METRO TAC AGENDA
(Technical Advisory Committee to Metro JPA/Commission)

TO: Metro TAC Representatives

CC: Metro JPA Directors (for information only)

DATE: October 15, 2025

TIME: 11:00 a.m. to 1:30 p.m.

LOCATION: Metro TAC is holding its October meeting via Zoom. An e-mail containing information on how to participate in the meeting will be distributed to the Metro TAC members e-mail list consisting of the appointed Primary and Alternate for the Participating Agency and approved San Diego City Staff. Please remember, Metro TAC is NOT a public meeting so please do not distribute the meeting link.

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1. **ACTION**: Review and Approve Metro TAC Action Minutes for the Meeting of August 20, 2025 (**Attachment**)

2. **ACTION**: Consideration and Possible Action to Recommend to the Metro JPA/Commission Approval of an Eleventh Amended Joint Powers Agreement Confirming the Creation of an Agency known as Southern California Coastal Water Research Project (SCCWRP) (Peter Vroom, Ryan Kempster, Violet Renick) (**Attachment**)

3. **UPDATE:** Semi-Annual Pure Water Program Update (Doug Campbell) (**Attachment**)

    a. **ACTION:** Consideration and Possible Action to Recommend to the Metro JPA, Amendment No. 4 to the Agreement with Jacobs-CH2M Hill Engineers, Inc. for As-Needed Construction Management Services – Conveyance Projects - Contract Number H176955 (Akram Bassyouni, Kate Gasparro) (**Attachment**)

b. **ACTION:** Consideration and Possible Action to Recommend to the Metro JPA, Pure Water Program – Amendment No. 3 to the Agreement with Parsons-Black & Veatch Joint Venture for As-Needed Construction Manager - Treatment Plant and Facilities Projects - Contract Number H176935 (Akram Bassyouni, Kate Gasparro) (**Attachment**)

c. **ACTION:** Consideration and Possible Action to Recommend to the Metro JPA, Pure Water Program – First Amendment to the agreement with PMWeb, Inc. to provide web-based project control system for Pure Water Program Phase 1 – Sole Source Agreement #4265 (Akram Bassyouni, Kate Gasparro) (**Attachment**)

4. **PRESENTATION:** Pure Water Unit Cost Analysis and Update on Phase 2 Planning Approach (Lisa Celaya) (**Attachment**)

5. **UPDATE:** Metro Wastewater (General) (Standing Item) (Lisa Celeya)

6. **UPDATE:** Pure Water Program Update (Standing Item) (Doug Owen/Ben Kuhnel)

   a. Quarterly Construction Update (**Attachment**)

7. **UPDATE:** Metro Wastewater Financial (Standing Item) (Adam Jones)

8. **UPDATE:** JPA Executive Director (Standing Item) (Karyn Keze) **(Attachment)**

9. **UPDATE**: Metro Commission/JPA Board Meeting Recap (Standing Item) (Blake Behringer)

10. Review of Items to be Brought Forward to the Regular Metro Commission/Metro JPA Meeting (**November 6, 2025**)

11. Other Business of Metro TAC

12. Adjournment (To the next Regular Meeting **November 19, 2025**)

Metro TAC 2025 Meeting Schedule

January 15	May 21	September 17
February 19	June 18	October 15
March 19	July 16	November 19
April 16	August 20	December 17

Metro TAC
(Technical Advisory Committee to Metro JPA/Commission)

ACTION MINUTES

DATE OF MEETING: August 20, 2025

TIME: 11:00 AM

LOCATION: ZOOM Meeting

Metro TAC Chair Behringer called the meeting to order at 11:03 a.m.

MEETING ATTENDANCE:

Members Present
Michael Benoza, Chula Vista
Patrick Moneda, Chula Vista
Leon Firsht, Coronado (absent)
Joe Bride, Del Mar (absent)
Juan Larios, Imperial Beach
Blake Behringer, El Cajon, Metro TAC Chair
Joe Kuhn, La Mesa, Metro TAC Vice Chair
Izzy Murguia, Lemon Grove
Carmen Kasner, National City
Beth Gentry, Otay WD
Peejay Tubongbanua, Padre Dam MWD
Troy DePriest, Poway (absent)
Sumedh Bahl, County of San Diego

San Diego City Staff/Consultants
Doug Campbell, City of San Diego
Adam Jones, City of San Diego
Edgar Patino, City of San Diego
Margaret Llagas, City of San Diego
Charles Gastil, San Diego
Jong Choi, City of San Diego
Keli Baio, City of San Diego
Tim Carroll, City of San Diego
Jan Newman, City of San Diego

Doug Owen, Stantec/City of San Diego
Ben Stewart, Stantec/City of San Diego

JPA Staff/Consultants Present
Karyn Keze, JPA Executive Director, Keze Group
Kathleen Noel, Dexter Wilson Engineering
Dexter Wilson, Dexter Wilson Engineering
Rodney Greek, Metro JPA Treasurer
Lee Ann Jones-Santos, Metro JPA Assistant Treasurer
Lori Anne Peoples, Board Secretary

1. **ACTION**: **Review and Approve MetroTAC Action Minutes for the Meeting of July 17, 2025**

   ACTION: Motion by Joe Kuhn, seconded by Izzy Murguia the minutes be approved. Motion carried unanimously.

2. **ACTION**: **Consideration and Possible Action to Recommend to the Metro JPA/Commission Approval of the Metro Wastewater JPA Policies & Procedures Manual**

Executive Director Keze made a brief introduction of the item and thanked the Treasurer staff, Rodney Greek, and Assistant Treasurer Lee Ann Jones for their assistance in creating the manual.

Treasurer Rodney Greek provided a brief verbal overview of his presentation included in the agenda package, which included what the initial and final changs were to the DRAFT Manual previously seen.

ACTION: Motion by Joe Kuhn, seconded by Michael Benoza, the Policies and Procedures Manual be approved. Motion carried unanimously.

3. **ACTION: Consideration and Possible Action to Recommend to the Metro JPA/Commission Approval of a Second Amendment with Evoqua Water Technologies, LLC to purchase Calcium Nitrate Double Salt Solution (Bioxide)**

Margaret Llagas, City of San Diego, provided a brief introduction to the item.
Charles Gastil, City of San Diego provided a verbal overview of his presentation included in the agenda package.

ACTION: Motion by Peejay Tubongbauna, seconded by Izzy Murguia, the second amendment be approved. Motion carried unanimously.

4. **ACTION: Consideration and Possible Action to Recommend to the Metro JPA/Commission, Approval of a Contract Change Order with Cass Arrieta for Design and Construction Services to Support the Point Loma Wastewater Treatment Plant Storm Damage Repair Emergency Project**

Jong Choi, City of San Diego, provided a brief verbal overview of his presentation included in the agenda package.

ACTION: Motion by Beth Gentry, seconded by Michael Benoza, the contract change order be approved. Motion carried unanimously.

5. **PRESENTATION: Point Loma Wastewater Treatment Plant- Monitoring Erosion and Evaluating Gatchell Road Access Options**

Tim Carroll, City of San Diego, provided a brief verbal overview of his presentation included in the agenda package.

6. **UPDATE: Metro Wastewater (General) (Standing Item)**

Doug Campbell, City of San Diego provided an update noting that the City had been working with the IBWC on the Tiajuana River Boarder Sewage Crisis and that the IBWC was working on a long-term goal of increasing the plant treatment capacity from 25 to 50 mgd. They have set a 10 mgd within 100 days goal to increase flows through their facility by August 28th. The flows will be processed through their primary and bypass secondary treatment and go into the Sout Bay Ocean Outfall shared with the South Bay Water Reclamation Plant. San Diego staff has been having meetings with them to work through permitting issues, modifications to the outfall to accommodate the increased flows which will require modifications. Additionally, they have been working on an MOU to make sure they carry all liability for that work and not the city or PAs. A modification to the NPDES will also be needed, but there will be no other changes to the Ocean Monitoring Program associated with the outfall.

A Special Regulatory Board hearing is being held on August 27th to consider a Cease & Desist Order which would allow the International Plant to have increased flow and a little bit of leniency on the NPDES Permit. If approved on the 27th, a diversion away from Imperial Beach could be seen in 8 days. This will hopefully be the start to a long-awaited final fix.

Mr. Campbell then announced that Craig Boyd's last day would be Thursday. Metro TAC members expressed appreciation to Craig for all his assistance and work over the years.

7. **UPDATE: Pure Water Program Update (Standing Item)** (Doug Owen/Ben Kuhnel)

Doug Campbell, City of San Diego, provided updates, that the construction contracts at the Pure Water Treatment Plant, Phase 1, were 80% complete of the project. Also that City Staff is continuing to work with the regulators and submitted their updated Title 22 comments. Staff are just now seeing questions on things they had submitted back in 2023. They continue to meet every other month and have provided facility tours. Staff are also continuing efforts to fully staff the Pure Water Facility positions and are conducting interviews for the various positions.

Lastly, the Water Reuse is holding their conference in San Diego the week of September 21st through 24th. Staff will be providing tours of the North City Pure Water Facility to participants followed by a meet up at AleSmith Brewery off Miramar Road to sample their ale made with Pure Water from the plant demonstration facility.

8. **UPDATE: Metro Wastewater Financial (Standing Item)** (Adam Jones)

Adam Jones, City of San Diego, stated that he, Lisa Celaya, Kathleen and Ben from STANTEC would be on a Financial Panel at the Conference talking about

lessons learned financially from the project and some items with SARA, things they wish they had known prior to spending money on Potable Reuse.

He additionally noted that the Council had approved the extension of the Auditor contract with MGO who is getting all the outstanding audits done prior to the end of their contract term. FY 2020 will be completed first followed by FY 2021 through FY 2023. A wonderful thing that happened is that a prior MGO auditor familiar with our audits has joined the new Audit firm the City has contracted with. This relieved stress from staff concerning training someone new. The timelines will be presented at the next meeting.

