4, 2024
TO: JPA Board of Directors
FROM: Engineering and External Affairs

SUBJECT: Pure Water Project Las Virgenes-Triunfo: Authorization for Local Resources Program Funding

SUMMARY:

Metropolitan Water District of Southern California (Metropolitan) administers a Local Resources Program (LRP) that provides financial incentives for the development of new water recycling, groundwater recovery and seawater desalination projects within their service area. The Pure Water Project Las Virgenes-Triunfo (PWP) is a qualifying water recycling project that represents a unique opportunity to proactively address the challenges facing the Las Virgenes-Triunfo Joint Powers Authority (JPA) through an indirect potable reuse program. The LRP would provide supplemental funding for the PWP to minimize rate impacts to the JPA’s customers, while achieving the goals and objectives of the PWP. Staff recommends authorization for the Administering Agent/General Manager to enter into an agreement with Metropolitan for participation in the LRP. Metropolitan staff is currently drafting an agreement for review and execution by the Administering Agent/General Manager. The total financial incentive provided to the JPA by the LRP is estimated to be \$19.6 million over 25 years.

RECOMMENDATION(S):

Pass, approve and adopt proposed Resolution No. 33, authorizing the Administering Agent/General Manager to enter into an agreement with the Metropolitan Water District of Southern California for participation in the Local Resources Program, in a form approved by the General Counsel, to supplement funding for the Pure Water Project Las Virgenes-Triunfo.

RESOLUTION NO. 33

A RESOLUTION OF THE GOVERNING BOARD OF LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY AUTHORIZING THE ADMINISTERING AGENT/GENERAL MANAGER, OR DESIGNEE, TO RECEIVE FUNDS, ENTER INTO A COOPERATIVE AGREEMENT, AND ADMINISTER A GRANT WITH THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA FOR PARTICIPATION IN THE LOCAL RESOURCES PROGRAM TO SUPPLEMENT FUNDING FOR THE PURE WATER PROJECT LAS VIRGENES-TRIUNFO

(Reference is hereby made to Resolution No. 33 on file in the JPA’s Resolution Book and by this reference the same is incorporated herein.)

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

There is no cost associated with entering into an agreement for the Local Resources Program. Should the funding be approved and awarded by Metropolitan, the estimated incentive payments would be approximately \$782,000 annually for 25 years, or \$19.6 million overall. The JPA partner agencies, LVMWD and Triunfo Water & Sanitation District, will receive proportional benefits from any funding received through the Local Resources Program.

DISCUSSION:

Since 1982, Metropolitan Water District of Southern California (Metropolitan) has invested in local regional water supply reliability projects through its Local Resources Program (LRP). The LRP accelerates the development of local projects by incentivizing agencies within Metropolitan's service area to construct recycled water, groundwater recovery and seawater desalination projects. Today, LRP projects support nearly half of the recycled water and groundwater recovery production in Metropolitan's service area. Participation in the program aligns with the long-term goals and strategic objectives of both the Las Virgenes Municipal Water District (LVMWD) and Triunfo Water & Sanitation District (TWSD) and supports the funding and financing strategy developed for the PWP.

The LRP is open to public and private water agencies within Metropolitan's service area. To be eligible to participate in the LRP, new water recycling, groundwater recovery and seawater desalination projects must meet the following requirements:

- Offset existing or future demands on Metropolitan's imported water supplies;
- Include construction of new substantive treatment or distribution facilities; and
- Not be under construction.

Staff has been closely coordinating with Metropolitan LRP representatives for over a year to ensure the JPA's eligibility for the program and provide the information necessary to develop a draft agreement. Staff submitted an LRP application on behalf of the JPA on June 29, 2023, which included letters of support from LVMWD, Calleguas Municipal Water District (Calleguas) and TWSD. Staff continues to coordinate with LRP representatives for development of a draft agreement, which is currently under review by Metropolitan staff.

Staff recommends that the Administering Agent/General Manager be authorized to execute an agreement when it is finalized and secure the JPA's place for this important program. Staff would normally include an agreement of this nature as an attachment to the report; however, Metropolitan requires that the JPA authorize entering into an agreement before they proceed further on their end. The basic concepts of the agreement are included in the attached resolution and any substantive changes would be brought to the JPA Board's attention at a future meeting. A final version of the executed agreement would also be shared with the JPA

Board once received.

Metropolitan offers three LRP incentive payment structures, as follows:

- Option No. 1: Sliding scale incentives up to \$340/AF over 25 years (recommended)
- Option No. 2: Sliding scale incentives up to \$475/AF over 15 years
- Option No. 3: Fixed incentive up to \$305/AF over 25 years

Staff, working in conjunction with the PWP consulting team, Jacobs, and through financial modeling prepared by the JPA's municipal advisor, Piper Sandler, determined that Option No. 1 is the best option for the JPA when submitting the application to Metropolitan.

Option No. 1 provides for sliding scale incentives. Metropolitan provides agencies a sliding scale incentive of up to \$340 per acre-foot over 25 years. The rate is calculated annually based on actual project unit costs exceeding Metropolitan's prevailing water rate. Eligible project costs include an agency's out-of-pocket costs normally associated with developing local resource projects including design, capital, operations, maintenance and replacement costs. Incentive payments are subject to an annual cost reconciliation process with adjustments for under- or over-payment to be included in subsequent water service invoices from Metropolitan.

Option No. 1 was previously presented to the JPA Board in October 2022 when discussing potential funding sources, and after further due diligence, remains the most favorable option moving forward in the application process. The potential funding available through Metropolitan's LRP program under Option No. 1 is conservatively estimated to be approximately \$19.6 million over 25 years, as compared to \$16.3 million over 15 years under Option No. 2, and \$17.5 million over 25 years under Option No. 3. The funds are dispersed in the form of rebates on water purchases from Metropolitan rather than through an upfront grant. The final agreement may deviate slightly from these projected amounts, depending on the final terms authorized by Metropolitan's Board.

On June 20, 2023, the LVMWD Board authorized its General Manager to submit an application for funding through the Metropolitan's Local Resources Program, for the PWP under the recommended Option No. 1. The JPA Board was informed of the authorization on July 10, 2023. By entering into an agreement with Metropolitan for the LRP, the JPA will access funding and resources necessary to advance the PWP and minimize the rate impacts to its customers. The program will not only augment the JPA's local water supplies but also contribute to sustainable water management practices in the region and allow the JPA to meet its regulatory mandate.

Participation in the LRP demonstrates the JPA's commitment to proactively address challenges related to climate change, population growth and regulatory requirements that impact water supply reliability. By leveraging the expertise and support provided by Metropolitan through the LRP, the JPA can implement cost-effective solutions that benefit its ratepayers and communities for years to come.

The opportunity to participate in the LRP represents a strategic investment in the future sustainability and resilience of the region's water supplies. Staff recommends authorization for the Administering Agent/General Manager to enter into an agreement with Metropolitan, thereby enabling the JPA to take advantage of the valuable program.

Staff from LVMWD and TWSD worked closely together to develop this application, and the JPA partners will receive proportional benefits from any LRP funds received through the program.

GOALS:

Ensure Effective Utilization of the Public's Assets and Money

Prepared by: Oliver Slosser, Engineering Program Manager

ATTACHMENTS:

[Proposed Resolution No. 33](#)

[2014 LRP Board Letter Attachment Nos. 1 and 2](#)

RESOLUTION NO. 33

A RESOLUTION OF THE GOVERNING BOARD OF LAS VIRGENES-TRIUNFO JOINT POWERS AUTHORITY AUTHORIZING THE ADMINISTERING AGENT/GENERAL MANAGER, OR DESIGNEE, TO RECEIVE FUNDS, ENTER INTO A COOPERATIVE AGREEMENT, AND ADMINISTER A GRANT WITH THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA FOR PARTICIPATION IN THE LOCAL RESOURCES PROGRAM TO SUPPLEMENT FUNDING FOR THE PURE WATER PROJECT LAS VIRGENES – TRIUNFO

WHEREAS, Metropolitan Water District of Southern California's (Metropolitan) Local Resources Program (LRP) was created in 1982 to provide funding for the development of water recycling, groundwater recovery, and seawater desalination supplies that offsets an existing demand or prevents a new demand on Metropolitan's imported water deliveries either through direct replacement of imported water or increased regional groundwater production;

WHEREAS, Las Virgenes Municipal Water District and Triunfo Water and Sanitation District together as a Joint Powers Authority (JPA) currently provide water to approximately 89,000 residents within its jurisdiction;

WHEREAS, The Pure Water Project Las Virgenes – Triunfo (Pure Water Project), will provide between 2,100 to 5,000 AF of purified recycled water to the JPA's potable water supply by diverting excess wastewater discharges from the Tapia Water Reclamation Facility to a new Advanced Water Purification Facility;

WHEREAS, the Pure Water Project will provide much-needed diversification of the JPA's water supply portfolio and effectively reduce its sole reliance on imported supplies from Metropolitan;

WHEREAS, the Pure Water Project supports the LRP's objectives to develop and supplement local water supplies through water reuse, thereby improving water reliability by providing communities with new sources of clean, drought resilient water supplies and offsets an existing demand or prevents a new demand on Metropolitan's imported water deliveries;

WHEREAS, the application for funding through the LRP would supplement costs for planning, permitting, pre-design, design, construction, maintenance and/or operation of the Pure Water Project;

WHEREAS, On June 20, 2023 the LVMWD Board authorized the General Manager, Administering Agent for the JPA, to submit an application for funding through the LRP for the Pure Water Project under the recommended Option 1;

WHEREAS, Option 1 would provide a sliding scale incentive up to \$340/AF over 25 years, calculated annually based on actual project unit costs exceeding Metropolitan's prevailing water rate, for project water used within Metropolitan's service area. Incentive payments are subject to an annual cost reconciliation process with adjustments for under-or over-payment to be included in subsequent water service invoices from Metropolitan;

WHEREAS, an application was submitted to Metropolitan on June 29, 2023, which included letters of support from Las Virgenes Municipal Water District, Triunfo Water and Sanitation District, and Calleguas Municipal Water District; and

WHEREAS, The final LRP Agreement may deviate from these projections depending on what is authorized by Metropolitan's Board of Directors and will be presented to the Board in its final form.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BOARD OF THE LAS VIRGENES – TRIUNFO JOINT POWERS AUTHORITY AS FOLLOWS:

Section 1. The Administering Agent/General Manager, or designee, on behalf of the JPA, is hereby authorized and directed to conduct all negotiations and execute and submit all documents associated with Metropolitan's Local Resources Program, including, but not limited to, a grant contract and any amendments or change orders, and to work with Metropolitan to meet established deadlines for entering into a cooperative agreement.

Section 2. The Administering Agent/General Manager, or designee, has confirmed that the JPA has the capability to meet the requirements of the program and the production goals required as specified in the funding plan of the application. The JPA will work with Metropolitan to meet established deadlines for entering into a grant or cooperative agreement.

Section 3. This Resolution will take effect immediately upon adoption.

PASSED, APPROVED, AND ADOPTED this _____ day of _____, 2024.

Jay Lewitt, Chair

ATTEST:

James Wall, Vice Chair

(SEAL)

APPROVED AS TO FORM:

W. Keith Lemieux, District Counsel

Local Resources Program General Program Information

General Requirements

The Local Resources Program (LRP) provides incentives for development of new water recycling, groundwater recovery, and seawater desalination projects in Metropolitan's service area. Unless otherwise approved by Metropolitan, proposed projects must comply with the following general requirements:

1. Project must replace an existing demand or prevent a new demand on Metropolitan's imported water deliveries either through direct replacement of potable water or increased regional groundwater production.
2. Project must not exist or be under construction prior to application submittal. Projects that commence construction after application submittal and prior to executing an agreement with Metropolitan would be subject to agency's sole financial risk.
3. Project must include construction of new substantive treatment or distribution facilities.
4. Proposals must be supported by a Metropolitan member agency.
5. Project must be owned and operated by the agency, and Metropolitan has no ownership or operational obligations toward the project.
6. Project must comply with the Metropolitan Water District Act and applicable laws.
7. Project must comply with CEQA and/or NEPA provisions prior to Metropolitan board approval.
8. Metropolitan's Board must approve each project prior to incentive agreement execution.
9. Project must have obtained all required Regional and State permits prior to receiving Metropolitan board approval.
10. Additional requirements specific to each project will be developed to address system integration issues related to use of Metropolitan's facilities, if needed.

Project Phasing

Metropolitan would only consider new projects that are ready for construction and capable of achieving stated production capacities in the near future. To that end, Metropolitan would consider phasing of projects with long ramp-up schedules. LRP funding would be provided to only initial phases that are well positioned to produce water. Future phases would be considered for inclusion at later dates when production is more imminent.

Some existing LRP projects are not fully developed and need more time beyond the term of current agreements to reach full capacity. To help advance expansion of those projects, Metropolitan would apply the project phasing principle. Existing agreements would be truncated at current production levels and new agreements would be negotiated for remaining phases.

The existing LRP agreements and new project proposals shall not be subdivided into more than three phases.

General Performance Provisions

The following performance provisions would apply to new and amended agreements to ensure timely and responsive project development and production. These provisions would allow Metropolitan to adjust or

withdraw financial commitments to projects that fail to meet development and production milestones outlined in the following table.

Timeline (full fiscal year)	Milestone	Consequence if target is not achieved
Two years after agreement execution	Start construction	Agreement may be terminated*
Four years after agreement execution	Start operation	Agreement may be terminated*
Four-Seven years after agreement execution	50 percent of contract yield	Contract yield may be reduced
8-11 years after agreement execution	75 percent of contract yield**	Same as above
12-15 years and every four years thereafter	75 percent of contract yield**	Same as above

* Entities may appeal termination to Metropolitan's Board of Directors.

** Ultimate yield or revised ultimate yield due to project's performance in previous years (if applicable)

Program Target

The current program was adopted in 2007 with a goal of incentivizing 174,000 AFY of new annual production. Under the current program, the Board has approved 23 projects with a combined contractual yield of about 111,000 AFY, resulting in a remaining target of 63,000 AFY.

Process Overview

Program refinements do not apply to projects with existing LRP agreements. Metropolitan would accept project applications on an open and continuous basis until the LRP target is achieved. Staff would review project applications to ensure compliance with general program requirements. Project proposals that have met the General Requirements (previously described) and secured approval of draft agreement terms by the respective governing bodies would be forwarded to Metropolitan's Board for approval of LRP participation through an agreement. Upon board approval, staff would meet with project sponsors and respective member agencies to negotiate terms and execute agreements. LRP agreement terms are for 25 years.

Local Resources Program Alternate Incentive Payment Structures

Incentive Payment Structures

Agencies can choose from one of the following three alternative incentive payment structures for each of their eligible projects to participate in the LRP:

- Alternative 1 – Sliding Scale Incentives Over 25 Years (Current Payment Structure)
- Alternative 2 – Sliding Scale Incentives Over 15 Years (New Structure)
- Alternative 3 – Fixed Incentives Over 25 Years (Previously Approved Structure)

Alternative 1 - Sliding Scale Incentives Over 25 Years (Current Payment Structure)

Metropolitan would provide member or retail agencies a sliding scale incentive up to \$340/AF over 25 years, calculated annually based on actual project unit costs exceeding Metropolitan's prevailing water rate, for project water produced and used.

Eligible project costs include an agency's out of pocket costs normally associated with developing local resource projects including design, capital, operations, maintenance, and replacement costs. Incentive payments are subject to a follow-up cost reconciliation process with adjustments for under- or over-payment to be included in subsequent water service invoices from Metropolitan.

Alternative 2 - Sliding Scale Incentives Over 15 Years (New Structure)

This alternative is similar to the current program, but the incentive amount is calculated over a shorter payment period (15 years versus 25 years), allowing for higher incentives earlier in the contract. The adjusted incentive amount includes a present value calculation, resulting in an equivalent maximum obligation to Metropolitan as Alternative 1 (Sliding Scale Incentives Over 25 years). Metropolitan would provide member or retail agencies a sliding scale incentive up to \$475/AF over 15 years, calculated annually based on actual project unit costs exceeding Metropolitan's prevailing water rate, for project water produced and used. Eligible project costs are the same as Alternative 1. Incentive payments are subject to a follow-up cost reconciliation process with adjustments for under- or over-payment to be included in subsequent water service invoices from Metropolitan. In addition to the current LRP performance provisions, projects must continue production for 25 years, even if LRP payments are reduced to zero after 15 years. This provision ensures continued production throughout the contract term. If an agency fails to comply with these provisions, Metropolitan may require reimbursement for a percentage of the previous LRP payments toward that project. The reimbursement would be determined for each year remaining in the agreement considering the following:

- The previous LRP payments
- The previous project yield
- Project yield in the year in which a reimbursement is required

Alternative 3 – Fixed Incentive Over 25 Years (Previously Approved Structure)

Compared to sliding scale incentives that are dependent on Metropolitan's water rate, a fixed incentive rate provides agencies with a more stable source of funds to help address financing issues. Agencies use LRP incentives as a means of income when securing financing for their projects. Fixed incentives provide stable income and help agencies with securing capital funds. Metropolitan would offer a project-specific fixed incentive rate, not to exceed \$305/AF, over 25 years. The fixed incentive amount for each project would be negotiated so that Metropolitan's maximum obligation toward that project

under this alternative would not exceed the estimated financial obligations under Alternative 1 for the same project, and be adjusted for increased financial risk to Metropolitan in absence of annual cost reconciliations.

In addition to the general requirements and performance provisions, the following provision would apply to this alternative: Total LRP payments under the agreement term would be limited to total estimated project yield presented by the agency at the time of agreement negotiation.

Reimbursable Services

Metropolitan would enter into a reimbursable agreement with requesting member agencies for the development of local resource projects that help manage demand on Metropolitan's system, and increase regional reliability and availability. Metropolitan's participation would help meet the member agencies' strategic needs by expediting development of projects. Metropolitan's participation in a reimbursable service agreement would depend on the need to accelerate delivery of the projects in order to meet resource needs or improve reliability.

For projects proposed by member agencies, Metropolitan would consider the following:

- Water quantity to ensure that the project makes a meaningful addition to regional supply reliability,
- Water quality to confirm that project water will meet all water quality objectives,
- Ensure that the project helps meet the IRP resource needs,
- Ability to help address current and future drought conditions,
- Impacts to Metropolitan's cash flow (delivered cost of the project),
- The need for Metropolitan's involvement to expedite project completion,
- The availability of Metropolitan resources to expedite project completion, and
- Compliance of the project with all permitting and environmental requirements.

Metropolitan's obligations may include:

- Conduct feasibility studies as needed,
- Perform technical and water quality analyses as needed,
- Perform project management, procurement, installation/construction, and start-up/operations,
- Perform engineering design including drawings and performance specifications,
- Develop construction and operating cost estimates, and
- Contract with vendor.

Agency obligations would include:

- To serve as the Lead Agency under the California Environmental Quality Act,
- Obtain all necessary permits,
- Meet all applicable standards (e.g., water quality),
- Operate project upon termination of agreement, and
- Reimburse Metropolitan for all its actual costs, including labor, equipment, materials, and other services.

The amount of the reimbursable agreement would be determined on a case-by-case basis. The agency would reimburse Metropolitan for all direct and indirect costs incurred, including the cost of capital and the fully burdened cost of Metropolitan's staff.

DATE: March 4, 2024
TO: JPA Board of Directors
FROM: Engineering and External Affairs

SUBJECT: Pure Water Project Las Virgenes-Triunfo: Contract Amendment No. 2 for Owner's Advisor Services

SUMMARY:

On May 8, 2020, staff released a Request for Proposals (RFP) for Owner's Advisor/Program Manager services for the Pure Water Project Las Virgenes-Triunfo. The selection of an Owner's Advisor/Program Manager to support the effort was an important step to begin implementation of the Pure Water Program. The scope of work under Phase 1 of the professional services agreement included program management, preparation of preliminary design and/or alternative delivery bridging documents, preparation of all environmental studies and documentation for compliance with the California Environmental Quality Act (CEQA), preparation of studies and documents necessary to secure all required regulatory permits, and support of efforts to secure grant funding and low-interest loans.

Jacobs Engineering Group, Inc. (Jacobs) was selected as the Owner's Advisor through a competitive process. Jacobs has delivered the work comprehensively cost-effectively for the first phase of the project, including completion of the Programmatic Environmental Impact Report, multiple pre-planning studies, helping the JPA secure a Title XVI Water Infrastructure Improvements for the Nation (WIIN) Act grant for \$10.2 million, guiding staff through a year-long procurement for a progressive design build (PDB) firm, and many other tasks.

With the project moving into final design and construction, a second phase of Owner's Advisor services is necessary to support the final design portion of the project. Jacobs has provided a proposal to continue their Owner's Advisor services for the next phase. Their scope of work is based on a two-year duration for final design of the Program. Support for the construction delivery portion of the program will be provided in an amendment to this scope and fee proposal at such time a Guaranteed Maximum Price (GMP) is provided by the design builder.

The next phase of services to be provided by Jacobs includes program management, program controls, engineering and project management, environmental and regulatory compliance, and engineering studies. These services will be vital to the continued efficient delivery of the Pure Water Program and management of the design-build firm. Staff recommends acceptance of the proposal from Jacobs, in the amount of \$7,294,443, and authorization of the Administering Agent/General Manager to execute Contract Amendment No. 2 to Professional Services Agreement No. 3210240, in the amount of \$7,294,443, for Owner's Advisor services during final design of the Pure Water Project Las Virgenes-Triunfo.

RECOMMENDATION(S):

Accept the proposal from Jacobs Engineering Group, Inc., and authorize the Administering Agent/General Manager to execute Contract Amendment No. 2, in the amount of \$7,294,443, for Owner's Advisor services during final design of the Pure Water Project Las Virgenes-Triunfo.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The cost of the work is \$7,294,443. Sufficient funds for the work are available in the adopted Fiscal Year 2023-24 JPA Budget. No additional appropriation is required. The project is funded by CIP Job No. 10635, which is allocated 70.6 percent to LVMWD and 29.4 percent to Triunfo Water & Sanitation District (TWSD). The proposed contract amendment, in addition to previous and pending amendments, would bring Jacobs' contract total to \$14,161,483.

DISCUSSION:

The services of an Owner's Advisor/Program Manager are multi-faceted and intended to support collaboration, innovation, and teamwork for successful implementation of a program of this size and nature. The Pure Water Project Las Virgenes-Triunfo is better defined as a program than a project due to the size and longer timeline to plan, design, and build the required infrastructure. While the cornerstone of the program will be construction of an Advanced Water Purification Facility (AWPF), the program also consists of a number of other projects that must be studied, developed and designed to support the overall success.

Following is a summary of some of the major design and construction elements of the overall program:

1. Advanced Water Purification Facility (AWPF)
2. Major Supporting Pipelines
 - o Recycled water supply to the AWPF (Influent Pipeline)
 - o Purified product water to Las Virgenes Reservoir (Product Water Pipeline)
 - o Reverse Osmosis (RO) concentrate pipeline (Brine Disposal Pipeline)
 - o Off-spec water pipeline to sewer (Off-Spec Water Pipeline)
3. Tapia Water Reclamation Facility and Recycled Water System Improvements
 - o Primary Effluent Flow Equalization Tank
 - o Tapia Effluent Pump Station Upgrades
 - o Recycled Water Pump Station West Improvements
4. Las Virgenes Reservoir
 - o Outfall Design and Construction

Additionally, there are many studies and numerous sub-tasks necessary to support the program, which include but are not limited to the following:

1. Assisting and supporting JPA staff with grant/loan applications, cost-loaded program scheduling and financial support;
2. Completing a dye-tracer mixing study and hydrodynamic modeling for Las Virgenes Reservoir for regulatory compliance;
3. Development of operational strategies for Las Virgenes Reservoir;
4. Evaluating the capacity and operation of the recycled water system to provide a consistent flow to the AWPf;
5. Developing brine disposal, maintenance and optimization strategies;
6. Evaluating augmentation sources and water quality impacts; and
7. Supporting the management of the design-build firm

Jacobs Engineering Group, Inc. (Jacobs) prepared a scope of work to support the design portion of the design-build process, spanning two years from 2024 through 2025. Following are the major tasks identified in Jacobs' scope of work:

- Task 1 – Program Management
- Task 2 – Program Controls
- Task 3 – Engineering and Project Management
- Task 4 – Construction Management (minor/preliminary construction items only)
- Task 5 – Environmental and Regulatory Compliance
- Task 6 – Engineering Studies

In addition to the above major tasks, Jacobs included a contingency task of \$394,889, or 5.4 percent of the total cost under the professional services agreement. Due to the dynamic nature of the progressive design-build structure being used for the majority of the work, the contingency will be invaluable to allow Jacobs to deliver tasks that can only be defined in real time during the design of the project. Major changes in scope would still be brought before the JPA Board for authorization to use the contingency funds if the amount exceeds the Administering Agent/General Manager's authority.

Due to Jacobs extensive knowledge of the program, the quality of their Owner's Advisor work to this point and their demonstrated efficiency in delivering these types of services, staff asked Jacobs to provide an exclusive scope of work to provide continuity in their support services now that the Pure Water Project Las Virgenes-Triunfo enters its next phase. It is staff's opinion that the services described in the next phase of Jacobs' scope of work are extensive and priced competitively as compared to other firms that offer these types of services. The value provided by Jacobs is also demonstrated in their original proposal, which was evaluated against five other competing proposals.

Based on the proposed scope of work, project understanding and approach, team experience and fee proposal, and exceptional performance to date, staff recommends accepting the proposal from Jacobs Engineering Group, Inc., in the amount of \$7,294,443, as a Contract Amendment No. 2 to their Professional Services Agreement 3210240, for Owner's Advisor services during final design of the Pure Water Project Las Virgenes-Triunfo. Contract Amendment No. 1 was a no-cost change that was processed on May 31, 2023 to address incidental changes in the scope of work. This amendment catalogued additions to their scope that had been made and not reflected in Jacobs' original proposal, and items from their original proposal that did not need to be completed. Proposed Contract Amendment No. 2 would bring Jacob's contract total to \$14,161,483.

GOALS:

Lead in Sanitation and Recycled Water Services Focusing on Maximum Reuse

Prepared by: Oliver Slosser, Engineering Program Manager

ATTACHMENTS:

[Jacobs Proposal for Contract Amendment No. 2](#)

January 5, 2024

Mr. Oliver Slosser, PE
Engineering Program Manager
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302

Subject: Owner's Advisor/Program Manager for Pure Water Project Las Virgenes-Triunfo, Phase 2 Proposal

Dear Mr. Slosser,

Jacobs is pleased to submit our fee proposal for Phase 2 of the Pure Water Project Las Virgenes-Triunfo that covers program management services in 2024 and 2025.

We are excited to continue working with the Las Virgenes-Triunfo team on this important project as it moves into the delivery phase.

We look forward to discussing the details of this proposal at your earliest convenience.

Regards,



Jennifer Phillips, PE
Program Manager
480.220.7819
Jennifer.Phillips2@jacobs.com



Rich Nagel, PE
Vice President and Principal-in-Charge
213.500.2333
Rich.Nagel@jacobs.com

C: Eric Schlageter, PE LVMWD

Las Virgenes -Triunfo Joint Powers Authority

Pure Water Project

Scope of Work

Purpose

This scope of work describes the services to be provided by the Jacobs team as Owner’s Advisor/Program Manager (OA/PgM) for Phase 2 of the Pure Water Project Las Virgenes-Triunfo (PWP or Program). The scope of services in this proposal covers assisting the Las Virgenes-Triunfo Joint Power Authority (JPA) with delivery of the design phase for the projects and is based on a 24-month period, from March 2024 through February 2025.

Overview

The JPA’s service area receives imported water for its potable water supply. Within this service area, wastewater is collected and treated to Title 22 non-potable recycled water standards at the Tapia Water Reclamation Facility (Tapia WRF). During the dry, summer months, all of the recycled water is used throughout the service area for irrigation of parks, golf courses, cemeteries and greenbelts and demand exceeds supply, requiring supplementation by potable water. During the winter, demand is low and Tapia WRF effluent is discharged to Malibu Creek. Due to new stringent limits for discharge to Malibu Creek that would require a higher level of treatment, the JPA has evaluated elimination of this discharge through redirection to an indirect potable reuse strategy as a surface water augmentation approach. The JPA is proactively addressing three major challenges – complying with more stringent regulatory requirements for discharge to Malibu Creek, balancing seasonal variation of recycled water demand, and creating a valuable resource to supplement the region’s water supplies through California’s reservoir augmentation requirements.

The fundamental plan is to build an advanced water purification facility (AWPF) to treat disinfected tertiary effluent from the Tapia WRF for indirect potable reuse, and convey the product water to the Las Virgenes Reservoir, where it will be blended with MWD supply by 2030. The water from the Last Virgenes Reservoir will subsequently be treated at the Westlake Filtration Plant prior to distribution. Additionally, pipelines will be constructed to convey source water from the Tapia WRF to the AWPF, purified water from the AWPF to Las Virgenes Reservoir, reverse osmosis (RO) concentrate from the AWPF to the Calleguas Salinity Management pipeline and residuals from the AWPF to the sewer.

Description of Services

Las Virgenes Municipal Water District (LVMWD) serves as the Administering Agency for the JPA. The following sections further describe the scope of services to be provided by the Jacobs team to LVMWD for the design delivery portion of Phase 2 of the Program.

The major tasks include:

- Task 1 – Program Management
- Task 2 – Program Controls
- Task 3 – Engineering and Project Management
- Task 4 – Construction Management
- Task 5 – Environmental and Regulatory Compliance
- Task 6 – Engineering Studies

The following general assumptions apply to all tasks described below; while additional task-specific assumptions and deliverables are noted with each task description.

- The fee proposal is based on a two-year duration for the design delivery in Phase 2. Support for the construction delivery portion of Phase 2 of the Program will be provided in an amendment to this scope and fee proposal.
- Public outreach will be provided by LVMWD.
- LVMWD will make its facilities and data accessible to the Jacobs team, as required and appropriate for Jacobs to complete our project activities.
- All deliverables will be provided in electronic format.
- One consolidated set of comments on draft deliverables will be provided by LVMWD.
- Deliverables and Program documentation will be uploaded to the web-based Program Delivery Portal on SharePoint. Each document will be submitted with appropriate file convention as established in Phase 1.
- Jacobs has included hours and cost for each deliverable to have internal Quality Assurance and Quality Control (QA/QC) review.
- The program will operate as a Virtual Program Management Office. Core leadership (Program Manager) will attend meetings in person, while the remaining team members will primarily attend meetings by phone as feasible. The team will visit the JPA or sites as required.
- The program activities will be completed within the following approximate schedule, assuming the Notice to Proceed is in February 2024.

Task 1 Program Management

The purpose of this task is to manage, coordinate, and lead the OA/PgM activities and perform general administration of the program.

Task 1A Program Administration

Our team will provide a streamlined, OA/PgM core leadership team, who will be the principal points of contact for LVMWD, and who will provide clear team direction, communications, and continuity for implementing inter-related tasks as the program advances from delivery through completion. Jacobs will maintain the integrated Hybrid Virtual Program Management Office (VPMO) and implement approaches captured in the Program Management Plan (PMP) that was developed in Phase 1.

The following roles will be provided under this task:

- **Program Manager Advisor (0.5 FTE):** Jacobs Program lead and Advisor to LVMWD’s Engineering Program Manager, Principal Engineer, and Project Delivery Lead(s).
- **Deputy Program Manager Advisor (0.4 FTE):** Supports the Program Manager Advisor in the day-to-day management of the Program.
- **Program Administration and Support (0.15 FTE):** Provides administrative support to Jacobs Program staff. Provides accounting, technical editing, document processing, and other services to support the Program team.

Deliverables and Meetings:

1. Weekly PMT coordination meetings.
2. Monthly progress report for the JPA Board.
3. Monthly JPA Board meeting attendance.

4. Monthly invoice and progress report on Jacobs' activities.
5. Provide guidance and support efforts and needs of the Program Team.
6. Review Program Team deliverables prior to submission to LVMWD.

Assumptions:

1. LVMWD will provide the following roles to support this task and the Program:
 - a. Engineering Program Manager
 - b. Principal Engineer
2. LVMWD will provide accommodations for Program staff and Program related meetings.

Task 1B Program Risk and Change Management

Jacobs will assist with implementation of the risk and change management plans.

Risk Management. Managing risks to support the mission of the Program at the lowest possible cost and per the defined schedule is a critical aspect of successful project implementation. Risks and opportunities at the Program level have been identified, their potential impact on performance predicted and strategies have been developed for avoiding, abating, minimizing, and mitigating the risks. Project level risk registers will be developed with the individual Project Managers and design consultants and contractors.

Risk identified at the Program level will continue to be tracked and addressed per the Risk Management Plan and maintained in the risk register. The Risk Manager will work with the Program Management Team on Program level risks and with Project Managers on individual project risks. All risk concerns will be brought to the attention of LVMWD on an as needed basis and discussed in detail at the risk management meetings.

Change Management. A formal change management process is essential to minimize scope creep, reduce project and Program cost increases, obtain required approvals, and provide documentation of changes to the Program schedule, scope and budget. Given the long timeframe and investment for this Program, tracking and documenting change are important elements in maintaining Program accountability and communicating Program process with stakeholders.

Change management for the Program will be led by a Change Manager and accomplished in close coordination with a Change Management Board. Potential change will be brought to the attention of the Change Manager by the individual Project Managers and the Program Management Team. Potential change items will be compiled and discussed at the regularly occurring change management meetings.

The following roles will be provided under this task.

- **Risk Manager Advisor (0.05 FTE):** Conducts risk workshops, maintains Program risk register, assures that Project Managers are maintaining project risk registers, and communicates risk and works with Project Managers to address risk in contracts. Updates risk register as-needed to reflect current projects and Program activities.
- **Change Manager Advisor (0.05 FTE):** Reports to the Change Management Board, conducts Change Management Board meetings, provides guidance for addressing change, works with Project Manager to review potential change, and coordinates all change management activities.

Deliverables and Meetings:

1. Maintenance of Program risk register.
2. Incorporation of project-specific risk registers into the Program Risk Register.
3. Quarterly risk management meetings.
4. Maintenance of change management log and form documentation.
5. Monthly (or as needed) change management meetings with the Change Management Board.

Assumptions:

1. Change Management Board, consisting of LVMWD and TWSD staff, provides timely input so that risk and change do not negatively impact the Program costs, schedule or reputation.
2. Jacobs' Program Manager Advisor will participate in the Change Management Board.
3. Change Management will use procedure and form identified in the PMP.
4. The need for change is documented as early as possible; and the change recognizes WBS, scope, cost and schedule alignment for all affected Program areas and projects and will follow appropriate authorization protocols.
5. Individual Project Managers will work directly with designers and contractors to develop and update project-specific risk registers.

Task 2 Program Controls

Task 2 covers activities related to financial management of the Program, including Program Controls Management, Economic Management, Document Management, and State and Federal Funding Coordination.

Task 2A Program Controls Management

The Jacobs Team will implement a Program Controls System to deliver the Program, including cash flow projections, development and updates of a master schedule, budgets and expenditures, and a document management system.

- Conduct monthly cost and schedule update meetings with project managers.
- Conduct analysis to enable early identification of potential delays and overruns.
- Conduct recovery planning to identify corrective approaches and actions.
- Update the performance dashboard monthly.

The following roles will be provided under this task.

- **Program Controls Specialist - Scheduler (0.25 FTE):** Manages critical path schedule for Program implementation. Works with project managers on schedule performance tracking.
- **Program Controls Specialist - Cost (0.25 FTE):** Manages costs related to Program implementation. Works with project managers on cost performance tracking and projections.

Deliverables:

1. Monthly schedule and cost performance analysis.

Assumptions:

1. Program controls will be primarily found in the Portal Web-based site.
2. Any special Program Controls analyses or reports are not included as part of this proposal.

Task 2B Economic Management

The Economic Advisor will provide the necessary revenue requirement projections to support the JPA's decisions in project scheduling to determine optimum timing for bond sales, drawdowns, contingency management, and necessary changes in rates. The financial modeling will be performed using Jacob's proprietary tool, TACT.

The following roles will be provided under this task:

- **Economic Advisor (0.05 FTE):** Manages economic modeling (using TACT) to determine revenue requirements for Program Implementation.

Deliverables and Regular Meetings

1. Economic and sensitivity modeling with TACT.
2. Cashflow analysis for the Program.
3. Attending and presenting at meetings, as needed.

Assumptions

1. TACT model will remain the property of Jacobs and will not be provided to the JPA. Results will be provided in excel or presentation format.
2. TACT modeling and cashflow updates will be conducted quarterly.
3. Rate setting will be conducted by the JPA's rate consultant based on LVMWD and TWSD direction. LVMWD and TWSD will contract with and manage their own rate consultant and financial advisor.
4. LVMWD and TWSD will coordinate any JPA financial requirements.

Task 2C Funding Coordination

The strategic funding lead who will continue to work with the LVMWD Engineering Department and LVMWD and TWSD Finance Departments to provide support for Program funding strategies.

The following role will be provided under this task:

- **Strategic Funding Lead (0.15 FTE):** Leads funding efforts and funding opportunities for the Program. This person will coordinate closely with JPA staff.

Deliverables and Meetings:

1. Provide responses to informational requests for the WIFIA loan application and SRF application (technical and environmental packages).
2. Attend coordination meetings with LVMWD, TWSD, WIFIA, and SRF.
3. Develop and submit a grant application for the BOR Title XVI program for construction funding (remainder of \$30 million allocation).

Assumptions:

1. LVMWD will support coordination efforts with State and Federal funding agencies.
2. LVMWD will coordinate any JPA financial requirements.
3. LVMWD will pay all application fees.
4. LVMWD will develop reporting documents for issued funding sources.
5. An allowance for level of effort is included for funding support on an as-needed basis. Should the budgeted allowance be exceeded, Jacobs will seek approval from LVMWD to continue to provide as-needed support for this task for additional fee. The level of effort for development of additional funding applications will need to be assessed upon identification, and may require additional fee.

Task 2D Document Management

The Program Management Team will use the Portal to manage all project-related documentation outside of construction management related documents. This will allow the team to collaborate on documents in progress and provide a repository for all project records.

The following roles will be provided under this task:

- **Document Control Lead (0.15 FTE):** Manages all document storage procedures and records, excluding specific City requirements.

Deliverables:

1. Archiving of Program documents into the records library on the Program SharePoint site.

Assumptions:

1. LVMWD and Jacobs will use the Portal for all Program related document storage.
2. LVMWD will provide Document Controls Support to perform the necessary LVMWD processes for document management, including coordination with the Clerk of the JPA Board.

Task 3 Engineering and Project Management

The task will consist of project management and engineering activities for the Pure Water Program project.

Task 3A Project Management

Jacobs will provide project managers to deliver the design-build AWPf Project (AWPF, RO concentrate pipeline, and other conveyance if added). Project managers will be responsible for efficient delivery of projects by managing consultants, contractors, scope, cost, schedule, quality and communication with the PMT.

Primary Project Management responsibilities during the design phase of the project are detailed below:

- Scope, budget, schedule management and reporting
 - Review, manage and monitor design-builder scope of work; monitor and track progress against scope of work and report progress monthly
 - Review, manage and monitor design-builder budget; monitor and track project budgets and costs using Program tools; status project-level earned value progress and prepare EACs monthly; coordinate and facilitate value engineering reviews if needed
 - Develop and coordinate project level schedule; review, manage and monitor design-builder schedule; report status against schedule and provide monthly progress report
 - Coordinate with Program Controls to ensure the latest project information is reported on the Performance Dashboard
- Risk management
 - Identify, develop, and maintain project level risks, definitions and assessments
 - Develop risk mitigation strategies
 - Coordinate with Risk Manager to provide risk updates to PMT
- Change management
 - Oversight and communication of project Decision Log
 - Negotiate and process consultant and contractor amendment requests; preparation of Change Request Form (CRF)
 - Control Scope by identifying and managing changes during design
 - Support development of materials for and presentation of CRFs to the Change Board

- Procurement, task order and contract management
 - Review of design-builder proposed scope and fee
 - Administer and manage design-builder (professional services) agreement
 - Preparation of contract amendments and change orders
 - Manage and approve design-builder invoices/payments
 - Resolution of design-builder contract issues/disputes
- Team leadership and management
 - Coordinate project involvement of Technical Advisors as appropriate
 - Coordinate and oversee design-builder or other third parties during all phases
 - Regular reporting to Program Manager Advisor
 - Inform PMT of progress and issues
 - Coordinate with other projects as needed
- Quality assurance
 - Verify design-builder implements quality control process
 - Assure that designer builder has addressed review comments in subsequent deliverables
 - Coordinate and facilitate constructability and O&M review workshops
 - Coordinate input/reviews by Program Technical Advisors
 - Review and verify that design-builder deliverables meet scope and contract requirements
 - Coordinate and facilitate deep dive reviews
- Coordination and management of stakeholder engagement
 - Coordinate and facilitate LVWMD Staff/O&M review workshops/meetings
 - Coordinate and facilitate engagement with utility companies
 - Coordinate and facilitate engagement with LVMWD Departments
 - Coordinate project-related public outreach activities with LVMWD
 - Coordinate and support public and JPA meetings
- Coordination and management of communications and meetings
 - Coordinate and facilitate regular design-build coordination/project status meetings
 - Prepare and distribute meeting notes for managed meetings
 - Inform project team of JPA and Program activities and decisions
 - Coordinate and facilitate responses to information requests from all parties including public
 - Participate in regular Project Manager/Engineering Delivery review meetings
- Document and records management
 - Project level document management
 - Design-builder deliverable management – Quality assurance, distribution and storage
 - Submit project or program documents to Document Controls Lead for record storage

The following roles will be provided under this task:

- ***AWPF & ROC Project Manager (0.75 FTE)***
- ***AWPF & ROC Deputy Project Manager (0.75 FTE)***
- ***Conveyance Deputy Project Manager (0.5 FTE)***. This role has been identified if all of the pipelines (source water, purified water and residuals) are included within the AWPf Project.

Deliverables and Regular Meetings

1. Management of design-builder.
2. Coordinate review of designer-build deliverables.

3. Meet with design-builder at least monthly to review project progress.
4. Provide information for monthly project performance and status updates to program controls, on a routine basis.
5. Coordinate with construction management lead to obtain construction management support.

Assumptions

1. AWPf project design duration will span 2 years, from March 2024 to February 2026.
2. All staff managing projects will use program control tools provided by the Program and manage projects on an earned value basis.
3. Project change will be reported to the change manager for all projects and by all project managers (Jacobs and LVMWD).
4. Project and Program Risk will be reported to the program risk manager for all projects and by all project managers (Jacobs and LVMWD).
5. LVMWD will provide the following project managers
 - a. Conveyance (Source Water, Purified Water, and Residuals), if maintained outside of the design-builder contract
 - b. Reservoir Improvements
 - c. Preformed Monochloramine Improvements
 - d. Recycled Water Pump Station West Upgrade
6. During the construction phase of the project, the project's CM team will take over the primary responsibilities for construction delivery.

Task 3B Technical Support

Jacobs will provide engineering support to facilitate consistency in design, support project managers on an as-needed basis, and provide technical guidance to LVMWD on Pure Water Program related projects, activities, and planning.

The following roles will be provided under this task:

- **Technical Advisors, Treatment:** Jacobs technical experts who provide guidance, review and recommendations for Pure Water Program activities related to treatment.
- **Technical Advisors, Conveyance:** Woodard and Curran technical experts who provide guidance, review, and recommendations for Pure Water Program activities related to conveyance.

Deliverables and Meetings:

1. Attend project technical meetings as needed to align with technical expertise.
2. Review comments for design submittals.

Assumptions:

1. Attendance by technologists will be virtual.
2. Ad hoc or special investigations will be assumed to be out of scope and will be handled with change proposals.
3. An allowance for level of effort is included for Technical Support on an as-needed basis. Should the budgeted allowance be exceeded, Jacobs will seek approval from LVMWD to continue to provide as-needed support for this task.

Task 4 Construction Management

The task will consist of construction management input during design and engineering activities for the Pure Water Program projects.

Deliverables and Regular Meetings

1. Review comments for design-build construction submittals.

Assumptions

1. An allowance for level of effort is included for Construction Management support on an as-needed basis. Should the budgeted allowance be exceeded, Jacobs will seek approval from LVMWD to continue to provide as-needed support for this task for additional fee.

Task 5 Environmental and Regulatory Compliance

Jacobs will provide oversight of project permitting and continue to provide CEQA support for the Program.

Task 5A – CEQA Assistance

Jacobs will provide CEQA support up to the level of effort that is established under this amendment. Items may include:

- Provide responses to information requests for the WIFIA loan application and SRF application (environmental packages).
- Prepare Addenda for projects not requiring subsequent review.
- Review of categorical exemptions or other CEQA documentation for projects before entering construction phase.
- Technical review of third-party environmental documents (e.g. contractor mitigation monitoring plans).
- Perform field surveys for rare plants, wildlife, oak trees and archaeological as identified in the Program Environmental Impact Report (PEIR) mitigation measures.

The following roles will be provided under this task:

- **CEQA Lead:** Leads development of CEQA documentation and completion of the CEQA process.
- **CEQA Support:** Support in the development of CEQA.

Deliverables and Regular Meetings:

1. CEQA reviews for process documentation.
2. Field survey reports.
3. Adequate documentation to address questions from SRF or WIFIA related to the environmental assessment in the PEIR.

Assumptions:

1. City will provide legal support for CEQA decisions and documentation, as well as coordination on the level of documentation and requirements of the CEQA process.
2. All field surveys can be performed from public right-of-way or from JPA (or other agency) owned property. The field survey team will not have to access private property, or access to private property will be secured by the JPA.
3. Jacobs will perform field surveys for wildlife and archaeological as identified in the PEIR mitigation measures.
4. Rincon (subconsultant) will perform rare plant and oak tree field surveys as identified in the PEIR mitigation measures.

5. An allowance for level of effort is included for CEQA Support to various Program projects and SRF and WIFIA funding applications on an as-needed basis. Should the budgeted allowance be exceeded, Jacobs will seek approval from LVMWD to continue to provide as-needed support for this task for additional fee.
6. This scope of work does not include implementation of restoration activities (such as seed collection, plant salvage, offsite propagation, mitigation planting, monitoring). If requested, these tasks can be completed for additional scope and fee.

Task 5B – Permitting Assistance

The permitting lead will work with Project Managers and their consultants to confirm and track the required permits, associated permit requirements, and timeline so that a permitting schedule can be confirmed for each project. Jacobs will perform permit tracking to:

- Support Project Manager responsibilities.
- Monitor permit target and actual schedule dates.
- Maintain access to all permitting documents by project.

Deliverables and Meetings:

1. Regular meetings with Project Managers for ongoing projects.
2. Monthly updates to Program schedule.

Assumptions:

1. Project Managers will keep the Permitting Lead up to date on permitting progress, will hold consultants accountable on the permitting schedule and will raise any concerns with the Program team.
2. All permits will be obtained by project specific consultants. The consultant will serve as the agency point of contact with communications requiring approval of the Program.
3. LVMWD will manage any regular reporting requirements by permitting agencies. The Program team will provide information and assistance related to Program permitting.

Task 5C – Regulatory Compliance Assistance

This task includes preparation of required submittals and coordination with State Water Resources Control Board's (SWRCB) Division of Drinking Water (DDW) and the Los Angeles Regional Water Quality Control Board (RWQCB) in order to obtain regulatory concept approvals for the discharge of advanced treated water to Las Virgenes Reservoir and modifications to the existing National Pollutant Discharge Eliminating System (NPDES) permits for Malibu Creek.

The following approvals will be required from these agencies:

- SWRCB - DDW
 - Conditional Approval Letter for Surface Water Augmentation Project
 - Amended Drinking Water Supply Permit for the Use of Augmented Las Virgenes Reservoir as a Source of Supply for Westlake Filtration Plant
- Los Angeles RWQCB
 - NPDES Permit for Modified Discharges to Malibu Creek and the New Discharge to Las Virgenes Reservoir

This task includes the work to get to a draft Title 22 Engineer's Report and an application for a Waste Discharge Requirements (WDR)/NDPES permit to operate and work to complete the 1211 Wastewater Change Petition process. Additional work will be needed in subsequent authorizations to complete responses to comments and permit negotiations for items submitted under this contract, and post-permit items to be completed before operations can begin (Operations Plan, Joint Plan, etc.). The post-permit items will be better defined with the issuance of the permit from the RWQCB.

This task includes (see attached proposal from Woodard & Curran for details):

- Coordination and support for communications with regulatory agencies
- Prepare Title 22 Engineering Report
- Prepare Report of Waste Discharge (ROWD)
- Prepare Mixing Zone Analysis and Anti-Degradation Analysis
- Support for Independent Advisory Panel (IAP) Meetings
- Support for Tracer Study and Reservoir Modeling Updates
- Prepare Amended Drinking Water Supply Permit Application for Westlake Drinking Water Treatment Plant
- Support for 1211 Wastewater Change Petition Follow-On Questions and Potential Protests
- Prepare Development Plan for Post-Permit Deliverables
- Internal Coordination Meetings

Deliverables and Meetings:

- 8 meetings with DDW; includes preparation meetings with LVMWD.
- 8 meetings with RWQCB; includes preparation meetings with LVMWD.
- Initial Draft Title 22 Engineering Report.
- Admin Draft ROWD.
- Internal Draft and Final Mixing Zone and Anti-Degradation Analysis.
- Draft and Final Amendment Application for Drinking Water Supply Permit for Westlake Filtration Plant.
- Draft and final development plans for Post-Permit Deliverables.
- The following support is as requested, with a level of effort limited to budgeted hours:
 - IAP meetings
 - Tracer Study and Reservoir Modeling updates
 - 1211 Wastewater Change Petition Process

Assumptions:

- The work under this task will be performed by Woodard & Curran. See Woodard & Curran's proposal for details (attached).
- Attendance by the Woodard & Curran team at meetings will be virtual.
- Documents will be delivered in electronic format.
- Additional work will be needed in subsequent fee authorizations to complete responses to comments and permit negotiations for items submitted, and post-permit items to be completed before operations can begin (Operations Plan, Joint Plan, etc.). The post-permit items will be better defined with the issuance of the permit from the RWQCB. As such, these items are not included in this scope and fee proposal.

Task 6 Engineering Studies

Task 6 includes the following studies:

- 6A Recycled Water System Model Update
- 6B Reservoir Tracer Study

Task 6A Recycled Water System Model Update

LVMWD's current recycled water system model is based on work performed as part of the 2014 Recycled Water Master Plan, and limited updates have been performed since that study. Under this task, Woodard & Curran will update the model to reflect current and anticipated usage and controls, and the model will be used to identify potential capacity improvement needs. This task includes (see attached proposal from Woodard & Curran for details):

- Data collection
- Demand and supply data update
- Model calibration
- Capacity assessment
- Cost estimates and selection of preferred improvements

Deliverables and Meetings:

- Kickoff workshop
- Draft and final model calibration TM
- Draft and final capacity assessment report
- Model files
- Workshop materials

Assumptions:

- The work under this task will be performed by Woodard & Curran. See Woodard & Curran's proposal for details (attached).

Task 6B Reservoir Dye-Tracer Study and Modeling

Dilution and mixing requirements for the Las Virgenes Reservoir for indirect potable reuse are specified under §64668.30 of the California Surface Water Source Augmentation Project (SWSAP) regulations. LVMWD plans to address the outstanding recommendations from the National Water Research Institute (NWRI) Independent Advisory Panel (IAP) review of the 2017 Las Virgenes Reservoir modeling that was conducted to determine the viability of the Pure Water Project based on dilution and mixing. This effort includes conducting a dye-tracer test within Las Virgenes Reservoir to validate the original hydrodynamic model and modeling additional operational scenarios. LVMWD plans to re-engage the IAP to review and provide input of the test plans and modeling outcomes.

The Coastal Observing Research and Development Center (CORDC) at Marine Physical Laboratory, Scripps Institution of Oceanography will perform the Las Virgenes dye-tracer study as a subconsultant to Jacobs (see attached proposal from CORDC for details). Flow Science Incorporated will validate the model based on the dye-tracer study and model additional operational scenarios that have been identified based on progression of the project.

The JPA plans to reengage the IAP to review and provide input on the dye-tracer study plan validation and model outcomes, as they pertain to required treatment for the Pure Water Project.

Deliverables and Meetings:

- CORDC will provide draft and final dye-tracer study plans. Jacobs will review the draft dye-tracer study plan and adjudicate LVMWD and Jacobs comments on the final plan.
- CORDC will provide post-processed data set for use by the reservoir modeler, Flow Science Incorporated.
- CORDC will provide draft and final dye-tracer study reports. Jacobs will review the draft dye-tracer study report and adjudicate LVMWD and Jacobs comments on the final report.
- Jacobs will attend coordination meetings with LVMWD, CORDC, and Flow Science Incorporated.
- Jacobs will prepare for and attend the preparation meeting with the IAP Chair (1 meeting).
- Jacobs will prepare for and attend the IAP Rechartering Meeting (1 meeting).
- Jacobs will prepare for and attend the IAP Test Plan Review Meeting (1 meeting).

Assumptions:

- CORDC will perform the Las Virgenes Dye-Tracer Study, as a subconsultant to Jacobs. Refer to the CORDC proposal for details (attached). Jacobs will perform technical review of the dye-tracer study plans and reports.
- LVMWD will contract with and manage Flow Science Incorporated. Jacobs will perform technical review of the modeling reports.
- LVMWD will contract with and manage NWRI. Jacobs will assist LVMWD with preparation for the meetings.
- The following meetings will be virtual: 1) Preparation Meeting with IAP Chair and 2) IAP Rechartering Meeting.
- The Jacobs PM and Senior Technical Lead will attend the IAP Test Plan Review Meeting in person. Attendance by reservoir technologists will be virtual.

Compensation

The fee proposal and rate sheet are provided in Attachment 1.

Subconsultant Proposals

The detailed subconsultant proposals are provided in Attachment 2 for:

- Woodard & Curran
- Rincon Consultants, Inc.
- Coastal Observing Research and Development Center

Attachment 1
Fee Proposal and Rate Sheet

Jacobs Team Cost Proposal - Las Virgenes-Triunfo JPA - Owner's Advisor/Program Manager for the Pure Water Project (Phase 2, Years 2024 - 2025)

Task	Jacobs Labor Hours	Jacobs Labor Cost	Jacobs Expenses	Woodard & Curran Cost	Rincon Cost	Scripps Cost	Markup on All Subconsultants	Total Jacobs Labor Hours	Total Jacobs Labor Cost	Total Expenses	Total Cost
Task 1 - Program Management											
1A Program Administration	4,368	\$ 1,100,320	\$ 104,000	\$ 153,420	\$ -	\$ -	\$ 7,671	4,368	\$ 1,100,320	\$ 265,091	\$ 1,365,411
1B Program Risk and Change Management	624	\$ 149,136	\$ 7,457	\$ -	\$ -	\$ -	\$ -	624	\$ 149,136	\$ 7,457	\$ 156,593
Total - Task 1	4,992	\$ 1,249,456	\$ 111,457	\$ 153,420	\$ -	\$ -	\$ 7,671	4,992	\$ 1,249,456	\$ 272,548	\$ 1,522,004
Task 2 - Program Controls											
2A Program Controls	2,080	\$ 513,760	\$ 21,578	\$ -	\$ -	\$ -	\$ -	2,080	\$ 513,760	\$ 21,578	\$ 535,338
2B Economic Modeling	328	\$ 93,784	\$ 3,939	\$ -	\$ -	\$ -	\$ -	328	\$ 93,784	\$ 3,939	\$ 97,723
2C Strategic Funding	624	\$ 149,136	\$ 6,264	\$ -	\$ -	\$ -	\$ -	624	\$ 149,136	\$ 6,264	\$ 155,400
2D Document Management	624	\$ 72,384	\$ 3,040	\$ -	\$ -	\$ -	\$ -	624	\$ 72,384	\$ 3,040	\$ 75,424
Total - Task 2	3,656	\$ 829,064	\$ 34,821	\$ -	\$ -	\$ -	\$ -	3,656	\$ 829,064	\$ 34,821	\$ 863,885
Task 3 - Engineering and Project Management											
3A Project Management	8,320	\$ 1,948,960	\$ 208,000	\$ -	\$ -	\$ -	\$ -	8,320	\$ 1,948,960	\$ 208,000	\$ 2,156,960
3B Technical Support - AWPf	1,040	\$ 343,200	\$ 14,414	\$ 306,408	\$ -	\$ -	\$ 15,320	1,040	\$ 343,200	\$ 336,143	\$ 679,343
Total - Task 3	9,360	\$ 2,292,160	\$ 222,414	\$ 306,408	\$ -	\$ -	\$ 15,320	9,360	\$ 2,292,160	\$ 544,143	\$ 2,836,303
Task 4 - Construction Management											
4A CM Assistance	355	\$ 99,045	\$ 4,163	\$ -	\$ -	\$ -	\$ -	355	\$ 99,045	\$ 4,163	\$ 103,208
Total - Task 4	355	\$ 99,045	\$ 4,163	\$ -	\$ -	\$ -	\$ -	355	\$ 99,045	\$ 4,163	\$ 103,208
Task 5 - Environmental and Regulatory Compliance											
5A CEQA Assistance	2,080	\$ 410,176	\$ 56,380	\$ -	\$ 111,700	\$ -	\$ 5,585	2,080	\$ 410,176	\$ 173,665	\$ 583,841
5B Permitting Assistance	520	\$ 98,072	\$ 4,119	\$ -	\$ -	\$ -	\$ -	520	\$ 98,072	\$ 4,119	\$ 102,191
5C Regulatory Compliance Assistance	310	\$ 63,199	\$ 2,654	\$ 570,062	\$ -	\$ -	\$ 28,503	310	\$ 63,199	\$ 601,219	\$ 664,418
Total - Task 5	2,910	\$ 571,447	\$ 63,153	\$ 570,062	\$ 111,700	\$ -	\$ 34,088	2,910	\$ 571,447	\$ 779,003	\$ 1,350,450
Task 6 - Engineering Studies											
6A Recycled Water System Model Update	0	\$ -	\$ -	\$ 213,052	\$ -	\$ -	\$ 10,653	0	\$ -	\$ 223,705	\$ 223,705
6B Las Virgenes Reservoir Tracer Study	280	\$ 72,840	\$ 3,059	\$ -	\$ -	\$ 303,800	\$ 15,190	280	\$ 72,840	\$ 322,049	\$ 394,889
Total - Task 6	280	\$ 72,840	\$ 3,059	\$ 213,052	\$ -	\$ 303,800	\$ 25,843	280	\$ 72,840	\$ 545,754	\$ 618,594
TOTALS	21,553	\$ 5,114,012	\$ 439,068	\$ 1,242,942	\$ 111,700	303,800	\$ 82,922	21,553	\$ 5,114,012	\$ 2,180,432	\$ 7,294,443

Jacobs Engineering Group, Inc.
Professionals and Technicians
Hourly Billing Rates

Classification	2024 Rate	2025 Rate*
Senior Technical Fellow	\$ 330	\$ 330
Principal Professional 1	\$ 313	\$ 322
Program Manager	\$ 303	\$ 312
Sr. Professional 2	\$ 279	\$ 287
Sr. Professional 1	\$ 239	\$ 246
Project Professional 2	\$ 215	\$ 221
Project Professional 1	\$ 203	\$ 209
Staff Professional 3	\$ 187	\$ 193
Staff Professional 2	\$ 166	\$ 171
Graphics	\$ 148	\$ 152
Staff Professional 1	\$ 135	\$ 139
CAD Technician	\$ 136	\$ 140
Admin/Clerical	\$ 116	\$ 119

*Includes 3% escalation.

Expenses		
Expense Type	Estimating Method	Rate
Auto Mileage	Travel	Current IRS Rate
Auto Rental	Travel	Actual
Other Travel (FTR Guidelines)	Travel	Actual
Equipment Rental	Operating Expense	Actual
Postage/Freight	Operating Expense	Actual
Reprographics	Outside Service	Actual
Subcontractors	Outside Service	Actual + 5%

Attachment 2
Subconsultant Proposals

Via Electronic Mail

12/15/2023



Jennifer Phillips, Project Manager
Jacobs Engineering Group, Inc.
1000 Wilshire Blvd, Suite 2100
Los Angeles, CA 90017

RE: Proposal for Phase 2 Owner's Advisor / Program Manager Services of Las Virgenes-Triunfo Joint Powers Authority (JPA's) Pure Water Program (PWP)

Dear Jennifer:

Woodard & Curran is pleased to submit this proposal for consulting services for Phase 2 of the Las Virgenes Municipal Water District (LVMWD)-Triunfo Pure Water Program (Project). This letter and its attachments present our proposed scope of service and estimated fee for the second phase of the project based on our current understanding of the overall project direction and schedule. The scope of service covers the design period engineering support services, hydraulic modeling of the reclaimed water system, and continued effort toward permitting the Pure Water Program with regulatory agencies.

SCOPE OF SERVICES

The scope is summarized in Attachment A.

SCHEDULE

We have assumed that work presented herein would be completed by December 2025, concurrent with the schedule for final design, and conclude prior to the start of construction. We expect some additional Permitting to continue beyond 2025, however this work will be defined as the Project progresses and will require a future authorization to complete.

BUDGET

The proposed budget for completion of the work described is shown in Attachment B. Rates shown are proposed for 2024 and 2025. A delay in Program execution which results in work beyond 2025 may result in a necessary fee increase.

ASSUMPTIONS

The Scope of Services will be completed in accordance with mutually agreeable terms of a Consultant/Professional Services Agreement between Woodard & Curran, Inc. and Jacobs Engineering Group, Inc. Additional assumptions can be found in Appendix A.



CLOSING

We greatly appreciate this opportunity to offer our engineering and permitting services. Please feel free to contact me at (925) 627-4100 or tvaldivia@woodardcurran.com if you have any questions regarding this proposal or require any further information.

Sincerely,

WOODARD & CURRAN, INC.

Tony Valdivia
Vice President

Enclosure(s)

- A. Scope of services
- B. Budget
- C. Rate Table

ATTACHMENT A - SCOPE OF SERVICES



Woodard & Curran will provide the following tasks to support the delivery of Phase 2 Owner's Advisor / Program Manager services of the Project.

Task 1 Program Administration

The core leadership team (Project Manager and Technical Leads) will be the principal point of contact for the JPA and will provide clear direction, communications, and continuity for implementing inter-related tasks as the program advances from concept through completion. Woodard & Curran will participate in the core leadership team by attending meetings and performing overall project management tasks and coordination with Jacobs on work products.

Assumptions:

- Jacobs will develop a web-based Program Delivery Portal (Portal) to serve as a website for team members to access delivery-oriented Program information. The Portal may be housed on the JPA server, or the Jacobs LAN and maintained by Jacobs IT Team.
- Only Project Management focused meetings, intended for coordination of the overall project activities and schedule, are included in this Task 1. Technical meetings associated with the remainder of the scope are included in the other tasks, as noted.
- Work scoped herein is anticipated to be completed by December 2025.
- Attendance at on-site meetings by Project Manager. A total of 4 such meetings, up to 4 hours in duration, are included.
- Average of 10 hours/month for project management/coordination (invoicing, internal controls management and reporting/communication) for 2024-2025

Deliverables:

- Monthly progress reports and invoices

Task 2 Conveyance

Woodard & Curran will provide technical support during the design of the conveyance lines including the reverse osmosis concentrate (ROC), source water, purified water, and residuals lines.

