



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

**TO:** MetroTAC Representatives

**CC:** Metro JPA Directors (for information only)

**DATE:** September 18, 2024

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

**LOCATION:** Metro TAC is holding its September 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, MetroTAC is NOT a public meeting so please do not distribute the meeting link.

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1. **ACTION:** Review and Approve MetroTAC Action Minutes for the Meeting of August 21, 2024 (**Attachment**)
  2. **ACTION:** Consideration and Possible Action to Recommend to the Metro Wastewater JPA Approval of a Contract for Pump Station 1 Improvements and Modernization with J.R. Filanc Construction Company, Inc. (Eric Rubalcava ) (**Attachment**)
  3. **ACTION:** Consideration and Possible Action to Recommend to the Metro Wastewater JPA Approval of FY 2024 Year-End Financial Statements (Lee Ann Jones-Santos) (**Attachment**)
  4. **ACTION:** Consideration and Possible Action to Recommend to the Metro Wastewater JPA Approval of Phase 2 Planning Alternatives (Dexter Wilson) (**Attachment**)
  5. **ACTION:** Pure Water Program Semi-Annual Update (Amy Dorman) (**Attachments**)
    - a. **ACTION:** Consideration and Possible Action to Recommend to the Metro Wastewater JPA Approval of Pure Water Program - Construction Change Order No. 12 with Kiewit Infrastructure West Co. for North City Water Reclamation Plant Expansion (K-21-1861-DBB-3). (Akram Bassyouni) (**Attachment**)

- b. **ACTION**: Consideration and Possible Action to Recommend to the Metro Wastewater JPA Approval of Pure Water Program – Amendment No. 3 to the Agreement with CH2M Hill Engineers, Inc. for Design Engineering Services for the North City Water Reclamation Plant Expansion and Influent Conveyance Project (Akram Bassyouni) (**Attachment**)
  - c. **ACTION**: Consideration and Possible Action to Recommend to the Metro Wastewater JPA Approval of Pure Water Phase 1 CIP Budget – Increase Pooled Contingency (Amy Dorman) (**Attachment**)
- 6. **UPDATE**: Metro Wastewater (General) (Standing Item) (Lisa Celeya)
- 7. **UPDATE**: Pure Water Program Update (Standing Item) (Amy Dorman/Doug Owen)
  - a. Quarterly Contractors Report (Doug Owen) (**Attachment**)
- 8. **UPDATE**: Metro Wastewater Financial (Standing Item) (Adam Jones)
- 9. **UPDATE**: JPA Executive Director (Standing Item) (Karyn Keze) (**Attachment**)
- 10. **UPDATE**: Metro Commission/JPA Board Meeting Recap (Standing Item) (Alisa Nichols)
- 11. Review of Items to be Brought Forward to the Regular Metro Commission/Metro JPA Meeting (**October 3, 2024**)
- 12. Other Business of Metro TAC
- 13. Adjournment (**To the next Regular Meeting October 16, 2024**)

**Metro TAC 2024 Meeting Schedule**

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



## **MetroTAC**

(Technical Advisory Committee to Metro JPA/Commission)

### **ACTION MINUTES**

**DATE OF MEETING:** August 21, 2024  
**TIME:** 11:00 AM  
**LOCATION:** ZOOM Electronic Meeting

#### **MEETING ATTENDANCE:**

##### **Members Present**

Michael Benozza, Chula Vista  
Leon Firsht, Coronado  
Joe Bride, Del Mar (absent)  
Blake Behringer, El Cajon  
Eric Minicilli, Imperial Beach  
Joe Kuhn, La Mesa  
Izzy Murguia, Lemon Grove  
Carmen Kasner, National City  
Beth Gentry, Otay WD  
Peejay Tubongbanua, Padre Dam MWD  
Paul Clarke, Padre DAM MWD  
Alisa Nichols, Poway  
Sumedh Bahl, County of San Diego

##### **JPA Staff/Consultants Present**

Karyn Keze, Executive Director, the Keze Group  
Dexter Wilson, Dexter Wilson Engineering  
Kathleen Noel, Dexter Wilson Engineering  
Lee Ann Jones-Santos, Metro JPA Treasurer  
Lori Anne Peoples, Metro JPA Board Secretary

##### **San Diego City Staff/Consultants**

Lisa Celaya, City of San Diego (remote)  
Adam Jones, City of San Diego  
Doug Campbell, City of San Diego  
Amy Dorman, City of San Diego  
Dr. Ryan Kempster, City of San Diego  
Adrian Field, City of San Diego  
Antone Lahr, City of San Diego  
Nicole Roesler, City of San Diego  
Akram Bassyouni, City of San Diego  
Reyhaneh Martin, City of San Diego  
Tracy Mangum, City of San Diego  
Kristy Reeser, City of San Diego  
Melissa Faber, City of San Diego  
Edger Patino, City of San Diego  
Orelia DeBaal, City of San Diego  
Stephanie Jaega, City of San Diego  
Violet Renick, City of San Diego  
Keli Balo, City of San Diego  
Luis Schaar, City of San Diego

##### **San Diego Consultants**

Doug Owen, Stantec  
Ben Stewart, Stantec

##### **Others Present**

Ken Schieff, SCCWRP

1. **ACTION: Review and Approve MetroTAC Action Minutes for the Meeting of July 17, 2024**

Carmen Kasner requested a correction to the spelling of the name Tressel to add a second "l".

**ACTION:** Motion by Sumedh Bahl, seconded by Carmen Kasner, the minutes be approved as corrected. Motion carried unanimously.

2. **ACTION: Consideration and Possible Action to Recommend to the Metro JPA/Commission Approval of an Ocean Monitoring Boat by the City of San Diego**

Dr. Ryan Kempster, Sr. Environmental Scientist, Public Utilities Department provided a brief verbal overview of his PowerPoint presentation included in the agenda package.

In response to TAC member questions, Lisa Celaya responded that this was a competitive bid process, however All American Marine, Inc. was the only responsive bidder. Dr. Kempster responded to a question as to the usage of the boat, noting that the vessel was used daily and had an estimated 40-year lifespan.

Peejay Tubongbanua and Beth Gentry requested a future site visit to view the vessel.

**ACTION:** Motion by Beth Gentry, seconded by Peejay Tubongbanua, to recommend approval to the Metro JPA/Commission. Motion carried unanimously.

3. **ACTION: Consideration and Possible Action to Recommend to the Metro Wastewater JPA Approval of the Pure Water Program – Amendment No. 2 to the Agreement with CH2M Hill Engineers, Inc. for Engineering Services for the Design of the North City Metropolitan Biosolids Center (MBC) Improvements Project**

Akram Bassyouni and Reyhaneh provided a brief overview of their PowerPoint presentation included in the agenda package.

**ACTION:** Motion by Michael Benozza, second by Carmen Kasner, to recommend approval to the Metro Wastewater JPA. Motion carried unanimously.

4. **PRESENTATION: SCCWRP Presentation on San Diego River Investigative Order Study Findings**

Ken Schiff, Deputy Director of the Southern California Coastal Water Research Project provided a brief verbal overview of his PowerPoint presentation included in the agenda package.

5. **DISCUSSION: Phase 2 Planning**

Dexter Wilson gave an overview of his PowerPoint presentation included in the agenda package.

**6. UPDATE: FY 2024 2<sup>nd</sup> Quarter Metro Capital Improvements and Funding Sources**

Melissa Faber provided a brief verbal overview of her PowerPoint presentation included in the agenda package on the **FY 2024 3<sup>rd</sup> Quarter CIP and Funding Sources**.

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

Doug Campbell, City of San Diego provided the report on behalf of Lisa Celaya who had to leave the meeting. He noted that:

- Staff is moving forward on the award of contract for PS1
- They are working on PS2 power reliability project and repairs to get ready for winter.

**8. UPDATE: Pure Water Program Update (Standing Item)**

Doug Owen of Stantec provided a brief verbal update of his PowerPoint presentation included in the agenda package and noted that next month, he would be presenting the Quarterly Update on Construction Projects.

**9. Metro Wastewater Financial (Standing Item)**

Adam Jones, City of San Diego noted the following:

- The FY 2020 Audit draft report will be completed in September
- Staff is in the process of determining refunds and billings

JPA Executive Director Karyn Keze noted that MGO, the City's auditor, had reviewed samples for FY 21, 22 and 23 and thanked Adam and his staff for a great preparation of samples noting that she had reviewed over 600!

**10. JPA Executive Director (Standing Item)**

Executive Director Keze noted that her written report was included in the agenda package. Additionally, she stated that JPA Treasurer Lee Ann Jones-Santos had advised she had received over half of the FY 2025 payments from the PAs and thanked everyone for being prompt.

**11. Metro Commission/JPA Board Meeting Recap (Standing Item)**

MetroTAC Chair Alisa Nichols stated that all items forwarded to the JPA from TAC had been approved and that they had heard the same presentations from Dexter Wilson and John Gavares as TAC had. Additionally, a Strategic Planning Ad Hoc was established to work with John and input from TAC members will be requested as well through a written survey.

**12. Review of Items to be Brought Forward to the Regular Metro Commission/Metro JPA Meeting (October 3, 2024)**

JPA Executive Director Keze reminded the TAC that the JPA would be dark in September unless something urgent came up.

Dexter Wilson requested any comments from PAs be submitted on his Phase 2 planning letter prior to September 10<sup>th</sup> as the item will be brought back for final review and action at the September TAC Meeting prior to going to the JPA/Commission at their October meeting.

JPA Executive Director Keze reminded everyone that TAC agenda items are due the Wednesday prior to the Agenda being sent out. This means all staff reports and attachments should be in by September 11<sup>th</sup> for the September TAC meeting.

MetroTAC Chair Nichols mentioned that items 2 through 6 may be added to the October JPA/Com agenda, but with two months' worth of Metro TAC items, some may need to be deferred to the November agenda.

**13. Other Business of Metro TAC**

Peejay Tubongbanua inquired as to when TAC would be receiving a SARA update and was informed that it was currently delayed pending amendments from San Diego.

**14. Adjournment (To the next Regular MetroTAC Meeting September 18, 2024)**

MetroTAC Chair Alisa Nichols adjourned the meeting at 1:08 p.m.

## Engineering & Capital Projects Department

# Design Build Construction Contract with J.R. Filanc Construction Company Inc., for the purpose of providing design and construction services of the Pump Station 1 Improvement and Modernization project

METRO JPA/METRO COMMISSION  
September 2024

August 14, 2024



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## Engineering & Capital Projects

### Spill Event

- On April 10-11, 2020, after rainfall totaling almost 6 inches over 7 days
  - 10-inch of rain is typical for San Diego in 1-year
- City's collection system failed, resulting in a sanitary sewer overflow (SSO) discharge of 11.23 million gallons directly into the Sweetwater River.
- Failure was attributed to:
  - High rainfall
  - System blockages
  - Debris build up in syphons
  - Pumps out of service
  - Lack of power to monitoring equipment

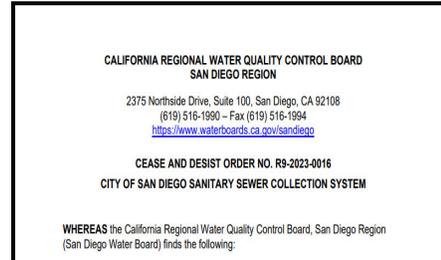
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## Cease-and-Desist Order

- This project is under a Cease-and-Desist Order (No. R9-**2023-0016**) by the CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN DIEGO REGION requiring completion by December 31, 2028.
  - 8 Corrective measures that are all completed by the PUD O&M staff
  - 24 items to be completed by this CIP contract by December 31, 2028
  - Recertify Sewer System Management Plan in 2024, to memorialize procedures related to Sanitary Sewer Overflow
  - City to provide semi-annual report on progress of design-build contract



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## Contract Process

- In 2023 – City hired a consultant to develop bridging documents for a design-build contract
- Invitation to bid was issued on April 17<sup>th</sup>, 2024
- Purchasing & Contracting Department received one responsive bid (J.R. Filanc) on July 11th. Proposal amount was \$93,282,580.00
- City ECP/PUD and consultant reviewed the proposal
  - Address all requirements of the contract & CDO
  - Determined Filanc was qualified to execute high risk scope in tight schedule
    - Bypass concept will allow them to meet tight schedule
- Recent history of projects with one or no bids
- Notice of Intent to Award was sent on July 29, 2024

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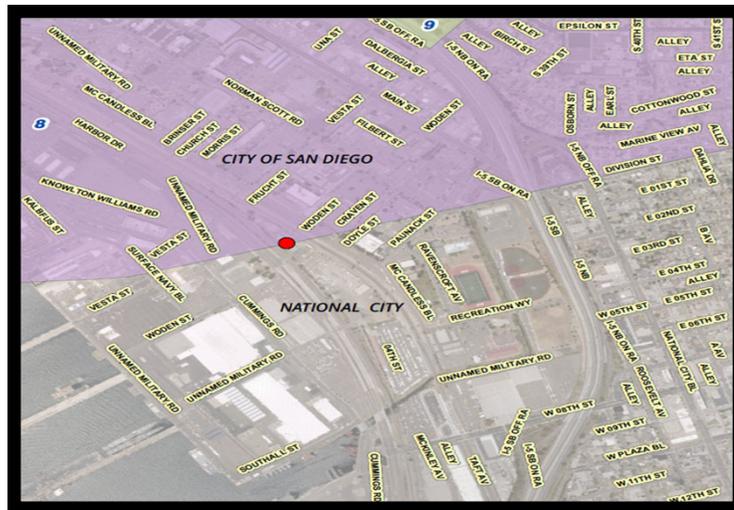
### Overview:

- City plans to award a Design Build Consultant Agreement for Five (5) Years with J.R. Filanc Inc. for PS1
- Contract amount is \$93,282,580.00 funded from the Metro Sewer CIP. Soft Cost is estimated at \$18,000,000 (includes CM Services). Total Project cost of \$111.3M.
- The Metro JPA amount is \$30,783,251.40, which is 33% of the of the contract amount over four years. Plus \$5.94 million over four years for soft costs. Total \$36,723,251.
- This project is categorically exempt from the California Environmental Quality Act (CEQA)
- This project is under a Cease-and-Desist Order (No. R9-2023-0016) by the San Diego Water Resources Board requiring completion by December 31, 2028.

### Location Map

PS1 is located at 3550 East Harbor Drive, between 8<sup>th</sup> Street (in National City, California) and 322<sup>nd</sup> Street Naval Station.

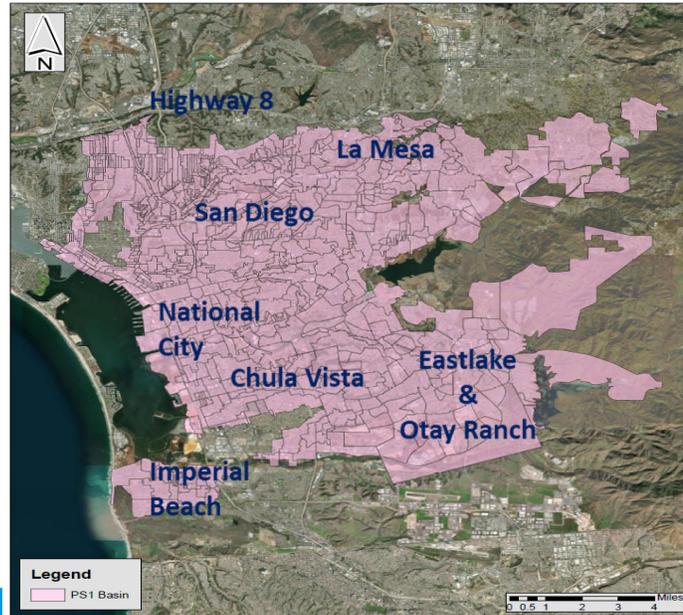
Council District 8



**SD Engineering & Capital Projects**

**Service Area**

- Council Districts 3, 4, 8, and 9
- San Diego, La Mesa, National City, Chula Vista, Imperial Beach, Eastlake, and Otay Ranch
- Average flow rate = 75 MGD



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**SD Engineering & Capital Projects**

**Background**

- PS1 is the City's second largest wastewater pump station. Placed in operation in 1963. (61 years)
- PS1 is fitted with six vertical shaft-driven centrifugal pumps. Each pump is rated for max flow of 33,000 gallons per minute and 600 horsepower electrical motor.
- PS1 is also used as a disposal facility for private liquid waste haulers and the City's Wastewater Collection Division sewer vector trucks.
- PS1 pumps to PS 2 which then pumps to Point Loma WWTP



Diesel Generator Engines



Pump Motor – 6 Motors, Pump Control Room to Right, Removable Panels on Left to Extract Pumps and Valves



Pump Gallery

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# Contract Breakdown

| Item No. | Description                               | Cost                | Category                | Category Cost       |
|----------|---|---------------------|-------------------------|---------------------|
| 1        | Bonds (Payment and Performance)           | \$850,000           | Contract Requirements   | \$960,000           |
| 2        | Building Permits                          | \$25,000            |                         |                     |
| 3        | WPCP Development and Implementation       | \$85,000            |                         |                     |
| 4        | Engineering and Design Services           | \$4,313,000         | Design and Construction | \$83,822,080        |
| 5        | Construction                              | \$79,359,080        |                         |                     |
| 6        | Survey Services (Design and Construction) | \$150,000           |                         |                     |
| 7        | City Contingency                          | \$8,500,500         | Contingency             | \$8,500,500         |
|          |   | <b>\$93,282,580</b> | Total                   | <b>\$93,282,580</b> |

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# Construction Breakdown

| Cease and Desist Order                | Cost            | Driver | Secondary   |
|---------------------------------------|-----------------|--------|-------------|
| Bar Screen/Mechanical Screen/Conveyor | \$7,832,938.00  | CDO    | Reliability |
| Cone Valves                           | \$7,549,764.00  | CDO    | Operability |
| VFD/Pumps/Motors                      | \$18,890,027.00 | CDO    | Efficiency  |
| Gate Valves                           | \$2,631,649.00  | CDO    | Operability |
| Meters                                | \$837,138.00    | CDO    | Operability |
| Concrete/Building Repairs             | \$2,574,287.00  | CDO    | Reliability |
| <b>\$40,315,803.00</b>                |                 |        |             |

| Cease and Desist Order Related                  | Cost            | Driver      | Secondary   |
|---|-----------------|-------------|-------------|
| Electrical/Instrumentation                      | \$13,261,048.00 | CDO         | Reliability |
| Design/Survey                                   | \$4,463,000.00  | CDO         | QA/QC       |
| Bypass  | \$8,056,531.00  | Operability | Schedule    |
| Special Inspections - Structural and Electrical | \$460,373.00    | CDO         | QA/QC       |
| <b>\$26,240,952.00</b>                          |                 |             |             |

| Pump Station Reliability                   | Cost           | Driver       | Secondary   |
|--|----------------|--------------|-------------|
| Concrete/Building Repairs                  | \$593,153.65   | Reliability  | Safety      |
| Valves (discharge/slucie)                  | \$7,371,290.00 | Reliability  | Operability |
| Pipe Replacement/Repair                    | \$3,309,105.00 | Reliability  | Operability |
| Misc (Interior Improv)                     | \$2,671,846.00 | Reliability  | Safety      |
| Misc (Mobil/contract admin/smaller equip.) | \$3,319,930.35 | Contract Req | Operability |
| <b>\$17,265,325.00</b>                     |                |              |             |

