NOTICE OF SPECIAL MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
ENGINEERING COMMITTEE

August 15, 2024
8:30 a.m.

NOTICE IS HEREBY GIVEN that a Special Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee was called to be held on **August 15, 2024, at 8:30 a.m.** SOCWA staff will be present and conducting the meeting at the SOCWA Administrative Office located at 34156 Del Obispo Street, Dana Point, California.

THE SOCWA MEETING ROOM IS WHEELCHAIR ACCESSIBLE. IF YOU REQUIRE ANY SPECIAL DISABILITY RELATED ACCOMMODATIONS, PLEASE CONTACT THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY SECRETARY'S OFFICE AT (949) 234-5452 AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO THE SCHEDULED MEETING TO REQUEST SUCH ACCOMMODATIONS. THIS AGENDA CAN BE OBTAINED IN ALTERNATE FORMAT UPON REQUEST TO THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY'S SECRETARY AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO THE SCHEDULED MEETING. MEMBERS OF THE PUBLIC HAVE THE OPTION TO PARTICIPATE IN AND MAY JOIN THE MEETING REMOTELY VIA VIDEO CONFERENCE FOR VISUAL INFORMATION ONLY (USE ZOOM LINK BELOW) AND BY TELECONFERENCE FOR AUDIO PARTICIPATION (USE PHONE NUMBERS BELOW). THIS IS A PHONE-CALL MEETING AND NOT A WEB-CAST MEETING, SO PLEASE REFER TO AGENDA MATERIALS AS POSTED ON THE WEBSITE AT WWW.SOCWA.COM. ON YOUR REQUEST, EVERY EFFORT WILL BE MADE TO ACCOMMODATE PARTICIPATION. FOR PARTIES PARTICIPATING REMOTELY, PUBLIC COMMENTS WILL BE TAKEN DURING THE MEETING FOR ORAL COMMUNICATION IN ADDITION TO PUBLIC COMMENTS RECEIVED BY PARTIES PARTICIPATING IN PERSON. COMMENTS MAY BE SUBMITTED PRIOR TO THE MEETING VIA EMAIL TO ASSISTANT SECRETARY DANITA HIRSH AT DHIRSH@SOCWA.COM WITH THE SUBJECT LINE "REQUEST TO PROVIDE PUBLIC COMMENT." IN THE EMAIL, PLEASE INCLUDE YOUR NAME, THE ITEM YOU WISH TO SPEAK ABOUT, AND THE TELEPHONE NUMBER YOU WILL BE CALLING FROM SO THAT THE COORDINATOR CAN UN-MUTE YOUR LINE WHEN YOU ARE CALLED UPON TO SPEAK. THOSE MAKING PUBLIC COMMENT REQUESTS REMOTELY VIA TELEPHONE IN REAL-TIME WILL BE ASKED TO PROVIDE YOUR NAME, THE ITEM YOU WISH TO SPEAK ABOUT, AND THE TELEPHONE NUMBER THAT YOU ARE CALLING FROM SO THE COORDINATOR CAN UN-MUTE YOUR LINE WHEN YOU ARE CALLED UPON TO SPEAK. ONCE THE MEETING HAS COMMENCED, THE CHAIR WILL INVITE YOU TO SPEAK AND ASK THE COORDINATOR TO UN-MUTE YOUR LINE AT THE APPROPRIATE TIME.

AGENDA ATTACHMENTS AND OTHER WRITINGS THAT ARE DISCLOSABLE PUBLIC RECORDS DISTRIBUTED TO ALL, OR A MAJORITY OF, THE MEMBERS OF THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY ENGINEERING COMMITTEE IN CONNECTION WITH A MATTER SUBJECT FOR DISCUSSION OR CONSIDERATION AT AN OPEN MEETING OF THE ENGINEERING COMMITTEE ARE AVAILABLE FOR PUBLIC INSPECTION IN THE AUTHORITY ADMINISTRATIVE OFFICE LOCATED AT 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE") OR BY PHONE REQUEST MADE TO THE AUTHORITY OFFICE AT 949-234-5452. IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE ENGINEERING COMMITTEE LESS THAN TWENTY-FOUR (24) HOURS PRIOR TO THE MEETING, THEY WILL BE AVAILABLE IN THE RECEPTION AREA OF THE AUTHORITY OFFICE AT THE SAME TIME AS THEY ARE DISTRIBUTED TO THE ENGINEERING COMMITTEE AND SENT TO ANY REMOTE PARTICIPANTS REQUESTING EMAIL DELIVERY OR POSTED ON SOCWA'S WEBSITE. IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IN THE MEETING ROOM OR IMMEDIATELY UPON VERBAL REQUEST TO BE DELIVERED VIA EMAIL TO REQUESTING PARTIES PARTICIPATING REMOTELY.

THE PUBLIC MAY PARTICIPATE REMOTELY BY VIRTUAL MEANS. FOR AUDIO OF MEETING USE THE CALL IN PHONE NUMBERS BELOW AND FOR VIDEO USE THE ZOOM LINK BELOW.