Task 2.1 Technical Support for Conveyance Lines (ROC, Source Water, Purified Water, Residuals)

Woodard & Curran will provide as-needed technical advisory support for the conveyance lines designs. Support under this task includes providing the design teams with background of work completed to date, attending design meetings and workshops, technical review of major project deliverables, and providing technical advisory assistance as requested by the Project Team. Work under this task includes the following:

- Woodard & Curran will prepare for and attend a total of one (1) preliminary meeting with the design consultant and the JPA to provide an overview of previous work completed on the conveyance systems for the Pure Water Program and summarize the findings of the Conveyance Pipelines Alignment Study prepared by Woodard & Curran.



In support of this meeting, Woodard & Curran will provide Jacobs with input on an agenda and will prepare a brief PowerPoint presentation.

- Woodard & Curran will attend project meetings and workshops at key design milestones for each design package and as requested. For expense budgeting, up to 8 meetings may be attended in person, with additional meetings held virtually
- Review and provide a comprehensive technical review of the design submittals (30%, 60%, 90%, 100%) for each design package. Compile review comments and drawing redlines (electronically) from the JPA.
- Provide general technical advisory assistance and oversight support as requested by the Project Team.
- Level of effort for support is based off anticipated full time equivalent (FTEs) for Woodard & Curran staff (see "Assumptions," below)

Assumptions:

- Included technical support for two design packages (Package #1 – ROC, Package #2 - Source Water, Purified Water, Residuals).
- Budgeted hours for Task 2.1 are based on 0.05 (5%) (FTE) employee for the Conveyance Lead, 0.15 (15%) FTE for the Conveyance PE, and 0.05 (5%) FTE for the Support PE staff for a duration of 24 months (concluding by December 2025). The intent of budgeting by FTE is to provide a pool of hours that may be drawn upon to accomplish the scope outlined above given the undetermined support efforts required. Woodard & Curran will manage our efforts within the allotted budget and inform Jacob's if support efforts are projected to exceed the allotted hours, which may require additional budget depending on the anticipated cost to complete at the time.
- Fee estimate includes estimate cost for in person attendance at up to 8 meetings over the course of Phase 2 (single person in attendance)

Deliverables:

- Agenda input and presentation material for preliminary meetings with design consultants.
- Compiled set of design review comments for eight design submittals (ROC Package - 30%, 60%, 90%, 100%, Source Water, Purified Water, Residuals Package - 30%, 60%, 90%, 100%).

Task 3 Modeling

LVMWD's current model was based on work performed as part of the 2014 Recycled Water Master Plan, and limited updates have been performed since that study. Under this task, the model will be updated to reflect current and anticipated usage and controls, and the model will be used to identify potential capacity improvement needs.

The schedule for Task 3 is expected to take 15 weeks from notice to proceed to develop proposed projects, and 24 weeks for the full scope of this task. Work is expected to be complete in 2024.



Task 3.1 Data Collection

Prepare an initial request list of data and information that may be relevant to the model update. The information may include planning data, facility information, and other required information including but not limited to:

- SCADA screenshots and data, as needed.
- Record drawings.
- Water consumption/billing data for the last 5 years.

Woodard & Curran will review the data to assess the information available for preparing the model update. For data that is not available but critical for the model update, Woodard & Curran will recommend an approach for obtaining the information or making use of existing data and will discuss this approach with the LVMWD.

As part of this task, a kickoff workshop will be held to discuss the goals of the task and data availability.

Task 3.2 Update Demand and Supply Data

Under this task, Woodard & Curran will update the demand and supply assumptions used in the model. Average demands for each customer will be re-estimated based on water consumption records. Monthly and diurnal patterns will be developed based on SCADA data, unless specific customer data is available for larger customers.

The current model supplies are provided by R-2 and the Morrison Supplemental Facilities. As part of this task, Woodard & Curran will review these assumptions and confirm or revise (if needed) the limitations and modeling approach used for those sources.

Assumptions

- Data for future customers or expansion of water usage for existing customers will be provided by the LVMWD.

Task 3.3 Update Model Network

Woodard & Curran will review the LVMWD's current GIS data, record drawings, and pump curves and update the hydraulic model as needed to reflect current facilities.

Assumptions

- GIS data reflects current facilities (including pipeline alignments, diameters, and materials).
- LVMWD to provide record drawings and pump curves as needed.
- Hydraulic model software will be InfoWater or WaterGEMS

Task 3.4 Model Calibration

Woodard & Curran will review the available SCADA data and compare to model results to verify or adjust pump and valve operational controls. As part of this task, Woodard & Curran will develop a draft Technical Memorandum (TM) documenting the updates to the model and the results of the calibration. Comments on the draft TM will be incorporated in the report developed under Task 3.7.



Task 3.5 Perform Capacity Assessment

Woodard & Curran will work with the LVMWD to establish planning level design criteria for sizing of distribution and storage facilities, including minimum pressure requirements for customer connections and maximum pipeline velocities. Woodard & Curran will develop up to 9 model scenarios, including combinations of Advanced Water Purification Facility (AWPF) flows and customer combinations under different seasonal demand conditions.

Based on the results of these scenarios compared to the capacity criteria, capacity deficiencies will be identified. Up to 6 potential improvement project alternatives will be identified and evaluated to address the capacity deficiencies. For each alternative, Woodard & Curran will identify preliminary alignment/locations and sizing for recycled water piping and pumping improvements.

Assumptions

- Preliminary criteria and model scenarios will be discussed with the LVMWD in a workshop.
- Alternatives and model findings to be discussed with the LVMWD in a workshop (which may result in alternative refinements).

Task 3.6 Develop Cost Estimates & Select Preferred Improvements

Woodard & Curran will develop Cost estimates for the projects identified in Task 3.5. Cost estimates will be at a feasibility level and will be developed using cost curves and information from previous projects. Estimates of this type typically have an accuracy range of -30% to +50%. Alternatives will be compared in terms of their technical and non-technical merits and discussed with LVMWD to identify recommended improvements.

Assumptions

- Preferred alternatives based on project cost estimates and technical and non-technical merits to be discussed with the City at a workshop.

Task 3.7 Prepare Capacity Assessment Report

The findings of the previous subtasks will be documented in a Capacity Assessment Report.

Deliverables

- Draft and Final Capacity Assessment Report
- Model Files
- Workshop materials (including powerpoint presentations)

Task 4 Permitting

This task includes preparation of required submittals and coordination with State Water Resources Control Board's (SWRCB) Division of Drinking Water (DDW) and the Los Angeles Regional Water Quality Control Board (RWQCB) in order to obtain regulatory concept approvals



for the discharge of advanced treated water to Las Virgenes Reservoirs and modifications to the existing National Pollutant Discharge Eliminating System (NPDES) permits for Malibu Creek.

Phase 2 scope include work to get to a draft Title 22 Engineer's Report and an application for a Waste Discharge Requirements (WDR)/NDPES permit to operate (subtasks 4.1-4.7) and work to complete the 1211 Wastewater Change Petition process (subtask 4.8). Additional work will be needed in subsequent authorizations to complete responses to comments and permit negotiations for items submitted under this contract, and post-permit items to be completed before operations can begin (Operations Plan, Joint Plan, etc.). The post-permit items will be better defined with the issuance of the permit from the RWQCB.

Task 4, Permitting, is anticipated to extend up to 2 years (2024-2025).

4.1. Coordination and Support for Communications with Regulatory Agencies

To facilitate interagency coordination, the Subconsultant team, comprised of Michael Welch and DDB Engineering, will coordinate and attend RWQCB-DDW meetings during the draft Title 22 Engineering Report process and to clarify RWQCB permit requirements. Based on the cadence of meetings in Phase 1, 60-minute meetings with DDW and RWQCB (held virtually) should be sufficient to address regulatory questions, coordinate resolution of differences between DDW and RWQCB requirements, and support the step-by-step process under which the draft Title 22 Engineering Report is developed.

A total of 16 meetings (4 meetings with each agency annually in Phase 2) are proposed to bring the Program to completion of construction. In support of these meetings, this task includes preparation of a draft agenda and PowerPoint slide deck to be reviewed with JPA staff at a one-hour conference call approximately one week before each meeting. The team will finalize the agenda and slide deck based on (1) JPA input and priorities and (2) needs for identifying and resolving key regulatory issues. After the meetings, the team will prepare draft meeting notes which, after review and approval by the JPA, will be distributed to DDW and the RWQCB for their review and revision. After approval by DDW and the RWQCB, the meeting notes will represent a written record of the overall regulatory coordination, input, and feedback process. This written record will then form the basis for subsequent work in completing the Title 22 Engineering Report and developing the NPDES/WDR Permit.

Assumptions

- Meetings will be held virtually.
- Debbie Burris will attend DDW meetings and Dr. Michael Welch will attend RWQCB permitting meetings.

Deliverables

- 8 meetings with DDW; includes preparation meetings with LVMWD and Project Team
- 8 meetings with RWQCB; includes preparation meetings with LVMWD and Project Team



4.2. Prepare Title 22 Engineering Report

The Woodard & Curran team will prepare the initial draft version of the Title 22 Engineering Report pursuant to requirements established within Sections 60320.300 through 60320.330 and 64668.05 through 64668.30 in Title 22 of the California Code of Regulations. The revised draft and final versions will be completed in Phase 3. A draft table of contents of the Title 22 Engineering Report will include the following sections:

1. *Project Overview*
2. *Project Proponents*
3. *Outreach*
4. *Regulatory Requirements*
5. *Source Wastewater*
 - a. *Sewershed Description*
 - b. *Raw Wastewater Characteristics*
 - c. *Enhanced Source Control*
6. *Project Facilities*
 - a. *Wastewater Collection system*
 - b. *Tapia WRF*
 - c. *Conveyance to AWWP*
 - d. *AWPF*
 - e. *Conveyance to Reservoir*
 - f. *Las Virgenes Reservoir*
 - g. *Westlake Drinking Water Treatment Plant*
7. *Tapia WRF Effluent – Quality and Quantity*
8. *Purified Water Quality*
9. *Pathogenic Microorganism Control*
10. *Chemical Control*
11. *Las Virgenes Reservoir*
 - a. *Modeling Results*



b. Regulatory Limitations

c. Proposed Operations

12. LVMWD Drinking Water Supply System

a. Existing DDW Permits

b. Sources of Supply

c. Westlake Drinking Water Treatment Plant

i. Existing Performance

ii. Potential Impacts on Treatability

iii. Modifications to DWTP and Operations

d. Distribution System

i. Description of Distribution System, including Interties with other Agencies

ii. Existing System Quality and Monitoring Program

iii. Corrosion Control and Microbial Stability after Project

13. Reliability – Failure Prevention and Response

14. Response and Notification Plan and Contingency Plan

15. Proposed Monitoring Program

a. Sewershed

b. Tapia WRF

c. AWPf

d. Reservoir

e. Westlake DWTP

f. Distribution System

16. Technical, Managerial and Financial Capacity of LVMWD and Project Partners

17. Operation Optimization Plan for AWPf and other Project Components

18. Appendices

Assumptions

- Documents will be delivered in electronic formats unless noted otherwise.



- Design-Build Project Team will provide technical information to assist in populating the Project Facilities portions of the draft Title 22 report.
- Reservoir Modeling report prepared by the Project Team will be provided to support the Las Virgenes Reservoir modeling portions of the draft Title 22 report.

Deliverables

- Initial Draft Title 22 Engineering Report

4.3. Prepare Report of Waste Discharge (ROWD)

The Los Angeles RWQCB will be issuing the potable reuse permit allowing addition of advanced treated recycled water into Las Virgenes Reservoir.

The primary focus of this subtask will be on the required information necessary to support preparation of a draft ROWD that shall be finalized and submitted the RWQCB to initiate the process for the RWQCB developing and adopting a new permit for the Las Virgenes Reservoir Indirect Potable Reuse (IPR) activities. As part of this task, Woodard & Curran will coordinate with RWQCB staff to develop acceptable facility operational, monitoring and reporting requirements based on DDW regulations and local RWQCB and the City's reservoir. The ROWD will contain the required U.S. Environmental Protection Agency (EPA) forms, a technical report that cross-references the location of necessary information (e.g., in the DDW Title 22 Engineering Report or the Program Environmental Impact Report (EIR)), and necessary maps and figures. During Phase 2, the Admin Draft ROWD will be prepared; the final draft and final version will be prepared in Phase 3.

Woodard & Curran will coordinate review of a pre-public draft of the permit. The tentative permit placement on the RWQCB's agenda, and addressing post-submittal questions and supplement information requests, compilation of the Final ROWD will be part of Phase 3.

Assumptions

- Documents will be delivered in electronic formats unless noted otherwise.
- Application to Calleguas for reverse osmosis concentrate disposal is being completed by the JPA and is not included in this task.
- Preparation of the ROWD is included based on compilation of technical information developed in other parts of the Program. Detailed technical analysis (e.g. mixing zone analysis, dilution studies, and anti-degradation analysis) are not included as part of the ROWD task.

Deliverables

- Admin Draft ROWD

4.4. Prepare Mixing Zone Analysis and Anti-Degradation Analysis

It is anticipated that a mixing zone analysis and anti-degradation analysis for Las Virgenes Reservoir will be required as part of the technical studies in support of the ROWD/RWQCB permitting process. The mixing zone analysis and anti-degradation analysis will be prepared as



a stand alone report that is submitted as part of the ROWD. Internal draft and final versions will be prepared for submission with the ROWD; comments from RWQCB on the final version will be incorporated as part of the Phase 3 permitting activities.

Assumptions

- Documents will be delivered in electronic formats unless noted otherwise.
- Preparation of the mixing zone and anti-degradation analysis is based on similar desktop work excluding field work and water quality testing and sampling. This task may be amended when more clarity on requirements is available from RWQCB.

Deliverables

- Internal Draft and Final Mixing Zone and Anti-Degradation Analysis

4.5. Support for Independent Advisory Panel (IAP) Meetings

The JPA will be leading an updated IAP with support from the National Water Research Institute (NWRI). The IAP will be reviewing information that will be used to support the regulatory tasks. With this connection, Woodard & Curran will provide support for the IAP meetings as directed by JPA and the Project Team. This is assumed support of up to 64 hours as requested by the Project Team.

Assumptions/Deliverables

- As requested. Level of effort limited to budgeted hours.

4.6. Support for Tracer Study and Reservoir Modeling Updates

The Project Team will be coordinating with the JPA to perform a tracer study of Las Virgenes Reservoir and to then update the reservoir model and run additional scenarios. Woodard & Curran will provide support to the tracer study and model update process and peer review of the scenarios and modeling report to support the Title 22 report and potential mixing zone analysis, as requested by the Project team. This is assumed support of up to 48 hours as requested by the Project Team.

Assumptions/Deliverables

- As requested, level of effort limited to budgeted hours.

4.7. Prepare Amended Drinking Water Supply Permit Application for Westlake Drinking Water Treatment Plant

Woodard & Curran will prepare the "Application for Domestic Water Supply Permit Amendment" to amend the existing Westlake Drinking Water Treatment Plant permit to make additions to the sources of feed water as part of the PWP.

Assumptions

- Documents will be delivered in electronic formats unless noted otherwise.



- Preparation of the Amended Application is included based on compilation of technical information developed in other parts of the Program. Detailed technical analyses are not included as part of the Amended Application task.

Deliverables

- Draft Amendment Application
- Final Amendment Application

4.8. Support for 1211 Wastewater Change Petition Follow On Questions and Potential Protests

This is assumed support of up to 66 hours as requested by the Project Team based on the comments from SWRCB or from protests to the 1211 Wastewater Change Application.

Assumptions/Deliverables

- As requested, Level of effort limited to budgeted hours.

4.9. Prepare Development Plan for Post-Permit Deliverables

Woodard & Curran will prepare a plan for development of the items required in Phase 3 as part of the post-permit activities before operations are allowed to begin. Some of these deliverables are prescribed in the surface water augmentation regulations and others may be added by DDW and/or RWQCB during the NPDES/WDR permitting process. Example items include an action plan for Westlake Filtration Plant, an operations plan that includes detailed monitoring plans, and a joint plan that identifies roles and responsibilities within JPA staff. Woodard & Curran will outline the requirements for these documents, identify information gaps that need to be addressed to avoid schedule delays after permit issuance, and identify early actions that can frontload development of the post-permit deliverables. A draft and final version of the development plan will be provided.

Assumptions

- Documents will be delivered in electronic formats unless noted otherwise.

Deliverables

- Draft Development Plan
- Final Development Plan

4.10. Task Meetings

Woodard & Curran will attend bi-weekly meetings, by phone, with Jacobs to discuss permitting/regulatory efforts, strategies, and challenges. Woodard & Curran will also coordinate internally and with subconsultants Michael Welch and Debbie Burris to provide status updates and identify priorities and deadlines.

Assumptions:

This subtask is budgeted for two individuals to attend 26 meetings per year for 2 years plus one additional hour per month for internal and subconsultant coordination.



Jacobs
LVWMD Program Management/Owner's Advisor Phase 2

Tasks	Labor													Total Hours	Total Labor Costs (1)	Outside Services		ODCs		Total Fee																		
	Tony Valdivia	Jennifer Ziv	Mike Matson	Jehan Anketell	Conveyance Support	Chris van Lienden	Modeling Support	Modeling Support	Carrie Del Boccio	Elisa Lee	PE	Graphics	Admin.			Michael Welch	DDB Engineering, Inc.	Subtotal	Sub Consultant Total Cost (2)		ODCs	Total ODCs (3)																
	PIC	PM	Conveyance Lead	Conveyance PE	Support PE	Modeling Lead	Modeling Support	Modeling Support	Permitting Lead	Permitting Support	Permitting Support	Graphics and Support Team				SUB	SUB																					
Project Rate																				\$331	\$331	\$331	\$286	\$227	\$331	\$286	\$257	\$331	\$286	\$196	\$143	\$133						
Phase 1: Project Administration (2024-2027)																																						
1.1 Project Management/Controls		240												32	272	\$83,696			\$0	\$0	\$0	\$83,696																
1.2 Project Meetings (in person)		24													24	\$7,944			\$0	\$0	\$2,000	\$10,144																
1.3 Quality Control	180														180	\$59,580			\$0	\$0	\$0	\$59,580																
Subtotal Task 1:	180	264	0	0	0	0	0	0	0	0	0	0	32	476	\$151,220	\$0	\$0	\$0	\$0	\$2,000	\$2,200	\$153,420																
Phase 2: Conveyance (2024-2025)																																						
2.1 Technical Support for Conveyance Lines (ROC, Source Water, Purified Water, Residuals)			208	624	208										1040	\$294,528			\$0	\$0	\$10,800	\$306,408																
Subtotal Task 2:	0	0	208	624	208	0	0	0	0	0	0	0	0	1040	\$294,528	\$0	\$0	\$0	\$0	\$10,800	\$11,880	\$306,408																
Phase 3: Modeling (2024)																																						
3.1 Data Collection						6	16	8							30	\$8,618			\$0	\$0	\$0	\$8,618																
3.2 Update Demand and Supply Data																																						
Update Supplies						8	20	40							68	\$18,648			\$0	\$0	\$0	\$18,648																
Update Supplies			2	4		6	8	16							36	\$10,192			\$0	\$0	\$0	\$10,192																
3.3 Update Model Network						12	16	40							68	\$18,828			\$0	\$0	\$0	\$18,828																
3.4 Model Calibration																																						
Perform Model Calibration						12	32	60							104	\$28,544			\$0	\$0	\$0	\$28,544																
Draft TM			2			8	16	24							50	\$14,054			\$0	\$0	\$0	\$14,054																
3.5 Perform Capacity Assessment																																						
Develop Scenarios & Criteria			4	6		12	16	8							46	\$13,644			\$0	\$0	\$0	\$13,644																
Identify Capacity Deficiencies						12	16	24							52	\$14,716			\$0	\$0	\$0	\$14,716																
Develop and Model Potential Alternatives			4	6		12	24	40							86	\$24,156			\$0	\$0	\$0	\$24,156																
Workshops		3	3			6	10	4							26	\$7,860			\$0	\$0	\$0	\$7,860																
3.6 Develop Cost Estimates & Select Preferred Improvements			4	12	24	16	16	8							80	\$22,132			\$0	\$0	\$0	\$22,132																
3.7 Prepare Capacity Assessment Report			4	8	8	24	24	40				8			116	\$31,660			\$0	\$0	\$0	\$31,660																
Subtotal Task 3:	0	3	23	36	32	134	214	312	0	0	0	8	0	762	\$213,052	\$0	\$0	\$0	\$0	\$0	\$0	\$213,052																
Phase 4: Permitting (2024-2025)																																						
4.1 Ongoing Coordination/Support with Regulatory Agencies									64	96	16				176	\$51,776	\$3,000	\$3,000	\$6,000	\$6,600	\$4,800	\$63,656																
4.2 Title 22 Engineering Report (Interim Draft)									100	200	200				500	\$129,500		\$6,000	\$6,000	\$6,600	\$0	\$136,100																
4.3 Report of Waste Discharge (ROWD) (Draft)									60	100	120				280	\$71,980	\$10,000		\$10,000	\$11,000	\$0	\$82,980																
4.4 Prepare Anti-Degradation Analysis									80	200	150				430	\$113,080	\$10,000		\$10,000	\$11,000	\$0	\$124,080																
4.5 Support IAP Meetings									40	24					64	\$20,104	\$5,000	\$2,000	\$7,000	\$7,700	\$0	\$27,804																
4.6 Support Tracer Study/Reservoir Modeling Updates									24	24					48	\$14,808		\$4,000	\$4,000	\$4,400	\$0	\$19,208																
4.7 Prepare Amended Drinking Water Supply Permit for Westlake Filtration Plant									16	24	24				64	\$16,864		\$2,000	\$2,000	\$2,200	\$0	\$19,064																
4.8 Support 1211 Change Petition Follow Up									24	2	40				66	\$16,356			\$0	\$0	\$0	\$16,356																
4.9 Prepare Development Plan for Post-Permit Deliverables									16	40	16				72	\$19,872	\$1,000	\$3,000	\$4,000	\$4,400	\$0	\$24,272																
4.10 Task Meetings									70	70	12				152	\$45,542	\$5,000	\$5,000	\$10,000	\$11,000	\$0	\$56,542																
Subtotal Task 4:	0	0	0	0	0	0	0	0	494	780	578	0	0	1852	\$499,882	\$34,000	\$25,000	\$59,000	\$64,900	\$4,800	\$5,280	\$570,062																
TOTAL	180	267	231	660	240	134	214	312	494	780	578	8	32	4130	\$1,158,682	\$34,000	\$25,000	\$59,000	\$64,900	\$17,600	\$19,360	\$1,242,942																

- The individual hourly rates include salary, overhead and profit.
- Subconsultants will be billed at actual cost plus 10%.
- Other direct costs (ODCs) such as reproduction, delivery, mileage (rates will be those allowed by current IRS guidelines), and travel expenses, will be billed at actual cost plus 10%.
- W&C reserves the right to adjust its hourly rate structure and ODC markup at the beginning of the calendar year for all ongoing contracts.



December 13, 2023
Rincon Project No. 23-15454

Renee Groskreutz, Water Project Manager
Jacobs Engineering Group, Inc.
2485 Natomas Park Drive Suite 600
Sacramento, California 95833
Via email: renee.groskreutz@jacobs.com

Subject: Proposal for Rare Plant and Oak Tree Monitoring and Mitigation for the Pure Water Project, Ventura County, California

Dear Ms. Groskreutz:

Rincon Consultants, Inc. (Rincon) is pleased to provide this proposal for rare plant and oak tree monitoring and mitigation technical services in support of the Pure Water Project (Project). Rincon understands that the Las Virgenes-Triunfo Joint Powers Authority (JPA) has prepared a Program Environmental Impact Report (EIR) for the Project (State Clearinghouse Number 2021090157). The Program EIR includes mitigation measures specific to rare plants and oak trees. Jacobs Engineering Group, Inc. (Jacobs) is seeking technical support including updated rare plant surveys, and preparation of a rare plant mitigation plan and oak tree mitigation plan for the areas that may be affected by the Project.

Rincon understands that the current Project design includes the following components that may impact rare plants and oak trees:

- Advanced Water Purification Facility (AWPF) to be installed at the Agoura Road Site, a 7.1-acre parcel located at 30800 Agoura Road;
- 20-inch diameter purified water pipeline connecting the new AWPF to the Las Virgenes Reservoir through Triunfo Creek Park, between Triunfo Canyon Road and the Las Virgenes Reservoir; and
- 9-inch concentrate pipeline to be installed along the Conejo Canyon Open Space Trail between Rancho Conejo Boulevard and Arroyo Conejo, a distance of approximately 2,750 feet.

Scope of Work and Assumptions

Task 1 Rare Plant Mitigation

In accordance with Mitigation Measure 5-1 (Prepare and implement a mitigation plan for special-status plants and plant communities) of the Program EIR, Rincon will perform rare plant surveys, prepare an updated Rare Plant Survey Report, and prepare a Rare Plant Mitigation Plan, as described below.

In 2022, Rincon performed rare plant surveys and vegetation community mapping within the Project components and prepared a 2022 Rare Plant Survey Report. Therefore, the rare plant surveys and vegetation community mapping included in this task will serve as an update to the 2022 Rare Plant Survey Report.



Task 1.1 Rare Plant Surveys

Rincon will perform protocol-level rare plant surveys and vegetation community mapping within the Project components that may impact rare plants and plant communities, including the AWPf at the Agoura Road Site, 20-inch diameter purified water pipeline in Triunfo Creek Park, and 9-inch concentrate pipeline along the Conejo Open Space Trail. Rincon will survey within the entirety of the APWF, as well as within a 100-foot buffer of the proposed pipelines. Rare plant surveys will be floristic in nature, timed correctly to identify the potentially occurring rare plants, and follow standard survey protocols for rare plants, primarily the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 2000) and *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018).

We anticipate that two survey events will be required to complete the surveys, the first event occurring between April and May, and the second event occurring between June and July. Reference site visits will be also performed for all annual special status plant species known to occur in the survey areas (including Catalina mariposa lily [*Calochortus catalinae*], slender mariposa lily *Calochortus clavatus* var. *gracilis*], Ojai navarretia [*Navarretia ojaiensis*], and Lyon's pentachaeta [*Pentachaeta lyonii*]) to confirm these species are readily identifiable during the survey effort. Results of the reference site visits will be used to inform the timing of surveys.

During the rare plant surveys, Rincon will also investigate potential on-site and off-site restoration areas that may be suitable for rare plant relocation. Results of this assessment will be included in the updated rare plant survey report (Task 1.2) and Rare Plant Mitigation Plan (Task 1.3).

Vegetation community mapping will utilize the 2022 mapping data to the greatest extent feasible, but will refine the mapping data based on current conditions within the survey areas.

Task 1.2 Updated Rare Plant Survey Report

Following completion of rare plant surveys, Rincon will prepare an updated rare plant survey report. The updated rare plant survey report will build upon the 2022 rare plant survey report by incorporating and refining results of surveys performed in both 2022 and 2024. The updated rare plant survey report will include a brief introduction, Project location, regulatory overview, methodology, existing setting, results (including vegetation communities and rare plant observations), potential restoration areas, discussion, and all references used in the report.

Task 1.3 Rare Plant Mitigation Plan

In accordance with Mitigation Measure 5-1 (Prepare and implement a mitigation plan for special-status plants and plant communities) of the Program EIR, Rincon will prepare a Rare Plant Mitigation Plan for special-status plant species and sensitive natural communities that may be affected by Project. The plan will include, at a minimum, the following information with respect to special-status plant species and natural communities:

- Appropriate avoidance and minimization measures, including an avoidance and relocation plan for special-status plants that cannot be avoided;
- Plant salvage and seed collection procedures;
- Offsite propagation;
- Identification of mitigation areas;
- Site preparation and planting of mitigation areas;



- Success criteria;
- Monitoring and reporting processes; and
- Contingency Measures

As part of this task, we assume 20 staff hours for agency coordination will be required with relevant state and federal agencies (e.g., CDFW), including any meetings and/or responses to comments on the contents of the plan.

Task 2 Oak Tree Mitigation

Task 2.1 Oak Tree Surveys

In accordance with Mitigation Measure 5-4 (Prepare and implement a mitigation plan for oak trees and oak tree natural communities), a Rincon International Society of Arboriculture (ISA) Certified Arborist (Arborist) will survey all native trees (except willows), including oak trees and oak tree communities that may be affected by construction of the Project. Potential impacts include both tree removal and encroachment within five feet of the driplines of oak trees that will be preserved. Data collected for each surveyed tree will include:

- Trunk location (using a GPS device capable of submeter accuracy)
- Species
- Number of trunks
- Trunk diameter at standard height
- Tree height
- Canopy spread (in eight cardinal directions)
- Aesthetic assessment (Good, Fair, Poor, Dead)
- Vigor assessment (Low, Normal, High)
- Health assessment (Good, Fair, Poor, Dead)
- Presence of diseases and pests, such as thousand canker fungus (*Geosmithia morbida*), polyphagous shot-hole borer (*Euwallacea* spp.), and goldspotted oak borer (*Agrilus auroguttatus*)
- Conditions of concern (structural defects, utility conflicts, etc.)
- Recommendations to remedy structural problems where required
- Recommendations to improve tree health
- Representative photograph

The survey will include an above-ground physical and horticultural evaluation only. The surface area around the root zone of the tree will be visually assessed to identify obvious defects, such as soil cracks or heaving. Aerial branches will be examined from the ground with the use of binoculars, as needed. As oak trees within the survey areas were tagged and numbered during previous surveys for the Project, oak tree numbering will maintain consistency with prior surveys. Any previously unidentified oak trees will be given a new tree number.

Task 2.2 Oak Tree Report

Following the oak tree surveys, an Oak Tree Report will be prepared and submitted to Jacobs. The report will include all data collection methods described in Task 2.1 above. No impact evaluation will be included in the report. An evaluation of impacts based on Project components, if requested, can be provided under an additional scope and budget.



Task 2.3 Oak Tree Mitigation Plan

In accordance with Mitigation Measure 5-4 (Prepare and implement a mitigation plan for oak trees and oak tree natural communities) of the Program EIR, Rincon will prepare an Oak Tree Mitigation Plan for oak trees and oak tree natural communities that may be affected by Project. The plan will include, at a minimum, the following information with respect to oak tree and oak tree natural communities mitigation:

- Appropriate avoidance and minimization measures;
- Identification of oak tree mitigation areas;
- Oak tree planting plan;
- Success criteria;
- Monitoring and reporting processes; and
- Contingency measures.

As part of this task, we assume 18 staff hours for agency coordination will be required with relevant state and local agencies (e.g., CDFW), including any meetings and/or responses to comments on the contents of the plan.

Task 3 Project Management and Coordination

Task 3.1 Project Management and Coordination

Rincon will provide highly responsive project management and coordination with Jacobs to meet project requirements in an efficient and cost-effective manner. Rincon will provide regular updates regarding project needs, changes, schedule, budget, and deliverables. This task includes activities required to manage the various tasks above such as regular e-mail and telephone communications and other tasks associated with client coordination and contract administration.

Optional Task 3.2 As-Needed Contingency

A contingency budget of 25 Senior staff hours is recommended to accommodate any unforeseen coordination needs and additional support beyond the scope of work identified above. This support could take the form of conference calls/meetings or other documentation if requested by Jacobs.

Assumptions

This scope of work was prepared with the following assumptions:

- This scope of work assumes that two 10-hour survey days for two biologists will be required to complete the rare plant surveys.
- This scope of work assumes that two 10-hour survey days for two arborists will be required to complete the oak tree surveys.
- This scope of work assumes up to 146 trees will be surveyed based upon previous survey efforts. Surveying of additional trees can be performed on a time and materials reimbursement basis following written authorization.



- Identification of potential on-site and off-site mitigation areas will be conducted in coordination with Jacobs and the JPA
- Rincon will conduct one round of revisions to the updated Rare Plant Survey Report, Rare Plant Mitigation Plan, Oak Tree Report, and Oak Tree Mitigation Plan.
- Report submissions will be in electronic format. Printing is not included and can be provided for an additional cost.
- The following items will be provided by Jacobs:
 - Access to project-specific ArcGIS map with survey area, including potential on-site and off-site restoration areas.
 - Previous oak tree collection data, including tree location points and unique identification numbers.
 - Survey area kmz file with CNDDDB data
- This scope of work does not include implementation of restoration activities (e.g. seed collection, plant salvage, offsite propagation, mitigation planting, monitoring). If requested, these tasks can be completed for an additional scope and cost.

Estimated Schedule and Cost

Rincon is prepared to initiate this scope of work within one week of receiving written notice to proceed (NTP) from Jacobs. Rincon will submit a draft of the updated Rare Plant Survey Report within four weeks following the last rare plant survey, and will submit the Rare Plant Mitigation Plan within eight weeks following the last rare plant survey. Rincon will submit the Oak Tree Mitigation Plan within four weeks following the last oak tree survey. We estimate that completion of the proposed work scope identified above will require a budget of **\$105,125** without optional tasks, and **\$111,700** with optional tasks included. Table 1 provides an estimated cost breakdown of each task.

Table 1 Cost Summary

Task		Estimated Cost
Task 1	Rare Plant Mitigation	
Task 1.1	Rare Plant Surveys	\$18,826
Task 1.2	Updated Rare Plant Survey Report	\$7,906
Task 1.3	Rare Plant Mitigation Plan	\$24,008
Task 2	Oak Tree Mitigation	
Task 2.1	Oak Tree Surveys	\$17,174
Task 2.2	Oak Tree Report	\$7,994
Task 2.2	Oak Tree Mitigation Plan	\$23,315
Task 3	Project Management and Coordination	
Task 3.1	Project Management and Coordination	\$5,902
Task 3.2	As-Needed Contingency (Optional)	\$6,575
Total		\$105,125
Total with Optional Tasks Included		\$111,700



Thank you for your consideration and for this opportunity to support your project. If you have any questions regarding this proposal, please contact Robin Murray at 831-612-0113 or rmurray@rinconconsultants.com.

Sincerely,
Rincon Consultants, Inc.

A handwritten signature in blue ink that reads "Robin Murray". The signature is fluid and cursive, with the first name being more prominent.

Robin Murray
Supervising Biologist/Project Manager

A handwritten signature in black ink that reads "Steven J. Hongola". The signature is more formal and blocky than the one to its left.

Steven J. Hongola
Principal Biologist

Las Virgenes Reservoir Dye-Tracer Study Utilizing an Autonomous Underwater Vehicle (AUV)

Coastal Observing Research and Development Center (CORDC)
8875 Biological Grade
La Jolla, CA 92037-0213

Dr. Peter Rogowski
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858-822-3101

A. Executive Summary

As part of the California Surface Water Source Augmentation Project (SWSAP), the Las Virgenes-Triunfo Joint Powers Authority (JPA) is pursuing indirect potable reuse (IPR) through the Pure Water Project Las Virgenes-Triunfo Project as a potential new water supply that is drought resilient. The project will create a new, local, sustainable drinking water source in a water-stressed area, reducing the region's dependence on imported water and increasing climate resilience. This proposal addresses the Las Virgenes Municipal Water District (LVMWD) request to perform a dye-tracer study in Las Virgenes Reservoir to validate numerical modeling results characterizing the mixing of the introduced purified waters. The primary objective is to map the evolution of an introduced rhodamine dye plume (surrogate for purified water) from discharge source to the receiving waters using an Autonomous Underwater Vehicle (AUV) in conjunction with boat-based supplementary casts. The AUVs increased spatial sampling resolution, adaptive sampling options and operational costs make it an appealing alternative to only utilizing traditional boat-based sampling techniques. To meet program objectives, the Coastal Observing Research and Development Center (CORDC) will leverage their fleet of AUVs (one primary, one backup) and more than 15-years of experience utilizing the vehicles for monitoring applications in the southern California region.

Primary tasks include:

- Draft and final dye-tracer study plan.
- Preliminary Studies: Manufacturer calibration of sensors used for the study including Conductivity, Temperature, and Depths (CTD) sensors, Acoustic Doppler Current Profiler (ADCP) sensor, and Rhodamine sensors. Cross calibrations of all Rhodamine instruments. The week prior to the dye discharge, ambient AUV surveys will be performed to characterize the reservoirs ambient conditions and bathymetry for optimal path planning of subsequent surveys. Fixed instruments will also be deployed (temperature chain and ADCP).
- Based on past dye tracer studies, ~7 AUV survey days over a 2-week period are expected to capture the evolution of the introduced dye plume. Immediately after the dye release, an intensive sampling campaign will commence with daily AUV surveys taking place until the dye is well mixed throughout the reservoir. Once well mixed, less frequent surveys will occur to characterize remaining dye levels. Frequency of surveys after the intensive sampling campaign will be dictated by observed concentrations of Rhodamine.
- Concurrent supplemental monitoring will occur with a boat-based casting package during AUV surveys (e.g. Rhodamine, CTD).
- After each AUV survey, data sets will be pre-processed for quality control and to optimize sampling within the introduced dye plume for follow-on surveys.
- Deliverables: Post-processed data sets will be provided to the Reservoir Modeler. CORDC will provide a draft and Final Report summarizing all data collections and findings from the study.

B. Project Understanding and Approach

AUV Operations

Emergent technology in the field of oceanographic instrumentation is enhancing survey methods for detecting and mapping buoyant plumes. A principal challenge in tracking these plumes in the ocean is the spatial and temporal variability of ocean currents and stratification in coastal waters which, without the aid of recent measurements, limits plume sampling far from the discharge source due to uncertainty in the plume's location. Typically, the plume is missed by traditional boat-based pre-determined sampling designs due to the plume's spatial patchiness and the limited range of the freshwater signature of the plume. Recent studies have shown that modern tracer observation techniques coupled with a mobile platform such as an AUV, are often a more effective approach for mapping buoyant plumes. While an enclosed reservoir does not contain the same sampling challenges as in the ocean, the AUVs increased spatial sampling resolution and adaptive sampling options make it an appealing alternative to traditional boat-based sampling techniques.

A Remote Environmental Monitoring Units (REMUS) AUV will be used for this project (Figure 1a). The AUV can conduct untethered underwater surveys to depths of 100m with high precision navigation following a pre-programmed mission track (Figure 1b). Onboard sensors include a conductivity-temperature-depth (CTD) sensor, and a optical instrument for measurement of introduced rhodamine dye. An Acoustic Doppler Current Profiler (ADCP) allows for direct measurement of water depth, and speed of vehicle over the seafloor. Typical surveys speeds range between 3-4 knots.

Rhodamine WT is the preferred tracer for reservoir tracer studies. Rhodamine WT is NSF/ANSI 60 certified, it can be measured in the field with a fluorometer, it has a low detection limit, and it has a relatively low background concentration. Rhodamine WT does photolyze with exposure to sunlight, but the rate of degradation is minimal and will not impact overall recovery of the tracer mass.

After the dye release, the introduced rhodamine dye plume will be monitored intensively in the days immediately following introduction into the reservoir, then less frequently in the following 1-2 weeks or until no measurable tracer persists. From previous tracer studies, ~7 AUV survey days are expected to capture the evolution of the introduced dye plume. The exact number of AUV surveys during these days will be dependent on the mixing and residence time of the introduced dye. Dynamic AUV path planning will ensure optimal sampling of the tracer plume throughout the course of the experiment. The number of AUV surveys in a given day will vary depending on time from dye release and observed mixing of the dye plume. It is expected that more intensive AUV survey days will occur in the days immediately following the dye release,

with less frequent number of surveys per day as the dye becomes well mixed throughout the reservoir.

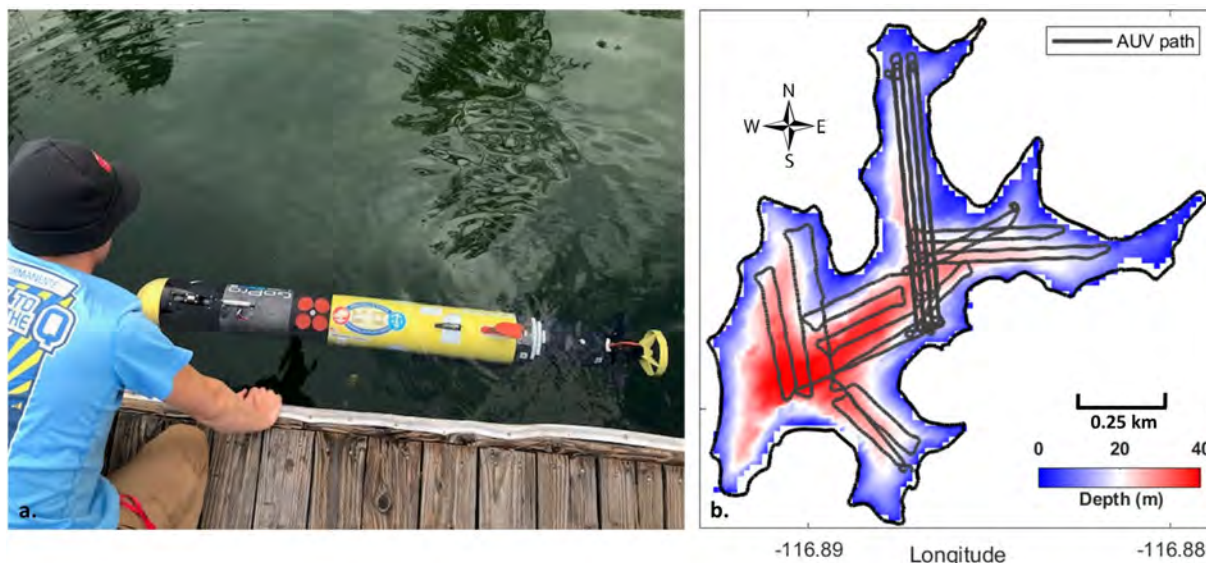


Figure 1. (a) Image of REMUS AUV used in the 2017 Lake Jennings study and (b) plan view of typical undulating AUV survey path (gray lines) overlaid on Lake Jennings bathymetry.

Supplementary Observations

Supplemental boat-based casts will occur using a casting package that includes a suite of high accuracy and stable instruments combined in one package/cage with the following sensors: Seabird SBE37-SI (conductivity, temperature, pressure) and a Wetlabs ECO-FLRHLT (Rhodamine) sensor. Current and temperature profiles will be measured by several moored instruments including Qty 1 Acoustic Doppler Current Profiler (ADCP) and Qty 1-2 temperature strings used similar to previous dye studies (e.g. See Figure 2a). Aerial imagery of the introduced plume will be observed using an Unmanned Aerial Vehicle (UAS) (e.g. Figure 2b) while visible (expected to be days 1 and 2). CORDC assets leveraged for this project include the REMUS AUV (\$~500K), a boat-based casting package (\$~40K), a UAS drone (\$~10K), and ADCP and temperature moorings (\$~80K).

Analysis

Staff will track the evolution of the rhodamine dye plume throughout the experiment by processing collected data for the generation of daily high resolution 3D rhodamine maps (e.g. Figure 3). Initial processing of the raw data will occur after each survey to confirm optimal sampling of the rhodamine dye plume. Data will be post-processed following the field effort and made available for hydrodynamic model comparisons. A report summarizing AUV and boat-based cast observations along with relevant findings will be provided by CORDC staff.

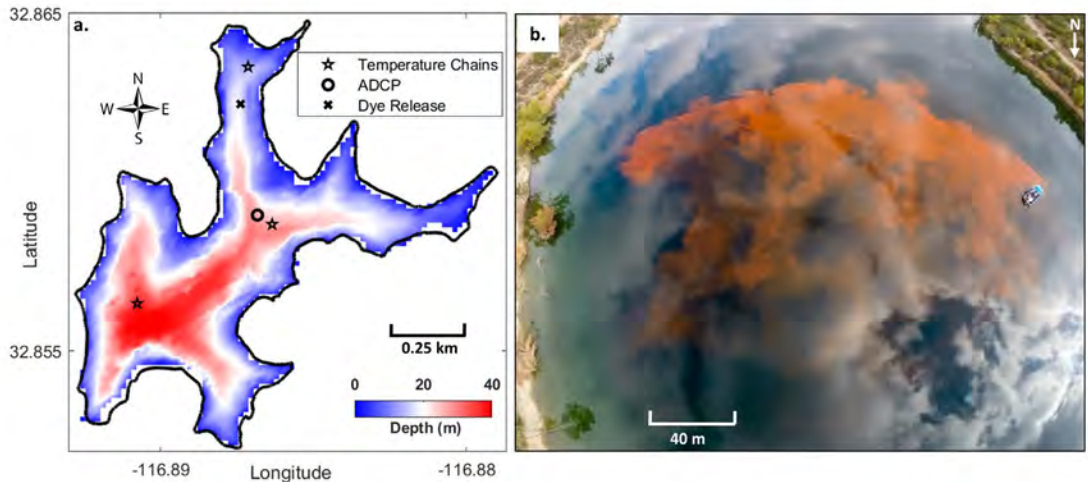


Figure 2. (a) Bathymetry map of Lake Jennings reservoir illustrating locations of fixed instruments and dye release locations and (b) aerial image of dye plume immediately after release from 2017 Tracer Study.

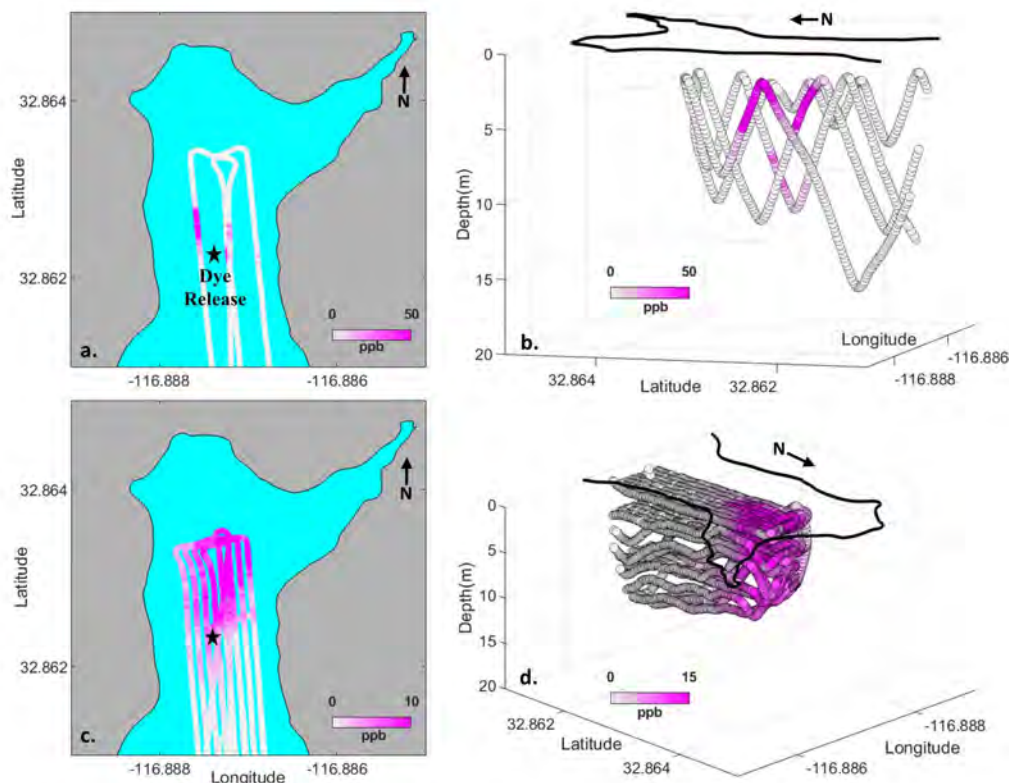


Figure 3. Summary of 30 October 2017 AUV rhodamine observations at Lake Jennings. (a) Plan view and (b) 3D view of rhodamine observations from survey #2. (c) Plan view and (d) 3D view of rhodamine observations from survey #3.

C. Project Organization and Key Personnel

Project Scientist Dr. Peter Rogowski will serve as project lead/PI and will oversee all aspects of the program including inter-calibration of instruments, AUV deployments, data analysis, and preparation/dissemination of deliverables. Dr. Rogowski has 10+ years of experience utilizing AUVs for coastal and freshwater monitoring applications (see Rogowski et al., 2012, 2013, 2014, 2019). Additional personnel essential to the program are R&D Engineers who manage/maintain our fleet of autonomous vehicles. The dedicated AUV team is responsible for successful AUV surveys locally and globally over the past decade and will be utilized for AUV path planning, deployment/recovery and maintenance as needed. Additional support staff will include a Marine Technician (boat operator/diver) and an Unmanned Aerial System (UAS) pilot.

Dr. Sophia Merrifield will take part in preparation and execution of the study plan, analysis of collected data sets and preparation of deliverables. She is an observational physical oceanographer working in the fields of air-sea interaction, turbulence, and unmanned vehicle autonomy. She studied physics and mechanical engineering at Yale University and received a Ph.D. from the MIT/WHOI Joint Program. Her work focuses on the use and development of emerging technologies for real-time environmental characterization in support of DoD projects. She is the recipient of the 2021 ONR Young Investigator Award.

Dr. Eric Terrill will assist in the planning and execution of the dye study plan. He will also assist in preparation and review of the draft and final deliverables. As founder and director of the Coastal Observing R&D Center (CORDC) at Marine Physical Laboratory, Scripps Institution of Oceanography, Dr. Terrill presently employs a technical team of programmers, scientists, and engineers which conduct basic and applied research, instrumentation development, and maintain operational environmental observing systems. Terrill has served as principal investigator for past and present funded research projects in a diverse set of applied and technical disciplines. Eric Terrill received his Ph.D. in the applied ocean sciences in 1998, and was an early recipient of the ONR Young Investigator Award.

D. Experience and Technical Competence

Over the past 15+ years, our lab has led numerous AUV monitoring studies. Several relevant studies are summarized below.

Point Loma Ocean Outfall Monitoring Study (April 2010 to April 2011)

Sponsor: City of San Diego, National Oceans and Atmospheric Administration (NOAA)

Approximate Project Amount: \$900K

Point of Contact: Timothy Stebbins (retired); Adriano Feit (619-758-2377)

Dr. Terrill was PI of the program and was responsible for overall program management. Colored Dissolved Organic Matter (CDOM) was utilized as a natural plume tracer of the Point Loma Ocean Outfall (PLOO) discharge during bi-monthly monitoring missions from April 2010 to April 2011. The plume was consistently sampled in each of the more than 20 AUV surveys. Dr. Rogowski's responsibilities for the project included path planning, AUV operation during deployment/recovery, data analysis, and lead author on a Final Report and two peer reviewed papers (Rogowski et al., 2012, 2013). CORDC R&D Engineers were utilized on this project for vehicle maintenance and support in preparation of the vehicles prior to deployments.

Rivers Mouth Dynamics Departmental Research Initiative (RIVET) (May 2012)

Sponsor: Office of Naval Research (ONR)

Approximate Project Amount: \$1.7M

Point of Contact: Drs. Thomas Drake (tom.drake@navy.mil) and Reginald Beach (reginald.beach@navy.mil)

Dr. Terrill was PI of the program and was responsible for overall program management. To characterize the transitional region from the near-field to far-field of a river plume entering coastal waters Dr. Rogowski and CORDC staff conducted daily surveys using an AUV to target the outflow of the New River Inlet, North Carolina, during maximum ebb tide. The utilization of a mobile sensor to synoptically observe current velocity data in tandem with natural river plume tracers (e.g. CDOM, salinity) was essential in understanding the mechanisms driving the observed circulation and mixing patterns within these waters. Dr. Rogowski's responsibilities for the project included path planning, AUV operation during deployment/recovery, data analysis, and lead author on a peer reviewed paper (Rogowski et al., 2014). He also collaborated with other project institutions collecting mutually beneficial AUV data sets (e.g. mapping the evolution of an introduced dye as it exited the river inlet).

Lake Jennings Tracer Study Utilizing an AUV (October 2017)

Sponsor: Padre Dam Municipal Water District/Helix Water District, Trussell Technologies

Approximate Project Amount: \$215K

Point of Contact: Padre Dam: Seval Sen (619-258-4631); Trussell Technologies: Eileen Idica (858-314-4130)

The spatial and temporal evolution of an introduced dye tracer in a small reservoir was observed using an AUV, providing quantifiable data of the convective processes which drive mixing of surface waters. The tracer served as a surrogate for advanced treated water that has been proposed to be introduced into a reservoir as part of an overall system for efficient water reclamation; a critical management tool for addressing water issues facing the southwest. The study demonstrates the utility of an AUV in a small reservoir, providing the framework for increased use of high-resolution mobile instrument platforms in future limnology studies. The propeller driven AUV was essential for characterizing the evolving plume in the spatially

confined reservoir. Similarly, the mobility of a propeller driven AUV is essential for proper characterization of the often patchy, spatiotemporal variable effluent plume in the receiving waters of an ocean outfall.

Dr. Rogowski served as PI overseeing all aspects of the project including coordination with the Padre Dam Municipal Water District and the Helix Water District on AUV timing and post survey progress reports. Dr. Terrill was Co-PI and assisted in program development and management. The AUV Engineers were essential to the success of the AUV surveys in the confined regions and highly variable bathymetry of the Lake Jennings reservoir. Drs. Rogowski and Merrifield were responsible for all deliverables including providing processed data sets to numerical modelers, progress meetings, a Final Report and a peer-reviewed manuscript (Rogowski et al., 2019).

E. Schedule

Upon award approval, all relevant instruments will be sent to manufacturers for calibration, which will take approximately 6-8 weeks (personal communication) and a new ECO-Fluorometer will be ordered from Seabird which has a lag time of ~3 months. During this period, the final dye study plan will be developed and finalized by November 2023. Based on the lag time until receiving our instruments, we anticipate the inter-calibration of all Rhodamine instruments to occur in December 2023 or January 2024. We are anticipating the ambient reservoir study and deployment of fixed sensors to occur from February 21 – 25, 2024, followed by the tracer release on February 26, 2024. Monitoring of the tracer plume will start on the day of the tracer release and continue until approximately March 8, 2024 or until no measurable tracer is observed. Data analysis and synthesis of deliverables will occur from March through June of 2024.

Las Virgenes Dye Study	
<i>Estimated Dates</i>	<i>Project Component</i>
September 2023	Ship instruments to manufacturer for calibration
November 2023	Final Dye Study Plan
December 2023 - January 2024	Inter-calibration of instruments, sensor integration/testing.
February 21 – 25, 2024	AUV Survey (ambient); Fixed Instrument Deployments
February 26, 2024	Dye Release
February 26 – March 8, 2024	Dye Release/Field Campaign
March – April 2024	Data Processing/Analysis
May 2024	Draft Deliverables
June, 2024	Final Deliverables (Data, Report)

F. Cost Estimate

Project Total: \$303,800

A breakdown of costs is included below. Here we summarize primary tasking of staff needed to meet the objectives of the RFP. Personnel are denoted as PI (either Drs. Rogowski, Merrifield or Terrill) and Senior Engineer (AUV, UAS, or Marine Technician). Costs are based on a daily rate of \$2700 per person and includes associated travel and lodging costs incurred throughout the dye study. “Total Days” denotes the number of cumulative days from all staff working on a given task.

Task	Total Days	Personnel	Cost
1. Planning meetings, draft and final dye-tracer study plan	10	PI	27,000
2. UCSD Instrument and Boat Costs	n/a	n/a	36,500
3. Rhodamine Discharge Fabrication	5	2 Senior Eng	27,000
4. Instrument Cross Calibration	3	2 Senior Eng	16,200
5. AUV/Boat-based Field Efforts	42	PIs, Senior Engs	113,400
6. Analysis	24	PIs	64,800
7. Reporting	7	PIs	18,900
Total Proposed Cost			303,800

Study Plan Development Phase

Task 1: Planning meetings, draft and final dye-tracer study plan

Budgeted costs are included for the Principal Investigators (PIs), Dr. Rogowski or Merrifield to take part in planning meetings with LVMWD, Jacobs, and Flow Science to develop a draft and final dye-tracer study plan. Costs included for travel and lodging.

Task 2: Instrument Preparation/Dye Cost

Budgeted costs are included for manufacturer calibrations of sensors used for the study including Conductivity, Temperature, and Depths (CTD) sensors, and Rhodamine sensors. Costs are also included for fabrication of 1-2 temperature chains.

Task 3 and 4: Rhodamine Discharge Fabrication, Instrument Cross Calibration

Budgeted costs are included for cross calibrations of all Rhodamine instruments and fabrication of rhodamine discharge system designed for a small vessel.

Test Phase

Task 5: AUV/Boat-based Field Efforts

Costs are included for initial ambient AUV surveys (2-3) the week prior to the dye release to characterize the reservoirs ambient conditions and bathymetry for optimal path planning of subsequent surveys. Temperature chains and ADCPs will be deployed during these initial survey days.

Costs are included for 7 AUV survey days that are expected to capture the evolution of the introduced dye plume. Immediately after the dye release, an intensive sampling campaign will commence with daily AUV surveys taking place until the dye is well mixed throughout the reservoir. Once well mixed, less frequent surveys will occur to characterize remaining dye levels. Frequency of surveys after the intensive sampling campaign will be dictated by observed concentrations of Rhodamine. Concurrent supplemental monitoring will occur with a boat-based casting package during AUV surveys (e.g. Rhodamine, CTD). Costs are included for Senior Engineers to support AUV preparation and maintenance for the dye tracer study. Costs are also included for boat operations and maintenance during the program. Costs are also included for travel and lodging for the test period.

Task 5: Optional: If more AUV surveys are required due to persistence rhodamine concentrations in the reservoir, a daily AUV survey rate of \$8100 accounts for costs for boat, staff (Qty. 3), and travel time to complete subsequent AUV surveys.

Task 6 and 7: Analysis and Reporting

Costs are included for initial data qa/qc, and processing after each field effort. After completion of the dye study, collected data will be processed into easily readable output files (e.g. ascii, excel, matlab) and visualizations and provided to the Reservoir Modeler. PIs will provide a draft and Final Report summarizing all data collections and findings from the study.

G. Copy of similar recent ocean AUV study report

The Lake Jennings Final Report and published manuscript will be submitted with this proposal. Additional Final Reports and manuscripts are available by request. Relevant publications include:

Rogowski, P., S. Merrifield, L. Ding, and E. Terrill, 2019. Introduced dye tracer mapping by an Autonomous Underwater Vehicle. *Limnology and Oceanography: Methods*. doi: 10.1002/lom3.10326.

Rogowski, P., E. Terrill, and J. Chen (2014), Observations of the frontal region of a buoyant river plume using an autonomous underwater vehicle, *J. Geophys. Res. Oceans*, 119, doi:10.1002/2014JC010392.

Rogowski, P., E. Terrill, M. Otero, L. Hazard, and W. Middleton (2013), Ocean outfall plume characterization using an autonomous underwater vehicle, *J. Water and Science Tech.*, 67, 4, 925 – 933. doi: 10.2166/wst.2012.635.

Rogowski, P., E. Terrill, M. Otero, L. Hazard, and W. Middleton (2012), Mapping ocean outfall plumes and their mixing using autonomous underwater vehicles, *J. Geophys. Res.*, 117, C07016, doi:10.1029/2011JC007804.



Task 1.1 Rare Plant Surveys

Rincon will perform protocol-level rare plant surveys and vegetation community mapping within the Project components that may impact rare plants and plant communities, including the AWPf at the Agoura Road Site, 20-inch diameter purified water pipeline in Triunfo Creek Park, and 9-inch concentrate pipeline along the Conejo Open Space Trail. Rincon will survey within the entirety of the APWF, as well as within a 100-foot buffer of the proposed pipelines. Rare plant surveys will be floristic in nature, timed correctly to identify the potentially occurring rare plants, and follow standard survey protocols for rare plants, primarily the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 2000) and *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018).

We anticipate that two survey events will be required to complete the surveys, the first event occurring between April and May, and the second event occurring between June and July. Reference site visits will be also performed for all annual special status plant species known to occur in the survey areas (including Catalina mariposa lily [*Calochortus catalinae*], slender mariposa lily *Calochortus clavatus* var. *gracilis*], Ojai navarretia [*Navarretia ojaiensis*], and Lyon's pentachaeta [*Pentachaeta lyonii*]) to confirm these species are readily identifiable during the survey effort. Results of the reference site visits will be used to inform the timing of surveys.

During the rare plant surveys, Rincon will also investigate potential on-site and off-site restoration areas that may be suitable for rare plant relocation. Results of this assessment will be included in the updated rare plant survey report (Task 1.2) and Rare Plant Mitigation Plan (Task 1.3).

Vegetation community mapping will utilize the 2022 mapping data to the greatest extent feasible, but will refine the mapping data based on current conditions within the survey areas.

Task 1.2 Updated Rare Plant Survey Report

Following completion of rare plant surveys, Rincon will prepare an updated rare plant survey report. The updated rare plant survey report will build upon the 2022 rare plant survey report by incorporating and refining results of surveys performed in both 2022 and 2024. The updated rare plant survey report will include a brief introduction, Project location, regulatory overview, methodology, existing setting, results (including vegetation communities and rare plant observations), potential restoration areas, discussion, and all references used in the report.

Task 1.3 Rare Plant Mitigation Plan

In accordance with Mitigation Measure 5-1 (Prepare and implement a mitigation plan for special-status plants and plant communities) of the Program EIR, Rincon will prepare a Rare Plant Mitigation Plan for special-status plant species and sensitive natural communities that may be affected by Project. The plan will include, at a minimum, the following information with respect to special-status plant species and natural communities:

- Appropriate avoidance and minimization measures, including an avoidance and relocation plan for special-status plants that cannot be avoided;
- Plant salvage and seed collection procedures;
- Offsite propagation;
- Identification of mitigation areas;
- Site preparation and planting of mitigation areas;



- Success criteria;
- Monitoring and reporting processes; and
- Contingency Measures

As part of this task, we assume 20 staff hours for agency coordination will be required with relevant state and federal agencies (e.g., CDFW), including any meetings and/or responses to comments on the contents of the plan.

Task 2 Oak Tree Mitigation

Task 2.1 Oak Tree Surveys

In accordance with Mitigation Measure 5-4 (Prepare and implement a mitigation plan for oak trees and oak tree natural communities), a Rincon International Society of Arboriculture (ISA) Certified Arborist (Arborist) will survey all native trees (except willows), including oak trees and oak tree communities that may be affected by construction of the Project. Potential impacts include both tree removal and encroachment within five feet of the driplines of oak trees that will be preserved. Data collected for each surveyed tree will include:

- Trunk location (using a GPS device capable of submeter accuracy)
- Species
- Number of trunks
- Trunk diameter at standard height
- Tree height
- Canopy spread (in eight cardinal directions)
- Aesthetic assessment (Good, Fair, Poor, Dead)
- Vigor assessment (Low, Normal, High)
- Health assessment (Good, Fair, Poor, Dead)
- Presence of diseases and pests, such as thousand canker fungus (*Geosmithia morbida*), polyphagous shot-hole borer (*Euwallacea* spp.), and goldspotted oak borer (*Agrilus auroguttatus*)
- Conditions of concern (structural defects, utility conflicts, etc.)
- Recommendations to remedy structural problems where required
- Recommendations to improve tree health
- Representative photograph

The survey will include an above-ground physical and horticultural evaluation only. The surface area around the root zone of the tree will be visually assessed to identify obvious defects, such as soil cracks or heaving. Aerial branches will be examined from the ground with the use of binoculars, as needed. As oak trees within the survey areas were tagged and numbered during previous surveys for the Project, oak tree numbering will maintain consistency with prior surveys. Any previously unidentified oak trees will be given a new tree number.

Task 2.2 Oak Tree Report

Following the oak tree surveys, an Oak Tree Report will be prepared and submitted to Jacobs. The report will include all data collection methods described in Task 2.1 above. No impact evaluation will be included in the report. An evaluation of impacts based on Project components, if requested, can be provided under an additional scope and budget.



Task 2.3 Oak Tree Mitigation Plan

In accordance with Mitigation Measure 5-4 (Prepare and implement a mitigation plan for oak trees and oak tree natural communities) of the Program EIR, Rincon will prepare an Oak Tree Mitigation Plan for oak trees and oak tree natural communities that may be affected by Project. The plan will include, at a minimum, the following information with respect to oak tree and oak tree natural communities mitigation:

- Appropriate avoidance and minimization measures;
- Identification of oak tree mitigation areas;
- Oak tree planting plan;
- Success criteria;
- Monitoring and reporting processes; and
- Contingency measures.