9. **UPDATE: JPA Executive Director (Standing Item)** (Karyn Keze) **(Attachment)**

Executive Director Keze stated that her monthly report had been included in the agenda packet and noted that the North City Pure Water Plant Tours will be held after SARA is at least voted on and staff are hoping to be able to schedule them prior to the rainy season.

10. **UPDATE**: **Metro Commission/JPA Board Meeting Recap (Standing Item)** (Blake Behringer)

Metro TAC Chair Behringer provided a brief recap of actions taken at the August 7th Metro JPA Meeting which were included on today's agenda. They had a lengthy discussion on SARA and approved the recommendation of TAC. Additionally they requested General Counsel continue collaborate with the Padre Dam Attorney on language to address their concerns on financial changes.

Executive Director Keze noted that the City of San Diego had not yet responded to the current redline changes provided by TAC and General Counsel will be meeting with the San Diego Attorney on September 2nd with the results hopefully being prepared to go to the JPA meeting of September 4th.

11. **Review of Items to be Brought Forward to the Regular Metro Commission/Metro JPA Meeting (September 4, 2025)**

Metro TAC Chair Behringer noted that Items 2, 3, 4 and 5 are to move forward along with the updated report on the International Plant presentation by Doug Campbell.

12. **Other Business of Metro TAC**

None.

13. **Adjournment to the next Regular Meeting September 17, 2025**)

There being no further business, Chair Behringer adjourned the meeting at 12:43 p.m.

METRO JPA/TAC
Staff Report
Date:

Project Title: Eleventh amended Joint Powers Agreement confirming the creation of an agency known as Southern California Coastal Water Research Project (SCCWRP)

Presenter(s) Name: Peter Vroom, Ryan Kempster, Violet Renick

Presenter(s) Title: Peter Vroom – Deputy Public Utilities Director, Ryan Kempster – Senior Environmental Scientist / Ocean Monitoring Program Manager, Violet Renick – Assistant Deputy Public Utilities Director

Requested Action:

(1) An Ordinance authorizing the Mayor, or his designee, to execute the Eleventh Amended Joint Powers Agreement for the SCCWRP Authority of which the City is a founding member; and

(2) The Chief Financial Officer is authorized to expend an amount not to exceed $3,185,000 from Fund 700001, Metro Sewer Utility Fund, contingent upon the adoption of the Annual Appropriation Ordinance for the applicable fiscal year, and contingent upon the Chief Financial Officer furnishing one or more certificates certifying that the funds necessary for expenditure are, or will be, on deposit with the City Treasurer.

Recommendations:

Approve

Metro TAC:	October 15, 2025
IROC:	November 6, 2025
Prior Actions: (Committee/Commission, Date, Result)	Tenth amended Joint Powers Agreement confirming the creation of an agency known as Southern California Coastal Water Research Project (SCCWRP) presented to MetroJPA on June 4, 2020. Approved.

Fiscal Impact:

Is this projected budgeted?	Yes __X_ No ____
Cost breakdown between Metro & Muni:	100% Metro ($3,185,000)
Fiscal impact to the Metro JPA:	36% of cost to PAs ($1,146,600)

Capital Improvement Program:

New Project?	Yes ___ No ___ N/A ___
Existing Project?	Yes ___ No ___ Upgrade/addition ___ Change ___

Previous TAC/JPA Action:
Approved.

Additional/Future Action: Item will be heard at San Diego Council Environment Committee on November 13, 2025.

City Council Action: Item will be heard at San Diego Council Environment Committee on November 13, 2025.

Background: *Provide background information on the need for the project*

The action requested here is for approval of the Eleventh Amendment of the Joint Powers Agreement for the Southern California Coastal Water Research Project (SCCWRP), which focuses on scientific research on wastewater disposal. The City is a founding member since the agency's formation in 1969.

Discussion: *Provide information on decisions made to advance the project*

The City of San Diego (City) is one of four southern California wastewater dischargers that created the Southern California Coastal Water Research Project (SCCWRP) in 1969. Since that time, SCCWRP has become an international leader in conducting scientific research directly related to management needs associated with wastewater discharges. The SCCWRP commission currently includes leadership from wastewater discharge agencies, federal and state regulatory agencies, and storm water agencies, thereby allowing frank and beneficial collaboration among both regulators and regulated agencies. The City's discharge permit and Clean Water Act waiver that allow the Point Loma Wastewater Treatment Plant (PLWTP) to operate at advanced primary treatment require the City to collect and synthesize regional data, and the data collected by SCCWRP's long-term monitoring program effectively and efficiently allow the City to meet critical regulatory reporting needs.

The San Diego Public Utilities Department is requesting approval of an Ordinance to allow continued funding for the Southern California Coastal Water Research Project. The SCCWRP Authority, a Joint Powers Authority (JPA), was created in 1969 to enhance the scientific foundation for management of southern California's ocean and associated coastal watershed resources. The study area extends from the coastline of the US/Mexico border to the Santa Barbara County line. By virtue of the Joint Powers Agreement, entered into by the signatories to the Agreement: the (1) City of Los Angeles; (2) Orange County Sanitation District; (3) City of San Diego; and the (4) County Sanitation Districts of Los Angeles County agree to provide annual funding as full members, while the (1) Ventura County Watershed Protection District, (2) Los Angeles County Flood Control District, (3) County of Orange Public Works, and (4) County of San Diego Public Works provide annual funding as ¼ members for research conducted and coordinated by this agency. The current JPA will expire on June 30, 2026.

SCCWRP is currently governed by a fourteen (14) member Commission composed of representatives from six regulators:

- the US Environmental Protection Agency Region IX;
- State Water Resources Control Board Division of Water Quality;
- three (3) Regional Water Quality Control Boards representing the Los Angeles, Santa Ana, and San Diego Regions;
- Ocean Protection Council, California Natural Resources Agency;

four wastewater agencies:

- Bureau of Sanitation, City of Los Angeles;
- County Sanitation District Number 2 of Los Angeles;
- Orange County Sanitation District;
- City of San Diego;

and four stormwater agencies:

- Ventura County Watershed Protection District;
- Los Angeles County Flood Control District;
- County of Orange Public Works;
- County of San Diego Public Works

Currently, the SCCWRP Commissioner for the City of San Diego is the Deputy Chief Operating Officer over the Infrastructure Branch, which contains the Public Utilities, Stormwater, and Transportation Departments. An Alternate Commissioner is assigned by the Commissioner to act as their proxy when necessary.

This Eleventh Amendment to the Joint Powers Agreement will provide for the continuation of work with SCCWRP for another five years, beginning with fiscal year 2027. The City's National Pollutant Discharge Elimination System (NPDES) permits that allow for wastewater discharge to the ocean mandate the City participate in this regional monitoring program in order to "maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled scientific resources of the Southern California Bight." SCCWRP's regional monitoring program encompasses the entire southern California bight, and allows the City to place localized monitoring data from around the City's two ocean outfalls into a broader biogeographical context. This is critical for determining whether any environmental changes occurring near the point of wastewater discharge are due to treatment plant operations or part of natural changes occurring across the entire southern California region.

Funding provided to SCCWRP by the City is also used for specialized research projects to help wastewater dischargers better manage their facilities to prevent environmental degradation. Anticipated projects during the next funding cycle include:

- **Beach Water Quality Monitoring** - San Diego is consistently used as a national model for how beaches around the country are assessed, to ensure it is safe for swimmers to enter the water. SCCWRP's ongoing research will continue to help us by training our staff and equipping our labs to comply with City requirements on Pure Water, beach monitoring, and pollutant source tracking.
- **Regional Monitoring** - The City is required to monitor its discharge effects on the environment both immediately near our outfalls and regionally. SCCWRP facilitates our regional monitoring requirements, leveraging our efforts with more than 100 other regulated agencies in oceans and streams regionwide. This ensures quality, comparability, and effectiveness while saving the City hundreds of thousands of dollars each year.
- **Stormwater Pollution Control** - The City spends millions of dollars annually on Best Management Practices (BMPs), which are our primary mechanism for complying with stormwater regulations. SCCWRP houses EPA's National Center for Excellence for improving effectiveness of stormwater management. SCCWRP continuously helps us select the most appropriate technologies into which we invest. They also provide enhanced designs and

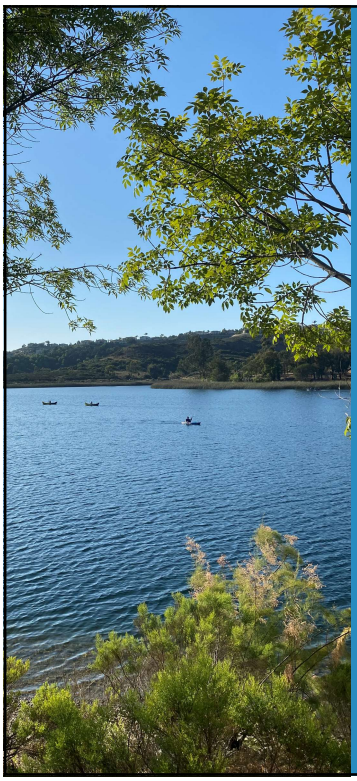
optimized maintenance procedures to ensure the effectiveness of those investments. SCCWRP has been able to leverage the City's research dollar-for-dollar costs nearly 20:1, and could possibly save hundreds of millions in the coming decade in improved infrastructure and avoiding wasted, ineffective capital expenditures.

- **Technical Assistance** - SCCWRP is one of the world leaders in microplastics and they supply the sampling and analytical services for which we would otherwise bear responsibility. When concern was expressed that City facilities contribute to antibiotic resistant bacteria in the ocean, SCCWRP helped us demonstrate that our facilities were actually reducing the problem.