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**SD Engineering & Capital Projects**

# Schedule

- Design-Build Start: January 2025
- Substantial Completion: September 2028
- Cease-and-Desist Order Date: December 2028

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**SD Engineering & Capital Projects**

## Projected Expenditures:

- Projected Metro JPA expenditures of \$36,723,251, which is 33% of the total expenditure over four years
- Projected Metro JPA costs FY 2025-2028= \$30,783,251.40 (construction) + \$5,940,000 (soft costs) = \$36,723,251

|              | Construction Cost   | Soft Cost           | Total                | Budget Status     |
|--------------|---------------------|---------------------|----------------------|-------------------|
| FY 2025      | \$15,282,580        | \$3,000,000         | \$18,282,580         | Budgeted/Funded   |
| FY 2026      | \$33,000,000        | \$6,000,000         | \$39,000,000         | Budgeted/Unfunded |
| FY 2027      | \$17,000,000        | \$6,000,000         | \$23,000,000         | Budgeted/Unfunded |
| FY 2028      | \$28,000,000        | \$3,000,000         | \$31,000,000         | Budgeted/Unfunded |
| <b>Total</b> | <b>\$93,282,580</b> | <b>\$18,000,000</b> | <b>\$111,282,580</b> |                   |

|              | Construction Cost   | Soft Cost          | Total               | Budget Status     |
|--------------|---------------------|--------------------|---------------------|-------------------|
| FY 2025      | \$5,043,251         | \$990,000          | \$6,033,251         | Budgeted/Funded   |
| FY 2026      | \$10,890,000        | \$1,980,000        | \$12,870,000        | Budgeted/Unfunded |
| FY 2027      | \$5,610,000         | \$1,980,000        | \$7,590,000         | Budgeted/Unfunded |
| FY 2028      | \$9,240,000         | \$990,000          | \$10,230,000        | Budgeted/Unfunded |
| <b>Total</b> | <b>\$30,783,251</b> | <b>\$5,940,000</b> | <b>\$36,723,251</b> |                   |

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### Next Steps:

- Active Transportation Infrastructure (ATI) Committee: Sept 11, 2024
- Metro TAC: Sept 18, 2024
- Metro JPA: October 3, 2024
- City Council: October 15, 2024
- Construction NTP: Jan 2025
- Future Metro Item (CM Services Contract: TBD)

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Thank You:

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Attachment 1

San Diego

Metro TAC – JPA/  
Commission Staff Report

**METRO JPA/TAC**  
**Staff Report**  
**Date: 08/21/24**

**Project Title:**

Pump Station 1 Improvement and Modernization

**Presenter(s) Name:** Eric Rubalcava

**Presenter(s) Title:** Senior Civil Engineer (City of San Diego E&CP Department)

**Requested Action:**

J.R Filanc

City of San Diego plans to award a construction contract for \$93,282,580.00 from Metro Sewer CIP for the purpose of funding the construction Contract. Soft Cost for the project is estimated to be \$18,000,000.

The Metro JPA amount is \$30,783,251.40, which is 33% of the total expenditure of the contract over five years. Plus \$5,940,000 of soft cost.

\$15,282,580.00 is for the first phase (Fiscal Year 2025) and \$78,000,000.00 is for all subsequent phases. The Department expects that a majority of expenses will be bond funded with future bond proceeds.

**Recommendations:**

Approve the Metro expenditure request and forward to the Metro Commission.

|   |                                   |
|---|-----------------------------------|
| Metro TAC:  | To be submitted for consideration |
| IROC:   | N/A                               |
| Prior Actions:<br>(Committee/Commission,<br>Date, Result) | N/A                               |

**Fiscal Impact:**

|                                      |   |
|--------------------------------------|---|
| Is this projected budgeted?          | Yes <u>X</u> No <u>    </u>   |
| Cost breakdown between Metro & Muni: | Funding will be distributed as follows:<br>FY 2025 = \$18,282,580 (100% Metro Sewer CIP, 0% Muni)<br>Metro JPA 33% = \$6,033,251<br>FY 2026 = \$39,000,000 (100% Metro Sewer CIP, 0% Muni)<br>Metro JPA 33% = \$12,870,000<br>FY 2027 = \$23,000,000 (100% Metro Sewer CIP, 0% Muni)<br>Metro JPA 33% = \$7,590,000<br>FY 2028 = \$31,000,000 (100% Metro Sewer CIP, 0% Muni)<br>Metro JPA 33% = \$10,230,000 |

|  |                              |
|--|------------------------------|
|  | J.R Filanc = \$93,282,500.00 |
|--|------------------------------|

|  |  |
|--|--|
| Fiscal impact to the Metro JPA:  | J.R. Filanc:33% of Metro costs is \$36,723,251   |
| <b>Capital Improvement Program:</b>  |  |
| New Project?   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>   |
| Existing Project?  | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Upgrade/addition <input type="checkbox"/> Change <input type="checkbox"/> N/A <input type="checkbox"/> |
| <b>Previous TAC/JPA Action:</b><br>N/A   |  |
| <b>Additional/Future Action:</b><br>Anticipated for City Council Active Transportation and Infrastructure Committee Meeting in September 11, 2024.   |  |
| <b>City Council Action:</b><br>Anticipated for October 2024.   |  |
| <p><b>Background:</b> <i>Provide background information on the need for the project</i></p> <p>Pump Station 1 (PS1) is one of the largest and most critical pump stations within the City of San Diego’s wastewater collection system. PS1 has been in service since 1963 and collects sewage generated by the City of San Diego populations along with other participating agencies within the County of San Diego. Wastewater from the South Bay region is delivered to PS1 via the South Metro Interceptor, located at 3550 East Harbor Drive and discharges an average of 75 million gallons per day (150 MGD design capacity). This essential facility pumps wastewater north to the City’s Pump Station 2 and must continue to operate 24 hours per day and 7 days per week without disruption during construction. The project must also provide for mitigation of risks of hazards, e.g., spills. This project is located within the Military Facility Planning Area, National City, and San Diego City Council District 8.</p> <p>The scope of this contract is the design and construction services for the upgrade, rehabilitation and modernization of PS1, consistent with the Cease-and-Desist Order (CDO), (No. R9-2023-0016) by the California Regional Water Quality Control Board, San Diego Region, requiring completion by December 31, 2028. The scope of the PS 1 project includes capital improvements necessary for the City to comply with the CDO as well as additional facility enhancements and modernization for increased reliability of the facility. The City is moving forward with full replacement of several components (bar screen, pipe supports and straps, pump supports, pumps, shafts, and motors) to ensure long-term functionality of this critical Metro System facility. Facility enhancements not included in the CDO include electrical and instrumentation upgrades, additional monitoring systems, replacements of facility piping and valving, safety enhancements, replacement of sluice gates and motors, concrete repairs, operational improvements, and other work within the pump station. These additional enhancements improve the resiliency and reliability of the facility.</p> |  |

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

These are operational and regulated items within the wastewater treatment process. The scope of this contract is for design and construction services for the upgrade and rehabilitation of PS1, consistent with the Cease-and-Desist Order (No. R9-2023-0016) by the San Diego Water Resources, requiring completion by December 31, 2028.

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

The City began a competitive advertisement process for this project in April, 2024, and a bid from J.R. Filanc Construction Co. Inc. was received on July 10, 2024. After reviewing construction surety bonding, insurance documents, and Equal Opportunity Contracting Program compliance, the City has confirmed that the lowest responsible and reliable bidder, is J.R. Filanc Construction Co., Inc. The proposed contract has a maximum bid guarantee duration of 120 days. The action is requesting Council to award this Design-Build contract to J.R. Filanc Construction Co., Inc. for an amount not to exceed \$93,282,580.00. Change orders valued at \$2,000,000.00 or more will be presented to Council for approval, per SDMC 22.3018.

The total contract amount is \$93,282,580.00. Per San Diego Municipal Code, Chapter II, Article 2, Division 31, Sec. 22.312, awarded CIP design build contracts to provide construction services in excess of \$30,000,000 must be authorized by City Council.

# PUMP STATION I

**DEXTER WILSON ENGINEERING, INC.**  
WATER • WASTEWATER • RECYCLED WATER  
CONSULTING ENGINEERS  
2234 PARADAY AVENUE • CARLSBAD, CA 92008  
TELEPHONE: (760) 439-8422

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## BACKGROUND

**What the City is asking us to approve**

- Approve Design/Build contract with Filanc for \$93,282,580 (Metro Share \$30,783,251.40)

**Review of Background Material Design/Build RFP**

- I was not on the selection panel, so I cannot have material to review

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## THOUGHTS

1. Due to the CDO we should approve
2. We should ask City to value engineer during design
  - a. Bypass
  - b. Electrical redundancy
  - c. Motor HP increase.
3. I think we need to install a parallel force main in next 10 years so that we can line existing force main that is 60 years old
4. Must work to move PS2 improvements along more efficiently than PS1

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Metro Wastewater Joint Powers Authority  
Treasurer's Report  
ending June 30, 2024

**\*\*UNAUDITED\*\***

# Metro Wastewater JPA

## Treasurer's Report

ending June 30, 2024

Unaudited

|   |                          |
|---|--------------------------|
| <b>Beginning Cash Balance at July 1, 2023</b> | \$ 302,774               |
| <b>Operating Results</b>                      |                          |
| Membership Dues & Interest Income             | 758,783                  |
| Expenses                                      | <u>(708,152)</u>         |
| Change in Net Position                        | 50,631                   |
| Net change in Receivables & Payables          | <u>(35,392)</u>          |
| <b>Cash used in Operations</b>                | <u>15,239</u>            |
| <b>Ending Cash Balance at June 30, 2024</b>   | <u><u>\$ 318,013</u></u> |

**Metro Wastewater JPA**  
**Statement of Net Position**

As of July 1, 2023 and June 30, 2024  
Unaudited

|   | <u>July 1, 2023</u>      | <u>June 30, 2024</u>     | <u>\$ Change</u>        |
|---|--------------------------|--------------------------|-------------------------|
| <b><u>ASSETS</u></b>                        |                          |                          |                         |
| Checking/Savings                            | \$ 302,774               | \$ 318,013               | \$ 15,239               |
| Accounts Receivable                         | 15,427                   | 22,824                   | 7,397                   |
| <b>Total Assets</b>                         | <b><u>\$ 318,201</u></b> | <b><u>\$ 340,837</u></b> | <b><u>\$ 22,636</u></b> |
| <b><u>LIABILITIES</u></b>                   |                          |                          |                         |
| Accounts Payable                            | \$ 70,606                | \$ 42,611                | \$ (27,995)             |
| Unearned Membership Billings                | -                        | -                        | -                       |
| <b>Total Liabilities</b>                    | <b>\$ 70,606</b>         | <b>\$ 42,611</b>         | <b>\$ (27,995)</b>      |
| <b><u>NET POSITION</u></b>                  |                          |                          |                         |
| Net Position at Beginning of Period         | \$ 245,575               | \$ 247,595               | \$ 2,020                |
| Change in Net Position                      | 2,020                    | 50,631                   | 48,611                  |
| Net Position at End of Period               | \$ 247,595               | \$ 298,226               | \$ 50,631               |
| <b>TOTAL LIABILITIES &amp; NET POSITION</b> | <b><u>\$ 318,201</u></b> | <b><u>\$ 340,837</u></b> | <b><u>\$ 22,636</u></b> |

|   |                |
|---|----------------|
| <i>Net Position at 06/30/2024</i>   | \$ 298,226     |
| <i>FY '24 Required Reserve (4 months of Op<br/>Exp) Over (under) required reserve</i> | <u>257,252</u> |
|   | \$ 40,974      |

**Metro Wastewater JPA**  
**Statement of Operations**  
**Budget vs. Actual**  
ending June 30, 2024  
Unaudited

|   | <u>Actual</u>     | <u>Budget</u>     | <u>Over (Under)<br/>Budget</u> |
|---|-------------------|-------------------|--------------------------------|
| <b>Income</b>                           |                   |                   |                                |
| Membership Dues                         | \$ 727,544        | 727,545           | \$ (1)                         |
| City of San Diego                       | 30,406            | 44,210            | (13,804)                       |
| Interest Income                         | 833               | -                 | 833                            |
| <b>Total Income</b>                     | <b>\$ 758,783</b> | <b>\$ 771,755</b> | <b>\$ (12,972)</b>             |
| <b>Expense</b>                          |                   |                   |                                |
| Administrative Assistant-LP             | \$ 42,892         | 37,100            | \$ 5,792                       |
| Bank Charges                            | 112               | 200               | (88)                           |
| Contingency                             | -                 | -                 | -                              |
| Dues & Subscriptions                    | -                 | -                 | -                              |
| Financial Services                      |                   | -                 |                                |
| Audit Fees                              | 38,440            | 12,000            | 26,440                         |
| Financial Consulting Support (Auditor)  | -                 | -                 | -                              |
| Financial - The Keze Group              | 155,654           | 150,000           | 5,654                          |
| Treasurer - Padre Dam/El Cajon          | 13,333            | 30,000            | (16,667)                       |
| JPA/TAC meeting expenses                | 2,727             | 6,000             | (3,273)                        |
| Miscellaneous                           | 124               | 250               | (126)                          |
| Per Diem - Board                        | 24,583            | 25,000            | (417)                          |
| Printing, Postage, Supplies             | 429               | 860               | (431)                          |
| Professional Services                   |                   | -                 |                                |
| Engineering - Dexter Wilson             | 178,573           | 200,000           | (21,428)                       |
| Engineering - NV5                       | 17,258            | 40,000            | (22,743)                       |
| Legal - Procopio (Pure Water/2nd ARA)   | 121,113           | 150,000           | (28,887)                       |
| Legal - Procopio (General)              | 85,036            | 60,000            | 25,036                         |
| Legal - Procopio (SD Spill 2020 & 2023) | 16,123            | 30,000            | (13,878)                       |
| Paul Redvers Brown, Inc.                | 5,728             | 24,900            | (19,173)                       |
| Strategic Planning                      | -                 | -                 | -                              |
| Telephone, Software & Internet          | 2,726             | 2,140             | 586                            |
| Website Architecture Update             | -                 | -                 | -                              |
| Website Maintenance & Hosting           | 3,303             | 3,305             | (2)                            |
| <b>Total Expense</b>                    | <b>\$ 708,152</b> | <b>\$ 771,755</b> | <b>\$ (63,603)</b>             |
| <b>Net Income (Loss)</b>                | <b>\$ 50,631</b>  | <b>\$ -</b>       | <b>\$ 50,631</b>               |

**Metro Wastewater JPA**  
**Statement of Cash Flows**

ending June 30, 2024  
Unaudited

**OPERATING ACTIVITIES**

|  |                               |
|--|-------------------------------|
| <b>Change in Net Position</b>  | \$ 50,631                     |
| <b>Adjustments to Reconcile Change in Net Position to Net Cash Provided by Operations:</b> |                               |
| Accounts Receivable  | (7,397)                       |
| Accounts Payable   | (27,995)                      |
| Deferred Revenue   | -                             |
|  | <hr/>                         |
| <b>Year ended June 30, 2024</b>  | 15,239                        |
| <b>Net cash increase (decrease) for period</b>   | <hr/> 302,774 <hr/>           |
| <b>Cash at end of period</b>   | <hr/> <b>\$ 318,013</b> <hr/> |



August xx, 2024

City of San Diego Public Utilities Department  
9192 Topaz Way  
San Diego, CA 92123

Attention: Juan Guerreiro, Director of Public Utilities

As the City of San Diego (City) begins Stantec's review and verification of the implementation plan for the Pure Water Phase 2 Program, we would like to present to the City several alternatives and ideas we would like to be included in the review. We recognize that the City will implement the program that it deems best, but we would like to ensure a comprehensive range of alternatives are considered. Additionally, we acknowledge that there are agreements and NPDES conditions that require the Metro region to produce 83 MGD of potable reuse.

We agree with the City that Stantec should review and verify the current and future sewer flow and water demand for implementation of the Phase 2 Pure Water program. Some major changes related to water supply and cost have happened over the last 10 years and these may impact the best approach to implement Phase 2 Pure Water. These changes include:

- A current abundance of water supply in Southern California
- An extremely successful water conservation program that has greatly reduced water sales in San Diego County despite continued population growth
- Reduced sewage flows due to conservation and the likelihood of even greater reductions in sewage flows
- A fixed water revenue requirement due to the cost of ensuring water supply and maintaining infrastructure, which, due to reduced water sales, is putting an upward pressure on water retail rates.
- Needed expenditures to maintain existing water and sewer infrastructure
- The possibility of reduced sewage flows below needs to feed some Pure Water Phase 2 alternatives

With these concerns in mind, we feel alternatives for Phase 2 Pure Water that reduce capital and operations costs to the maximum extent possible should be considered. These alternatives should include maximizing water production beyond 32 MGD at the North City Pure Water Facility (NCPWF), utilizing East County Advanced Water Purification Facility (ECWPF) production of potable water to meet the 83 MGD regional goal, reducing

## The Joint Powers Authority Proactively Addressing Regional Wastewater Issues

the proposed sizing of the Central Area Pure Water Facility (CAPWF) to 37 MGD or below, eliminating the pipeline to San Vicente, and retaining the flexibility to expand the Pure Water production in the future beyond 83 MGD, if warranted.

The following provides a more detailed description of alternatives we would like Stantec to review:

1. Optimize NCPWF and reduce CAPWF.
  - 1a. Optimize and expand production of Pure Water at NCPWF. Production goal 35 mgd. To do this the following could be done:
    - i. Dedicate more sewage from purple pipe recycling to Pure Water. (This would allow NCPWF to run at 32 MGD of its design capacity year around)
    - ii. Increase production stream from RO to capture more water. (Goal 92.5% product stream)
    - iii. Re-permit as Direct Potable Reuse to deliver greater flows to Miramar Reservoir
  - 1b. Decrease CAPWF production goal to 36.5 mgd and deliver to Murray Reservoir (83 MGD – 35 MGD NCPWF – 11.5 ECWPF = 36.5 mgd)
  - 1c. Do not build pipe to San Vicente Reservoir
2. Develop costs for full secondary treatment at Point Loma Wastewater Treatment Plant (PLWWTP).
  - 2a. Evaluate the cost for secondary treatment at PLWWTP based on post-Pure Water Phase 1 flows.
  - 2b. Evaluate the cost for secondary treatment at PLWWTP of post-Pure Water Phase 2 flows.
  - 2c. Evaluate the cost of secondary treatment at PLWWTP assuming 50 MGD of I&I reduction for 2a and 2b.
  - 2d. Evaluate the cost of secondary treatment at PLWWTP assuming 100 MGD of I&I reduction for 2a and 2b.