As part of this task, we assume 18 staff hours for agency coordination will be required with relevant state and local agencies (e.g., CDFW), including any meetings and/or responses to comments on the contents of the plan.

Task 3 Project Management and Coordination

Task 3.1 Project Management and Coordination

Rincon will provide highly responsive project management and coordination with Jacobs to meet project requirements in an efficient and cost-effective manner. Rincon will provide regular updates regarding project needs, changes, schedule, budget, and deliverables. This task includes activities required to manage the various tasks above such as regular e-mail and telephone communications and other tasks associated with client coordination and contract administration.

Optional Task 3.2 As-Needed Contingency

A contingency budget of 25 Senior staff hours is recommended to accommodate any unforeseen coordination needs and additional support beyond the scope of work identified above. This support could take the form of conference calls/meetings or other documentation if requested by Jacobs.

Assumptions

This scope of work was prepared with the following assumptions:

- This scope of work assumes that two 10-hour survey days for two biologists will be required to complete the rare plant surveys.
- This scope of work assumes that two 10-hour survey days for two arborists will be required to complete the oak tree surveys.
- This scope of work assumes up to 146 trees will be surveyed based upon previous survey efforts. Surveying of additional trees can be performed on a time and materials reimbursement basis following written authorization.



- Identification of potential on-site and off-site mitigation areas will be conducted in coordination with Jacobs and the JPA
- Rincon will conduct one round of revisions to the updated Rare Plant Survey Report, Rare Plant Mitigation Plan, Oak Tree Report, and Oak Tree Mitigation Plan.
- Report submissions will be in electronic format. Printing is not included and can be provided for an additional cost.
- The following items will be provided by Jacobs:
 - Access to project-specific ArcGIS map with survey area, including potential on-site and off-site restoration areas.
 - Previous oak tree collection data, including tree location points and unique identification numbers.
 - Survey area kmz file with CNDDDB data
- This scope of work does not include implementation of restoration activities (e.g. seed collection, plant salvage, offsite propagation, mitigation planting, monitoring). If requested, these tasks can be completed for an additional scope and cost.

Estimated Schedule and Cost

Rincon is prepared to initiate this scope of work within one week of receiving written notice to proceed (NTP) from Jacobs. Rincon will submit a draft of the updated Rare Plant Survey Report within four weeks following the last rare plant survey, and will submit the Rare Plant Mitigation Plan within eight weeks following the last rare plant survey. Rincon will submit the Oak Tree Mitigation Plan within four weeks following the last oak tree survey. We estimate that completion of the proposed work scope identified above will require a budget of **\$105,125** without optional tasks, and **\$111,700** with optional tasks included. Table 1 provides an estimated cost breakdown of each task.

Table 1 Cost Summary

Task		Estimated Cost
Task 1	Rare Plant Mitigation	
Task 1.1	Rare Plant Surveys	\$18,826
Task 1.2	Updated Rare Plant Survey Report	\$7,906
Task 1.3	Rare Plant Mitigation Plan	\$24,008
Task 2	Oak Tree Mitigation	
Task 2.1	Oak Tree Surveys	\$17,174
Task 2.2	Oak Tree Report	\$7,994
Task 2.2	Oak Tree Mitigation Plan	\$23,315
Task 3	Project Management and Coordination	
Task 3.1	Project Management and Coordination	\$5,902
Task 3.2	As-Needed Contingency (Optional)	\$6,575
Total		\$105,125
Total with Optional Tasks Included		\$111,700



Proposal for Rare Plant and Oak Tree Monitoring and Mitigation for the Pure Water Project

Thank you for your consideration and for this opportunity to support your project. If you have any questions regarding this proposal, please contact Robin Murray at 831-612-0113 or rmurray@rinconconsultants.com.

Sincerely,

Rincon Consultants, Inc.

A handwritten signature in blue ink that reads "Robin Murray". The signature is fluid and cursive, with the first name being more prominent.

Robin Murray
Supervising Biologist/Project Manager

A handwritten signature in black ink that reads "Steven J. Hongola". The signature is more formal and blocky than the one to its left.

Steven J. Hongola
Principal Biologist

Via Electronic Mail

12/15/2023



Jennifer Phillips, Project Manager
Jacobs Engineering Group, Inc.
1000 Wilshire Blvd, Suite 2100
Los Angeles, CA 90017

RE: Proposal for Phase 2 Owner's Advisor / Program Manager Services of Las Virgenes-Triunfo Joint Powers Authority (JPA's) Pure Water Program (PWP)

Dear Jennifer:

Woodard & Curran is pleased to submit this proposal for consulting services for Phase 2 of the Las Virgenes Municipal Water District (LVMWD)-Triunfo Pure Water Program (Project). This letter and its attachments present our proposed scope of service and estimated fee for the second phase of the project based on our current understanding of the overall project direction and schedule. The scope of service covers the design period engineering support services, hydraulic modeling of the reclaimed water system, and continued effort toward permitting the Pure Water Program with regulatory agencies.

SCOPE OF SERVICES

The scope is summarized in Attachment A.

SCHEDULE

We have assumed that work presented herein would be completed by December 2025, concurrent with the schedule for final design, and conclude prior to the start of construction. We expect some additional Permitting to continue beyond 2025, however this work will be defined as the Project progresses and will require a future authorization to complete.

BUDGET

The proposed budget for completion of the work described is shown in Attachment B. Rates shown are proposed for 2024 and 2025. A delay in Program execution which results in work beyond 2025 may result in a necessary fee increase.

ASSUMPTIONS

The Scope of Services will be completed in accordance with mutually agreeable terms of a Consultant/Professional Services Agreement between Woodard & Curran, Inc. and Jacobs Engineering Group, Inc. Additional assumptions can be found in Appendix A.



December 13, 2023
Rincon Project No. 23-15454

Jennifer Phillips, Water Project Manager
Jacobs Engineering Group, Inc.
2485 Natomas Park Drive Suite 600
Sacramento, California 95833
Via email: renee.groskreutz@jacobs.com

Subject: Proposal for Rare Plant and Oak Tree Monitoring and Mitigation for the Pure Water Project, Ventura County, California

Dear Ms. Phillips:

Rincon Consultants, Inc. (Rincon) is pleased to provide this proposal for rare plant and oak tree monitoring and mitigation technical services in support of the Pure Water Project (Project). Rincon understands that the Las Virgenes-Triunfo Joint Powers Authority (JPA) has prepared a Program Environmental Impact Report (EIR) for the Project (State Clearinghouse Number 2021090157). The Program EIR includes mitigation measures specific to rare plants and oak trees. Jacobs Engineering Group, Inc. (Jacobs) is seeking technical support including updated rare plant surveys, and preparation of a rare plant mitigation plan and oak tree mitigation plan for the areas that may be affected by the Project.

Rincon understands that the current Project design includes the following components that may impact rare plants and oak trees:

- Advanced Water Purification Facility (AWPF) to be installed at the Agoura Road Site, a 7.1-acre parcel located at 30800 Agoura Road;
- 20-inch diameter purified water pipeline connecting the new AWPF to the Las Virgenes Reservoir through Triunfo Creek Park, between Triunfo Canyon Road and the Las Virgenes Reservoir; and
- 9-inch concentrate pipeline to be installed along the Conejo Canyon Open Space Trail between Rancho Conejo Boulevard and Arroyo Conejo, a distance of approximately 2,750 feet.

Scope of Work and Assumptions

Task 1 Rare Plant Mitigation

In accordance with Mitigation Measure 5-1 (Prepare and implement a mitigation plan for special-status plants and plant communities) of the Program EIR, Rincon will perform rare plant surveys, prepare an updated Rare Plant Survey Report, and prepare a Rare Plant Mitigation Plan, as described below.

In 2022, Rincon performed rare plant surveys and vegetation community mapping within the Project components and prepared a 2022 Rare Plant Survey Report. Therefore, the rare plant surveys and vegetation community mapping included in this task will serve as an update to the 2022 Rare Plant Survey Report.

Las Virgenes Reservoir Dye-Tracer Study Utilizing an Autonomous Underwater Vehicle (AUV)

Coastal Observing Research and Development Center (CORDC)
8875 Biological Grade
La Jolla, CA 92037-0213

Dr. Peter Rogowski
Project Lead
Project Scientist & Engineer (Principal Investigator)
progowski@ucsd.edu
858-822-0681

Sophia Merrifield
Asst. Research Marine Physicist & Engineer (Principal Investigator)
smerrifield@ucsd.edu
858-246-2585

Dr. Eric Terrill
Director, Marine Physical Laboratory (Principal Investigator)
eterrill@ucsd.edu
858-822-3101

A. Executive Summary

As part of the California Surface Water Source Augmentation Project (SWSAP), the Las Virgenes-Triunfo Joint Powers Authority (JPA) is pursuing indirect potable reuse (IPR) through the Pure Water Project Las Virgenes-Triunfo Project as a potential new water supply that is drought resilient. The project will create a new, local, sustainable drinking water source in a water-stressed area, reducing the region's dependence on imported water and increasing climate resilience. This proposal addresses the Las Virgenes Municipal Water District (LVMWD) request to perform a dye-tracer study in Las Virgenes Reservoir to validate numerical modeling results characterizing the mixing of the introduced purified waters. The primary objective is to map the evolution of an introduced rhodamine dye plume (surrogate for purified water) from discharge source to the receiving waters using an Autonomous Underwater Vehicle (AUV) in conjunction with boat-based supplementary casts. The AUVs increased spatial sampling resolution, adaptive sampling options and operational costs make it an appealing alternative to only utilizing traditional boat-based sampling techniques. To meet program objectives, the Coastal Observing Research and Development Center (CORDC) will leverage their fleet of AUVs (one primary, one backup) and more than 15-years of experience utilizing the vehicles for monitoring applications in the southern California region.

Primary tasks include:

- Draft and final dye-tracer study plan.
- Preliminary Studies: Manufacturer calibration of sensors used for the study including Conductivity, Temperature, and Depths (CTD) sensors, Acoustic Doppler Current Profiler (ADCP) sensor, and Rhodamine sensors. Cross calibrations of all Rhodamine instruments. The week prior to the dye discharge, ambient AUV surveys will be performed to characterize the reservoirs ambient conditions and bathymetry for optimal path planning of subsequent surveys. Fixed instruments will also be deployed (temperature chain and ADCP).
- Based on past dye tracer studies, ~7 AUV survey days over a 2-week period are expected to capture the evolution of the introduced dye plume. Immediately after the dye release, an intensive sampling campaign will commence with daily AUV surveys taking place until the dye is well mixed throughout the reservoir. Once well mixed, less frequent surveys will occur to characterize remaining dye levels. Frequency of surveys after the intensive sampling campaign will be dictated by observed concentrations of Rhodamine.
- Concurrent supplemental monitoring will occur with a boat-based casting package during AUV surveys (e.g. Rhodamine, CTD).
- After each AUV survey, data sets will be pre-processed for quality control and to optimize sampling within the introduced dye plume for follow-on surveys.
- Deliverables: Post-processed data sets will be provided to the Reservoir Modeler. CORDC will provide a draft and Final Report summarizing all data collections and findings from the study.

B. Project Understanding and Approach

AUV Operations

Emergent technology in the field of oceanographic instrumentation is enhancing survey methods for detecting and mapping buoyant plumes. A principal challenge in tracking these plumes in the ocean is the spatial and temporal variability of ocean currents and stratification in coastal waters which, without the aid of recent measurements, limits plume sampling far from the discharge source due to uncertainty in the plume's location. Typically, the plume is missed by traditional boat-based pre-determined sampling designs due to the plume's spatial patchiness and the limited range of the freshwater signature of the plume. Recent studies have shown that modern tracer observation techniques coupled with a mobile platform such as an AUV, are often a more effective approach for mapping buoyant plumes. While an enclosed reservoir does not contain the same sampling challenges as in the ocean, the AUVs increased spatial sampling resolution and adaptive sampling options make it an appealing alternative to traditional boat-based sampling techniques.

A Remote Environmental Monitoring Units (REMUS) AUV will be used for this project (Figure 1a). The AUV can conduct untethered underwater surveys to depths of 100m with high precision navigation following a pre-programmed mission track (Figure 1b). Onboard sensors include a conductivity-temperature-depth (CTD) sensor, and a optical instrument for measurement of introduced rhodamine dye. An Acoustic Doppler Current Profiler (ADCP) allows for direct measurement of water depth, and speed of vehicle over the seafloor. Typical surveys speeds range between 3-4 knots.

Rhodamine WT is the preferred tracer for reservoir tracer studies. Rhodamine WT is NSF/ANSI 60 certified, it can be measured in the field with a fluorometer, it has a low detection limit, and it has a relatively low background concentration. Rhodamine WT does photolyze with exposure to sunlight, but the rate of degradation is minimal and will not impact overall recovery of the tracer mass.

After the dye release, the introduced rhodamine dye plume will be monitored intensively in the days immediately following introduction into the reservoir, then less frequently in the following 1-2 weeks or until no measurable tracer persists. From previous tracer studies, ~7 AUV survey days are expected to capture the evolution of the introduced dye plume. The exact number of AUV surveys during these days will be dependent on the mixing and residence time of the introduced dye. Dynamic AUV path planning will ensure optimal sampling of the tracer plume throughout the course of the experiment. The number of AUV surveys in a given day will vary depending on time from dye release and observed mixing of the dye plume. It is expected that more intensive AUV survey days will occur in the days immediately following the dye release,

with less frequent number of surveys per day as the dye becomes well mixed throughout the reservoir.

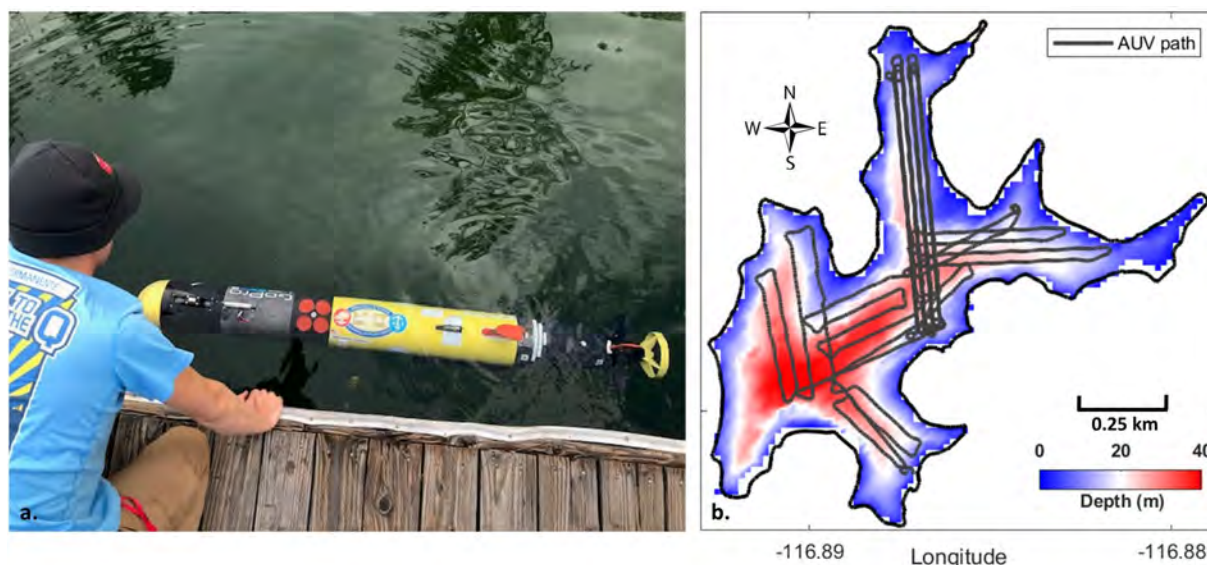


Figure 1. (a) Image of REMUS AUV used in the 2017 Lake Jennings study and (b) plan view of typical undulating AUV survey path (gray lines) overlaid on Lake Jennings bathymetry.

Supplementary Observations

Supplemental boat-based casts will occur using a casting package that includes a suite of high accuracy and stable instruments combined in one package/cage with the following sensors: Seabird SBE37-SI (conductivity, temperature, pressure) and a Wetlabs ECO-FLRHLT (Rhodamine) sensor. Current and temperature profiles will be measured by several moored instruments including Qty 1 Acoustic Doppler Current Profiler (ADCP) and Qty 1-2 temperature strings used similar to previous dye studies (e.g. See Figure 2a). Aerial imagery of the introduced plume will be observed using an Unmanned Aerial Vehicle (UAS) (e.g. Figure 2b) while visible (expected to be days 1 and 2). CORDC assets leveraged for this project include the REMUS AUV (\$~500K), a boat-based casting package (\$~40K), a UAS drone (\$~10K), and ADCP and temperature moorings (\$~80K).

Analysis

Staff will track the evolution of the rhodamine dye plume throughout the experiment by processing collected data for the generation of daily high resolution 3D rhodamine maps (e.g. Figure 3). Initial processing of the raw data will occur after each survey to confirm optimal sampling of the rhodamine dye plume. Data will be post-processed following the field effort and made available for hydrodynamic model comparisons. A report summarizing AUV and boat-based cast observations along with relevant findings will be provided by CORDC staff.

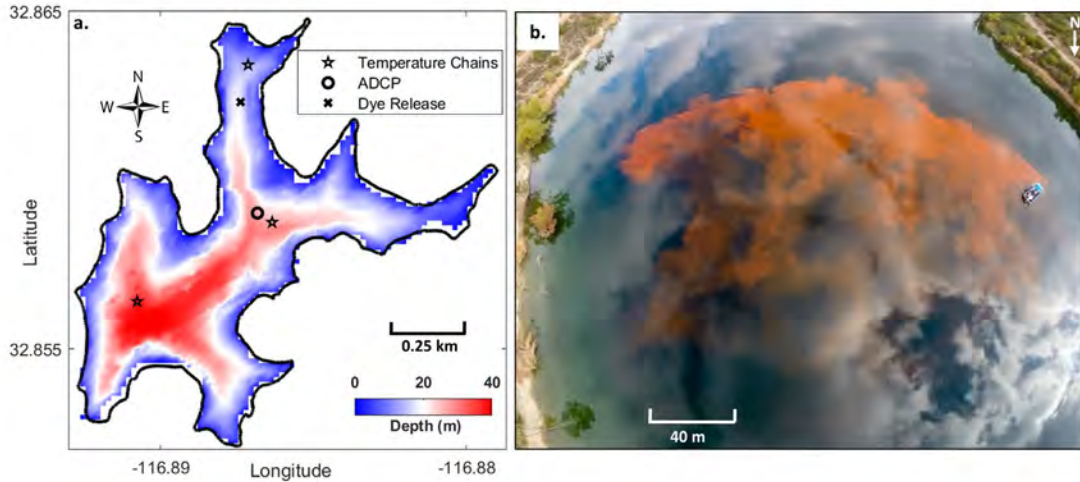


Figure 2. (a) Bathymetry map of Lake Jennings reservoir illustrating locations of fixed instruments and dye release locations and (b) aerial image of dye plume immediately after release from 2017 Tracer Study.

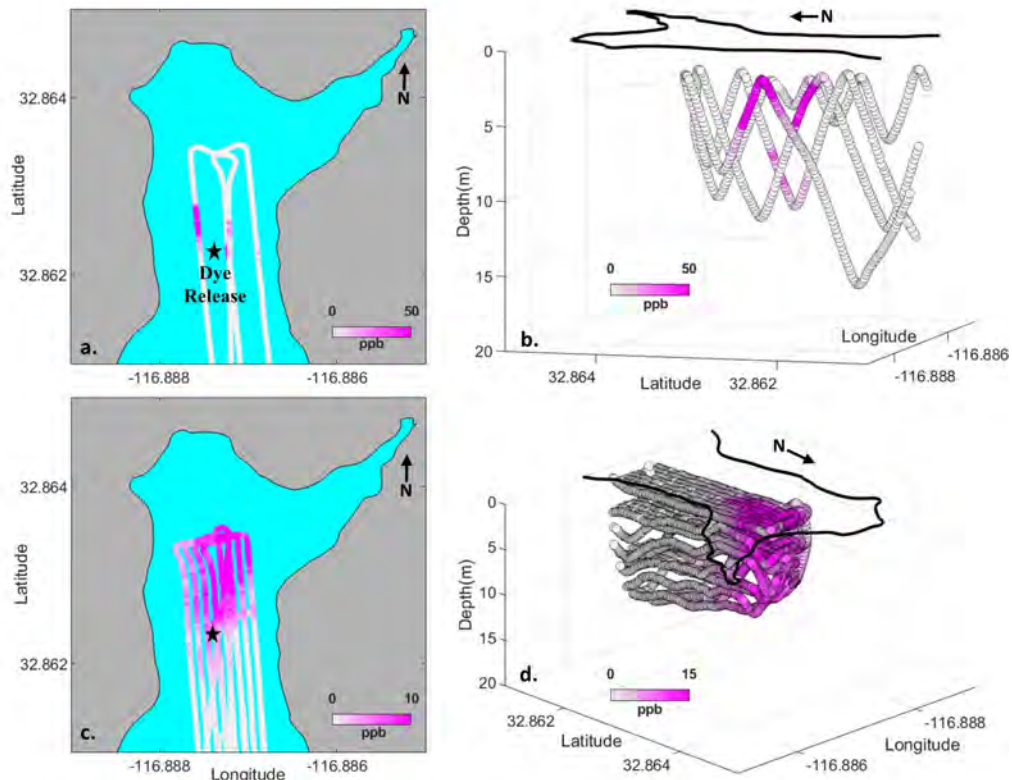


Figure 3. Summary of 30 October 2017 AUV rhodamine observations at Lake Jennings. (a) Plan view and (b) 3D view of rhodamine observations from survey #2. (c) Plan view and (d) 3D view of rhodamine observations from survey #3.

C. Project Organization and Key Personnel

Project Scientist Dr. Peter Rogowski will serve as project lead/PI and will oversee all aspects of the program including inter-calibration of instruments, AUV deployments, data analysis, and preparation/dissemination of deliverables. Dr. Rogowski has 10+ years of experience utilizing AUVs for coastal and freshwater monitoring applications (see Rogowski et al., 2012, 2013, 2014, 2019). Additional personnel essential to the program are R&D Engineers who manage/maintain our fleet of autonomous vehicles. The dedicated AUV team is responsible for successful AUV surveys locally and globally over the past decade and will be utilized for AUV path planning, deployment/recovery and maintenance as needed. Additional support staff will include a Marine Technician (boat operator/diver) and an Unmanned Aerial System (UAS) pilot.

Dr. Sophia Merrifield will take part in preparation and execution of the study plan, analysis of collected data sets and preparation of deliverables. She is an observational physical oceanographer working in the fields of air-sea interaction, turbulence, and unmanned vehicle autonomy. She studied physics and mechanical engineering at Yale University and received a Ph.D. from the MIT/WHOI Joint Program. Her work focuses on the use and development of emerging technologies for real-time environmental characterization in support of DoD projects. She is the recipient of the 2021 ONR Young Investigator Award.

Dr. Eric Terrill will assist in the planning and execution of the dye study plan. He will also assist in preparation and review of the draft and final deliverables. As founder and director of the Coastal Observing R&D Center (CORDC) at Marine Physical Laboratory, Scripps Institution of Oceanography, Dr. Terrill presently employs a technical team of programmers, scientists, and engineers which conduct basic and applied research, instrumentation development, and maintain operational environmental observing systems. Terrill has served as principal investigator for past and present funded research projects in a diverse set of applied and technical disciplines. Eric Terrill received his Ph.D. in the applied ocean sciences in 1998, and was an early recipient of the ONR Young Investigator Award.

D. Experience and Technical Competence

Over the past 15+ years, our lab has led numerous AUV monitoring studies. Several relevant studies are summarized below.

Point Loma Ocean Outfall Monitoring Study (April 2010 to April 2011)

Sponsor: City of San Diego, National Oceans and Atmospheric Administration (NOAA)

Approximate Project Amount: \$900K

Point of Contact: Timothy Stebbins (retired); Adriano Feit (619-758-2377)

Dr. Terrill was PI of the program and was responsible for overall program management. Colored Dissolved Organic Matter (CDOM) was utilized as a natural plume tracer of the Point Loma Ocean Outfall (PLOO) discharge during bi-monthly monitoring missions from April 2010 to April 2011. The plume was consistently sampled in each of the more than 20 AUV surveys. Dr. Rogowski's responsibilities for the project included path planning, AUV operation during deployment/recovery, data analysis, and lead author on a Final Report and two peer reviewed papers (Rogowski et al., 2012, 2013). CORDC R&D Engineers were utilized on this project for vehicle maintenance and support in preparation of the vehicles prior to deployments.

Rivers Mouth Dynamics Departmental Research Initiative (RIVET) (May 2012)

Sponsor: Office of Naval Research (ONR)

Approximate Project Amount: \$1.7M

Point of Contact: Drs. Thomas Drake (tom.drake@navy.mil) and Reginald Beach (reginald.beach@navy.mil)

Dr. Terrill was PI of the program and was responsible for overall program management. To characterize the transitional region from the near-field to far-field of a river plume entering coastal waters Dr. Rogowski and CORDC staff conducted daily surveys using an AUV to target the outflow of the New River Inlet, North Carolina, during maximum ebb tide. The utilization of a mobile sensor to synoptically observe current velocity data in tandem with natural river plume tracers (e.g. CDOM, salinity) was essential in understanding the mechanisms driving the observed circulation and mixing patterns within these waters. Dr. Rogowski's responsibilities for the project included path planning, AUV operation during deployment/recovery, data analysis, and lead author on a peer reviewed paper (Rogowski et al., 2014). He also collaborated with other project institutions collecting mutually beneficial AUV data sets (e.g. mapping the evolution of an introduced dye as it exited the river inlet).

Lake Jennings Tracer Study Utilizing an AUV (October 2017)

Sponsor: Padre Dam Municipal Water District/Helix Water District, Trussell Technologies

Approximate Project Amount: \$215K

Point of Contact: Padre Dam: Seval Sen (619-258-4631); Trussell Technologies: Eileen Idica (858-314-4130)

The spatial and temporal evolution of an introduced dye tracer in a small reservoir was observed using an AUV, providing quantifiable data of the convective processes which drive mixing of surface waters. The tracer served as a surrogate for advanced treated water that has been proposed to be introduced into a reservoir as part of an overall system for efficient water reclamation; a critical management tool for addressing water issues facing the southwest. The study demonstrates the utility of an AUV in a small reservoir, providing the framework for increased use of high-resolution mobile instrument platforms in future limnology studies. The propeller driven AUV was essential for characterizing the evolving plume in the spatially

confined reservoir. Similarly, the mobility of a propeller driven AUV is essential for proper characterization of the often patchy, spatiotemporal variable effluent plume in the receiving waters of an ocean outfall.

Dr. Rogowski served as PI overseeing all aspects of the project including coordination with the Padre Dam Municipal Water District and the Helix Water District on AUV timing and post survey progress reports. Dr. Terrill was Co-PI and assisted in program development and management. The AUV Engineers were essential to the success of the AUV surveys in the confined regions and highly variable bathymetry of the Lake Jennings reservoir. Drs. Rogowski and Merrifield were responsible for all deliverables including providing processed data sets to numerical modelers, progress meetings, a Final Report and a peer-reviewed manuscript (Rogowski et al., 2019).

E. Schedule

Upon award approval, all relevant instruments will be sent to manufacturers for calibration, which will take approximately 6-8 weeks (personal communication) and a new ECO-Fluorometer will be ordered from Seabird which has a lag time of ~3 months. During this period, the final dye study plan will be developed and finalized by November 2023. Based on the lag time until receiving our instruments, we anticipate the inter-calibration of all Rhodamine instruments to occur in December 2023 or January 2024. We are anticipating the ambient reservoir study and deployment of fixed sensors to occur from February 21 – 25, 2024, followed by the tracer release on February 26, 2024. Monitoring of the tracer plume will start on the day of the tracer release and continue until approximately March 8, 2024 or until no measurable tracer is observed. Data analysis and synthesis of deliverables will occur from March through June of 2024.

Las Virgenes Dye Study	
<i>Estimated Dates</i>	<i>Project Component</i>
September 2023	Ship instruments to manufacturer for calibration
November 2023	Final Dye Study Plan
December 2023 - January 2024	Inter-calibration of instruments, sensor integration/testing.
February 21 – 25, 2024	AUV Survey (ambient); Fixed Instrument Deployments
February 26, 2024	Dye Release
February 26 – March 8, 2024	Dye Release/Field Campaign
March – April 2024	Data Processing/Analysis
May 2024	Draft Deliverables
June, 2024	Final Deliverables (Data, Report)

F. Cost Estimate

Project Total: \$303,800

A breakdown of costs is included below. Here we summarize primary tasking of staff needed to meet the objectives of the RFP. Personnel are denoted as PI (either Drs. Rogowski, Merrifield or Terrill) and Senior Engineer (AUV, UAS, or Marine Technician). Costs are based on a daily rate of \$2700 per person and includes associated travel and lodging costs incurred throughout the dye study. “Total Days” denotes the number of cumulative days from all staff working on a given task.

Task	Total Days	Personnel	Cost
1. Planning meetings, draft and final dye-tracer study plan	10	PI	27,000
2. UCSD Instrument and Boat Costs	n/a	n/a	36,500
3. Rhodamine Discharge Fabrication	5	2 Senior Eng	27,000
4. Instrument Cross Calibration	3	2 Senior Eng	16,200
5. AUV/Boat-based Field Efforts	42	PIs, Senior Engs	113,400
6. Analysis	24	PIs	64,800
7. Reporting	7	PIs	18,900
Total Proposed Cost			303,800

Study Plan Development Phase

Task 1: Planning meetings, draft and final dye-tracer study plan

Budgeted costs are included for the Principal Investigators (PIs), Dr. Rogowski or Merrifield to take part in planning meetings with LVMWD, Jacobs, and Flow Science to develop a draft and final dye-tracer study plan. Costs included for travel and lodging.

Task 2: Instrument Preparation/Dye Cost

Budgeted costs are included for manufacturer calibrations of sensors used for the study including Conductivity, Temperature, and Depths (CTD) sensors, and Rhodamine sensors. Costs are also included for fabrication of 1-2 temperature chains.

Task 3 and 4: Rhodamine Discharge Fabrication, Instrument Cross Calibration

Budgeted costs are included for cross calibrations of all Rhodamine instruments and fabrication of rhodamine discharge system designed for a small vessel.

Test Phase

Task 5: AUV/Boat-based Field Efforts

Costs are included for initial ambient AUV surveys (2-3) the week prior to the dye release to characterize the reservoirs ambient conditions and bathymetry for optimal path planning of subsequent surveys. Temperature chains and ADCPs will be deployed during these initial survey days.

Costs are included for 7 AUV survey days that are expected to capture the evolution of the introduced dye plume. Immediately after the dye release, an intensive sampling campaign will commence with daily AUV surveys taking place until the dye is well mixed throughout the reservoir. Once well mixed, less frequent surveys will occur to characterize remaining dye levels. Frequency of surveys after the intensive sampling campaign will be dictated by observed concentrations of Rhodamine. Concurrent supplemental monitoring will occur with a boat-based casting package during AUV surveys (e.g. Rhodamine, CTD). Costs are included for Senior Engineers to support AUV preparation and maintenance for the dye tracer study. Costs are also included for boat operations and maintenance during the program. Costs are also included for travel and lodging for the test period.

Task 5: Optional: If more AUV surveys are required due to persistence rhodamine concentrations in the reservoir, a daily AUV survey rate of \$8100 accounts for costs for boat, staff (Qty. 3), and travel time to complete subsequent AUV surveys.

Task 6 and 7: Analysis and Reporting

Costs are included for initial data qa/qc, and processing after each field effort. After completion of the dye study, collected data will be processed into easily readable output files (e.g. ascii, excel, matlab) and visualizations and provided to the Reservoir Modeler. PIs will provide a draft and Final Report summarizing all data collections and findings from the study.

G. Copy of similar recent ocean AUV study report

The Lake Jennings Final Report and published manuscript will be submitted with this proposal. Additional Final Reports and manuscripts are available by request. Relevant publications include:

Rogowski, P., S. Merrifield, L. Ding, and E. Terrill, 2019. Introduced dye tracer mapping by an Autonomous Underwater Vehicle. *Limnology and Oceanography: Methods*. doi: 10.1002/lom3.10326.

Rogowski, P., E. Terrill, and J. Chen (2014), Observations of the frontal region of a buoyant river plume using an autonomous underwater vehicle, *J. Geophys. Res. Oceans*, 119, doi:10.1002/2014JC010392.

Rogowski, P., E. Terrill, M. Otero, L. Hazard, and W. Middleton (2013), Ocean outfall plume characterization using an autonomous underwater vehicle, *J. Water and Science Tech.*, 67, 4, 925 – 933. doi: 10.2166/wst.2012.635.

Rogowski, P., E. Terrill, M. Otero, L. Hazard, and W. Middleton (2012), Mapping ocean outfall plumes and their mixing using autonomous underwater vehicles, *J. Geophys. Res.*, 117, C07016, doi:10.1029/2011JC007804.



Task 1.1 Rare Plant Surveys

Rincon will perform protocol-level rare plant surveys and vegetation community mapping within the Project components that may impact rare plants and plant communities, including the AWPf at the Agoura Road Site, 20-inch diameter purified water pipeline in Triunfo Creek Park, and 9-inch concentrate pipeline along the Conejo Open Space Trail. Rincon will survey within the entirety of the APWF, as well as within a 100-foot buffer of the proposed pipelines. Rare plant surveys will be floristic in nature, timed correctly to identify the potentially occurring rare plants, and follow standard survey protocols for rare plants, primarily the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 2000) and *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018).

We anticipate that two survey events will be required to complete the surveys, the first event occurring between April and May, and the second event occurring between June and July. Reference site visits will be also performed for all annual special status plant species known to occur in the survey areas (including Catalina mariposa lily [*Calochortus catalinae*], slender mariposa lily *Calochortus clavatus* var. *gracilis*], Ojai navarretia [*Navarretia ojaiensis*], and Lyon's pentachaeta [*Pentachaeta lyonii*]) to confirm these species are readily identifiable during the survey effort. Results of the reference site visits will be used to inform the timing of surveys.

During the rare plant surveys, Rincon will also investigate potential on-site and off-site restoration areas that may be suitable for rare plant relocation. Results of this assessment will be included in the updated rare plant survey report (Task 1.2) and Rare Plant Mitigation Plan (Task 1.3).

Vegetation community mapping will utilize the 2022 mapping data to the greatest extent feasible, but will refine the mapping data based on current conditions within the survey areas.

Task 1.2 Updated Rare Plant Survey Report

Following completion of rare plant surveys, Rincon will prepare an updated rare plant survey report. The updated rare plant survey report will build upon the 2022 rare plant survey report by incorporating and refining results of surveys performed in both 2022 and 2024. The updated rare plant survey report will include a brief introduction, Project location, regulatory overview, methodology, existing setting, results (including vegetation communities and rare plant observations), potential restoration areas, discussion, and all references used in the report.

Task 1.3 Rare Plant Mitigation Plan

In accordance with Mitigation Measure 5-1 (Prepare and implement a mitigation plan for special-status plants and plant communities) of the Program EIR, Rincon will prepare a Rare Plant Mitigation Plan for special-status plant species and sensitive natural communities that may be affected by Project. The plan will include, at a minimum, the following information with respect to special-status plant species and natural communities:

- Appropriate avoidance and minimization measures, including an avoidance and relocation plan for special-status plants that cannot be avoided;
- Plant salvage and seed collection procedures;
- Offsite propagation;
- Identification of mitigation areas;
- Site preparation and planting of mitigation areas;



- Success criteria;
- Monitoring and reporting processes; and
- Contingency Measures

As part of this task, we assume 20 staff hours for agency coordination will be required with relevant state and federal agencies (e.g., CDFW), including any meetings and/or responses to comments on the contents of the plan.

Task 2 Oak Tree Mitigation

Task 2.1 Oak Tree Surveys

In accordance with Mitigation Measure 5-4 (Prepare and implement a mitigation plan for oak trees and oak tree natural communities), a Rincon International Society of Arboriculture (ISA) Certified Arborist (Arborist) will survey all native trees (except willows), including oak trees and oak tree communities that may be affected by construction of the Project. Potential impacts include both tree removal and encroachment within five feet of the driplines of oak trees that will be preserved. Data collected for each surveyed tree will include:

- Trunk location (using a GPS device capable of submeter accuracy)
- Species
- Number of trunks
- Trunk diameter at standard height
- Tree height
- Canopy spread (in eight cardinal directions)
- Aesthetic assessment (Good, Fair, Poor, Dead)
- Vigor assessment (Low, Normal, High)
- Health assessment (Good, Fair, Poor, Dead)
- Presence of diseases and pests, such as thousand canker fungus (*Geosmithia morbida*), polyphagous shot-hole borer (*Euwallacea* spp.), and goldspotted oak borer (*Agrilus auroguttatus*)
- Conditions of concern (structural defects, utility conflicts, etc.)
- Recommendations to remedy structural problems where required
- Recommendations to improve tree health
- Representative photograph

The survey will include an above-ground physical and horticultural evaluation only. The surface area around the root zone of the tree will be visually assessed to identify obvious defects, such as soil cracks or heaving. Aerial branches will be examined from the ground with the use of binoculars, as needed. As oak trees within the survey areas were tagged and numbered during previous surveys for the Project, oak tree numbering will maintain consistency with prior surveys. Any previously unidentified oak trees will be given a new tree number.

Task 2.2 Oak Tree Report

Following the oak tree surveys, an Oak Tree Report will be prepared and submitted to Jacobs. The report will include all data collection methods described in Task 2.1 above. No impact evaluation will be included in the report. An evaluation of impacts based on Project components, if requested, can be provided under an additional scope and budget.



Task 2.3 Oak Tree Mitigation Plan

In accordance with Mitigation Measure 5-4 (Prepare and implement a mitigation plan for oak trees and oak tree natural communities) of the Program EIR, Rincon will prepare an Oak Tree Mitigation Plan for oak trees and oak tree natural communities that may be affected by Project. The plan will include, at a minimum, the following information with respect to oak tree and oak tree natural communities mitigation:

- Appropriate avoidance and minimization measures;
- Identification of oak tree mitigation areas;
- Oak tree planting plan;
- Success criteria;
- Monitoring and reporting processes; and
- Contingency measures.

As part of this task, we assume 18 staff hours for agency coordination will be required with relevant state and local agencies (e.g., CDFW), including any meetings and/or responses to comments on the contents of the plan.

Task 3 Project Management and Coordination

Task 3.1 Project Management and Coordination

Rincon will provide highly responsive project management and coordination with Jacobs to meet project requirements in an efficient and cost-effective manner. Rincon will provide regular updates regarding project needs, changes, schedule, budget, and deliverables. This task includes activities required to manage the various tasks above such as regular e-mail and telephone communications and other tasks associated with client coordination and contract administration.

Optional Task 3.2 As-Needed Contingency

A contingency budget of 25 Senior staff hours is recommended to accommodate any unforeseen coordination needs and additional support beyond the scope of work identified above. This support could take the form of conference calls/meetings or other documentation if requested by Jacobs.

Assumptions

This scope of work was prepared with the following assumptions:

- This scope of work assumes that two 10-hour survey days for two biologists will be required to complete the rare plant surveys.
- This scope of work assumes that two 10-hour survey days for two arborists will be required to complete the oak tree surveys.
- This scope of work assumes up to 146 trees will be surveyed based upon previous survey efforts. Surveying of additional trees can be performed on a time and materials reimbursement basis following written authorization.



- Identification of potential on-site and off-site mitigation areas will be conducted in coordination with Jacobs and the JPA
- Rincon will conduct one round of revisions to the updated Rare Plant Survey Report, Rare Plant Mitigation Plan, Oak Tree Report, and Oak Tree Mitigation Plan.
- Report submissions will be in electronic format. Printing is not included and can be provided for an additional cost.
- The following items will be provided by Jacobs:
 - Access to project-specific ArcGIS map with survey area, including potential on-site and off-site restoration areas.
 - Previous oak tree collection data, including tree location points and unique identification numbers.
 - Survey area kmz file with CNDDDB data
- This scope of work does not include implementation of restoration activities (e.g. seed collection, plant salvage, offsite propagation, mitigation planting, monitoring). If requested, these tasks can be completed for an additional scope and cost.

Estimated Schedule and Cost

Rincon is prepared to initiate this scope of work within one week of receiving written notice to proceed (NTP) from Jacobs. Rincon will submit a draft of the updated Rare Plant Survey Report within four weeks following the last rare plant survey, and will submit the Rare Plant Mitigation Plan within eight weeks following the last rare plant survey. Rincon will submit the Oak Tree Mitigation Plan within four weeks following the last oak tree survey. We estimate that completion of the proposed work scope identified above will require a budget of **\$105,125** without optional tasks, and **\$111,700** with optional tasks included. Table 1 provides an estimated cost breakdown of each task.

Table 1 Cost Summary

Task		Estimated Cost
Task 1	Rare Plant Mitigation	
Task 1.1	Rare Plant Surveys	\$18,826
Task 1.2	Updated Rare Plant Survey Report	\$7,906
Task 1.3	Rare Plant Mitigation Plan	\$24,008
Task 2	Oak Tree Mitigation	
Task 2.1	Oak Tree Surveys	\$17,174
Task 2.2	Oak Tree Report	\$7,994
Task 2.2	Oak Tree Mitigation Plan	\$23,315
Task 3	Project Management and Coordination	
Task 3.1	Project Management and Coordination	\$5,902
Task 3.2	As-Needed Contingency (Optional)	\$6,575
Total		\$105,125
Total with Optional Tasks Included		\$111,700



Proposal for Rare Plant and Oak Tree Monitoring and Mitigation for the Pure Water Project

Thank you for your consideration and for this opportunity to support your project. If you have any questions regarding this proposal, please contact Robin Murray at 831-612-0113 or rmurray@rinconconsultants.com.

Sincerely,

Rincon Consultants, Inc.

A handwritten signature in blue ink that reads "Robin Murray". The signature is fluid and cursive, with the first name being more prominent.

Robin Murray
Supervising Biologist/Project Manager

A handwritten signature in black ink that reads "Steven J. Hongola". The signature is more formal and blocky than the one to its left.

Steven J. Hongola
Principal Biologist



Jacobs
LVWMD Program Management/Owner's Advisor Phase 2

Attachment B: Fee Estimate

Tasks	Labor													Total Hours	Total Labor Costs (1)	Outside Services		ODCs		Total Fee			
	Tony Valdivia	Jennifer Ziv	Mike Matson	Jehan Anketell	Conveyance Support	Chris van Lienden	Modeling Support	Modeling Support	Carrie Del Boccio	Elisa Lee	PE	Graphics	Admin.			Michael Welch	DDB Engineering, Inc.	Subtotal	Sub Consultant Total Cost (2)		ODCs	Total ODCs (3)	
	PIC	PM	Conveyance Lead	Conveyance PE	Support PE	Modeling Lead	Modeling Support	Modeling Support	Permitting Lead	Permitting Support	Permitting Support	Graphics and Support Team				SUB	SUB						
Project Rate	\$331	\$331	\$331	\$286	\$227	\$331	\$286	\$257	\$331	\$286	\$196	\$143	\$133										
Phase 1: Project Administration (2024-2027)																							
1.1 Project Management/Controls		240												32	272	\$83,696			\$0	\$0	\$0	\$83,696	
1.2 Project Meetings (in person)		24													24	\$7,944			\$0	\$0	\$2,000	\$10,144	
1.3 Quality Control	180														180	\$59,580			\$0	\$0	\$0	\$59,580	
Subtotal Task 1:	180	264	0	0	0	0	0	0	0	0	0	0	32	476	\$151,220	\$0	\$0	\$0	\$0	\$2,000	\$2,200	\$153,420	
Phase 2: Conveyance (2024-2025)																							
2.1 Technical Support for Conveyance Lines (ROC, Source Water, Purified Water, Residuals)			208	624	208										1040	\$294,528			\$0	\$0	\$10,800	\$11,880	\$306,408
Subtotal Task 2:	0	0	208	624	208	0	0	0	0	0	0	0	0	1040	\$294,528	\$0	\$0	\$0	\$0	\$10,800	\$11,880	\$306,408	
Phase 3: Modeling (2024)																							
3.1 Data Collection						6	16	8							30	\$8,618			\$0	\$0	\$0	\$8,618	
3.2 Update Demand and Supply Data																							
Update Supplies						8	20	40							68	\$18,648			\$0	\$0	\$0	\$18,648	
Update Supplies			2	4		6	8	16							36	\$10,192			\$0	\$0	\$0	\$10,192	
3.3 Update Model Network						12	16	40							68	\$18,828			\$0	\$0	\$0	\$18,828	
3.4 Model Calibration																							
Perform Model Calibration						12	32	60							104	\$28,544			\$0	\$0	\$0	\$28,544	
Draft TM			2			8	16	24							50	\$14,054			\$0	\$0	\$0	\$14,054	
3.5 Perform Capacity Assessment																							
Develop Scenarios & Criteria			4	6		12	16	8							46	\$13,644			\$0	\$0	\$0	\$13,644	
Identify Capacity Deficiencies						12	16	24							52	\$14,716			\$0	\$0	\$0	\$14,716	
Develop and Model Potential Alternatives			4	6		12	24	40							86	\$24,156			\$0	\$0	\$0	\$24,156	
Workshops		3	3			6	10	4							26	\$7,860			\$0	\$0	\$0	\$7,860	
3.6 Develop Cost Estimates & Select Preferred Improvements			4	12	24	16	16	8							80	\$22,132			\$0	\$0	\$0	\$22,132	
3.7 Prepare Capacity Assessment Report			4	8	8	24	24	40				8			116	\$31,660			\$0	\$0	\$0	\$31,660	
Subtotal Task 3:	0	3	23	36	32	134	214	312	0	0	0	8	0	762	\$213,052	\$0	\$0	\$0	\$0	\$0	\$0	\$213,052	
Phase 4: Permitting (2024-2025)																							
4.1 Ongoing Coordination/Support with Regulatory Agencies									64	96	16				176	\$51,776	\$3,000	\$3,000	\$6,000	\$6,600	\$4,800	\$5,280	\$63,656
4.2 Title 22 Engineering Report (Interim Draft)									100	200	200				500	\$129,500		\$6,000	\$6,000	\$6,600	\$0	\$0	\$136,100
4.3 Report of Waste Discharge (ROWD) (Draft)									60	100	120				280	\$71,980	\$10,000		\$10,000	\$11,000	\$0	\$0	\$82,980
4.4 Prepare Anti-Degradation Analysis									80	200	150				430	\$113,080	\$10,000		\$10,000	\$11,000	\$0	\$0	\$124,080
4.5 Support IAP Meetings									40	24					64	\$20,104	\$5,000	\$2,000	\$7,000	\$7,700	\$0	\$0	\$27,804
4.6 Support Tracer Study/Reservoir Modeling Updates									24	24					48	\$14,808		\$4,000	\$4,000	\$4,400	\$0	\$0	\$19,208
4.7 Prepare Amended Drinking Water Supply Permit for Westlake Filtration Plant									16	24	24				64	\$16,864		\$2,000	\$2,000	\$2,200	\$0	\$0	\$19,064
4.8 Support 1211 Change Petition Follow Up									24	2	40				66	\$16,356			\$0	\$0	\$0	\$16,356	
4.9 Prepare Development Plan for Post-Permit Deliverables									16	40	16				72	\$19,872	\$1,000	\$3,000	\$4,000	\$4,400	\$0	\$0	\$24,272
4.10 Task Meetings									70	70	12				152	\$45,542	\$5,000	\$5,000	\$10,000	\$11,000	\$0	\$0	\$56,542
Subtotal Task 4:	0	0	0	0	0	0	0	0	494	780	578	0	0	1852	\$499,882	\$34,000	\$25,000	\$59,000	\$64,900	\$4,800	\$5,280	\$570,062	
TOTAL	180	267	231	660	240	134	214	312	494	780	578	8	32	4130	\$1,158,682	\$34,000	\$25,000	\$59,000	\$64,900	\$17,600	\$19,360	\$1,242,942	

- The individual hourly rates include salary, overhead and profit.
- Subconsultants will be billed at actual cost plus 10%.
- Other direct costs (ODCs) such as reproduction, delivery, mileage (rates will be those allowed by current IRS guidelines), and travel expenses, will be billed at actual cost plus 10%.
- W&C reserves the right to adjust its hourly rate structure and ODC markup at the beginning of the calendar year for all ongoing contracts.



CLOSING

We greatly appreciate this opportunity to offer our engineering and permitting services. Please feel free to contact me at (925) 627-4100 or tvaldivia@woodardcurran.com if you have any questions regarding this proposal or require any further information.

Sincerely,

WOODARD & CURRAN, INC.

Tony Valdivia
Vice President

Enclosure(s)

- A. Scope of services
- B. Budget
- C. Rate Table

DRAFT

ATTACHMENT A - SCOPE OF SERVICES



Woodard & Curran will provide the following tasks to support the delivery of Phase 2 Owner's Advisor / Program Manager services of the Project.

Task 1 Program Administration

The core leadership team (Project Manager and Technical Leads) will be the principal point of contact for the JPA and will provide clear direction, communications, and continuity for implementing inter-related tasks as the program advances from concept through completion. Woodard & Curran will participate in the core leadership team by attending meetings and performing overall project management tasks and coordination with Jacobs on work products.

Assumptions:

- Jacobs will develop a web-based Program Delivery Portal (Portal) to serve as a website for team members to access delivery-oriented Program information. The Portal may be housed on the JPA server, or the Jacobs LAN and maintained by Jacobs IT Team.
- Only Project Management focused meetings, intended for coordination of the overall project activities and schedule, are included in this Task 1. Technical meetings associated with the remainder of the scope are included in the other tasks, as noted.
- Work scoped herein is anticipated to be completed by December 2025.
- Attendance at on-site meetings by Project Manager. A total of 4 such meetings, up to 4 hours in duration, are included.
- Average of 10 hours/month for project management/coordination (invoicing, internal controls management and reporting/communication) for 2024-2025

Deliverables:

- Monthly progress reports and invoices

Task 2 Conveyance

Woodard & Curran will provide technical support during the design of the conveyance lines including the reverse osmosis concentrate (ROC), source water, purified water, and residuals lines.

Task 2.1 Technical Support for Conveyance Lines (ROC, Source Water, Purified Water, Residuals)

Woodard & Curran will provide as-needed technical advisory support for the conveyance lines designs. Support under this task includes providing the design teams with background of work completed to date, attending design meetings and workshops, technical review of major project deliverables, and providing technical advisory assistance as requested by the Project Team. Work under this task includes the following:

- Woodard & Curran will prepare for and attend a total of one (1) preliminary meeting with the design consultant and the JPA to provide an overview of previous work completed on the conveyance systems for the Pure Water Program and summarize the findings of the Conveyance Pipelines Alignment Study prepared by Woodard & Curran.



In support of this meeting, Woodard & Curran will provide Jacobs with input on an agenda and will prepare a brief PowerPoint presentation.

- Woodard & Curran will attend project meetings and workshops at key design milestones for each design package and as requested. For expense budgeting, up to 8 meetings may be attended in person, with additional meetings held virtually
- Review and provide a comprehensive technical review of the design submittals (30%, 60%, 90%, 100%) for each design package. Compile review comments and drawing redlines (electronically) from the JPA.
- Provide general technical advisory assistance and oversight support as requested by the Project Team.
- Level of effort for support is based off anticipated full time equivalent (FTEs) for Woodard & Curran staff (see "Assumptions," below)

Assumptions:

- Included technical support for two design packages (Package #1 – ROC, Package #2 - Source Water, Purified Water, Residuals).
- Budgeted hours for Task 2.1 are based on 0.05 (5%) (FTE) employee for the Conveyance Lead, 0.15 (15%) FTE for the Conveyance PE, and 0.05 (5%) FTE for the Support PE staff for a duration of 24 months (concluding by December 2025). The intent of budgeting by FTE is to provide a pool of hours that may be drawn upon to accomplish the scope outlined above given the undetermined support efforts required. Woodard & Curran will manage our efforts within the allotted budget and inform Jacob's if support efforts are projected to exceed the allotted hours, which may require additional budget depending on the anticipated cost to complete at the time.
- Fee estimate includes estimate cost for in person attendance at up to 8 meetings over the course of Phase 2 (single person in attendance)

Deliverables:

- Agenda input and presentation material for preliminary meetings with design consultants.
- Compiled set of design review comments for eight design submittals (ROC Package - 30%, 60%, 90%, 100%, Source Water, Purified Water, Residuals Package - 30%, 60%, 90%, 100%).

Task 3 Modeling

LVWMD's current model was based on work performed as part of the 2014 Recycled Water Master Plan, and limited updates have been performed since that study. Under this task, the model will be updated to reflect current and anticipated usage and controls, and the model will be used to identify potential capacity improvement needs.

The schedule for Task 3 is expected to take 15 weeks from notice to proceed to develop proposed projects, and 24 weeks for the full scope of this task. Work is expected to be complete in 2024.



Task 3.1 Data Collection

Prepare an initial request list of data and information that may be relevant to the model update. The information may include planning data, facility information, and other required information including but not limited to:

- SCADA screenshots and data, as needed.
- Record drawings.
- Water consumption/billing data for the last 5 years.

Woodard & Curran will review the data to assess the information available for preparing the model update. For data that is not available but critical for the model update, Woodard & Curran will recommend an approach for obtaining the information or making use of existing data and will discuss this approach with the LVMWD.

As part of this task, a kickoff workshop will be held to discuss the goals of the task and data availability.

Task 3.2 Update Demand and Supply Data

Under this task, Woodard & Curran will update the demand and supply assumptions used in the model. Average demands for each customer will be re-estimated based on water consumption records. Monthly and diurnal patterns will be developed based on SCADA data, unless specific customer data is available for larger customers.

The current model supplies are provided by R-2 and the Morrison Supplemental Facilities. As part of this task, Woodard & Curran will review these assumptions and confirm or revise (if needed) the limitations and modeling approach used for those sources.

Assumptions

- Data for future customers or expansion of water usage for existing customers will be provided by the LVMWD.

Task 3.3 Update Model Network

Woodard & Curran will review the LVMWD's current GIS data, record drawings, and pump curves and update the hydraulic model as needed to reflect current facilities.

Assumptions

- GIS data reflects current facilities (including pipeline alignments, diameters, and materials).
- LVWMD to provide record drawings and pump curves as needed.
- Hydraulic model software will be InfoWater or WaterGEMS

Task 3.4 Model Calibration

Woodard & Curran will review the available SCADA data and compare to model results to verify or adjust pump and valve operational controls. As part of this task, Woodard & Curran will develop a draft Technical Memorandum (TM) documenting the updates to the model and the results of the calibration. Comments on the draft TM will be incorporated in the report developed under Task 3.7.



Task 3.5 Perform Capacity Assessment

Woodard & Curran will work with the LVMWD to establish planning level design criteria for sizing of distribution and storage facilities, including minimum pressure requirements for customer connections and maximum pipeline velocities. Woodard & Curran will develop up to 9 model scenarios, including combinations of Advanced Water Purification Facility (AWPF) flows and customer combinations under different seasonal demand conditions.

Based on the results of these scenarios compared to the capacity criteria, capacity deficiencies will be identified. Up to 6 potential improvement project alternatives will be identified and evaluated to address the capacity deficiencies. For each alternative, Woodard & Curran will identify preliminary alignment/locations and sizing for recycled water piping and pumping improvements.

Assumptions

- Preliminary criteria and model scenarios will be discussed with the LVMWD in a workshop.
- Alternatives and model findings to be discussed with the LVMWD in a workshop (which may result in alternative refinements).

Task 3.6 Develop Cost Estimates & Select Preferred Improvements

Woodard & Curran will develop Cost estimates for the projects identified in Task 3.5. Cost estimates will be at a feasibility level and will be developed using cost curves and information from previous projects. Estimates of this type typically have an accuracy range of -30% to +50%. Alternatives will be compared in terms of their technical and non-technical merits and discussed with LVMWD to identify recommended improvements.

Assumptions

- Preferred alternatives based on project cost estimates and technical and non-technical merits to be discussed with the City at a workshop.

Task 3.7 Prepare Capacity Assessment Report

The findings of the previous subtasks will be documented in a Capacity Assessment Report.

Deliverables

- Draft and Final Capacity Assessment Report
- Model Files
- Workshop materials (including powerpoint presentations)

Task 4 Permitting

This task includes preparation of required submittals and coordination with State Water Resources Control Board's (SWRCB) Division of Drinking Water (DDW) and the Los Angeles Regional Water Quality Control Board (RWQCB) in order to obtain regulatory concept approvals



for the discharge of advanced treated water to Las Virgenes Reservoirs and modifications to the existing National Pollutant Discharge Eliminating System (NPDES) permits for Malibu Creek.

Phase 2 scope include work to get to a draft Title 22 Engineer's Report and an application for a Waste Discharge Requirements (WDR)/NDPES permit to operate (subtasks 4.1-4.7) and work to complete the 1211 Wastewater Change Petition process (subtask 4.8). Additional work will be needed in subsequent authorizations to complete responses to comments and permit negotiations for items submitted under this contract, and post-permit items to be completed before operations can begin (Operations Plan, Joint Plan, etc.). The post-permit items will be better defined with the issuance of the permit from the RWQCB.

Task 4, Permitting, is anticipated to extend up to 2 years (2024-2025).

4.1. Coordination and Support for Communications with Regulatory Agencies

To facilitate interagency coordination, the Subconsultant team, comprised of Michael Welch and DDB Engineering, will coordinate and attend RWQCB-DDW meetings during the draft Title 22 Engineering Report process and to clarify RWQCB permit requirements. Based on the cadence of meetings in Phase 1, 60-minute meetings with DDW and RWQCB (held virtually) should be sufficient to address regulatory questions, coordinate resolution of differences between DDW and RWQCB requirements, and support the step-by-step process under which the draft Title 22 Engineering Report is developed.

A total of 16 meetings (4 meetings with each agency annually in Phase 2) are proposed to bring the Program to completion of construction. In support of these meetings, this task includes preparation of a draft agenda and PowerPoint slide deck to be reviewed with JPA staff at a one-hour conference call approximately one week before each meeting. The team will finalize the agenda and slide deck based on (1) JPA input and priorities and (2) needs for identifying and resolving key regulatory issues. After the meetings, the team will prepare draft meeting notes which, after review and approval by the JPA, will be distributed to DDW and the RWQCB for their review and revision. After approval by DDW and the RWQCB, the meeting notes will represent a written record of the overall regulatory coordination, input, and feedback process. This written record will then form the basis for subsequent work in completing the Title 22 Engineering Report and developing the NPDES/WDR Permit.

Assumptions

- Meetings will be held virtually.
- Debbie Burris will attend DDW meetings and Dr. Michael Welch will attend RWQCB permitting meetings.

Deliverables

- 8 meetings with DDW; includes preparation meetings with LVMWD and Project Team
- 8 meetings with RWQCB; includes preparation meetings with LVMWD and Project Team

4.2. Prepare Title 22 Engineering Report



The Woodard & Curran team will prepare the initial draft version of the Title 22 Engineering Report pursuant to requirements established within Sections 60320.300 through 60320.330 and 64668.05 through 64668.30 in Title 22 of the California Code of Regulations. The revised draft and final versions will be completed in Phase 3. A draft table of contents of the Title 22 Engineering Report will include the following sections:

1. *Project Overview*
2. *Project Proponents*
3. *Outreach*
4. *Regulatory Requirements*
5. *Source Wastewater*
 - a. *Sewershed Description*
 - b. *Raw Wastewater Characteristics*
 - c. *Enhanced Source Control*
6. *Project Facilities*
 - a. *Wastewater Collection system*
 - b. *Tapia WRF*
 - c. *Conveyance to AWPf*
 - d. *AWPF*
 - e. *Conveyance to Reservoir*
 - f. *Las Virgenes Reservoir*
 - g. *Westlake Drinking Water Treatment Plant*
7. *Tapia WRF Effluent – Quality and Quantity*
8. *Purified Water Quality*
9. *Pathogenic Microorganism Control*
10. *Chemical Control*
11. *Las Virgenes Reservoir*
 - a. *Modeling Results*
 - b. *Regulatory Limitations*



c. Proposed Operations

12. LVMWD Drinking Water Supply System

a. Existing DDW Permits

b. Sources of Supply

c. Westlake Drinking Water Treatment Plant

i. Existing Performance

ii. Potential Impacts on Treatability

iii. Modifications to DWTP and Operations

d. Distribution System

i. Description of Distribution System, including Interties with other Agencies

ii. Existing System Quality and Monitoring Program

iii. Corrosion Control and Microbial Stability after Project

13. Reliability – Failure Prevention and Response

14. Response and Notification Plan and Contingency Plan

15. Proposed Monitoring Program

a. Sewershed

b. Tapia WRF

c. AWPf

d. Reservoir

e. Westlake DWTP

f. Distribution System

16. Technical, Managerial and Financial Capacity of LVMWD and Project Partners

17. Operation Optimization Plan for AWPf and other Project Components

18. Appendices

Assumptions

- Documents will be delivered in electronic formats unless noted otherwise.



- Design-Build Project Team will provide technical information to assist in populating the Project Facilities portions of the draft Title 22 report.
- Reservoir Modeling report prepared by the Project Team will be provided to support the Las Virgenes Reservoir modeling portions of the draft Title 22 report.

Deliverables

- Initial Draft Title 22 Engineering Report

4.3. Prepare Report of Waste Discharge (ROWD)

The Los Angeles RWQCB will be issuing the potable reuse permit allowing addition of advanced treated recycled water into Las Virgenes Reservoir.

The primary focus of this subtask will be on the required information necessary to support preparation of a draft ROWD that shall be finalized and submitted the RWQCB to initiate the process for the RWQCB developing and adopting a new permit for the Las Virgenes Reservoir Indirect Potable Reuse (IPR) activities. As part of this task, Woodard & Curran will coordinate with RWQCB staff to develop acceptable facility operational, monitoring and reporting requirements based on DDW regulations and local RWQCB and the City's reservoir. The ROWD will contain the required U.S. Environmental Protection Agency (EPA) forms, a technical report that cross-references the location of necessary information (e.g., in the DDW Title 22 Engineering Report or the Program Environmental Impact Report (EIR)), and necessary maps and figures. During Phase 2, the Admin Draft ROWD will be prepared; the final draft and final version will be prepared in Phase 3.

Woodard & Curran will coordinate review of a pre-public draft of the permit. The tentative permit placement on the RWQCB's agenda, and addressing post-submittal questions and supplement information requests, compilation of the Final ROWD will be part of Phase 3.

Assumptions

- Documents will be delivered in electronic formats unless noted otherwise.
- Application to Calleguas for reverse osmosis concentrate disposal is being completed by the JPA and is not included in this task.
- Preparation of the ROWD is included based on compilation of technical information developed in other parts of the Program. Detailed technical analysis (e.g. mixing zone analysis, dilution studies, and anti-degradation analysis) are not included as part of the ROWD task.

Deliverables

- Admin Draft ROWD

4.4. Prepare Mixing Zone Analysis and Anti-Degradation Analysis

It is anticipated that a mixing zone analysis and anti-degradation analysis for Las Virgenes Reservoir will be required as part of the technical studies in support of the ROWD/RWQCB permitting process. The mixing zone analysis and anti-degradation analysis will be prepared as



a stand alone report that is submitted as part of the ROWD. Internal draft and final versions will be prepared for submission with the ROWD; comments from RWQCB on the final version will be incorporated as part of the Phase 3 permitting activities.