The San Diego Regional Water Quality Control Board (RWQCB) issues NPDES permits that allow the Public Utilities Department to discharge treated wastewater to the Pacific Ocean. These permits also require the City to participate in the Southern California Bight Regional Monitoring Program, coordinated by SCCWRP. However, with approval from the San Diego Regional Water Quality Control Board, the City could hire technical consultants, on a case-by-case basis, to accomplish this work. This alternative is not recommended, as it would result in loss of City input that results from the cooperative working relationship with the regulators and other dischargers that are part of SCCWRP, inefficiencies, and additional costs.

Execution of this agreement obligates the City for the first year of the five-year term. Withdrawal provisions are included within the agreement for years two, three, four, and five.

Bid Results: *If bidding was done provide bidding format and results*



Southern California Coastal Water Research Project (SCCWRP)

11th Amendment to Joint Powers Agreement (JPA)

Peter S. Vroom, Ph.D. (Deputy Public Utilities Director)
Ryan M. Kempster, Ph.D. (Ocean Monitoring Program Manager)
Violet M. Renick, Ph.D. (Assistant Deputy Public Utilities Director)

SD Public Utilities

November 2025

1

Requested Action

Approval

Recommend to City Council to authorize Mayor to execute 11th Amended JPA with the Southern California Coastal Water Research Project (SCCWRP)

Funding

Authorize expenditure of $3,185,000 from Public Utilities enterprise Metro fund for this agreement over five years (FY2027 – FY2031)

- $2,038,400 (64%) from City of San Diego
- $1,146,600 (36%) from Participating Agencies

The City of SAN DIEGO

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What is the Southern California Coastal Water Research Project (SCCWRP)?

- SCCWRP is a public agency that was created in 1969 by southern California's four largest wastewater dischargers to better understand the impact of wastewater discharge on the marine environment.
- SCCWRP develops and applies science to improve the management of aquatic systems in Southern California

The City of SAN DIEGO

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SCCWRP Member Organizations

Wastewater (4)

SD Public Utilities

SANITATION DISTRICTS OF LOS ANGELES COUNTY

ORANGE COUNTY SANITATION DISTRICT

CITY OF LOS ANGELES FOUNDED 1781

Storm Water (4)

THE NOBLEST MOTIVE IS THE PUBLIC GOOD

ORANGE COUNTY OCPublicWorks

Watershed Protection District VENTURA COUNTY

Regulators (6)

CALIFORNIA WATER BOARDS San Diego - R9

CALIFORNIA WATER BOARDS Los Angeles - R4

CALIFORNIA WATER BOARDS Santa Ana - R8

CALIFORNIA Water Boards

OCEAN PROTECTION COUNCIL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

The City of SAN DIEGO

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SCCWRP Commission

Governing Board of SCCWRP includes top executives from each of the member agencies

- City of San Diego Commissioner = Kris McFadden, Deputy Chief Operating Officer
- City of San Diego Alternate Commissioner = Juan Guerreiro, Public Utilities Director

Unique interface between science and management, as well as regulators and dischargers

Coordinates collaborative partnerships

Sponsors research studies and training events

Ensures SCCWRP's research is communicated to and acted upon by Southern California's environmental management community

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SCCWRP Purpose

Contribute to the scientific understanding of linkages among human activities, natural events, and the health of the Southern California coastal environment

Communicate this understanding to decision makers and other stakeholders

Help develop strategies for protecting the coastal environment for present and future generations

The City of SAN DIEGO

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Anticipated SCCWRP projects during next funding cycle

- Beach Water Quality Monitoring
- Regional Monitoring
- Stormwater Pollution Control
- Microplastics

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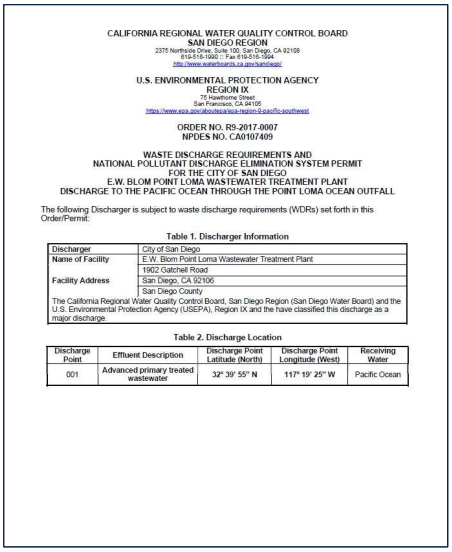


CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
2375 Northside Drive, Suite 100, San Diego, CA 92108
619-516-1990 ☐ Fax 619-516-1994
http://www.waterboards.ca.gov/sandiego/

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105
https://www.epa.gov/aboutepa/epa-region-9-pacific-southwest

ORDER NO. R9-2017-0007
NPDES NO. CA0107409

WASTE DISCHARGE REQUIREMENTS AND
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
FOR THE CITY OF SAN DIEGO
E.W. BLOM POINT LOMA WASTEWATER TREATMENT PLANT
DISCHARGE TO THE PACIFIC OCEAN THROUGH THE POINT LOMA OCEAN OUTFALL

The following Discharger is subject to waste discharge requirements (WDRs) set forth in this Order/Permit:

Table 1. Discharger Information

Discharger	City of San Diego
Name of Facility	E.W. Blom Point Loma Wastewater Treatment Plant
Facility Address	1902 Gatchell Road San Diego, CA 92106 San Diego County

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) and the U.S. Environmental Protection Agency (USEPA), Region IX and the have classified this discharge as a major discharge.

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Advanced primary treated wastewater	32° 39' 55" N	117° 19' 25" W	Pacific Ocean

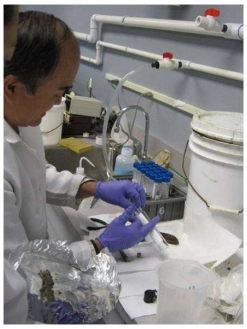
Participation with SCCWRP is a regulatory requirement

Public Utilities NPDES permits to discharge wastewater from the Point Loma and South Bay Ocean Outfalls mandate the City's participation with SCCWRP.

The Discharger is required to participate in the Southern California Bight Regional Monitoring Program coordinated by the Southern California Coastal Water Research Project (SCCWRP), or any other coordinator named by the San Diego Water Board, pursuant to Water Code sections 13267 and 13383, and 40 CFR section 122.48.

The City of SAN DIEGO

Benefits of SCCWRP Membership



- Support for regulatory permit monitoring requirements
- Access to and development of scientifically rigorous assessment approaches and measurement tools
- Research into emerging issues
- Forum for organized cooperation with the regulatory community
- Cost sharing and resource leverage
- Access to data from across southern California

The City of SAN DIEGO

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SCCWRP Agreement

Funding will increase incrementally over the five years of the 11th JPA as follows:

FY27	FY28	FY29	FY30	FY31
$600,000	$618,000	$636,000	$656,000	$675,000

Total = $3,185,000

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Questions?

- Dr. Peter Vroom: pvroom@sandiego.gov
- Dr. Ryan Kempster: rkempster@sandiego.gov
- Dr. Violet Renick (alternate): vmrenick@sandiego.gov

The City of SAN DIEGO

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METRO JPA/TAC
Staff Report
Date: 10/15/2025

Project Title:
Pure Water Program – Amendment No. 4 to the Agreement with Jacobs-CH2M Hill Engineers, Inc. for As-Needed Construction Management Services – Conveyance Projects - Contract Number H176955

Presenter(s) Name:
Akram Bassyouni

Presenter(s) Title:
Deputy Director

Requested Action:
Approve Amendment No. 4 to the agreement with Jacobs-CH2M Hill Engineers, Inc. for As-Needed Construction Management Services – Conveyance Projects for a total not to exceed amount of $4,000,000.00, thus increasing the total amount of the agreement to $89,000,000.00. This action will also extend the contract for an additional two years and five months thus increasing the total contract duration to ten years and eight months.

Recommendations:
Approve requested action

Metro TAC:	Approve the subject item and forward to Metro JPA/ Metro Commission for approval
IROC:	N/A
Prior Actions: (Committee/Commission, Date, Result)	N/A

Fiscal Impact:

Is this projected budgeted?	Yes _X__ No ____
Cost breakdown between Metro & Muni:	It is **estimated** that the funding will be allocated as follows: Water: 52% (approximately $2,080,000), Wastewater: 48% (approximately $1,920,000) (Metro: 100%, Muni: 0%).
Fiscal impact to the Metro JPA:	Approximately 33% of Metro cost (approximately $640,000)

Capital Improvement Program:

New Project?	Yes ___ No _X__ N/A ___
Existing Project?	Yes _X__ No ___ Upgrade/addition ___ Change ___

Previous TAC/JPA Action:
None

Additional/Future Action:
Present item to Metro JPA/ Metro Commission for approval in November 2025.

City Council Action:
City Council approval is anticipated in December 2025.

Background: *Provide background information on the need for the project*

San Diego's imported water supplies face increasing stresses from a variety of sources. As a result, the region's supplies are becoming less reliable and more expensive. These circumstances, and the threat of limitation on San Diego's water supplies, have intensified the need for new sources of water. Pure Water San Diego is the City of San Diego's phased program to provide a safe, secure and sustainable local drinking water supply for San Diego. Pure Water's system-wide reuse will significantly reduce flows to the Point Loma Wastewater Treatment Plant and will make San Diego more water independent. On April 29, 2014, City Council adopted Resolution Number R-308906 supporting the Pure Water Program. Pure Water implementation includes design and construction of new treatment and conveyance facilities.