We thank you for your consideration of these alternatives.

Sincerely,

Jerry Jones, Chair

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The Joint Powers Authority Proactively Addressing Regional Wastewater Issues

DRAFT



August xx, 2024

City of San Diego Public Utilities Department  
9192 Topaz Way  
San Diego, CA 92123

Attention: Juan Guerreiro, Director of Public Utilities

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- ~~A current abundance~~ of water supply in Southern California
- ~~An extremely successful~~ water conservation ~~program that has greatly~~ reduced water sales in San Diego County despite continued population growth



- Reduced sewage flows ~~due to conservation~~ and the likelihood of even greater reductions in sewage flows
- ~~A fixed water revenue requirement due to the cost of~~ ensuring water supply and maintaining infrastructure, which, due to reduced water sales, is putting an upward pressure on water retail rates.
- ~~Needed~~ expenditures to maintain existing water and sewer infrastructure
- The possibility of reduced sewage flows below needs to feed some Pure Water Phase 2 alternatives



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## The Joint Powers Authority Proactively Addressing Regional Wastewater Issues

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- 2b. ~~Evaluate the cost for~~ secondary treatment at PLWWTP of post-Pure Water Phase 2 flows.
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- 2d. ~~Evaluate the cost of~~ secondary treatment at PLWWTP assuming 100 MGD of I&I reduction for 2a and 2b.

We thank you for your consideration of these alternatives.

Sincerely,

Jerry Jones, Chair

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The Joint Powers Authority Proactively Addressing Regional Wastewater Issues

# Pure Water Program Update

Public Utilities and Engineering & Capital Projects Departments

Metro JPA/Commission  
October 3, 2024

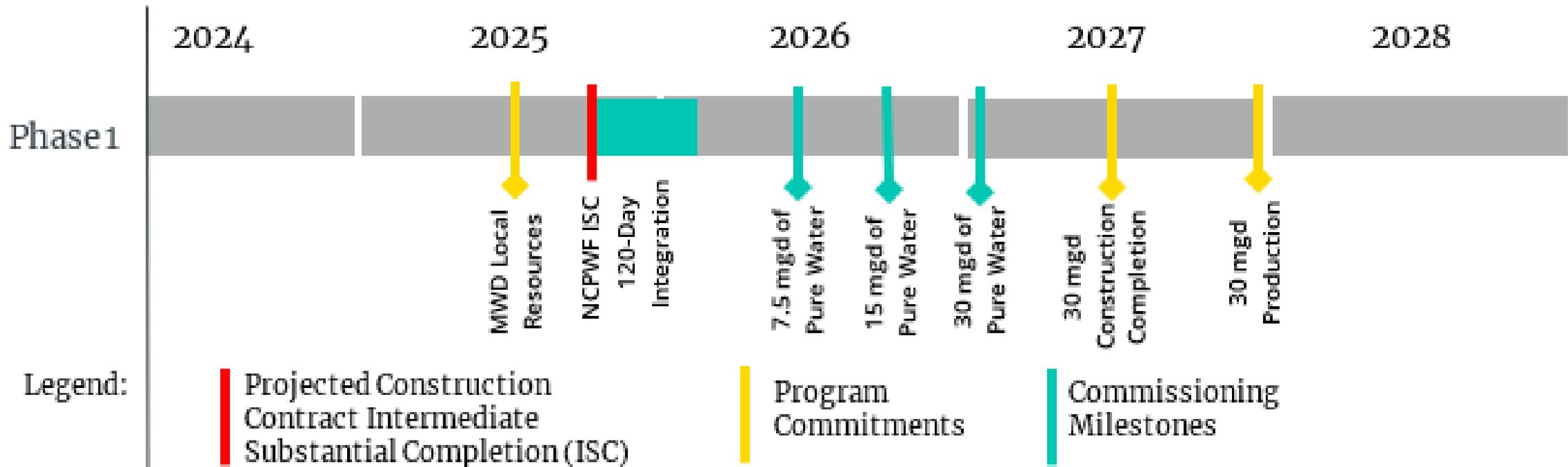




# Agenda

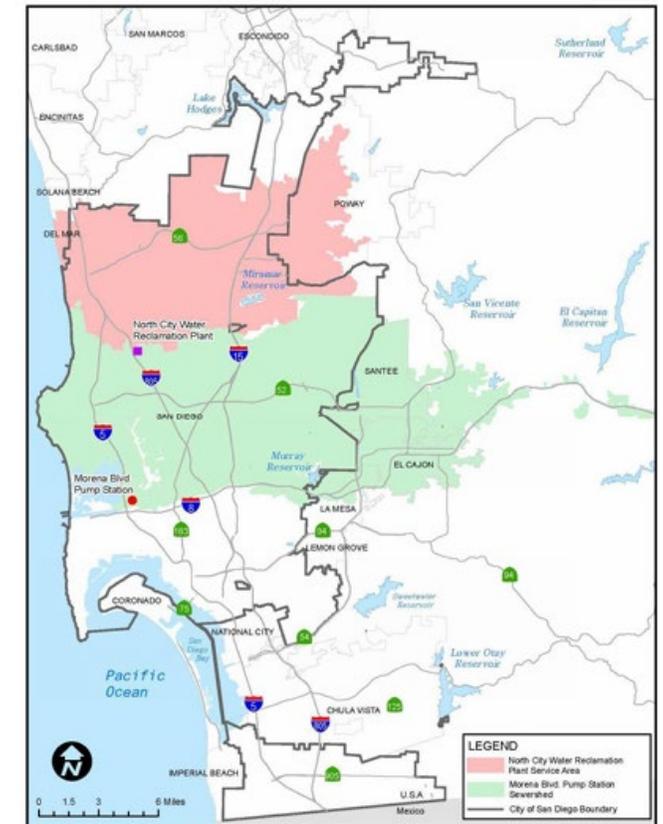
- Pure Water Update
  - Phase 1 Programmatic Updates
  - Phase 1 Construction Updates
  - Phase 2 Planning
- NCWRP Expansion CCO 12
- CH2MHill Contract Amendment
- Increase Pooled Contingency

# Schedule Milestones



# Regulatory Requirement: Local Limits

- City is required to monitor and enforce limits for certain substances in the wastewater collection system
- Existing local limits were studied for flows from Morena Pump Station to NCWRP
  - Evaluated over 250 compounds
  - High level of treatment at North City facilities removes compounds to levels well below drinking water criteria
  - Study indicates number of new local limits will be less than 10



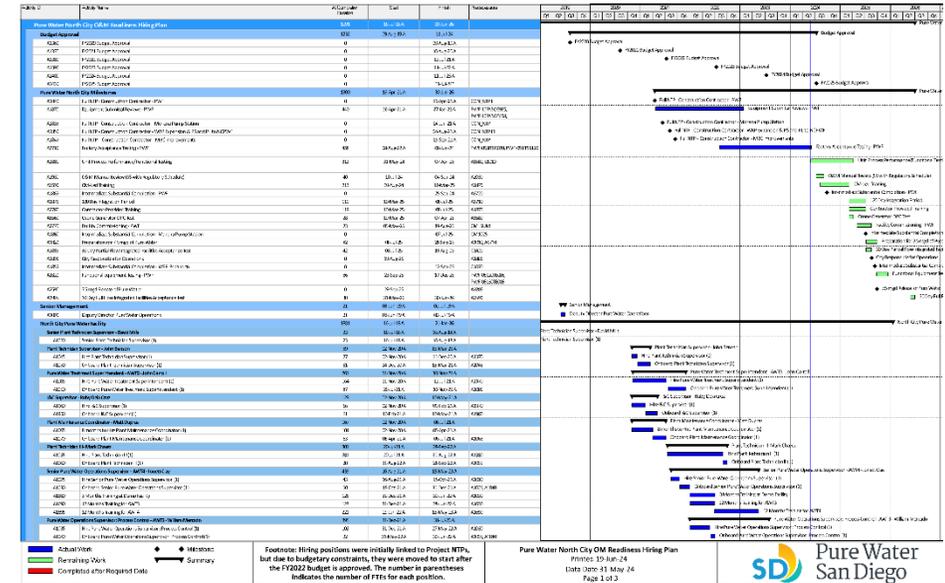
# O&M Readiness

- Hiring Progress**

- Operations Positions: 10 filled out of 20
- Maintenance Positions: 9 filled out of 17
- Engineering & Admin Positions: 5 filled out of 7

- AWT Certification**

- On track to receive required AWT certifications before NCPWF operation
  - AWT5: 1 required, 1 obtained
  - AWT4: 1 required, 1 obtained
  - AWT3: 10 required, 6 obtained
- Next AWT Academy will be offered in early 2025



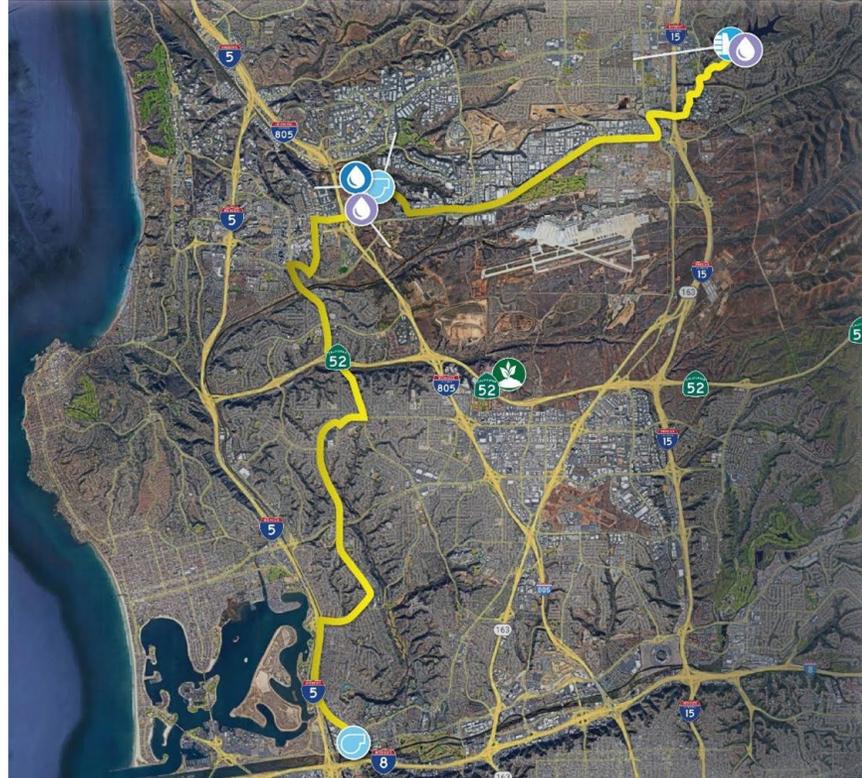
# O&M Readiness: Contracts Planning

- Working to obtain contracts for:
  - Chemicals
  - Services
  - Other specialized parts and labor
- Integrating PUD-wide contracting needs for large-scale pricing opportunities



# Phase 1 Construction

- Phase 1 construction is ~60% complete
- On schedule to meet major program milestones



| Construction Contract                             | Bid Award         | Contractor                    |
|---|-------------------|-------------------------------|
| Morena Pump Station                               | \$110.4M          | Flatiron                      |
| Morena Southern/Middle Alignment                  | \$129.7M          | Sukut                         |
| Morena Northern Alignment                         | \$95.2M           | OHL                           |
| Penasquitos Pump Station Oxygenation System       | \$4.4M            | Blue Pacific                  |
| Water Reclamation Plant Expansion                 | \$255.1M          | Kiewit                        |
| Water Reclamation Plant Equalization Basin        | \$11.9M           | Kiewit                        |
| Metro Biosolids Center Improvements               | \$40.1M           | PCL                           |
| NCWRP/NCPWF Early Sitework                        | \$16.4M           | AECOM/Shimmick                |
| Pure Water Facility and Pump Station              | \$356.7M          | Shimmick                      |
| Pure Water Pipeline                               | \$102.7M          | W.A. Rasic                    |
| Miramar Reservoir Water Quality Monitoring System | \$1M              | Soundnine, Inc.               |
| Miramar Reservoir PS                              | \$12.7M           | Shimmick                      |
| <b>Total</b>                                      | <b>\$1,136.3M</b> | <b>Authorized: \$1,212.2M</b> |



# Phase 1 Construction: Accomplishments

## ■ North City Pure Water Facility

- Continued installation of NCPWF major process equipment
- Completed O&M building exterior

## ■ Subaqueous Pipeline

- Completed and reopened Miramar Reservoir to recreational activities

## ■ North City Water Reclamation Plant

- Completed testing of two of the four new secondary clarifiers

## ■ Pipelines

- Recommended tunneling under I-805
- Completed 8 of the 14 tunnels
- Installed 15 out of 30 miles of pipeline

# Phase 1 Construction: Risk Mitigation

- Multiple risks have been tracked since the beginning of the program
- They continue to be monitored and managed
- Three risks have largely been mitigated, including:
  - Supply chain challenges
  - Tunneling
  - Differing site conditions





## Outreach Update

- Fielded and resolved ~35 construction-related inquiries
- Distributed 23 e-blast construction notifications to ~3,509 opt-in email recipients
- Participated in seven presentations, informing ~300 people about Pure Water
- Provided 10 tours and presentations

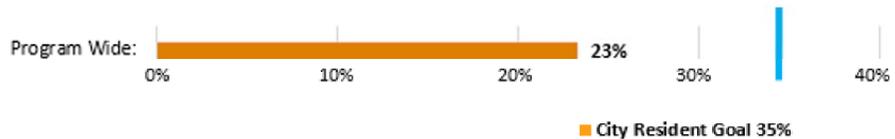
# Project Labor Agreement

(thru 06/30/2024)

## Targeted Workers: 10% Goal



## Resident Workers: 35% Goal



Targeted Workers

employed on Pure Water Phase 1 PLA covered projects

532



City Residents

employed on Pure Water Phase 1 PLA covered projects

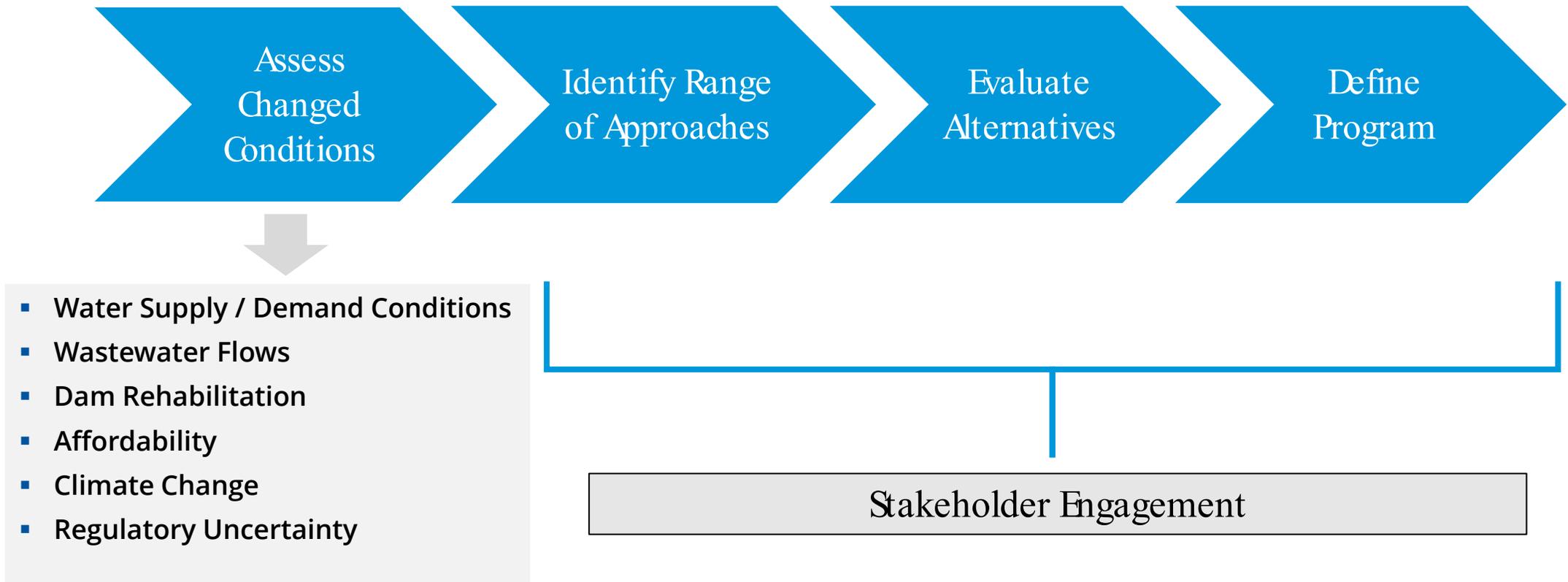
1,054

# Women in Pure Water

- Women are generally underrepresented in the water sector
  - Overall, employment of women at water utilities currently stands at 18%
- Of the full-time City staff working on Phase 1, ~50% are women
  - Over half of these women hold senior-level or supervisory-level technical and engineering positions



# Phase 2 Planning Process





Proposed Action: Kiewit  
Construction Change Order #12

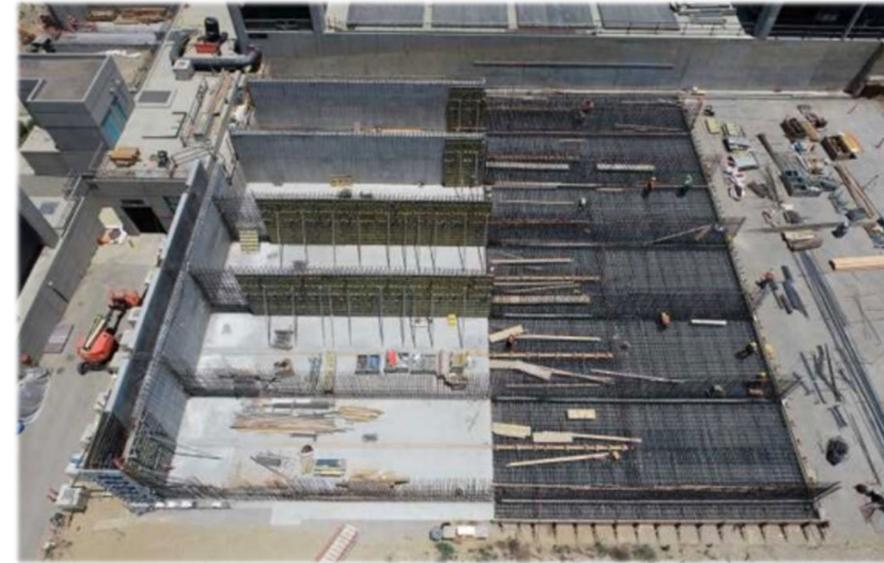
# Kiewit Construction Change Order No. 12