Assumptions

- Documents will be delivered in electronic formats unless noted otherwise.
- Preparation of the mixing zone and anti-degradation analysis is based on similar desktop work excluding field work and water quality testing and sampling. This task may be amended when more clarity on requirements is available from RWQCB.

Deliverables

- Internal Draft and Final Mixing Zone and Anti-Degradation Analysis

4.5. Support for Independent Advisory Panel (IAP) Meetings

The JPA will be leading an updated IAP with support from the National Water Research Institute (NWRI). The IAP will be reviewing information that will be used to support the regulatory tasks. With this connection, Woodard & Curran will provide support for the IAP meetings as directed by JPA and the Project Team. This is assumed support of up to 64 hours as requested by the Project Team.

Assumptions/Deliverables

- As requested. Level of effort limited to budgeted hours.

4.6. Support for Tracer Study and Reservoir Modeling Updates

The Project Team will be coordinating with the JPA to perform a tracer study of Las Virgenes Reservoir and to then update the reservoir model and run additional scenarios. Woodard & Curran will provide support to the tracer study and model update process and peer review of the scenarios and modeling report to support the Title 22 report and potential mixing zone analysis, as requested by the Project team. This is assumed support of up to 48 hours as requested by the Project Team.

Assumptions/Deliverables

- As requested, level of effort limited to budgeted hours.

4.7. Prepare Amended Drinking Water Supply Permit Application for Westlake Drinking Water Treatment Plant

Woodard & Curran will prepare the "Application for Domestic Water Supply Permit Amendment" to amend the existing Westlake Drinking Water Treatment Plant permit to make additions to the sources of feed water as part of the PWP.

Assumptions

- Documents will be delivered in electronic formats unless noted otherwise.



- Preparation of the Amended Application is included based on compilation of technical information developed in other parts of the Program. Detailed technical analyses are not included as part of the Amended Application task.

Deliverables

- Draft Amendment Application
- Final Amendment Application

4.8. Support for 1211 Wastewater Change Petition Follow On Questions and Potential Protests

This is assumed support of up to 66 hours as requested by the Project Team based on the comments from SWRCB or from protests to the 1211 Wastewater Change Application.

Assumptions/Deliverables

- As requested, Level of effort limited to budgeted hours.

4.9. Prepare Development Plan for Post-Permit Deliverables

Woodard & Curran will prepare a plan for development of the items required in Phase 3 as part of the post-permit activities before operations are allowed to begin. Some of these deliverables are prescribed in the surface water augmentation regulations and others may be added by DDW and/or RWQCB during the NPDES/WDR permitting process. Example items include an action plan for Westlake Filtration Plant, an operations plan that includes detailed monitoring plans, and a joint plan that identifies roles and responsibilities within JPA staff. Woodard & Curran will outline the requirements for these documents, identify information gaps that need to be addressed to avoid schedule delays after permit issuance, and identify early actions that can frontload development of the post-permit deliverables. A draft and final version of the development plan will be provided.

Assumptions

- Documents will be delivered in electronic formats unless noted otherwise.

Deliverables

- Draft Development Plan
- Final Development Plan

4.10. Task Meetings

Woodard & Curran will attend bi-weekly meetings, by phone, with Jacobs to discuss permitting/regulatory efforts, strategies, and challenges. Woodard & Curran will also coordinate internally and with subconsultants Michael Welch and Debbie Burris to provide status updates and identify priorities and deadlines.

Assumptions:

This subtask is budgeted for two individuals to attend 26 meetings per year for 2 years plus one additional hour per month for internal and subconsultant coordination.



DRAFT

DATE: March 4, 2024
TO: JPA Board of Directors
FROM: Engineering and External Affairs

SUBJECT: Pure Water Project Las Virgenes-Triunfo: Award of Phase 1 Progressive Design Build Contract

SUMMARY:

The Pure Water Project Las Virgenes-Triunfo (PWP) is a multi-year program that represents a unique opportunity to proactively address the challenges facing the Las Virgenes-Triunfo Joint Powers Authority (JPA) through an indirect potable reuse program utilizing surface water (reservoir) augmentation. Initiated in 2016 through a comprehensive stakeholder engagement process, the program has progressed over the last seven years of planning and pre-design efforts. The program is now ready for the final design phase of work, which will then be followed by construction. In preparation for the final design and construction phases of the program, staff initiated a formal procurement process to contract with a progressive design-build firm (PDB firm) to deliver two of the main elements of the program: the Advanced Water Purification Facility (AWPF) and Reverse Osmosis Concentrate (ROC) pipeline.

After an extensive pre-qualification process, a Request for Proposals (RFP) was issued to the three top-qualified firms on July 31, 2023. Proposals were received on November 6, 2023, and interviews were conducted in December 2023. A joint, multi-disciplinary selection committee, consisting of staff from Las Virgenes Municipal Water District (LVMWD) and Triunfo Water & Sanitation District (TWSD), was convened to evaluate the proposals, conduct the interviews, and select a recommended firm for the JPA Board's consideration. The committee met over several weeks and recommends selection of the Walsh Construction, Brown and Caldwell, and Carollo team (Walsh Team) as the preferred PDB firm.

Staff recommends that the JPA Board accept the proposal from the Walsh Team and authorize the Administering Agent/General Manager to execute a PDB contract, in the amount of \$21,430,215, for the Phase 1 Design-Build Services. At the conclusion of Phase 1, a Guaranteed Maximum Price (GMP) for Phase 2 of the PDB contract (construction) will be presented to the JPA Board, at which time the Board would decide whether to continue with the Walsh Team for the remainder of the design and construction of the facilities. It is noted that other scope items, such as the design of the three other PWP pipelines and treatment modifications at the Tapia Water Reclamation Facility, may be presented to the JPA Board as a proposed contract amendment to the Phase 1 Design-Build Services at a future meeting, as discussed at the January 2024 special JPA Board meeting.

RECOMMENDATION(S):

Accept the proposal from the Walsh Construction, Brown and Caldwell, and Carollo Engineers progressive design-build team, and authorize the Administering Agent/General Manager to execute a contract, in the amount of \$21,430,215, for Phase 1 design-build services for the Pure Water Project Las Virgenes-Triunfo.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The cost of this action is \$21,430,215, which is partially offset by a \$10.2 million Title XVI Water Infrastructure Improvements for the Nation (WIIN) Act grant awarded to the JPA. A total of \$5,122,938 has been allocated for design in the adopted Fiscal Year 2023-24 JPA Budget. Additional funding will be proposed in the Fiscal Year 2024-25 JPA Budget and and future fiscal year budgets to cover the remaining cost of the work. The \$5,122,938 allocated in the adopted Fiscal Year 2023-24 JPA Budget is sufficient to cover the activities scheduled to occur under the contract for the remainder of the fiscal year. The project is funded by CIP Job No. 10635, which is allocated 70.6 percent to LVMWD and 29.4 percent to TWSD.

DISCUSSION:

The Pure Water Project Las Virgenes-Triunfo (PWP) is a multi-year program that represents a unique opportunity to proactively address the challenges facing the Las Virgenes-Triunfo Joint Powers Authority (JPA) through an indirect potable reuse program utilizing surface water (reservoir) augmentation. Initiated in 2016 through a comprehensive stakeholder engagement process, the program has progressed over the last seven years of planning and pre-design efforts. The program is now ready for the final design phase of work, which will then be followed by construction. Over the last several years with the assistance of the JPA's Owner's Advisor, Jacobs Engineering, many tasks have been completed, including numerous studies, planning documents, regulatory meetings, environmental documentation, preparation of funding and financing applications, and other foundational work to inform the final design and eventual construction of the PWP.

In preparation for the final design and construction phases of the program, staff engaged in a formal procurement process to contract with a progressive design-build firm (PDB firm) to deliver two of the main elements of the program: the Advanced Water Purification Facility (AWPF) and Reverse Osmosis Concentrate (ROC) pipeline. The process included tours and meetings with prospective firms leading up to the release of a Request for Qualification on April 4, 2023. Seven PDB firms submitted Statements of Qualifications, and after a thorough review process by a joint LVMWD and TWSD selection committee, three firms were short-listed to continue in the pursuit.

Following is a list of the short-listed teams:

- Black and Veatch
- McCarthy/Arcadis
- Walsh Construction, Brown and Caldwell, and Carollo (Walsh Team)

A Request for Proposals was issued to the three firms on July 31, 2023. While the PDB firms prepared their proposals, staff developed a progressive design-build contract with the help of special legal counsel and conducted confidential technical and commercial discussions with the short-listed firms. Proposals were received on November 6, 2023, and interviews were conducted in December 2023.

The following categories were used as the basis of evaluation for selection of a preferred team:

- Proposal: Proposer Profile
 - Key Firm and Personnel
 - Team Structure and Integration of Design-Builder
 - Roles and Responsibilities
 - Project Team's Qualifications and Experience
- Proposal: Project Approach
 - Technical Approach
 - Management Approach and Schedule
- Interview
- Documentation of compliance to the requirements of the RFP were also evaluated on a pass/fail basis

A joint LVMWD and TWSD selection committee was convened to evaluate the proposals, conduct the interviews, and select a recommended firm for the JPA Board's consideration. The committee met over several weeks before selecting the Walsh Team as the preferred PDB firm.

While all three teams produced incredibly capable proposals and provided outstanding interviews, the Walsh Team's proposal contained several differentiators that helped set them apart from the others. One major difference was their local knowledge and experience on programs very similar to the PWP, such as the Terminal Island AWPf, Hyperion AWPf, Santa Monica Arcadia WTP, and San Diego Pure Water. These projects were staffed by many of the same key personnel committed to the JPA's PWP. The team successfully demonstrated a deep level of experience working together as a collaborative team on similar projects.

The Walsh Team also showed innovative ideas regarding the construction and operation of the AWPf, and highlighted methods to reduce the amount and cost of equipment, while maintaining redundancy at the peak production capacity of 6 million gallons per day and allowing for turn-down to accommodate seasonal low flows. These strategies could potentially be implemented to reduce the footprint of the AWPf or provide space within the building for future expansion. The Walsh Team also had a thoughtful approach for how the pipeline work and AWPf work would be executed, delineating a dedicated team for each of the project elements. Overall, the Walsh Team put forward a proposal and interview that were responsive to the specific drivers of the PWP, were compatible with the stated goals and work the JPA has already completed, and demonstrated an ability to deliver the project design and construction quickly and efficiently to meet the JPA's regulatory deadline to cease discharges to Malibu Creek before November 2030.

In their proposal, the Walsh Team provided mark-ups to the scope of work delineated in the RFP, as shown in the attachment. Their mark-ups provided additional clarification and assumptions for the tasks shown and identified additional scope items that were suggested to meet the project goals more effectively.

Generally, the scope of work for Phase 1 includes the following major tasks:

- Task 1 - Project Management
- Task 2 - Alternative Analyses and Technical Workshops
- Task 3 - Permitting and Approvals
- Task 4 - Survey and Field Investigations
- Task 5 - Engineering Design Development
- Task 6 - Preconstruction Services
- Task 7 - Price Proposal Development for Phase 2 (construction)

After selection as the preferred firm, staff began negotiations with the Walsh Team to discuss some of their scope changes and several other important elements of the contract. Some of these issues included the cost for specific tasks, early work packages, and inclusion of other project elements into the PDB contract amongst other items. These negotiations were positive and the Walsh Team was responsive to the changes requested.

The final proposal (copy attached) includes a fee of \$18,775,761 for the main tasks of the project for Phase 1, with another \$2,654,454 in optional services and allowances, for a total proposed fee of \$21,430,215. The fees for the three proposals received are summarized below:

	<u>Base Tasks</u>	<u>Optional Services</u>	<u>Fee total with Optional Tasks</u>
Black and Veatch	\$ 19,679,548	\$ 1,938,499	\$ 21,618,047
McCarthy/Arcadis	\$ 18,761,441	\$ 4,662,147	\$ 23,423,588
Walsh Team	\$ 18,775,761	\$ 2,654,454	\$ 21,430,215
Variance	5%	58%	9%

The Walsh Team proposed the lowest overall price for both the base tasks and overall project. The variance is presented in the table to illustrate how close the proposal costs were relative to one another, which speaks to the benefit of having a well-defined scope for the Phase 1 services in the RFP developed by staff and the Owner’s Advisor, Jacobs. It is noted that cost proposals were submitted under separate cover and were not opened until after a preferred firm was selected as delineated in the RFP, so cost was not a basis for selection of the recommended PDB firm.

After a lengthy and thorough procurement process, staff is fully confident in the Walsh Team’s ability to deliver an effective and efficient design for the AWPf and ROC pipeline on behalf of the JPA. Staff recommends the JPA Board accept the proposal from the Walsh Team, and authorize the Administering Agent/General Manager to execute a contract, in the amount of \$21,430,215, for the Phase 1 Design-Build Services. At the conclusion of Phase 1, a Guaranteed Maximum Price (GMP) for Phase 2 (construction) of the PDB contract will be presented to the JPA Board, at which time the Board would decide whether to continue with

the Walsh Team for the remainder of the design and construction of the facilities.

It is also noted that other scope items, such as the design of the three other PWP pipelines and treatment modifications at Tapia Water Reclamation Facility may be presented to the JPA Board as a contract amendment to the Phase 1 contract at a future meeting, as discussed at the January 2024 special Board Meeting.

Upon approval by the Board and execution of a contract by the Administering Agent/General Manager, work by the Walsh Team would begin immediately. Design efforts would move forward, and a GMP would be scheduled when final design plans are approximately 60 percent completed by the end of 2025, at which time full construction activities would begin concurrent with completion of the remainder of the final design work.

GOALS:

Lead in Sanitation and Recycled Water Services Focusing on Maximum Reuse

Prepared by: Oliver Slosser, Engineering Program Manager

ATTACHMENTS:

[Walsh Team Technical Proposal](#)

[Walsh Team Fee Proposal](#)



IN ASSOCIATION WITH



+



collaborating for a  *secure water future*

PROPOSAL PREPARED FOR



PURE WATER PROJECT
LAS VIRGENES-TRIUNFO
Bringing Our Water Full Circle

Advanced Water Purification Facility Progressive Design-Build Procurement

NOVEMBER 6, 2023

Attn: Mr. Oliver Slosser, P.E., Pure Water Project
Las Virgenes-Triunfo Advanced Water Purification Facility

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APPENDICES

A	Forms for Affirmation of Compliance
B	Resumes
C	Scope of Services Markup
D	Pricing Information <i>(submitted under a separate cover)</i>



November 6, 2023

Mr. Oliver Slosser, PE
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302

Subject: Technical Proposal - Pure Water Project Las Virgenes-Triunfo Advanced Water Purification Facility (AWPF) Progressive Design-Build Procurement

Dear Mr. Slosser,

The Las Virgenes Municipal Water District-Triunfo Joint Powers Authority (JPA) is embarking on the next phase of the Pure Water Project (PWP), using progressive design-build (PDB) delivery to capitalize on the multi-disciplinary collaborative approach that will bring innovation coupled with cost and schedule certainty to your critical program. A team with a long and personal history of collaboration, Walsh Construction Company II, LLC (Walsh), along with Brown and Caldwell (BC) and Carollo Engineers (Carollo) appreciate this opportunity to present our technical approach. Our history with PDB delivery of similar AWPFs in Southern California has proven the value of collaborative delivery to benefit the JPA and your stakeholders for the delivery of your crown-jewel project ahead of the Malibu Creek Consent Decree deadline and provide your constituents with a secure water future.

The concepts presented in the Conceptual Design Report (CDR) provide a strong basis for the PWP AWPF design, permitting, construction, and operations. Our approach begins with implementing your vision outlined in the CDR, then enhancing and fully developing concepts through thoughtful innovation developed in coordination with the JPA, your Owner's Advisor (Jacobs), and stakeholders. The Walsh Team will perform our design with in-house staff located in the United States. This allows our team to monitor and control quality and to effectively collaborate with the JPA on modifications and enhancements during the design process. Blayne Goodman is the Walsh Team's Project Manager. He is a masterful collaborator and has proven experience working closely with clients to understand and meet their cost, schedule, and quality expectations. Blayne will work closely with Adam Zacheis who will serve as our Engineering Manager. Blayne and Adam have worked on three recent projects with similar scopes and have developed a genuine partnership that translates to efficient communication and trust.

The Walsh Team's approach will achieve each of the objectives presented in your Request for Proposal (RFP), while in tandem achieving each of the following goals:



This project is a significant investment for the JPA. The Walsh Team will capitalize on the PDB model by maximizing the use of value engineering as a collective team to best utilize the allocated budget throughout the project as we have for the City of Santa Monica and the City of Los Angeles. Blayne will work closely with Arie Harel, our Preconstruction Services Manager, to prepare a cost model based on the CDR at the start of the project to proactively inform the JPA and all stakeholders of any change in expected project cost. Throughout design evolution, we will track changes that create substantial cost increases along with our proposed value engineering cost reductions using an open book process. This will exemplify our commitment to stay on budget and assist the collective team on making informed decisions that will ultimately allow us to arrive at an acceptable guaranteed maximum price (GMP).



The Malibu Creek Consent Decree deadline in November of 2030 must be met. We will deliver this project on schedule by staying ahead of permitting needs and developing a focused list of early work packages, most importantly, early procurement of major/long-lead equipment. We are also developing concepts that will allow us to achieve successful start-up of the AWPF regardless of seasonal flows. Matt Maltby will be our team's Construction Services Manager. He will guide the design team in prioritizing the support of early construction activities that will keep the critical path moving forward. We also have considerations for timely delivery of the ROC pipeline including strategically dividing the pipeline into multiple reaches and maximizing resources by potentially utilizing several prequalified pipeline subcontractors. We have identified and detailed several ideas that can accelerate components of the project to meet schedule.



Regulatory *compliance*

There is a large volume of permits necessary to both construct and operate the AWPf and the ROC pipeline. Sandy Scott-Roberts will be responsible for driving and tracking permits for the Walsh Team. Sandy comes to our team from the Orange County Water District, having served as the program manager for their Groundwater Replenishment System Program. Sandy will establish close coordination with the JPA and Jacobs and will participate in meetings with the Division of Drinking Water (DDW) and other regulatory agencies. Our team has extensive permitting experience on indirect potable reuse (IPR) projects in Southern California, having permitted Terminal Island, Pure Water San Diego, City of Oxnard, Oceanside, and East County projects. We are currently permitting Central Coast Blue, Morro Bay, and Ventura IPR projects.



Minimize impacts to the *community*

Similar to the JPA, the Walsh Team takes our commitment to community very seriously. We routinely partner with the communities we serve to achieve meaningful results with lasting impact. In support of the JPA's public involvement team, we will focus on building public support and consensus through a public participation program that listens to and informs local stakeholders while anticipating and addressing their concerns. Our team supported public engagement for the Santa Monica WTP expansion which is located in a highly-populated residential area. The Walsh Team provided neighborhood outreach and regular updates to keep the local public informed of the benefits of the project.



Cohesive *collaboration*

To be successful, your PDB partner must bring not only the required technical and construction expertise, but must also be a team that engages all stakeholders and focuses on achieving project goals in an environment of mutual respect and collaboration. Several of our key personnel have **over 20 years of experience working together on water projects**, having established a proven partnership with an impressive list of successfully completed advanced treatment projects including Hyperion, Santa Monica, Terminal Island, and others. We will establish a local project office during Phase 1 within minutes of the future AWPf site to enhance collaboration with the JPA and stakeholders.

We thank you for the opportunity to present our proposal, and we look forward to engaging the JPA in the PDB process, enabling forward momentum—*action*—that is a direct reflection of our team's partnership and experience delivering advanced water treatment and reuse collaborative delivery projects.

We are ready to integrate as a fluid, collaborative team, accomplishing and surpassing the JPA's vision.

Kyle Jones
Chief Operating Officer
Walsh Construction Company

Blayne Goodman
Project Manager
Walsh Construction Company

G. Adam Zacheis
Engineering Manager
Brown and Caldwell



PART 1

Executive Summary


COLLABORATION BEGINS WITH YOUR DESIGN-BUILDER LISTENING TO YOU

Ladyface Mountain is a beautiful component of the community and this new AWPf must compliment and not detract from the view of the mountain.

— OLIVER SLOSSER, FULL CIRCLE PODCAST

The Walsh Team is your partner in collaborating for a *secure water future*

We are proud of the Walsh Team's substantial and award-winning design-build delivery experience. Walsh+BC+Carollo have successfully worked side-by-side; from traditional project delivery to PDB, this history of working together is seen in our daily interactions, our transparency, and our success.

<p>Self-performance capability</p> <p>60% of skilled labor tasks</p>	 <p>380+ design-build projects</p> <p>Walsh Team's combined resources</p>	<p>Resources available to deliver the JPA's project</p> <p>We can proudly say we live and work here. Our deep bench enables us to scale the work to meet the JPA's needs.</p> <p>185 people in L.A. 850 people in Southern California</p>
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Proven experience

Our team has spent decades building both personal and professional connections with each other, resulting in successful collaboration on **150+ water treatment and water reuse projects in California and around the world**. Key team members also led the design of the PWP demonstration facility and provided evaluation and modeling of the Calleguas Salinity Management Pipeline (SMP). Our key personnel are ready to bring the same dedication and expertise to this full-scale facility.

Terminal Island AWWPF
[WALSH/CAROLLO]

LA's first DB AWWPF including MF, RO, and chlorine-UV/AOP



Hyperion AWWPF
[WALSH/BC/CAROLLO (OA)]

LASAN's first PDB AWWPF including MBR, RO, and chlorine-UV/AOP



Santa Monica Arcadia WTP
[WALSH/BC]

PDB AWWPF upgrades including GAC, high-recovery RO, and UV/AOP



Weymouth WTP Ozonation
[WALSH/CAROLLO]

520 mgd water treatment upgrade including ozone generation facilities, ozone contactors, and chemical facilities



San Diego Pure Water
[BC/CAROLLO]

AWPF including ozone, BAC, MF, RO, UV/AOP, and brine conveyance



JPA PWP Demonstration Facility
[CAROLLO]

AWPF process performance proving grounds and research center to optimize the full scale design



Key: ● Walsh ● BC ● Carollo *Completed while with Carollo

The Walsh Team's approach will achieve your objectives while meeting these *vital goals*:

achieve regulatory *compliance*

The JPA desires effective methods for achieving pathogen credits and in meeting compliance requirements. Our approach, detailed on **Page 20**, includes a tiered approach to log reduction value (LRV) crediting, chemical and pathogen monitoring and control that maximizes reliability, and a plan to meet California Toxics Rules (CTR) compliance through UV/AOP treatment. We have extensive experience meeting similar requirements in Southern California including Hyperion AWWP, Terminal Island, and Central Coast Blue as well as the only other two surface water augmentation projects, San Diego and East County.



cost certainty

This project is a significant investment for the JPA and you need confidence that the secure water future you have planned will get built on time and on budget. **Page 42** discusses our proven approach to controlling project costs. At NTP, we will immediately prepare a cost model to keep you informed, and guide our team on the extent of value engineering needed to keep costs under control. Each major decision and idea will be evaluated with regard to impacts on both cost and schedule. Our proposal also includes several initial ideas for potential savings. Our initial cost model will greatly aid in the evaluation of these savings and allow our team to come to early consensus.



TERMINAL ISLAND RIBBON CUTTING CEREMONY

meet the *schedule*

PDB offers our design and construction professionals the opportunity to work collaboratively with the JPA to identify ways to accelerate the schedule. **Page 40** outlines several ideas including developing early work packages such as early procurement of major/long-lead equipment and oak tree mitigation measures performed in Phase 1. We have also developed a strategy that allows for commissioning during reduced plant influent flows (**Page 33**).



LADYFACE MOUNTAIN IN AGOURA HILLS

maximize benefits for the *community*

The City of Agoura Hills prides itself on its commitment to a high quality of life and environmental sensitivity and to preserving the unique character that defines Agoura Hills to its residents. We take our commitment to community very seriously. **Page 35** discusses our approach to building public support and consensus throughout the project, and in minimizing disturbances during construction. The Walsh Team understands the importance of aesthetics for the facility exterior and will collaborate to ensure that expectations are met.



ONE WATER DAY 2021 HEAL THE BAY EVENT

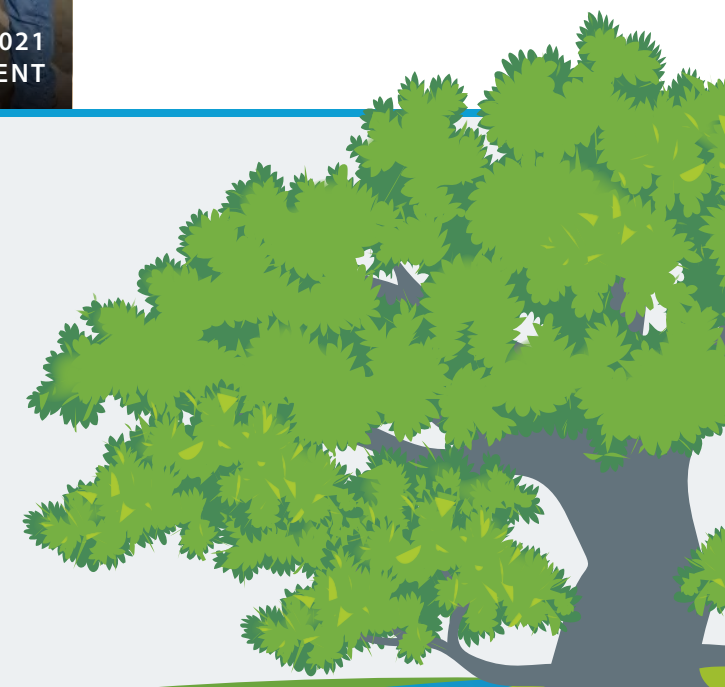
cohesive *collaboration*

The Walsh Team's ability to collaborate with each other and with the clients we serve is what sets us apart. With several of our key personnel having over 20 years of experience *working together on water projects*, it's proven to be an effective partnership with an impressive list of successful projects such as Hyperion, Santa Monica, Terminal Island, and others. Starting with partnering, we will bring this same approach to your project from NTP to a fully operational facility.

Our Commitment

The Walsh Team understands that providing abundant resources with top-tier technical expertise and utilizing cutting-edge project controls, processes, and tools—while effective in enhancing our ability to achieve top performance metrics—is not enough. It takes an integrated team fully aligned on project goals leading to a personal commitment to deliver the highest quality service and product. Relationships amongst this team run deep—our team members genuinely enjoy working together and will bring a contagious spirit of camaraderie to your project.

We have a unique obligation to the JPA PWP's success—borne from our key personnel's deep and long-serving personal investment on your journey towards a secure water future. **We look forward to collaborating with you, facing challenges alongside one other, and taking direct responsibility for the outcomes at each interim milestone of this next chapter. Together, we will succeed.**



PART 2

Proposer Profile



COLLABORATION BEGINS WITH YOUR DESIGN-BUILDER LISTENING TO YOU

Get out of the creek while diversifying the JPA's water portfolio.

— JOE MCDERMOTT, FULL CIRCLE PODCAST

PURE WATER PROGRAM DEMONSTRATION GARDEN

Proposer Profile

Proven experience to help you achieve *a secure water future*

The JPA's goal is to beneficially use surplus recycled water to improve regional water supply reliability and drought resilience—we fully commit the right local people with relevant award-winning experience, technical knowledge, and program familiarity to meet each of your critical project objectives.

Proven experience

For more than 25 years, the Walsh Team has worked together to deliver on collaborative delivery water and wastewater projects in North America. Members of our team also worked collaboratively with the JPA to implement a critical first step toward pure water, the PWP Demonstration Facility. In addition, our team has worked with the Calleguas Municipal Water District to evaluate the salinity management pipeline.

The Walsh Team confirms the SOQ submitted in response to the RFQ is incorporated as part of our Proposal and our project team has been kept intact as required by section 7.6 of the RFP. However, we have bolstered our team since the SOQ to include a Lead Pipeline Design Engineer, Tim Taylor, Vincent Roquebert as Design Manager, and Sandy Scott-Roberts who will serve as the Commissioning and Acceptance Manager and Permitting Lead, as detailed on the following page.

"We may have different company logos on our hard hats, but our history together as people is what makes us extraordinary, and ultimately what will allow us to successfully and efficiently deliver the JPA's most critical project. Our team will be laser focused on developing and implementing strategies to meet your *schedule*, find ways to manage and save *cost*, minimize impacts to the *community*, meet regulatory *compliance* goals, and to *collaborate* effectively with the JPA, Jacobs, stakeholders, and each other towards shared success."

—BLAYNE GOODMAN

Key personnel engagement *together* on similar projects




The Walsh Team is your partner in collaborating for a *secure water future*

The Walsh Team has added three additional "Key Personnel", including one change since submission of the SOQ. **Vincent Roquebert** has been added as the Design Manager and will work closely with Adam on leading design efforts of the overall project. We have bolstered our startup and commissioning team and permitting leadership with the addition of **Sandy Scott-Roberts**. Sandy recently joined Brown and Caldwell from OCWD where she managed the permitting, design, and start-up of final expansion of their groundwater replenishment system. **Tim Taylor** has been added as our pipeline design lead and will be leading a team solely focused on completing the pipeline on schedule. The additional key personnel are highlighted on the following page and their resumes have been included in Appendix B.



KEY
★ Key Personnel

PROJECT MANAGER
Blayne Goodman [Walsh]



- **Responsibility:** Project and Team Leadership
- **Reporting Relationships:** JPA and Owner's Advisor

PRINCIPAL(S) IN CHARGE
Kyle Jones
Rod Pope, FDBIA

HEALTH AND SAFETY
Shannon McQueen

PROJECT CONTROLS
Clay Gunderson

Phase 1

«« KEY PERSONNEL COLLABORATING THROUGHOUT BOTH PHASES OF THE PROJECT »»

Phase 2

ENGINEERING MANAGER
Adam Zacheis, PhD, PE [BC]



PRECONSTRUCTION SERVICES MANAGER
Arie Harel, PE, PMP, ENV SP, Assoc. DBIA [Walsh]



COMMISSIONING AND ACCEPTANCE MANAGER/PERMITTING LEAD
Sandy Scott-Roberts, PE [BC]



OPERATIONS SUPPORT
Ronne Padilla [Walsh]



CONSTRUCTION SERVICES MANAGER
Matt Maltby, PE, ENV SP [Walsh]



Collaborating throughout the project to ensure design intent is met

- **Responsibility:** Design Leadership
- **Reporting Relationships:** Blayne Goodman and Matt Maltby

Crucial interface between design and construction

- **Responsibility:** Preconstruction Leadership
- **Reporting Relationships:** Blayne Goodman and Matt Maltby


Engaged from Day 1 – Beginning with the end in mind

- **Responsibility:** Commissioning Manager, Permitting Lead
- **Reporting Relationships:** Blayne Goodman and Matt Maltby

Early engagement for cost-effective GMP development

- **Responsibility:** Construction Leadership
- **Reporting Relationships:** Blayne Goodman

DESIGN MANAGER
Vincent Roquebert, PE, PMP, DBIA [BC]



PROCESS TECHNICAL LEAD
Andy Salvesson, PE [Carollo]



PIPELINE DESIGN LEAD
Tim Taylor, PE [Carollo]



PHASE 2 SUPPORT TEAM

- | | | |
|--|--|-------------------------------------|
| Brian Bjornson, <i>Operations Manager</i> | Jordan Smith, <i>Discipline Superintendent</i> | Ed Quigley, <i>Project Engineer</i> |
| Jon De La Cruz, <i>Discipline Superintendent</i> | Jamie Sims, <i>Assistant Project Manager</i> | Lance Salerno, <i>Startup/Comm</i> |
| Moises Ontiveros, <i>Discipline Superintendent</i> | Dylan Condra, <i>Project Engineer</i> | |
| Omar Aguirre, <i>Discipline Superintendent</i> | Logan Carpenter, <i>Project Engineer</i> | |

SUBJECT MATTER EXPERTS AND QA/QC

- | | | |
|---|--|--------------------------------|
| Amos Branch, PhD <i>Process</i> | Chris Garrett, <i>Pipelines</i> | Jonathan Keaney, <i>QA/QC</i> |
| Erin Mackey, PhD, PE, <i>Drinking Water & Reuse</i> | Tom Seacord, <i>ROC Mgmt</i> | Paul Bonnici, PE, <i>QA/QC</i> |
| | Bryan Trussell, PE, <i>Water Quality</i> | |

ADDITIONAL SUBCONSULTANT SUPPORT

- | | | |
|--|--|---|
| Trussell Technologies, <i>Water Quality</i> | Urban Water Group, <i>Landscape Architecture</i> | Rincon Consultants, <i>Noise Control</i> |
| RRM Design Group, <i>Architecture</i> | DRP, <i>Survey/Pipeline/CADD</i> | Socal Stormwater Runoff Solutions, <i>SWPPP</i> |
| Taft Electric, <i>Electrical Preconstruction Support</i> | Consulting West, <i>MEP</i> | AirX Utility Surveyors, <i>Site Utility Exploration</i> |
| KDM Meridian, <i>Survey</i> | Collings & Associates, <i>Fire Protection</i> | |
| Converse Consultants, <i>Geotechnical</i> | V&A Consulting, <i>Corrosion Control</i> | |

PHASE 1 SUPPORT TEAM *Also engaged in Phase 2

- | | | | |
|--|--|--|--------------------------------------|
| Emily Owens-Bennett, <i>OOP</i> | Lauren Bray, PE, <i>Process</i> | Jason Kelly, <i>ROC Pipeline Preconstruction Lead*</i> | Omar Ponce, <i>Project Engineer*</i> |
| Brie Post, PE, <i>NPDES</i> | Keel Robinson, <i>UV/AOP</i> | Luis Ruvalcaba, <i>Project Engineer*</i> | Ken Hudson, <i>Lead Estimator</i> |
| Shane Trussell, PhD, PE, <i>Permitting</i> | Aleks Pisarenko, <i>Chemicals*</i> | Mike McReynolds, <i>Pipeline Design</i> | Thomas Shea, <i>Estimator</i> |
| Kyle Fuller, PE, <i>MF/UF</i> | Jen Thompson, <i>Planning</i> | Phil Graff, <i>General Superintendent</i> | Jason Betts, <i>Scheduler*</i> |
| Jason Assouline, <i>Design</i> | Mark Briggs, PE, <i>BCEE Pipeline Design</i> | Jeremy Stocksclaeder, PE, <i>Proj. Mgr*</i> | |
| Brandon Yallay, <i>RO</i> | Miko Aivazian, <i>Pipeline Design</i> | Octavio Ramos, <i>Asst. Project Mgr*</i> | |

Highlights of our project team

The following team members have expertise and experience that will be critical to delivering the JPA's project. **100% of the team members highlighted below are based in California and have worked collaboratively on previous advanced water treatment projects with our SOQ key personnel.**

ADDITIONAL KEY PERSONNEL

Vincent Roquebert, PE, PMP, DBIA » DESIGN MANAGER

With over 35 years of experience, Vincent has played a key role for some of California's most exciting AWWPs and WTP projects. He served as design manager for the Tillman WRP upgrades for Los Angeles, and worked closely with Adam on the design for the Hyperion and Terminal Island WRP projects.

Sandy Scott-Roberts, PE » COMMISSIONING AND ACCEPTANCE MANAGER/PERMITTING LEAD

Sandy recently joined BC and spent much of her career at OCWD, managing the final expansion of their groundwater replenishment system. As program manager of the 130-mgd AWWP, Sandy was able to secure the new DDW permit and have construction commissioning completed in order to put the expanded facility into operation one week later. With 20 years of experience working on water treatment facilities, her understanding of efficient AWWP commissioning strategies and considerations for long-term operational costs will be invaluable.

Tim Taylor, PE » PIPELINE DESIGN LEAD

Tim has 37 years of experience managing pipeline design projects throughout Southern California and the US. He has provided leadership on pipeline projects for MWD and the San Diego County Water Authority. He will be solely focused on leading the pipeline design and strategies to meet the schedule.



Water Treatment and Water Quality



Shane Trussell, PhD, PE, BCEE »
WQ/PERMITTING

Shane is a pioneer in potable water reuse, including being an instrumental partner in the development of the only other surface water augmentation projects—San Diego and East County.



Amos Branch, PhD »
PROCESS EXPERT

Amos brings an extensive background in AWWP process analysis, testing, and startup, including being a critical partner to the JPA with the startup and first two years of operation of the demonstration facility.



Erin Mackey, PhD, PE »
DRINKING WATER/REUSE

Erin creates and facilitates the development and implementation of innovation solutions to water projects for clients across the country. Erin has been providing reuse process expertise for the City of Santa Monica and she supported UV/AOP and post-treatment process design for Hyperion.

Pipeline Design



Jason Kelly »
PIPELINE PRECONSTRUCTION LEAD

Jason has been involved in 100+ pipeline projects in his 30+ year career. Jason will support design development, scheduling, long lead procurement, and document and quality control measures. He will also provide assistance with commissioning efforts.



Mark Briggs, PE, BCEE »
PIPELINE DESIGN

Mark has overseen the design of more than 1 million linear feet of pipelines ranging in size from 8 to 108 inches in diameter. He has provided pipeline design and rehabilitation throughout Southern California including projects for City of Los Angeles, OCSD, and the Pure Water Program in San Diego.



Tom Seacord, PE »
ROC MANAGEMENT

Tom has 26 years of experience and is a recognized expert in the field of desalination and ROC. He has had lead roles in over \$1 billion worth of projects including similar brine pipeline projects. Tom worked on the salinity evaluation for the Calleguas Salinity Management pipeline.

Subconsultant partners bring local expertise

The Walsh Team carefully selected each company based on their experience and excellent reputation, previous successful collaboration with our team, and the expertise needed to **provide the JPA with the right expertise to deliver your AWP.**

Trussell

Trussell brings unparalleled expertise with developing and permitting surface water augmentation projects throughout California

The Walsh Team is proud to have Trussell Technologies dedicated to the success of this project. Through the development of the Pure Water San Diego (Miramar) and East County (Lake Jennings) projects, Trussell's efforts have shaped how a surface water augmentation project is engineered, permitted, and operated. For this project, Trussell will be providing permitting, engineering, and startup/operational support. The leadership from Trussell has worked closely with key members of the Walsh Team, collaborating together on Pure Water San Diego, East County, and the City of LA (multiple projects).



Early onboarding of Taft Electric, an award-winning local electrical subcontractor

The Walsh Team proactively initiated a teaming agreement with Taft Electric (Taft) to support the electrical and I&C scopes starting in Phase 1. Taft, founded in 1946, has successfully completed dozens of treatment plant projects in Los Angeles and Ventura counties including:

- Camarillo WTP Upgrade
- Oxnard Great Desalter
- Piru Water Treatment Plant
- Temple Water Treatment Plant UV/Chloramines
- Hill Canyon WWTP E&I Improvements (2016 Electrical Excellence Awards Winner)
- Pleasant Valley Desalter (2022 Electrical Excellence Awards Winner)
- Ventura Wastewater Treatment Plant Main Gear Swap (2014 Electrical Excellence Awards Winner)

Taft is the largest local union electrical contractor with an experienced preconstruction team. Their staff has field experience in treatment facilities and are able to review design drawings for constructability and offer value engineering alternatives. Taft is a premier partner with Royal Industrial Solutions and a certified Bronze Level System Integrator for Allen-Bradley Variable Speed Drives. Additionally, as a top-tier customer for major electrical switchgear through local distributor, All-Phase Electric, Taft is able to obtain up-to-date competitive pricing and estimated fabrication lead times on critical electrical gear.



RRM Design Group provides sustainable high-performance architectural design on public facilities in Southern California

Located in Ventura, RRM is a diverse and collaborative team of professionals with a shared passion for helping make our world a healthy and more beautiful place to live and prosper. They have completed architectural design projects for a wide range of facilities including:

- Oxnard Advanced Water Purification Facility
- Oxnard Great Program Desalter
- Thousand Oaks Household Hazardous Waste Facility
- Bakersfield Fire Station No. 14
- Carlsbad Police and Fire Training Facility

Sustainable high-performance design is a priority in RRM's work. They have garnered LEED certification on numerous municipal projects that showcase renewable materials and energy-efficient solutions without adding significant cost. Natural daylighting, recycled building materials, permeable paving, and photovoltaic solar power all contribute to an integrated approach to high performance design.



Trussell Provides Water Quality and Treatment System Design Expertise on the East County AWP

Trussell was a key contributor on the East County San Diego AWP project, which will deliver a drought-proof water supply for East County San Diego via IPR and surface water augmentation. This project includes a new 11.5 mgd AWP. The project includes an RO concentrate pipeline with similar issues of scaling that are being mitigated. This project will deliver purified water to Lake Jennings and has to meet stringent CTR permitting criteria as the PWP.

Seven decades of experience designing conveyance systems in Southern California

The Walsh Team brings over seven decades of experience designing conveyance and distribution systems in Southern California and around the nation that are economical to construct, operate, and maintain. We have designed new and replacement pipelines for various utilities as shown below.

Our team is experienced in design of brine lines and in helping utilities remediate scaled brine lines designed by others. Our engineering approach for brine lines include engineered chemical use through RO, proper pipe materials, smooth pipeline connections, and hydraulics that keep the pipe full and minimize turbulence.

We have provided engineering services for more than

3 mil linear feet of pipeline in CA



4,000 miles of water pipeline ranging from **6" to 144"** in diameter

Project Client	Delivery Method	Length Diameter Material	Team Members Engaged
Jordan Valley Brine Pipeline and Piggling Stations Jordan Valley Water Conservancy District	DBB	21 miles of 20-inch HDPE brine line	Tom Seacord
Desalter and Brineline City of Camarillo, CA	DBB	4,200 ft of 12-inch and 16-inch DIP	Adam Zacheis, Mark Briggs
Pure Water Program Phase I AWWP City of San Diego, CA	DBB	20 miles of 24-inch HDPE	Andy Salveson, Lauren Bray
Pure Water Soquel Soquel Water District	PDB	9 miles of 16-inch and 14-inch PVC	Adam Zacheis, Keel Robinson, Erin Mackey
Padre Dam East County AWWP Padre Dam Municipal Water District	PDB	35 miles of 20 to 42-inch, various materials	Vincent Roquebert, Shane Trussell, Andy Salveson
Escondido MF/RO City of Escondido, CA	PDB	1 mile of 24-inch DIP	Adam Zacheis, Lauren Bray, Erin Mackey
Groundwater Replenishment System Design Orange County Water District, CA	DBB	15 miles of 66- to 77-inch steel	Mark Briggs, Sandy Scott-Roberts
Monterey One Water City of Monterey, CA	DBB	2 miles of 60-inch reinforced concrete	Shane Trussell, Keel Robinson
Calleguas Salinity Management Pipeline Study Calleguas Municipal Water District, CA	N/A	14 miles of 24-inch HDPE	Brandon Yallaly, Tom Seacord
Ventura Ocean Outfall System City of Ventura, CA	DBB	9100 feet of 20-inch HDPE ocean outfall	Adam Zacheis, Lauren Bray



Successful design and operational strategies prevent brine pipeline scaling in West Jordan, Utah

Carollo provided permitting, design, and construction services for the RO treatment plant for the Jordan Valley Water Conservancy District including a 21-mile HDPE 20-inch diameter brine disposal pipeline. Our team conducted an assessment of other comparable brine pipelines to incorporate lessons learned and develop criteria for the new brine line. This pipeline has been operational since 2010 and no mineral scaling has been observed. An NPDES permit was obtained.

Better together— the benefits of an integrated team

Blayne Goodman is our PDB Project Manager and will be responsible for overall oversight of the project from award through completion. He will interface with design and construction team members throughout to ensure we are meeting all schedule, budget, and contractual obligations to the JPA. Blayne will be the single point of contact for the Walsh Team. His ability to create a collegial, trusting environment where the entire team looks forward to working together towards a common goal makes him ideally suited to lead this PDB project. Further details on how Blayne will integrate JPA and Jacobs with our team is in our Management Approach, presented on **Page 37**.

Defining Key Firm Responsibilities

On **Page 38 and 39** of the technical approach, we detail the responsibilities of our key team members throughout the project schedule. In the table below, we have identified the role of each firm in delivery of key milestones in both phases.

Scope Item	Walsh	BC	Carollo	JPA	Jacobs (OA)
PHASE 1 » Design and Preconstruction Services					
Pipeline Alignment Field Investigation	Lead	Support	Support	Input	Input
Prepare BODR Design Deliverable	Support	Lead	Support	Input	Input
Prepare BODR Cost Model & Schedule	Lead	Support	Support	Input	Input
Prepare 30% Design Deliverable	Support	Lead	Support	Input	Input
Prepare 30% Cost Model & Schedule	Lead	Support	Support	Input	Input
Prepare Permitting Plan	Support	Lead	Support	Input	Input
Prepare 60% Design Deliverable	Support	Lead	Support	Input	Input
Prepare 60% Cost Model & Schedule	Lead	Support	Support	Input	Input
Prepare and Submit GMP Proposal	Lead	Support	Support	Review	Review
Procure Subcontractors and Vendors	Lead	Support	Support	Input	Input
PHASE 2 » Final Design and Construction Services					
Complete Final Design	Support	Lead	Support	Review	Review
Complete IFC Documents	Review	Lead	Support	Review	Review
Construction of AWPf and ROC Pipeline	Lead	Support	Support	Updates Provided	Updates Provided
Commissioning and Permit Testing Acceptance	Support	Lead	Support	Approve	Approve
Operation and Maintenance Training	Lead	Support	Support	Approve	Approve

Our team qualifications and experience bring unique benefits to the JPA'S project

The Walsh Team has designed, built, commissioned, and performance-tested some of the industry's most significant water treatment and reuse projects. What makes the Walsh Team different?

- **Proven Southern California AWWTF Experience.** Below we have highlighted three projects that showcase our team's ability to work together on DB projects of similar scope and complexity. **Key team members are already local** and will begin and end most of their days across the street from the AWWPF construction site. Blayne Goodman, Andy Salvesson, and Arie Harel will move their daily office to the project site.
- **One Team Mentality.** Our team is committed to each other personally and professionally. This commitment comes from 20+ years of working together, person to person. This unique relationship allows us collectively to

achieve exceptional results that have been seen in LA, for the JPA's demonstration facility, and beyond. Additionally, working in harmony with the surrounding community is a critical success factor for our team.

- **Results Matter —And the Journey Too.** Our process includes proven and established tools for safely designing and constructing this project including project management controls, scheduling, estimating, risk management, operations engagement, and decision-making. Our goal is to not only leave the JPA pleased with the final result, but also satisfied with the evolution of the project from beginning to end.



● Full-scale AWWPF projects as featured in our SOQ



1 LASAN HYPERION AWWPF

- PDB AWWPF including MBR, RO, UV/AOP, and concentrate
- Concentrate management
- Real-time cost model development at each major milestone



2 LASAN TERMINAL ISLAND AWWPF

- LA's first DB AWWPF including MF, RO, and UV/AOP
- 12 MGD of reuse for groundwater replenishment and reuse customers
- ENR's National Best of the Best Project



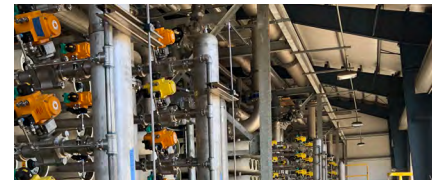
3 SANTA MONICA ARCADIA WTP EXPANSION

- PDB upgrades including AWWPF (UV/AOP+GAC), high recovery (flow reversal RO) retrofits, and RO concentrate pump station
- Used collaborative delivery to integrate City's operations staff input into design
- Working in close proximity to businesses and residences
- Extensive DDW coordination on 97-005 permit

MF/MBR MEMBRANES



RO MEMBRANES



UV



PART 3

Project Approach



COLLABORATION BEGINS WITH YOUR DESIGN-BUILDER LISTENING TO YOU

Tapia effluent is too valuable to waste, we want to maximize reuse within our service area.

— DAVE PEDERSEN, FULL CIRCLE PODCAST



OBJECTIVE NAVIGATION

Click on a page number below to quickly navigate to the details for a specific Objective within this section

The Walsh Team is your partner in collaborating for a *secure water future*

As the JPA embarks on the next phase of the PWP, the vital importance of new infrastructure to provide greater water independence in the region is clear given the recent drought and associated significant reductions in available State Water Project (SWP) water. Our approach for the JPA's project is organized around the following project-specific objectives:

JPA Objective	The Walsh Team Approach	Location
OBJECTIVE 1 » Develop a cost-effective design to address regulatory requirements, while creating a new, valuable water resource.	Using our experience at the PWP demonstration facility and on AWPf projects in the region to reduce footprint requirements and equipment costs while still providing full redundancy and compliance.	Page 15
OBJECTIVE 2 » Maximize capture of seasonal flows to the AWPf and address the seasonal imbalance of recycled water demand.	Implement proven solutions to system sizing and modularity to optimize equipment while still maintaining the maximum production possible at the AWPf's planned full capacity, with flexibility to turn down to as low as ~0.6 mgd to accommodate seasonal low flows.	Page 18
OBJECTIVE 3 » Provide effective methods for achieving pathogen reduction targets and create confidence in chemical water quality.	Maximize LRV credits for each treatment process, and provide strategies for complying with the California Toxics Rule (CTR) water quality standards, and ultimately improve confidence in water quality.	Page 20
OBJECTIVE 4 » Deliver chemical systems to provide operational flexibility and reliability, while simplifying operations.	Design around skid mounted chemical delivery systems to simplify facility layout, while providing adequate redundancy to assure uninterrupted operations during maintenance. Use 3D modeling to demonstrate clear access to equipment for maintenance. Install multiple chemical injection points to optimize chemical usage and save on operating costs.	Page 23
OBJECTIVE 5 » Deliver timely design and construction of the ROC pipeline.	Divide the ROC pipeline into prioritized reaches to accelerate construction. Develop a contingency plan for AWPf commissioning if the AWPf is completed before the pipeline. Scaling mitigation through antiscalant selection, sulfuric acid doses, appropriate pipe materials, and attention to proper hydraulics and air-gap design.	Page 24
OBJECTIVE 6 » Meet external permitting requirements.	Establish a permitting lead who will drive critical permits , establish close coordination with jurisdictional authorities for highest priority permits, and participate in meetings with DDW and other regulatory agencies for JPA-led permits. Prioritize design deliverables to meet the project schedule.	Page 29
OBJECTIVE 7 » Identify and procure subcontractors through a best value selection method.	Strategically self-perform up to 60 percent of the skilled labor scope to control critical path, while integrating support from our vast network of specialty subcontractors. Prequalify all subcontractors and negotiate schedule certainty prior to issuing subcontractor agreements.	Page 32
OBJECTIVE 8 » Develop a successful strategy for commissioning the facility during possible reduced plant influent flows.	Provide strategies for commissioning the facility with consideration for seasonal plant influent flows as low as ~0.6 mgd. We plan to start with the end in mind and detail out commissioning and operational strategies during Phase 1.	Page 33
OBJECTIVE 9 » Provide successful coordination with external project stakeholders.	Collaborate with the City of Agoura Hills and stakeholders to ensure the new AWPf fits in with the City's history and local requirements such as the oak tree preservation ordinance. Commit to minimizing disturbances during construction.	Page 35

FIGURE 3.1 » Key Issues and Challenges

The Walsh Team's approach will achieve your objectives, while meeting these vital goals:

Minimize impacts to the community

by delivering an aesthetically pleasing facility at the base of Ladyface Mountain and being a good neighbor by thoroughly planning out logistics for construction of the AWPf and ROC pipeline.



Regulatory compliance

achieved through knowledge and experience with permitting process coupled with collaboration with the JPA's OA and regulatory agencies to deliver pathogen reduction goals and meet CTR compliance, while maintaining full redundancy and reliability.



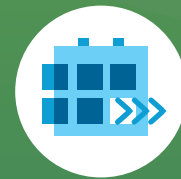
Cohesive collaboration

to streamline critical path schedule activities, maximize use of value engineering, effectively share project risk, and coordinate with ancillary projects. We will initiate a project charter with the collective team to reinforce collaboration and clarity around goals and responsibilities. We are flexible and will accommodate the JPA's availability including hybrid model or in-person design submittal review meetings for optimum collaboration.



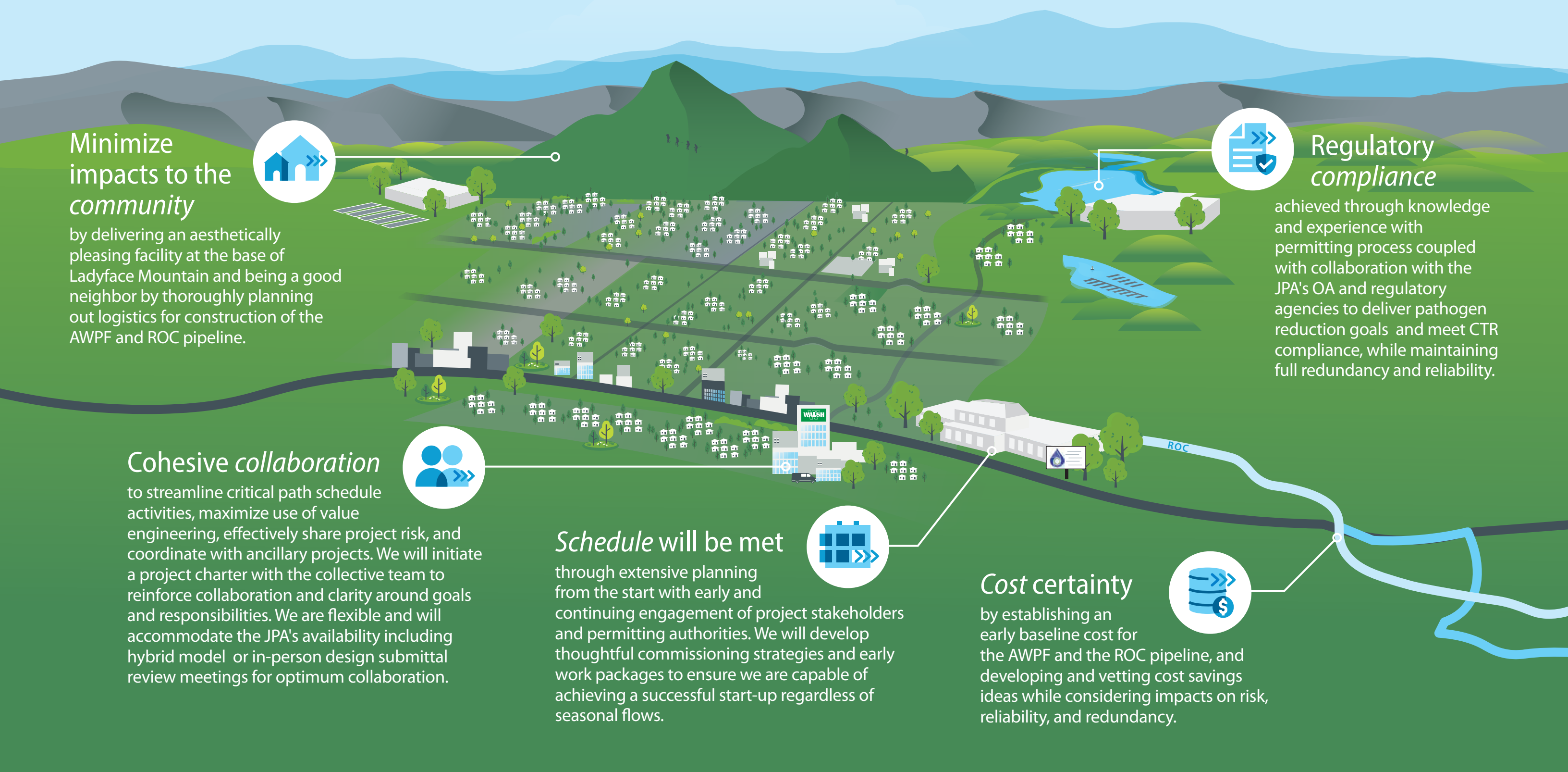
Schedule will be met

through extensive planning from the start with early and continuing engagement of project stakeholders and permitting authorities. We will develop thoughtful commissioning strategies and early work packages to ensure we are capable of achieving a successful start-up regardless of seasonal flows.



Cost certainty

by establishing an early baseline cost for the AWPf and the ROC pipeline, and developing and vetting cost savings ideas while considering impacts on risk, reliability, and redundancy.



OBJECTIVE 1 »

Develop a cost-effective design to address regulatory requirements, while creating a new, valuable resource to supplement the region's water supplies through IPR.

The JPA's work on the demonstration facility and on the full-scale facility Conceptual Design Report (CDR) will be the foundation for the new AWPF. The Walsh Team understands the JPA's desire to provide full redundancy at 6 mgd and allow for building footprint build-out for potential future expansion to 8 mgd.

Our approach

The Walsh Team will collaborate with the JPA to design and build your AWPF to treat tertiary effluent from the Tapia WRF and convey the purified water to the Las Virgenes Reservoir.

At the reservoir, the purified water will be blended with Metropolitan Water District of Southern California (MWD) supply and further treated at the Westlake Filtration Plant for IPR. Highlights of our approach include:

Building Upon the Demonstration Facility Efforts.

The Walsh Team has performed a full analysis of what has been completed to date including process equipment performance testing, facility layout optimization, and water quality modeling. We are ready to further enhance the efforts completed by the JPA and Jacobs, while offering schedule certainty and cost savings.

Building/Site Layout. We will collaborate with the JPA and stakeholders to design a facility with a spacious site layout for unimpeded chemical deliveries and ease of access for the JPA's maintenance crews, while exploring opportunities to reduce the building envelope footprint reducing capital cost. This starts with process optimization.

Process Optimization. The Walsh Team will provide a robust AWPF with redundancy for each process, making 6 mgd to provide effective turndown for seasonal flows while meeting regulatory compliance. Our process leads have developed strategic methods to efficiently size process equipment to deliver treatment capacity at both extremes of the daily flow ranges.

Facility Integration. The JPA is developing PLC Programming Standards/SCADA Standards in your Master Plan to develop uniformity across your various facilities. RoviSys is currently working on the Tapia WRF and is supporting the Master Plan, developing a growing familiarity with the LVMWD facilities and standards. Our team includes Taft Electric who has strong working relationships with all major integrators, including RoviSys. We will seek best value in integration, and we commit to conforming to the standards prescribed in the JPA's Master Plan.



Learning from conservative UV/AOP designs at Terminal Island AWPF and Morro Bay AWPF

The industry is continuing to learn from its experience with UV/AOP. The Walsh Team has been at the forefront of this technology design. The Terminal Island AWPF, designed and constructed by the Walsh Team, applied a conservative approach to UV/AOP design with a 1+1 configuration based on a design UV Transmittance (UVT) of 95 percent. In 4+ years of operation, that UV/AOP has never had to run the redundant reactor due to an equipment or dose failure. Furthermore, the single duty UV reactor operates with half of the lamps off in that reactor after optimization. The Morro Bay AWPF, where Carollo served as program manager, has recently completed UV/AOP startup and testing. At the design UVT of 95 percent and with only duty equipment in operation, the installed UV reactor delivered more than twice the UV dose necessary to meet the NDMA and 1,4-dioxane destruction requirements. **Based on these two examples, our team is confident we will be able to optimize the UV design to reduce capital and operations costs for the JPA.** We further detail this approach in our UV/AOP discussion on **Page 16.**

Our analysis identifies cost savings for major treatment process and components while maintaining reliability and redundancy.

1 Membrane Filtration (MF) » Robust and reliable operation of the AWPf is paramount. The CDR includes redundancy of all major processes, including a N+2 design for MF. In that configuration, under a “worst case” scenario, two trains can go out of service, a third train can be undergoing a recovery clean, and the system would run at a flux through the remaining membranes of ~45 gfd. Understanding that the demonstration facility has shown the ability to run effectively at 55 gfd for months, **we offer an option that reduces the cost and footprint of MF (80 less modules) while still maintaining overall system reliability.**

We suggest consideration of an N+1 system that adds 12 extra membranes per rack. This approach reduces overall system cost and building footprint by eliminating one rack. Under the same “worst case” scenario (two trains out of service, a third cleaning), this revised N+1 system with 12 extra membranes would run at a flux of 55 to 58 gfd. This provides similar operational certainty to the base approach, while reducing both capital and operating costs. Our approach will be to use the demonstration facility to simulate these operational conditions to demonstrate concept reliability.

2 Reverse Osmosis (RO) » The current RO system concept provides full capacity with any one train out of service. Full train RO redundancy is rare in the industry due to the relatively low complexity level of RO systems. **An alternative cost-saving approach is to design the RO system around redundancy of critical components.** This consists of the high-pressure feed pumps (through the inclusion of a redundant pump), the use of centrifugal pumps, which are easier to maintain and replace than vertical turbine pumps, and shelf spares of critical valves and instruments for short duration downtimes. Our optimization strategy for RO is discussed in Objective 2 on **Page 18** and addresses the expected variable seasonal feed flow.

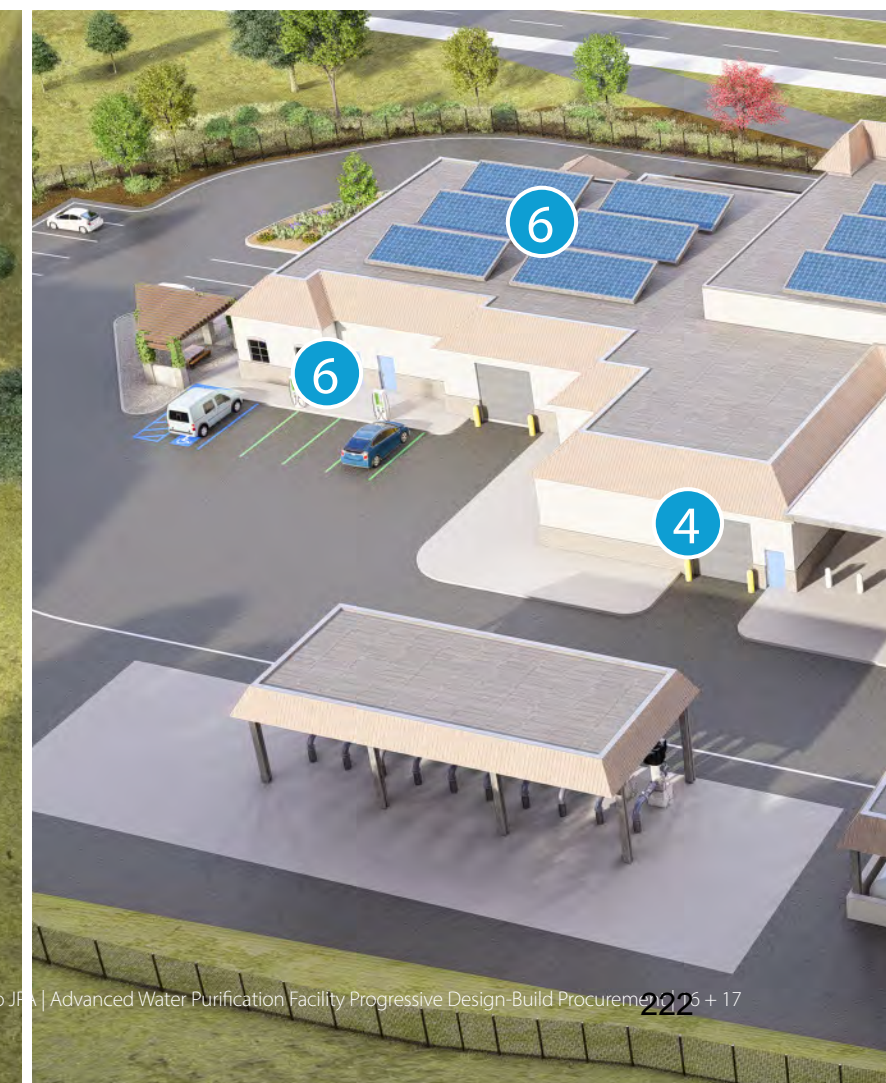
3 Ultraviolet Advanced Oxidation Process (UV/AOP) » The Walsh Team has considerable experience with the design, permitting, installation, and operation of the Trojan UVFlex and Wedeco K-143 UV reactors proposed in the CDR. We have led the third-party pathogen validation of both reactors and have intimate knowledge of the hydraulic performance, dose distribution, and efficiency of these systems. Both manufacturer’s systems are

cross flow reactors, providing opportunities for cost savings while maintaining redundancy. The UVT entering the UV reactor for the demonstration facility has both an average and median value of 97.7 percent and 97.8 percent respectively with a lower 5th percentile of 96.6 percent. UV reactor designs are typically based upon 95 percent UVT or 96 percent UVT. In this high UVT range, a 1 percent change in UVT can have a significant impact on equipment costs. **Leveraging the data obtained from the demonstration facility, we could design the UV system based upon 96 percent UVT to reduce the quantity of lamps by 15 percent.**

4 Flexibility for Future Proofing » It is our understanding direct potable reuse (DPR) is not foreseen as an immediate option. Our **efforts will be focused on solutions for IPR, including flexibility for future expansion to 8 mgd IPR.** Previously, we recommended methods to reduce MF, RO, and UV equipment while maintaining redundancy at full design capacity. An alternative approach is to install the full array of equipment prescribed in the CDR with the optimization strategies noted above to support the eventual expansion to 8 mgd now. Early collaboration workshops are necessary to determine the best path forward.