Discussion: *Provide information on decisions made to advance the project*

The City entered into agreement with CH2M Hill (Jacobs-CH2M Hill) on April 30, 2018, for 5 years and $45,000,000.00. The agreement was subsequently amended on February 25, 2019 (Amendment No. 1) to extend the contract expiration to 2023; on January 25, 2022 (Amendment No. 2) to incorporate the Project Labor Agreement; and on May 3, 2023 (Amendment No. 3) to increase the total contract value to $85,000,000. The contract is for professional construction management services for Pure Water Phase 1 Conveyance projects on an as-needed, hourly fee basis. The Phase 1 Conveyance projects include the Morena Pump Station, Morena Conveyance South and Middle, Morena Conveyance North, and North City Pure Water Pipelines and Subaqueous Pipeline. CM Services also provide support for Morena Pipelines. Task Order scope and fees are negotiated by the City with Jacobs-CH2M Hill and their subconsultants and are based on the necessary resources and support services needed to hold contractors accountable for their construction work on Pure Water Phase 1. To date, approximately 80% of Pure Water Phase 1 Conveyance projects have been completed.

While City employees have expertise to perform construction management (CM) services, the nature of the Conveyance projects is highly complex and of great magnitude. Jacobs-CH2M Hill provides expertise beyond in-house capabilities, including special inspections, commissioning and start-up facilitation, and extensive scheduling, cost estimating, and claims advisory support. Together, Jacobs-CH2M Hill and the City CM team adequately manage the various complexities of the Pure Water Phase 1 Conveyance projects. It is important to have a CM team experienced in management of similar construction projects, and who have expertise in multiple engineering disciplines. The form of the contract also provides the City with additional resources on an as-needed basis.

Pure Water Phase 1 construction is both large and complex and changed conditions have been encountered on all construction contracts. Since Amendment No. 3, several factors have resulted in extended project durations and higher construction management (CM) requirements, including additional of scope to address restoration needs across the Conveyance projects and unforeseen conditions and design modifications to address unknown utility conflicts.

An additional $4M has been identified to cover project close-out requirements and anticipates additional support for claims advisory. This amendment requests an additional two years and five months for a total contract duration of 10 years and eight months, which covers the remaining construction contract durations, Pure Water Phase 1 start-up and integration period, acceptance, mitigation and monitoring, warranty period. In summary, this Amendment extends the contract duration through December 2028 as well as the contract value for as-needed services to $89,000.000.00.

Bid Results: *If bidding was done provide bidding format and results*

N/A

Public Utilities and Engineering & Capital Projects Departments

Pure Water Program – Amendment No. 4 to the Agreement with Jacobs-CH2M Hill Engineers, Inc. for As-Needed Construction Management Services – Conveyance Projects - Contract Number H176955

Metro TAC
October 15, 2025

The City of SAN DIEGO

1

Jacobs-CH2M Hill Contract Amendment

As-Needed CM Services for Pure Water Phase I Conveyance Projects

- Morena Pump Station, Morena Conveyance South and Middle, Morena Conveyance North, North City Pure Water Pipelines and Subaqueous Pipeline, Morena Pipelines

Additional Scope and Extension

- Contract extension to meet construction schedules (with delays)
  - Encountered unforeseen conditions /circumstances
  - Project interdependencies
  - Additional scope
- Special inspections, commissioning and start-up facilitation, and extensive scheduling, cost estimating, and claims advisory support

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Public Utilities & Engineering Capital Projects Departments

As-Needed CM Services for Conveyance Projects

Original Agreement: $45,000,000 (7/25/2018)

Amendment 1: Extend contract expiration to 2023 (2/18/2019)

Amendment 2: Incorporate the PLA (1/25/2022)

Amendment 3: $40,000,000 (5/3/2023)

Amendment 4 (current request): $4,000,000

Total Agreement Amount: $89,000,000

Contract Extension: 29 months (through December 2028)

Contract	Total Cost	Water/Wastewater % Split*	Water Fund Portion	Metro Wastewater Portion	Metro JPA Portion (33%)
Agreement to Date	$85,000,000	52%/48%	$44,200,000	$40,800,000	$13,600,000
Agreement Extension (This Request)	$4,000,000	52%/48%	$2,080,000	$1,920,000	$640,000
TOTAL	**$89,000,000**	**52%/48%**	**$46,280,000**	**$42,720,000**	**$14,240,000**

*These splits will change based on actual expenses, all costs will be reconciled per project splits at the end of project

Public Utilities & Engineering Capital Projects Departments

As-Needed CM Services for Conveyance Projects

Task Order No.	Project	Past Estimated Total	Forecasted Estimated Total	Status
TO 1	As Needed CM Services Conveyance Projects	$5,859,702	$5,859,702	Closed
TO 2	As Needed CM Services Constructability Reviews CM Services	$916,465	$916,465	Closed
TO 3	Morena Conveyance North Alignment	$17,050,114	$17,650,114	Open
TO 4	Morena Pump Station & Pipelines	$16,865,137	$17,665,137	Open
TO 5	North City Pure Water Pipelines	$24,436,534	$25,636,535	Open
TO 6	Subaqueous Pipeline	$3,018,960	$3,018,960	Closed
TO 7	Morena Conveyance South Middle & Morena Conveyance Bike Lane Project	$11,038,816	$11,438,817	Open
TO 8	Morena Pipelines	$5,726,107	$6,726,107	Open
Total Estimated Amount		**$84,911,837**	**$88,911,837**	
Current Agreement Not To Exceed Amount		**$85,000,000**	**$85,000,000**	
Proposed Additional Not To Exceed Amount			**$4,000,000**	

Conveyance Project Progress

Construction Contract	Original Contract Amount	Current Contract Amount	% Complete	Contractor	Scope to be Constructed
Morena Pump Station	$110.4M	$142.0M	85%	Flatiron	37-mgd pump station
Morena Conveyance South & Middle and Bike Lanes	$129.8M	$138.2M	83%	Sukut	7 miles each of 48- and 30-inch diameter pipe, 12 lane miles restoration
Morena Pipelines Northern Alignment and Tunnels	$95.2M	$113.3M	85%	OHLA	4 miles each of 48- and 30-inch diameter pipe, 15 lane miles restoration
North City Pure Water Pipeline, Dechlorination Facility, and Subaqueous Pipeline	$99.6M	$130.3M	74%	W.A. Rasic	7.5 miles of 48-inch diameter pipe and 1 mile of subaqueous pipeline, 30 lane miles restoration
Morena Pipelines	$63.1M	$63.1M	5%	OHLA	3 miles 16-inch water distribution main replacement and 3 miles of new 36-inch water main, 5 lane miles restoration
Total	**$501.1M**	**$586.9M**	**60%**		

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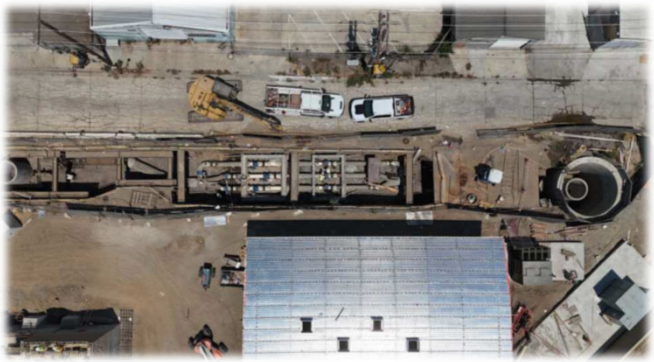
Public Utilities & Engineering Capital Projects Departments

Conveyance Project Progress



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METRO JPA/TAC
Staff Report
Date: 10/15/2025

Project Title:
Pure Water Program – Amendment No. 3 to the Agreement with Parsons-Black & Veatch Joint Venture for As-Needed Construction Manager - Treatment Plant and Facilities Projects - Contract Number H176935

Presenter(s) Name:
Akram Bassyouni

Presenter(s) Title:
Deputy Director

Requested Action:
Approve Amendment No. 3 to the agreement with Parsons-Black & Veatch Joint Venture (PBV) for As-Needed Construction Manager - Treatment Plant and Facilities Projects for a total not to exceed amount of $5,600,000, thus increasing the total amount of the agreement to $115,600,000. This action will also extend the contract for an additional two years and five months thus increasing the total contract duration to ten years and five months.

Recommendations:
Approve requested action

Metro TAC:	Approve the subject item and forward to Metro JPA/ Metro Commission for approval
IROC:	N/A
Prior Actions: (Committee/Commission, Date, Result)	N/A

Fiscal Impact:

Is this projected budgeted?	Yes _X__ No ____
Cost breakdown between Metro & Muni:	It is **estimated** that the funding will be allocated as follows: Water: ~60% (approximately $3,360,000), Wastewater: ~40% (approximately $2,240,000) (Metro: 100%, Muni: 0%).
Fiscal impact to the Metro JPA:	Approximately 33% of Metro cost (approximately $746,667)

Capital Improvement Program:

New Project?	Yes ___ No _X__ N/A ___
Existing Project?	Yes _X__ No ___ Upgrade/addition ___ Change ___

Previous TAC/JPA Action:
None

Additional/Future Action:
Present item to Metro JPA/ Metro Commission for approval in November 2025.

City Council Action:
City Council approval is anticipated in December 2025.

Background: *Provide background information on the need for the project*

San Diego's imported water supplies face increasing stresses from a variety of sources. As a result, the region's supplies are becoming less reliable and more expensive. These circumstances, and the threat of limitation on San Diego's water supplies, have intensified the need for new sources of water. Pure Water San Diego is the City of San Diego's phased program to provide a safe, secure and sustainable local drinking water supply for San Diego. Pure Water's system-wide reuse will significantly reduce flows to the Point Loma Wastewater Treatment Plant and will make San Diego more water independent. On April 29, 2014, City Council adopted Resolution Number R-308906 supporting the Pure Water Program. Pure Water implementation includes design and construction of new treatment and conveyance facilities.