- **Construction Claim Due to Delays**
  - Varied Site Conditions, Design Modifications, Electrical Equipment Procurement Delay, Critical Path Schedule Delay
- **Settlement Agreement**
  - Time Extension: 147 days (Dec. 2027)
  - Compensation: \$16M
- **Original Contract: \$255.1M**
  - Change Orders through 8/29/24: \$7.4M (2.9%)
  - **Current Action** Change Order No. 12: \$16M (6.3%)
- **Total Contract Amount: \$278.5M**



# Kiewit Construction Change Order No. 12 Cost Breakdown

|  |              |
|--|--------------|
| <b>Total Amendment</b>                   | <b>\$16M</b> |
| Wastewater % of Total Amendment:         | 63%          |
| Wastewater Portion of Amendment:         | \$10.10M     |
| Metro JPA portion of the Amendment (33%) | \$3.33M      |



# Kiewit Construction Change Order No. 12

## Proposed Actions

1. The Chief Financial Officer is authorized to increase the Capital Improvements Program Budget in the amount of \$16,000,000 in CIP P-19002, Pure Water Pooled Contingency, of which \$10,097,600.00 is from Fund 700009 Metro Sewer CIP and \$5,902,400.00 from Fund 700010, Water Utility CIP.
2. An Ordinance authorizing the Mayor, or his designee, to execute a change order to the construction contract with Kiewit Infrastructure West Co., as necessary, in an amount not-to-exceed \$16,000,000, and approving the extension of the contract obligations under construction contract K-21-1861-DBB with Kiewit Infrastructure West Co., for an additional 17 months to allow the contractor to provide construction services in CIP B-21060 "PWP North City Water Rec Plant Expansion", B-21128 "PWP NC Wtr Rec Plant Expansion (W)", B-16140, NCPWF Influent Pump Station and Pipeline", S-17012, "NCWRP Improvements to 30 mgd" beyond five years; and
3. The Chief Financial Officer is authorized to expend an amount not to exceed \$16,000,000 of which \$8,561,600 is from CIP B-21060 "PWP North City Water Rec Plant Expansion" Fund 700009 Metro Sewer CIP, \$3,817,600 is from B-21128 "PWP NC Wtr Rec Plant Expansion (W)" Fund 700010 Water Utility CIP, \$1,913,6000 is from B-16140, NCPWF Influent Pump Station and Pipeline" Fund 700010 Water Utility CIP, and \$1,707,200 is from S-17012, "NCWRP Improvements to 30 mgd, of which \$1,536,000 is from Fund 700009 Metro Sewer CIP and \$171,200 from Fund 700010 Water Utility CIP, for the purpose of funding Construction Change Order No. 12 that will address the terms and conditions of the settlement agreement, contingent upon the Chief Financial Officer furnishing one or more certificates certifying that funds necessary for expenditure are, or will be, on deposit with the City Treasurer.



**Proposed Action: CH2MHill  
Contract Amendment**

# CH2MHill Contract Amendment

- **North City Water Reclamation Plant**
  - In Operation over 25 years
  - Facility Expansion to treat 52 mgd
  - Remain in operation (24/7) during construction
- **Amendment Scope**
  - Significant Coordination during equipment replacement
  - Design Modifications due to Unforeseen Conditions
  - Distributed Control System integration of new equipment
  - Onsite engineering staff support
  - Partial commissioning
  - Operation and maintenance staff training



# CH2MHill Contract Amendment

- Original Agreement: \$17,198,752
  - Amendment 1: \$2,500,000
  - Amendment 2: \$7,298,826
  - **Current Action** Amendment 3: \$14,000,000
- Total Agreement Amount: \$40,997,578
- Contract Extension: 19 months ( June 2028)



# CH2MHill Amendment Contract Breakdown

|  |              |
|--|--------------|
| <b>Total Amendment</b>                   | <b>\$14M</b> |
| Wastewater % of Total Amendment:         | 79%          |
| Wastewater Portion of Amendment:         | \$11.06M     |
| Metro JPA portion of the Amendment (33%) | \$3.65M      |



# CH2MHill Contract Amendment

## Proposed Actions

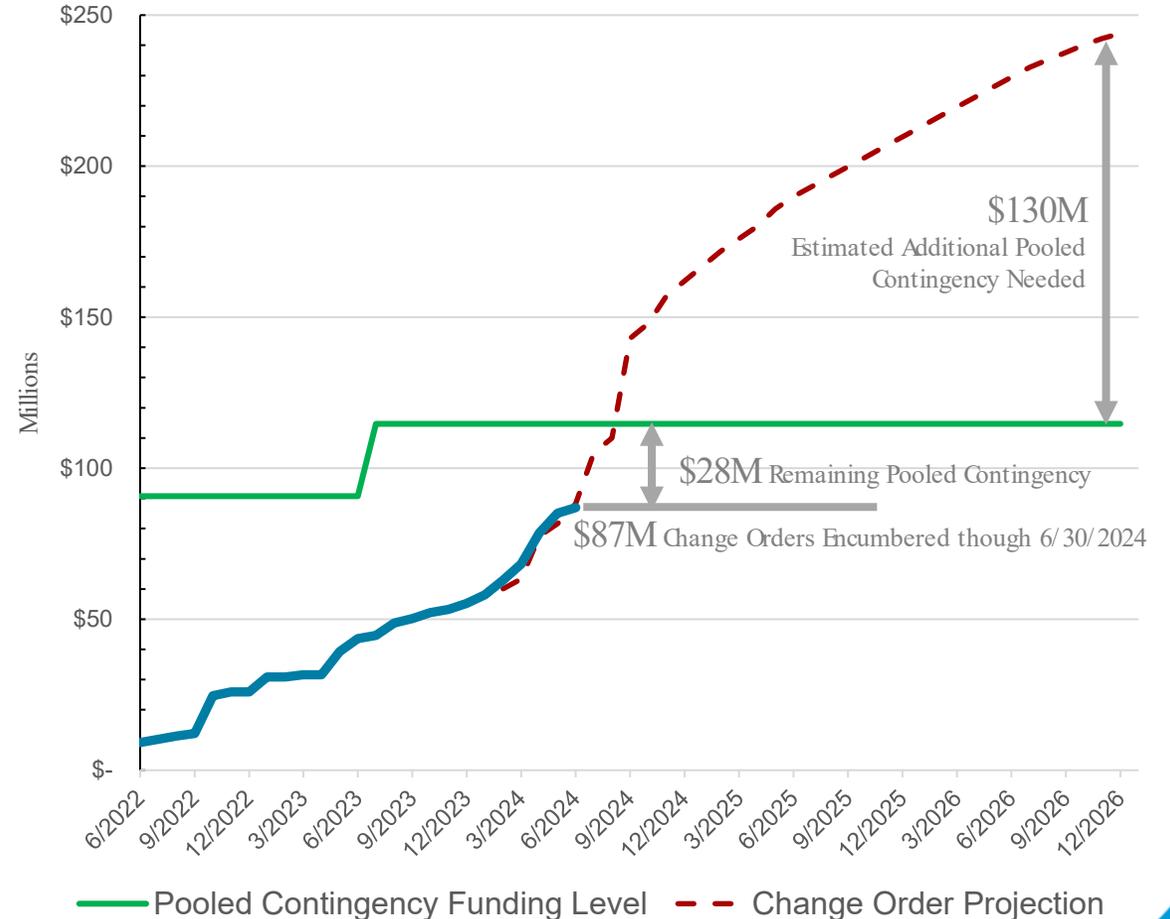
1. An Ordinance authorizing the Mayor, or his designee, to execute a Third Amendment to the phase funded agreement with CH2M Hill Engineers, Inc. (H166722) for design support services during construction in an amount not to exceed \$14,000,000, thus increasing the total amount of the agreement to \$40,997,578, and extending the contract term for an additional 19 months; and
2. The Chief Financial Officer is authorized to expend funds under the established contract funding phases in an amount not to exceed \$6,500,000 for Phase 11, and \$7,500,000 for all subsequent Phases 12 thru 13, estimated to be spent as \$12,880,000 from CIP A-LA.00001, Pure Water Program (\$1,260,000 from B-16140, NCPWF Influent Pump Station and Pipeline; \$700,000 from B-21059, PWP NCWRP Flow Equalization Basin; \$9,800,000 from B-21060, PWP North City Water Rec Plant Expansion; \$1,120,000 from B-21128, PWP NC Wtr Rec Plant Expansion (W)); \$10,500,000 from Fund 700009, Metro Sewer CIP, and \$2,380,000 from Fund 700010, Water Utility CIP; and \$1,120,000 from S-17012, NCWRP Improvements to 30 mgd, \$560,000 from Fund 700009, Metro Sewer CIP, and \$560,000 from Fund 700010, Water Utility CIP, contingent upon 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 under the established contract funding phases are, or will be, on deposit with the City Treasurer.



# Proposed Action: Pooled Contingency

# Pooled Contingency Budget Increase

- Utilized for change orders on all projects
- Current budget - \$115 million
  - \$87 million used
  - \$28 million remaining
- Proposed budget - \$245 million
  - Increase by \$130 million
  - Equivalent to increasing from 10% to 20% of total construction



# Pooled Contingency Budget Increase

- **Contributing Factors**
  - Change orders apply current market pricing
  - Large change orders
  - Phase 1 complexity

| Example Mitigating Factors           |                        |                          |                      |
|--------------------------------------|------------------------|--------------------------|----------------------|
| Type                                 | Initial Estimate       | Actual/ Current Estimate | Savings              |
| Total Construction                   | \$1,200,000,000        | \$1,160,000,000          | \$40,000,000         |
| San Diego Gas & Electric Relocations | \$120,000,000          | \$44,000,000             | \$76,000,000         |
| <b>Total</b>                         | <b>\$1,320,000,000</b> | <b>1,204,000,000</b>     | <b>\$116,000,000</b> |

# Pooled Contingency Cost Breakdown

|  |                  |
|--|------------------|
| <b>Total Amendment</b>                   | <b>\$102.64M</b> |
| Wastewater % of Total Amendment:         | 38%              |
| Wastewater Portion of Amendment:         | \$39.00M         |
| Metro JPA portion of the Amendment (33%) | \$13.07M         |



# Pooled Contingency

## Proposed Actions

1. Authorization to increase the FY25 Capital Improvements Program Budget by \$102,640,000.00 in CIP P-19002, Pure Water Pooled Contingency, and to appropriate and expend an additional \$63,636,800.00 from Fund 700010, Water Utility CIP, and \$39,003,200.00 from Fund 700009, Metro Sewer CIP, for the purpose of funding construction change orders for the following projects:
  - All sublets in CIP A-LA.00001, Pure Water Program;
  - B-19099, Miramar Reservoir PS New Generator & Upgrades;
  - B-23014, Miramar WTP Caustic Pumping System;
  - B-23049, Miramar WTP Interim Solids Management;
  - B-23136, Miramar Reservoir Recreation Facilities;
  - B-21001, Penasquitos Pump Station Oxygenation System;
  - S-17012, NCWRP Improvements to 30 MGD; and
  - S-17013, MBC Equipment Upgrades.

# Questions



**METRO JPA/TAC**  
**Staff Report**  
**Date: 9/18/2024**

**Project Title:**  
 Pure Water Program Update

**Presenter(s) Name:**  
 Amy Dorman

**Presenter(s) Title:**  
 Assistant Director

**Requested Action:**  
 This item is informational only

**Recommendations:**  
 N/A

|   |     |
|---|-----|
| Metro TAC:  | N/A |
| IROC:   | N/A |
| Prior Actions:<br>(Committee/Commission,<br>Date, Result) | N/A |

**Fiscal Impact:**

|   |                |
|---|----------------|
| Is this projected budgeted?             | Yes ___ No ___ |
| Cost breakdown between<br>Metro & Muni: | None           |
| Fiscal impact to the Metro<br>JPA:      |                |

**Capital Improvement Program:**

|                   |   |
|-------------------|---|
| New Project?      | Yes ___ No ___ N/A <u>X</u>                         |
| Existing Project? | Yes <u>X</u> No ___ Upgrade/addition ___ Change ___ |

**Previous TAC/JPA Action:**  
 None

**Additional/Future Action:**  
 Present item to Metro JPA/ Metro Commission in October 2024

**City Council Action:**  
 Environment Committee: 9/12/2024

**Background:** *Provide background information on the need for the project*  
 Pure Water will: (1) provide a safe, secure, and sustainable local drinking water supply for San Diego, thereby reducing the City's dependence on imported water supplies; and (2) reduce treated discharges from the Point Loma Wastewater Treatment Plant (PLWTP).

Pure Water includes two phases: Phase 1 (North City), which is past the midpoint of construction and will deliver 30 million gallons per day (mgd) of purified water into the City's potable (drinking) water system; and Phase 2 (Central Area), which is in the planning stage. Based on water demand projections, Pure Water is projected to provide up to half of the City's drinking water supply upon the completion of both Pure Water phases.

The last Pure Water Program update was presented in Spring 2024. This update will cover:

- Regulatory Compliance Activities
- Operations and Maintenance (O&M) Readiness
- Phase 1 Construction
- Phase 1 Financing
- Phase 2 Planning

### **Regulatory Compliance Activities**

#### Regulatory Agency Coordination

The City continues to meet with the California Division of Drinking Water (DDW) and the San Diego Regional Water Quality Control Board (RWQCB) on a monthly or bi-monthly basis to review the progress of approximately 40 conditions under the National Pollutant Discharge Elimination System (NPDES) permit for Miramar Reservoir. These conditions must be met prior to releasing purified water into the reservoir. Three of the first-of-their-kind reports under the Indirect Potable Reuse Surface Water Augmentation Regulations were submitted in 2023 almost two years ahead of the required timeline to ensure that comments from DDW and the RWQCB could be received, discussed, and addressed prior to purified water release. The City has received formal comments on one of the three documents and is addressing those now. Comments on the other two documents are expected in the next few months.

Overall, DDW and the RWQCB are determining how to interpret some of the broad-based regulatory language in the California Surface Water Augmentation Regulations. Because San Diego is implementing the first program under this regulatory framework, the City is being proactive in submitting deliverables well ahead of schedule. This will allow for sufficient time to clarify imposed requirements that are not specifically written into the regulatory language, such as the detailed approach for data collection and evaluation for the source water protection program (see Local Limits Study, below).

#### Local Limits Study

The City is required by the United States Environmental Protection Agency (EPA) to monitor and enforce limits for certain substances in the wastewater collection system that could adversely impact the operation of the treatment facilities or the treated water quality, commonly known as “local limits.” Because there is a new NPDES permit for Miramar Reservoir to allow the release of purified water, the City was required to re-evaluate the existing local limits based upon compounds of concern for drinking water. Any new limits would protect the North City Pure Water facilities as well as the water quality in Miramar Reservoir. Consequently, all potential contaminants with drinking water criteria are being assessed. There were over 250 compounds that were evaluated to determine whether any new local limits would be required to be applied. The study included additional flows from the Morena Pump Station to the North City Water Reclamation Plant (NCWRP), as well as the beneficial use both for recycled water (e.g., irrigation and industrial uses) and for the production of purified water. The high level of treatment at the North City Pure Water facilities does an excellent job of removing almost all of the compounds to levels well below drinking water criteria and therefore the number of potential new local limits, if required, will be less than 10. The City is continuing to assess approaches to mitigate impacts of these compounds and expects to have results to share with DDW and the RWQCB before the end of the year.

### **Operations & Maintenance (O&M) Readiness**

#### O&M Hiring and Advanced Water Treatment (AWT) Certification Status

Pure Water Operations (PWO) continues to implement wide-reaching, industry-targeted advertisement of open positions and utilizes a variety of recruitment events to improve candidate pools. Currently, eight out of nine O&M supervisor positions have been filled. Following the schedule laid out in the

North City Pure Water Operations and Readiness Master Plan, the division recently completed the hiring and onboarding of a Program Manager, five Senior Pure Water Plant Operators, and a Plant Technician III. Conditional offers have been extended to four Pure Water Plant Operators, with additional interview panels planned for the coming months. Hiring processes are underway for Plant Process Control Supervisor and Plant Technician II. Thus far, the division has accomplished the following:

- Operations Positions: 10 filled out of 20
- Maintenance Positions: 9 filled out of 17
- Engineering and Administrative Positions: 5 filled out of 7

Continued progress is anticipated, consistent with the plan. A full summary of hiring efforts to date and the future hiring schedule can be found in Attachment 1: Pure Water Operations Hiring Status Table.

At this point, all of the operator supervisory and lead positions that require Advanced Water Treatment Operator (AWTO) certification have been hired; a list of current Pure Water Operator staff and certification levels is included as Attachment 2. The highest level of AWTO certification is AWT5 and the lowest level of certification is AWT3. Only two Pure Water Operator positions are required to achieve higher than AWT3 and both of these positions have obtained their required certifications. Six out of 10 staff have obtained AWT3 certification or higher; the remaining four are on pace to receive certification prior to systemwide integration, ahead of the original schedule. The City's next Advanced Water Treatment Academy, which will include Pure Water Plant Operators and Senior Pure Water Plant Operators, will be offered in early 2025.

#### Contracts Planning

PWO has initiated the effort to draft and execute contracts for chemicals, services, and other specialized parts and labor required for the North City Pure Water Facility (NCPWF). The contracting process is being evaluated holistically to ensure optimal pricing and flexibility. PWO will partner with the other Public Utilities Department (PUD) operating divisions on chemical contracts to take advantage of large-scale pricing. NCPWF requirements will be included in a department-wide contract renewal for sodium hypochlorite that is currently in process, and sodium hydroxide, liquid oxygen, and liquid ammonium sulfate will be included in future contract processes. These contracting efforts will include the latest chemical cost estimates and will allow for phased implementation, synching with the facility flow ramp up requirements.

#### Phase 1 Construction

Pure Water Phase 1 construction is estimated to be 61% complete. The City awarded \$1.136 billion for construction and authorized \$114 million in pooled contingency for change orders. As of June 30, 2024, total construction expenditures were \$749 million. There have been \$86.9 million encumbered in change orders, and the remaining amount in pooled contingency is \$27.7 million. Attachment 3 to this report includes information about the individual contracts. The funding sources for Pure Water expenditures are the water and metropolitan wastewater enterprise funds. Financing through grants and loans is described further in the section, "Financial Status" on page 6 of this report. Relative to schedule, construction is on track for meeting major program milestones:

- Begin commissioning the partial Phase 1 system that includes the NCWRP, NCPWF, as well as the Pure Water Pipeline: Mid/Late 2026
- Complete construction of all Phase 1 projects: June 2027
- Begin operation of the entire Phase 1 system to produce 30 mgd of Pure Water: December 31, 2027

#### Milestone Accomplishments

Since the Pure Water Program Update in Spring 2024, several milestone accomplishments include:

- The NCPWF's major process equipment installation continues. The O&M building exterior has been completed and interior buildout continues.
- The subaqueous pipeline that will disperse the purified water in Miramar Reservoir was completed and the reservoir reopened to recreational activities.
- Construction has continued in every area at the NCWRP while the facility remains operational and hydrostatic testing of two of the four new secondary clarifiers was completed.
- Tunneling recommenced under Interstate 805 with an improved machine to handle the encountered geotechnical conditions. Eight of the 14 tunnels are complete.
- Fifteen out of 30 miles of pipeline have been installed along high-traffic roadways where access to residences, businesses, and schools must be maintained.