5 Influent Equalization Storage Tank » One value engineering idea our team is considering is to raise this tank partially above grade. This concept requires validation through a hydraulic analysis of the source water coming from the 24-inch backbone system fed by RWPS west. If deemed feasible, it will offer potential **cost and schedule savings through a simplified structural design, eliminates the need for dewatering wells and the associated groundwater discharge permit, and reduces the quantities of shoring and excavation;** some of which may be through bedrock. The raised EQ tank will be accessible via stairs and will offer storage space on the roof. The line of sight aesthetics from Agoura Road would not be compromised.

6 Sustainability Considerations » The Walsh Team’s design will **consider future solar panel retrofit on the roof of the facility and space allocation for charging stations for electric vehicles** should the JPA desire moving to electric vehicles for operations. During the design of the demonstration facility, we included EV stations. If desired, our team can coordinate with Southern California Edison Company (SCE) on their EV infrastructure optional tariff, Rule 29, which is designed to help reduce cost and simplify the process.



OBJECTIVE 2 »

Accommodate the expected variable seasonal flows to the AWPf and address the seasonal imbalance of recycled water demand versus availability of supply from Tapia WRF to maximize beneficial reuse of recycled water.

Seasonal variation in flow to the AWPf will complicate operations and potentially result in an under utilized asset for half of the year. Achieving a steady-state operating flow for the AWPf would improve systemwide operational efficiency and continuously produce a valuable purified water product. The JPA's PWP is a first of its kind application and will show a way forward for other utilities on capturing winter water while maintaining a robust non-potable reuse system.

Our team is working through similar solutions for the City of Napa, which allocates 100 percent of recycled water for irrigation six months of the year. Our analysis in Napa starts with three different winter water base flows, and evaluates baseline utilization rate (%) and cost (\$/AF). Each added water supply to increase utilization results in a shift of cost, either up (often an expensive option to find small amounts of water) or down (often a lower cost solution for larger amounts of water). We will also look to optimize system operation and production (such as cleaning schedules) using machine learning systems, something we are integrating into our Central Coast Blue and Carpinteria Advanced Purification Project IPR designs now.

Our approach

The Walsh Team approach applies proven concepts that have either been demonstrated at the JPA demonstration facility or implemented at other full-scale pure water projects.

The ideas presented below highlight methods to **reduce the amount and cost of equipment while still maintaining redundancy at the full production capacity** of 6 mgd and allow for turndown (down to ~0.6 mgd) to accommodate seasonal low flows.

As discussed in Objective 1, the PWP demonstration facility has shown the robust ability of the microfiltration (MF) systems to run at flux values above the levels in the CDR. This approach eliminates one MF train while maintaining both production and reliability. During the start of Phase 1, our team can utilize the demonstration facility to refine design concepts such as modulating the MF system to run at increased flux during simulated failure or shutdown scenarios to provide full confidence for the design and construction.

For the RO system, the proposed approach in the CDR includes two large RO trains, two medium RO trains, and two small RO trains. This is a good baseline approach that achieves the desired treatment capacity and redundancy, but does present some cost impacts:

- The six trains recommended in the CDR are three different sizes. The manufacturing of three project specific skid types will increase capital costs and provide operational and maintenance complexities.
- The greater the number of trains the more piping, valving, electrical and controls required, resulting in higher capital and operational expenditures.

Our design engineers are evaluating an alternative approach. We term it "3X 2X", where each RO train is a 3-stage train that can be turned down to 2-stage, which allows for a capacity turndown of 50 percent. This concept has been successfully run in the JPA demonstration facility. For the full-scale project, the 3X 2X concept allows for the reduction of the number of RO trains from six to five and reduces complexity from three different RO skid sizes to two different RO skid sizes (see table below).

TABLE 3.1 » RO Skid Optimization

Approach	Small Trains (0.6 mgd)	Medium Trains (1.2 mgd)	Large Trains (2.4 mgd)	Redundancy Maintained?
CDR Concept	2	2	2	Yes
3X 2X Concept	0	3	2	Yes

This alternative 3X 2X approach, which would need to be more aggressively simulated with the demonstration, has the following potential benefits:

- ✓ Lower RO train design cost
- ✓ Lower cost RO skids from the preferred OEM
- ✓ No change to the total number of RO pressure vessels
- ✓ Approximately 10% less RO footprint which translates into less building costs or more room for future expansion
- ✓ Less RO feed pumps (which also range in size)

The 3X 2X concept will allow greater flexibility to treat the anticipated lower flows during the summer and in shoulder months while still providing redundancy and keeping membranes wet. As we currently do not know the summer month feed rates to the AWPF, it is premature to detail a control strategy that would include preserving some membrane trains and cyclical operation of other membrane trains.

There are several innovative RO technologies, beyond the 3X 2X concept, that can drive down costs and/or improve efficiency. We are eager to explore these options should the JPA agree with their potential value.

TABLE 3.2 » RO Technologies

Technology	Primary Benefit	Secondary Benefit	Challenges
Barrel from Veolia	25% to 30% reduction in footprint. Allows for outdoor installation without a canopy. Cost savings.	Integrated machine learning in the system using electrical conductivity probes between each element. Result is improved energy and chemical efficiency and cost savings.	Limited global installation base. First U.S. pilot to be installed at Laguna County Sanitation District (Carollo project) in Santa Barbara County in 2024.
Desalitech	Unlimited production turndown	Now owned by DuPont, a reliable supplier.	Would require pilot testing (schedule impacts) to refine design criteria. Limited, but growing, installation base (including the East County AWPF in San Diego, a Carollo/Trussell project).
ROTEC (Flow Reversal RO)	High production turndown	Now partnered with BiWater, a reliable OEM.	Would require pilot testing (schedule impacts). System has a lot of valving during operation, which can impact reliability. Being implemented in Santa Monica by BC.

3X 2X Configuration reduces cost and allows greater flexibility

The demonstration facility will be utilized to refine RO design parameters and support the development of the 3X 2X concept.

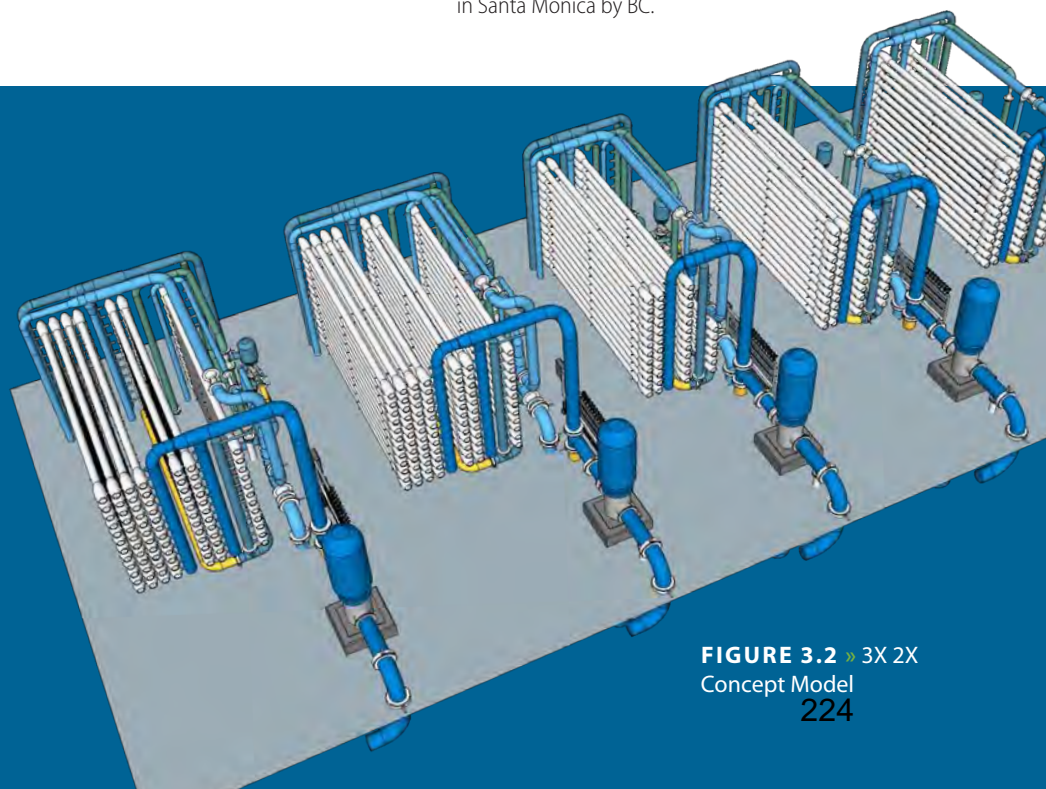


FIGURE 3.2 » 3X 2X Concept Model
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OBJECTIVE 3 »

Provide effective methods for achieving pathogen reduction targets in conjunction with the project compliance requirements and have confidence in chemical water quality.

The JPA desires effective methods for achieving pathogen targets in conjunction with compliance requirements. The Walsh Team will collaborate closely with Jacobs and their regulatory compliance subconsultant, Woodard & Curran to assure that regulatory compliance requirements are met and that the new AWPF can achieve additional reduction requirements once full reservoir water augmentation is achieved and the AWPF is operating at its maximum production capacity of 6 mgd.

Our approach

Tiered approach to crediting provides improved confidence of water quality

Current IPR projects are designed, operated, and permitted based upon an individual process threshold-based approach. There is substantial redundancy in pathogen credits. Loss of credits by one system can be compensated for by other systems while maintenance is completed. The JPA operational staff will be engaged to develop Log Reduction Value (LRV) thresholds for diversion and maintenance.

Chemical and pathogen monitoring and control maximizes reliability

The Walsh Team will collaborate with the JPA in evaluating the best solution for the PWP AWPF, including an integrated LRV system that considers LRV needs based on regulatory requirements (9/8/9 for reservoir augmentation) with consideration of additional credits for enhanced redundancy and reliability.

Beyond the concepts of redundancy, reliability can be maximized by attaining maximum credits for each treatment process, which then allows for one or more processes to be under-performing but still meeting pathogen LRV goals. In this space we recommend consideration of three approaches:

- 1. Maximize MF credits for virus.** This is a two-step process that involves 1) Implementing ultrafiltration membranes instead of microfiltration membranes. The demonstration facility has proven that UF membranes will attain >2.5 LRV of virus compared to <1 LRV of virus offered by MF membranes. 2) Implementing real time virus monitoring once the technology comes to market. Research partner Yokogawa, in partnership with the National Water Research Institute, University of Tokyo, University of Arizona, and Carollo, is nearing completion of the "beta" model of Real Time Pathogen Identification System (RAPID). This technology will be released for full-scale trials in 2024. While DDW does not currently allow virus credits for these systems due to the lack of a good monitoring system, this will likely change once RAPID is fully adopted.

- 2. Maximize RO credits for virus.** Strontium is a superior surrogate for RO integrity monitoring compared to TOC and EC. As a result, many potable reuse projects are adopting strontium to achieve robust RO LRVs (>3-logs). **Figure 3.3** shows the results of strontium monitoring compared to TOC and EC from the data collected at the JPA demonstration facility. While grab samples have been used for strontium compliance at operating facilities for years now, online monitoring technology is available and currently being permitted by this team for use in this capacity locally with DDW. Online monitoring is favored over grab samples for several reasons: (1) ensures continuous RO performance monitoring, (2) reduces sample collection and staff workload, and (3) allows automatic alarms in the event of integrity issues. The Xact 920 Continuous Water Analyzer by Cooper Environmental measures online strontium using reel-to-reel filter tape and non-destructive X-ray fluorescence (XRF). Successful trials at a San Diego County facility demonstrated close alignment with grab samples measured using conventional EPA methods at accredited laboratories.

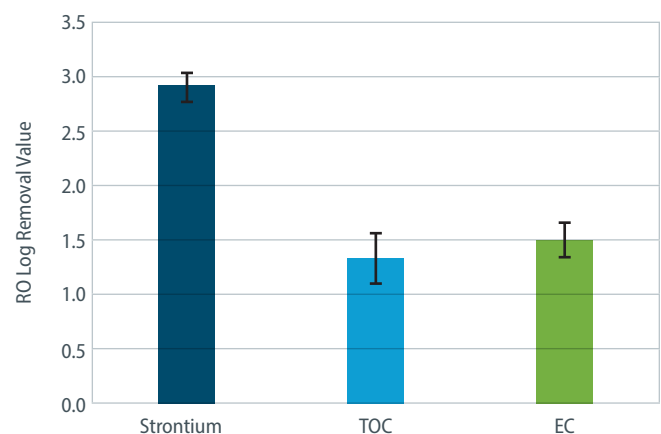


FIGURE 3.3 » Data from the JPA Demonstration Facility illustrates the additional LRV that can be achieved for the RO process with the use of strontium.

Maximizing LRV credits provides operational flexibility and AWT reliability

By combining the three approaches discussed, 9 LRV of virus credits can be reasonably attained to meet the minimum regulatory requirements. Coupled with virus removal by UV and time spent in the reservoir, the overall system could achieve significant virus LRV credits without taking any credits for the Westlake Filtration Plant.

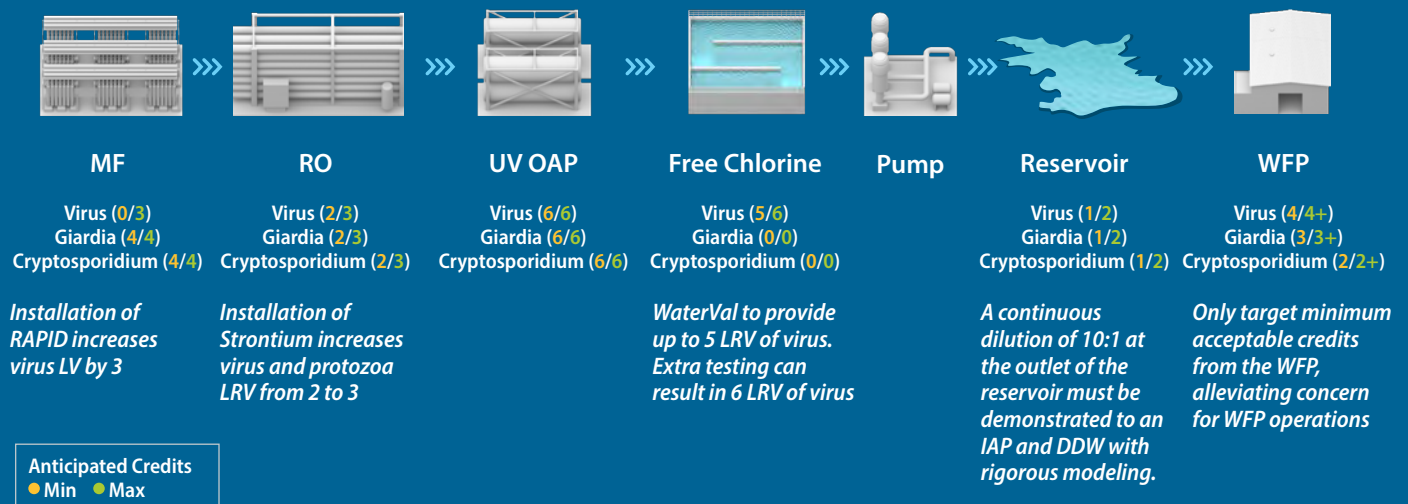


FIGURE 3.4 » LRV Credits

Further trials have been completed at OCWD and are being used by the Carollo ML/AI research team to document how this analyzer, which measures iron, silica, calcium, and phosphorus can be used to enhance process performance monitoring and pathogen crediting.

- Design a flexible final chlorination step.** There are multiple approaches to designing a chlorine contact basin for free chlorine virus credits. For several recent designs completed by our team members (Terminal Island, Central Coast Blue, Carpinteria Advanced Purification Project), the finished water wet well also serves as a chlorine contact tank, designed to allow for up to 5 LRV of virus credits. Credits up to 6 LRV could be obtained through benchtop research.

Chemical control is obtained through two primary AWP processes: RO and UV/AOP. Confidence in chemical control comes through a combination of analyzers and analysis including:

- Implement multiple RO performance analyzers, EC, TOC, and potentially strontium. These provide for a “tiered” crediting system with up to 1.5 LRV via EC, up to 2.0 LRV via TOC, and up to 3 LRV via strontium. These three analyzers also provide valuable cross checking of each other. LRV drifts by one analyzer can be “truth checked” in

real time, based upon SCADA programming, with the two other analyzers.

- Implement multiple UV analyzers, UVT, total chlorine, free chlorine, and UVI sensors. Work at the demonstration facility illustrated how these analyzers can “truth check” each other, where a drifting in UVT or UVI may be the result of an off-spec analyzer but also can be due to changes in chloramination and chlorination practice.

Through a well-programmed SCADA system, analyzers on these two key processes will keep a close eye on chemical removal performance. Through future machine learning, the project can take the final step toward confidence and efficiency for chemical destruction. These tools have been developed as part of USDOE research and can be applied to the future full-scale system.

Meeting CTR compliance for product water through UV/AOP treatment

We anticipate that the JPA will most likely be required to comply with specific water quality standards listed in the CTR, which must be met in the product water at the end of the discharge pipe. Due to their persistence through the RO treatment and their stringent CTR limits, the three compounds of highest concern for achieving CTR compliance

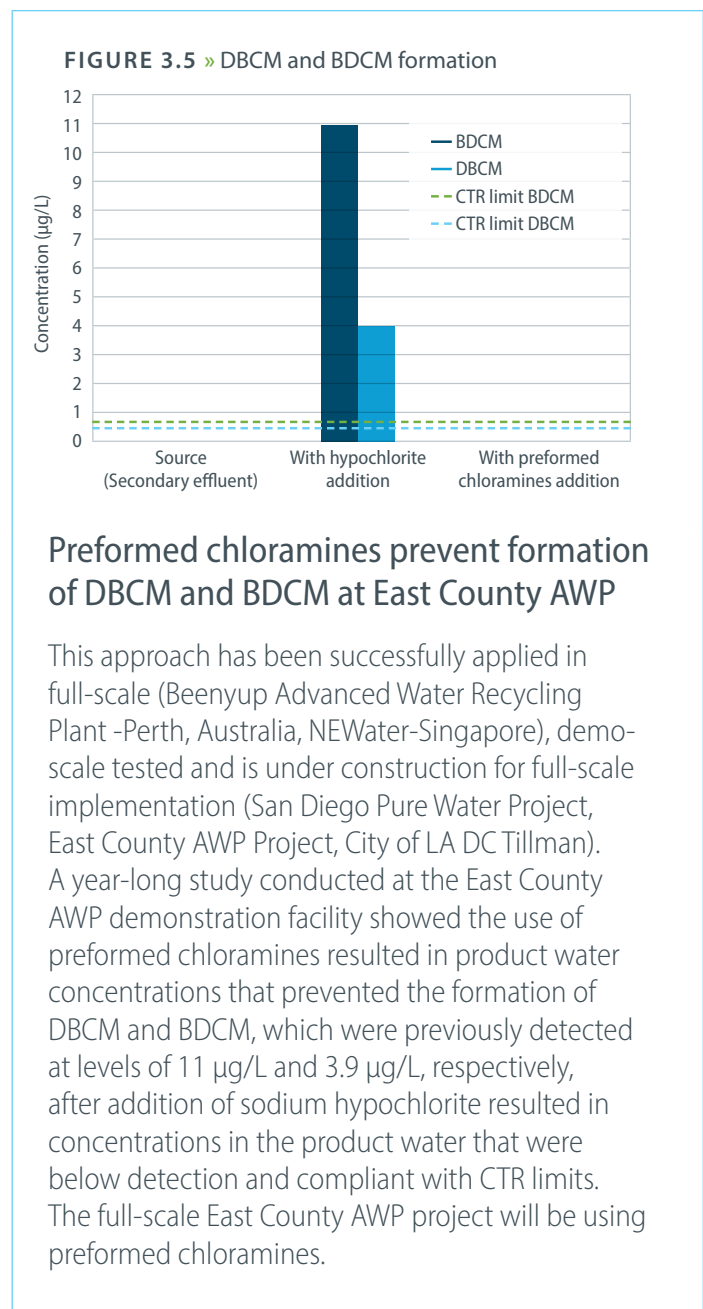
are n-nitrosodimethylamine (NDMA) and the disinfection byproducts (DBPs) bromodichloromethane (BDCM) and dibromochloromethane (DBCM), which are formed through reactions with free chlorine added during treatment (e.g., for disinfection or chloramination).

To comply with the NDMA limit, UV/AOP treatment will be designed to remove NDMA to non-detect levels in the product water. Formation of DBCM and BDCM occurs with sodium hypochlorite addition for disinfection of recycled water or at the advance treatment plant prior to membrane treatment. Compliance strategies for BDCM and DBCM can be aimed at removing the DBPs after they are formed (e.g., air stripping) or at preventing their formation. The latter can be achieved using preformed chloramines, which consists of preparing the chloramines in carrier water low in DBP precursors (e.g., RO permeate) before dosing to the process stream. In comparison to the high capital and operational costs of air stripping, let alone permitting challenges, the use of preformed chloramines only requires modest piping changes, installation of a small system for supply of carrier water if no supply is available on site, and uses the same chemicals as conventional chloramination.

For this project, implementation of preformed chloramines requires discontinuing the addition of sodium hypochlorite to the tertiary effluent conveyed to the AWP treatment processes and dosing preformed chloramines at this location. Supply of the carrier water can be achieved through the use of imported water or installation of a small MF-RO system at Tapia. Since the preformed chloramines are prepared as a concentrated solution, the carrier water needs are a small fraction of the total flow to be treated and the infrastructure and equipment needed are not a significant portion of the total project's cost and space requirements. The use of preformed chloramines at Tapia is expected to bring the largest benefit, though use of preformed chloramines at the AWP should also be undertaken (similar to the LASAN DC Tillman project).

Achieving pathogen reduction at Hyperion AWP

The LASAN Hyperion AWP is a proof of concept for potential, future potable reuse. Although the Hyperion AWP will initially be permitted for unrestricted non-potable reuse, the treatment barriers and technologies employed inform a path for potable reuse. The Hyperion AWP is set up to achieve the minimum 12/10/10-log removal credits for Virus, Giardia, and Crypto, respectively, for groundwater augmentation.



Preformed chloramines prevent formation of DBCM and BDCM at East County AWP

This approach has been successfully applied in full-scale (Beenyup Advanced Water Recycling Plant -Perth, Australia, NEWater-Singapore), demo-scale tested and is under construction for full-scale implementation (San Diego Pure Water Project, East County AWP Project, City of LA DC Tillman). A year-long study conducted at the East County AWP demonstration facility showed the use of preformed chloramines resulted in product water concentrations that prevented the formation of DBCM and BDCM, which were previously detected at levels of 11 µg/L and 3.9 µg/L, respectively, after addition of sodium hypochlorite resulted in concentrations in the product water that were below detection and compliant with CTR limits. The full-scale East County AWP project will be using preformed chloramines.



OBJECTIVE 4 »

Deliver chemical systems to provide operational flexibility and reliability, while reducing complexity of operations.

Our approach

The Walsh Team plans to simplify the chemical facilities design to the greatest extent, while providing adequate redundancy to assure uninterrupted operations during maintenance.

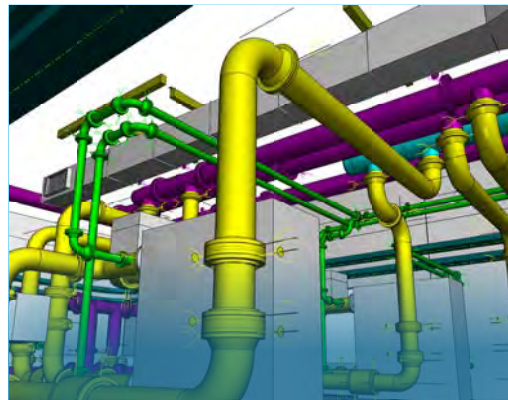
Chemical metering pumps. Our approach is to use shop fabricated chemical metering pump skids, with N+1 design for redundancy and reliability. On several past projects, including Hyperion, Terminal Island, and Santa Monica, chemical metering skids were fabricated to meet all engineering requirements within a controlled manufacturing facility to provide a high-quality product that is efficient to install on the job site. Whenever possible, we will specify chemical metering pumps with integral controls, which do not require additional control panels and wiring. Keeping metering pump spares on-shelf reduces maintenance down time.

MF and RO Clean-In-Place (CIP) ANSI type pump. We would specify N+0 pumps equipped with vibration sensors. Pump vibration signatures would be established during commissioning so that there is a baseline of comparison against mechanical issues. Signatures would be updated in real time through Fieldbus, Modbus, or one-way Cloud connectivity (i.e., one-way for cybersecurity). A change detected in pump vibration signature would inform operations staff of potential issues and allow them to plan for inspection and maintenance outside of an unplanned shutdown.

3D Modeling to Demonstrate Equipment Layout and Piping. Rapidly advancing information technology (IT) continues to change the way water projects are designed and built. The Walsh Team stands at the forefront of the use of the most advanced IT systems and processes to facilitate this collaboration and improve the efficiency of design-build project completion by improving clash detection, enhancing constructability and operations reviews, and simplifying installations. This reduces associated risks, expedites project completion, reduces overall cost, and makes it easier for reviewers to visualize every element of process piping.

During the Santa Monica Arcadia WTP Expansion, the Walsh Team used 3D modeling to collaborate with the City on various components that needed to be installed in existing facilities. We were able to manipulate the model to run several equipment and pipe routing scenarios and arrive at the best solution that focused on providing improved access for O&M activities.

Multiple Chemical Injection Points to Decrease Costs. While designing the EMWD Purified Water Replenishment (PWR) and Santa Monica Arcadia WTP projects chemical systems, we have proven, in some cases, that multiple chemical injection points decrease operations costs (UV/AOP sulfuric acid dosing) and provide operational flexibility and reliability. This has been implemented for formation of chloramines to optimize controls, increase system performance, and allow for chemical cleaning without taking a system offline.



3D designs equal savings in design time and reduced field issues

Blayne and Adam realized this benefit during the construction of pre-ozonation for the 520 mgd F.E. Weymouth WTP. This project was designed in AutoCAD 2D which proved to be challenging for the ozone building mechanical room, which included a significant amount of equipment, piping, HVAC ductwork, and electrical cable trays. When MWD decided to remove the ozone generator chiller from the design, prior to project bidding, rework of the mechanical room was time consuming. Ultimately, at the start of construction, the Walsh Team put the 2D design into a 3D CAD workspace and found remaining conflicts and interferences, which were removed before the building was even constructed. Furthermore, Adam was able to sit down with Walsh to optimize the layout of equipment, decreasing the complexity of construction. **Ultimately, by starting the design in 3D and coordinating for constructability, our team will complete the PWP design in less time and minimize issues during construction. We can also use these models to gain input on facility layout with the JPA operations staff.**

OBJECTIVE 5 »

Deliver timely design and construction of the ROC pipeline with special considerations for minimizing impacts to the community, mitigating scaling, and the required air gap for cross-connection control.

Meeting the schedule for the ROC pipeline design and construction will be one of the most difficult challenges for this project given its length (13.7 miles) and the number of permits and easements required before construction can begin. This concern is founded on the fact that the current Calleguas pipeline project, which is a much shorter span, is taking much longer than anticipated. Furthermore, the pipeline is located in communities with public stakeholders who have voiced their concerns about potential impacts.

Our approach

The Walsh Team has the expertise to strategically execute the ROC pipeline design and construction on time, to support an approach for mitigating scaling in the ROC pipeline, and to develop alternatives to an air gap for cross connection control.

Dedicated team to oversee and expedite pipeline delivery

The Walsh Team will collaborate with the JPA on immediately commencing ROC pipeline design and field exploration activities following NTP. Our team will dedicate a project management team that will be solely focused on the ROC pipeline scope. Our approach to expediting the pipeline delivery includes:

- **Strategically dividing the pipeline into reaches.** We will collaborate with the JPA on dividing the ROC pipeline into different reach design packages with start and end points of each reach strategically chosen based on permitting authority jurisdictions and/or existing conditions dictating special provisions for installation.
- **Design prioritization.** Design efforts will commence with special focus on completing the design in order of highest priority reaches first, as mutually agreed by

the collective team. Simultaneously, we will conduct geotechnical and subsurface utility exploratory efforts to inform the design on existing conditions along the planned alignment.

- **Proactively engage permitting authorities.** The Walsh Team will actively involve stakeholders in the planning and design development for the ROC Pipeline. We will establish early contact with permitting authorities for each pipeline reach and develop an understanding of their requirements to streamline approval of our design.
- **Prequalification of pipeline contractors.** Immediately following NTP, the Walsh Team will start prequalifying potential pipeline contractors. We will propose to add the highest scoring prequalified pipeline contractor to our Phase 1 team to provide constructibility reviews of our pipeline design. As soon as each of the several pipeline reaches are at 60% design, we will send out separate bid packages to obtain a GMP and commence construction as quickly as possible on this critical path scope. Each bid package will be competitively bid by the prequalified pipeline contractors, offering the JPA the most competitive pricing and allowing us to maximize usage of all skilled local resources on this important Project.

Dedicated pipeline team will be focused on meeting the schedule

The Walsh Team's ROC pipeline design will be led by Tim Taylor. Tim has over 37 years of experience with much of it focused on pipeline projects in California. The team shown has 175 years of cumulative experience designing and managing the design and construction of thousands of miles of pipelines. Each team member has extensive experience in Southern California and they understand the local regulatory and permitting requirements.

Left to right: Tim Taylor » Pipeline Design Lead; Mark Briggs » Pipeline Design; Jason Kelly » ROC Precon Lead; Miko Aivazian » Pipeline Design; Tom Seacord » ROC Management



- **Early work package for ROC pipeline.** We recommend utilizing early work packages for pre-procurement of ROC Pipeline materials and construction of ROC Pipeline reaches that are fully designed ahead of GMP agreement to allow this critical path scope of work to progress uninterrupted.
- **Minimize disturbance.** The Walsh Team will manage the construction of the ROC Pipeline as well as coordinate with the Contractors hired by the JPA for the ancillary pipeline scopes of work. We will direct special attention to minimizing community disturbance while delivering this crucial pipeline. Our team will provide outreach to local residents and business owners impacted by construction prior to work taking place. We will also actively promote communication via contact information provided to the community.
- **Geotechnical investigation.** While the preliminary assessment of the geotechnical investigation proposed borings every 2,500 feet, it may not provide the necessary information to adequately design the pipeline and trenching requirements. Our team recommends a more prudent industry standard of borings every 600 feet along the alignment to better characterize the soil conditions along the pipeline corridor, as well as additional borings at creek crossings and where trenchless construction methods will be utilized.

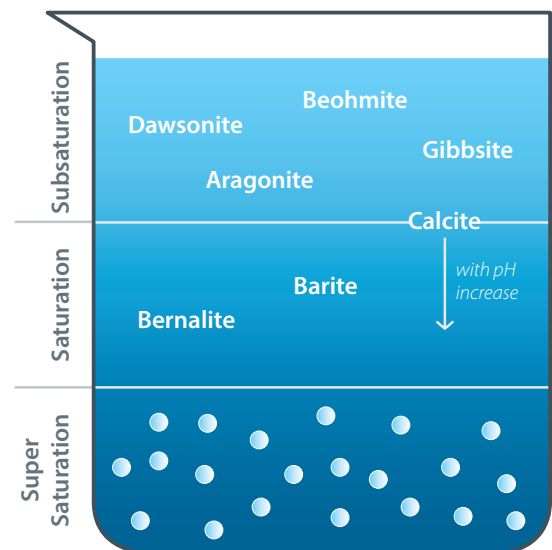
ROC Pipeline design focuses on reliability and minimizing scaling

The AWWP must remain operational and reliable year-round. Accordingly, the reliable operation of the ROC Pipeline is critically important. The Walsh Team is experienced in designing ROC pipelines with consideration for scaling mitigation and in helping agencies remediate scaled concentrate lines that were designed by others. Our approach to this complex pipeline design includes the following:

- **Chemical use through RO.** Chemical treatment at the RO will be designed to not only mitigate scaling at the membranes, but consideration will also be given to downstream effects in RO concentrate of chemical selection and dosing. We have seen impactful reduction of scaling in ROC discharge piping with proper pre and post-treatment chemical injection system design.
- **Proper pipe materials.** High density polyethylene (HDPE) is preferred to the use of push-on joints and metallic fittings and piping, not only for cost savings, but due to its smooth inner surface reducing scale buildup. HDPE is a more readily available material and may be installed utilizing a number of different methods, which would provide much needed flexibility. When considering the critical nature of this scope, flexibility of installation and ability to quickly procure material are of utmost importance.
- **Optimal hydraulics.** Hydraulic design will minimize air pockets and minor losses through strategic reduction of bends, tees, and valves.

RO data from demonstration facility suggests minimal scaling concerns

Our team recently evaluated future scaling impacts to the City of Ventura's new ocean outfall system based on anticipated concentrate water quality from a future AWWP. Using advanced water quality modeling tools, we completed the same analyses for your system using demonstration facility RO data. Based on our concentrate analysis, there should not be severe issues with scaling. While we expect there to be calcium phosphate precipitation in a maximum of 2 hours into the ROC pipeline, the precipitate is powdery in nature and will be flushed out of the concentrate line with the flow and not impact the pipeline. Our team will add contingency for sulfuric acid injection into the ROC pipeline to decrease precipitation. **Figure 3.6** shows modeling results of the scaling components using our OLI water quality model (November 2022 through April 2023) based on demonstration facility RO 90th percentile water quality.



Saturation index (SI)

Subsaturation: expect no solids to form
 Saturation: solids are in equilibrium with the water
 Supersaturation: solids will form

FIGURE 3.6 » Modeling Results

- **Remedial solutions.** While the considerations outlined above will likely counter most scaling issues, we believe in including remedial solutions in our engineering. The Conveyance Pipelines Alignment Study calls for pigging stations, which provide an effective cleaning approach. Given the critical nature of the ROC Pipeline and our commitment to eliminating all potential downtime for the AWPf, we are not only accounting for pigging stations, but also incorporating a chemical cleaning strategy for long-term maintenance. This team's previous experience included implementation of a system to chemically flush a 16-mile ROC pipeline. This engineering design feature was included after studies of water quality proved pigging in and of itself would not remove scale buildup. Understanding the conditions that led to this additional cleaning process is another lesson learned we bring to this scope of work, allowing us to save time on the front end of design and move into construction of a functional process line much quicker.
- **Robust design that minimizes scale.** Minimizing air entrainment and turbulence is key to decreasing scaling in pipelines; however this presents a direct challenge to the air gap requirement by DDW for the ROC line. In particular, DDW requires an approved air gap at some point between the generation of ROC and the connection to other waste sources in the SMP. For Pure Water San Diego and the Water Replenishment District, our team designed and received DDW approval of a direct connection (without an air gap) for the ROC line, utilizing a combination of metering and multiple backflow devices. This same approach was carried into the Central Coast Blue AWPf based upon the prior DDW approvals. Extensive technical discussions and approaches were evaluated, but in the end DDW did not allow a direct waste connection. To avoid potential delays with DDW we recommend following the recent DDW requirements. To minimize precipitation challenges in the DDW mandated air gap structure, the RO concentrate tank should be constructed with sections to allow isolation.
- **Future proofing.** We will collaborate with the JPA to design the ROC Pipeline to the nearest common nominal diameter of HDPE to accommodate the current planned ROC flow as well as the potential future flow with expansion of the AWPf to 8 mgd and from ROC augmentation of other sources. If the JPA does allow for future third party connections to its ROC Pipeline, such as from a desalter in Thousand Oaks or Moorpark, the junction location where the two waste streams mix should be engineered with special consideration, as these are known to be highly prone to scaling. Our recommendation would be to incorporate two open vaults, one duty and one standby, to mix the two ROC streams, precipitate mineral scale, and allow for effective maintenance.

What if the ROC Pipeline is not completed prior to the AWPf?

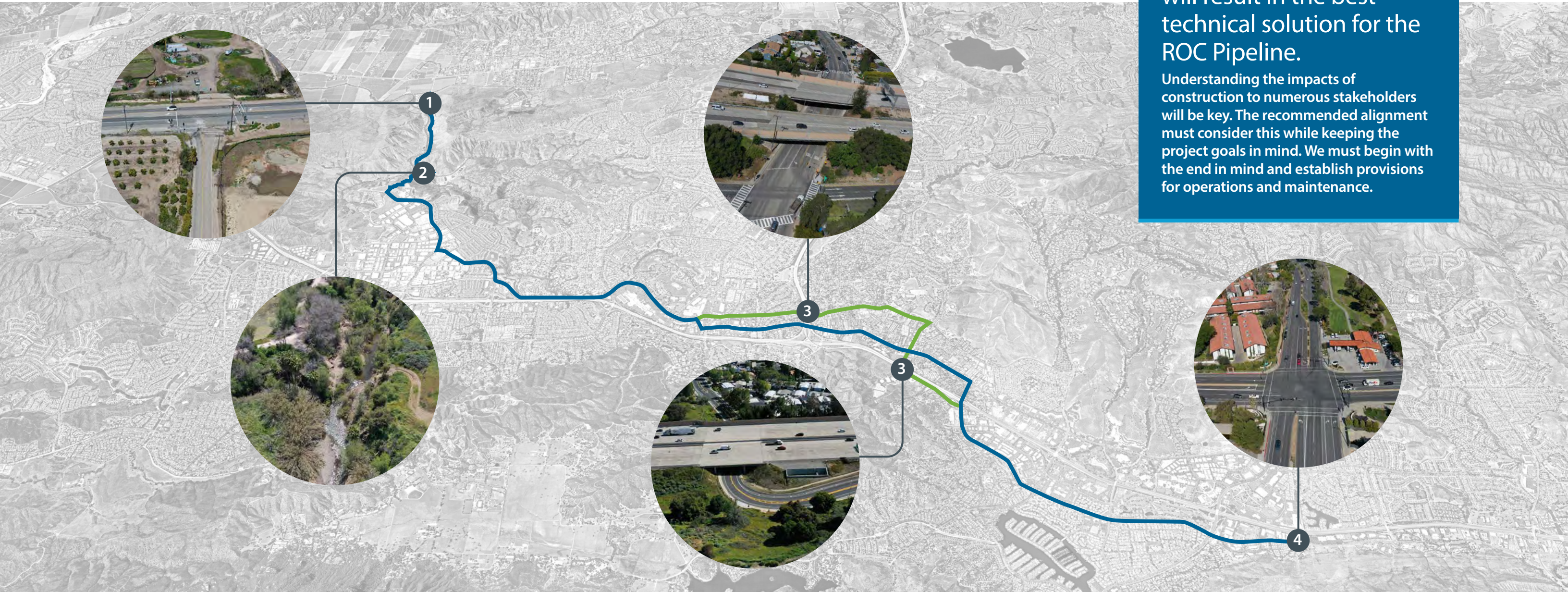
In the event that the ROC pipeline is not complete in time for facility start-up and commissioning, or even production, our team will develop contingency plans that can be discussed with the JPA team. These include the following scenarios:

1. **Functional Testing:** Recycle potable water through the AWPf treatment process and combine all process streams to be recycled back to the head of the plant. Tee fittings could be incorporated into the design to connect temporary piping systems and the finished water pump station may provide the pressure required to recycle flow. This is an effective approach for whole system disinfection prior to membrane loading.
2. **Start-up and Commissioning:** During startup testing, only one train of RO would be operated at a time. In the proposed 3X 2X mode, the minimum production can be reduced to ~0.6 mgd for the smallest RO train. Purified water would flow to a finished water wet well and water would not be stabilized until after the wet well. The team would install a temporary connection from the finished water wet well to the MF BW waste tank, which per DDW, must have an air gap. The ROC waste tank would also temporarily pump to the MF BW waste tank. All flows would be returned to the sewer.
3. **Modified Commissioning and Limited Operation:** If acceptable to the JPA, limited operation of the facility could be conducted with concentrate being discharged to the sewer while purified water would be delivered to the reservoir. Based on an average Tapia flow of 7 mgd and limited 0.6 mgd production, approximately 5,400 pounds per day (ppd) of salt would be recycled back to Tapia. This would increase the overall total dissolved solids (TDS) of the purple pipe system by approximately 75 mg/L. If such an increase in TDS is acceptable for a limited basis (1-2 months), the entire system could be commissioned and operated per design until the ROC is available.

ROC Pipeline alignment considerations

A clear understanding of the alignment alternatives will result in the best technical solution for the ROC Pipeline.

Understanding the impacts of construction to numerous stakeholders will be key. The recommended alignment must consider this while keeping the project goals in mind. We must begin with the end in mind and establish provisions for operations and maintenance.



1 Salinity Management Pipeline (SMP) Connection

The connection of the ROC Pipeline to the Calleguas Salinity Management Pipeline (SMP) will require close coordination. While there are standard flow control vault details that Calleguas uses for the connections to the SMP there be may additional requirements such as a pressure reducing station to mitigate from a pressure system to the gravity SMP system. Members of our team have the experience working with Calleguas on SMP connections.

2 Canejo Canyons Open Space

The pipeline alignment segment through the Canejo Canyon open space will need to take into account the proposed City of Thousand Oaks roadway alignment and the future bridge across the Arroyo Canejo. If the pipeline is anticipated to be constructed first, then a trenchless construction method may be required to mitigate environmental impacts to the Arroyo Canejo.

3 CalTrans Hwy 23 Crossing

The proposed alignments cross CalTrans highways in two locations. The Highway 23 crossing is at an overpass but will still require close coordination with CalTrans to obtain an encroachment permit within CalTrans ROW. Members of our team most recently coordinated with CalTrans for crossing SR 22 for a City of Long Beach 24-inch pipeline crossing. The encroachment permit process will be started as soon as possible to avoid impact to the project schedule.

4 Utility Coordination

As with any linear project in urban settings the coordination of the pipeline alignment with existing utilities is a key challenge. Working closely with utility companies and utilizing ground penetrating radar (GPR) and potholing technologies will enable the team to better understand how to route the pipeline through the urban corridors. Additionally, the County of Los Angeles (County) has very specific requirements for construction within County roadways. Our understanding of these requirements will help guide the permitting process.

OBJECTIVE 6 »

Deliver project elements on schedule and in compliance with external permitting requirements while utilizing early work packages and a phased construction approach.

Permitting is a complex and time-consuming effort on every project. Due to the sheer volume and overlapping information needs of permits required to complete this project as well as the time and effort necessary to reach the point of permit applications, potential construction delays due to lack of approved permits is a major risk to the overall schedule. We understand the importance of prioritizing efforts for each required permit and engaging stakeholders early on to develop relationships will streamline the approval processes.

We have related experience successfully permitting Terminal Island, Pure Water San Diego, City of Oxnard, Oceanside, Soquel Creek, and East County projects for IPR, and we are currently permitting Central Coast Blue, Morro Bay, and Ventura IPR projects. This distinct experience will prove valuable in providing timely and direct support as the Title 22 Engineering Report is developed to obtain a Title 22 IPR permit for the JPA. The permitting sequence will drive our initial baseline schedule. We will include activities for all major permits and incorporate detailed logic and predecessor/successor relationships to convey priorities to all stakeholders. This will convey important flow-through requirements to all reviewers in regard to permitting and important deadlines to be met to maintain the schedule.

Our approach

Permitting will be a collaborative effort between the JPA, Jacobs, Woodard & Curran (Jacob's permitting subconsultant), the Walsh Team, and the various permitting agencies.

For the permits that are the responsibility of the JPA, the Walsh Team will provide enhanced support including tracking and driving permits that are necessary to meet the schedule.

As DDW typically prefers to see final plans to confirm treatment process before construction begins, the PDB delivery method creates a challenge at times. For this reason, it will be critical to have internal alignment early in the project. The Walsh Team has led or assisted in the DDW/RWQCB permitting for Los Angeles (Terminal Island, DC Tillman, Hyperion), Pure Water San Diego, East County, Morro Bay, Central Coast Blue, City of Oxnard, Ventura, Oceanside, and Soquel Creek. **The lessons learned from going through similar permitting processes on multiple recent occasions will prove invaluable to streamlining permits for this project.**

Our team will be proactive rather than "standing by" and reacting when immediate action is required. One of the keys to collaboration is developing permit checklists and utilizing them beyond design development, all the way through startup activities and throughout the initial compliance and monitoring schedules. Through targeted workshops, alignment on key issues will be obtained for items such as backflow, monitoring systems, design criteria, construction sequencing, and early work package options (discussed on **Page 40**) in our Management Approach.



Trussell has unparalleled reservoir permitting experience in California

Our team is ready to support any needed reservoir permitting and analysis. Trussell is an integral member of the Walsh Team who brings unparalleled experience and expertise with permitting surface water augmentation projects in California. Trussell has led the permitting of the only other two surface water augmentation projects in California—East County Advanced Water Purification Facility/Lake Jennings and North City Pure Water Facility/Lake Miramar—both currently in construction.

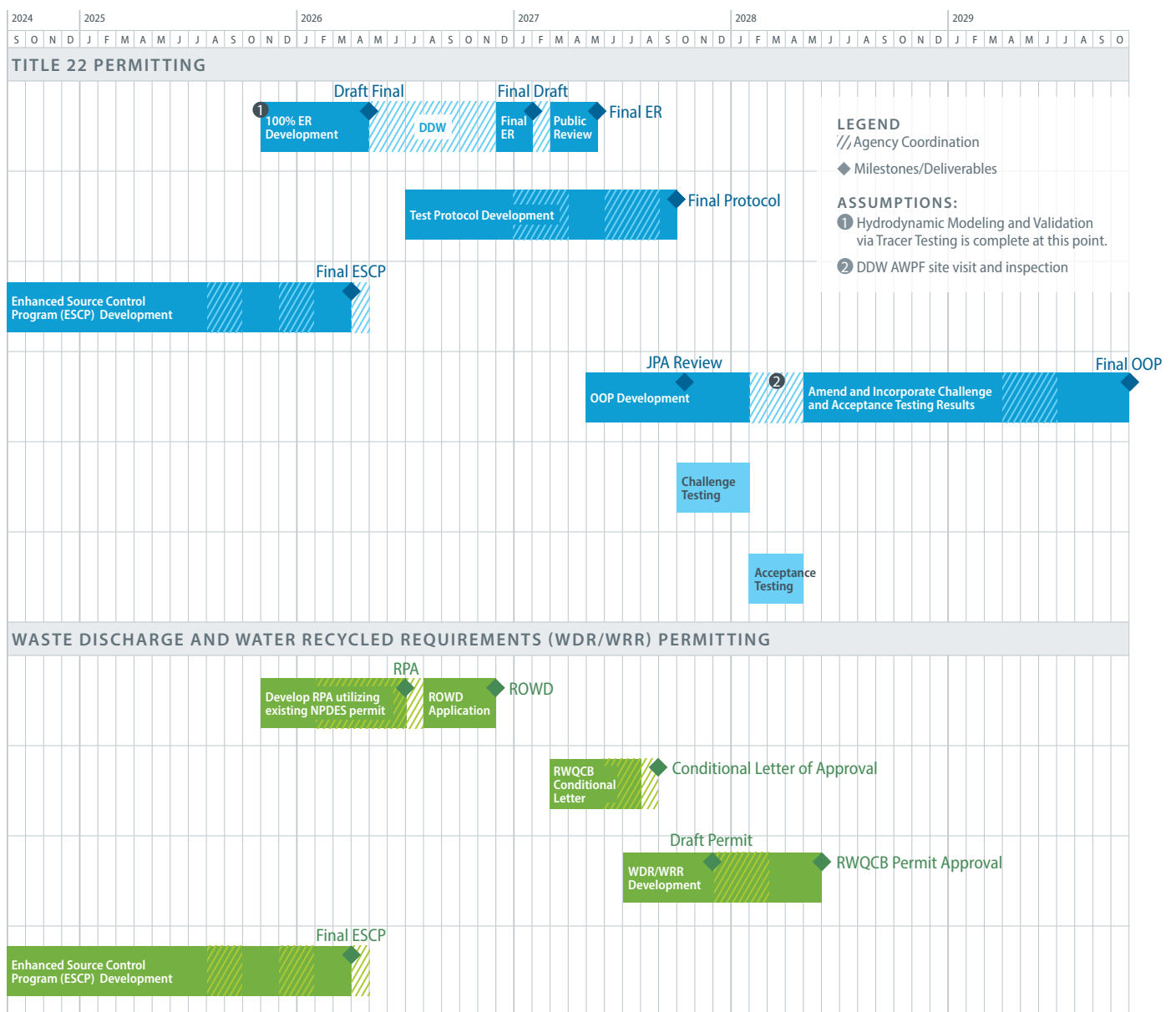
AWPF Discharge Permitting

Coordination for the Title 22 permit discharge is essential for successfully meeting the compliance deadline and conveying purified water to the Las Virgenes reservoir for surface water augmentation. Although this permitting effort is not being led by the Walsh Team, it is important to incorporate it within the design and construction schedule to provide and collaborate on critical components like the Engineering Report, Test Protocols, and other materials pertinent for the JPA to provide to agencies for review and approval. The graphic below outlines the schedule for critical components of reuse

permitting for the PWP. As the design is far enough along to start developing the Engineering Report and reasonable potential analysis (RPA), the schedule begins two months before the completion of the final design. The acceptance testing aligns with the commissioning schedule and includes time for the amendment of the Operation Optimization Plan (OOP) to be fully incorporated with the challenge and acceptance testing results a year prior to the compliance deadline of November 2030.

FIGURE 3.8 »

Title 22 IPR Permitting and WDR/WRR Permitting



Permitting Begins Early in Phase 1

Included within the Permitting and Approvals Plan will be a permit tracking log, ranking permits in order of priority. The draft plan will be submitted within 30 days of NTP and will help guide our team's focus through Phase 1. The tracking log will be supplemented by permit checklists to outline the critical steps and deliverables necessary to meet each permitting milestone.

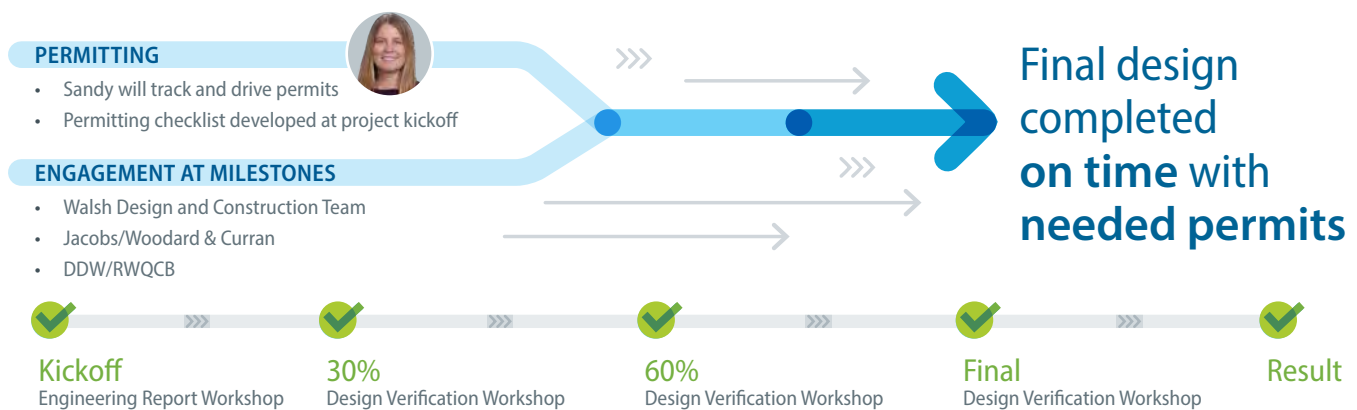
Driving this effort for the Walsh Team will be Sandy Scott-Roberts. Sandy comes to our team from the Orange County Water District and was the program manager for both the initial and final expansion of the GWRS. As part of these projects, Sandy managed permitting efforts through DDW and finalized Flood Control agreements, SCE easements, and City/County utility relocation permits. Supporting Sandy on the permitting efforts will be Andy Salveson, Shane Trussell, and Jeremy Stocksclaeder—all of whom have extensive permitting expertise and experience, including DDW coordination on major Southern California projects including the City of San Diego Pure Water Program, the Terminal Island expansion, and Central Coast Blue facilities.

The Walsh Team will prioritize design to align with the construction schedule as shown on Page 38. With regards

to field activities, we will specifically prioritize below grade utilities (electrical, fiber, water, and sewer), clearing and grubbing (including oak tree replacement/relocation), grading, demolition, deep foundations, retaining walls, and below grade structures. All required permitting will be planned for, via early design progression, to deliver these early scopes without delay.

Delivery of this project within our scheduled duration will require an intimate knowledge of the long-lead regulatory requirements. This is something our team has done many times before. We know how to guide not only our own team, but the entire collective team including the JPA and your OA, to keep regulatory agencies informed in order to provide timely responses and approvals. Our approach includes:

- Understanding DDW's project specific permitting requirements, based on experience with this specific district.
- Streamlining the permitting process to minimize schedule impacts by planning for them within our project schedule.
- Initiating early, proactive, and frequent communication, especially during design decisions.
- Leveraging prior working relationships with DDW staff to secure timely approval.



What to do with off-spec water?

Most AWWPs are co-located next to WRFs. This provides for easier and less costly diversion of waste flows, such as clean-in-place (CIP), backwash, and drains. These flows can be significant—particularly MF backwash flows. Off-site AWWPs, like the JPA's, require a different mindset. Our team has been working with the Central Coast Blue AWWP in the Pismo Beach area on this issue. Below are a few considerations based on this experience.

- A single point of diversion, such as from the finished water and wastewater tank, simplifies construction and reduces cost. Multiple diversion points are handy for operations but can be costly in terms of valving and process piping.
- A balanced analysis is needed to examine the distance and cost of larger MF backwash flow connection points to the sewer system compared to a fully equalized MF backwash discharge. The MF backwash flows can be substantial.

These BW flows must return to the sewer and be fed to the Tapia WRF. Developing large waste equalization means additional footprint and cost but provides the benefit of being able to connect to smaller segments of the sewer system. Production capacity can be impacted if there is insufficient capacity in the local sewer trunkline during wet weather events.

- CIP flows can be a bottleneck in the local sewer. Standard practice is to perform a CIP and then in a matter of minutes drain all neutralized CIP waste to the sewer. For the Central Coast Blue AWWP, we stored CIP waste in large basins and drained them back to the local sewer at a slow rate during low sewer flow periods of the day.

The advanced monitoring provisions being suggested will detect an off-spec water condition very quickly so the volume of off-spec water to deal with will not be significant.

OBJECTIVE 7 »

Work collaboratively to extract the most value from self-performing and subcontracting.

To deliver best value to the JPA during construction, we will strategically determine responsibility for the various scopes.

The Walsh Team is uniquely capable of self-performing up to 60 percent of the construction of the advanced facility, while also integrating support from our vast network of specialty subcontractors. One of the main ingredients of best value is quality. The Walsh Team has an unmatched commitment to quality management and truly looks forward to the opportunity to showcase its self-performed construction alongside the JPA.

Our approach

Each project is unique in its characteristics and requirements for construction; and as such, we treat each project differently to capitalize on strengths and shore-up weaknesses to control the schedule.

Following prequalification of potential subcontractors, we will solicit bids from the most qualified firms, including DBEs, in accordance with Title 40 CFR Part 33. Initial outreach to potential subcontractors will encourage participation in project constructability and alternative design options. Selection of successful firms will be based on best value—building on innovation, eagerness, and ability to perform.

The Walsh Team will evaluate the project's overall design, schedule, and pool of potential subcontractors to plan out a self-performance scope for construction on the Project. For AWPfFs of similar design, Walsh has typically self-performed 55 percent – 65 percent of skilled labor tasks. Ultimately decisions regarding which scopes to self-perform will be part of a collaborative process with the JPA. Our intent is to maximize our efficiency and control critical path.

Our self-performance capacity includes the following major scopes:

- ✓ Excavations and site balancing
- ✓ Underground pipe installation (including all trenching, shoring, and backfill)
- ✓ Structural concrete formwork, pour, and finish
- ✓ Mechanical piping instrumentation and installation
- ✓ Process equipment procurement and installation
- ✓ Handrail and miscellaneous metal installation
- ✓ Start-up and commissioning

Self-performing these scopes allows us to drive the schedule by executing these critical path activities with seamless mobilization with the right crews and equipment, which ultimately mitigates project delays when transitioning to successor activities. Subcontracting all or most of these scopes of work is risky, not only because of the potential schedule implications due to lack of performance, but also due to this type of construction requiring a deep understanding of subsequent installations to plan for future scopes of work to integrate without rework.

Typically, we subcontract specialty scopes of work such as installation of deep foundations, engineered shoring, dewatering systems, electrical components, and various building and site finishes. We have strong working relationships with subcontractors with these capabilities and have added Taft Electric to our team in Phase 1 to assist with cost, schedule, and risk items related to the important electrical scope of work. With the exception of the electrical scope of work, most scopes we prefer to subcontract are at the beginning (prior to permanent installations) or end of the project, to support our ability to truly manage the construction schedule. In past projects, we have divided out the site clearing scope to solicit involvement from multiple local, disadvantaged business enterprises.

Skilled labor is currently in high demand throughout the construction industry, especially in the greater Los Angeles area. To navigate this major industry issue, we will develop and maintain an accurate construction schedule and use this to determine and proactively plan for internal resource demands over the course of the project. Providing weekly schedule projections to our subcontractors will ensure this Project remains a priority from start to finish.

With The Walsh Team's strong ties with key subcontractors and vendors, we will be able to obtain competitive pricing. Our trusted partners will work with us from CDR through GMP submission so that the JPA can benefit from an accurate real-time cost model. We require a minimum of three quotes and perform an internal evaluation for best value that we will review with the JPA for final selection decision.

OBJECTIVE 8 »

Develop a successful strategy for commissioning the facility during possible reduced plant influent flows.

Members of our team were instrumental in the design and commissioning of the JPA PWP Demonstration Facility project. We supported the commissioning of this facility and were there on days, nights, and weekends to respond to operational challenges. The JPA can expect the same level of support on this project. Although the team has the personnel available to commission the new AWPf any time of the year, we recognize the challenge of available flow to the AWPf during the summer (irrigation) season. What follows below is some initial thinking that may allow for summertime commissioning, should that be necessary.

Our approach

Commissioning the facility during reduced influent flows.

Being able to commission the facility during times of reduced plant influent flows would be a way to open up the project schedule to allow for a larger window for facility commissioning. With the 3X 2X concept presented in our Objective 2, only ~0.6 mgd of feed flow would be needed for commissioning. Our team will develop detailed commissioning strategies during Phase 1 of the project. Through temporary piping, the purified water and ROC could be blended into the waste equalization tank and returned to Tapia, thus boosting the feed flow to Tapia and allowing for continuous use of the 0.75 mgd feed flow without a loss to irrigation customers. Should it be desired to run the AWPf consistently through the irrigation season, this same approach could be used to keep the system online for production.

The Walsh Team has developed baseline start-up and commissioning plans and acceptance test plans to maximize efficiency, ensure thorough system checks (point to points, loop checks), and decrease the time between initial startup activities and the end of permit testing. This team has successfully completed this process for the Weymouth WTP, Terminal Island, and is working through the process for Hyperion and Santa Monica. We have also utilized the recycling of water in a loop throughout facilities for initial process checks, which provides some independence on reliance of source water. On Hyperion, Santa Monica, and Terminal Island, we proactively worked on control descriptions and engaged the integrator in frequent meetings well head of startup.

Sandy Scott-Roberts will serve as our Start-up and Commissioning Manager. Sandy will also support operations engagement starting in Phase 1. As Program Manager of the OCWD GWRS expansion, Sandy involved operations staff in startup and commissioning phases to familiarize operation staff with the new facility. This provided a more seamless transition from startup to operation and in-depth knowledge was gained by the operators involved in startup versus attending a training seminar after startup. These types of expertise could be applied to this project to ensure a successful startup and future operation.

Additionally, the Walsh Team has AWPf operational support available to assist in operation transition, with the support of Ronne Padilla. The JPA is very familiar with Carollo's Amos Branch, who worked for several months side-by-side with JPA staff at the demo during transition. That successful approach could be mimicked (and expanded), bringing in licensed AWPf operators from the design team to work with Amos and the JPA through development of SOPs, training videos, and providing on-call support to meet the JPA's needs.

The Walsh Team has led start-up and commissioning of three AWPf facilities in Southern California

Ronne Padilla will be providing start-up and commissioning support for this project. He served as the Start-up Manager for the Hyperion, Weymouth, and Santa Monica AWPfs. As part of the commissioning effort, Ronne strategically sequenced and supported the startup of each piece of major process equipment to assure productive, uninterrupted commissioning of each respective treatment facility.



TABLE 3.3 » Startup and Commissioning Plan. Successful commissioning and DDW approval will be achieved through a rigorous testing process delivered in a step-wise approach.