Discussion: *Provide information on decisions made to advance the project*

The City entered into agreement with Parsons-Black & Veatch Joint Venture (Parsons-B&V) on July 25, 2018 for five years and $75,000,000, later amended in 2021 (Amendment No. 2) to increase the total to $110,000,000 and extend the term to July 2026. The contract is for professional construction management services and Project Labor Agreement (PLA) support services for Pure Water Phase 1 Treatment Plant and Facilities projects on an as-needed, hourly fee basis. The Pure Water Phase 1 Treatment Plant and Facilities projects include the North City Reclamation Plant Expansion (NCWRP), North City Water Reclamation Plant Equalization Basins (EQ Basins), North City Pure Water Facility (NCPWF) and North City Pure Water Pump Station, Metropolitan Biosolids Center (MBC) Improvements, Miramar Reservoir Pump Station Improvements, Penasquitos Pump Station, and Central Area Small-Scale Facility (CASSF). Task Order scope and fees are negotiated by the City with Parson-B&V and their subconsultants and are based on the necessary resources and support services needed to hold contractors accountable for their construction work on Pure Water Phase 1. To date, approximately 80% of Treatment Plant and Facilities projects have been completed.

While City employees have expertise to perform construction management (CM) services, the nature of the Treatment Plant and Facilities work is highly complex and of great magnitude. Parsons-B&V provides expertise beyond in-house capabilities, including special inspections, commissioning and start-up facilitation of complex treatment facilities, and extensive scheduling, cost estimating, and claims advisory support. Together, Parsons-B&V and the City CM team can adequately manage the various complexities of the Pure Water Phase 1 Treatment Plant and Facilities. It is important to have a CM team experienced in management of similar construction projects, and who have expertise in multiple engineering disciplines.

Since Amendment No. 2, several factors have resulted in extended project durations and higher construction management (CM) requirements, including commissioning delays , extended oversight of contractor testing and commissioning, procurement delays for critical electrical equipment, and design modifications associated with the complications of working with existing infrastructure.

PBV's revised cost-to-complete analysis forecasts an additional $5.6M needed to staff and support CM services through program final completion and claims resolution. Without this amendment, the City risks gaps in oversight during critical commissioning and closeout phases. This amendment is requesting an additional two years and five months for a total contract duration of 10 years and five months, which covers the remaining construction contract durations, Pure Water Phase 1 start-up and integration period, acceptance, mitigation and monitoring, warranty period as well as the project delays. This amendment also requests an additional $5,600,000 for a total contract mount of $115,600,000.

Bid Results: *If bidding was done provide bidding format and results*

N/A

Public Utilities and Engineering & Capital Projects Departments

Pure Water Program – Amendment No. 3 to the Agreement with Parsons-Black & Veatch Joint Venture for As-Needed Construction Manager - Treatment Plant and Facilities Projects - Contract Number H176935

Metro TAC
October 15, 2025

The City of SAN DIEGO

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Parsons-Black & Veatch Contract Amendment

As-Needed CM Services for Pure Water Phase I Treatment and Facilities Projects

- North City Reclamation Plant Expansion (NCWRP), North City Water Reclamation Plant Equalization Basins (EQ Basins), North City Pure Water Facility (NCPWF) and North City Pure Water Pump Station, Metropolitan Biosolids Center (MBC) Improvements, Miramar Reservoir Pump Station Improvements, Penasquitos Pump Station, Central Area Small-Scale Facility (CASSF)

Additional Scope and Extension

- Contract extension to meet construction schedules (with delays)
  - Encountered unforeseen conditions /circumstances
  - Procurement delays
  - Design modifications due to existing infrastructure
- Additional specialty support
- Special inspections, commissioning and start-up facilitation, and extensive scheduling, cost estimating, and claims advisory support

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Public Utilities & Engineering Capital Projects Departments

As-Needed CM Services for Facilities and Treatment Projects

Original Agreement: $75,000,000 (4/10/2018)
Amendment 1: Incorporate the PLA (6/18/2021)
Amendment 2: $35,000,000 and extend contract to 2026 (5/3/2023)
Amendment 3 (current request): $5,600,000
Total Agreement Amount: $115,600,000
Contract Extension: 29 months (through December 2028)

Contract	Total Cost	Water/Wastewater % Split*	Water Fund Portion	Metro Wastewater Portion	Metro JPA Portion (33%)
Agreement to Date	$110,000,000	60%/40%	$66,000,000	$44,000,000	$14,666,667
Agreement Extension (This Request)	$5,600,000	60%/40%	$3,360,000	$2,240,000	$746,667
TOTAL	**$115,600,000**	**60%/40%**	**$69,360,000**	**$46,240,000**	**$15,413,333**

*These splits will change based on actual expenses, all costs will be reconciled per project splits at the end of project

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As-Needed CM Services for Facilities and Treatment Projects

Task Order No.	Project	Past Estimated Total	Forecasted Estimated Total	Status
TO 1	As Needed Pre-Con/CM	$10,054,159	$6,087,444	Closed
TO 2	CRs, Bid, Award	$1,665,954	$1,516,825	Closed
TO 3	NCPWF/NCWRP Early Works	$2,227,272	$2,227,272	Closed
TO 4	PLA Management	$5,466,144	$4,315,730	Open
TO 5	NCPWF/NCPWPS	$41,818,613	$47,022,902	Open
TO 6	NCWRP Expansion	$28,666,656	$36,070,487	Open
TO 7	MBC Improvements	$6,539,693	$8,638,617	Open
TO 8	NCWRP Flow Eq. Basin	$1,400,794	$2,068,454	Open
TO 9	Miramar Reservoir PS Improvements	$1,262,588	$1,381,791	Open
TO 10	Penasquitos PS Oxygenation	$279,864	$551,521	Open
TO 11	CASSF (Ph.2 Demo Plant)	$3,000,000	$4,411,037	Open
TO 12	Miramar WTP Caustic Feed & Interim Solids Management	$350,000	$788,622	Open
TO 13	Claims/Mediation As-Needed	$7,000,000	$500,000	Open
Total Estimated Amount		**$109,731,737**	**$115,580,703**	
Current Agreement Not To Exceed Amount		**$110,000,000**	**$110,000,000**	
Proposed Additional Not To Exceed Amount			**$5,600,000**	

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Facilities and Treatment Project Progress

Construction Contract	Original Contract Amount	Current Contract Amount	% Complete	Contractor	Facility Scope to be Constructed
Penasquitos Pump Station Oxidation System	$4.4M	$4.4M	41%	Blue Pacific	High-purity oxygen system
North City Water Reclamation Plant Expansion	$255.1M	$282.2M	72%	Kiewit	Addition of 22-mgd treatment capacity
North City Pure Water Facility and Pump Station	$356.7M	$398.8M	85%	Schimmick Construction	Treatment facility to treat recycled water to purified water standards via 5-step process
North City Water Reclamation Plant Flow Equalization Basin	$11.9M	$12.3M	65%	Kiewit	2.35-million-gallon flow equalization tank to manage incoming wastewater variability
Metropolitan Biosolids Center Improvements	$40.1M	$46.2M	87%	PCL	Improvements to existing facility
North City Water Reclamation Plant Expansion / North City Pure Water Facility Early Sitework	$16.4M	$16.4M	100%	AECOM / Schimmick	Grading and site prep
Miramar Reservoir Water Quality Monitoring System	$1M	$1M	100%	Soundnine, Inc.	Reservoir water quality monitoring
Miramar Reservoir Pump Station Improvements	$12.7M	$13.4M	85%	Shimmick	Improvements to existing facility, including caustic
Central Area Small-Scale Facility (CASSF)	$38.4M	$38.4M	82%	Filanc	Small scale water reclamation plant
Total	**$736.7M**	**$813.1M**	**80%**		

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Treatment and Facilities Projects Progress

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METRO JPA/TAC
Staff Report
Date: 8/15/2025

Project Title:
Pure Water Program – First Amendment to the agreement with PMWeb, Inc. to provide web-based project control system for Pure Water Program Phase 1 – Sole Source Agreement #4265

Presenter(s) Name:
Akram Bassyouni

Presenter(s) Title:
Deputy Director

Requested Action:
Approve an extension of sole source #4265 Agreement with PMWeb for project/construction management of Pure Water Program Phase 1 for an additional 3 years, for a total of 8 years, and an additional not-to-exceed amount of $684,000, thus, increasing the total authorized amount from $1,000,000, to a not-to-exceed amount of $1,684,000 and forward item to Metro JPA/Metro Commission for approval.

Recommendations:
Approve requested action

Metro TAC:	Approve the subject item and forward to Metro JPA/ Metro Commission for approval
IROC:	N/A
Prior Actions: (Committee/Commission, Date, Result)	N/A

Fiscal Impact:

Is this projected budgeted?	Yes _X__ No ____
Cost breakdown between Metro & Muni:	It is **estimated** that the funding will be allocated as follows: Water: 62% (approximately $424,080), Wastewater: 38% (approximately $259,920) (Metro: 100%, Muni: 0%).
Fiscal impact to the Metro JPA:	Approximately 33% of Metro cost (approximately $85,774)

Capital Improvement Program:

New Project?	Yes ___ No _X__ N/A ___
Existing Project?	Yes _X__ No ___ Upgrade/addition ___ Change ___

Previous TAC/JPA Action:
None

Additional/Future Action:
Present item to Metro JPA/ Metro Commission for approval in November 2025.

City Council Action:
City Council approval is anticipated in December 2025.

Background: *Provide background information on the need for the project*

San Diego's imported water supplies face increasing stresses from a variety of sources. As a result, the region's supplies are becoming less reliable and more expensive. These circumstances, and the threat of limitation on San Diego's water supplies, have intensified the need for new sources of water. Pure Water San Diego is the City of San Diego's phased program to provide a safe, secure and sustainable local drinking water supply for San Diego. Pure Water's system-wide reuse will significantly reduce flows to the Point Loma Wastewater Treatment Plant and will make San Diego more water independent. On April 29, 2014, City Council adopted Resolution Number R-308906 supporting the Pure Water Program. Pure Water implementation includes design and construction of new treatment and conveyance facilities.