Attachment 4 to this report includes individual project summary sheets and photos of progress.

#### Phase 1 Construction Risk Mitigation

There are a number of risks that have been tracked since the beginning of the program. They continue to be monitored and managed. Four risks have largely been mitigated:

- Supply chain challenge
- Tunneling
- Differing site conditions
- Health and safety

When major Pure Water construction began in 2021, there were significant issues with national and global supply chains as a result of the COVID-19 restrictions and subsequently the war in Ukraine. Designers and construction managers (CMs) worked with contractors to adapt construction activities to alleviate supply chain impacts. The supply chain pressures have been easing and all major equipment has been delivered or factory tested.

Tunneling is always a construction risk because of unforeseen soil conditions that can be difficult to identify prior to the start of site work. The CMs have adapted to several challenges by allowing tunnel firm substitutions, modifications to tunneling approaches, and concurrent tunneling activities. Eight of the 14 tunnels are finished.

On any major construction project, it is impossible to completely characterize every detail of existing site conditions. To adapt, the City initiated additional potholing, early excavation on treatment projects, and re-design to avoid utility conflicts. Multiple crews for pipelines were used to accelerate work. Currently, more than 50% of the pipelines have been installed and the vast majority of subsurface work has been completed at the facilities.

Finally, health and safety is paramount in construction. In large programs with multiple construction contracts, different safety and insurance programs on each project can result in inconsistent practices and administrative confusion. To alleviate this, an Owner-Controlled Insurance Program (OCIP) was implemented across all construction projects that had consistent policies and a rigorous health and safety program. As a result, the workers' compensation program has a very positive rating from the OCIP broker, and with over 2 million work hours, injuries have been favorable compared to national construction statistics.

#### Outreach Update

Proactive, robust construction outreach is ongoing as part of the Pure Water Phase 1 projects in Linda Vista, Clairemont, University City, Miramar, and Scripps Ranch.

Between April 2024 and July 2024, the program and construction outreach teams have:

- Engaged with the community members at events: The Barrio Logan Science and Art Expo, SONY Earth Day Fair, 39th Annual Linda Vista Multi-Cultural Fair and Parade, Clairemont Garden Tour, Bike Anywhere Day, the Asian Cultural Festival, and Scripps Ranch 4th of July.
- Resumed offering samples of purified water to community members, including at Bike Anywhere Day and the Scripps Ranch 4th of July event.
- Fielded and resolved approximately 35 construction-related stakeholder inquiries via phone and the dedicated email address ([purewatersd@sandiego.gov](mailto:purewatersd@sandiego.gov)).
- Distributed project and schedule information via construction notices, website updates, social media content, fliers, doorhangers, and e-blasts, including 23 e-blast construction notifications to approximately 3,509 opt-in email recipients.
- Participated in seven presentations to community and business groups, informing approximately 300 people in various organizations about Pure Water.
- Provided 10 tours and presentations to industry group members, community stakeholders, and interested media representatives, including San Diego State University civil engineering students, the Green Cities Council, Orange County Sanitation District leadership, leaders from Georgia Delegation, and staff from the EPA and State Water Resources Control Board (SWRCB).
- Continued to provide updates to the University Community Planning Group and University City Community Association and provided construction updates to the Clairemont Mesa Planning Group.

#### Financial Status

The City has worked aggressively to secure very advantageous financing to support Pure Water delivery and thereby limit impacts to ratepayers. The financing includes grants as well as large loans from the Federal Water Infrastructure Finance and Innovation Act (WIFIA) and the State Revolving Fund (SRF) Loan Program. Of the \$733.5 million in low interest WIFIA loans with rates between 1.29 and 1.82%, \$378 million has been reimbursed through June 30, 2024. Notably, the WIFIA reimbursements have all been received in 20 days or less.

The SWRCB approved four separate SRF loans totaling \$664 million to support Pure Water Phase 1 construction. Of that amount with interest rates between 0.8 and 1.1%, the City had received \$229 million in reimbursement with \$33 million outstanding as of June 30, 2024.

#### Contingency Status

The pooled contingency was established for construction change orders and can be utilized for any of the Phase 1 construction contracts. The currently established pooled contingency is \$114.7 million based on 10% of initial construction cost estimates.

Phase 1 construction is both large and complex, and changed conditions have been encountered on all of the contracts. Through much of the construction period, the construction management and design teams have been able to resolve challenges such that the contingency drawdown has been at a rate commensurate with the pace of construction; however, the percentage of contingency available is now falling behind the remaining construction activity. About 24% (\$27.7 million) of the pooled contingency remains, with about 39% of construction still to be completed. Several factors have led to a need to increase the contingency:

- The cost of many change orders reflects current pricing, which has been affected by inflation since construction contracts were awarded. The Consumer Price Index (CPI) for the San Diego region shows an increase of 13.6% from November 2021 to March 2024. CPI is expected to continue rising.
- Major changes to design or construction methods, which include significant direct material and installation costs and related contractor delays. Such changes accelerate the drawdown of pooled contingency. Two examples of this are the Morena Pump Station dewatering and the Morena Conveyance North Interstate 805 tunneling change orders. With a combined total of \$35 million, these account for over 30% of the total contingency pool.

A separate action is being brought to Metro JPA to request approval of increasing the contingency budget.

### Project Labor Agreement

State legislation adopted in late 2019 mandates all Pure Water construction contracts awarded after January 1, 2020 to require the contractor to enter into a Project Labor Agreement (PLA). This contract requirement for a PLA is a condition of receiving construction financing from the Safe Drinking Water State Revolving Fund. The Pure Water construction contracts also include Prevailing Wage and Equal Employment Opportunity Program requirements. Attachment 5 includes PLA statistics.

### Women in Pure Water

Women represent a significant portion of the large team of City staff, contractors, and consultants who are delivering the Pure Water Program—from planning, designing, and building the infrastructure needed to support a local water source to ultimately overseeing water plant operations once construction is finished. Women are generally underrepresented in the water sector. According to the World Bank, the employment of women at water utilities currently stands at 18%.

Of the full-time City employees working on Pure Water Phase 1, approximately 50% are women, and over half of these women hold senior level or supervisory level technical and engineering positions. Pure Water also employs various contractors and consultants to oversee and construct the Phase 1 projects. Women are also working on consultant and contractor teams to support the delivery of Phase 1. Empowering women to advance their careers in the water industry leads to a combination of perspectives, talents, and knowledge to solve some of the region's most pressing water challenges.

### Owner-Controlled Insurance Program Performance

The City procured and implemented an OCIP for Phase 1 because of the benefits commonly seen on large programs like Pure Water. Benefits include reduced insurance costs, streamlined administration, consistent coverage across multiple projects, and enhanced ability for small-contractor participation.

As of June 30, 2024, there is 100% enrollment in OCIP coverage for nine prime contractors and 182 subcontractors. There have been 111 insurance claims across the multiple types of insurance coverage (12 builder's risk, 42 general liability, and 57 workers' compensation).

PUD retained AON to be the City's broker of record to place an OCIP on the City's behalf and recently executed Amendment 1 to extend its contract through the remaining duration of construction. The insurance provider agreements are currently in place through July 21, 2025. Some projects as currently forecasted will not reach final completion prior to the expiration of the current insurance agreements. The City has asked that AON engage the insurers to explore extension of coverage through the projected construction period.

### Phase 2 Planning

A number of key factors that impact the development of Phase 2 of the Pure Water program have changed since the plan to produce 83 mgd by 2035 was prepared as a part of the 2012 Recycled Water Study. These factors include:

- Water supply and demand
- Wastewater flows and availability
- Necessary dam infrastructure improvements
- Affordability
- Climate change
- Regulatory developments

Water demands and wastewater flows have decreased significantly over the past decade, which must be considered in the sizing and development of Phase 2 facilities. In addition, the City is embarking on a large dam improvements program. Water level restrictions are in place at a number of the City's dams, which in turn may limit the amount of purified water that could be stored in those reservoirs. Phase 2 planning and implementation must be closely coordinated with the dam improvements program. Substantial increases in water cost, electricity, and overall commodities are impacting ratepayer affordability. Climate change has altered the drought cycle and regulatory developments place increased pressure on water investments. These factors are being reviewed and considered as the City embarks on the next phase of the Pure Water Program.

#### Scenario Planning

Given the changing factors described above, PUD initiated a scenario planning process in 2023. Scenario planning is an adaptation of classic military intelligence methods that combine known facts with plausible alternative social, technical, economic, and political trends that are key driving forces affecting an uncertain future. Since the 1970s, this technique has been used extensively in private enterprise and started being used by many water agencies in the early 2000's. Scenario planning allows PUD to make decisions that would be most beneficial to the Pure Water Program with consideration for how the future may unfold. In 2010-2011 when the current Phase 2 plan was drawn up to deliver an additional 53 mgd of purified water, the future appeared to be dominated by drought, but with ample wastewater supply availability. Through the scenario planning process to date, it became apparent that water conservation measures have been effective to reduce not only consumption, but also the amount of water returned to the wastewater system. There is now less wastewater available to reuse than was forecasted in 2010-2011. Understanding these and other key factors that drive potential future conditions provides a platform for Phase 2 planning efforts to ensure an updated Phase 2 plan is adaptable.

#### Phase 2 Project Definition Timeline

Given the dynamic nature of planning over multiple decades, PUD is taking a fresh look at the 2012 plan. The PUD leadership team that participated in the 2023 scenario planning re-convened in August to engage in a dialogue regarding how the changed conditions identified above impact how PUD would navigate through the various scenario planning futures. Through the remainder of Fiscal Year 2025, PUD and key stakeholders (e.g., Cooperative Agreement signatories, Metro Joint Power Authority representatives) will hold a series of workshops to filter out and refine alternatives.

#### Conclusion

PUD and Engineering & Capital Projects (ECP) are working together for the successful delivery the City's largest and most complex capital project. The team understands the numerous important benefits the future Pure Water facilities will bring to present and future San Diegans. The team is committed to transparency, providing information concerning execution of the complete Pure Water effort. We look forward to our next update in Spring 2025.

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

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

Attachments

**Attachment 1: Pure Water Operations Hiring Status Table**

| Classification                          | # Needed | # Hired to Date | # Remaining to Hire |
|---|----------|-----------------|---------------------|
| Deputy Director                         | 1        | 1               | 0                   |
| Pure Water Superintendent               | 1        | 1               | 0                   |
| Senior Pure Water Operations Supervisor | 1        | 1               | 0                   |
| Pure Water Operations Supervisor        | 3        | 3               | 0                   |
| Senior Pure Water Plant Operator        | 5        | 5               | 0                   |
| Pure Water Plant Operator               | 10       | 0               | 10                  |
| Senior Plant Technician Supervisor      | 1        | 1               | 0                   |
| Plant Maintenance Coordinator           | 1        | 1               | 0                   |
| Plant Technician Supervisor             | 1        | 1               | 0                   |
| Instrumentation and Controls Supervisor | 1        | 1               | 0                   |
| Plant Process Control Supervisor        | 1        | 0               | 1                   |
| Plant Technician III                    | 2        | 2               | 0                   |
| Plant Technician II                     | 2        | 0               | 2                   |
| Plant Technician I                      | 2        | 0               | 2                   |
| Instrumentation and Controls Technician | 4        | 2               | 2                   |
| Plant Process Control Electrician       | 2        | 1               | 1                   |
| Program Manager                         | 1        | 1               | 0                   |
| Senior Civil Engineer                   | 1        | 1               | 0                   |
| Associate Civil Engineer                | 1        | 1               | 0                   |
| Supervising Management Analyst          | 1        | 1               | 0                   |
| Associate Management Analyst            | 1        | 1               | 0                   |
| Administrative Aide II                  | 1        | 0               | 1                   |
| Office Support Specialist               | 1        | 0               | 1                   |

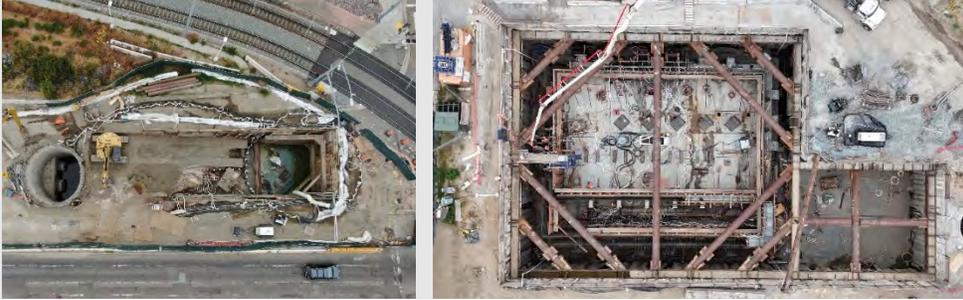
**Attachment 2: Pure Water Operations Certification Table**

| Employee Name      | Advanced Water Treatment |           | Wastewater Treatment |            | Water Treatment |          |
|--------------------|--------------------------|-----------|----------------------|------------|-----------------|----------|
|                    | Grade (AWT3-5)           | AWT Cert# | Grade (I-V)          | WWT Cert#3 | Grade (T1-T5)   | WT Cert# |
| Basom, Justin M    | AWT3                     | 243       |                      |            | T3              | 42802    |
| Belts, Thelronda M | AWT3                     | 313       | III                  | 73697      | T1              | 44555    |
| Carroll, John C    | AWT5                     | 101       | V                    | 28867      | T2              | 27075    |
| Clay, Jonett R     | AWT4                     | 214       |                      |            | T5              | 28595    |
| Evans, Glenda R    |                          |           |                      |            | T4              | 29117    |
| Kapuaba, Lea C.N.  |                          |           | III                  | 61228      |                 |          |
| Martinez, James A  | AWT3                     | 278       | III                  | 45213      |                 |          |
| Mercado, William L | AWT3                     | 240       | III                  | 41838      |                 |          |
| McNeil, Eileen L.  |                          |           | V                    | 28965      |                 |          |

Attachment 3: Phase 1 Construction Contracts List

| Construction Contract  | Contract Amount | Contractor                | Facility Scope to be Constructed  |
|--|-----------------|---------------------------|---|
| Morena Pump Station  | \$110.4M        | Flatiron                  | 37-mgd pump station   |
| Morena Conveyance South & Middle and Bike Lanes  | \$129.7M        | Sukut                     | 7 miles each of 48- and 30-inch diameter pipe   |
| Morena Pipelines Northern Alignment and Tunnels  | \$95.2M         | OHL                       | 4 miles each of 48- and 30-inch diameter pipe   |
| Penasquitos Pump Station Oxidation System  | \$4.4M          | Blue Pacific              | High-purity oxygen system   |
| North City Water Reclamation Plant Expansion   | \$255.1M        | Kiewit                    | Addition of 22-mgd treatment capacity   |
| North City Water Reclamation Plant Flow Equalization Basin                                   | \$11.9M         | Kiewit                    | 2.35-million-gallon flow equalization tank to manage incoming wastewater variability  |
| Metropolitan Biosolids Center Improvements   | \$40.1M         | PCL                       | Improvements to existing facility   |
| North City Water Reclamation Plant Expansion / North City Pure Water Facility Early Sitework | \$16.4M         | AECOM / Shimmick          | Grading and site prep<br><b>COMPLETED</b>   |
| North City Pure Water Facility and Pump Station  | \$356.7M        | Shimmick                  | 34-mgd purification facility and 30-mgd pump station  |
| North City Pure Water Pipeline, Dechlorination Facility, and Subaqueous Pipeline             | \$102.7M        | W.A. Rasic                | 7.5 miles of 48-inch diameter pipe and 1 mile of subaqueous pipeline  |
| Miramar Reservoir Water Quality Monitoring System  | \$1M            | Soundnine, Inc.           | Reservoir water quality monitoring  |
| Miramar Reservoir Pump Station Improvements  | \$12.7M         | Shimmick                  | Improvements to existing facility   |
| Total  | \$1,136.4M      | Authorized:<br>\$1,212.2M | <ul style="list-style-type: none"> <li>• Large pipeline: 30 miles</li> <li>• Pumping capacity: 100 mgd</li> <li>• Treatment capacity: 56 mgd</li> </ul> |
| Total Construction Expenditures as of June 30, 2024  |                 |                           | \$749M  |
| Total Use of Contingency as of June 30, 2024   |                 |                           | \$86.9M   |

Attachment 4: Individual Construction Project Summary Sheets

| Project: Morena Pump Station  |   |
|---|---|
|   |   |
| <b>Contractor:</b> Flatiron   |   |
| <b>Project Start:</b> June 2021   | <b>Contract Completion:</b> March 2026  |
| <b>Contract Award Amount:</b> \$110.4M  | <b>Estimate Percent of Construction Completion as of June 30, 2024:</b> 65.0% |
| <b>Construction Changes Orders Approved as of June 30, 2024:</b> \$27.0M and 269 Days Added   | <b>Total Construction Expenditures as of June 30, 2024:</b> \$89.3M           |
| <p><b>Project Description:</b><br/>                     The Morena Pump Station will divert an average of 32 mgd of wastewater through the Morena pipelines to the North City Water Reclamation Plant for treatment and then to the North City Pure Water Facility for purification.</p>  |   |
| <p><b>Significant Construction Activities:</b></p> <ul style="list-style-type: none"> <li>• Morena Pump Station Site (MPS)                             <ul style="list-style-type: none"> <li>○ Completed excavation of MPS Site with secant wall shoring system installed</li> <li>○ Continued concrete placement for pump station and screening facility</li> <li>○ Received and stored the following major equipment:                                     <ul style="list-style-type: none"> <li>- 4 of 10 Pumps</li> <li>- High Purity Oxygen System</li> <li>- 4 of 4 Odor Control System</li> <li>- 5 of 5 Transformers</li> <li>- 5 of 5 Knife Valves</li> <li>- Switchgear</li> </ul> </li> </ul> </li> <li>• Friars Road                             <ul style="list-style-type: none"> <li>○ Completed construction of Diversion Structure 1</li> <li>○ Installed 72-inch flow thru plug at Diversion Structure 2</li> <li>○ Continued repair work to stop infiltrating water under the south side of the existing 72-inch sewer line in Diversion Structure 2</li> <li>○ Installed 60-inch disc plug at Diversion Structure 3</li> <li>○ Excavation in the Phase 1 soil freezing area began May 14<sup>th</sup> for angle structure construction at Diversion Structure 3; excavation is on hold due to water infiltration in the excavation</li> <li>○ Phase 2 freezing began May 8<sup>th</sup></li> </ul> </li> </ul> |   |