	Prerequisites	Key Testing Activities	Key Training Activities	Outcomes
PRE-COMMISSIONING	<ul style="list-style-type: none"> • Testing Plan • Startup and testing schedule • Transition Plan • Operator Training Plan and schedule • Draft O&M Manuals 	<ul style="list-style-type: none"> • Factory acceptance testing • Preliminary field testing • Piping pressure testing • Electrical megger testing • Electrical continuity testing • Visual inspection sign-off 	<p>O&M Buy-in on Training Plans</p> <ul style="list-style-type: none"> • Conduct training plan review workshops, solicit feedback from O&M personnel, and assure training plans and curriculum are tailored to meet their specific needs and expectations 	<ul style="list-style-type: none"> • Equipment is tested at the vendor's factory to verify performance and functionality before shipment to jobsite • Mechanical and electrical systems have been tested and are ready to facilitate equipment testing
PRE-FUNCTIONAL TESTING	<ul style="list-style-type: none"> • Approved factory acceptance testing reports • Preliminary field testing completed 	<ul style="list-style-type: none"> • Instrument inspection and field calibration • Pre-loop checks (field device to I/O card) • Loop checks (field device to SCADA) 	<p>Equipment Training</p> <ul style="list-style-type: none"> • Vendor training on individual equipment (operation, inspection points, maintenance, etc.) 	<ul style="list-style-type: none"> • Equipment components installed, energized, calibrated, and communicating properly • Comprehensive equipment O&M training provided for plant personnel
FUNCTIONAL TESTING	<ul style="list-style-type: none"> • Pre-functional testing completed • Calibration and loop check reports provided 	<ul style="list-style-type: none"> • Control strategy testing including alarms, interlocks, and control loops • Equipment vendor sign-off • Manufacturer's certification of proper installation 	<p>System Training</p> <ul style="list-style-type: none"> • Vendor training on operation of each system (controls, alarms, troubleshooting, etc.) 	<ul style="list-style-type: none"> • All equipment tested and operates correctly under simulated conditions • Facility-wide alarms and interlocks are tested and functioning properly • Hands-on system-level training provided for plant personnel
CLEAN WATER TESTING	<ul style="list-style-type: none"> • All functional tests completed • Equipment components installed properly to operate under conditions specified • Manufacturer's certification of proper installation provided 	<ul style="list-style-type: none"> • Test simultaneous operation of all treatment systems and components • Closed loop clean water circulation through entire facility • Perform orifice testing • PID loop tuning 	<p>Startup training</p> <ul style="list-style-type: none"> • Facility-wide SCADA controls training • Process troubleshooting • SOP training • Vendor operational training/shadowing 	<ul style="list-style-type: none"> • Hands-on training for all operators in preparation for full system startup and operation under actual operating conditions • Verify operation of facility with all systems online and operational
DEMONSTRATION TESTING	<ul style="list-style-type: none"> • Final O&M manuals • Vendor's functional testing startup reports • Load membranes/media • Seed bioreactors • PID tuning/setpoint refinement (post-seeding) 	<ul style="list-style-type: none"> • Perform demonstration testing under actual operating conditions for a continuous period of 60 days to substantiate performance of entire facility 	<p>On-the-job training</p> <ul style="list-style-type: none"> • On-the-job training and shadowing during full plant operation 	<ul style="list-style-type: none"> • Demonstration testing report documenting that the design and constructed system operates under design conditions and meets all performance criteria and requirements of PDB contract. • Operators work alongside the Walsh Team to manage and maintain plant performance

OBJECTIVE 9 »

Provide successful coordination with external project stakeholders and other project teams during design and construction.

Like the JPA, the Walsh Team takes our commitment to community very seriously. We routinely partner with the communities we serve to achieve meaningful results with lasting impact. Major construction projects can be difficult for those living and working in or commuting through the area and perceived project success is heavily influenced by their opinions. In support of the JPA's public involvement team, we will focus on building public support and consensus through a public participation program that listens to and informs local stakeholders and anticipates and addresses their concerns.

Our approach

The Walsh Team is ready to assist the JPA in interfacing with the surrounding community as we have done before on projects across Southern California.

With the JPA's communications team in the lead, our team's public outreach efforts will be focused on tailored outreach and communication plans for effected residents, schools, and businesses. We will start these outreach efforts early in design to establish trust and transparency and to create opportunities for ongoing two-way communication. Key elements of our program will include:

- Project message development
- Collateral material development
- Project website
- 24/7 project hotline
- Social media outreach
- Wayfinding and message board signs
- Board briefings
- Stakeholder list development and analysis
- Stakeholder interactions through open houses, workshops, meetings, and presentations



Multifaceted public outreach engaged students and the public at Johns Creek

On the Johns Creek Environmental Campus project adjacent to the Chattahoochee River in Fulton County, Georgia, the Walsh Team's public outreach efforts contributed to the community's positive view of the project. The team participated in public events throughout the project included an open-house community meeting with an overview of the project through staff interaction, information stations, and fact sheets. Working with the local homeowners association, we met with homeowners on concerns primarily regarding security and plant visibility—satisfied by additional fencing around the facility's outfall and additional landscaping.

At the end of construction, a Cornerstone Ceremony brought together community leaders, students, and neighborhood representatives and linked the facility's environmental theme to the future of Fulton County and its residents. One highlight was an environmental essay contest where fifth graders wrote about steps they could take to protect the Chattahoochee River area environment for the next 50 years. The top three essays were read by their student authors; the Fulton County Board of Commissioners issued a special proclamation expressing appreciation for the students' involvement and invited the entire class to attend and re-read the three essays.



Priorities that the Walsh Team will be focused on include the following:

- Assuring stakeholders are pleased with the finished product.** The new AWPf facility will be constructed alongside Ladyface Mountain which is an important landmark to the City of Agoura Hills and its residents. We have heard from you the importance of aesthetics for the exterior of the facility including shielding the view of less aesthetic components and making sure that other exterior facilities such as the retaining wall are visually pleasing. The JPA and your OA (Jacobs) have already developed several ideas to address the exterior façade including roll-up doors with glass panels that we plan to retain in our final design. An early priority will be to establish a relationship with the City and to meet with key stakeholders to confirm our understanding of their needs and desires. We will develop early plans to comply with their Oak Tree Mitigation Ordinance, which include either relocation of smaller oak trees or replanting at a 4:1 ratio. Even though the JPA is exempt, it is our team's desire to comply with City guidance as much as possible and support the relationship established by the JPA.
- Minimizing community disturbances by actively managing our pipeline subcontractors and coordinating regularly with the JPA's ancillary pipeline contractors for all pipeline installations in the public right-of-way.** It is key that our communication to the community is consistent and they feel our efforts are organized and have minimal impediments on their daily lives.
- We will assure the facility layout is conducive to explaining the treatment process to visitors.** We understand the demonstration facility is used for community education, but that the JPA still plans to conduct tours of this full-scale facility in the future as part of quarterly tours that are performed at various facilities including the Tapia WRF and the Rancho Composting facility.

Productive collaboration with the JPA and stakeholders.

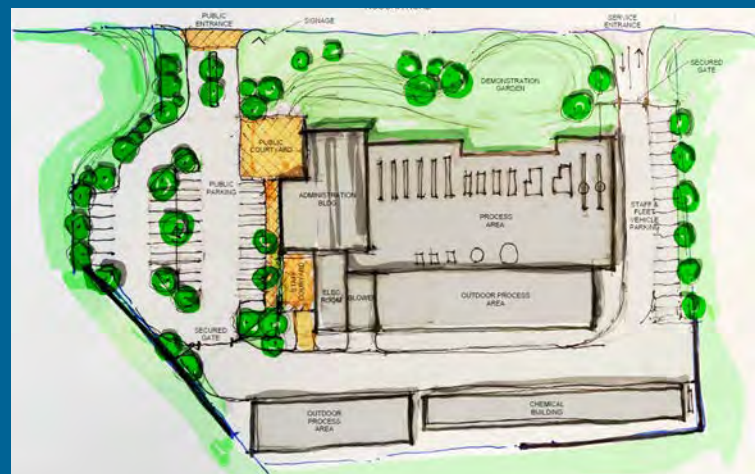
The Walsh Team will establish preferred channels of communication with the JPA and Jacobs at the start of the project. It is our understanding that the JPA would appreciate a hybrid approach for regular communication that includes both in-person and virtual sessions. In our local office, we will have a Microsoft Teams setup in our conference room, giving your staff the opportunity to join meetings both in-person and virtually. We plan to work closely with the JPA multiple times a week to strategically plan for and execute a successful project.

As part of our Phase 1 responsibilities, we will be developing a coordination plan that will outline the details of each concurrent external project being managed by the JPA during execution of the AWPf/pipeline scopes. As this plan is developed, we will coordinate regular meetings (beginning monthly and progressively increasing to bi-weekly or even weekly), starting with the JPA management team including Jacobs, and will likely suggest expanding those meetings to include the individuals or teams performing each scope to facilitate direct interaction with the contractors and construction managers performing the work.

The Walsh Team would work with each individual project lead to understand their schedule and space constraints and will adjust and/or align our activities accordingly. We will also collaborate on tie-in locations and work together to intuitively align working boundaries among the projects to minimize disruption and ultimately benefit the overall program.

Consideration for public and private spaces

The Walsh Team's architect, RRM, started to ruminate about enhancements to the CDR regarding how to arrange public and private space in order to create a sense of place and gathering. This site is also prime for a potential demonstration garden between the street and the structure that could be used for stormwater collection. Furthermore, an access loop around the site could be provided for better fire and chemical delivery truck access while meeting maximum slope requirements.



Management approach and schedule

A successful PDB project stems from leadership and management practices that inspire a cohesive and collaborative team.

The Walsh Team offers the benefit of a proven, tried, and tested team that has relevant experience of working together collaboratively. We understand that Oliver Slosser is the JPA's PWP Program Manager and will serve as the primary point of contact for our team. Our team plans to streamline communication and offer our Project Manager, Blayne, as the single point of contact for Oliver. Blayne provides decision making authority that will be essential in allowing the project to continue to make forward progress over its duration.

The Walsh Team plans to partner with the JPA and will establish a project charter to assure our project vision and goals are aligned. We will lead regular check-ins to make sure the collective team is in alignment. Our executive level management will meet with the JPA management staff on a quarterly, or agreed frequency, basis to discuss high level

project concerns and to make sure our team continues to meet the JPA's expectations.

One of the many important deliverables we will prepare includes a Project Management Plan (PMP), which we plan to deliver within 20 working days following NTP. This PMP will be specifically crafted for this project by our team's Key Personnel. This document will provide a detailed roadmap for progress on all components during both phases of the project. It will include various deliverables as outlined below that will help establish procedures and facilitate project execution, while establishing interim schedule milestones. The PMP will serve as a living document, made readily available to the JPA, that we can supplement and update throughout the course of the Project.

Components of our project management plan

The JPA will have current, detailed information on our procedures and project status. Many of the components listed below will be standalone documents that we will bring together into one consolidated PMP.

We anticipate that the PMP will include the following components:

Project Communication Plan » Outlines procedures for communication among team members. Establishes digital filing structure, processes and access procedures, and standards for documentation and records for decisions and project information.

Project Controls Plan » Overviews the schedule and budget tracking. Controls processes that will be used and procedures for cost development.

Site Specific Safety Plan » Outlines safety program to be used by the team and all subcontractors throughout the project.

Quality Management Plan » Overviews the processes and standards to be used during the design development process. Details Quality Control (QC) and inspection procedures that will be used during the design and construction phases.

Subcontractor Procurement and Outreach Plan » Identifies the processes that will be used for procurement of various scope items and plans for maximizing minority and local vendor participation.

Project Schedule » Provides a comprehensive and detailed schedule of design and preconstruction activities, updated on a monthly basis throughout Phase 1. The team will

develop a separate deliverable outlining construction activities during Phase 2, with greater detail at each design deliverable milestone.

Permitting and Approvals Plan » Outlines the anticipated permits that will be required including responsible party, anticipated duration of permitting, and other relevant information.

Process Equipment Selection Plan » Using the pre-qualification/pre-purchase approach that this team developed for the facility, we will work with the JPA to determine critical equipment that should be considered for early procurement.

Risk Register » Establishes a Risk Register to be maintained by phase and for overall program.

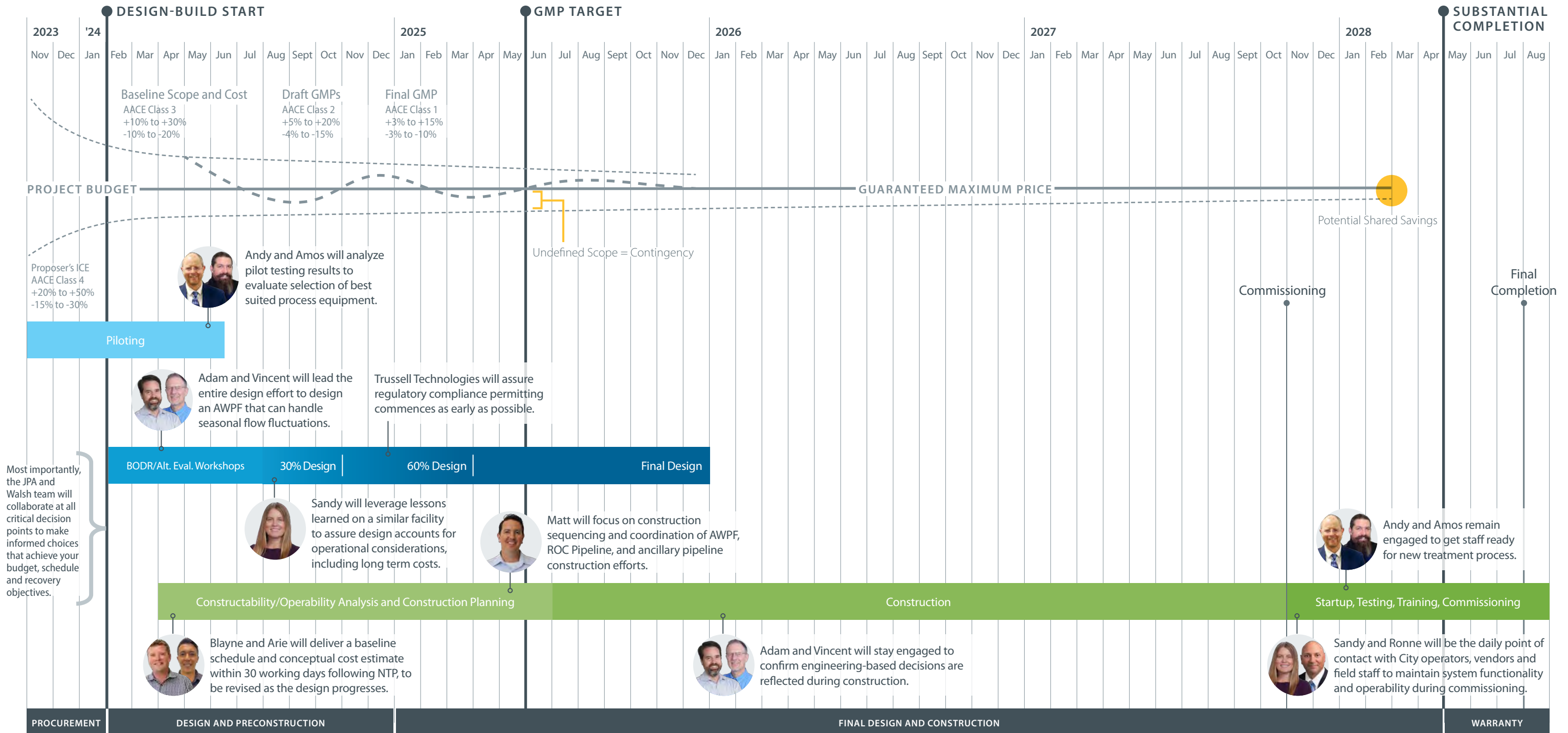
Cost Model Format » Establishes an organized structure for future cost deliverables that is easy for all parties to understand and review.

Field Investigation Plan » Outlines our plan to investigate existing conditions of areas of planned project improvements to inform our design and minimize risk during construction. This plan will be further refined for more thorough targeted investigations after the initial preliminary investigations.

FIGURE 3.8 »

An efficient project approach is *driven by a collaborative* project delivery team focused on the *JPA's objectives*

The diagram below shows the scope and cost lifecycle along with a breakdown of key milestones and highlights of key personnel involvement during Phase 1 leading up to GMP and during Phase 2 while managing the established GMP and target schedule. During design, we will progressively update the estimate, documenting ups and downs as the project evolves – this is represented by the “squiggly line”. We will track all scope and cost additions and deductions so that the JPA has full transparency into current estimated costs. The lower portion of the Figure shows the design definition starting with a Charrette approach to refining treatment and facility configurations early and quickly. Each element of this timeline is supported by specific key personnel accountability.



The Walsh Team provides schedule certainty

The Walsh Team will collaborate with the JPA and stakeholders early and often to ensure that major design decisions are agreed upon and to enable the earliest possible start to construction.

Most obstacles will be tackled during Phase 1 constructability reviews. Inevitably, issues will arise over the course of construction. We will mitigate schedule impacts by thoroughly planning our work with the ability to shift focus to alternate critical items; that way if our current workflow requires design modifications, construction can continue to progress in other areas without delay. Below are a few key observations on the proposed project schedule included in the RFP:

- The JPA is prepared for a 4-month long GMP negotiation. Historically, we have been experiencing GMP negotiation timeframes of 1 to 2 months. While we understand the current supply chain issues are constantly introducing cost obstacles, we plan to consistently communicate these with the JPA and evaluate value engineering concepts throughout design to assure there are no budgetary surprises at time of GMP submission. With these considerations, **we are proposing to reduce the GMP negotiation period from 4 months to 2 months.** We also request for issuance of authorization to proceed with 100 percent design during or prior to GMP negotiations to allow for design to continue without any loss of momentum through this negotiation period.
 - There is a two-year gap between project completion and the Malibu Creek Consent Decree deadline. The Walsh Team recognizes that the schedule was presented with the determination that commissioning will likely need to fall within the wet weather months of November to April and that if this season was missed in 2027/2028, the project could be delayed. This is a risk that our team feels confident we can mitigate through the plan discussed in Objective 8, **offering flexibility in when we are able to commission the project.** If we are able to finish construction ahead of November of 2027, we can commence the startup effort early. If we run behind for reasons outside of our control, we will be able to minimize project delay. We acknowledge that the JPA would like to provide purified water to the community as quickly as possible and we will strive to deliver on this as early as feasible.
- In order to begin startup and commissioning efforts for the new facility, we will need a detailed plan outlining our approach and identifying the most logical sequence of startup with consideration for the variables present during the commissioning of an AWP. Our Startup and Commissioning Manager, Sandy Scott-Roberts, will develop the detailed plan and work with your plant operations staff to enhance it so that everyone is on the same page leading up to the effort. Early planning also allows us to anticipate issues typically faced during startup such as process discharge, logic optimization and water quality testing. We have recently completed detailed start-up plans for the Hyperion AWP and Santa Monica Arcadia projects, which have gone through DDW review and we are well positioned to obtain earlier acceptance from DDW based on our past lessons learned.
- The PDB collaborative delivery model allows our team to offer the JPA schedule accelerators for your consideration. We have developed several early work package concepts that can individually offer schedule benefit and collectively offer substantial schedule benefit. We have outlined these concepts below and are open to negotiating scope and cost of any items of interest in Phase 1.
- **Early Major Process and Electrical Equipment Procurement.** Due to supply chain issues, some equipment has lead times of up to two years upon release for fabrication. We will stay in close communication with equipment suppliers and design around more readily available equipment. It would be advantageous to initiate procurement of these long-lead items in Phase 1. This would include negotiating pricing, executing Purchase Orders, and procuring submittals. We propose starting this after major process equipment is selected in the 30 percent design package.
 - **Early Procurement of ROC Pipeline Materials.** The ROC Pipeline will utilize HDPE pipe and fitting materials, which offer cost advantages and maximizes the ability to manipulate the pipeline around unforeseen conflicts. HDPE manufacturers produce materials based on order history and it will be difficult to locate the nearly 75,000 LF of pipe and all associated fittings on the shelf. This quantity of material will likely warrant a special production run. The Walsh Team will be able to secure an allocation of pipe and fittings after pipeline diameter design is finalized. This would involve negotiating pricing and terms, including a Payment & Performance Bond, with the selected pipe manufacturer(s) and securing a position in the production line along with storage of materials until needed.
 - **Oak Tree Mitigation Measures.** The City of Agoura Hills has specific obligations to maintain population of their oak trees. Early in our design, we will identify the oak trees that need to be removed and develop a relocation or replanting plan. In an early work package, we propose starting to plant new oak trees at the 4:1 replacement rate to mitigate project delays at the start of construction. **Moving this effort to Phase 1 can save up to three months, when considering the planting of an estimated 520 trees, permitting, and approvals required.**

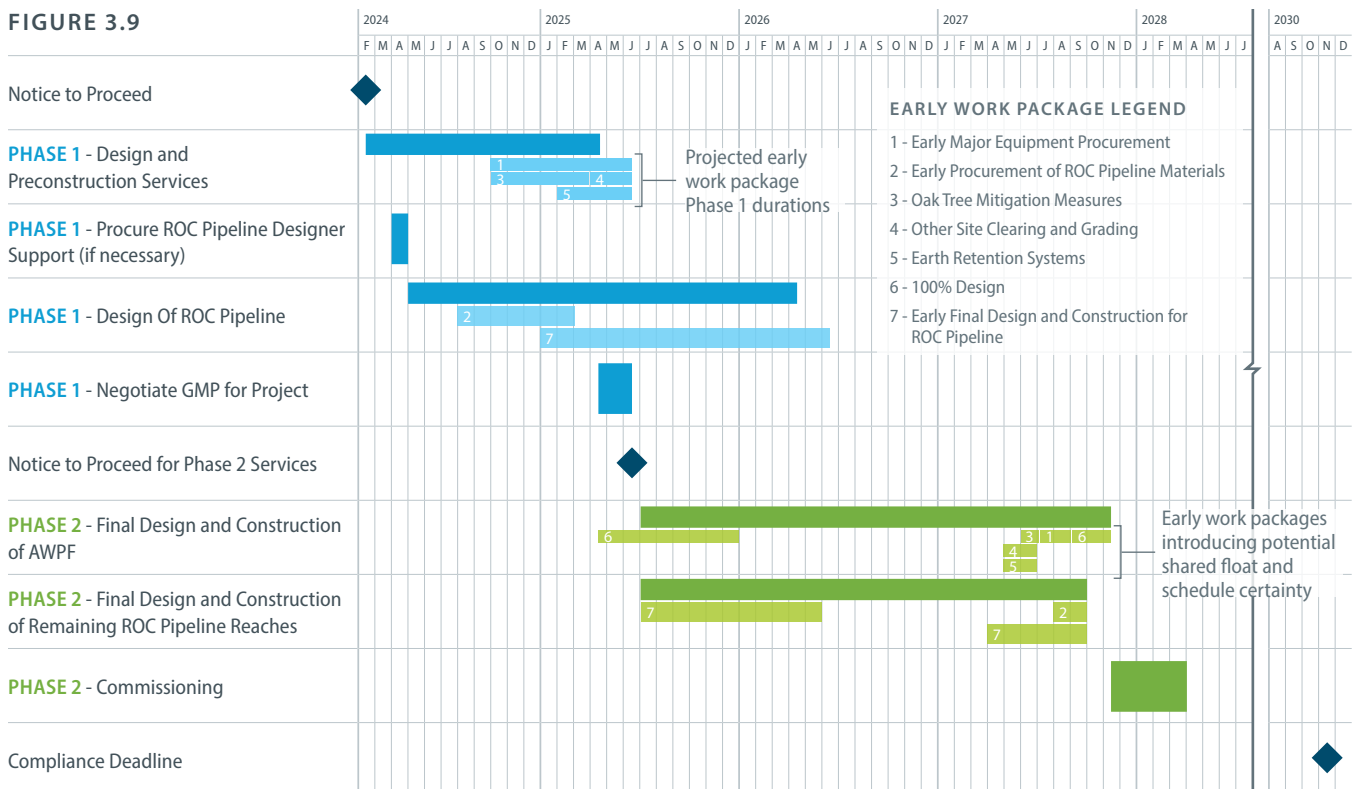
- Other Site Clearing and Grading.** The first construction activities will include clearing and grubbing the site, demolishing existing site utilities and/or miscellaneous structures in conflict with the new improvements, and performing initial site grading to provide a better starting point for the cut/fill earthwork operations. Performing these activities in an early work package will allow us to commence construction at a rapid pace in Phase 2. We estimate this will result in a 2 month acceleration to the construction schedule.
- Earth Retention Systems.** Deeper structures may require installation of an earth retention system, such as soldier beams and lagging or sheet piles, coupled with a dewatering system, if the bottom of excavation is below the groundwater table. We will attempt to design our structures above the groundwater table, but the complete elimination of earth retention systems likely will not be possible, especially for structures located along the face of Ladyface Mountain. Since earth retention systems are a deferred design package, it would be advantageous to start this deliverable in Phase 1. In the early work package, we can obtain pricing for design and installation of the required earth retention system, go through the design submittal and approval process, and start procuring materials to allow installation of the shoring to begin directly following NTP.
- 100 Percent Design.** To mitigate loss of momentum for the final design effort while GMP negotiations are underway, we would like to propose 100 percent design as an early work package with a planned start immediately after 60 percent design approval.
- Early Final Design and Construction for ROC Pipeline.** To expedite the delivery of the ROC Pipeline, we propose to start working towards full delivery of the top one or two reaches of the ROC Pipeline in Phase 1. Barring any permitting delays, we would seek to deliver 100 percent design, procurement of pipeline subcontractors by individual reach bid packages (via competitive bid), and commencement of construction of the respective ROC Pipeline reaches as early work packages. We anticipate this will provide at least 6 months of schedule certainty if authorized timely.

Chartering the team for success

The Walsh Team recommends chartering the project team at the start of the project as part of the partnering efforts to get all stakeholders in alignment on critical success factors including measurable criteria to gauge success at project completion.



FIGURE 3.9



Systematic approach to cost control throughout the project

Our systematic approach to controlling project costs starts during design and continues through each project milestone. One of the first tasks will be to validate the CDR costs for the AWPF and use those costs to evaluate the benefit of innovations. Each month, we will review current costs, predict cost trends, and make adjustments that keep the budget and spending on track.

During design, we will develop a detailed work breakdown structure to cost model the project and develop our GMP. This cost modeling will be performed in an open-book format with transparency to the JPA. During construction, we will use the CMiC Project Management suite of tools to manage and control costs versus budget and contingencies. This system provides onsite staff with the tools they need to properly manage the design and construction process and provide reports to keep project stakeholders informed. Specific features include budget tracking, project accounting, labor tracking (for self-performed work), change management, and work and cash flow forecasting. The figure to the right is a sample of key cost control and reduction measures we have identified for design and construction on this project.

Management and implementation of open-book pricing

Our commitment is to actively manage the cost model so that anytime the JPA requests an updated estimate—we will be able to furnish an up-to-date, accurate cost estimate that we are prepared to stand behind. During preconstruction, we will treat the cost model and risk register as living documents. They will be updated weekly and meetings will be set up with the City to show the evolution of each document as the design progresses.

A challenge often faced by Owners is when the cost of construction at the BODR phase exceeds budget expectations. We plan to mitigate this by preparing a cost model based on the CDR immediately following NTP and sharing this with the JPA within 6 weeks. By doing this, all stakeholders will be aware of the actual real-time starting point in regards to cost. This allows the team to focus on the extent of value engineering necessary and guides larger decisions regarding project scope if the projected cost is trending in the wrong direction.

We will create a value engineering tracking matrix, which will provide information of how decisions made on the project will affect the budget. With this collaborative, open-book process, the JPA will be equipped to make informed decisions, avoid surprises, and arrive at a GMP that represents the complete scope at the established budget.

GMP Development and Cost Control

The Walsh Team's transparent GMP development process for the JPA's project will provide you with a collaboratively developed GMP derived from a complete, open-book cost estimate, with all supporting subcontractor proposals and material quotes. As shown in **Figure 3.8**, this GMP development process begins early in the engineering and preconstruction phase as we work with the JPA and your OA to confirm the basis of design. With approval of the project concept, our estimating effort will gain momentum informed by market-based pricing to develop a GMP for construction at 60 percent design.



FIGURE 3.10

The Walsh Team's procurement workflow will minimize bottlenecks and promote decision making

The Walsh Team understands the importance of managing procurement of all equipment, materials, and subcontractors required.

Due to current supply chain deficiencies, if the procurement effort is not proactively managed, it can cause significant project delays. **Our team will establish early contact with key distributors, manufacturers, and subcontractors for known scopes as one of the highest priority tasks following the notice of award.** As the design advances to BODR, we will maintain contact with our distribution channels to obtain technical information and updates on the most readily available and best suited equipment/materials to design around and updated cost information to accurately present our cost model to the JPA.

The Walsh Team brings a robust prequalification system for all subcontractors and suppliers. Some of the factors we look at before furthering our engagements are prior experience, financial strength, current workload, safety performance, and quality of deliverables. We will begin to prequalify suppliers before BODR submission so that we can continue to design a constructable project efficiently. At the 30 percent design stage, we will hold a series of workshops with the JPA to present and compare qualification packages and indicative costs for all major process equipment. We will invite operations personnel to these meetings so that they can provide their perspective on what products bring the best value to the JPA in terms of treatment capability and long-term maintenance. Once a consensus is made on which equipment offerings provide the best overall value, we will have the ability to issue purchase orders to the selected suppliers and start submittals, if the JPA allows for early

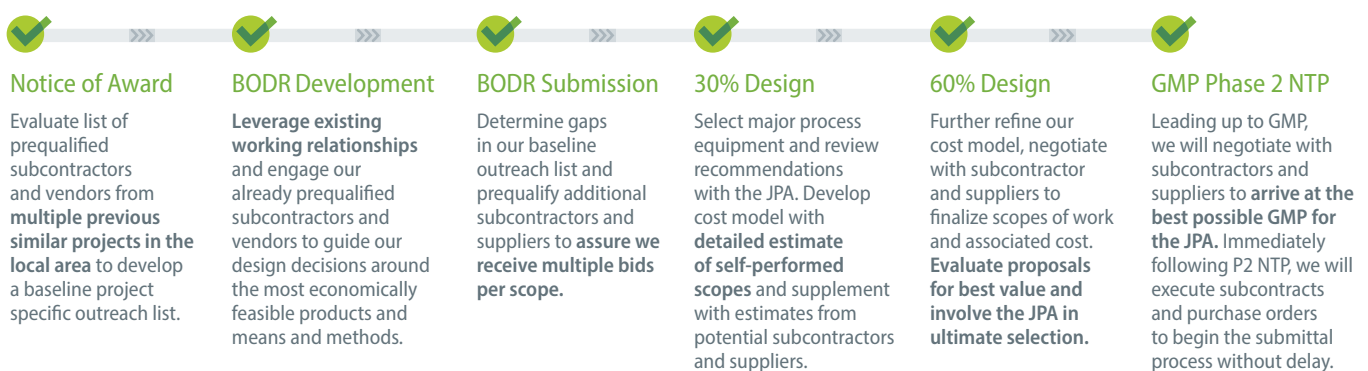
procurement in Phase 1. Walsh brings strong relationships with all major equipment suppliers and has pre-negotiated purchase order terms and conditions with most of them, which reduces schedule impacts borne from the negotiation of terms and conditions.

As the design advances to 60 percent, we will negotiate each supplier's and subcontractor's final scope of work and price, after which we will present our best value analysis for each major scope of work to the JPA for collaborative development of the GMP. As soon as the GMP is approved and NTP for Phase 2 is issued, we will immediately start issuing contracts for any remaining equipment, materials, and subcontracted services. We will prioritize procurement of the longest lead items, requiring each supplier to provide weekly progress reports showing the status of submittals and fabrication to make sure that deliveries arrive as required by our schedule. This coordination will also allow us to accelerate construction predecessor activities for items projected to deliver earlier than expected.

One of the main parts of our Quality Management Plan is the inspection of equipment and materials at the time of delivery to the site. Our QA/QC staff will confirm that what was delivered is representative of the approved submittal. This will include an extensive effort of dimension and component verification, along with reviewing equipment and motor nameplates. This formal delivery acceptance process minimizes delays of removal and replacement of components and allows for a seamless start-up.

FIGURE 3.11 »

Prequalification Process for Subcontractors/Suppliers



Identify and resolve risk in collaboration with the JPA

The success of the JPA's project is directly related to the Walsh Team's ability to comprehensively identify, manage and be accountable for risk throughout the project life cycle.

Risk identification and management is a cyclical process that has already started during the JPA and Jacob's development of the project and the Walsh Team's analysis before and during this proposal process. Upon award, this will turn into a collaborative effort.

Using a preliminary Risk Register as our tool, a Risk Mitigation Workshop will be used to identify additional risks as a team, evaluate all risks and quantify the possible impact of each. Following this analysis, we then determine which risks can be eliminated through design and which can be managed in the construction approach. We then, as a team, assess the remaining risks and assign ownership based on the entity best able to mitigate the risk. This "risk sharing" approach enables the team to focus on their largest respective risks on the project and offer the best opportunity for cost reduction. The team will be able to quickly determine how the risks affect the project costs in a transparent manner.

Early Identification of Project Risks

We have identified several project risks that have the potential to affect project schedule, budget, and safety. The following table shows those risks along with potential impacts and mitigation strategies. During the project we will continually update the "living" risk register with any new risks, mitigations, responsible party, and status. Our design and construction leadership will communicate continually and proactively with the JPA as we mitigate these potential challenges.

TABLE 3.4

Project Risk	Impacts	Risk Mitigation Plan
Issues obtaining required permits	<ul style="list-style-type: none"> Schedule Regulatory Compliance 	<p>Dedicated permitting lead. Sandy Scott-Roberts will be responsible for continually tracking permitting status and identifying potential challenges early.</p> <p>Early work packages. The Walsh Team will prioritize design to align with the construction schedule—particularly electrical, fiber, water, and sewer utilities that will need to go through permitting.</p> <p>Early and ongoing communication with DDW and other permitting agencies. Involving DDW as part of our collaborative approach demonstrates in real-time how the team is thinking through and resolving issues in the best interest of the JPA.</p>
Supply chain issues and skilled labor shortages	<ul style="list-style-type: none"> Schedule Cost Quality 	<p>Prequalification system for subcontractor and suppliers will be utilized early in the project. We will evaluate potential contractors and suppliers on their prior experience, financial strength, workload, safety performance, and quality.</p> <p>Early work packages for long-lead items. This includes major process and electrical equipment, ROC pipeline materials, and earth retention system materials.</p> <p>Self-performance of critical path items. This includes performing excavations and site balancing, underground pipe installation (including all trenching, shoring, and backfill), structural concrete formwork, pour and finish, mechanical piping installation (including pipe supports), and managing, procuring, installing, and commissioning of mechanical process equipment.</p>



FIGURE 3.12

1. DEVELOP A RISK REGISTER

We will identify risks and opportunities during risk mitigation workshops with the JPA, in workshop meetings, and throughout construction.

2. QUANTIFY RISKS

We will determine the probability of each risk and its potential impacts will be quantified based on past experience or a reasonable estimate.

3. MODEL RISKS

To determine the potential cumulative and compounding affect, we will model risk impacts on schedule and cost.

4. PRIORITIZE AND MITIGATE

Where possible, risks will be eliminated. Preventative measures and mitigations will be identified for the remaining risks, which will be prioritized and assigned to the team best suited to manage each risk.

5. MONITOR

We will enter each identified risk in a risk register, which will be continually updated and reviewed with the JPA and Jacobs throughout the project.

Project Risk	Impacts	Risk Mitigation Plan
ROC pipeline delays	<ul style="list-style-type: none"> • Schedule • Cost 	ROC pipeline is likely the critical path of the project. Knowing this, we have a dedicated team already identified to begin design and procurement activities immediately following NTP. We have also engaged local specialty pipeline subcontractors in discussions regarding this project.
Unforeseen conditions encountered during subsurface installations	<ul style="list-style-type: none"> • Schedule • Cost • Site Safety 	Early, in-depth planning, document review, and potholing. As design begins on both the AWPf facility and the ROC pipeline, we will be reviewing as-built documents of existing utilities and structures within the construction footprint and perform an extensive underground survey. This will mitigate unforeseen conditions that may delay construction.
Completion of AWPf prior to ROC line	<ul style="list-style-type: none"> • Schedule • Cost 	Early development of a contingency plan. We've already started developing solutions for this potential scenario during proposal development including discharging ROC flow back to Tapia in manageable flows, as outlined in Objective 5.
Delays obtaining new permanent power feed	<ul style="list-style-type: none"> • Schedule • Cost 	Early engagement with SCE using loads in the CDR and continued on-site and off-site meetings as the design evolves.
Conflicts with existing groundwater table	<ul style="list-style-type: none"> • Schedule • Cost 	Limit the depth of below ground structures to the greatest extent possible. Through value engineering, we will look for ways to design the bottom of below ground structures above the groundwater table to eliminate the need for dewatering during construction.
Earning and retaining the public's trust	<ul style="list-style-type: none"> • Public Acceptance (which could have cascading budget and schedule impacts) 	Frequent construction updates. We will have a local office across the street and will provide monthly construction updates. We can also provide a live construction feed video. Our team will support the JPA outreach staff to continue to build on community trust.

Appendices



COLLABORATION BEGINS WITH YOUR DESIGN-BUILDER LISTENING TO YOU

Robustly meet and exceed all federal and state standards, and equal or exceed tap water quality through the AWPF.

— PAUL SWAIM, FULL CIRCLE PODCAST

LAS VIRGENES RESERVOIR

APPENDIX B

Resumes

- **Blayne Goodman**
- **Arie Harel**
- **Matt Maltby**
- **Vincent Roquebert**
- **Andy Salveson**
- **Sandy Scott-Roberts**
- **Tim Taylor**
- **Adam Zacheis**

Blayne Goodman

PROJECT MANAGER

Blayne is a masterful collaborator and brings over 22 years construction experience with strong abilities managing costs, schedule, and client expectations.



Blayne's extensive industry experience covers multiple project types, with an emphasis on water treatment plants (WTP) and wastewater treatment plants and related infrastructure. Blayne has been with Walsh since 2006. He has served as Project Manager on treatment plant projects valued at over \$500 million, including an ENR Best-of-the-Best award winner, and the \$45 million Terminal Island Water Reclamation Plant (WRP) Advanced Water Purification Facility (AWPF).

FEATURED PROJECT EXPERIENCE

Hyperion AWPF, City of Los Angeles, Department of Public Works, Bureau of Sanitation, Playa Del Rey, CA

Design-Build Manager » Progressive Design Build (PDB) delivery method of an Advanced Water Purification Facility (AWPF) located at the existing Hyperion Water Reclamation Plant. This new facility will treat primary effluent to high-quality, nitrified-denitrified recycled water suitable for all reuse applications envisioned by Los Angeles World Airports. The treatment process for this facility is comprised of fine screening, MBR treatment, RO treatment, UV/AOP disinfection, and product water conditioning. The facility has a design capacity of 1.5 mgd of treated water. The project also includes a 125,000-gallon concrete tank for storage of product water, and pump stations for transfer of product water to Los Angeles World Airports and other uses.

Arcadia WTP Expansion, City of Santa Monica, CA

Design-Build Manager » This project will consist of upgrading the existing WTP from 10 mgd to 13 mgd. Major treatment processes will include modification to the existing greensand filters, new high recovery RO, new granular activated carbon systems, and UV/AOP.

Terminal Island WRP AWPF Expansion, City of Los Angeles, Department of Public Works, Bureau of Sanitation, Los Angeles, CA

Project Manager » The design-build team of Walsh Construction (Archer Western), Carollo Engineers, Separation Processes, Inc., and RO supplier Doosan Hydro Technology completed the design and construction of this \$45 million project that expanded the advanced water treatment facilities at the Terminal Island WRP by 6 mgd. The project increased the total treatment capacity to produce 12 mgd of high-quality reuse water for both groundwater replenishment and reuse customers. The facility is an end-of-the-line plant that treats an average of 16 mgd of wastewater (total capacity of 30 mgd) and currently discharges much of the effluent to the harbor. This ultimate expansion project will lead to reusing all effluent

FIRM

WALSH

YEARS OF EXPERIENCE

22

LOCATION

Los Angeles, CA

EDUCATION

BS, Civil Engineering, Wentworth Institute of Technology



TERMINAL ISLAND WRP
AWPF EXPANSION,
LOS ANGELES, CA

Blayne Goodman » *continued*

and cease discharges to the harbor to comply with future NPDES requirements. The facility expansion was designed to integrate seamlessly with the existing advanced water treatment systems and into the existing plant footprint while minimizing any impacts to existing operations during tie-ins and shut downs.

F.E. Weymouth WTP Ozonation Facilities, Metropolitan Water District of Southern California, La Verne, CA

Project Manager » This project includes construction of an ozone generation building, ozone contactor structure, influent and effluent box conduits, liquid oxygen storage and feed systems, chemical feed facilities, detention basins, various grading and paving activities, and numerous electrical upgrades. The facility is capable of disinfecting 520 mgd with a mass ozone production of 13,000 pounds per day, making the project one of the largest of its kind. Project elements include deep excavation and shoring support, installation of large valves, and installation of large diameter pipelines.

Temecula Valley Regional Water Reclamation Facility Expansion, Eastern Municipal Water District, Perris, CA

Senior Project Manager » Construction of the new MBR treatment plant 3A and modifications of existing facilities to increase the Temecula Valley Regional Water Reclamation Facility treatment capacity to 23 mgd.

David C. McCollom WTP Long Term 2 Enhanced Surface Water Treatment Improvements, City of Escondido, CA

Project Manager » The project consisted of upgrading the WTP to comply with the Environmental Protection Agency's Long Term 2 Enhanced Surface Water Treatment Rule. The project included construction of a metal energy recovery facility, two raw water equalization steel tanks, modifications to the first stage membranes, modifications to existing clean-in-place facilities, second stage return pump station, backwash equalization basin, ACH feed system, site improvements, and new residual handling facility, yard pipe, and electrical facilities.

Chino II Desalter, Western Municipal Water District, Mira Loma, CA

Assistant Project Manager » Expansion of the existing ion exchange system from 4 mgd to 8 mgd which includes new vessels, ion exchange resin, brine saturation, process pumps, filters, process tanks, water softener, piping, valves, instrumentation and electrical. The project included installation of RO trains, piping, valves, a decarbonator, and transfer pumps at the existing plant.

Miramar WTP Upgrades and Expansion, City of San Diego, CA

Assistant Project Manager » Project included installation of complete ozone system in existing structure, construction of liquid oxygen area, and modifications to existing chemical facilities.

157th Avenue Water Reclamation Facility Expansion, City of Goodyear, AZ

Project Engineer » Expand the 157th Avenue Water Reclamation Facility. The selection was based upon Archer Western's past performance with the City, experience, project approach and the ability to perform the work without disrupting the everyday plant operations. The project is being delivered in multiple phases. The work includes rehabilitating existing facilities, construction of the City's first water resources administration building and providing additional treatment ability bringing the capacity of the plant to 4 mgd.

PROJECT REFERENCE 1

Arcadia WTP Expansion

City of Santa Monica
Sunny Wang, Water Resources Manager
P | 310.458.8230
E | sunny.wang@smgov.net

PROJECT REFERENCE 2

Terminal Island WRP AWP Expansion

City of Los Angeles, Department of Public Works,
Bureau of Sanitation
Slavica Hammond, Engineer
P | 310.699.8158
E | slavica.hammond@lacity.org

Arie Harel, PE, PMP, Assoc. DBIA, ENV SP

PRECONSTRUCTION SERVICES MANAGER

Arie is a natural problem solver who has successfully fulfilled a wide range of construction roles on some of the most complex treatment plant projects.



After graduating with a civil engineering degree from UCLA, Arie started his career with exposure to the design-build model while working on the Gerald Desmond Bridge mega project in Long Beach. He was later presented with an opportunity to build the City of Malibu's new Civic Center Water Treatment Facility. On this project, he discovered a true passion for water treatment construction, and has since successfully led two complex projects to construction completion and added significant value to the preconstruction stage of another. Arie's adaptability, positive attitude, and go-getter mindset have contributed to his success.

FEATURED PROJECT EXPERIENCE

Arcadia WTP Expansion, City of Santa Monica, CA

Preconstruction Manager » Arie worked alongside the Design-Build Manager and Construction Manager to deliver a successful preconstruction phase. His major contributions included constructability reviews and preparation of cost models and construction baseline schedules leading up to guaranteed maximum price. He also drove the early procurement efforts for long-lead equipment, successfully negotiating pricing and contract terms, most notably with the Israel-based supplier of flow reversal RO technology, Rotec Technologies, on their first contract in the United States.

Valencia WRP UV Disinfection Facilities Project, Sanitation Districts of Los Angeles County, Valencia, CA

Project Manager » Arie managed all aspects of self-performed earthwork, underground piping/duct bank, structural concrete, and mechanical construction along with subcontracted scopes of work for the addition of a UV disinfection system and ancillary facilities to the existing ~20 mgd Valencia WRP. He planned and executed several plant shutdowns, constantly delivering within allotted time constraints. He created a highly detailed cost-loaded baseline schedule and diligently updated the project schedule monthly, documenting progress and making logic improvements. His proactive attention to detail led to early discovery of issues and led to collaborative value engineering efforts.

Civic Center Wastewater Treatment Facility Phase I, City of Malibu, CA

Project Manager » Arie managed all general contractor responsibilities for the construction and commissioning of a brand-new complete wastewater treatment facility consisting of major components such as: a MBR system, UV system, and membrane thickener system. The scopes of work included a large magnitude of earthwork, concrete, yard piping, and installation of mechanical piping, equipment,

FIRM

WALSH

YEARS OF EXPERIENCE

9

LOCATION

Calabasas, CA

EDUCATION

BS, Civil Engineering, University of California

REGISTRATION

Civil Engineer, C87617, California, 2017

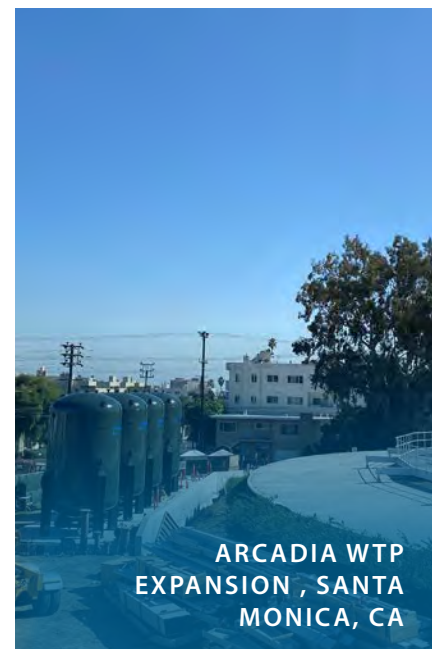
CERTIFICATION/TRAINING

Project Management Professional (PMP), 2241088, 2018

Associate DBIA, 2021

Envision Sustainability Professional (ENV SP), 47728, 2022

OSHA 30-Hour Construction Safety and Health, 34-602120373, 2020



Arie Harel » *continued*

and appurtenances. He thoroughly reviewed design concepts and proactively initiated several value engineering approaches to, not only complete work scopes under budget, but also deliver a better finished product to the City. Arie directly managed a staff and craft work force of up to 30 personnel at peak construction. He negotiated, executed, and enforced contracts for 22 subcontractors and 20 specialized equipment vendors. He generated and upheld the project schedule, holding all responsible parties accountable for completing their work scopes on time. Ensured a quick and complete project close out by managing quality initial installations and addressing the limited amount of punch list items timely. Arie also assisted the City with obtaining required plan checks from Los Angeles County Fire Department leading up to occupancy.

Gerald Desmond Bridge Replacement Project, Port of Long Beach, CA

Project Engineer/Field Engineer » Arie supported all general contractor responsibilities for the installation of cast-in-drilled-hole foundations and shoring of excavations for the construction of the new Gerald Desmond Bridge. Arie developed preliminary shoring of excavation designs using readily available materials, minimized magnitude of installations, and managed field operations for 20,000 SF+ of soldier pile shoring systems. He resolved more than 25 Caltrans-issued Nonconformance/Deficiency Reports for foundation scope of work via analytical thinking and thought out dispositions. He managed schedule for installation and remediation of cast-in-drilled-hole foundation piles, maximizing efficiency with resource leveling.

Before his project engineer role, Arie served as a field engineer. He provided quality control and managed field operations (including: drilling operations, concrete pours, tie grouting). He prevented Nonconformance Reports for issues within control from coming into existence by enforcing the Quality Management Program, contract, and Caltrans codes. He built great relationships with owner representatives, subcontractor personnel, quality assurance personnel, and craft workforce.

I-405 Sepulveda Pass Widening Project, Los Angeles Metro, Los Angeles, CA

Project Engineer Intern » Arie hit the ground running during his summer internship on the I-405 widening project, offering assistance both in the field and in the office. Arie reviewed all approved field design changes and request for information responses and as-built reviewed for construction plans to account for the most current revisions. He drafted issue documentation forms, survey requests, requests for information, and assisted the Superintendents with scheduling concrete pours and trucking.

PROJECT REFERENCE 1

Valencia WRP UV Disinfection Facilities Project

Sanitation Districts of Los Angeles County
Irene Chang, Resident Engineer/Construction Management Section
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PROJECT REFERENCE 2

Civic Center Wastewater Treatment Facility Phase I

City of Malibu
Rob Duboux, Public Works Director/City Engineer
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Matt Maltby, PE

CONSTRUCTION SERVICES MANAGER

In his 17 years of experience, Matt has performed advanced technical work both nationally and internationally, in both engineering and construction roles.



Matt's well-developed time management skills are demonstrated by his ability to balance multiple projects simultaneously. As a professional engineer in California, Matt brings to the team a unique designer/constructor perspective that is particularly valuable during preconstruction.

FEATURED PROJECT EXPERIENCE

Hyperion AWWP, City of Los Angeles, Department of Public Works, Bureau of Sanitation, Playa Del Rey, CA

Construction Manager » Progressive Design Build delivery method of an Advanced Water Purification Facility located at the existing Hyperion Water Reclamation Plant. This new facility will treat primary effluent to high-quality, nitrified-denitrified recycled water suitable for all reuse applications envisioned by Los Angeles World Airports. The treatment process for this facility is comprised of fine screening, MBR treatment, RO treatment, UV/AOP disinfection, and product water conditioning. The facility has a design capacity of 1.5 mgd of treated water. The project also includes a 125,000-gallon concrete tank for storage of product water, and pump stations for transfer of product water to Los Angeles World Airports and other uses.

Terminal Island WRP AWWP Expansion, City of Los Angeles, Department of Public Works, Bureau of Sanitation, Los Angeles, CA

Construction Manager » Design and construction of this \$45 million project that expanded the advanced water treatment facilities at the Terminal Island WRP by 6 mgd. The project increased the total treatment capacity to produce 12 mgd of high-quality reuse water for both groundwater replenishment and reuse customers. The facility is an end-of-the-line plant that treats an average of 16 mgd of wastewater (total capacity of 30 mgd) and currently discharges much of the effluent to the harbor. This ultimate expansion project will lead to reusing all effluent and cease discharges to the harbor to comply with future NPDES requirements. The facility expansion was designed to integrate seamlessly with the existing advanced water treatment systems and into the existing plant footprint while minimizing any impacts to existing operations during tie-ins and shutdowns.

FIRM

WALSH

YEARS OF EXPERIENCE

17

LOCATION

Los Angeles, CA

EDUCATION

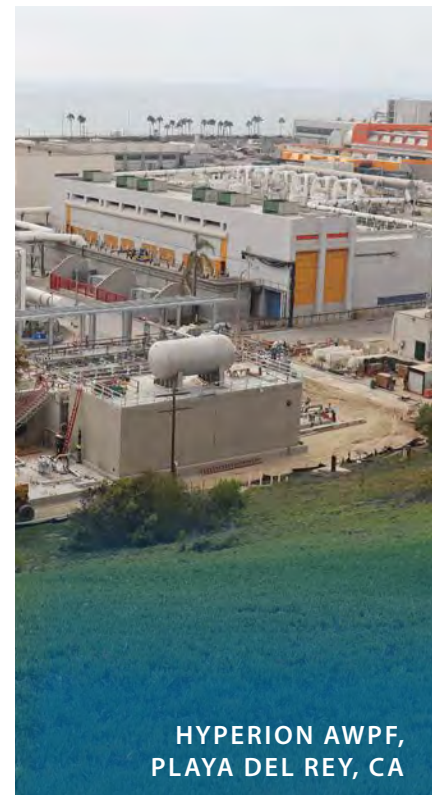
BS, Civil Engineering, California Polytechnic University

REGISTRATION

Civil Engineer, C83224, California, 2014

ENV SP, 29184, 2020

OSHA 30



HYPERION AWWP,
PLAYA DEL REY, CA

Matt Maltby » *continued*

Arcadia WTP Expansion, City of Santa Monica, CA

Senior Project Manager » This project will consist of upgrading the existing WTP from 10 mgd to 13 mgd. Major treatment processes will include modification to the existing greensand filters, new high recovery RO, new granular activated carbon systems, and UV disinfection with AOP.

Recycled Water Project Phase I, Valley Sanitary District, CA

Sr. Project Manager » This \$70M PDB project includes improvements for both liquid and solid processes. These include a new mechanical bar screen, a vortex type grit chamber, rotary screw thickeners, a second digester, a second enclosed digester gas flare system, and a new drain pump station and associated pipeline. This project reached GMP in 2022 and is in construction.

F.E. Weymouth WTP Ozonation Facilities, Metropolitan Water District of Southern California, La Verne, CA

Assistant Project Manager » This project includes construction of an ozone generation building, ozone contactor structure, influent and effluent box conduits, liquid oxygen storage and feed systems, chemical feed facilities, detention basins, various grading and paving activities, and numerous electrical upgrades. The facility is capable of disinfecting 520 mgd with a mass ozone production of 13,000 pounds per day, making the project one of the largest of its kind. Project elements include deep excavation and shoring support, installation of large valves, and installation of large diameter pipelines.

P1-124 Plant No. 1 Primary Treatment Upgrades, Orange County Sanitation District, Fountain Valley, CA

Assistant Project Manager » Upgrades included replacing sludge pumps and sludge piping headers, relocating density meters, electrical modifications, effluent weir replacement,

coatings, odor control piping modifications and deck re-sloping. This project included eight major shutdowns and several additional minor shutdowns. It required constant vigilance to the schedule and proficient planning, and working closely with the District's engineering and operations staff to ensure sufficient process capacity was available at all times.

Groundwater Recovery Pipeline, BP, Carson, CA

Construction Manager » Replaced approximately 1.5 total miles of fiberglass reinforced plastic pipe ranging from 2- to 6-inch diameter with flanged high-density polyethylene lined carbon steel pipe in multiple phases. Design includes multiple concrete and steel supports, high-density polyethylene piping in steel sleeves for underground sections, and concrete pipe trenches for road crossings. Stress analysis was performed on the pipe design using AutoPIPE.

Richardson Treatment Plant Construction Management, Confidential Client, Loma Linda, CA

Construction Manager » Matt performed construction management and engineering oversight duties for a 4,800-gpm groundwater treatment plant to treat water produced from two potable water production wells.

Philips 66, California Orphan Pipe Abandonment Project, Phillips 66, San Pedro, CA

Construction Manager » Matt led construction for removal and abandonment of out-of-service 12-inch diameter oil pipeline. Removal activities included coordinating with various contractors working simultaneously at the Port, traffic control, confined space entry, and hot work activities.

PROJECT REFERENCE 1

Hyperion AWWP

City of Los Angeles, Department of Public Works,
Bureau of Sanitation
Christina Becerra Jones, Environmental Engineer
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PROJECT REFERENCE 2

Terminal Island WRP AWWP Expansion

City of Los Angeles, Department of Public Works,
Bureau of Sanitation
Michel Valdivia, Lead Inspector, Wastewater
Construction Division
P | 213.278.9593
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Vincent Roquebert, PE, DBIA

DESIGN MANAGER

Vincent has collaborated with owners, engineers, and contractors to execute more than 10 California projects as owner's advisor, design-builder, or engineer/design manager.



Vincent played a key role for some of California's most exciting AWWPs and WTPs. In addition to engineering design, he brings hands-on expertise in procurement, installation, start-up, and operations troubleshooting. His technical expertise is highly focused on membrane filtration, RO, and hydraulics. Vincent began working on collaborative delivery projects in the UK in the 90's before moving to the U.S. where he worked on his first CMAR project in Arizona in 2013.

FEATURED PROJECT EXPERIENCE

Albert Robles Center Progressive Design-Build Design, Water Replenishment District of Southern California, Lakewood, CA

Design Manager » The project involved preliminary design of the advanced water treatment plant developed as part of the progressive design-build effort. The project included a process building, a chemical storage area, three supplemental recharge wells, and an operation and learning center. The 10 mgd expandable to 28 mgd treatment process includes a 3-million-gallon influent equalization tank, butterfly arrangement membrane filtration system, 92.8-percent RO, UV/AOP, post-treatment, and product water pump station. Vincent was responsible for managing production of the 30-percent design and supporting the development of the guaranteed maximum price.

Donald C. Tillman WRP Upgrades Program, City of Los Angeles, Department of Public Works, Bureau of Sanitation, Los Angeles, CA

Design Manager » The team developed a Conceptual Design Report for a 20 mgd AWWP. The facility will include tertiary effluent diversion facility, membrane filtration, reverse osmosis, and ultraviolet/advanced oxidation. The Conceptual Design Report was used as the basis of design for the Request for Proposal that supported the selection of the design-build team for this \$300 million project. Vincent was responsible for developing the Conceptual Design Report, including control strategies and critical control points for the advanced water purification facility. He also worked with the Program stakeholders to accept risk ownership and establish priorities.

Mel Leong Treatment Plant Upgrades, San Francisco International Airport, San Francisco, CA

Design Manager » Vincent was responsible for managing preliminary design and obtaining client buy-in. The scope involved a new administration building and new treatment process units, including dissolved air flotation, pre-ozonation, and biological active filters, membrane filtration, RO, and UV/AOP.

FIRM

BROWN AND CALDWELL

YEARS OF EXPERIENCE

36

LOCATION

Los Angeles, CA

EDUCATION

ME, Industrial Fluid Mechanics, Grenoble Institute of Technology

BS, Mechanical Engineering, University Grenoble

REGISTRATION

Civil Engineer, C75098, California, 2009

CERTIFICATION

Designated Design-Build Professional Certification, D-4146, 2023

Project Management Professional (PMP), 331616, 2006



HYPERION AWWP,
PLAYA DEL REY, CA

Vincent Roquebert » *continued*

Central Coast Blue, City of Pismo Beach, CA

Design Manager » Vincent was responsible for managing the development of the 50-percent design submitted to secure funding. The project involved preparing the engineering package to support the State Revolving Fund loan application for the Central Coast Blue project. The project included a 1 mgd initial and 4 mgd final advanced water treatment with membrane filtration, RO, and UV/AOP.

Hyperion AWWP, City of Los Angeles, Department of Public Works, Bureau of Sanitation, Playa Del Rey, CA

Project Engineer (Membrane Treatment) » Scope includes developing design documents and the Basis of Design Report for the new Hyperion AWWP, which will supply purified water to Los Angeles International Airport. The AWWP will use MBR, RO, UV/AOP, and granular activated carbon processes and is being delivered as a progressive design-build project. Vincent led the development of the O&M manual for the biological nutrient removal, membrane bioreactor, and the RO systems.

Terminal Island WRP AWWP Expansion, City of Los Angeles, Department of Public Works, Bureau of Sanitation, Los Angeles, CA

Project Engineer (Membrane Treatment) » Under a design-build delivery method for this award-winning project, Vincent led the design of the membrane filtration facility. The project expanded the AWWP capacity up to 10 mgd. The treatment process included flow equalization, membrane filtration, RO, and UV/AOP. He worked with the membrane filtration vendor to integrate changes consistent with operational requirements.

Concentrate Reduction Facility Upgrades, Chino Basin Desalter Authority, Jurupa, CA

Project Manager » Vincent led the operational optimization of the Concentrate Reduction Facility for the Chino Basin Desalter Authority. The 2 mgd facility treats primary RO concentrate through pellet reactor softeners, solids contact clarifiers, granular media filters, and secondary RO. The work included the implementation of new chemical dosing

strategies, primary RO concentrate bypass, and pellet reactor pellet-discharge pumps. Vincent was also responsible for managing schematic design, assisting with contractor selection, engineering services during construction, and inspection.

Chino Basin Program Preliminary Design Report, Inland Empire Utilities Agency, Chino, CA

Design-Build Lead » The project is intended to provide a reliable source of water during the dry season, while reducing dependence on imported water supplies. Advanced water purification is needed to meet salinity requirements for the Basin Plan and, because of limited recharge basin capacity, to utilize injection wells to replenish the water to the groundwater aquifer. The project includes conceptual siting, sizing, and integration of 50,000-acre feet per year of extraction wells for a water banking system within the Chino Basin. Water from this extraction system would be conveyed to Metropolitan Water District's Rialto pipeline. Vincent was responsible for developing the technical criteria for the 15 mgd AWWP. The technical criteria will supplement the commercial and implementation requirements the Owner Advisor will develop to procure the subsequent AWWP progressive design-builder.

East County Advanced Water Purification Program, Padre Dam Municipal Water District, Santee, CA

Program Lead » The project involved design-build package 3 which included two wastewater pump station upgrades, 20,000-foot pipeline to the water reclamation facility, new residual bypass pump station, and 15,000 feet of pipeline. As part of the Owner's Advisor team, Vincent was responsible for monitoring development of design for compliance with contract and guarantee maximum price for this \$480 million project.

PROJECT REFERENCE 1

Donald C. Tillman WRP Upgrades Program

City of Los Angeles, Department of Public Works,
Bureau of Sanitation
Ryan Thiha, Senior Environmental Engineer/Assistant
Division Manager
P | 323.342.6229
E | ryan.thiha@lacity.org

PROJECT REFERENCE 2

Concentrate Reduction Facility Upgrades

Chino Basin Desalter Authority
Tom O'Neill, General Manager/CEO
P | 951.377.2232
E | toneill@chinodesalter.org

Andy Salvesson, PE

PROCESS TECHNICAL LEAD

Andy is a nationally recognized expert in water reuse treatment and regulations. He served as a technical expert on the JPA PWP Demonstration Facility.



Andy has been working on potable reuse projects since 1998 and is part of teams implementing projects as small as 1 mgd and greater than 200 mgd. He was one of seven experts to author the 2015 NWRI Framework for direct potable reuse (DPR) and was the primary author for the National Water Research Institute DPR Implementation Guide. The industry has turned to him for the most challenging efforts, including award winning and pioneering DPR projects in El Paso, Texas and Altamonte Springs, Florida (a full-scale non-RO DPR facility). In early 2020, Andy shifted his national and international focus specifically to California, moving to Ventura to dedicate his time to working with Central and Southern California utilities on IPR and DPR projects.

FEATURED PROJECT EXPERIENCE

PWP Demonstration Facility, Las Virgenes Municipal Water District, Calabasas, CA

Technical/Experimental Planning Lead and Demolition Project Manager » From design through startup, operational training, and performance demonstration, Andy has been at the center of effort to make the demonstration a success. In partnership with District staff, the demonstration has received the most prestigious awards for water reuse in California and nationally, has been central to staff training, and is at the core of full-scale AWWPF analysis.

Central Coast Blue, City of Pismo Beach CA

Project Manager for Pilot Testing, Pre-design, and Design » Andy's efforts have spanned from the early days of planning through award winning pilot testing and now through design of this 1 mgd (expandable to > 4 mgd) potable reuse system for groundwater recharge.

PureWaterSF Project, San Francisco Public Utilities Commission, San Francisco, CA

Project Manager, Project Engineer, and Lead Investigator » Andy has served in numerous roles for PureWaterSF over the last five years. Efforts include the design, operation, testing, and reporting on a demonstration scale DRP system and numerous and planning and pre-design efforts for full-scale water reuse systems for non-potable reuse, IPR, and DPR.