Discussion: *Provide information on decisions made to advance the project*

In 2016, the City entered into the agreement #10071388-16-H with PMWeb, Inc. for the implementation of the PMWeb software system utilized by Pure Water Program Phase 1 as a tool for the purpose of project/construction management. PMWeb has provided as-needed software, maintenance, and licenses for their proprietary software system. PMWeb provides an effective & organized platform for document control and workflow for managing various construction items including but not limited to requests for information, submittals, daily inspection reports, environmental monitoring, invoice tracking, field orders, and change orders. The system ensures the appropriate staff members review the project documents during the workflow process. In addition, this tool ensures that all open inquiries for various construction items for each project are tracked efficiently and accurately.

Since PMWeb is the sole provider of the software and license components of PMWeb software system used by Pure Water Program Phase 1, a five (5) year sole source agreement #4265 for a total not-to-exceed amount of $1,000,000 was requested by the Public Utilities Department and subsequently approved & finalized by the Purchasing and Contracting Department on June 27, 2022, to allow for the continued use of PMWeb's products and technical support services for a seamless and continuous usage of this project/construction management tool. The current contract will now expire on July 31, 2026.The PMWeb contract will expire at a time when the construction of the Pure Water Phase 1 projects will be ongoing. All Pure Water Phase 1 projects rely heavily on PMWeb as an effective project/construction management tool to keep project files documented and organized throughout construction. This software is used for the official management of documents and correspondence between the contractor, construction management team, and design team, for Pure Water Phase 1 construction contracts for various construction related items including Requests for Information (RFI), construction submittals review, construction change orders, and tracking of response, responsible parties and open inquiries. With over $1 billion in construction, there can be hundreds of open inquiries at any given time. The suspension of PMWeb's services would have a catastrophic effect on document management resulting in mishandled and/or lost documents.

This amendment will increase the not-to-exceed contract amount by $684,000 for a total not-to-exceed amount of $1,684,000 and extend it for another three (3) years for a total of eight (8) years, expiring on July 31, 2029. This will allow ample time to use PMWeb through project commissioning and support the City in close-out activities.

Bid Results: *If bidding was done provide bidding format and results*

N/A

Public Utilities and Engineering & Capital Projects Departments

Extension of the Sole Source Agreement #4265 with PMWeb Inc. for the PMWeb software system to provide web-based project control system for Pure Water Program Phase 1

Metro TAC
October 15, 2025

The City of SAN DIEGO

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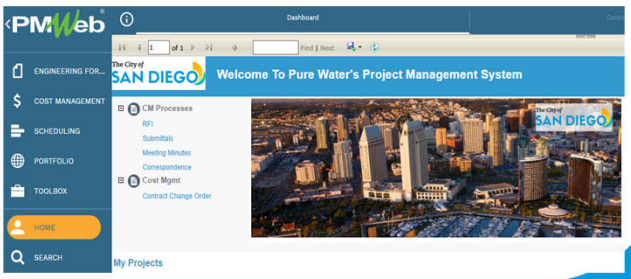
Background

- Contract 10071388-16-H with PMWeb Inc. in August 2016 (not to exceed amount of $478,500)
- Sole Source Agreement #4265 with PMWeb Inc. in June of 2022 (not to exceed amount of $1,000,000)
- Project/construction management tool for Pure Water Program Phase 1 projects
- Provides as-needed software, maintenance, and licenses for their proprietary software system
- Software is used for the official management of documents and correspondence for various construction related items including but not limited to:
  - Requests for Information (RFI)
  - Construction submittals review
  - Construction change orders
  - Workflows for tracking of all open inquiries
- Agreement term: 5 years
- Agreement set to expire July 31, 2026



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Phase 1 Pure Water Status

- Pure Water Phase 1 construction proceeding
- Reached approx. 80% completion
- Unanticipated Construction Delays
- PMWeb services must be extended for a seamless and continuous usage of this management tool software throughout the construction.
- The suspension of PMWeb's services would have a catastrophic effect on document management resulting in mishandled and/or lost documents
- Additional cost will cover:
  - Renewal of Software Subscription Services
  - Services include software updates and upgrades, annual support and maintenance, email services, dedicated server, and licenses
  - Continuous use of the software for document control throughout construction and post construction

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PMWeb Benefits

- Ongoing data back-up
- An effective and organized system for document management of complex pure water program
- An effective and efficient tool for tracking of multiple open inquiries with over $1B in ongoing construction
- Software updates and upgrades, resolution of software defects, daily backups of all live data

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PMWeb Construction Management Software

Contract 10071388-16-H: $478,500 (August 2016)

Sole Source Agreement #4265: $1,000,000 (June 2022)

Amendment 1 to Sole Source #4265 (current request): $684,000

Request Not to Exceed: $684,000 (Metro = $259,920 ; Water = $424,080)

Metro JPA: $85,774 (12.5%)

Total PMWeb Agreement: $2,162,500

Agreement Extension: 3 years (7/31/2029)

PMWeb Approximate Cost Breakdown

Contract	Total Cost	Water/Waste water % Split	Water Fund Portion	Metro Wastewater Portion	Metro JPA Portion (33%)
Contract 10071388-16-H (August 2016)	$478,500	62%/38%	$296,670	$181,830	$60,004
Sole Source Agreement (June 2022)	$1,000,000	62%/38%	$620,000	$380,000	$125,400
Agreement Extension (This Request)	$684,000	62%/38%	$424,080	$259,920	$85,774
TOTAL	**$2,162,500**	**62%/38%**	**$1,340,750**	**$821,750**	**$271,178**

Questions

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FINAL

Pure Water Unit Costing Analysis

Prepared For:

City of San Diego

Public Utilities Department

San Diego, California

September 18, 2025

Introduction

The City of San Diego (City) is currently in the process of constructing the Phase 1 facilities of the potable reuse system known as Pure Water San Diego. Additionally, the City is planning and evaluating alternative scenarios for Phase 2 of the Pure Water program involving construction of additional facilities to expand the potable reuse capacity in the City's system. Since the inception of the Pure Water program, the City has evaluated alternative scenarios for Pure Water Phase 1 and 2, looking at each option through the lens of unit costs and benefits. Over the course of this process, different methods of evaluation have been employed. This memo provides a recent update to the unit costs for fiscal year (FY) 2024, as well as a comparison to costs developed during the original Recycled Water Study in 2012 that launched the Pure Water program. The FY2024 unit costs take into account existing Phase 1 costs and funding data together with projections for Phase 2, and will result in 83 mgd production of purified water.

It should be noted that the results discussed herein are estimates developed to understand and compare lifecycle costs and benefits of the Pure Water program to 1) allow for comparisons of project alternatives, 2) track and compare costs over time as estimates change, and 3) generally understand the costs and benefits of the Pure Water program relative to alternative capital investments and/or sources of water supply. These results do not intend to estimate the "rate" (i.e., retail water rate) customers would pay for water produced by Pure Water facilities, nor do they directly align with elements of the Second Metro Wastewater System Amended and Restated Agreement (ARA) with respect to the Capital Expense Rate and Revenue Sharing calculations outlined in SARA Exhibit F.

2012 Analysis of Pure Water Phase 1 and Phase 2 Scenarios

The original financial analysis for the Pure Water program was conducted in 2012 to estimate the City's unit costs over a 50-year planning horizon. This initial analysis used the NPV method to evaluate the long-term costs and benefits of the program.

Multiple scenarios were evaluated at this early planning stage as the City considered alternative approaches to developing the Pure Water program. These alternatives included two primary scenarios, Alternative A and Alternative B, described below:

- **Alternative A** – Includes expansion of the North City plant to 45 MGD using the Morena Diversion, allowing for a smaller Harbor Drive Plant
- **Alternative B** – Maximizes use of the existing 30 MGD capacity at the North City Plant, requiring greater capacity at the Harbor Drive site

Additionally, three sub-alternatives looked at different siting options for the Harbor Drive Plant and advanced purification facility. The three sub-alternatives are described below:

- **Sub-alternative 1** – Splits the Harbor Drive reclamation facility and advanced water purification facility into two locations with advanced water purification treatment at the Camino Del Rio site.
- **Sub-alternative 2** – Combines water reclamation with advanced water purification all at the Harbor Drive Plant.
- **Sub-alternative 3** – Same as sub-alternative 2, except it includes a small plant in Mission Gorge to collect, treat and convey water to the San Vicente Reservoir.

All cash flows for the different alternatives were projected, including capital investments over multiple years of planning, design and construction and O&M costs upon initiation of production from the Pure Water facilities. Details of the capital costs and base year O&M costs are outlined below, expressed in 2012 dollars:

- $1.985 billion to $2.200 billion in total capital costs
    - $100.8 million to $104.5 million in annual O&M

Capital costs and O&M projections were factored into the forecast as pay as you go (PAYGO) cash-funded capital, debt service on financed capital investments, annual O&M expenses, and capital reductions resulting from potential grant funding. Assumptions about inflation; percentage of capital investments funded from cash, State Revolving Fund (SRF) loans, bonds and grants; borrowing terms; and other forecast drivers were required to project the cash flows over the fifty-year planning horizon. The analysis also accounted for cash flows required to maintain the City's reserve targets. These calculations yielded an annual revenue requirement, which could be discounted to calculate a single present value (PV) result of the costs of the system. When divided by the total volume of water expected to be produced over that same period, the PV could be converted into a unit PV for all capital and O&M costs.