**Project: Morena Conveyance South & Middle and Bike Lanes**



|  |   |
|--|---|
| <b>Contractor:</b> Sukut   |   |
| <b>Project Start:</b> October 2022   | <b>Contract Completion:</b> September 2025                                    |
| <b>Contract Award Amount:</b> \$129.8M   | <b>Estimate Percent of Construction Completion as of June 30, 2024:</b> 40.3% |
| <b>Construction Changes Orders Approved as of June 30, 2024:</b> \$0.3M and 0 Days Added   | <b>Total Construction Expenditures as of June 30, 2024:</b> \$52.4M           |
| <p><b>Project Description:</b><br/>                 The Morena Conveyance South and Middle will connect to the Morena Pump Station at Sherman and Custer Streets and to the Morena Pipelines Northern Alignment in University City. This project includes portions of two 6.9-mile pipelines: one 48-inch wastewater pipeline, which will carry wastewater north to the North City facilities for purification, and one 30-inch brine line that will carry the byproduct from water purification south to the Point Loma Wastewater Treatment Plant.</p>   |   |
| <p><b>Significant Construction Activities:</b></p> <ul style="list-style-type: none"> <li>• Total Pipe installed                         <ul style="list-style-type: none"> <li>○ 48-inch force main: 11,252 linear feet of pipe in place (31.4%)</li> <li>○ 30-inch brine line: 11,181 linear feet of pipe in place (31.2%)</li> </ul> </li> <li>• Completed 13,836 feet of base paving on Clairemont Drive, Sherman Street and Morena Boulevard (Blvd)</li> <li>• Continued installing beam and plate shoring system at Balboa intersection</li> <li>• Installed dewatering system at Tecolote Creek for discharge permit</li> <li>• Continued installation of dual pipelines northerly on West Morena Blvd and on Clairemont Drive</li> </ul> |   |

**Project: Morena Pipelines Northern Alignment and Tunnels**



**Contractor:** OHL

**Project Start:** June 2021

**Contract Completion:** October 2024

**Contract Award Amount:** \$95.2M

**Estimate Percent of Construction Completion as of June 30, 2024:** 64.5%

**Construction Changes Orders Approved as of June 30, 2024:** \$9.6M and 48 Days Added

**Total Construction Expenditures as of June 30, 2024:** \$67.6M

**Project Description:**

The Morena Pipelines Northern Alignment will connect to the Morena Conveyance Middle alignment to the south and the North City Water Reclamation Plant to the north. This project begins on Genesee Avenue between Appleton Street and State Route 52 and continues onto Genesee Avenue, Nobel Drive, Towne Centre Drive, and Executive Drive. Tunneling will be completed at Genesee Avenue and State Route 52, at Genesee Avenue and Rose Canyon, and under Interstate 805. This project includes portions of two pipelines approximately 4 miles in length: one 48-inch wastewater pipeline, which will carry wastewater north to the North City facilities for purification, and one 30-inch brine line that will carry the byproduct from water purification south to the Point Loma Wastewater Treatment Plant.

**Significant Construction Activities:**

- Total Pipe Installed:
  - 48-inch force main: 14,154 linear feet of pipe in place (66%)
  - 30-inch brine line: 14,154 linear feet of pipe in place (66%)
- Total Tunneling Completed:
  - San Clemente: 430 linear feet (complete)
  - Interstate 805: 201 linear feet
  - Rose Canyon: 540 linear feet
- Completed hydrostatic testing on 430 linear feet of pipe at San Clement tunnel
- Completed excavation of Rose Canyon south shaft
- Completed pipeline installation on all portions of Towne Centre Drive
- Continued clearing and grubbing and installing temporary wall at Rose Canyon middle shaft

**Project: North City Water Reclamation Plant Expansion:**



**Contractor:** Kiewit Infrastructure West Co.

**Project Start:** August 2021

**Contract Completion:** June 2026

**Contract Award Amount:** \$255.1M

**Estimate Percent of Construction Completion as of June 30, 2024:** 50.6%

**Construction Changes Orders Approved as of June 30, 2024:** \$5.9M and 251 Days Added

**Total Construction Expenditures as of June 30, 2024:** \$132.2M

**Project Description:**

The North City Water Reclamation Plant Expansion will increase the plant's recycled water production from 30 mgd to 56 mgd. The expansion requires larger equipment and infrastructure. The expansion will occur on the existing North City Water Reclamation Plant site.

**Significant Construction Activities:**

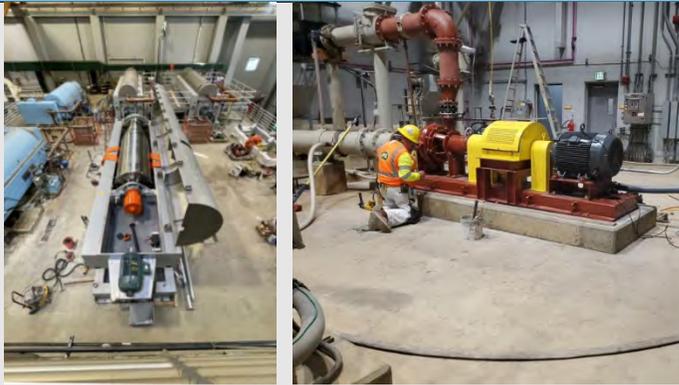
- Continued shop drawing submittals, equipment procurement, and factory acceptance testing
- Continued installation of 96-inch mixed liquor and 42-inch return activated sludge (RAS) piping and continued installation of yard piping and vaults
- Continued concrete construction at Primary Sedimentation Basins
  - Completed columns and walls at chemical storage area
- Continued concrete basin and baffle walls, mechanical, and electrical work at Bioreactor Basins
  - Completed subgrade preparation for new basin extensions
- Continued secondary clarifiers and RAS wet well piping, concrete work, and hydrostatic testing
- Continued work at tertiary filters and completed base and walls at new Filter Number 7

Project: North City Water Reclamation Plant Flow Equalization Basin:



|   |  |
|---|--|
| <p><b>Contractor:</b> Kiewit Infrastructure West Co.</p>  |  |
| <p><b>Project Start:</b> December 2021</p>  | <p><b>Contract Completion:</b> February 2024</p>                                     |
| <p><b>Contract Award Amount:</b> \$11.9M</p>  | <p><b>Estimate Percent of Construction Completion as of June 30, 2024:</b> 32.1%</p> |
| <p><b>Construction Changes Orders Approved as of June 30, 2024:</b> \$12K and 0 Days Added</p>  | <p><b>Total Construction Expenditures as of June 30, 2024:</b> \$3.8M</p>            |
| <p><b>Project Description:</b><br/>                 As part of the North City Water Reclamation Plant Expansion, a new Flow Equalization Basin will be constructed to expand the capacity of the primary effluent storage. The Flow Equalization Basin will regulate peak wastewater flow rates entering the plant to allow a steady flowrate through the biological treatment processes.</p> |  |
| <p><b>Significant Construction Activities:</b></p> <ul style="list-style-type: none"> <li>• Wall construction commenced</li> <li>• Wall pours 2, 3, 4, and 5 complete (50% complete)</li> </ul>   |  |

**Project: Metropolitan Biosolids Center Improvements**



**Contractor:** PCL

**Project Start:** September 2021

**Contract Completion:** October 2025

**Contract Award Amount:** \$40.1M

**Estimate Percent of Construction Completion as of June 30, 2024:** 71%

**Construction Changes Orders Approved as of June 30, 2024:** \$3.5M and 103 Days Added

**Total Construction Expenditures as of June 30, 2024:** \$31.2M

**Project Description:**

Metropolitan Biosolids Center is the City's regional biosolids facility that receives and processes waste solids from both the North City Water Reclamation Plant and the Point Loma Wastewater Treatment Plant. The North City Water Reclamation Plant will undergo an expansion under Phase 1 of Pure Water, increasing biosolids flows and loadings to the Metropolitan Biosolids Center. To accommodate these increased loadings, upgrades, and improvements at the Metropolitan Biosolids Center are necessary.

**Significant Construction Activities:**

- Continued shop drawings, Operations and Maintenance Manual, and Maintenance of Plant Operations submittals and coordination with plant operations
- Continued installation of new Grit Separator No. 4
- Completed installation, testing and commissioning of Raw Solids Feed Pump No. 2.
- Placed Dewatering Centrifuge No. 1 into service.
- Completed testing and commissioning of Thickening Centrifuges Nos. 3 and 5, feed pumps, and polymer pumps
- Performed demolition and began installation of Thickening Centrifuge 4, feed pumps, and polymer pumps
- Began testing of Thickened Transfer Pump No. 1
- Completed testing and commissioning at Digester 2
- Completed installation of nozzles, mixing pumps, biogas piping, valves, instruments, and coatings at Digester 3
- Installed feed and polymer pumps for Dewatering Centrifuge No. 6
- Installed Centrate Pump No. 1
- Conducted Weekly Construction Progress Meetings, Special Topic Meetings, and Joint Test Group Meetings for commissioning planning.

**Project: North City Pure Water Facility and Pump Station**



|   |   |
|---|---|
| <b>Contractor:</b> Shimmick   |   |
| <b>Project Start:</b> April 2021  | <b>Contract Completion:</b> July 2025   |
| <b>Contract Award Amount:</b> \$356.7M  | <b>Estimate Percent of Construction Completion as of June 30, 2024:</b> 70.2% |
| <b>Construction Change Orders Approved as of June 30, 2024:</b> \$15.4M and 24 Working Days Added   | <b>Total Construction Expenditures as of June 30, 2024:</b> \$261.0M          |
| <p><b>Project Description:</b><br/>                 The North City Pure Water Facility will use the approved five-step process to treat recycled water to purified water standards. Upon completion, the facility will produce 30 mgd of purified water, which will be conveyed by the pump station to the Miramar Reservoir for storage. The North City Pure Water Facility and pump station will be built on Eastgate Mall across from the North City Water Reclamation Plant.</p>  |   |
| <p><b>Significant Construction Activities:</b></p> <ul style="list-style-type: none"> <li>• Continued installation and backfill of blending water, fire water service, and potable water supply pipeline</li> <li>• Area 111 Ozone: continued mechanical piping and electrical installations</li> <li>• Area 120 Biological Activated Carbon: completed access road slab on grade concrete placement and commenced retaining wall rebar and formwork; continued structural steel for canopy installation</li> <li>• Area 130 Process Building: continued mechanical process piping and electrical raceways, cable, and heating, ventilation, and air conditioning (HVAC) and other overhead conduit install; completed of reverse osmosis (RO) System cartridge filter installations</li> <li>• Area 158 Product Water Tank: continued perimeter wall and stair concrete work</li> <li>• Area 160 Pump Station: continued rebar, formwork, and concrete placement for pump station walls</li> <li>• Area 170 Chemical System Tank Farm: performed coating of walls and tank pads and installation of various tanks</li> <li>• Area 180 Main Electrical Building: continued HVAC and fire protection installations, and switchgear S installation</li> <li>• Area 190 Operations and Maintenance Building: Installed interior steel metal stud framing, drywall, fire sprinklers, plumbing, painting of walls, and insulation; installed 95% of architectural exterior paneling</li> </ul> |   |

**Project: North City Pure Water Pipeline, Dechlorination Facility, and Subaqueous Pipeline**



|   |   |
|---|---|
| <b>Contractor:</b> W. A. Rasic  |   |
| <b>Project Start:</b> June 2021   | <b>Contract Completion:</b> June 2025   |
| <b>Contract Award Amount:</b> \$102.7 (Originally \$123.5M but removed AC Water Group 1038 project from contract)   | <b>Estimate Percent of Construction Completion as of June 30, 2024:</b> 71.9% |
| <b>Construction Changes Orders Approved as of June 30, 2024:</b> \$13.1M and 0 Days Added   | <b>Total Construction Expenditures as of June 30, 2024:</b> \$83.3M           |
| <p><b>Project Description:</b></p> <p>The North City Pure Water Pipeline will convey 30 mgd of purified water to the Miramar Reservoir. This approximately 8-mile pipeline will be constructed along Eastgate Mall and Miramar Road and will tunnel underneath Interstate 15 then continue along Carroll Canyon Road to the Miramar Reservoir, where the pipeline will connect to a 1-mile Subaqueous Pipeline system at the bottom of Miramar Reservoir. The Dechlorination Facility will remove chlorine necessary for conveyance and disinfection from the purified water before it is blended into the reservoir. The Dechlorination Facility will be constructed at the end of Meanley Drive, approximately 1,500 feet southwest of Miramar Reservoir.</p>   |   |
| <p><b>Significant Construction Activities:</b></p> <ul style="list-style-type: none"> <li>• Completed 30,300 linear feet of 48-inch pipe installation (77%)</li> <li>• Continued installing beams for shoring system along Hoyt Park Drive</li> <li>• Began rough grading and excavation at Dechlorination Building</li> <li>• Total Tunneling Completed: 1,611 linear feet (78%)             <ul style="list-style-type: none"> <li>○ Miramar Reservoir (Microtunneling): 500 linear feet</li> <li>○ Evans Pond (Microtunneling): 626 linear feet</li> <li>○ Interstate 15 (Jack and Bore): 485 linear feet</li> </ul> </li> <li>• Completed excavation of launching and receiving shaft at Via Pasar</li> <li>• Subaqueous Pipeline:             <ul style="list-style-type: none"> <li>○ Completed high-density polyethylene (HDPE) pipe installation</li> <li>○ Subaqueous Subcontractor completed demobilization</li> <li>○ Miramar Reservoir reopened to public for recreational use</li> </ul> </li> </ul> |   |

**Project: Miramar Reservoir Pump Station Improvements**



|  |   |
|--|---|
| <b>Contractor:</b> Shimmick  |   |
| <b>Project Start:</b> October 2022   | <b>Contract Completion:</b> March 2025  |
| <b>Contract Award Amount:</b> \$12.7M  | <b>Estimate Percent of Construction Completion as of June 30, 2024:</b> 70.1% |
| <b>Construction Changes Orders Approved as of June 30, 2024:</b> \$339K and 0 Days Added   | <b>Total Construction Expenditures as of June 30, 2024:</b> \$9.1M            |
| <p><b>Project Description:</b><br/>                 Purified water will blend with the City's imported water sources at Miramar Reservoir and be treated again at the Miramar Water Treatment Plant and distributed to the public. The Miramar Pump Station will convey 30 mgd of purified water from Miramar Reservoir to Miramar Water Treatment. Operational improvements associated with the treatment of purified water will be made to the Miramar Pump Station to allow the pump station to operate continuously to pump purified water from Miramar Reservoir to Miramar Water Treatment Plant. The project will also include the construction of a 1-megawatt Photovoltaic System at the Miramar Water Treatment Plant Clearwell 1 to supply power to the Miramar Pump Station.</p> |   |
| <p><b>Significant Construction Activities:</b></p> <ul style="list-style-type: none"> <li>• Continued Pump 2 and Pump 3 rehabilitation</li> <li>• Completed installation of new generator</li> <li>• Continued Pump Station conduit installations</li> <li>• Complete installation of motor control center (MCC) breakers</li> <li>• Installed light pole bases and fixtures for site lighting</li> <li>• Installed Pump 2 and Pump 3 pipe supports</li> </ul>   |   |

## Attachment 5: Project Labor Agreement Statistics

State legislation adopted in late 2019 mandates all Pure Water construction contracts awarded after January 1, 2020, to require the contractor to enter into a Project Labor Agreement (PLA). This contract requirement for a PLA is a condition of receiving construction financing from the Safe Drinking Water State Revolving Fund. The Pure Water construction contracts also include Prevailing Wage and Equal Employment Opportunity Program requirements. Provided below is a summary of the oversight of all nine contractors to ensure compliance with these requirements.

***Project Labor Agreement:*** The Pure Water PLA is an agreement between the San Diego Building and Construction Trades Council, craft unions signatory to the agreement, and the contractors performing construction work on the Pure Water Phase 1 projects. The PLA supports the employment of City residents and Targeted Workers. Targeted Workers are individuals who fall into categories, including veterans and spouses of veterans, newly enrolled apprentices, individuals lacking a high school diploma or GED, individuals aged out of the foster system, individuals experiencing homelessness, single parents, unemployed individuals, and/or formerly incarcerated individuals.

The PLA established goals that at least 35% of the total construction craft hours worked on each project be performed by City residents and 10% of the total construction craft hours worked on each project be performed by Targeted Workers. Pure Water Phase 1 continues to provide important career opportunities for thousands of individuals. As of June 30, 2024, over 4,593 workers have been employed on the Pure Water Phase 1 construction effort, including 119 veterans. Overall, the Pure Water Program contractors have exceeded the Targeted Worker hiring goal by 7%. City residents have received over \$28 million in wages and benefits from being employed on Pure Water Phase 1 projects. Finally, 287 City residents have been employed as apprentices on the Pure Water Phase 1 projects and 23% of all program hours worked were apprentice hours.

In an effort to increase the hiring of City residents and reach the 35% goal, City PLA management staff meet regularly with both contractors and union representatives to develop strategies to maximize employment opportunities for City residents. One such strategy is partnering with pre-apprenticeship programs to create a construction career pathway for City residents, thus growing that labor pool. Additional information can be found in the [Quarterly Progress Report through March 31, 2024](#).

***Prevailing Wage:*** The labor compliance team for the Pure Water Program ensures that state and federal prevailing wage requirements are being met by all contractors performing work on the projects by:

- Providing labor compliance training
- Verifying that each contractor has registered with the Department of Industrial Relations prior to commencing work
- Ensuring that all apprentices are properly registered by the state and federal entities
- Reviewing certified payrolls to ensure workers are paid appropriately and on a timely basis
- Conducting monthly payroll confirmations as required, including check stub review, fringe benefit review, and field investigations and interviews
- Enforcing labor compliance violations by withholding payment when necessary

***Equal Opportunity Contracting (EOC):*** After the award of a contract, the City's Equal Employment Opportunity Program monitors subcontractor or supplier monthly payments to ensure the prime contractor is maintaining subcontracting participation commitment levels. Prime contractors are required to submit monthly invoicing reports identifying subcontractors and/or suppliers paid each month. To date, the contractors' projected subcontractor utilization remains in compliance with EOC goals.

METRO JPA/TAC

Staff Report

Date: 09/18/2024

**Project Title:**

Pure Water Program - Construction Change Order No. 12 with Kiewit Infrastructure West Co. for North City Water Reclamation Plant Expansion (K-21-1861-DBB-3).

**Presenter(s) Name:**

Akram Bassyouni/Jeff Soriano

**Presenter(s) Title:**

Deputy Director/ Senior Civil Engineer

**Requested Action:**

Approve Change Order No. 12, a settlement agreement between the City of San Diego and Kiewit Infrastructure West Co. for the North City Water Reclamation Plant Expansion and Influent Conveyance Project and forward item to Metro JPA/ Metro Commission for approval. Change Order No. 12 is for a total not to exceed amount of \$16,000,000.