Our Water Program, City of Morro Bay, CA

Program Management, Technical Support, and Manager of Permitting Efforts » This IPR system is the first MBR/RO/UV/AOP system in California. Carollo is the Owner's Advisor, overseeing the design-build team. Andy's role includes

FIRM

CAROLLO

YEARS OF EXPERIENCE

30

LOCATION

Ventura, CA

EDUCATION

MS, Water and Wastewater Engineering, University of California

BS, Civil Engineering, San Jose State University

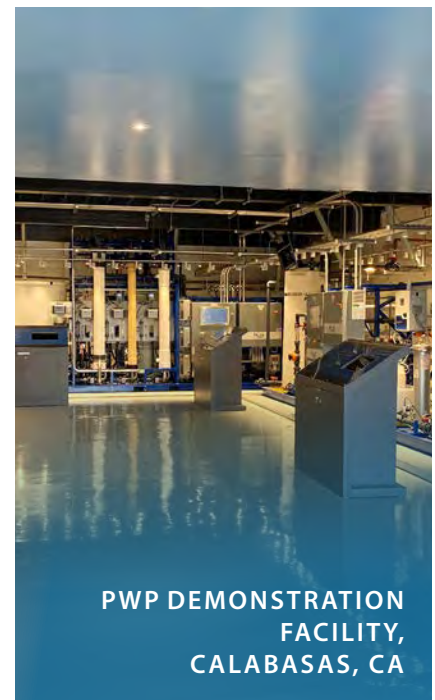
REGISTRATION

Civil Engineering, C56902, California, 1997

AWARDS

2022 WaterReuse California Award for Vision in Water Reuse (Bahman Shiekh Memorial Award)

2007 Water Reuse Person of the Year



PWP DEMONSTRATION
FACILITY,
CALABASAS, CA

Andy Salvesson » *continued*

providing direct oversight of technical issues with the design-build team, leading the permitting, and providing startup support.

Pure Water Projects, City of Los Angeles Bureau of Engineering and Sanitation, CA

Task Manager, Regulatory Lead, and Technical Support » Since 2015, Andy has collaborated with LABOE and LASAN on numerous and successive purified recycled water projects. These efforts began with pilot testing of novel technologies for the Terminal Island WRP AWP, leading to the design-build efforts for that facility (expanding from 6 to 12 mgd and adding 12 mgd of UV/AOP), then followed by program management efforts at DC Tillman WRP (full-scale AWP) and Hyperion WRP (three MBR/RO purification projects) and design support for a pure water demonstration project at the Glendale WRP.

Pure Water Southern California Program, Metropolitan Water District of Southern California, Carson, CA

Regulatory and Process Engineer » Spanning the last five years, Andy has provided the District with support during the design and operation of the demonstration scale Advanced purification center and now is supporting the full-scale program development.

VenturaWaterPure, City of Ventura CA

Technical Support and Task Management » Spanning the last 13 years, Andy has provided technical and regulatory support to the City on recycled water and purified recycled water projects. Efforts include pilot testing of alternative disinfection technologies, design and operational support of two purified recycled water demonstration systems, basis of design for potable reuse, and program management support for full scale potable water reuse implementation.

Pure Water San Diego Program, City of San Diego, CA

Regulatory and Process Engineer » Andy has provided technical and regulatory support for the design of the City's potable water reuse project. This project, at 35 mgd, represents the first potable water reuse via surface water augmentation in California. The process train includes ozone/biologically active filtration/ultrafiltration/RO/UV/AOP.

AWPF, EPWater, El Paso, TX

Regulatory and Process Engineer » Andy has supported the Carollo pre-design and design for the El Paso Water DPR system, which once operational will be the first "direct to distribution" potable water reuse system in the United States, and the second such system globally.

Pure Water Projects, Water Corporation of Western Australia, Australia

Project Manager » Andy led up a team of international experts to support the evaluation of safety and risk for IPR and DPR for the Water Corporation of Western Australia. Work efforts included a full audit of the Beenyup IPR facility, evaluation of pathogen risk, and review of different approaches for new DPR systems in Western Australia.

Mekorot Pure Water Project, Israel National Water Company, Israel

Project Engineer for Process Evaluations for Purified Recycled Water » Carollo (and Andy in particular) was contracted by Mekorot to examine tertiary MBR, ozone, biological activated carbon, and UV for purification of wastewater effluent. Water will be used for critical non-potable water reuse in the Negev desert.

Pure Water Project, Israeli Ministry of Financ, Israel

Project Manager for Program Management of Pure Water Program » Carollo and a small team of Israeli engineers are providing program management for the design-build of advanced purification systems to attain potable quality water to be used for critical non-potable reuse in the Negev desert.

Ministry of Economy, Trade, and Industry Machine Learning, Government of Japan

Innovation Lead for Machine Learning and Artificial Intelligence » Working with Yokogawa (Japan), IOSight (Israel), and Las Virgenes Municipal Water District, Andy and the project team have pioneered the application of machine learning and artificial intelligence for potable water reuse, winning the Innovation Award from the WaterReuse Association.

PROJECT REFERENCE 1

PWP Demonstration Facility

Las Virgenes Municipal Water District
Darrell Johnson, Water Systems Manager
P | 805.433.4630
E | djohnson@lvmwd.com

PROJECT REFERENCE 2

PureWaterSF Project

San Francisco Public Utilities Commission
Manisha Kothari, Manager, Alternative Water Supply Planning
P | 415.269.5505
E | mkothari@sfgwater.org

Sandy Scott-Roberts, PE

PERMITTING LEAD/COMMISSIONING AND ACCEPTANCE MGR.

Sandy knows first-hand how to address the challenges California owners face in water reuse, including capital costs, planning and development, public perception, and energy-intensive treatment processes.



During her 17-year tenure with the Orange County Water District, Sandy steadily moved up the ranks from Senior Engineer to Program Manager of the Groundwater Replenishment System (GWRS) which produces 130 mgd of purified water stored in the region's groundwater basin. Sandy is also active in the water reuse industry having served as the Orange County Water Association's 2022 President. As Ex Officio for the association, she keeps informed on issues affecting the water community, meets and communicates with other water professionals, and continues to support programs which provide public education and technical training about drinking water, recycled water, wastewater, and stormwater systems.

FEATURED PROJECT EXPERIENCE

Final Expansion, Orange County Water District, Fountain Valley, CA

Program Manager » The project increased the treatment capacity of the GWRS facility from 100 to 130 mgd, enough water for 1 million people. Scope included expanding the advanced water treatment facility, constructing a new pump station and two flow equalization tanks, rehabilitating a pipeline, and modifying the District's headworks to segregate reclaimable and non-reclaimable flows. Sandy was responsible for developing an Engineer's Report, presentations to the Board of Directors, finalizing applications for funding opportunities, and finalizing studies for California Environmental Quality Act permitting requirements. Additionally, she managed advertisement and award for design and construction agreements for the \$310 million GWRS Final Expansion, which included four separate construction contracts. She managed the construction phase and start-up for the new facility, completing the 3-year construction project on-time and under budget.

Initial Expansion, Orange County Water District, Fountain Valley, CA

Project Engineer » The goal of this expansion was to additionally capture and treat wastewater and recharge Orange County's groundwater basin with flow normally discharged to the ocean by increasing the capacity of the GWRS by 30 mgd (from 70 to 100 mgd); reduce operating costs (energy and chemical) by optimizing the performance of the existing system; and develop a concept to equalize secondary effluent flow to maximize the capacity of the entire facility. Sandy assisted in the review of design documents and managed construction related disputes and outages for commissioning.

FIRM

BROWN AND CALDWELL

YEARS OF EXPERIENCE

22

LOCATION

Irvine, CA

EDUCATION

MS, Civil and Environmental Engineering, California Polytechnic State University

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

REGISTRATION

Civil Engineer, C67621, California, 2005



GWRS, FOUNTAIN VALLEY, CA

Sandy Scott-Roberts » *continued*

Groundwater Replenishment System, Orange County Water District, Fountain Valley, CA

Resident Engineer » This ground-breaking project involved the design and construction of the original 70 mgd advanced water treatment facility treating secondary effluent from Orange County Sanitation District for groundwater replenishment. The advanced water treatment facility included microfiltration, RO, and UV disinfection. Scope also included an UV disinfection system, product water pumping station, pipeline, and an influent screening facility. Sandy coordinated construction outages with District operations and required modifications to the contract documents.

Pure Water Southern California Program, Metropolitan Water District of Southern California, Carson, CA

Program Management Support » This water recycling program will take cleaned wastewater and further purify it to produce a new, sustainable source of high-quality water. Under a joint venture, the AECOM-BC team will provide program and project management support and engineering design services. Scope includes leading environmental compliance efforts, design and construction of advanced purification facilities (MBRs, RO, and UV/AOP) at the Joint Water Pollution Control Plant, and up to 60 miles of new pipelines and associated pump station. The goal is to produce up to 150 million gallons of water daily when completed and provide purified water for up to 15 million people. Sandy's tasks include developing a program sequence schedule incorporating the optimal timing for all activities required to make the program successful such as funding, permitting, risk management, design standards, construction considerations, alternative delivery options, stakeholder agreements, and end-user service connections.

Poseidon Ocean Desalination Project, Orange County Water District, Huntington Beach, CA

Project Engineer » This 50 mgd ocean desalination project proposed to deliver product water to Orange County cities through a network of pipelines, pump stations, service

connections and injection wells. Sandy developed the full Concept Report for the District to accept 50 mgd from Poseidon's proposed desalination project.

Fletcher Basin Improvement, Orange County Water District, Orange, CA

Project Manager » The project involved converting an existing flood control basin into a recharge/spreading basin for groundwater replenishment. The basin will provide stronger flood control for the region and recharge more than 400 acre-feet of water into the Orange County Groundwater Basin annually. Sandy managed the project from feasibility to design to construction and startup.

Earl Schmidt Filtration Plant, Castaic Lake Water Agency, Castaic Lake, CA

Resident Engineer » The project included the expansion of the Earl Schmidt Filtration Plant from 30 to 56 mgd water treatment capacity. Sandy reviewed and negotiated scope on change orders, responded to requests for information, incorporated design modifications into the contract documents.

Sand Canyon Pipeline, Castaic Lake Water Agency, Santa Clarita, CA

Resident Engineer » The project included construction of a 48-inch diameter pipeline within the Santa Clarita riverbed. Sandy reviewed and negotiated scope on change orders, responded to requests for information, incorporated design modifications into the contract documents.

Pump Station and Reservoir, Castaic Lake Water Agency, Santa Clarita, CA

Resident Engineer » The project included construction of a pumping station and two storage tanks. Sandy reviewed and negotiated scope on change orders, responded to requests for information, incorporated design modifications into the contract documents.

PROJECT REFERENCE 1

Groundwater Replenishment System

Orange County Water District
Mehul Patel, Executive Director of Operations
P | 714.378.8209
E | mpatel@ocwd.com

PROJECT REFERENCE 2

Poseidon Ocean Desalination Project

Orange County Water District
John Kennedy, Assistant General Manager
P | 714-378-3304
E | jkennedy@ocwd.com

Tim Taylor, PE

PIPELINE DESIGN LEAD

Tim has designed pipelines ranging from 12 inches up to 148 inches in diameter, as well as pump stations ranging in capacity from a few hundred gpm up to over 100 mgd.



As Carollo's Director of Infrastructure Practice, Tim has served as project manager for numerous water and wastewater infrastructure and treatment projects. With 37 years of experience in engineering design, construction, and project management for water distribution systems, gravity sewer collection systems, pump stations, water and wastewater treatment facilities, geographic information system (GIS), and modeling projects, Tim is proficient in all aspects of management, technical engineering, modeling, GIS, and design software.

FEATURED PROJECT EXPERIENCE

Casa Loma Siphon No. 1 Seismic Retrofit, Metropolitan Water District of Southern California, Los Angeles, CA

Principal-in-Charge » The project involves replacing a 148-inch raw water transmission pipeline that crosses a major earthquake fault with twin 104-inch parallel pipelines. The dual 104-inch pipelines will be constructed using Earthquake Resistant Ductile Iron Pipe that will be able to accommodate up to 13 feet of total ground displacement. The project includes very sophisticated soil/pipe interaction modeling, as well as extensive field investigations on the existing fault.

Force Main and Delivery Main Seismic Retrofit Final Design, Santa Clara Valley Water District, Santa Clara, CA

Technical Advisor » The project involved final design of a pipeline/landslide crossing of 60-inch, 66-inch, and 72-inch-diameter critical water supply/delivery pipelines near the Penitencia Water Treatment Plant. The pipelines cross from a stable geologic zone onto the slow-moving Penitencia Creek Landslide near the treatment plant. The project team estimated the Landslide displacement at 9.4 feet over a 50-year design life. The installation of Kubota earthquake resistant ductile iron pipe is the first large-diameter installation in the U.S.

Kings River Pipeline, City of Fresno, Fresno, CA

Technical Advisor » The project involved final design of the Kings River Pipeline, which will convey raw water from the Kings River and associated irrigation canals to the surface water treatment facility for treatment and potable distribution. The project includes 66,000 feet of 72-inch welded steel pipeline, check structure and turnout to divert raw water to the pipeline, flow meter vault, and all associated electrical and instrumentation. Preliminary design included routing analysis, hydraulic evaluations, development of design and operating criteria, traffic control analysis, utility potholing, geotechnical investigation, corrosion investigation/design, and access and security design.

FIRM

CAROLLO

YEARS OF EXPERIENCE

37

LOCATION

Sacramento, CA

EDUCATION

MS, Civil and Environmental Engineering, San Jose State University

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

REGISTRATION

Civil Engineer, C44975, California, 1989



CASA LOMA
SIPHON NO. 1

Tim Taylor » *continued*

Carlsbad Desalination Conveyance Pipeline, San Diego County Water Authority, Carlsbad, CA

Project Engineer/Pipeline Designer » Carollo acted as Owner's Representative and provided an independent design review. The project consists of 52,000 linear feet of 54-inch diameter, high-pressure welded steel pipe designed for pressures up to 600 psi. The project also includes 1,800 feet of tunnels under Macario Creek and 1,500 feet of 72-inch diameter tunnel section. Carollo was tasked with review of the pipeline structural design and drawings, compliance review with the California Department of Public Health, review of O&M concerns, review of surge analysis, and design-build documents to verify compliance with SDCWA's design standards and industry standard practices.

Atoka Pipeline Project, City of Oklahoma, Oklahoma, CA

QA/QC » Carollo provided design of 81,312 linear feet of 72-inch welded steel pipeline. The design included utility potholing, geotechnical investigation, corrosion investigation and design, hydraulic evaluations, and trenchless crossings of highways, utilities, and rivers. Additionally, the Carollo team assisted the owner in developing a pre-purchase package for all of the steel pipe associated with this project.

Raw Water Transmission Pipeline Replacement Water Treatment Plant Improvements, City of Sacramento, Sacramento, CA

Technical Advisor » Carollo designed the yard piping for rehabilitation of the Sacramento City WTP, which had been in service since the 1920's. The buried piping design incorporated solutions for many challenging conditions, including loose soils, high groundwater, congested utility corridors, and excavation depths up to 50-feet deep. Carollo's innovative solutions for overcoming these challenging conditions included pile supporting couplings, designing a ballast slab to resist pipe rotation, and designing force balanced flex-tend couplings up to 36-inches in diameter to accommodate branch connections to a pile-supported pipeline.

Condition Assessment and Rehabilitation Predesign, Weber Basin Water Conservancy District, Layton, UT

Technical Advisor » The project involved a condition assessment and rehabilitation predesign for 26 miles of 21-inch to 84-inch aqueduct pipeline. Risk of failure was evaluated in terms of criticality and vulnerability using multiple technologies for internal and external pipe inspections.

Upper Dressler Ditch, South Tahoe Public Utility District, Tahoe, CA

Project Manager » The project included 4,000 feet of 48-inch raw water gravity piping. The project was funded in part by the Lahontan Regional Water Quality Control Board and was necessary to reduce sediment and nutrient transport within an existing raw water transfer ditch. A detailed Storm Water Pollution Prevention Plan was prepared as part of the project documents to provide guidance to the contractor for eliminating potential stormwater quality issues. The project bid both reinforced concrete pipe and fiberglass reinforced pipe to enhance the competitive bidding process.

City of Santa Maria, Santa Maria, CA

Project Engineer » The project consisted of 10,500 feet of 24- to 36-inch-diameter water transmission pipeline as part of an overall water supply enhancement project. The project allowed the City to access a new municipal water supply from the State Water Project. The transmission pipeline connected three groundwater wells and then conveyed the flows through a blending station that mixed the State Water Project flows with the groundwater flows. KY-pipe software was used to complete a water system distribution and surge analysis to develop pipe pressure requirements and design values. Surge protection facilities were recommended for future improvement projects. Additionally, soil corrosion and stray current analyses were conducted to determine the corrosion potential of the system. As a result of these tests, a cathodic protection system was designed and constructed.

PROJECT REFERENCE 1

Casa Loma Siphon No. 1

Metropolitan Water District
Cathy Chau, PE
Program Management Section
P | 213.217.5763
E | cchau@mwadh20.com

PROJECT REFERENCE 2

Kings River Pipeline

City of Fresno, CA
Glenn Knapp
Supervising Engineer
P | 559.621.5321
E | glenn.knapp@fresno.gov

Adam Zacheis, PhD, PE

ENGINEERING MANAGER

Adam managed the JPA's Pure Water Project (PWP) Demonstration Facility design and is ready to collaborate on this next step for a secure water future.



Adam understands the need to develop alternative water supplies that maximize local resources and has executed several projects within California's regulatory arena. His background includes process engineering, pilot plant research, membrane WTP design, advanced treatment facility design, and advanced oxidation technologies application, such as ozonation and UV/AOP. He also knows how to work with Division of Drinking Water (DDW) staff to obtain permits for potable water projects.

FEATURED PROJECT EXPERIENCE

PWP Demonstration Facility, Las Virgenes Municipal Water District, Calabasas, CA

Project Manager » Adam managed the design and bidding phase of this demonstration project. The facility includes an ultrafiltration, RO, UV/AOP pilot system within Las Virgenes' abandoned administration building. The project included coordinating with an architect, landscape architect, and public outreach to design the facility with public tours in mind. The demo process will be used to develop full scale design criteria for an advanced water treatment plant that will treat water from the Tapia Water Reclamation Facility and eliminate discharge to Malibu Creek.

Terminal Island WRP AWP Expansion, City of Los Angeles, Department of Public Works, Bureau of Sanitation, Los Angeles, CA

Project Manager/Engineer-of-Record » Adam worked in partnership with Blayne Goodman and Walsh to expand the plant's treatment capacity from 6 to 12 mgd including additional microfiltration, RO, and AOP systems. He worked with the design-build team to thoughtfully plan and prepare tight process and equipment specifications for the challenging space constraints and to work around congested underground utilities. The plant was constructed and is fully operational.

Albert Robles Center PDB Design, Water Replenishment District of Southern California, Lakewood, CA

Project Manager » This \$110 million project was a major initiative to increase reliance on local water sources. He led a team of 20+ engineers and subconsultants to a 30-percent design of an AWTF to convert secondary effluent to potable water quality for spreading in the Montebello forebay. The process design included open platform ultrafiltration, two-stage RO, and chlorine UV/AOP. Adam coordinated with the contracting team during the development of the facility design and initial guaranteed maximum price estimate.

FIRM

BROWN AND CALDWELL

YEARS OF EXPERIENCE

27

LOCATION

Los Angeles, CA

EDUCATION

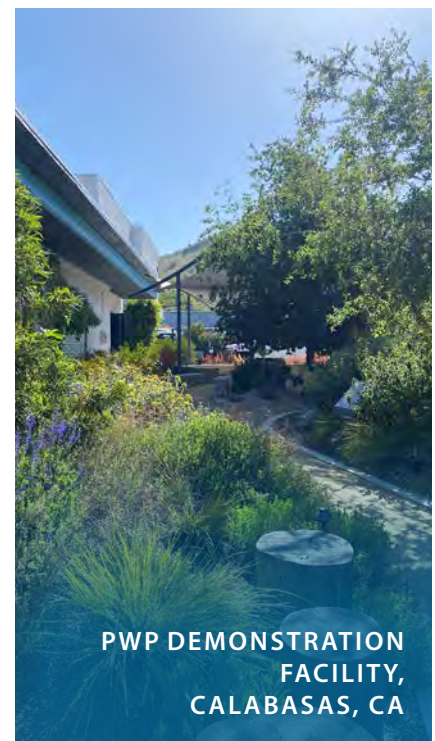
PhD, Environmental Engineering, Northwestern University

MS, Environmental Engineering, Northwestern University

BS, Civil Engineering, University of Illinois Urbana-Champaign

REGISTRATION

Civil Engineering, C65696, California, 2003



PWP DEMONSTRATION
FACILITY,
CALABASAS, CA

Adam Zacheis » *continued*

Pure Water San Diego Program, City of San Diego, CA

Technical Advisor » Adam provided technical guidance during early design of the first potable water reuse advanced WTP in the program, the 34 mgd North City Pure Water Facility. He provided technical input into the design of the RO and ozone processes.

Hyperion AWWP, City of Los Angeles, Department of Public Works, Bureau of Sanitation, Playa Del Rey, CA

Project Engineer » Adam developed design documents and the Basis of Design Report for the new Hyperion AWWP. This new facility will treat primary effluent to high-quality, nitrified-denitrified recycled water suitable for all reuse applications envisioned by Los Angeles World Airports. The treatment process for this facility is comprised of fine screening, MBR treatment, RO treatment, UV/AOP disinfection, and product water conditioning. The facility has a design capacity of 1.5 mgd of treated water. The project also includes a 125,000-gallon concrete tank for storage of product water, and pump stations for transfer of product water to Los Angeles World Airports and other uses.

VenturaWaterPure, City of Ventura, CA

Design Manager » Adam led development of the Basis of Design Report that focused on an initial phase of indirect potable reuse (IPR) treatment, which included ozone/biologically active filtration, in addition to UF-RO-UV/AOP to provide operating experience and future log reduction value credits to implement direct potable reuse once a regulatory framework is in place.

Desalter Pre-Treatment Project, City of Beverly Hills, CA

Project Manager » Adam worked with City staff to develop a future design project that added RO pre-treatment to remove iron sulfide, manganese, iron, hydrogen sulfide, and reduce arsenic to the RO facility. The project included extensive pilot testing to set design criteria for the eventual full-scale design that will secure a new potable water supply. Given the political sensitivity of this project, he routinely presented to the City Public Works Commission, City Council Members,

and met with the Mayor and City Managers to share technical summaries of all testing protocols, cost estimates, and results. Adam also coordinated preliminary design treatment technology concepts with members of the Glendale DDW office, including Shu-Fang Orr and Jeff O'Keefe.

Arcadia WTP Expansion, City of Santa Monica, CA

Project Manager » Adam is leading the expansion of the City's WTP to 13 mgd. This project is adding an UV/AOP and granular activated carbon advanced treatment facility to treat groundwater contaminants (volatile organic compound and 1,4-dioxane) from the Olympic well field, the incorporation of high recovery RO to increase existing RO recovery to at least 90 percent, and other ancillary systems. Adam directed the pilot testing of Desalitech and ROTEC closed-circuit RO and flow reversal RO systems, respectively. Now, his team is performing a full-scale design around flow reversal RO for the City.

Corrosion Control Study, Las Virgenes Municipal Water District, Calabasas, CA

Project Manager » Adam led the team in evaluating lead and copper levels in their distribution system under the lead and copper rule and making recommendations for future improvements to limit lead release within the distribution system. This culminated in the production of a report that the District submitted to the DDW.

Reliability Facility, Mesa Water District, Costa Mesa, CA

Project Manager » Adam led a team in the partial demolition of an existing ozone treatment facility replacing it with a new state-of-the-art nanofiltration membrane facility (6,000 gpm capacity). Work involved modifications to two existing well heads, extensive landscaping, complete replacement and expansion of existing chemical systems, new degasifier and scrubber systems, and a new nanofiltration treatment building. This project also required the construction of the nearly 9 mgd membrane facility on a very small site and the complete gutting and re-construction of chemical storage and feed systems.

PROJECT REFERENCE 1

Desalter Pre-Treatment Project

City of Beverly Hills
Vince Damasse, Water Resources/Operations Manager
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PROJECT REFERENCE 2

Reliability Facility

Mesa Water District
Andrew Wiesner, District Engineer
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E | andreww@mesawater.org

APPENDIX C

Scope of Services Markup



PURE WATER PROJECT LAS VIRGENES-TRIUNFO

Bringing Our Water Full Circle

Advanced Water Purification Facility Progressive Design-Build Procurement

Draft Scope of Services **Marked-up Additions and Deletions in Red**

October 5, 2023

Project Description

The Las Virgenes-Triunfo Joint Powers Authority (JPA) is seeking a Design-Builder from qualified firms to provide full advanced treatment for the Advanced Water Purification Facility (AWPF) and reverse osmosis concentrate (ROC) pipeline Project (Project) to meet reservoir augmentation requirements for indirect potable reuse (IPR) in California. The minimum elements of the Project include:

- **Influent Equalization and Membrane Filtration (MF) Feed Pump Station**, which will equalize source water flows and pressurize water through the MF system
- **MF System**, comprising feed strainers, MF racks, and ancillary systems to provide filtration of suspended solids, organics, and pathogens (*Giardia* and *Cryptosporidium*), while providing pretreatment for the downstream reverse osmosis (RO) process
- **RO System**, comprising cartridge filters, RO skids, and ancillary systems to remove dissolved constituents and serve as a pathogen barrier for bacteria, protozoa, and viruses
- **Ultraviolet Advanced Oxidation Process (UV-AOP) System**, which provides disinfection and log reduction of all target pathogens
- **Post-treatment for water stabilization**, consisting of partial decarbonation and chemical addition to stabilize the purified water to minimize scaling and corrosion, provide a disinfection residual, and mitigate algae growth in the Las Virgenes Reservoir
- **Purified Water Pump Station (PWPS)**, to convey the purified water from the AWPF to the Las Virgenes Reservoir
- **Residuals waste handling systems (including ROC pump station and combined MF backwash and neutralized MF/RO waste equalization tank)**, to manage various waste streams generated from each liquid treatment process
- **Chemical feed and storage systems**, to provide chemicals needed to achieve treatment goals and optimize individual process performance
- **ROC Pipeline**, from the AWPF to the Calleguas Salinity Management Pipeline (Calleguas SMP) for ultimate discharge to the ocean (13.7 miles)

Additional projects will be delivered under the Pure Water Project Las Virgenes-Triunfo (PWP or Program) as separate projects using the design-bid-build (DBB) approach and will interface directly with the Project. This Project will need to be coordinated closely with the design and construction of these other Program projects, which include:

- Source water from the existing recycled water system to the AWPF for treatment (0.8 mile)
- Purified water from the AWPF to the Las Virgenes Reservoir for storage (2.7 miles)
- Residuals from the AWPF to the sanitary sewer for disposal (1.1 miles)
- Tapia Water Reclamation Facility (Tapia WRF) equalization
- Tapia WRF preformed monochloramine disinfection
- Recycled Water Pump Station (RWPS) – West upgrade
- Las Virgenes Reservoir hypolimnetic oxygenation system

Phase 1 Services

The JPA (also called the Owner in these Request for Proposals [RFP] documents) has elected to pursue the progressive design-build (PDB) delivery method for this AWPB procurement (the Project), part of the PWP, as provided by Chapter 4.1 (commencing with Section 22170) of Part 3 of Division 2 of the *California Public Contract Code*. The Design-Builder will engage in the Project at the Phase 1 – Design and Preconstruction Services stage. The goal is to create a collaborative Project Team with the Owner, Jacobs as the Owner's Advisor, and Design-Builder to work seamlessly to successfully design and construct the proposed Project.

Phase 1 services include:

- Task 1 - Project Management
- Task 2 - Alternative Analyses and Technical Workshops
- Task 3 - Permitting and Approvals
- Task 4 - Survey and Field Investigations
- Task 5 - Engineering Design Development
- Task 6 - Preconstruction Services
- Task 7 - Phase 2 Price Proposal Development

Task 1 - Project Management

For Task 1 - Project Management, the Design-Builder shall:

- 1) Participate in a 4-hour Phase 1 Project kickoff meeting. Participants shall include the Owner and the Design-Builder's Key Personnel
- 2) Participate in an 8-hour partnering workshop with the Owner and Design-Builder Key Personnel
- 3) Within 20 days of the Phase 1 Notice to Proceed (NTP), provide a Draft Project Management Plan that describes the PDB approach to Phase 1 services. The format and level of detail for all documents, tools, and processes will be acceptable to the Owner. The plan shall specifically include:
 - Team organization necessary to deliver Phase 1 services
 - Protocols for communication, document management and control, decision process, and dispute resolution matrix
 - Proposed Cost Model format and organization; the agreed-upon Cost Model format and organization shall be used as the basis for the **Basis of Design Report, 30%, and 60% Baseline** Cost Model, and the Phase 2 Price **GMP** Proposal.
 - Phase 1 Schedule (**Cost for this deliverable is carried in Task 6**)
 - Proposed Project schedule format and structure conforming to the requirements of Task 6.
 - Proposed process for risk management and format for the risk register and other process documentation
 - Proposed format and structure for design, cost, and schedule trend management process for the Owner to provide input during Phase 1
 - Building information modeling (BIM) and technology standards and processes for collaborating, with the following requirements:
 - The Design-Builder shall develop engineering design drawings at each phase of delivery using Autodesk software packages.
 - **Engineering design deliverables shall include Autodesk native files. (BIM files to be supplied with relevant deliverables)**
 - The Design-Builder shall use Revit three-dimensional (3D) models for building and treatment structures and processes to facilitate review of concepts with the Owner, including a Navisworks compiled model at each engineering design deliverable.

- Site-Civil design, including civil site plans, grading, yard piping, and electrical duct banks ~~and conduit runs~~, shall be modeled using AutoCAD Civil3D.
 - Minority business participation plan and approach in accordance with federal requirements for a “Good Faith Effort”.
 - Table of Contents for all plans defined in subsequent tasks:
 - Procurement Plan
 - Permitting and Approvals Plan
 - Quality Management Plan
 - Field Investigation Plan
 - Coordination with Other Projects Plan
 - Environmental Management Plan (Phase 2)
 - Site Logistics Plan (Phase 2)
 - Construction Emergency Response Plan and Site Safety Plan (Phase 2)
- 4) Based on Owner review and feedback, submit the Final Project Management Plan within 2 weeks of receiving Owner comments.
 - 5) Participate in weekly 1-hour progress meetings to review Project status. (Hybrid format)
 - 6) Submit monthly invoices; report Phase 1 planned versus actual progress monthly.

Task 1 Deliverables

- Draft and Final Project Management Plan
- Progress Meeting Minutes
- Design Decision Log (weekly update)
- Design Change Log (weekly update)
- Monthly Invoices and Progress Reports

Task 1 Assumptions

- 18-month Phase 1 duration
- Other items to be added by Design-Builder in Scope of Services proposal
 - Engineering design delivery format and content are defined in Task 5

Task 2 - Alternative Analyses and Technical Workshops

The Design-Builder shall perform an analysis of ~~various up to five technical~~ alternatives to allow the Owner to make decisions necessary to refine the scope of the Project before Engineering Design Development (as part of Basis of Design Report, before 30-percent design initiation). The alternatives that shall be evaluated include:

- Finalization of the ROC pipeline alignment based on the ROC Pipeline Alignment Route Study
- Assessment of treatment requirements for source water augmentation with groundwater from the Thousand Oaks Los Robles Golf Course Well
- Assessment of treatment requirements to achieve additional pathogen reduction requirements if full source water augmentation is achieved in the future to operate the AWPf at a production capacity of 6 mgd for 365 days per year
- Design-Builder may propose additional analysis in Scope of Services proposal. They include:
 - Identify potential new regulations and new NPDES permit requirements (ROC) that might be established before completion of design as stated in RFP Exhibit 1.2.1(b) Owner’s Project Criteria. Include CTR requirement review.
 - Pre-qualify key process / electrical equipment manufacturers and models (as applicable).

The Design-Builder shall schedule, prepare for, and conduct up to twelve 4-hour technical workshops and meetings with the Owner throughout Phase 1. These technical meetings and workshops are in addition to the progress meetings required under Task 1. The scheduling and discussion topics for these workshops shall be jointly agreed upon between the Owner and the Design-Builder and shall be intended to facilitate and support Owner decision-making with respect to the Project configuration and design, permitting, and construction planning progression. **Baseline 4-hour workshop list includes Architectural (2), Civil (1), Landscaping (1), Process (2), I&C (2), Process Mechanical (1), Structural (1), Building Mechanical (1), Electrical (1).**

Task 2 Deliverables

Deliverables for alternatives analysis should facilitate and support Owner decision-making and include:

- Draft and final technical memorandums summarizing each alternative analyses completed
- Technical workshop agendas and meeting minutes (including presentation materials)

Task 2 Assumptions

- 3-week Owner review period.
- ~~Other items to be added by Design-Builder in Scope of Services proposal.~~

Task 3 - Permitting and Approvals

~~Exhibit A RFP Attachment 7~~ provides a preliminary Permitting and Approvals Plan. ~~Exhibit A RFP Attachment 7~~ also identifies all currently known permits and approvals that are **required to be obtained** in Phase 1 and Phase 2.

The Design-Builder shall identify, consult with, and analyze requirements of governmental Authorities Having Jurisdiction (AHJs) to approve the portions of the Project described by the Design-Builder, including but not limited to, agencies listed in the Project Permitting Matrix, California Environmental Quality Act (CEQA) mitigation measures, and building permits.

The Design-Builder shall develop a draft Project Permitting and Approvals Plan consistent with ~~Exhibit A RFP Attachment 7~~ and including other permits and approvals identified by the Design-Builder. The plan shall identify and address all permits and approvals required for the Project, including those being obtained by the Owner. The plan shall include a detailed schedule for:

- Obtaining permits and approvals during Phase 1 and Phase 2
- Providing timely input and deliverables by the Design-Builder for the permits being obtained by the Owner
- ~~Providing~~ **Obtaining** timely input and deliverables by the Owner for permits being obtained by the Design-Builder

For each identified permit and approval, the plan shall include the following information:

- The name of the permit or approval
- The name and contact information for the AHJ responsible for issuing the permit or approval
- Names, roles, and responsibilities of the individuals who will develop the permit application and supporting technical information
- A summary of application and supporting technical requirements for each permit or approval
- **A summary of the recurrent standing permit meetings with AHJ's.**
- A description of linkages to other permits or approvals and to decisions by the Owner and Design-Builder

- Expected AHJ review and approval durations and integration with the Project schedule, with identification of critical path reviews
- Permit and approval tracking procedures and responsibilities
- Protocols for incorporating permit and approval conditions into design and construction

The Design-Builder shall provide the draft plan to the Owner for review and shall submit it within 30 days of NTP. Within 10 days following the receipt of Owner comments, the Design-Builder shall revise and resubmit the plan to address Owner comments.

The Design-Builder shall update the plan as Project development activities progress if such progression results in identifying additional permits or changes to the permitting requirements and durations. In addition, an updated Permitting and Approvals Plan shall be provided to the Owner along with the following documents:

- 30% Design Package
- 60% Design Package
- Phase 2 Price Proposal(s)

Task 3.2 - Secure Permits and Approvals ~~Prior to Contract Price Amendment~~

The Design-Builder shall obtain, or support the Owner in obtaining, all permits and approvals required in advance of the ~~related construction activities Contract Price Amendment~~ to support Project progression, ~~as required~~. The Design-Builder shall:

- Actively monitor the status of permit and approval processing, and respond to requests for clarification, additional information, and application revisions by the approving entities
- Attend meetings with the approving entities to expedite permit processing, and notify the Owner in advance of such meetings for possible Owner attendance
- Report to the Owner once permits or approvals have been obtained

Task 3 Deliverables

- Final Permitting and Approvals Plan
- Permitting Meeting Minutes
- Completed permit applications, ~~that are achievable and accepted by the AHJ's without 100% complete, sealed design documents.~~
- Issued Draft and Final Permits, ~~as applicable.~~

Task 3 Assumptions

- Items to be added by Design-Builder in Scope of Services proposal
 - ~~Draft Permitting and Approvals Plan will clarify Phase 1 and Phase 2 permitting approvals.~~

Task 4 - Survey and Field Investigations

The Design-Builder may not rely ~~solely~~ on any historical engineering interpretations, opinions, or recommendations that may be contained within the existing site information provided. The Design-Builder shall identify, plan, and perform additional survey and field investigations needed to complete the following activities:

- Support design development
- Validate existing site conditions
- Support permit applications
- Develop maintenance of plant operation plans
- Identify subsurface conditions
- Assess the condition of existing facilities ~~limited to tie-ins to existing pipelines~~

The Design-Builder shall develop and submit a proposed Field Investigation Plan, which shall be reviewed and approved by the Owner before field investigations commence.

Task 4 Deliverables

- Proposed Field Investigation Plan, **Field Investigation (including Ground Penetrating Radar and Potholing, along with required Permitting and Traffic Control), and Summary Report of Findings**
- Topographic survey of the entire Project site **including ROC pipeline alignment**
- Geotechnical investigation of the AWPf site and ROC pipeline, and report. **Including desktop seismic fault study, slope stability, and soil liquefaction.**
- Aerial imagery
- Schedule of additional site activities

Task 4 Assumptions

- Items to be added by Design-Builder in Scope of Services proposal
 - **Extent of investigation of subsurface conditions for ROC Pipeline will be based on industry standards; further investigation may be necessary after Utility Owners respond to Dig Alert Tickets and after as-built drawings for City utilities are provided for Design-Builder review.**
 - **Geotechnical investigation of the ROC Pipeline alignment includes borings spaced at 2,500LF, per the Conveyance Pipelines Alignment Study. We have included costs in Task 8 of the Phase 1 Services Fee Pricing Table to increase boring spacing to 600LF on average to increase representation of soil conditions along the alignment, to minimize risk of ROC Pipeline construction in Phase 2.**
 - **Field Investigation Plan – Desktop review and Ground Penetrating Radar (GPR) task that is required to finalize the ROC pipeline alignment must be done immediately following NTP to meet RFP schedule requirements. Thus, these tasks may not be included in the Field Investigation Plan submittal and approval process.**
 - **The Design-Builder will be provided with a CAD base map for the top 2 ranked Reverse Osmosis Concentrate (ROC) Pipeline alignments included in the Conveyance Pipelines Alignment Study prepared by Woodard & Curran.**

Task 5 - Engineering Design Development

This section describes the tasks required for engineering design development.

Task 5.1 - Basis of Design Report Package

The Design-Builder shall:

- 1) Review the Project requirements and consult with the Owner as appropriate to further clarify requirements for the Project, including Owner's budget, review of Owner's Project criteria, and available Owner-furnished information.
- 2) Evaluate the Project reference documents, including but not limited to, the Owner's Project criteria; and, after consultation with the Owner, recommend to the Owner any modifications to such documents, which, in the Design-Builder's judgment, would benefit the Project.
- 3) Prepare and submit a Draft Basis of Design Report (BODR) Deliverable Package, which shall include:
 - Updated Owner's Project Criteria
 - **BODR Basis of Design**, including:
 - Reports, memoranda, schematic layouts, sketches, design criteria, and appropriate exhibits indicating the applicable requirements, considerations involved, and recommended alternate solutions
 - **Qualification package for major equipment / early procurement items**

- BODR Design Build Cost Model (Level of effort captured under Task 6)
 - BODR Design Build Schedule (Level of effort captured under Task 6)
- 4) For the BODR Deliverable Package, the Design-Builder shall complete the following activities:
- Submit the draft for review
 - Schedule and facilitate a review meeting with the Owner to present the package and an overview of the initial Cost Model and Project schedule (Cost and schedule meeting may be conducted separate from technical review)
 - Respond to Owner review comments in writing in a form agreed to by the Owner and Design-Builder.
- 5) The Design-Builder shall maintain and update the BODR as necessary through 60% design. The Design-Builder shall submit a final BODR Package with the 60% Design Package as described in Task 5.3.

Task 5.2 - 30% Design Package

After completion of the BODR, the Design-Builder shall proceed with further development and refinement of the design, including development and submittal of a 30% Design Package to the Owner, including:

- 30% Drawings to include Navisworks Model, P&ID's, control descriptions, single line diagrams, hydraulic profile, design criteria, PFD, mass balance, site plan. Drawings are delivered in pdf files.
- 30% Specifications Table of Contents and initial specification sections, including Division 01, and Early Procurement Specifications (for MF, RO, UV, electrical equipment (MCCs, VFDs, switchgear, etc), ROC pipe material
- 30% Design Build Cost Model (Level of effort captured under Task 6)
- 30% Design Build Schedule (Level of effort captured under Task 6)
- 30% Constructability Review Report (Level of effort captured under Task 6)
- 30% Procurement and Buyout Plan (Level of effort captured under Task 6)
- Updated Risk Register for Phases 1 and 2 (Level of effort captured under Task 6)
- Final Adjudicated and Accepted responses to Owner's BODR review comments
- Initial Southern California Edison coordination summary.

Task 5.3 - 60% Design Package

After completion of the 30% Design Package, the Design-Builder shall proceed with further development and refinement of the design, including development and submittal of a 60% Design Package to the Owner for review and comment. The 60% Design Package shall include all documents, drawings, and specifications required under this task or identified as being submitted along with the 60% design under other tasks. At a minimum, the 60% Design Package shall include:

- Proposed revisions to Owner's Project Criteria
- Final adjudicated and accepted responses to Owner's 30% review comments
- Final BODR Deliverable Package
- 60% Drawings (Portable Document Format [PDF] and ~~computer-aided design [CAD] files native drafting/design software files~~)
- 60% Specifications (including limited to Division 01 and technical specifications)
- Draft Phase 2 Construction Emergency Response Plan and Site Safety Plan
- Draft Phase 2 Quality Management Plan
- Draft Preliminary Commissioning and Startup Plan

- Draft Preliminary Acceptance Test Plan (identifying any proposed changes to the Project performance standards included in Attachment 5 of the RFP)
- Draft Maintenance of Plant Operations Plan
- Draft Preliminary Operator and Maintenance Staff Training Plan
- Permit Logs
- 60% Design-Build Cost Model (including drawdown schedule) (Level of effort captured under Task 6)
- Design-Builder Proposed Contingency Justification (based on updated construction risk register) (Level of effort captured under Task 6)
- 60% Design-Build Schedule (Level of effort captured under Task 6)
- 60% Constructability Review Report (Level of effort captured under Task 6)
- 60% Procurement and Buyout Plan (Level of effort captured under Task 6)

Task 5.4 - Baseline Document Design Packages

For each Phase 2 Contract Price Amendment, the Design-Builder shall assemble the applicable design drawings, specifications, and other information necessary to document the basis of the Phase 2 Contract Price Amendment. The Baseline Document Design Packages shall incorporate the adjudicated Owner review comments from all prior Design Package submissions.

Task 5.5 - Coordination with Other Projects

Additional infrastructure will be delivered under the Program as separate projects using a DBB approach and will interface directly with the Project. These projects include:

1. AWPf conveyance pipelines
 - Source water from the existing recycled water system to the AWPf for treatment (0.8 mile)
 - Purified water from the AWPf to the Las Virgenes Reservoir for storage (2.7 miles)
 - Residuals from the AWPf to the sanitary sewer for disposal (1.1 miles)
2. Tapia WRF equalization
3. Tapia WRF preformed monochloramine disinfection
4. RWPS – West upgrade
5. Las Virgenes Reservoir hypolimnetic oxygenation system

Additionally, other projects in the vicinity of the ROC pipeline will be identified during Phase 1. The Project will need to be coordinated closely with the design and construction of these conveyance pipeline projects within the Program. The Design-Builder shall develop a Coordination with Other Projects Plan and shall work closely with the Owner and the designers and contractors of these other projects to coordinate the following:

- Sequence of construction
- Design and construction schedule coordination
- Physical points of connection between projects
- Hydraulic profile points at the interface between projects; the Design-Builder shall be responsible for developing the hydraulic profile of the ROC pipeline.
- Process control and instrumentation
- Testing and commissioning plans, requirements, and schedules
- Temporary bypasses, structures, piping, and pumping to route water during testing and commissioning
- Electrical power supply and distribution

- Ancillary process support systems
- Contractor access, office trailers, and laydown areas
- Site access, traffic flow, and parking and preliminary traffic control plan

Design-Builder shall participate in project coordination meetings with ~~the~~ each of the listed projects during Phase 1. A one-hour coordination meeting will be conducted monthly for the listed pipeline project during Phase 1. Coordination with the other listed ancillary projects will be conducted through the Owner. (Hybrid format)

Task 5 Deliverables

- Coordination with Other Projects Plan
- Draft BODR Package
- 30% Design Package
- 60% Design Package
- Baseline Document Design Packages
- Owner's BODR, 30%, and 60% Package Comments and Adjudicated Design-Builder Responses

Task 5 Assumptions

Items to be added by Design-Builder in Scope of Services proposal

- Engineer's scope of services is limited to Phase 1 services. Phase 2 services are to be negotiated during Phase 1.
- Key process equipment units are qualified during development of draft BODR task and before development of final BODR task.
- Pre-purchased equipment units are selected before Final 60-Percent GMP Design Task
- Scope for early work packages will be agreed to by the completion of BODR Review and cost and schedule of requested early work packages will be negotiated over an agreed upon timeline.
- 8-hour BODR Presentation Review Meeting.
- 3-Week 30-Percent Design **Concurrent** Bluebeam Review Session followed by 5-Day 30-Percent Design Extended Review Workshop. Concurrent Bluebeam Review Sessions will be shared final reviews of each design milestone conducted by the JPA and Walsh. Note that Walsh will be performing ongoing design review as the design deliverable are compiled
- 3-Week 60-Percent Design **Concurrent** Bluebeam Review Session followed by 5-Day 60-Percent Design Extended Review Workshop. Concurrent Bluebeam Review Sessions will be shared final reviews of each design milestone conducted by the JPA and Walsh. Note that Walsh will be performing ongoing design review as the design deliverable are compiled
- Twelve 4-hour design workshops.
- Partnering will be set-up / facilitated by Owner.
- BIM Model is developed up to LOD 200 minimum and LOD 300 maximum.
- 30-Percent Design Submittal as described in Task 5.2
- An allowance is included in the budget for constructability review redesign(s)
- An allowance is included in the budget for value engineering redesign(s)
- The structural integrity of the existing pipelines where new ties-ins are to occur is sound and do not require additional structural improvements to accept those tie-ins.
- No hazardous materials (e.g., asbestos, lead paint) or hazardous waste is involved in the project.
- No emergency generator other than the small packaged unit defined in the RFP to cover MF backwash pump and RO flush pump only is included in the project.

- Drawing and specifications produced will be in accordance with Engineer's standards. Drawings will be 2D representations with four 3D overviews for process building, chemical building, outdoor facilities (2).
- Administration building requires ADA-accessible entrances and facilities. Other buildings and facilities do not.
- LEED, Envision, and other sustainability certifications are not required.
- Baseline Documents Design Package Iterations are limited to 2 and documented in a log as RFI's and RFC's. Drawings and specifications will be updated as part of the 100% design package.
- Easement acquisition. Permanent easement exhibits and legal descriptions for public agencies and underlying owners are excluded. Permanent easement records of survey with County Assessor's office or other AHJ are excluded. Public agency applications for permanent easements are excluded. Temporary easement exhibits and public agency applications, except for those required for execution of the proposed Field Investigation Plan, are excluded.
- Task 6.3 Value Engineering and Constructability Review: Hybrid meetings to be facilitated, one 8-hr meeting and one 4-hr meeting.
- Design of chemical cleaning and/or pigging stations, fiber optic cable and conduit that may be running along the ROC pipeline will be completed as part of the 100% design activity.
- RO Concentrate (ROC) Quality Compliance. Based on demonstration facility data, ROC Gross Beta particle activity may exceed SMP discharge requirements; however it may still be less than in-situ levels in the Pacific Ocean. Our approach to avoiding this risk is to support LVMWD in implementing source control and/or negotiating SMP permit exemption. Engineering solutions are not included at this time, as past experience has shown our approach presented here is sufficient to mitigate this risk.
- Any durations listed in "days" shall mean working days.

Task 6 - Preconstruction Services

This section describes the tasks required for preconstruction services.

Task 6.1 - Cost Estimating

Throughout Phase 1, the Design-Builder shall develop and maintain the Project Cost Model using industry standard cost-estimating software. As part of this task, the Design-Builder shall complete the following:

- 1) Develop and submit a BODR Project Cost Model based on the BODR design documents. The BODR Project Cost Model shall identify all Project tasks and include a preliminary work breakdown structure (WBS) needed to complete the Project and estimate the costs, duration, and sequence of tasks. The Cost Model shall be reflective of the Design-Builder's anticipated breakdown of work activities and include markups consistent with the guaranteed maximum price (GMP) open-book price proposal. The Cost Model shall be based on a detailed labor and material type cost estimate, consistent with AACE International (AACE) practices. The Design-Builder should include the following with the BODR Project Cost Model package:
 - BODR Project Cost Model
 - BODR Schedule
 - Draft Site Logistics Plan
 - Draft Construction Emergency Response Plan and Site Safety Plan
 - Draft Quality Management Plan that conforms with the Contract Documents
 - Draft Environmental Management Plan describing programs for a Stormwater Pollution Prevention Plan (SWPPP) and handling of other environmental issues (such as dust, onsite chemicals and fuel) if required to comply with permits and regulations applicable to the Project.

- 2) Subsequent to submission of the BODR Cost Model, hold monthly 2-hour review workshops with the Owner to review the Design-Builder's observations and recommendations. Attendees include, at a minimum:
 - Project Manager
 - Engineering Manager
 - Preconstruction Manager
 - Lead Estimator
 - Construction Manager
 - Other necessary personnel
- 3) In conjunction with the Owner's initial risk register, develop and maintain a Project risk register during Phase 1. Lead monthly meetings with the Owner to update risks, mitigation activities, and potential cost and schedule impacts. The risk register shall be used to inform and develop appropriate and Project-specific contingency values throughout Phase 1 development.
- 4) Develop and submit an updated Cost Model at each design milestone for the Owner's formal evaluation and review:
 - 30% Design-Build Cost Model: Based on 30% design, including identification of construction phasing concepts that would result in schedule savings, material or equipment prepurchase and their costs. Identify risks and benefits associated with construction phasing concepts.
 - 60% Design-Build Cost Model: Shall be used to support the Task 7 Price Proposal. Based on 60% design, including identification of construction phasing concepts that would result in schedule savings, material or equipment prepurchase and their costs. Identify risks and benefits associated with construction phasing concepts.
- 5) Develop and maintain a Design Trend Log and Cost Trend Log. These logs may be separate or combined with other decision logs based on the needs of the Project Team. These logs shall track the following information:
 - Potential cost-saving proposals
 - Value engineering concepts
 - Risk mitigation concepts
 - Owner-approved changes ultimately approved by the Owner
 - All major changes from the Baseline Cost Model that arise as part of the design evolution process

For each item, the Design-Builder shall identify options for resolving the change and, in a timely fashion, estimate the cost and schedule impact associated with adopting the change to support evaluation of the change. The log will allow for consistent tracking of deviation from the Project baseline cost and schedule. Items will be reviewed with the Owner monthly during design. Promptly advise the Owner through the Cost Trend Log when the Cost Model is trending above the Owner's available funding limit.
- 6) Subsequent to each formal Cost Model submission, work with the Owner to review and reconcile comments, and identify and update Project risk allocations and usage.
- 7) Submit quarterly cashflow projections covering planned Phase 1 and Phase 2 services.

Task 6.2 - Design-Build Schedule

The Design-Builder shall:

- 1) Develop and submit a preliminary Design-Build schedule, including a basis of cost and schedule document, within 30 days of NTP. The schedule shall be a Primavera 6 Cost-Loaded Schedule, loaded at the purchase order (PO) and Schedule of Values level. Incorporate permit application

submittals, issuance, and compliance into the baseline schedule.

The design-build schedule shall be a critical path method (CPM) schedule and shall identify all critical path activities, including long-lead equipment procurement items, if any. The Design-Builder shall provide recommendations to the Owner to optimize the schedule and prevent or minimize Project delivery impacts, including consideration of multiple work packages, early equipment procurement, and other cost and schedule mitigation approaches, if required by the Project schedule. The Design-Builder shall demonstrate and justify the basis for all work packages or phased construction price proposals.

- 2) Submit the updated CPM schedule at the following design milestones for formal evaluation and review by the Owner:
 - 30%
 - 60%
 - Phase 2 Contract Price Amendment(s)

Task 6.3 - Constructability Reviews

The Design-Builder shall provide constructability reviews of the design as it progresses and at the 30% and 60% design submittal milestones. As part of design review meetings, the Design-Builder shall include the following information:

- Potential constructability issues
- Cost- and schedule-saving alternatives
- Design-Builder's recommendations
- Follow-up activities as needed to resolve issues

The Design-Builder shall provide formal value engineering and constructability reviews at the 60% design milestones. The Design-Builder shall also compile comments in a tabular format acceptable to the Owner with supporting documentation (including descriptions, sketches, drawings, Bluebeam markup, and Microsoft PowerPoint presentations) as necessary to convey intent.

Task 6.4 - Procurement Plan

The Design-Builder shall:

- 1) Submit a Draft Procurement and Buyout Plan within 30 days of issuance of the 30% design deliverable, addressing the following:
 - Describe approach for packaging the work, and identify work that the Design-Builder intends to self-perform. Identify and recommend which work, if any, should be procured through value-based competitive selections instead of low-bid selection.
 - Describe approach to engage and encourage participation from minority certified or local firms.
 - Describe the criteria (qualifications and price) that will be used to analyze competitive bids for each element of the work.
 - Develop all procurement procedures in compliance with the *California Public Contracts Code*, including Chapter 4.1 (commencing with Section 22170) of Part 3 of Division 2, and all Owner procurement rules as defined in the PDB Contract.
- 2) Update the Procurement and Buyout Plan with each **subsequent** design deliverable
- 3) Develop bid packages that align with the proposed sequence of work for efficient implementation and to encourage market interest
- 4) Evaluate and consider multiple Phase 2 Contract Price Amendments and early procurement and work packages, if required by the Project schedule
- 5) Actively "premarket" the Project with local trade subcontractors, equipment vendors, and material suppliers to increase awareness and interest in submitting competitive bids and quotes, and perform prequalification activities where appropriate

- 6) Receive and incorporate Owner input and feedback on each iteration of the Procurement and Buyout Plan

Task 6 Deliverables

- Baseline Project Cost Model Package
- Design and Cost Trend Logs
- Draft Procurement and Buyout Plan
- Risk Register with monthly update

Task 6 Assumptions

- Items to be added by Design-Builder in the Scope of Services proposal
 - Early work package concepts will be presented on the BODR and 30% Design-Build Schedules for consideration by the JPA. Cost will be negotiated during Phase 1.
 - The Stormwater Pollution Prevention Plan (SWPPP) will be prepared with the Notice of Intent anticipated to be filed at the start of construction.
 - Risk Register monthly update meetings may be combined with other meetings.
 - Any durations listed in “days” shall mean working days.

Task 7 - Phase 2 Price Proposal Development

The Design-Builder shall:

- 1) Prepare a detailed Phase 2 Price Proposal, meeting the requirements described in Article 5 - Phase 2 Proposal of the PDB Contract, with an open-book line-item cost breakdown on subcontracted and self-performed work, contingency (with its basis), and any clarifications, assumptions, or qualifiers based on the 60% design milestones.
- 2) Lead collaborative review of Phase 2 Price Proposal. Assume two 4-hour workshops with the Owner to review details of the Proposal, including, but not limited to,
 - Results of procurement activities
 - Differences from previous Cost Models
 - Work approaches that serve as the basis for production rates and activity durations
 - Basis for proposed contingency

Design-Builder's major subcontractors, that have been procured during Phase 1, shall participate as appropriate to support the development of the Phase 2 Price Proposal.

Task 7 Deliverables

- Phase 2 Price Proposal(s)

Task 7 Assumptions

Items to be added by Design-Builder in Scope of Services proposal

- Assumptions / exclusions utilized in development of cost model will be included in the final Price Proposal.

Task 8 – Optional Services (Recommendations from Proposer)

As noted in the Assumptions in Task 4, The Walsh Team has included an option increase the frequency of soil borings along the ROC pipeline alignment from 2,500 LF spacing to a more conservative value of 600 LF intervals. Additional borings would be 15-ft in depth. The purpose of this additional scope would be to provide more detail for the pipeline designers to design the pipeline and trenching requirements and furthermore for the pipeline contractor to install the ROC pipeline, mitigating risks associated with unknown soil types.

Task 8 Deliverables

- All scopes of work related to providing 80 additional shallow borings, including traffic control, drilling, soil analysis, lab testing, final boring data analysis, drafting of additional boring locations, and additional ROC pipeline design details resulting from analysis.

Task 8 Assumptions

- Additional work to be completed within the current mobilization schedule.

Phase 2 Services

Phase 2 scope will be finalized during Phase 1 services and GMP development. Phase 2 services are anticipated to include the following at a minimum:

- Task 1 - Project Management
- Task 2 - Design Completion and Permitting Assistance
- Task 3 - Construction Phase Services
- Task 4 - Testing, Commissioning, and Startup
- Task 5 - Warranty and Closeout

Task 2 - Design Completion and Permitting Assistance

The Design-Builder shall advance the design to 100% completion, considering all comments and revisions required by permitting agencies and as suitable for construction. The Design-Builder shall submit a 95% Issued for Permitting Design Package for each work package that can be used for permitting submittals by the Owner. The number of packages will depend on the phasing plan accepted by the Owner.

The 95% Issued for Permitting Design Packages shall include:

- Final plans and specifications consistent with a typical 95% design milestone, and be considered final by the Design-Builder.

This set shall be stamped and signed by the Engineer of Record, registered in the State of California, and will be used by the Owner for any permitting coordination led by the Owner that requires final construction documents for review and approval.

The 100% Issued for Construction Design Package(s) shall include:

- Final plans and specifications consistent with a typical 100% design milestone, stamped and signed by the Engineer of Record, registered in the State of California.

APPENDIX D

Pricing Information

(Submitted under a separate cover as required by the RFP)



IN ASSOCIATION WITH



+



12100 WILSHIRE BOULEVARD, SUITE 370 » LOS ANGELES, CA 90025
T 310.820.1922



Table A10-1: Attachment 10 - Pricing Information Form

Phase 1 Services Proposal

Proposer: Walsh Construction Company II, LLC

Key Personnel/Additional Staff Role	PM	CM	Preconstruction Manager	Operations Support	General Superintendent	Project Manager	Scheduler	Project Controls	Assistant Project Manager	Project Engineer	Lead Estimator	ROC Pipeline Preconstruction Lead	Estimator	Project Engineer	LABOR	SUBCONTRACTOR	SUBCONTRACTOR	SUBCONTRACTOR	SUBCONTRACTOR	SUBCONTRACTOR	EXPENSES			
Name	Blayne Goodman	Matt Maltby	Arie Harel	Ronne Padilla	Phil Graff	Jeremy Stockschlaeder	Jason Betts	Clay Gunderson	Octavio Ramos	Omar Ponce	Ken Hudson	Jason Kelly	Thomas Shea	Luis Ruvalcaba		Brown and Caldwell	Taft Electric	Converse Consultants	AirX Utility Engineers	Socal Stormwater Runoff Solutions				
Billing Rate (\$)	\$ 353.52	\$ 275.11	\$ 249.88	\$ 236.14	\$ 279.07	\$ 221.34	\$ 234.92	\$ 278.08	\$ 175.49	\$ 156.71	\$ 216.61	\$ 233.43	\$ 173.99	\$ 133.13										
Project Tasks	Hours														Subtotal - Labor	Sub A	Sub B	Sub C	Sub D	Sub E	Expense	Subtotal - Expenses	Total	
Task 1 - Project Management	296	136	336	24	0	152	48	60	0	44	0	0	0	0	\$ 300,183	\$ 1,035,627	\$ 30,169	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,065,796	\$ 1,365,979
Task 2 - Alternative Analyses and Technical Workshops	68	56	72	0	0	72	0	48	0	24	0	0	0	0	\$ 90,482	\$ 1,056,482	\$ 3,560	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,060,042	\$ 1,150,524
Task 3 - Permitting and Approvals (AWPF)	158	143	298	0	0	254	22	0	408	412	0	232	0	174	\$ 444,536	\$ 515,299	\$ 894	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 516,194	\$ 960,730
Task 4 - Survey and Field Investigations	52	120	40	0	80	140	0	0	0	80	0	24	0	80	\$ 143,495	\$ 926,804	\$ -	\$ 942,473	\$ 289,667	\$ -	\$ 30,000	\$ -	\$ 2,188,944	\$ 2,332,439
Task 5 - Engineering Design Development	294	194	250	120	36	178	0	0	24	0	0	116	0	24	\$ 332,043	\$ 10,429,245	\$ 10,679	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,439,924	\$ 10,771,966
Task 6 - Preconstruction Services	848	458	1126	0	324	646	340	770	64	40	680	920	640	180	\$ 1,749,416	\$ 90,285	\$ 83,640	\$ -	\$ -	\$ 1,912	\$ -	\$ -	\$ 175,836	\$ 1,925,252
Task 7 - Phase 2 Price Proposal Development	96	40	96	0	40	56	24	96	0	0	96	0	0	0	\$ 145,617	\$ 112,661	\$ 10,593	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 123,254	\$ 268,871
SUBTOTAL WITHOUT ALLOWANCES OR OPTIONAL TASK 8															\$ 3,205,773	\$ 14,166,403	\$ 139,534	\$ 942,473	\$ 289,667	\$ 1,912	\$ 30,000	\$ -	\$ 15,569,988	\$ 18,775,761
Task 8 - Optional Services (Recommendations from Proposer)	0	0	0	0	100	100	0	0	0	0	0	0	0	100	\$ 63,354	\$ 32,905	\$ -	\$ 401,209	\$ -	\$ -	\$ -	\$ -	\$ 434,115	\$ 497,469
Potholing Allowance	16	60	0	0	160	40	0	0	0	0	0	16	0	160	\$ 100,703	\$ 37,832	\$ -	\$ -	\$ 814,214	\$ -	\$ -	\$ -	\$ 852,047	\$ 952,750
Permitting and Approvals Allowance (ROC Pipeline)	158	143	298	0	0	254	22	0	408	412	0	232	0	174	\$ 444,536	\$ 489,699	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 489,699	\$ 934,235
Value Engineering Redesign Allowance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ -	\$ 270,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 270,000	\$ 270,000
Total Hours	1986	1350	2516	144	740	1892	456	974	904	1012	776	1540	640	892										15822
Total Fee	\$ 702,087	\$ 371,403	\$ 628,690	\$ 34,004	\$ 206,513	\$ 418,782	\$ 107,122	\$ 270,850	\$ 158,647	\$ 158,594	\$ 168,093	\$ 359,479	\$ 111,355	\$ 118,749	\$ 3,814,367	\$ 14,996,840	\$ 139,534	\$ 1,343,682	\$ 1,103,881	\$ 1,912	\$ 30,000	\$ -	\$ 17,615,848	\$ 21,430,215
Total Not to Exceed - Phase 1																								\$ 21,430,215

DATE: March 4, 2024
TO: JPA Board of Directors
FROM: Engineering and External Affairs

SUBJECT: Construction Management and Inspection Services for Malibou Lake Siphon Replacement Project: Award

SUMMARY:

On February 4, 2024, the JPA Board awarded a construction contract to Mladen Buntich Construction Company Inc., in the amount of \$3,339,000, for the Malibou Lake Siphon Replacement Project. Due to the complex nature of the project and limited internal resources, staff proposes to hire a firm to provide construction management and inspection services for the project. With construction scheduled to begin shortly, staff recommends authorization to accept the proposal from Cannon Corporation (Cannon) to provide construction management and inspection services for the Malibou Lake Siphon Replacement Project.

RECOMMENDATION(S):

Accept the proposal from Cannon Corporation and authorize the Administering Agent/General Manager to execute a professional services agreement, in the amount of \$261,540, for construction management and inspection services for the Malibou Lake Siphon Replacement Project; and re-appropriate funding from CIP No. 10795, Tapia Final Effluent Pump Station Rehabilitation Project, to CIP No. 10803, Malibou Lake Siphon Replacement Project, in the amount of \$261,540.