The analysis also accounted for benefits resulting from the investment. These were deducted from the capital and O&M costs to produce the NPV. Some of these benefits were straightforward financial benefits and could be treated as direct financial offsets to the costs of the system, such as payments to the City as part of the Local Resources Program (LRP) for surface water augmentation. Others were less direct cash flow benefits, such as avoided alternative capital investments, though these benefits are real and material as they would have been otherwise required if the Pure Water program were not to be completed. The details of these estimated benefits are outlined below, expressed in 2011 dollars:

- Participation in LRP and revenue from production of potable reuse water:
    - $275 per AFY of production for 20 years
- Reduction in salt production and resulting O&M cost savings:
    - $100 per AFY of production in savings
- Reduced secondary treatment upgrade investments at Point Loma Wastewater Treatment Plant (PLWTP) due to diversion of flows to other facilities:
    - Net savings of $434.4 million in capital investment
    - Net savings of $18.7 million in annual O&M costs
- Secondary Treatment upgrades net of Chemically Enhanced Primary Treatment upgrades at PLWTP:
    - Net savings of $463.3 million in capital investment
    - Net savings of $13.0 million in annual O&M costs
- Reduction in flow equalization investments (for process control, not for wet weather storage):
    - Net savings of $123 million in capital investment
    - Net savings of $6.2 million in annual O&M costs

Combining the elements described above, a total NPV and unit NPV expressed as dollars per acre-foot per year ($/AFY) were both calculated. As described above, the model evaluated various alternatives to compare different approaches to executing the Pure Water program. Five combinations of the alternatives and sub-alternatives described above yielded a range of unit cost results presented in Table 1, which was extracted from the original report[1]. It should be reiterated that these results are expressed in 2011 dollars and do not account for inflation that has occurred since that time.

[1] *Recycled Water Study.* Prepared for City of San Diego. Brown and Caldwell, Black & Veatch. July 2012.

Table 1: Pure Water Cost Summary from 2012 Recycled Water Study

Cost Summary (2011 $/AF)				
Alternative	Average Gross Costs	Net Costs		
		Tier 1 - Direct Wastewater System Savings	Tier 2 - Salt Reduction Credit	Tier 3 - Indirect Wastewater System Savings
		Remaining Point Loma capacity upgraded to Secondary	*Water Quality Benefit to Water/Wastewater System*	*Remaining Point Loma capacity maintained at CEPT*
A1: North City 45 mgd; Split Harbor Dr. AWPF	$1,900	$1,300	$1,200	$800
A2: North City 45 mgd; Consolidated Harbor Dr. AWPF	$1,900	$1,300	$1,200	$800
B1: North City 30 mgd; Split Harbor Dr. AWPF	$1,700	$1,100	$1,000	$600
B2: North City 30 mgd; Consolidated Harbor Dr. AWPF	$1,700	$1,100	$1,000	$600
B3: North City 30 mgd; Consolidated Harbor Dr. AWPF; Mission Gorge AWPF	$1,900	$1,300	$1,200	$800

Fiscal Year 2024 Analysis

Stantec supported the City in FY 2024 to update the unit cost estimates for the Pure Water San Diego Program. This analysis generally followed a similar approach to the 2012 NPV analysis; however, because Phase 1 of the Program is currently underway, alternative scenarios for Phase 1 were not evaluated, and more current and accurate capital and O&M cost estimates were used in the analysis. Additionally, the majority of funding for Phase 1 capital through State Revolving Fund (SRF) and the Water Infrastructure Finance and Innovation Act (WIFIA) through extremely low-interest loans (in the range of 0.8% to 1.82%) was also known and could be factored into the model for more accurate projections of capital funding combining PAYGO, grant, loan, and bond funding. The borrowing terms for the remaining funding for the overall program was assumed to be more in line with traditional financial expectations.

The FY 2024 update incorporated key assumptions to develop the NPV unit cost results. These assumptions are outlined in Table 2.

Table 2: Assumptions for FY 2024 NPV Unit Cost Analysis

Description	Assumption
General Assumptions	
Discount Rate	5.0%
Capital Escalation	3.0%
Renewal & Replacement	
Assumed Useful Life	30
Percent Cash-Funded	20%
Borrowing Terms	
Amortization Period	30
Interest Rate	5.0%
Issuance Cost	2.5%
Phase 2 Capital Funding	
Pay-as-you-go (PAYGO) Capital	20%
State Revolving Fund (SRF) Loans	25% (up to $50 million per year)
Grants	20%
Revenue Bonds	35%

Additionally, Phase 1 capital and O&M costs were updated to reflect current estimates, including higher power and labor costs, while Phase 2 capital and O&M costs were updated based on a Phase 2 facilities analysis conducted with the Metropolitan Wastewater Joint Powers Authority that was completed in 2021. Updated estimates for Phase 1 and 2 capital and O&M costs are outlined below, expressed in 2024 dollars:

- $1.96 billion in capital costs for Phase 1
    - $88.0 million in annual O&M for Phase 1 ($53.7 million water, $34.3 million wastewater)
- $4.03 billion in capital costs for Phase 2
    - $129.3 million in annual O&M for Phase 2 ($78.2 million water, $51.1 million wastewater)

The NPV analysis accounted for the timing of capital investments, the initiation of operations of the Pure Water facilities, and ramp-up in production of purified water. As described previously, the timing of capital investments and the initiation of production and O&M costs have an important impact on the results of an NPV analysis due to the relative weights of near-term and long-term cost and benefits by way of discounting future cash flows.

Finally, benefits similar to those included in the 2012 analysis were layered into the analysis. These again included both direct financial offsets such as revenue from the LRP, as well as benefits from avoided alternative capital investments that would have otherwise been required if not for the Pure Water program. These avoided capital costs include upgrades required at the PLWTP to bring the facility up to secondary treatment standards and the construction of additional equalization capacity to manage flows during peak flow events. The avoided O&M costs of upgrading the PLWTP to secondary treatment standards were also included as a benefit to the wastewater system. The avoided capital costs were distributed over the forecast period in alignment with the distribution of Pure Water Phase 1 capital costs, and the avoided O&M and R&R

costs commenced in the year following completion of Pure Water Phase 1. The details of these benefits are outlined below, expressed in 2024 dollars:

- Participation in LRP and revenue from production of potable reuse water:
    - $340 per AFY of production for 25 years
- Reduced secondary treatment upgrade investments at PLWTP:
    - Savings of $2.25 billion in capital investment
- Reduction in flow equalization investment needs:
    - Savings of $2.62 billion in capital investment
- Avoided O&M costs of secondary treatment facilities at PLWTP:
    - Savings of $39.4 million per year (escalated over the forecast at 4% per year
- Cost savings from 102 MGD of reduced pumping at Pump Station 2:
    - Savings of $8.8 million per year (escalated over the forecast at 4% per year)

It should be noted that the benefits described above would be realized to a lesser degree from the completion of Phase 1 without completion of Phase 2. The magnitude of the benefits would be less than those realized with full execution of Phase 1 and 2, but the benefits associated solely with Phase 1 have not been quantified.

The results of the updated unit cost analysis can be found in Table 3. The table presents the total unit cost as well as the unit costs broken down between water and wastewater, and for Phase 1 and the combined Phase 1 and 2. Additionally, the net unit costs after accounting for the benefits of avoided capital costs described above are shown for the Phase 1 and 2 results. The only benefits included in the Phase 1 results represent the direct benefits of LRP revenue. It should be noted that the benefits of avoided capital costs are solely benefits to the wastewater system as the avoided projects consist of otherwise necessary investments at the PLWTP.

Table 3: Updated FY 2024 Pure Water Unit Costs

	Phase 1 Only	Phase 1 & 2
Present Value Unit Costs[2]	**Unit Cost ($/AF)**	**Unit Cost ($/AF)**
Total Unit NPV	$3,547	$3,527
Water Unit NPV	$2,069	$2,105
Wastewater Unit NPV	$1,478	$1,422
Present Value Unit Costs Net of Capital Benefits	**Unit Cost ($/AF)**	**Unit Cost ($/AF)**
Total Unit NPV Accounting for Capital Benefits	N/A	$1,715
Water Unit NPV Accounting for Capital Benefits	N/A	$2,105
Wastewater Unit NPV Accounting for Capital Benefits	N/A	$(390)

Conclusions

Table 4 shows summary results for Phase 1 only. As noted above, the completion of Phase 1 will result in avoided capital costs benefits; however, the magnitude of those benefits have not been quantified in the absence of completing Phase 2 of the program, and the total unit cost for Phase 1 projects does not include any benefits of avoided capital costs.

Table 4: Updated FY 2024 NPV Pure Water Phase 1 Unit Costs

	Phase 1 Only
Present Value Unit Costs	**Unit Cost ($/AF)**
Total Unit NPV	$3,547
Water Unit NPV	$2,069
Wastewater Unit NPV	$1,478

[2] Differences between the sum of water and wastewater unit NPVs and the total unit NPV are due to rounding.

Table 5 shows unit cost results from the completion of both Phase 1 and 2 of City's Pure Water Program. The table also reflects the additional benefits and avoided costs realized through the completion of Phase 1 and 2. These avoided costs result from reduced future investment needs in secondary treatment and flow equalization facilities due to the additional capacity and operational efficiencies provided by the full program.

Table 5: Updated FY 2024 NPV Pure Water Unit Costs for Phases 1 and 2

	Phase 1 & 2
Present Value Unit Costs	**Unit Cost ($/AF)**
Total Unit NPV	$3,527
Water Unit NPV	$2,105
Wastewater Unit NPV	$1,422
Present Value Unit Costs Net of Capital Benefits	**Unit Cost ($/AF)**
Total Unit NPV Accounting for Capital Benefits	$1,715
Water Unit NPV Accounting for Capital Benefits	$2,105
Wastewater Unit NPV Accounting for Capital Benefits	($390)

The total program unit cost for the City's Pure Water program has been a key data point throughout the planning process. These analyses help to frame the net costs and benefits to the City and its rate payers by pursuing this plan to address regional wastewater treatment needs in tandem with providing water supply benefits. The planning scenarios and alternatives to execute the Pure Water program have evolved over time, and the analyses have followed different methodologies at different stages of the planning effort; however, to the extent that these approaches can be compared, it is beneficial to evaluate the evolution of these unit cost estimates over the program's history. Table 6 summarizes the unit cost estimates; both as estimated at the time of the original evaluation in 2012 and adjusted to account for inflation from the date of the analyses to 2024.