**Recommendations:**

Approve Construction Contract Change Order No. 12.

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

**Fiscal Impact:**

|                                      |   |
|--------------------------------------|---|
| Is this projected budgeted?          | Yes ___ No <u>x</u>   |
| Cost breakdown between Metro & Muni: | It is <b>estimated</b> that the funding will be allocated as follows: Water: 37% (approximately \$5,902,400), Wastewater: 63% (approximately \$10,097,600) (Metro: 100%, Muni: 0%). |
| Fiscal impact to the Metro JPA:      | 33% of Metro cost (approximately \$3,332,208)   |

**Capital Improvement Program:**

|                   |  |
|-------------------|--|
| New Project?      | Yes ___ No <u>X</u> N/A ___                              |
| Existing Project? | Yes <u>X</u> No ___ Upgrade/addition ___ Change <u>X</u> |

**Previous TAC/JPA Action:**

None

**Additional/Future Action:**

Present item to Metro JPA/ Metro Commission for approval in October 2024

**City Council Action:**

City Council approval is anticipated in October 2024

**Background:**

As part of the Pure Water Program, the North City Water Reclamation Plant is currently undergoing an expansion of the primary, secondary and tertiary treatment facilities to allow the plant to treat up to 52 million gallons per day (MGD) on an annual average basis. The major scope elements associated with the expansion include: construction of new primary clarifiers, expansion and reconfiguration of the aeration basins and secondary clarifiers into first and

second stage bioreactor basins, installation of four new secondary clarifiers, one new tertiary filter, equipment replacements and other work (site work, yard piping, electrical and instrumentation work). This project also includes the construction of a new NCPWF Influent Pump Station and pipeline that will convey tertiary treated water to the future Pure Water Facility to produce purified pure water.

On June 16, 2021, the City Council approved the award of contract #K-21-1861-DBB-3 to Kiewit Infrastructure West Co., for the purposes of providing construction services for the Project for an amount of \$255,138,000 by Resolution R-312062. The original contract duration was 906 working days with a Notice to Proceed (NTP) date of August 4, 2021, and a projected completion date of March 14, 2025.

During construction of this Project, Kiewit claimed monetary damages related to delays encountered for extended procurement and delivery time for various large electrical equipment. Kiewit claimed that this delay was attributable to contract changes that resulted from site conditions that varied from the contract plans. Kiewit further claimed that the time needed for the Engineer to modify the design had deferred their ability to place orders for the required electrical equipment with their associated vendors and manufacturers which had resulted in a delay to the scheduled critical path. Kiewit claimed that they are entitled to additional compensation in the amount of \$ 27M, of which \$22M is for overhead costs associated with the additional time needed to complete the Project and \$5M is for subcontractor escalation claims. The mediation took place on May 29, 2024, and resulted in an agreement to settle the claim for an amount of \$16,000,000.

This settlement includes but is not limited to the following:

- Addition of 147 Working Days to Milestone (MS) 9, "Final Completion".
- Resolution of Time Impact Analysis (TIA) TIA-01, including time related overhead (TRO), all associated claims and subcontractor claims.
- Resolution of TIA-02, including TRO, all associated claims and subcontractor claims.
- Resolution of any and all claims related to project delays from executed Change Orders (CCOs) that occurred or may have occurred prior to May 29, 2024.
- Resolution of any and all claims related to project delays from Potential Change Orders (PCOs) that occurred or may have occurred prior to May 29, 2024.

This action will authorize the Mayor, or his designee to execute a construction change order with Kiewit Infrastructure West Co. for an agreed amount of \$16,000,000.00, which is equivalent to a 6.3% increase in the total Project construction cost.

**Bid Results:**

N/A

**METRO JPA/TAC**

**Staff Report**

**Date: 09/18/2024**

**Project Title:**

Pure Water Program – Amendment No. 3 to the Agreement with CH2M Hill Engineers, Inc. for Design Engineering Services for the North City Water Reclamation Plant Expansion and Influent Conveyance Project

**Presenter(s) Name:**

Akram Bassyouni/ Reyhaneh Martin

**Presenter(s) Title:**

Deputy Director/ Senior Civil Engineer

**Requested Action:**

Approve Amendment No. 3 to the design engineering services agreement between the City of San Diego and CH2M Hill Engineers, Inc. for the North City Water Reclamation Plant Expansion and Influent Conveyance Project and forward item to Metro JPA/ Metro Commission for approval. Amendment No. 3 is for a total not to exceed amount of \$14,000,000, which will be utilized for construction support services.

**Recommendations:**

Approve Amendment No. 3 to the design agreement

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

**Fiscal Impact:**

|                                      |   |
|--------------------------------------|---|
| Is this projected budgeted?          | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>   |
| Cost breakdown between Metro & Muni: | It is <b>estimated</b> that the funding will be allocated as follows: Water: 21% (approximately \$2,940,000), Wastewater: 79% (approximately \$11,060,000) (Metro: 100%, Muni: 0%). |
| Fiscal impact to the Metro JPA:      | 33% of Metro cost (approximately \$3,649,800)   |

**Capital Improvement Program:**

|                   |   |
|-------------------|---|
| New Project?      | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>  |
| Existing Project? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Upgrade/addition <input type="checkbox"/> Change <input type="checkbox"/> |

**Previous TAC/JPA Action:**

None

**Additional/Future Action:**

Present item to Metro JPA/ Metro Commission for approval in October 2024

**City Council Action:**

City Council approval is anticipated in October 2024

**Background:**

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 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 20-year program to provide a safe, secure and sustainable local drinking water supply for San Diego. Recycled water will be turned into drinkable water through the use of water purification technology. Further, 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. To ensure quality design and construction of future Pure Water facilities, the Public Utilities Department has elected to obtain professional engineering and technical services for completing the design work.

As part of the Pure Water Program implementation, the North City Water Reclamation Plant (NCWRP) will be expanded to treat an average annual flow of 52 million gallons per day (mgd), in order to continue serving recycled water customers and provide tertiary-treated water to the new Pure Water Facility. The scope of the NCWRP expansion project includes several process modifications throughout the entire plant. The major scope elements associated with the expansion of the plant include: construction of new primary clarifiers, a new flow equalization basin, expansion and reconfiguration of the aeration basins and secondary clarifiers into first and second stage bioreactor basins, installation of four new secondary clarifiers, one new tertiary filter, a new Pure Water Facility influent conveyance pump station, equipment replacement and other work (site work, yard piping, electrical and instrumentation work). At this time, major construction activities are anticipated to be completed in 2026, followed by the Pure Water commissioning and project closeout processes.

In October 2016, the City awarded an agreement to CH2M Hill Engineers, Inc. to perform design services for the North City Water Reclamation Plant Expansion and Influent Conveyance project. The original Agreement is on file in the Office of the City Clerk as Document No. R-310738. The Agreement was issued for an amount not to exceed \$17,198,752 for a duration of five (5) years.

In October 2018, City Council approved Amendment No. 1 (R-311991) for a total not to exceed amount of \$2,500,000, increasing the total contract amount from \$17,198,752 to \$19,698,752. The additional funds authorized under Amendment No. 1 addressed additional design efforts not included in the original agreement for new tasks such as upgrades to the plant equipment to bring the facility up to its original 30 mgd capacity, replacement of all sluice gates at the headworks facility, implementation of an alternate design concept to repurpose the secondary clarifiers, development of a sewer process model for facility control strategies, and the design of the brine line within the NCWRP footprint.

In August 2021, construction began on the NCWRP expansion project. In November 2021, City Council approved Amendment No. 2 (O-21393) for a total not to exceed amount of \$7,298,826, increasing the total contract amount from \$19,698,752 to \$26,997,578. The additional funds authorized under Amendment No. 2 provided funding for design support services during construction including review of submittals and shop drawings, responses to requests for information (RFI's) from the construction contractor, project construction meetings, facility commissioning support, geotechnical and structural observations, and as-needed technical support. In addition, Amendment No. 2 extended the contract term for an additional five years.

The NCWRP is a vital component of the City's wastewater system and needs to remain in continuous operation during construction. As the construction of the NCWRP expansion project approaches 50% completion, it has been determined that a larger level of effort is required to support a project of this magnitude and complexity. Amendment No. 3 of the design agreement with CH2M Hill Engineers, Inc. will provide all the remaining design support services during construction. These additional efforts include the following:

- This existing plant provides recycled water to customers in the northern part of the City, and therefore, must remain operational. As a result, the Contractor has to plan their work so that there is no disruption to the ongoing Operations & Maintenance activities. In some cases, the existing equipment has to be taken offline because they are being replaced, and this requires significant coordination between the Contractor, plant staff, and the designer to minimize shutdown impacts to the overall plant operation. Some of these efforts were identified during the design coordination efforts; however, more complexities have been encountered during the construction than anticipated, including encountering equipment not operating properly but needed for the completion of the expansion project.
- Communication between Pure Water and the City's other sewer facilities is currently implemented by a distributed control system (DCS). A larger and unanticipated effort from the designer has been identified to assist with resolving issues/conflicts related to integrating new equipment with existing DCS components while maintaining the current operation and preparing for the ultimate integration. In some instances, the existing DCS components need to be reconfigured in order to connect to the new equipment. This was not anticipated initially since it was expected that the existing DCS would support this integration.
- Partial commissioning is being implemented for Pure Water Phase 1 to mitigate delays on some of the projects. To implement partial commissioning, NCWRP will have to be commissioned with a fraction of its design flow and prior to the full construction completion of the project. This is requiring the Design Consultant to revise the commissioning strategy and develop alternatives for testing & commissioning of the new equipment/processes.
- To meet the demands of the fast-paced and complex construction activities, the number of onsite engineering staff of the Design Consultant has increased or fluctuated based on the ongoing needs that were not possible to estimate previously.
- Due to the complexity of the project, there have been an unanticipated number of submittals, RFIs, and deviation/substitution requests from the construction contractor, which have resulted in an increased effort by CH2M Hill to review and analyze.
- As the contractor has progressed into various plant process areas of this 25+ year old facility, existing infrastructure like chemical feed lines and fittings that need upgrading have been identified. The contractor has also encountered unforeseen duct banks and piping that interfere with new pipelines that are being installed. The designer has had to prepare design modifications to include new upgrades and resolve underground utility interferences.
- Due to new treatment processes and process modifications, additional training for plant operations staff is required. While individual equipment training is being conducted by vendors through the Contractor, overall process area training is necessary for the Design Consultant.

The collective impact of the above factors has resulted in the need for additional budget and time to carry forward the project to completion. Amendment No. 3 for a total not to exceed amount of \$14,000,000 will increase the total contract amount from \$26,997,578 to 40,997,578. Of the \$14,000,000, \$12,034,869 will fund base services, and \$1,965,131 will fund additional

potential unforeseen services. In addition, Amendment No. 3 will extend the contract term for an additional 19 months to June 2028, in order to complete all of the required work for the NCWRP Expansion project.

**Bid Results:** N/A

**METRO JPA/TAC**  
**Staff Report**  
**Date: 9/18/2024**

**Project Title:**  
 Pure Water Phase 1 CIP Budget – Increase Pooled Contingency

**Presenter(s) Name:**  
 Amy Dorman

**Presenter(s) Title:**  
 Assistant Director

**Requested Action:**

1. Authorization to increase the FY25 Capital Improvements Program Budget by \$102,640,000.00 in CIP P-19002, Pure Water Pooled Contingency, and to appropriate and expend an additional \$63,636,800.00 from Fund 700010, Water Utility CIP, and \$39,003,200.00 from Fund 700009, Metro Sewer CIP, for the purpose of funding construction change orders for the following projects:
  - CIP A-LA.00001, Pure Water Program (B-15139, North City Pure Water Facility; B-15140, North City Pure Water Pump Station; B-15141, PWP Morena Conveyance; B-15142, NCWRP Expansion; B-16035, North City Pure Water Pipeline; B-16140, NCPWF Influent Pump Station and Pipeline; B-17006, San Diego NC-MBC Improvements; B-17190, Miramar Reservoir Pump Station Improvements; B-21058, PWP North City Pure Water Facility Pkg 2; B-21059, PWP NCWRP Flow Equalization Basin; B-21060, PWP North City Water Rec Plant Expansion; B21061, PWP Morena Wastewater Pump Station; B-21128, PWP NC Wtr Rec Plant Expansion (W); B-22024, Miramar Reservoir Automated In-Water Quality Monitoring System; B-22085, PW Genesee Avenue Median Improv; B-23085, NC Pure Water Facility Warehouse Storage);
  - CIP A-BI.00001, Water Treatment Plants, (B-19099, Miramar Reservoir PS New Generator & Upg; B-23014, Miramar WTP Caustic Pumping System; B-23049, Miramar WTP Interim Solids Management);
  - CIP A-BL.00001, Bldg Water Standpipes, (B-23136, Miramar Reservoir Recreation Facilities)
  - CIP A-BP.00002, Metropolitan System Pump Stations, (B-21001, Penasquitos Pump Stn Oxygenation System);
  - CIP S-17012, NCWRP Improvements to 30 MGD; and
  - CIP S-17013, MBC Equipment Upgrades

**Recommendations:**  
 Approve actions

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

**Fiscal Impact:**

|                                      |   |
|--------------------------------------|---|
| Is this projected budgeted?          | Yes <u>  X  </u> No <u>      </u>                       |
| Cost breakdown between Metro & Muni: | \$63,636,800.00 Water; \$39,003,200.00 Metro; \$0 Muni. |
| Fiscal impact to the Metro JPA:      | \$13,066,072 (33.5% of Metro cost)                      |

**Capital Improvement Program:**

|  |              |             |                                      |
|--|--------------|-------------|--------------------------------------|
| New Project?   | Yes ___      | No <u>X</u> | N/A ___                              |
| Existing Project?  | Yes <u>X</u> | No ___      | Upgrade/addition <u>X</u> Change ___ |
| <b>Previous TAC/JPA Action:</b><br>None  |              |             |                                      |
| <b>Additional/Future Action:</b><br>Present item to Metro JPA/ Metro Commission in October 2024  |              |             |                                      |
| <b>City Council Action:</b><br>Environment Committee 9/12/2024; City Council approval expected in October 2024   |              |             |                                      |
| <p><b>Background:</b> <i>Provide background information on the need for the project</i></p> <p>The pooled contingency was established for construction change orders and can be utilized for any of the 17 Phase 1 construction contracts. Access to the pool by all projects allows change order work to be authorized more efficiently than adjusting individual project budgets. This is a key benefit, recognizing that Pure Water is one large integrated system, and a delay on one of the Phase 1 contracts could delay other contracts. The pooled contingency budget is \$114.7 million, as approved by City Council in 2021. The amount is approximately 10% of the estimated total for Phase 1 construction at that time. The actual amount awarded was \$1.16 billion. The remaining amount in the pooled contingency is \$27.7 million.</p> <p>A number of factors are contributing to the need to increase the pooled contingency budget:</p> <ul style="list-style-type: none"> <li>• Change order amounts are based on current pricing, whereas the budget was based on bids received primarily in 2020 and 2021. The consumer price index for the San Diego region has increased by over 13.6% since 2021 and is expected to continue rising through the duration of construction. This trend of price increases is being seen in capital project costs across the region and nation on projects of all sizes.</li> <li>• Large change orders like the Morena Pump Station Dewatering Changed Condition (\$26 million) and the Interstate 805 tunnel (\$9 million) have accelerated the contingency drawdown. These two items alone consumed 30% of the contingency.</li> </ul> <p>Negotiations have been finalized on two more significant change orders, for the North City Pure Water Facility and North City Pure Water Pump Station (\$11,360,000), and for the North City Water Reclamation Plant Expansion and North City Pure Water Facility Influent Pump Station and Pipeline Settlement (\$16,000,000). Given that construction is only 60% complete, staff proposes to increase the pooled contingency budget by an additional 10% of total construction cost, or a total of \$130 million (this action for \$102.64 million plus the two aforementioned change orders for \$27.36 million), to fund potential change orders from now to the end of construction. The amount is based on the rate at which change orders have occurred thus far and the expectation is that this rate will taper off towards the end of construction. The combined increase would bring the total budgeted pooled contingency to \$245 million, which is approximately 20% of the initial construction award amount. Having a higher-than-average contingency is not surprising for a Program of this size and complexity. It is an extraordinary effort to manage eight different contractors on ten active projects who are coordinating with each other and making changes to accommodate one another to ensure all projects work together. Four smaller projects will join the list of active projects before commissioning begins.</p> <p>To support the City in change order negotiations, the City Attorney’s Office has hired an outside auditor and legal counsel. Thus far, the outside auditor has been instrumental in vetting the validity and total amounts of contractor claims, and outside counsel has provided significant support to the Pure Water team in determining the merit of a wide array of contractor claims based on legal precedent, contractual requirements, and best practices. Both have been retained for the duration of construction.</p> |              |             |                                      |

Long-term bond financing is anticipated to be utilized to support the budget increase, although Public Utilities continues to actively seek grant opportunities at the State and Federal level to cover this amount. In the event that no additional grant funding is obtained, and new long-term bonds must be issued by the Water System in the amount of \$80.9 million, and \$49.1 million by the Sewer System, which equals the total of \$130 million increase to the Pooled Contingency (this action for \$102.64 million plus the two aforementioned change orders for \$27.36 million). These amounts may be wrapped into already planned bond issuances by the Water System or Sewer System in the next 2-3 years. Public Utilities has and will continue to work towards balancing the impacts of such increases. For instance, nearly \$120 million has been programmed for San Diego Gas and Electric (SDGE) utility relocations, but the most recent projected cost from SDGE is approximately \$40 million. Although unrelated to pooled contingency, reduced SDGE expenditures could ultimately lead to a lower bond issuance. Further savings could be realized if the City is successful in its ongoing litigation against SDGE, greatly reducing these costs further. Similarly, the total amount authorized by City Council for Phase 1 construction is \$1.2 billion and has been programmed in the total estimated funding need for Pure Water Phase 1. The actual amount awarded was \$40 million lower, at \$1.16 billion. This differential also helps to reduce the net impact of increasing the pooled contingency budget.