FISCAL IMPACT:

Yes

ITEM BUDGETED:

Yes

FINANCIAL IMPACT:

The cost of the work is \$261,540. Sufficient funding is available in the adopted Fiscal Year 2023-24 JPA Budget. The funding for the work would be re-appropriated from CIP No. 10795, Tapia Final Effluent Pump Station Rehabilitation Project, to CIP No. 10803, Malibou Lake Siphon Replacement Project. The cost of the project is allocated 28.93 percent to LVMWD and 71.07 percent to Triunfo Water and Sanitation District. CIP No. 10795, Tapia Final

Effluent Pump Station Rehabilitation, is not anticipated to begin until the Fiscal Year 2024-25 and funds for the project will be proposed through the CIP budgeting process for Fiscal Year 2024-2025.

DISCUSSION:

Located by Malibou Lake, the sewer siphon was constructed around 1967 and consists of three steel pipes that are 10-inch, 14-inch, and 24-inch in diameter. Record drawings indicate the pipes are encased in concrete on three sides, but were laid on bare ground without proper bedding material. From manhole-to-manhole, the siphon is 134-feet long and is 19-feet below grade at its lowest point. Video observations from the inlet manhole indicate the 24-inch pipeline is largely obstructed, and recent attempts by the JPA to clean and inspect the pipelines were unsuccessful. Furthermore, there is infiltration from groundwater into the siphon at the inlet manhole that prevents dewatering of the pipelines, and it appears there is structural failure of the 24-inch pipeline.

During routine inspection and cleaning of the JPA’s trunk sewer collection system, damage was observed in the siphon conveying flow across Medea Creek at the inlet of Malibou Lake. In addition, corrosion of the inlet and outlet siphon manholes was observed due to the off-gas that is released as the flow passes through the siphon. JPA staff worked to identify the extent of the damage to the siphon; however, it was determined that the damage was great enough that it was beyond the internal capabilities of the JPA to repair, and outside help would be needed to bring the siphon back into full working condition.

While JPA staff has confirmed there is no evidence of sewage escaping the siphon and flow is still being conveyed through the smaller pipelines, it is imperative that the larger 24-inch siphon be addressed quickly to avoid any further damage or the possibility of a sanitary sewer overflow (SSO). Flow meters have been installed on the upstream and downstream sides of the existing siphon to monitor flow conditions and notify staff of any impending SSO. Staff have also developed an emergency response plan and have on-call contractors available to mobilize expeditiously in the event conditions deteriorate and an SSO event becomes eminent.

On February 4, 2024, the JPA Board approved the award of a construction contract to Mladen Buntich Construction Company Inc. (Mladen), in the amount of \$3,339,000. Mladen has begun preparing for construction and is anticipated to break ground in late March 2024. Due to the complexity and the resources needed to execute this project, District staff determined it would be in the District’s best interest to have a professional construction management and inspection team handle the day-to-day management and quality control tasks during construction. The selected consultant would free up District resources, manage the contractor to ensure compliance with the contract documents, interact with the public, and provide support during the review of submittals, requests for information, and daily inspections.

District staff issued a request for proposal (RFP) for Construction Management and Inspection Services on January 11, 2024. The RFP was advertised on the District’s website, as well as sent directly to several qualified engineering firms. Six (6) qualified firms submitted proposals. Cost proposals are summarized as follows:

Consultants	Cost Proposal (\$)
-------------	--------------------

HDR Inc.	\$367,970.00
NV5 Inc.	\$297,673.00
Cannon Corporation	\$261,540.00
EPC Consultants	\$175,034.00
Atlas Consultants	\$293,380.00
MKN Associates	\$364,240.00

Each of the proposals received were well-prepared and competitive in their approach. Staff thoroughly evaluated the proposals and Cannon stood out based on their project understanding, approach, availability of local inspection resources, costs, and experience with construction management and inspection on large sewer pipeline replacement projects. Cannon has successfully managed and designed a variety of projects with the JPA and previously provided construction management and inspection support to LVMWD on the Calleguas-Las Virgenes Interconnection Project.

Staff recommends authorization to accept the proposal from Cannon and authorize the Administering Agent/General Manager to execute a professional services agreement, in the amount of \$261,540, for construction management and inspection services for the Malibou Lake Siphon Replacement Project.

Re-appropriation of funds, in the amount of \$261,540, from CIP No. 10795, Tapia Final Effluent Pump Station Rehabilitation Project, to CIP 10803, Malibou Lake Siphon Replacement Project, is required to provide sufficient funding for the construction management and inspection services.

Mladen has begun preparing for construction and is anticipated to break ground in late March 2024. The project is anticipated to be completed by December 2024.

GOALS:

Construct, Manage and Maintain all Facilities and Provide Services to Assure System Reliability and Environmental Compatibility

Prepared by: Joe McDermott, Director of Engineering and External Affairs

ATTACHMENTS:

[Proposal by Cannon Corporation for Construction Management and Inspection Services](#)

Las Virgenes Municipal Water District

Proposal for
Construction Management and
Inspection Services for the
**Malibou Lake Siphon
Replacement Project**

Cannon

Reliable Responsive Solutions

Alex Leu, PE
Project Manager
Las Virgenes Municipal Water District
4232 Las Virgenes Road, Calabasas, CA 91302

February 20, 2024

Subject: Construction Management and Inspection Services for the Malibou Lake Siphon Replacement Project

Dear Mr. Leu:

The Las Virgenes Municipal Water District (District) has a tremendous responsibility to provide and maintain critical and essential water and sewer system infrastructure for the residents, businesses, visitors, and other consumers it serves. This is why the Malibou Lake Siphon Replacement Project is essential. The siphon is a critical piece in the District's trunk sewer system, conveying sewer flow from the west part of the District's service area. The successful construction of this project will secure the uninterrupted flow of the sewer system.

Unmatched Understanding. This project seeks to construct gravity sewer pipes ranging in size from 12-inches to 36-inches and includes building an inverted 12-inch and 24-inch double barrel siphon crossing Medea Creek, equipped with inlet and outlet manholes and a grit trap. Additionally, it involves the full removal of an existing triple barrel siphon and its associated structures. The project scope also covers creating access roads to the inlet and outlet manholes, installing temporary cofferdams and related dewatering facilities, and establishing temporary sewer bypass systems.

The District is inviting proposals from qualified firms for the Malibou Lake Siphon Replacement Project, focusing on providing comprehensive construction management and inspection services. The awarded firm's responsibilities will include day-to-day administration, budget control, on-site supervision, and overall coordination to confirm the project adheres to its planned scope, schedule, and budget.

Qualified Team. The Cannon Team includes experienced construction managers, inspectors, construction engineers, and resident engineers. We are very familiar with this type of project, and will proactively work with the District Staff, the contractor, and the design engineer to anticipate project challenges before they impact the project cost, schedule, or quality of the finished product. Our extensive knowledge of construction management practices for public works projects, established communication strategy, and success in reducing exposure to claims and litigation will support the District's goals for this project. In addition to Cannon's key personnel proposed for this project, we have qualified in-house engineers to address in-depth technical issues that may arise during construction.

Relevant Experience. Cannon's construction management staff has direct experience on similar types of construction projects, including sewer main replacement, utility work, and Horizontal Directional Drilling (pipeline) work under creeks, rivers, and other environmentally sensitive areas. We have recently completed management and inspection on relevant sewer main replacement projects for Caltrans; the Cities of Pismo Beach, Paso Robles, Beverly Hills, and Arroyo Grande; and the Lost Hills Utility District. We are up to date with current construction standards for public works projects, including the LVMWD Standard Specifications and Drawings, Standard Plans and Standard Specifications for Public Works Construction (Greenbook), County of Los Angeles, Caltrans Standard Plans and Specifications, California Building Code (CBC), etc., and have a solid understanding of the overall project work involved.

We enthusiastically submit this proposal to provide construction management and inspection services, and we look forward to engaging in further discussions for the opportunity to serve the District. Please contact me directly if you should have any questions regarding our proposal. We look forward to working with the Las Virgenes Municipal Water District.

Sincerely,



Patrick Riddell, PE
Director Construction Management Division
305 S Kalorama St., Suite A, Ventura, CA 93001
☎ 805.503.4586 📠 805.235.0576 📠 805.503.4446 ✉ PatR@CannonCorp.us

We acknowledge that we received and reviewed addendum no. 1, released by the District on January 25, 2024.

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As a full-service engineering, construction management and inspection, and surveying firm, we take pride in our ability to offer clients a broad range of services. Our commitment to providing clients *Reliable Responsive Solutions*, whether the project scope is expansive or more specialized, spans 47 years.

We have worked with many cities, agencies, school districts, and counties to make streets safer and more pedestrian and bicycle-friendly, maintain secure and dependable water systems, and construct buildings and facilities that are structurally sound.

Our team of more than 140 professionals includes Construction Managers; Caltrans Trained/Certified Resident Engineers and LAPM Specialists; APWA Certified Public Infrastructure Inspectors; County-, State-, and Federal-Level Funding Administration Managers; Registered Civil, Structural, Mechanical, Electrical, and Controls Engineers; and Licensed Land Surveyors and Survey Technicians. We have extensive experience in construction management and inspection, design, plan checking services, and surveying services, for street rehabilitation, widening and improvement projects and major street, storm drain, right-of-way, water, sewer, and dry utility design.

Legal Name of Firm: Cannon Corporation

Office Locations

Services for the District will be provided primarily from our Ventura office with support from our other offices, if needed. Cannon office locations include the following:

Ventura

305 S Kalorama St.
Suite A
Ventura, CA 93001
☎ 805.503.4590

Los Angeles

11900 W Olympic Blvd.
Suite 530
Los Angeles, CA 90064
☎ 310.664.1166

Irvine

16842 Von Karman Ave.
Suite 150
Irvine, CA 92606
☎ 949.753.8111

San Luis Obispo

1050 Southwood Dr.
San Luis Obispo, CA 93401
☎ 805.544.7407

Construction Management Principal

Patrick Riddell, PE, QSD, CPII

☎ 949.753.8111 📠 805.235.0576

305 S Kalorama St., Suite A
Ventura, CA 93001



Project Manager

Main Point of Contact

Nik Boas, PE

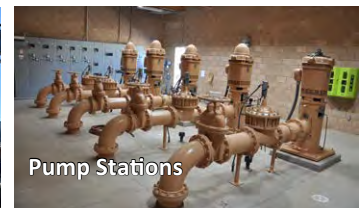
☎ 805.596.4240 📠 805.503.5903

305 S Kalorama St., Suite A
Ventura, CA 93001



Experience Counts

Our construction inspection and survey teams offer expertise in the following areas relevant to your upcoming projects:



Read more about our experience starting on page 22.

Project Understanding

The Las Virgenes Municipal Water District's (District) Malibou Lake Siphon Replacement Project includes the replacement of an existing triple-barrel siphon beneath Medea Creek, at the confluence of Malibou Lake, with a new double-barrel siphon. This is a critical segment in the District's trunk sewer system. Flow conditions at the siphon are being closely monitored due to its age, sensitive location, and deteriorated condition.

The work consists of the complete removal of an existing triple-barrel siphon and associated structures. The work also includes the construction of an inverted 12-inch and 24-inch double barrel siphon with new inlet, outlet, and connecting manholes to connect to the existing 36-inch inlet and 33-inch outlet vitrified clay (VCP) sewer pipes respectively. The new double-barrel siphon crossing Medea Creek is approximately 127-feet in length and will be fully encased in concrete. Additionally, work will include constructing of gravel access roads to the siphon inlet and outlet manholes, temporary cofferdams and dewatering facilities to perform the work within Medea Creek, and temporary sewer bypass facilities.

Thorough Preparation Sets Us Apart

We have thoroughly evaluated the District's Request for Proposal (RFP); reviewed the project plans, technical specifications, and the District's Standard Specifications and Drawings; and have developed a detailed understanding of the overall goals and timing of the project. Based on this research and our experience with similar public infrastructure projects, we have highlighted critical areas of our comprehensive project understanding:

- **Schedule:** We understand the construction contract is to be completed within 320 calendar days from the Notice to Proceed. Dewatering, cofferdam deployment, and construction work within Medea Creek must be completed between March 15, 2024 and November 15, 2024 and during periods of dry weather (less than 40% chance of rain).
- **Sound Attenuation:** We understand the need of sound attenuation measures particularly during Sewer Bypass and Dewatering pumping construction activities. Our team will comply with the District's specified noise threshold, making sure noise levels do not exceed 60 decibels at a distance of 30-feet from the source.
- **Communication:** We understand the importance of effectively communicating with each project stakeholders throughout construction, including the District, Design Engineer (HDR Inc.), Environmental Consultant (Padre Associates Inc.), and the local Malibou Lake Mountain Club community.

**To further illustrate our understanding of the project, please see exhibit 1 on the next page of this proposal.*



Exhibit 1



Project Approach

The Cannon Team is experienced with this type of work and understands that public safety, traffic control, noise control, and timely community notifications will be of paramount importance to minimize public inconvenience throughout the duration of the project. Our overall goal is to apply this knowledge and experience to best represent the District during construction, and deliver the project on-time, within budget, and of high quality. We have identified the following key elements for the successful completion of the Malibou Lake Siphon Replacement Project (Project):

Construction Management Expertise

We offer the District expertise with the following services:

- Construction management
- Inspection and engineering
- Cost controls
- Schedule review
- Communication and documentation
- Weekly progress reporting
- Management of Request for Information (RFI's)
- Submittals
- Change orders
- Labor compliance, and potential claims management
- Payment applications

In addition, our project team has recently completed construction management of similar improvement projects in environmentally sensitive areas throughout California, and we are confident in our ability to successfully manage and inspect the construction of the Project.

Technical Expertise

Knowledge and experience in the design, construction, and sequencing of sewer systems and overall construction work are critical prerequisites for the construction management team responsible for overseeing the safe and effective construction of the Project. In addition to being intimately familiar with the project plans and specifications, the construction management team must have a thorough understanding and background of using applicable codes, standards, and technical guidelines such as the LVMWD Standard Specifications and Drawings, Caltrans Standard Plans and Specifications, Standard Specifications for Public Works Construction (Greenbook), California Building Code (CBC), Uniform Plumbing Code (UPC), National Electrical Code (NEC), American Water Works Association (AWWA), American Society for Testing & Materials (ASTM), International Society of Automation

(ISA), and others. We are familiar with standard testing procedures for sewer pipes and manholes to confirm work meets normal quality standards and design intent.

Communication Strategy

Communication is essential in successfully preventing or resolving problems that may be encountered during the course of a project. Understanding our role in relation to the role of the District and design engineer will be a top priority on this project.

We will work closely with project stakeholders from beginning to end. Stakeholders include District Staff, the design team (HDR, Inc.), Los Angeles County, the contractor (Mladen Bluntich Construction Company), the District's selected environmental monitoring consultant (Padre), patrons and businesses owners, tourists, and residents from the Malibou Lake Mountain Club community. It is imperative that the construction manager stay attuned to how each portion of the project impacts the stakeholders and be able to communicate effectively (verbally and in writing) in the event adjustments are necessary. On-site staff is responsible to keep parties informed about the progress of the project. We will develop clear and concise procedures for communications that will expedite and facilitate project work. This will make sure information is available to the construction team in the shortest possible time.

Effective communication is the foundation of a successful project. In collaboration with the District, we will implement and confirm compliance with established records management procedures for recording and distributing project documents. The more complete the documentation, the more effective the resolution of any problems that may arise. In addition, this information can be used to avoid claims if the evidence is sufficient and clear. Thus, written correspondence and notes are of the highest importance.

Sheeting, Shoring, and Bracing

The safety of workers, the public, and property is paramount on every construction project. Since the Project includes open trench pipeline construction and excavation of manholes, etc., the work will require some level of sheeting, shoring, and/or bracing. Contractor requirements include understanding soil conditions; developing a plan signed by a California registered engineer; having the means and methods for retaining the trench walls; protecting existing utilities in place;

having the ability to construct bedding, pipe, and backfill in accordance with the contract documents; and having the experience to know when changes are necessary to protect workers, the public, and the property. These requirements will be at the forefront our construction management staff's mind from the pre-construction meeting through the end of construction.

Public Safety, Traffic Control and Public Convenience

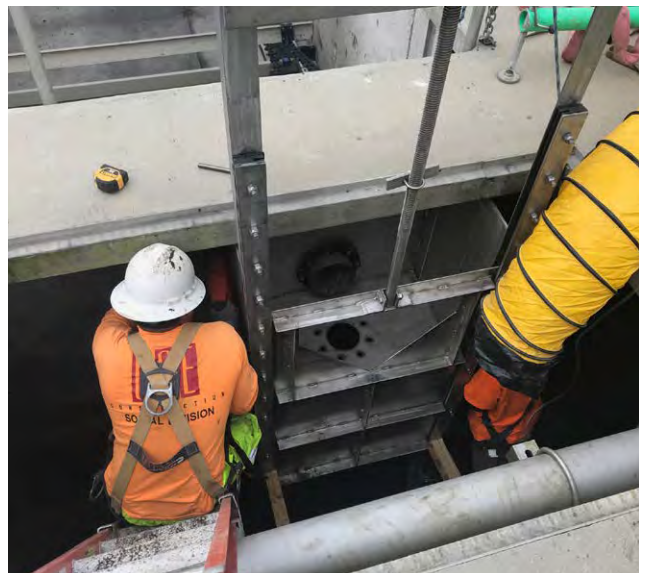
As shown in the contract documents, the existing bridge along Lake Vista Drive is anticipated to be reduced to only one lane of traffic to accommodate the temporary sewer bypass pipe. To reduce disruption, we will work closely with the contractor to confirm requirements of the contract, public safety, traffic control, and public convenience are met. These requirements include maintaining a clean and safe project site, appropriate scheduling work, and providing advanced notifications to the local community. Traffic control, access, dust control, and public safety are crucial to the success of the Project.

Maintaining Sewer Service and Sewer Bypass Pumping

A critical element of this project is to maintain sewer service to customers while replacing the existing system with new infrastructure. This requires advance planning on the engineer's part, careful implementation on the contractor's part, and close coordination with District Operations staff and the Construction Management team. Having worked through numerous sewer tie-ins and cut overs on a variety of projects, our team will use its experience and begin coordination discussions early on in the project to help avoid potential challenges and develop solutions with each party. It is necessary to consider testing, bypass pumping and piping, notifications, spill prevention, and customer connections. We are aware that District Operations are essential for making this a success.

Utility Locating

Prior to beginning construction of permanent underground improvements, the contractor is required to locate and identify the horizontal and vertical location of existing utilities affecting the work. This is not only essential for safety, but also for identifying discrepancies between the plans and actual conditions prior to full mobilization to reduce the possibility of right-of-way delays. Enforcing this requirement at the pre-construction meeting will help confirm information is given to the engineer in a timely manner so that changes can be made with reduced disruption and/or cost impacts.



Scope of Work

We have organized the project tasks into three phases: Phase 1: Pre-Construction Services, Phase 2: Construction Services and Project Administration, Phase 3: Post-Construction Services. Our work program for each phase is detailed below:

Task 1.0 Pre-Construction Phase Services

Task 1.1 Contract Document Review, Pre-construction Site Visit, Photos, and Video

Our construction management team will thoroughly review project plans, specifications, permits, schedule, regulations, environmental documents, District Standards, District policies and procedures, and all other related reports and documents pertinent to administering the construction of the Project. As part of our preliminary review, we will also document existing site conditions in detail, including site photos and video.

In addition to facilitating our understanding of the scope and sequencing of the Project, this review will allow us to determine areas that may present challenges during construction and provide constructability input to the District and design engineer in the review of submittals and RFI's as needed.

Task 1.2 Kick-Off Meeting

We will prepare and attend a kick-off meeting with the District staff and the design engineer to become more familiar with the scope of work and the District's construction management and inspection procedure. Preliminary work items will be identified and coordinated at this time, including discussions regarding long lead time items or submittals, shut down procedures, required permits and customer notifications, and other documents or discussions pertinent for the contractor's successful implementation of the contract work. This will establish a working relationship with District staff to implement procedures for the efficient processing and management of the project documents.

Task 2.0 Construction Phase Services & Project Administration

Cannon will implement record keeping documentation and contract administration systems in accordance with the District's standard construction practices. Throughout the construction phase of the project, we will serve as the District's agent and report directly to the District.

Task 2.1 On-Site Construction Management and Inspection

During observation and monitoring the quality of the construction work, we will complete the following tasks:

- Maintain on-site project reports for inspections, observations, and construction activities. Daily inspection reports will contain a record of weather, names and labor categories of workers, list of equipment, accomplished on-site work, type of work (civil, mechanical, etc.), encountered problems, agreed-upon solutions, deviations from the contract documents, and other relevant data the District may require.
- Act as a field representative for the District and report conflicts and complaints, if any, by local residents and other stakeholders throughout the project.
- Maintain a photographic record of construction activities with each photo properly labeled with a date stamp and description.
- Monitor construction activities to confirm project elements are furnished, installed, and constructed per contract documents. Prepare required notices of non-conformance when materials, construction installation processes, or quality of work do not meet the requirements of the contract. Include any contractor-reported conflicts with the plans and specifications in

the daily inspection report and report immediately to the District staff.

- Provide quality assurance by reviewing results of material testing performed by the Contractor.
- Inspect materials against approved submittals.
- Monitor contractor's work and recommend special testing or additional inspection as needed.
- Witness sewer pipe and manhole testing as well as other necessary testing per requirements of project specifications and District standards. Coordinate with the District for shutdowns and operation of water valves.
- Coordinate with Los Angeles County and their representatives when work is located within their right-of-way.
- Review storm water best management practices for compliance with the approved Water Pollution Control Program.

Additionally, we will obtain delivery slips and tickets for materials delivered to the jobsite to use when checking payment requests. This proposal assumes we will have a full-time on-site inspector/observer at the project site during the construction phase activities (assumed to be 100 working days). We recognize the actual observation time requirements may vary depending on the contractor's schedule and the ability/need to compress or extend the schedule. We will provide on-site Cannon personnel with transportation to and around the jobsite as well as mobile phones, computers, and wireless internet.

2.2 Scheduling and Coordination

We will coordinate, review, and approve the contractor's proposed schedule for the completion of the project. We will monitor contractor compliance with the approved schedule according to the stipulated scheduling requirements. This involves reviewing the contractor's baseline schedule and updating submittals for conformance with the master schedule and contract documents. We will work closely with District staff to confirm contractor phasing and construction meets the District requirements.

In conjunction with the District, we will review the contractor's schedule to determine that it is properly prepared, milestone dates meet the overall schedule, and that no major conflicts exist. We will review and use weekly statement of working day reports to maintain an accurate and current record of contract time and negotiate schedule adjustments with the contractor that may be

required due to weather, change orders, or other impacts requiring schedule adjustments. We will continually review progress attained against the approved schedule to adequately record work-in-place, detect potential delays, and review the contractor's plan for implementation or remedial measures, when appropriate, to recover or maintain schedule adjustments.

We will serve as the liaison between the contractor and the District and coordinate field issues with the appropriate party. We will also coordinate with other stakeholders as needed, including the design engineer (HDR, Inc.), environmental consultant (Padre), local permitting agencies, and the local homeowners association (Malibou Lake Mountain Club).

2.3 Progress Meetings

We will conduct weekly progress meetings with the contractor and District representatives. The main purpose of the project coordination meetings will be to complete the following:

- Review progress and quality
- Review submittal and RFI logs
- Notify the attendees of construction deficiencies
- Discuss labor, material, and equipment related to upcoming work
- Address team coordination mailers
- Review maintenance of as-built drawings throughout construction

We will chair these meetings, conduct each according to a published agenda, and have meeting summaries prepared and promptly distributed. Meeting minutes will detail action items, ensued discussions, decisions, and announce the time and date of the next meeting.

2.4 Progress Pay Estimate

We will receive and evaluate the contractor's pay applications. Through various methods, including the use of field measurements, materials tickets, extra work reports, and visual confirmation, we will verify that the claimed quantities are true and accurate. We will prepare quantity calculation sheets for each bid item and include it in the project records. We will forward the monthly pay estimate to the District with recommendations regarding contractor payment. We will maintain a current estimate of overall construction costs based on the contractor's bid and the earned value of the work.

2.5 Submittal Management

We review submittals and submittal responses to confirm compliance with contract requirements. We will maintain a log of and manage the shop drawings and sample/submittal process to confirm the following:

- Short-term look ahead schedules contain critical submittal dates, and the logs reflect the same
- Submittals from the contractor are received and logged
- Submittals are reviewed in a timely manner by the District's design consultant and returned to the contractor
- Logs are updated on a regular basis
- Shop drawings have been reviewed and returned before associated work begins
- Copy of submittals is maintained

We typically use Procore, a web-based construction management platform for submittal and RFI management. We can provide a demonstration and training on the use of this platform for those who has not used Procore before.

2.6 Change Order Management and Requests for Information (RFIs)

We will investigate proposed change orders and RFIs submitted by the contractor, or requested by the District, and include supporting records when necessary. Our investigations will include potential impacts on the project schedule and budget as well as a recommendation for approval or disapproval. We will negotiate and coordinate the implementation of contract change orders during the construction process as follows:

- Compile change order supporting documentation, such as inspection reports, test reports, drawings, sketches, photographs, and other materials, as required.
- Review and evaluate the appropriateness of proposed change orders, advise the District as to their effect on the contract time and cost, and provide independent estimates of the proposed change order work when necessary.
- Negotiate change orders and recommend approval or denial with approval by the District.
- Maintain a detailed RFI log as a means for tracking RFIs.
- Review RFIs in a timely manner, including coordination with consultants and engineers as well as written response to contractor.

- Maintain a change order log as a means for tracking change order proposals through the review and approval process. We will establish files for potential change orders or claims to accumulate supporting documentation should the issues result in a change order or claim.

2.7 Reporting and Record Keeping

We will establish and implement procedures for review and processing of project documentation. To confirm that records are organized, complete, and will allow for ease of document retrieval, we will set up project binders and electronic files following procedures outlined in Chapter 5 of the Caltrans Construction Manual. As a matter of practice, we follow methods of record keeping outlined in the Caltrans Construction Manual, and we will also incorporate District-required policies as needed.

Task 2.8 Safety Program and Traffic Control Plan

We will monitor the contractor's on-site safety program, compliance with the approved traffic control plan, and Cal-OSHA Construction Safety Orders. We will work closely with the contractor so that traffic control requirements of the project are met and necessary traffic control for work within the County right-of-way is maintained in a safe and effective manner. Implementation of traffic control and working hours will be closely reviewed and thoroughly monitored.

Task 3.0 Post-Construction Phase Services

3.1 Final Inspection and Punch List

In conjunction with the District, we will evaluate the near-completed facilities to confirm general compliance and/or identify discrepancies and deficiencies in the work provided by the contractor. We will prepare a comprehensive preliminary punch list to identify such items. Upon correction of the preliminary punch-list items by the contractor, we will prepare a final punch list and conduct a project completion walk-through. We will report to the District on the completion of the project and recommend project acceptance and final payment to the contractor. We will also oversee completion of final punch list items and clean-up before the contractor moves off-site and coordinate final testing, documentation, and regulatory inspections.

3.2 As-Built Record Drawings

We will review the project as-built drawings as produced by the contractor and confirm that the drawings reflect the current project conditions. We will keep a continually updated as-built set of drawings during construction and use these to compare against the contractor as-built drawings. After contract acceptance, we will compile comments, revisions, and changes into a single set of as-built mark-ups for the engineer of record to prepare record drawings.

3.3 Project Closeout and Payment

We will monitor contractor and subcontractor progress to finalize and submit project records and documents. We will obtain record drawings, contract required documents, lien releases, written warranties, and operations and maintenance manuals (if applicable) and deliver project files and correspondences to the District for inclusion in the project files.

We will evaluate contractor's final payment application, resolve outstanding matters, and provide approval and recommendation for final payment. We will assist the District with the final acceptance and preparation of the notice of completion.



Organizational Chart

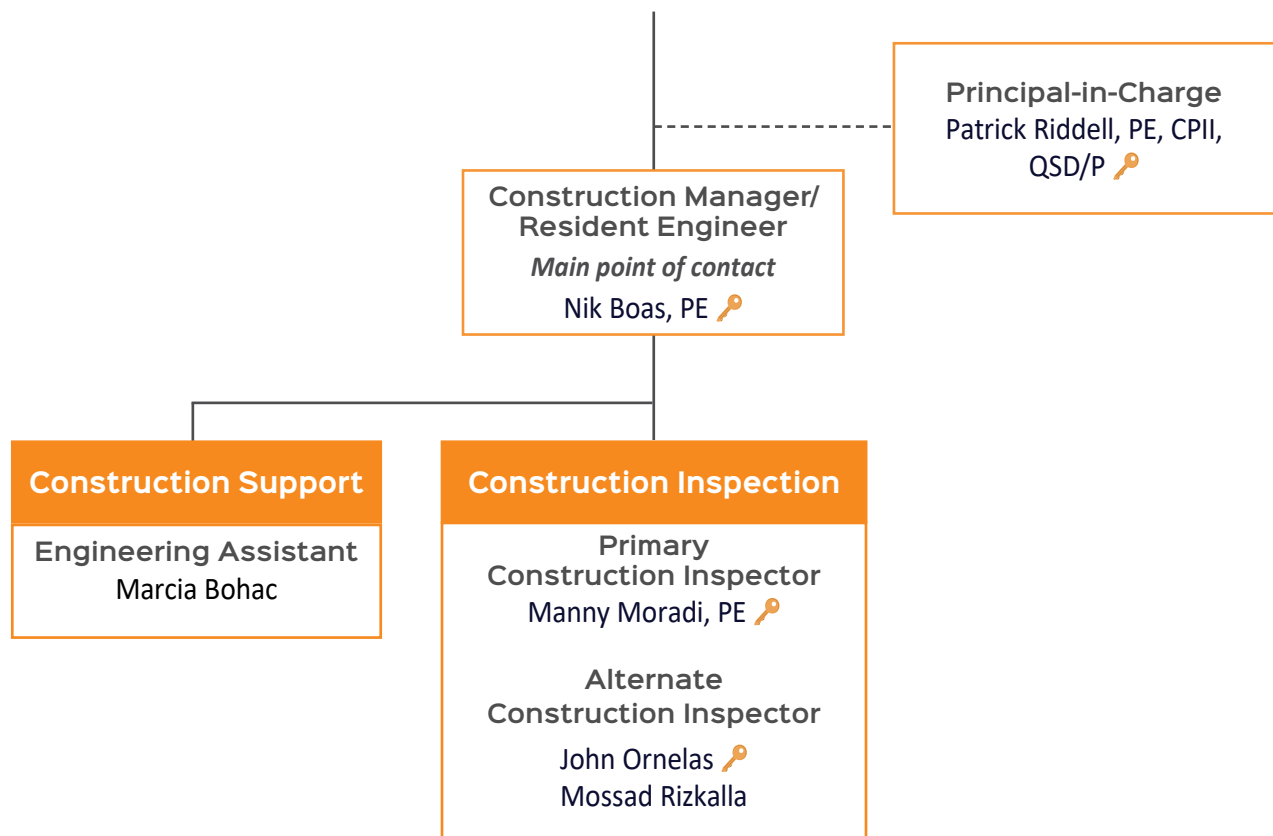
We have selected key staff who are not only experts in their respective disciplines, but have also collaborated on similar projects. This high level of expertise has allowed our team to fine-tune our collaboration and coordination, contributing to the successful completion of projects that are on time and within budget.

Resource Capacity

In addition to the specialists shown on our organizational chart below, our team of more than 140 professionals includes Construction Managers; Caltrans Trained/Certified Resident Engineers and LAPM Specialists; APWA Certified Public Infrastructure Inspectors; County-, State-, and Federal-Level Funding Administration Managers; Registered Civil, Structural, Mechanical, Electrical, and Controls Engineers; Licensed Land Surveyors and Survey Technicians; and talented support staff. We are local and can be available to meet as-needed. Our Project Manager is equipped with mobile devices to stay connected with the District and the project. We also have video conference equipment available to enable face-to-face meetings with clients in remote locations, if needed.

Key Team Members

Las Virgenes Municipal Water District



“ I’ve found [Cannon’s] engineers to be extremely professional, diligent, and knowledgeable. I have been pleased with the services provided by Cannon and trust their knowledge and expertise in supporting Ventura with the City’s capital improvements. ”

Chris Dejarne, PE, Senior Civil Engineer
City of Ventura

Nik Boas, PE Construction Manager and Resident Engineer



Professional Registration

- Registered Civil Engineer, California, No. 80636

Education

- Bachelor of Science, Civil Engineering, University of California, Irvine

Certification

- APWA Public Works Institute No. 02153

Professional Affiliations

- American Society of Civil Engineers (ASCE)
- American Public Works Association (APWA)

Mr. Boas brings 15 years of experience as a Construction Manager and Resident Engineer in a multitude of Civil Engineering disciplines. He has worked in both the public and private sectors with numerous agencies and municipalities throughout Southern California. He performs construction management and support services including field inspections, review of contractor submittals and change order requests, responds to requests for information and helps create as-built plans.

His specific project experience includes both design and construction management for municipal engineering projects including public water, sewer, storm drain, and street projects. He has also designed and prepared numerous drawings and reports for all aspects of land development engineering including hydrology, sewer and water systems, streets, storm drains, mapping and legal descriptions, grading and site layout. He has also been responsible for the creation of design plans, specifications, and cost estimates for both private and municipal projects.

Summary of Select Project Experience

Hueneme Road Recycled Water Pipeline – Phase II, Oxnard, California: Mr. Boas supervised the construction phase of this pipeline project. The City of Oxnard developed this project as part of the Groundwater Recovery, Enhancement, and Treatment (GREAT) Program to bring recycled water to the large agricultural customers located on the east side of Oxnard. Phase II of the project included the installation of approximately 16,700 feet of 24-inch HDPE recycled water pipeline along Hueneme Road from Olds Road to Wood Road. The alignment of the pipeline intersected several road crossings, the Oxnard Drainage District No. 2 Mugu Drain, Caltrans right-of-way at State Highway 1, and several existing utilities.

Central Trunk Sewer Manhole Replacement Project Phase I, Oxnard, California: Mr. Boas oversaw the construction phase of this project. The City of Oxnard operates a wastewater system with a 31.7 MGD treatment plant and 400-miles of sewer pipes, including three main trunk lines: Redwood, Central, and Eastern. The Central Trunk showed significant manhole corrosion, leading to failures. A condition assessment revealed the need to refurbish 72 manholes, replace 9, and also replace 98 cast iron frames and covers.

Water Cast Iron Pipe Replacement Project at Various Locations and Storm Drain Improvement Project at Hueneme Road, Oxnard, California: Mr. Boas oversaw the construction phase of this project. The City of Oxnard updated its water infrastructure by replacing 60-year-old cast iron pipes with PVC pipes across various locations, as part of a citywide replacement program. The project also addressed storm drain system improvements near J Street and Hueneme Road to enhance drainage. It involved replacing 6"-10" waterlines with about 2,880 feet of 12" PVC, 2,400 feet of 10-inch PVC, and 2,400 feet of 8-inch PVC mains, alongside constructing 550 feet of 24" HDPE drainage pipeline on Hueneme Road from J Street to Perkins Road, including a larger curb-inlet catch basin on J Street.

Patrick Riddell, PE, QSD, CPII Principal-in-Charge



Professional Registration

- Registered Civil Engineer, California, No. 72034
- Certified Public Infrastructure Inspector (CPII), American Public Works Association
- Qualified SWPPP Developer/Practitioner (QSD/QSP), No. 72034

Education

- Bachelor of Science, Environmental Engineering, California Polytechnic State University, San Luis Obispo, California
- Caltrans Resident Engineer Academy

Certification

- Lane Closure System - Caltrans

Professional Affiliations

- American Society of Civil Engineers
- American Public Works Association

Training

- Excavation Safety Training for Competent Persons (CPT), United Academy, ID: 1544359

As Principal-in-Charge, Mr. Riddell provides direct support to Cannon's resident engineer and construction management staff, including direct supervision of the overall project construction administration, pre-construction meetings, shop drawing review, inspections, processing of pay requests, assessing and resolving unforeseen conditions during construction, monitoring of schedules and budgets, overseeing equipment and materials testing, reviewing record drawings and certifications for accuracy, and confirming that work is in conformance with the contract documents and permit conditions before final acceptance. He also participates in conferences and meetings; coordinates activities with community and regulatory agencies; reviews and/or recommends acceptance of pay requisitions submitted by contractors; investigates and provides recommendations on contractor claims, change orders, etc.; and works with the Resident Engineer in the resolution of issues if encountered.

Ocean Boulevard Improvements, Pismo Beach, California: The City of Pismo Beach secured Emergency Relief funding from the Federal Highway Administration, administered locally through the Caltrans Department of Local Assistance to address the bluff damage and prevent continued bluff retreat. The City selected Cannon to provide construction management, inspection, materials testing, environmental and cultural resource monitoring, and administrative services. Mr. Riddell served as Principal-in-Charge.

Summary of Select Project Experience

Mr. Riddell has served as Principal-in-Charge or Project Manager on the following projects:

- Solids Handling – Excavation Project, Goleta Water District, California
- Corona Reservoir Electrical Upgrades, Pump Station, and Aeration System Project, Goleta Water District, California (2022, In Progress)
- Nipomo Community Services District Southland WWTF Influent Lift Station Rehabilitation, Nipomo, California
- Avila Beach Community Services District WWTP Upgrade, Avila Beach, California
- Rehabilitation of Bay Kings and Blanca Tanks, Morro Bay, California
- Salinas River Segment, Recycled Water Distribution System, Paso Robles, California
- Golden State Water Company, Vintage Ranch Waterline Inspections, Orcutt, California
- Camrosa Water District On-Call Construction Inspection Services, Camarillo, California
- Mission Village - KB Homes Improvements, Valencia, California
- Phase 2B Recycled Water Tank, Santa Clarita, California
- Oceano Community Services District Hwy 1 / Alleyway at 19th St. Waterline Replacement, Santa Clarita, California
- 2020-2021 and 2022-2023 Pavement Rehabilitation Project, Goleta, California

Mannie Moradi, PE Primary Construction Inspector



Professional Registration

- Registered Civil Engineer, California, No. C42631
- Certified Storm Water Developer, QSD 21501

Mr. Moradi has been working in the public sector as a construction inspector for 32 years; 11 of those years were as an On-Call Construction Inspector for the Land Development and Capital Improvement divisions of the City of Ventura. He has extensive experience in different capacities within the civil engineering and construction fields.

Camrosa Water District On-Call Construction Inspection Services, Camarillo, California:

Camrosa Water District selected Cannon to provide on-call construction inspection services for various projects involving potable, non-potable, and wastewater facilities. We also provided professional and technical services to help inspect and coordinate activities related to capital construction and development projects, plan checking, securing easements, drafting, updating engineering standards and specifications, and project management. Mr. Moradi served as Construction Inspector on the following projects:

- Camrosa Water Reclamation Facility (CWRF) Chemical Tank and Feeder System Rehabilitation, Camrosa, California: This project consisted of constructing a steel building enclosure and installing two chemical feed tanks and chemical pumps.
- CWRF Effluent Pond Basin Improvement, Camrosa, California: This project consisted of relining the effluent pond wall surface with concrete and the bottom surface with soil cement mixture, install new chain link fence.
- CWRF PV Well No. 2, Camrosa, California: project consists of installing masonry perimeter wall, pump well enclosure, chemical feed instruments, chemical feed enclosure, and asphalt pavement.
- CWRF TCP Well 1,2,3, Camrosa, California: This project consisted of installing TCP tanks, water reservoir, and new pumps for wells 1, 2, and 3.
- CWRF CamSprings Waterline Replacement, Camrosa, California
- CWRF Shea Homes Construction Inspection, Camrosa, California
- CWRF Chemical Tank and Feeder System Rehabilitation, Camrosa, California
- CWRF Effluent Pond Basin Improvement, Camrosa, California
- CWRF PV Well No. 2, Camrosa, California
- CWRF TCP Well 1,2,3, Camrosa, California

Summary of Select Project Experience

Mr. Moradi has served as Construction Inspector on the following projects:

- Golden State Water Company – Watson Avenue, Talbot to Beaver Pipeline Inspection, Simi Valley, California
- Golden State Water Company – Watson Avenue, Talbot to Beaver Pipeline Inspection, Simi Valley, California

John Ornelas Alternate Construction Inspector



Professional Certification

- OSHA- Certified Confined Space Entry, No. 204355
- Excavation Safety and Competent Person – National Utility Contractors Association
- Class 1 and Class 4, Sitdown/Counterbalance 5000 lb. Certified Operator

Education

- Water Distribution System Operation and Maintenance, Wastewater Collection Systems, California State University, Sacramento, California

Training

- Metrotech Locator Instruments
- Air Valves for Flow Efficiency and Surge Protection – City of Santa Barbara
- Repair Clamps and Couplings – City of Santa Barbara
- Horizontal Directional Drilling – City of Santa Barbara
- Joining Repair and Tapping Pipe – City of Santa Barbara
- Water Distribution Training

Mr. Ornelas serves as a Construction Inspector experienced with inspecting and observing field construction work, completing daily reports and tracking labor and materials, and completing administrative tasks. He specializes in water distribution systems but also is experienced in the construction of concrete structures, earthwork, paving, treatment facilities, and pump stations.

Mr. Ornelas brings over 24 years of experience as a Senior Water Distribution Operator, including repair and maintenance of entire distribution systems. His proficiency with locating, testing and repairs of leaks, fixtures, and fire hydrants through the interpretation of maps and blueprints helps him oversee and confirm safe work practices. Mr. Ornelas is experienced in training and leading teams and has mastered forming an efficient and professional work environment. Working with numerous agencies and municipalities throughout Southern California has thoroughly familiarized Mr. Ornelas with agency regulations and expectations.

Select Project Experience Summary

Mr. Ornelas has served as Construction Inspector or Observation on the following projects:

- CDMWTP Solids Handling Upgrades Inspection, Goleta Water District, California
- 42-inch Transmission Main Relocation, Goleta Water District, California
- Corona Reservoir Electrical Upgrades, Pump Station, and Aeration System Project, Goleta Water District, California
- Storm Damage Repairs, Goleta Water District, California
- Rebar Inspection at Six Project Sites, Goleta Water District, California
- CDM Reservoir Joint Sealant Replacement, Goleta Water District, California
- CDM Access Road Repair Inspection, Goleta Water District, California
- CDMWTP Sewer and Storm Drain Replacement, Goleta Water District, California
- CDMWTP and Operations Yard Radio Communications Upgrade
- Corona Del Mar Water Treatment Plant, Sewer and Storm Drain Replacement Inspection, Goleta Water District, California
- Wash Water Tank Service Road Erosion Repair Project, Goleta Water District, California
- Corona Del Mar Access Road Repair Inspection, Goleta Water District, California
- Patterson Reservoir Antenna Relocation, Goleta Water District, California
- 2020-2021 Pavement Rehabilitation Project, Goleta, California
- Prior to Cannon, Mr. Ornelas served as a Construction Inspector for the following projects:
 - Construction Inspection of Mayfield Pump Station Renovation, Mayfield, California (2021)
 - Construction Inspection of Wildwood Reservoir, California Water Services, West Lake District, Thousand Oaks, California

Proof of Registration



Nik Boas, PE
Construction Manager
and Resident Engineer

BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

ISSUANCE DATE
DECEMBER 21, 2012

EXPIRATION DATE
MARCH 31, 2025

CURRENT DATE / TIME
JANUARY 31, 2024
2:10:43 PM

LICENSING DETAILS FOR: 80636

<p>NAME: BOAS, NIKOLAS</p> <p>LICENSE TYPE: CIVIL ENGINEER</p> <p>LICENSE STATUS: CLEAR </p>	<p>ADDRESS</p> <p>8153 QUINCY STREET VENTURA CA 93004 VENTURA COUNTY</p> <p>MAP</p>
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Patrick Riddell, PE, QSD, CPII Principal-in-Charge

BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

ISSUANCE DATE
JANUARY 25, 2008

EXPIRATION DATE
JUNE 30, 2024

CURRENT DATE / TIME
JANUARY 31, 2024
2:7:43 PM



LICENSING DETAILS FOR: 72034


<p>NAME: RIDDELL, PATRICK RYAN</p> <p>LICENSE TYPE: CIVIL ENGINEER</p> <p>LICENSE STATUS: CLEAR </p>	<p>ADDRESS</p> <p>404 E ST CAYUCOS CA 93430 SAN LUIS OBISPO COUNTY</p> <p>MAP</p>
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Proof of Registration




Manny Moradi, PE
Primary Construction
Inspector

 **BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS**

LICENSING DETAILS FOR: 42631

NAME: MORADI, MANSOUR	ADDRESS
LICENSE TYPE: CIVIL ENGINEER	11900 SILVERCREST STREET
LICENSE STATUS: CLEAR 	MOORPARK, CA 93021
	VENTURA COUNTY
	MAP

ISSUANCE DATE
AUGUST 21, 1987

EXPIRATION DATE
MARCH 31, 2024

CURRENT DATE / TIME
FEBRUARY 13, 2024
11:57:0 AM



Construction Management Plan Checklist

We are prepared to provide our clients services for each phase of their project, from bid support through preconstruction preparations, construction, and project close-out. As the first order of work on a project, we develop a unique Construction Management Plan which is customized to the type of work, the plans and specifications, and contractual requirements of the project. Below is our Construction Management Plan Checklist. This checklist will be used in collaboration with the District during scoping meetings to determine which specific tasks are needed.

Below is a sample of our Construction Management Plan Checklist below. If requested, we can provide the complete checklist to the District.

This checklist forms the basis of Cannon’s approach. This is the framework in which we monitor and enforce contract compliance, and in which we document and record the thorough inspections, materials sampling and testing, and other Quality Assurance procedures required by the contract for the successful completion of a project.

Construction Management Plan Checklist

Pre-Construction Conference:

1. City staff will schedule the meeting; invite contractor, consultant, affected City staff, utility companies and regulating agencies.
2. The pre-construction meeting will be conducted by consultant staff and held in a City building. City staff assigned to the project will attend to answer and unusual questions.
3. The CM firm conducting the meeting must understand that the pre-construction conference sets the tone for the project. It is the contractor's first impression of the City/Consultant staff and how we operate. Be on time, professional, organized, knowledgeable of the project, convey any special requirements or concerns.
 - a. Provide a sign in sheet for all attendees.
 - b. Keep meeting minutes that show subjects discussed, direction given and response received.
 - c. Document items submitted by the contractor such as: the emergency response sheet, schedule, submittals and other items of importance.
 - d. Confirm the authority and responsibility of all parties involved.
 - e. Verify the start date of construction.
 - f. Address the concerns and needs of affected utility companies.
 - g. Discuss unusual working conditions and permit requirements.
 - h. Verify that the contractor will give proper notification to the residents and businesses of the start date of construction and what kind of work is being performed.

After Pre-Construction Conference:

1. Review progress schedules submitted by the contractor and accept when satisfactory.
2. Log and review submittals and shop drawings as needed. Route submittals as needed for project engineer/architect's approval. Do not exceed the turnaround time.
3. Document any approved changes to the scheduled start date with a change order.
4. Disburse pre-construction meeting minutes.

During Construction:

1. Inspect and perform construction management services to ensure the project is built as designed and specified.
2. Log and route RFIs.
3. Prepare and route Draft Change Orders as required.
4. Prepare correspondence necessary to maintain control over the construction contract.
5. Coordinate materials testing for the project.
6. Notify City contact at any point in the project when a dispute arises, an unknown condition is discovered or at any time the contractor believed extra work/change order work is warranted.

Cannon's Subconsultants

We will not be including a subconsultant on our team for this project. However, we have many existing successful relationships with top tier subconsultants, should the need arise to include a one for a task outside of our scope. Cannon has worked with subconsultants such as geotechnical specialists, hydrogeologists, flow monitoring specialists, potholing contractors, and more. We are happy to work with the District's preferred vendors, but have successfully worked with the following vendors:

AKEL – *Hydraulic Modeling*

ATS – *Coating and Welding*

Behrens and Associates - *Noise Abatement*

Bess Testlab, Inc. – *GPR and Potholing*

BSK – *Geotechnical*

Cardno – *Potholing*

Converse Consultants – *Geotechnical*

CSI Services – *Coating Specialists*

Diaz Yourman & Associates – *Geotechnical*

DownStream – *CCTV*

Earth Systems – *Geotechnical, Materials Testing*

GPRS - *Ground Penetrating Radar*

ICF International – *Environmental Documentation*

Kear Groundwater – *Hydrogeological*

LGC Valley Inc. – *Geotechnical Consulting*

M6 Consulting - *Permits and Waivers*

Ninyo & Moore – *Geotechnical*

Right of Way, Inc. – *Traffic Control*

Saf R Dig – *Potholing*

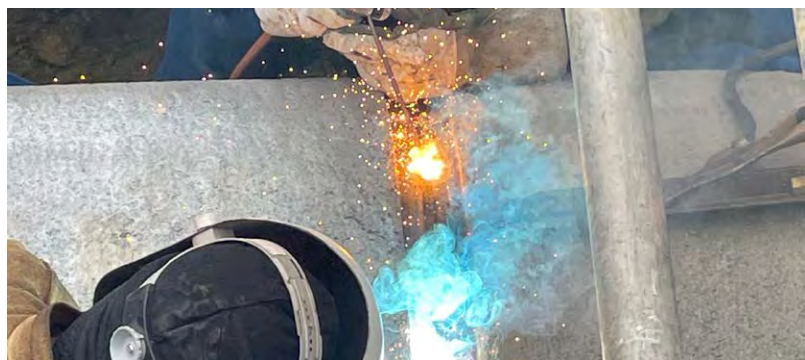
Seaco Technologies – *Water Treatment Consultant*

SiteScan – *GPR and CCTV*

Thomas Harder and Company – *Hydrogeological*

Rincon – *Environmental*

Traffic Management Inc. – *TMI*



Calleguas-Las Virgenes Water District Interconnection Project

West Lake Village, California

Las Virgenes Municipal Water District (LVMWD) partnered with Calleguas Municipal Water District (CMWD) to construct an interconnection intended to improve water delivery and related storage reliability for both Districts, refill LVMWD's Las Virgenes Reservoir, and refill emergency supply for CMWD and LVMWD.

LVMWD selected Cannon to provide design and construction management, inspection, and administration services for installing 5,000 feet of 30-inch steel pipeline between LVMWD and CMWD's systems. To eliminate a long service lateral, an additional 2,000-feet of 4-inch and 6-inch PVC recycled waterline was also extended.

The project involved multiple crossings under large (up to 60-inch) facilities; horizontal directional drilling construction methods for approximately 100-feet of the recycled waterline; new waterline appurtenances, including blowoffs, air and vacuum release valves, sample stations, cathodic test stations; cement mortar lining and coating repair at welds; pavement repair; and backfill with sand bedding and cement slurry. This extension allowed recycled water service to be provided to the City of Westlake Village's Canyon Oaks Park and replace the existing potable water service.

Project Highlights

- Installed 5,000 LF of 30 inch pipeline
- Involved crossing under 60-inch facilities

Reference: Oliver Slosser
Project Manager
*Las Virgenes Municipal
Water District*
4232 Las Virgenes Road,
Calabasas, CA 91302
☎ 818.251.2100
✉ OSlosser@lvmwd.com

Project Cost: \$4.2M
Project Dates: Jan 2021 - April 2022



Salinas River Segment of the Paso Robles Recycled Water Distribution System

Paso Robles, California

The City of Paso Robles received a state grant for its water resource program to support the new Recycled Water Distribution System. The Salinas River Segment consists of an approximate 700-foot-long, 70-foot deep, and 26-inch-diameter horizontal directional drill under the Salinas River. Currently, advanced tertiary treated recycled water is discharged into the Salinas River Segment and ultimately flows out of the Paso Robles Groundwater Basin. The new Recycled Water Distribution System will alleviate drought and water shortage concerns by redirecting this discharged water to both private and public irrigators on the east side of the City.

Cannon provided construction management, observation and inspection services. The scope included community outreach, preliminary utility research, traffic control, providing change order management, daily reports, and weekly progress meetings. Cannon also coordinated materials and soil compaction testing, as well as coordination with the design engineers, surveyor, RFIs, and submittals. Procure was used as the software for organizing the project files and communication.

Project Highlights

- 700-ft River Drill
- Recycled Water System
- Met future water needs
- Coordinated with City and School District staff
- Expedited construction with three-phase bidding process

Reference: Matt Thompson, PE
Recycled Water Manager
City of Paso Robles
3200 Sulphur Springs Road
Paso Robles, CA 93446
☎ 805.227.7200 Ext. 7716
✉ mthompson@prcity.com

Project Cost: \$340K
Project Dates: Jan 2023 - 2024



Goleta Water District Corona Reservoir Pump Station, Electrical Upgrades, and Aeration System

Goleta, California

The District wanted to improve hydraulics and reduce disinfection byproducts in the drinking water system. To adhere to State and Federal drinking water standards, the District needed to increase trihalomethane removal by providing aeration and subsurface mixing within the reservoir to facilitate air exchange. To accomplish this, the District needed to install a floating aeration system, a pump station, and electrical upgrades at the in-ground, buried concrete Corona Reservoir.

Cannon provided construction inspection and materials testing services consisting of pump station installation, including two vertical turbine pumps, pump supports on the roof of the existing concrete reservoir, and new 12-inch and 6-inch above-ground steel waterlines and appurtenances for the pumps. Approximately 100-linear feet of new underground waterline was installed within a crowded utility corridor.

The project also involved cast-in-drilled-hole piers and steel supports for cable trays; a concrete and steel vault for cable trays under the reservoir perimeter road; floating spray aerators inside the reservoir; penetrations through the existing reservoir roof for ventilation blowers and air vents; and replacement of the existing reservoir hatch.

Electrical work involved a new metal-enclosed switch and breaker, motor control center (MCC), and SCE transformer; electrical equipment pads and shade structures; cable trays from MCC to the reservoir with power and controls cables; and instrumentation.

Reference: Paula Butcher
 Engineering Supervisor
 Goleta Water District
 4699 Hollister Avenue,
 Goleta, CA, 93110
 ☎ 805.879.4635
 ✉ pbutcher@goletawater.com

Project Cost: \$321K
Project Dates: Feb 2022 - Oct 2022



Camrosa Water District On-Call Construction Inspection Services

Camarillo, California

Camrosa Water District selected Cannon to provide on-call construction inspection services for various projects involving potable, non-potable, and wastewater facilities. We also provided professional and technical services to help inspect and coordinate activities related to capital construction and development projects, plan checking, securing easements, drafting, updating engineering standards and specifications, and project management. Projects included the following:

Reference: Terry Curson, PE
 District Engineer
Camrosa Water District
 7385 Santa Rosa Road,
 Camarillo, CA 93012
 ☎ 805-482-8063
 ✉ TerryC@Camrosa.com

Camrosa Water District Project Experience

Project Name	Project Description
Camrosa Water Reclamation Facility (CWRF) Chemical Tank and Feeder System Rehabilitation	This project consisted of constructing a steel building enclosure and installing two chemical feed tanks and chemical pumps.
CWRF Fuel Tank Replacement	This project consisted of replacing the existing fuel tank with a new 7,000-gallon double-lined cylindrical fuel tank.
CWRF Effluent Pond Basin Improvement	This project consisted of relining the effluent pond wall surface with concrete and the bottom surface with soil cement mixture, installation of a new chain link fence.
PV Well No. 2	Project consists of installing masonry perimeter wall, pump well enclosure, chemical feed instruments, chemical feed enclosure, and asphalt pavement.
Camrosa TCP Well 1,2,3	This project consisted of installing TCP tanks, water reservoir, and new pumps for wells 1, 2, and 3.
Camrosa Reservoir 1B Communication Facility	This project consisted of constructing a new radio tower building, emergency generator with diesel fuel tank, perimeter fencing, and constructing new asphalt pavement access road.

Atascadero Creek Pipeline Replacement, Atascadero, California

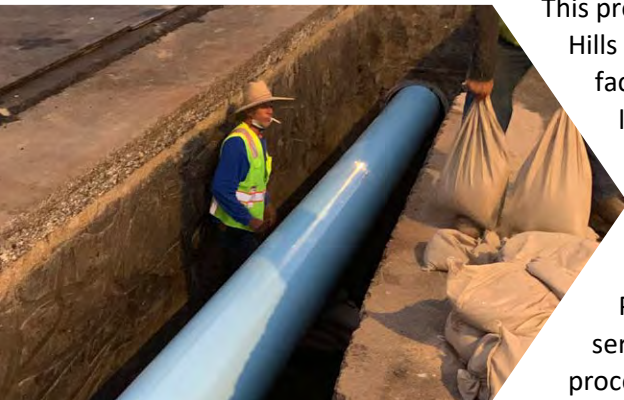


Over half of the City of Atascadero's wastewater flowed through a concrete encasement of an inverted siphon under the Atascadero Creek on a daily basis. As a result of erosion, the encasement was exposed and additional erosion threatened to weaken structural support of the pipe. If weakened, this critical pipeline link could fail and result in significant environmental and financial repercussions.

The City of Atascadero retained Cannon to provide construction oversight and assist with the immediate protection and ultimate replacement/abandonment of the sanitary sewer siphon under Atascadero Creek.

Cannon prepared a study of alternative strategies for protection/replacement of the sewer line, and provided plans for the horizontal directional drilling (HDD) installation of a replacement line. Since the exposed pipeline crossed a perennial creek, environmental impacts and permitting considerations were key factors in developing viable plans for the protection, bypass, and eventual replacement of the existing sewer creek crossing.

La Brea Transmission Main Project, Beverly Hills, California



This project included water line installation through portions of the City of Beverly Hills and the City of Los Angeles to deliver well water to the City's treatment facility. The City used trenchless installation techniques to install 2,300 linear feet of 18-inch C900 PVC DR18 with fused joints into an existing 24-inch steel pipe in residential streets, and 7,000 linear feet of 14-inch C900 PVC DR 18 with fused joints into an existing 18-inch abandoned water main along La Cienega Blvd. For this project, Cannon provided Construction Inspection services and worked with the City of Beverly Hills Project Manager and Project Inspector to train staff and perform inspection services on the fusing of pipe joints and slip-lining installation processes and procedures. The project Geotechnical engineer prepared slope repair plans.


Hwy 46 Water Pipeline Relocation and Horizontal Directional Drilling, Lost Hill Utility District (LHUD), Lost Hills, California



As part of the Caltrans Hwy 46 widening project in Lost Hills, California, an existing 12-inch water main, owned and operated by LHUD was relocated to outside the limits of the new state right-of-way. The widening phase began just east of the Lost Hills townsite and extended approximately 4000-linear feet east to Interstate 5. The project consisted of relocating approximately 2,300 feet of 12-inch LHUD water line 200-feet north of its existing alignment. Once the new 12" line was completed and commissioned, the existing 12" line was abandoned and removed as part of the work, in addition to removal of abandoned valves, blowoffs, air-vacs and other associated appurtenances. As part of the relocation work, approximately 250 linear feet of the new 12" water main was installed by Horizontal Directional Drilling (HDD) techniques to cross under the existing Buena Vista Water Storage District (BVWSD) canal.

Cannon provided construction management, inspection, and materials testing services for the project including submittal and RFI reviews, contract change orders, and overall coordination between stakeholders including LHUD, Caltrans, and others. Cannon established close working relationships with regulatory agencies to address stakeholder concerns and keep the project on schedule. Cannon also provided coordination between the permitting agencies throughout construction.

We are confident that we can meet or exceed the insurance requirements for this project. Below is a sample of our current insurance coverage.

		CERTIFICATE OF LIABILITY INSURANCE		DATE (MM/DD/YYYY) 8/31/2023
THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.				
IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).				
PRODUCER Venbrook Insurance Services 6320 Canoga Avenue, 12th Floor Woodland Hills, CA 91367 www.venbrook.com		CONTACT NAME: Venbrook Insurance Services PHONE (A/C, No, Ext): 818-598-8900 FAX (A/C, No): 818-598-8910 E-MAIL ADDRESS:		
CA Lic No. 0D80832		INSURER(S) AFFORDING COVERAGE		NAIC #
INSURED Cannon Corporation 1050 Southwood Drive San Luis Obispo CA 93401		INSURER A: Continental Insurance Company A XV		35289
		INSURER B: Hartford Casualty Insurance Company A+ XV		29424
		INSURER C: Beazley Insurance Company, Inc. A XV		37540
		INSURER D:		
		INSURER E:		
		INSURER F:		


COVERAGES **CERTIFICATE NUMBER:** 76079876 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual Liability GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			7039996776	9/1/2023	9/1/2024	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> AUTOS ONLY			7040001609	9/1/2023	9/1/2024	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			7040002176 (underlying GL, AL, EL)	9/1/2023	9/1/2024	EACH OCCURRENCE \$ 9,000,000 AGGREGATE \$ 9,000,000 \$
B	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N N/A If yes, describe under DESCRIPTION OF OPERATIONS below			72WEOL6H1H	9/1/2023	9/1/2024	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Professional/Pollution Liability			V27737220402	9/1/2023	9/1/2024	\$2,000,000 Per Claim/\$4,000,000 Aggregate

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Proof of Insurance
 * 10 Day notice of cancellation for non-payment of premium, 30 day all other

CERTIFICATE HOLDER Proof of Insurance	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE  Karen Smith
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ACORD 25 (2016/03)

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Las Virgenes Municipal Water District
 Construction Management and Inspection
 Malibou Lake Siphon Replacement Project

Cannon
 305 South Kalorama Street, Ste. A
 Ventura, CA 93001
 805.596.4240

Phase	Role	Name	Rate	2024							Total Est. Hours	Estimated Cost
				Mar	April	May	June	July	Aug	Sep		
Pre-Construction												
	Principal-in-Charge	Pat Riddell, PE	\$220	12							12	\$2,640
	Senior Resident Engineer	Nik Boas, PE	\$210	44							44	\$9,240
	Construction Inspector III (Prevailing Wage)	Manny Moradi, PE	\$160	16							16	\$2,560
	Engineering Assistant II	Marcia Bohac	\$115	8							8	\$920
Construction												
	Principal-in-Charge	Pat Riddell, PE	\$220		12	12	12	12	8		56	\$12,320
	Senior Resident Engineer	Nik Boas, PE	\$210		56	88	80	88	88		400	\$84,000
	Construction Inspector III (Prevailing Wage)	Manny Moradi, PE	\$160		112	176	160	176	176		800	\$128,000
	Engineering Assistant II	Marcia Bohac	\$115		8	8	8	8	8		40	\$4,600
Post-Construction												
	Principal-in-Charge	Pat Riddell, PE	\$220							8	8	\$1,760
	Senior Resident Engineer	Nik Boas, PE	\$210							44	44	\$9,240
	Construction Inspector III (Prevailing Wage)	Manny Moradi, PE	\$160							24	24	\$3,840
	Engineering Assistant II	Marcia Bohac	\$115							8	8	\$920
Total Estimated Hours				80	188	284	260	284	280	84	1460	
											Total Estimated Cost of Labor	\$260,040
Other Direct Costs												
Reimbursables												
Miscellaneous Reimbursables, Field Materials, Photo Copies, Software, Etc.												\$1,500
Total Estimated Cost of Services												\$261,540

NOTES:

- 1 Fees are based on a 100 working day construction schedule and assume full-time on-site inspection services during days of construction.
- 2 Work is assumed to occur during normal working hours. Overtime, night, and weekend work are excluded, but available at an additional fee.
- 3 Fees include conducting one (1) preconstruction meeting and nineteen (19) weekly progress meetings.
- 4 Fees are provided on a time and materials basis, not to exceed the total estimated cost without prior written authorization.
- 5 Rates are subject to change.

Assumption and Inclusions / Exclusions

This proposal assumes the contractor will perform material testing and the results will be reviewed by the project team.

This proposal assumes we will have a full-time on-site inspector/observer at the project site during the construction phase activities (assumed to be 100 continuous working days).





Reliable Responsive Solutions

Cannon

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Ventura, CA 93001
805.503.4590