Table 6: Comparison of Pure Water Unit Costs Across Estimates Over Time

All-In Unit Cost Comparison ($/AFY)	2012 NPV Analysis (Midpoint Estimate)	2024 NPV Analysis
Total Pure Water Unit Cost Estimate (Original Dollars)	$1,800	$3,527
Inflation Adjustment[3]	1.698	1.000
Total Pure Water Unit Cost Estimate (2024 Dollars)	$3,057	$3,527

This comparison shows that the program unit costs have remained relatively constant throughout the planning process when adjusting for inflation. The current estimates of Pure Water unit costs will continue to be evaluated as information is updated and plans for Pure Water Phase 2 are refined.

[3] Bureau of Labor Statistics. *Water & Sewer Maintenance Series*. Series ID: CUUR0000SEHG01. April 2024.

									Total Contract (Including Change Orders)				30-Jun-25
Construction Package	Contractor Intermediate Substantial Completion	Contractor Substantial Completion [3]	Percent Complete (G = F / E)	Bid Award [1] (A)	Change Orders [2] (B)	% Change Orders	Quarterly Water Change Orders	Quarterly WW Change Orders	Water (C)	Wastewater (D)	Total Contract (E = A + B)	Paid to Date [2] (F)	Construction Company
Early Sitework	July 27, 2021	July 27, 2021	100%	$16,403,300	$1,184,211	7%	$0	$0	$4,546,855	$13,040,656	$17,587,511	$17,587,511	Shimmick
NC Pure Water Facility & NC Pure Water Pump Station	October 15, 2025	May 21, 2026	83%	$356,681,930	$40,073,835	11%	$3,837,873	$0	$396,755,765	$0	$396,755,765	$330,073,166	Shimmick
Morena Wastewater Pump Station	January 8, 2026	August 6, 2026	81%	$110,386,350	$31,679,902	29%	$0	$763,680	$58,674	$142,007,578	$142,066,252	$115,421,384	Flat Iron West
Morena Northern Alignment & Tunnels	May 1, 2025	May 23, 2025	85%	$95,243,645	$18,038,900	19%	$0	$0	$21,956,264	$91,326,282	$113,282,546	$95,936,771	OHL USA, Inc
NC Pure Water Pipeline and Dechlorination Facility & Subaqueous Pipeline [4]	October 14, 2024	March 6, 2026	68%	$123,456,027	$12,086,111	10%	$5,866,572	$0	$135,542,138	$0	$135,542,138	$92,483,863	W.A. Rasic Construction Company, Inc.
NCWRP Expansion & PWF Influent Conveyance	February 2, 2026	October 1, 2026	72%	$255,138,000	$25,639,232	10%	$0	$0	$145,850,931	$134,926,302	$280,777,232	$200,778,091	Kiewit Infrastructure West Co.
NC MBC Improvements	October 2, 2024	August 13, 2025	87%	$40,086,690	$6,098,975	15%	$0	$0	$0	$46,185,665	$46,185,665	$40,029,497	PCL Construction, Inc.
NCWRP EQ Basins	May 15, 2025	June 26, 2025	64%	$11,886,000	$441,637	4%	$0	$0	$0	$12,327,637	$12,327,637	$7,839,481	Kiewit Infrastructure West Co.
Morena Conveyance Southern & Middle	May 13, 2025	October 3, 2025	74%	$129,753,895	$7,023,749	5%	$318,335	$1,554,222	$29,847,978	$106,929,666	$136,777,644	$100,753,628	Sukut Construction, LLC
Miramar Reservoir Pump Station Improvements	October 21, 2024	November 19, 2024	84%	$12,692,000	$707,144	6%	$189,888	$0	$13,399,144	$0	$13,399,144	$11,285,842	Shimmick
Miramar Reservoir Automated In-Water Quality Monitoring System (AIWQMS)	October 15, 2026	October 15, 2026	54%	$1,000,000	$0	0%	$0	$0	$1,000,000	$0	$1,000,000	$538,435	Soundnine Inc.
Penasquitos Pump Station Oxygenation System	January 3, 2024	June 11, 2026	41%	$4,391,767	$0	0%	$0	$0	$0	$4,391,767	$4,391,767	$1,806,123	Blue Pacific Engineering & Construction
			78%	**$1,157,119,604**	**$142,973,698**		**$10,212,667**	**$2,317,902**	**$748,957,749**	**$551,135,553**	**$1,300,093,302**	**$1,014,533,793**	

Total Approved Change Orders Excluding Scope Removal Change Orders[4]: $163,711,638

1. Bid Award values are entered when Notice-of-Intent to Award has been issued.

2. Change order amounts through June 30, 2025. Paid to date through June 30, 2025 invoicing as of August 31, 2025.

3. Projected Substantial Completion is based on the current construction contract date, inclusive of any time-related change orders.

4. Deductive Change Order amounts cannot "refund" Pooled Contingency. North City Pure Water Pipeline had a deductive change order of $20,737,940 resulting from de-scoping an asbestos-cement replacement group job.

Highlighted projects are necessary for partial flow commissioning.

Monthly Executive Director's Report September 2025 & October 2 Board Meeting

The purpose of this report is to provide an update on the activities, progress, and outcomes related to the JPA's initiatives. It aims to ensure transparency, document key discussions and decisions, and keep all stakeholders informed of ongoing efforts and upcoming milestones.

September was a very busy month in the implementation process for the draft Second Amended and Restated Agreement (SARA) and Administrative Agreement No 1 (AA1) with multiple meetings with the City of San Diego staff, Padre Dam's attorney, and the Pure Water (SARA) AdHoc. This resulted in clean versions with all redlines accepted from the City of San Diego for both documents sent out to all TAC and JPA members on September 25th in the October Metro Wastewater JPA/Commission agenda.

For reference purposes, the final draft versions of SARA, AA1, and the SARA Exhibits as well as past reference materials including staff reports and presentations have been posted in the "News" section of the JPA website:

https://www.metrojpa.org/home/showdocument?id=5002

In addition, a copy of the current Amended and Restated Agreement (ARA) can be found in the Director's Manual at:

https://www.metrojpa.org/Home/ShowDocument?id=4720

Key Tasks and Updates:

1. **SARA and Administrative Agreement No. 1 (AA1) Update**

   As noted above, the final draft of the Second Amended and Restated Agreement (SARA) and Administrative Agreement No. 1 (AA1) was distributed to all members in the October JPA/Commission agenda packet.

   At their October 2nd meeting, the Metro JPA/Commission Board of Directors held an advisory vote on the draft SARA, resulting in an 11–1 outcome approving the following motion:

"That the Metro Commission recommend that the Participating Agencies approve the draft SARA, subject to non-substantive revisions and corrections, with such determinations to be made jointly by the Participating Agencies' Attorney and the City/General Manager."

Padre Dam Municipal Water District was the sole dissenting vote and submitted a letter outlining its concerns, which was included in the October agenda materials. Padre Dam's primary objection pertains to the proposed change from the unanimous vote requirement under the 1998 Regional Agreement and the ARA to *a* two-third vote on financial matters under the new SARA.

The next step in the process is for each Participating Agency to present SARA and AA1 to its governing body for formal approval. Concurrently, discussions will continue with Padre Dam to determine whether a compromise can be reached regarding the voting provision.

During October, the Executive Team will provide an updated PowerPoint presentation**,** staff report**,** and final clean copies of both SARA and AA1 for Directors to use in presenting the agreements to their respective Councils or Boards. Executive Team members will be available to attend governing body meetings as requested and will continue to support the Participating Agencies by addressing any questions that may arise during the approval and **implementation process.**

2. JPA Policies and Procedures Manual

The draft Policies and Procedures Manual was approved at the September JPA/Commission Meeting. The final manual can be found at:

https://www.metrojpa.org/Home/ShowDocument?id=4962

3. I&I Committee

The City of San Diego provided the draft scope of work for Phase 1 of the I&I Study to the I&I Committee for review and comment, with feedback due by September 19. All Participating Agencies that have not yet submitted their meter basin data are requested to do so as soon as possible to facilitate ADS's project kickoff. The next I&I Committee meeting will be scheduled once all necessary information has been received.

4. Treasury Activities and ACH Pilot Program

During September, the JPA Treasury staff was very active, preparing and providing the required financial documentation for Fiscal Years 2024 and 2025 to the JPA's auditors in preparation for the biennial audit kickoff.

In addition, Treasury staff launched a pilot Automated Clearing House (ACH) payment project to refine and test the new electronic payment process. Over the next several months, monthly invoice and per diem payments will be issued via ACH to two Board Members and two vendors as part of this trial phase.

A report on the pilot results will be presented to the Finance Committee in January 2026 and the Board in February 2026 for review and approval to proceed with full implementation of ACH payments for all Board Member per diems and vendor disbursements. Initial indications show that the ACH process is more cost-effective than the existing manual check system, with measurable savings in staff time and expenses such as postage and envelopes. It is anticipated that the transition from manual checks to ACH payments will be fully completed this fiscal year.

UPCOMING MEETINGS:

Metro TAC:

Regular Meeting:
October 15, 2025
11-1 Via Zoom

Metro JPA/Commission:

Regular Meeting:
November 6, 2025
Noon-2 PM MOC Auditorium