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

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

Quarterly Contractor's Report - 6/30/24

30-06-24

| Construction Package  | Contractor Intermediate Substantial Completion | Contractor Substantial Completion <sup>(3)</sup> | Percent Complete (G = F / E) | Bid Award <sup>(1)</sup> (A) | Change Orders <sup>(2)</sup> (B) | Total Contract (Including Change Orders) |                |                            | Paid to Date <sup>(2)</sup> (F) | Construction Company                    |
|---|--|--|------------------------------|------------------------------|----------------------------------|--|----------------|----------------------------|---------------------------------|---|
|   |  |  |                              |                              |                                  | Water (C)                                | Wastewater (D) | Total Contract (E = A + B) |                                 |   |
| Early Sitework  | July 27, 2021                                  | July 27, 2021                                    | 100%                         | \$16,403,300                 | \$1,184,211                      | \$4,546,855                              | \$13,040,656   | \$17,587,511               | \$17,587,511                    | Shimmick                                |
| NC Pure Water Facility & NC Pure Water Pump Station                               | September 25, 2024                             | March 17, 2025                                   | 70%                          | \$356,681,930                | \$15,353,457                     | \$372,035,387                            | \$0            | \$372,035,387              | \$260,989,618                   | Shimmick                                |
| Morena Northern Alignment & Tunnels   | April 30, 2025                                 | May 22, 2025                                     | 64%                          | \$95,243,645                 | \$9,593,450                      | \$20,520,537                             | \$84,316,559   | \$104,837,096              | \$67,617,124                    | OHL USA, Inc                            |
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| Miramar Reservoir Pump Station Improvements                                       | October 22, 2024                               | November 21, 2024                                | 70%                          | \$12,692,000                 | \$339,282                        | \$13,031,282                             | \$0            | \$13,031,282               | \$9,136,823                     | Shimmick                                |
| Miramar Reservoir Automated In-Water Quality Monitoring System (AIWQMS)           | October 15, 2026                               | October 15, 2026                                 | 54%                          | \$1,000,000                  | \$0                              | \$1,000,000                              | \$0            | \$1,000,000                | \$538,435                       | Soundnine Inc.                          |
| Penasquitos Pump Station Oxygenation System                                       | January 3, 2024                                | January 3, 2024                                  | 15%                          | \$4,391,767                  | \$0                              | \$0                                      | \$4,391,767    | \$4,391,767                | \$674,644                       | Blue Pacific Engineering & Construction |
|   |  |  | 62%                          | \$1,157,119,604              | \$55,525,881                     | \$693,807,110                            | \$518,838,376  | \$1,212,645,485            | \$748,796,782                   |   |
| Total Approved Change Orders Excluding Scope Removal Change Orders <sup>4</sup> : |  |  |                              | \$76,263,821                 |                                  |  |                |                            |                                 |   |

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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 August 2024

August was a month with many Executive Team and PUD staff vacations however much work was accomplished. The following is a summary of key tasks currently being addressed by the Executive Team members:

### Key Tasks and Updates:

#### 1. Final Draft Second Amended and Restated Agreement (SARA) Language Review:

- The City of San Diego's Attorney's office has completed their initial review of SARA. The next steps will be for FIG to meet as a team to work through questions/concerns and the City Attorney will also be following up with Adriana. We will be targeting by the end of October to wrap up this review process. At that time the draft SARA will be released to all Metro TAC and Metro JPA Directors to begin their review process.

#### 2. FAB Implementation:

- Stantec and the FAB work group continue to QA/QC the FAB model. In addition work has begun on creating new Metro Billing Tables that incorporate the fixed and variable charges developed by the FAB system of charges.

#### 3. Quarterly Pure Water Phase 1 Contractor's Report:

- Attached is the Quarterly Pure Water Phase 1 Contractor's Report which will be presented by Doug Owen of Stantec at the September Metro TAC continue to and October Metro JPA/Com meetings. Good progress – over \$1.5M per working day in Q4 FY2024 and overall project completion stands at 62%.

#### 4. JPA Financial Policies and Systems:

- The Executive Team's legal and financial staff continue to draft several policies to provide management guidance for the JPA. These policies include:
  - An investment policy for the JPA's reserve funds and operating capital.
  - An electronic fund transfer policy.
  - A purchasing policy.
- In addition, the current records retention policy is being reviewed to update and potentially simplify it. The current records retention policy can be found in the New Director's Manual at Section 14.2:

<https://www.metrojpa.org/Home/ShowDocument?id=3570>

- It is anticipated that these will first be reviewed by the Finance Committee in October before moving forward to Metro TAC and the full JPA Board.

## 5. Strategic Planning:

- The Strategic Planning consultant, John Gavares, administered a survey between August 1 and August 16, 2024. The survey responses provide valuable information for updating of the 2020 strategic plan and creation of the 2025 strategic plan.
- The survey received excellent participation with seventeen (17) responses received. The breakdown of responses was as follows:

| <b>Responder Information</b> |                                |                                |  |                       |
|------------------------------|--------------------------------|--------------------------------|--|-----------------------|
| <b>Total</b>                 | <b>Director,<br/>Metro JPA</b> | <b>SP Ad Hoc<br/>Committee</b> | <b>Manageme<br/>nt Team<br/>member</b> | <b>TAC<br/>Member</b> |
| 17                           | 3                              | 5                              | 1                                      | 8                     |

- The first Strategic Planning AdHoc Committee meeting will be held September 5 from 2-4 PM via Zoom.

## 6. Director Orientation and Resources

- One respondent to the Strategic Planning Survey suggested creating an orientation and training program for new Directors, including written materials and a list of acronyms and definitions.
- Currently, orientations are held after the November elections, when new Directors are added to the JPA Board/Commission. The last orientation was held in March and April of 2023.
- Until the next orientation, I encourage everyone to visit the JPA website at <https://www.metrojpa.org/home> , where the "New Director's Manual" is available with a link under the "News" section of the homepage. <https://www.metrojpa.org/about-us/-folder-100>
- The manual is being updated to include current budgets and audits, but already provides valuable information on the Metro JPA/Commission's operations. The table of contents is attached for reference.
- Also attached, as requested, is a list of definitions and acronyms from the draft SARA document, which will be added to the manual during the next update. If any additional information would be helpful, please contact me.
- Currently Executive Team Members are coordinating a set of tours for Directors of the North City Pure Water Phase 1 project which has reached 62% overall project completion.

## 7. FY 2021 – FY 2023 Metro Contract Compliance Audit and Reconciliation

- **Fieldwork Completion on O&M Sections:** Fieldwork was completed for the O&M sections of the multi-year audit. The Annual Metro Exhibit E Audit purpose is to review Metro O&M and CIP costs to ensure that Participating Agencies (PAs) are not allocated costs from other City of San Diego departments such as water or municipal sewer and only pay their fair share of allowable Metro costs. Once the total allowable costs are determined, the allocation to each PA is reviewed to ensure correct cost allocations based on each agency's actual sewage flows and strengths for the audited year. These costs and allocations are then reconciled with that year's budgeted amounts that had been billed to each PA.
- **O&M Audit Scope:** The O&M portion of the audit includes reviewing over 500 samples (invoices) spanning three fiscal years. This part of the audit covers operational costs such as personnel and chemicals, as well as large non-capitalized consulting contracts for engineering, IT, and financial services and minor capital projects. Emphasis was placed on reviewing each Pure Water Phase 1 contract, including the Stantec Program Management contract, and other general engineering and soft costs associated with the project. Specific emphasis was also placed on COMNET contracts for monitoring/metering and the environmental services division cost allocations during this audit. During each audit specific areas of interest are determined and are focused on for more in-depth reviews.
- **Upcoming Audit Reviews:** In September and October, additional audit reviews will be conducted on major Metro CIP projects, including Pure Water Phase 1 and 2 capital project costs. These reviews will also cover Metro system revenues that offset the annual O&M and CIP costs, such as recycled water and utility income credits (non-operating revenues).

### 1. Inflow and Infiltration (I&I) Study:

- The TAC Committee including 3 representatives for the City of San Diego had a second meeting on August 29<sup>th</sup>.
- The committee includes all TAC Representatives thus all agencies are represented.
- The goal of the second meeting was to review the location of the existing Metro and Muni Meters, focusing on some of the ones previously identified as having high I&I/Peaking Factors. Potential areas for new Metro peaking meters were also discussed.

### 2. Review of Pure Water Phase 2 Alternatives:

- Stantec, the City of San Diego program manager, is conducting a validation study of the proposed Phase 2 Pure Water Program. The City of San Diego is taking a critical look at sizing and costs for Phase 2 Pure Water.

- A potential letter from the JPA to the City was presented at TAC last week recommending a few alternatives for Stantec to review including: optimizing North City, reducing the size of Phase 2, and the effect of I&I reduction.

#### **Upcoming Meetings:**

- **Metro TAC Meeting:**
  - **Date:** September 18, 2024
  - **Format:** Zoom
  - **Main Topics:** Design Build Contract for Pump Station 1 Consent Decree Compliance; Pure Water Program Quarterly Update and Consultant Contract Amendments; Quarterly Phase 1 Construction Report.
- **Metro JPA/Commission Meeting:**
  - **Date:** October 3, 2024
  - **Main Topics:** Key Item will be the presentation of Executive Team requested Phase 2 alternatives to be included in the scope of work of an upcoming Stantec study as well as several CIP projects which have been reviewed and approved by Metro TAC.

Quarterly Contractor's Report - 6/30/24

30-06-24

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# Metro Wastewater JPA/Commission Definitions

(From Draft SARA Agreement)

**Annual Average Daily Flow** is the number, in millions of gallons of wastewater per day (“**MGD**”), calculated by dividing total Flow on a fiscal year basis by the number of days in the applicable year, which is a term used for billing purposes.

**ARA** shall mean the Amended and Restated Regional Wastewater Disposal Agreement entered into between the City and the Metro Participating Agencies effective August 2021.

**Capital Expense Rate** is the cost per acre foot that will apply if the Metro System’s Capital Improvement Costs for the Pure Water Program and/or upgrading of the Point Loma WTP to secondary treatment exceed \$1.8 billion, as further described in Section 6.8.

**Capital Improvement Costs** means all aspects of the planning and environmental work, design, and construction necessary to render a capital project facility fully operational. This includes Planning and Environmental Work; procurement of consultants or contractors to perform such work; construction management; investigative studies and pre-design work; inspection and testing; and financing cost including interest on financial instruments.

**Centrate** shall mean the liquid byproduct that results from the dewatering of digested solids as part of wastewater treatment processes.

**Chemical Oxygen Demand** or “**COD**” means the measure of the chemically decomposable material in wastewater, as determined by the procedures specified in the most current edition of “Standard Methods for the Examination for Water and Wastewater,” or any successor publication which establishes the industry standard.

**City** shall mean and refer to the City of San Diego.

**City Water Utility PW Costs** are those Pure Water Program costs allocated to the City’s water utility and therefore excluded as Metro System Costs under Section 6.3 of this Agreement.

**Contract Capacity** is the contractual right possessed by each Participating Agency to discharge wastewater into the Metro System pursuant to this Agreement up to the limits set forth in Exhibit B attached hereto. Contract Capacity is stated in terms of Average Flow, Incremental Peak Flow, RSDP, COD and TSS.

**CWA** shall mean the San Diego County Water Authority.

**ECAWP JPA** shall mean the East County Advanced Water Purification Joint Powers Authority.

**ECAWP JPA Agencies** shall mean collectively the City of El Cajon, the Padre Dam Municipal Water District, and the San Diego County Sanitation District.

**ECAWP Project** shall mean the ECAWP JPA's project to capture and treat wastewater that would otherwise be disposed of in the Metro System to produce an annual average supply of approximately 11.5 MGD of new local drinking water, as well as other byproducts such as recycled water and energy recovery facilities.

**Fixed Capacity** shall mean the capacities for Average Flow, Incremental Peak Flow, RSDP, COD and TSS for each agency as set forth in Exhibit B.

**Fixed Capacity Charge** shall mean the portions of the Metro bill that pay for maintaining the wastewater network system; Fixed Capacity Charges are not based on how much wastewater is discharged, but on the Fixed Capacity Charges set forth in Exhibit B. Items such as debt service are included in the Fixed Capacity Charges.

**Flow** shall refer to the flow of wastewater discharged by the City and/or one or more Participating Agency/ies into the Metro System. It is measured through meters for billing purposes and compliance with Exhibit B.

**Functional Allocated Billing (FAB)** shall mean the method for distributing all capital, operations, and maintenance Metro System Costs and Revenues on an annual basis by grouping expenses according to their purposes and the current approved Functional-Design Methodology.

**Functional-Design Methodology** shall mean the process of allocating fixed and variable Operation and Maintenance Costs and Capital Improvement Costs to Flow, RSDP and Strength parameters recognizing the benefits of both the design criteria and the primary function of a unit process.

**Incremental Peak Flow** shall mean the Peak Flow minus the Average Flow in millions of gallons of wastewater per day.

**MBC Return** shall mean and refer to the centrate created by the dewatering of digested biosolids at the Metropolitan Biosolids Center. MBC Return shall contain Metered Flow, TSS and COD. MBC Return is added to a Party's Annual Flow and Strength for billing purposes only, and does not reduce a Party's Exhibit B Contract Capacities.

**Metered Flow** shall mean the amount or volume of wastewater captured by meters that exist throughout the Metro System, estimates from unit count areas, or estimates of flows when meters are out of service.

**Metro Commission** is the advisory body created under Section 9.

**Metropolitan Biosolids Center** shall mean and refer to the biosolids processing facility located at 5240 Convoy St, San Diego, CA 92111.

**Metropolitan Sewerage System** or **Metro System** shall mean and consist of those facilities which are listed, shown and/or described in Exhibit A attached hereto and incorporated by this reference into this Agreement, including any amendments thereto authorized by this Agreement. Exhibit A includes current constructed facilities and proposed future facilities.

**Monthly Average Daily Flow (Average Flow)** is the number, in MGD, calculated by dividing total Flow on a monthly basis by the number of days in that month, which is a term used in Exhibit B.

**Municipal System** shall mean the City's wastewater collection system, which consists of pipelines and pump stations, that collects wastewater within the City of San Diego and conveys it to the Metropolitan Sewerage System for treatment and disposal.

**New Contract Capacity** shall mean new capacity that is separate from the Contract Capacity set forth in Exhibit B attached hereto.

**North City Water Reclamation Plant** or **North City WRP** is the 52 million gallons per day (as of the date of this Agreement) wastewater treatment facility located at 4949 Eastgate Mall in San Diego, which includes four major processes: primary treatment, secondary treatment, tertiary treatment, and disinfection.

**Operation and Maintenance Costs** are the costs of operation and maintenance activities required by sound engineering and management practices to keep the conveyance, disposal, treatment, and reuse facilities functioning in accordance with all applicable laws, rules, and regulations.

**Ocean Pollution Reduction Act of 1994** (or "**OPRA**") is the Act of Congress which obligated the City of San Diego to provide a wastewater reclamation capacity of 45 MGD and allowed the City of San Diego to apply for modified ocean discharge permits for the Point Loma Wastewater Treatment Plant.

**Participating Agencies** shall mean all of the local governments and agencies that executed this Agreement other than the City.

**Peak Flow** represents the wastewater flow in millions of gallons of wastewater per day that is captured in the highest 1-hour period in a fiscal year.

**Phase 1** shall mean and refer to the first phase of the Pure Water Program, which modifies/constructs Metro System and Water Repurification System facilities and is designed to produce an annual average of 30 million gallons per day of Repurified Water.

**Point Loma Ocean Outfall (PLOO)** is the ocean outfall for the PLWTP which extends 4 ½ miles into the Pacific Ocean to a depth of 310 feet.

**Point Loma Wastewater Treatment Plant or Point Loma WTP (PLWTP)** is the main City of San Diego wastewater treatment plant with an Average Flow capacity of 240 million gallons per day and a peak flow capacity of 432 million gallons per day (as of the date of this Agreement). It is an advanced primary treatment plant which includes four major processes: screening, grit removal, chemically enhanced sedimentation, and digestion.

**Pure Water Program (PWP)** is the City's phased, multi-year program designed to produce at least 83 million gallons per day of Repurified Water using new, expanded, or modified facilities, some of which will include Metro System facilities.

**Recycled Water** shall have the definition set forth in Title 22, Division 4 of the California Code of Regulations and shall mean water which, as a result of treatment of wastewater, is suitable for a direct beneficial use or a controlled use that otherwise could not occur.

**Reject Stream from Demineralization Process (RSDP)** is a liquid reject stream from a demineralization process at a potable reuse facility. Separately conveyed, it bypasses all secondary wastewater treatment processes.

**Repurified Water** shall mean water which, as a result of advanced treatment of Recycled Water, is suitable for use as a source of domestic (or potable) water supply.

**Repurified Water Revenue** is the cost savings that will be realized when the City water utility's annual costs per-acre foot for Repurified Water are less than the purchase costs per-acre foot for comparable water from the San Diego County Water Authority, as further described in Section 6.

**Residuals** shall mean RSDP and Centrate. In the future, Residuals may include other waste byproducts if the Parties agree in writing that other byproducts may be discharged into the Metro System.

**Reuse** shall mean to use again, such as water which has been recycled or repurified, or sludge that has been converted to biosolids for beneficial use.

**SARA** shall mean the Second Amended and Restated Regional Wastewater Disposal Agreement currently being developed between the Participating Agencies and the City of San Diego Public Utilities Department.

**South Bay Land/Ocean Outfall** is the facility that is jointly owned by the International Boundary & Water Commission (U.S. Section IBWC) and the City of San Diego. The Outfall conveys and discharges treated effluent from the IBWC's International Wastewater Treatment Plant and treated effluent from the City's South Bay Water Reclamation Plant. As of the date of this Agreement, the Outfall has a current Average Daily Flow Capacity of 174 million gallons per day. As of the date of this Agreement, the City owns 39.94% of the capacity of the Outfall and the balance of the capacity is owned by the IBWC.

**South Bay Water Reclamation Plant** is the 15 million gallons per day (as of the date of this Agreement) wastewater treatment facility located at 2411 Dairy Mart Road in San Diego, which includes four major processes: primary treatment, secondary treatment, tertiary treatment, and disinfection.

**Strength** means the measurement of Total Suspended Solids and Chemical Oxygen Demand within the wastewater Flow and any other measurement required by law after the date of this Agreement.

**Total Suspended Solids** or **TSS** means the insoluble solid matter in wastewater that is separable by laboratory filtration, as determined by the procedures specified in the most current edition of "Standard Methods for the Examination of Water and Wastewater," or any successor publication which establishes the industry standard.

**Tertiary Component** is that portion of the wastewater treatment process that currently filters the secondary treated wastewater effluent through fine sand and/or anthracite coal to remove fine Suspended Solids and disinfects it to meet the requirements of the California Administrative Code, Title 22, or its successor for filtered and disinfected wastewater used for recycled and repurified water

**Variable Costs** shall refer to the portion of the Functional Design Methodology costs that are allocated based on Metered Flow and Strength.

**Water Repurification System** shall mean any facilities, including treatment and conveyance facilities, the purpose of which is the production or conveyance of Repurified Water. Water Repurification System includes, but is not limited to: the Tertiary Component of the North City Water Reclamation Plant to the extent being used to produce Repurified Water, the North City Pure Water Facility to be located across the street from the North City Water Reclamation Plant ("**North City Pure Water Facility**"); the Repurified Water conveyance system, which will transport Repurified Water from the North City Pure Water Facility and/or other facilities to the Miramar Reservoir or other alternative location(s) as determined by the City; and any other Repurified Water treatment or conveyance facilities which are part of the Pure Water Program. These facilities are constructed and maintained at the expense of the Water Utility and are excluded Metro costs under this Agreement.