Join Zoom Meeting
https://socwa.zoom.us/
Meeting ID: 828 2265 8069
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AGENDA

1. Call Meeting to Order

2. Public Comments

THOSE WISHING TO ADDRESS THE ENGINEERING COMMITTEE ON ANY ITEM LISTED ON THE AGENDA WILL BE REQUESTED TO IDENTIFY AT THE OPENING OF THE MEETING AND PRIOR TO THE CLOSE OF THE MEETING. THE AUTHORITY REQUESTS THAT YOU STATE YOUR NAME WHEN MAKING THE REQUEST IN ORDER THAT YOUR NAME MAY BE CALLED TO SPEAK ON THE ITEM OF INTEREST. THE CHAIR OF THE MEETING WILL RECOGNIZE SPEAKERS FOR COMMENT AND GENERAL MEETING DECORUM SHOULD BE OBSERVED IN ORDER THAT SPEAKERS ARE NOT TALKING OVER EACH OTHER DURING THE CALL.

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8. Coastal Treatment Plant (CTP) Pioneering Pilot Project (Unsolicited Proposal) [Project Committee 15] 16

   Recommended Action: Staff recommends that the Engineering Committee schedule a meeting to discuss the unsolicited proposal in detail and explore potential collaboration opportunities.

9. Coastal Treatment Plant (CTP) Drainage Pump Station Final Design [Project Committee 15] 22

   Recommended Action: Staff recommends that the Engineering Committee recommend that the PC15 Board of Directors i) approve a contract with Tetra Tech for a total of $380,000 for the CTP Drainage Pump Station Rehabilitation Design and ii) approve a contract contingency of $20,000 for unknown issues discovered during design.

10. Coastal Treatment Plant (CTP) Aeration Blower System Upgrades Final Design [Project Committee 15] .....

    Recommended Action: Information Item.

11. Contract Award for Coastal Treatment Plant (CTP) Grating Replacement on Aeration /Secondary Deck [Project Committee 15] 48

    Recommended Action: Staff recommends that the Engineering Committee recommend that the PC 15 Board of Directors i) add $110,000 to the CTP Grating Replacement on Aeration /Secondary Deck budget for a total amended budget of $160,000, ii) approve a contract with SS Mechanical Construction for a total of $147,126, and iii) approve a contract contingency of $12,874 for unknown issues discovered during construction.

12. Contract Award for J.B. Latham Treatment Plant (JBL) Scum Line Construction [Project Committee 2] 50

    Recommended Action: Staff recommends that the Engineering Committee recommend that the PC 2 Board of Directors i) approve an additional $150,000 to be added to the JBL Scum Line Replacement Project budget for a revised budget of $300,000, ii) approve a contract with SS Mechanical Construction for a total of $278,949, and iii) approve a contract contingency of $21,051 for unknown issues discovered during construction.

13. Contract Award for J.B. Latham Treatment Plant (JBL) MCC-M, Switchgear Circuit Breaker, and Portale Generator Connection Pre-Procurement [Project Committee 2] 52

    Recommended Action: Staff recommends that the Engineering Committee recommend that the PC 2 Board approve i) the contract to Pacific Parts & Controls for a total of $239,065 and ii) approve a contract contingency of $20,000 for the JBL MCC M and appurtenances pre-procurement.

14. Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) 54

Recommended Action: Committee Discussion/Direction and Action

15. PC 2 Grant Funding Support .....

Recommended Action: Information Item.

16. Adjournment

I hereby certify that the foregoing Notice was personally emailed or mailed to each member of the SOCWA Engineering Committee at least 24 hours prior to the scheduled time of the Special Meeting referred to above.

I hereby certify that the foregoing Notice was posted at least 24 hours prior to the time of the above-referenced Engineering Committee meeting at the usual agenda posting location of the South Orange County Wastewater Authority and at www.socwa.com.

Dated this 13th day of August 2024.

Danita Hirsh, Assistant Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Agenda Item 3

Engineering Committee Meeting

Meeting Date: August 15, 2024

TO: Engineering Committee

FROM: Roni Grant, Associate Engineer

SUBJECT: Approval of Minutes

Overview

Minutes from the following meeting are included for review and approval by the Engineering Committee:

- June 13, 2024

Recommended Action: Staff recommends that the Engineering Committee approve the Minutes as submitted.

MINUTES OF REGULAR MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Engineering Committee
June 13, 2024

DRAFT

The Regular Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee Meeting was held on June 13, 2024, at 8:30 a.m. in-person and via teleconferencing from the Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of the Engineering Committee were present:

HANNAH FORD	El Toro Water District
MIKE DUNBAR	Emerald Bay Service District [arrived @ 8:40 a.m.]
MARK McAVOY	City of Laguna Beach
DAVE LARSEN	Moulton Niguel Water District
DON BUNTS	Santa Margarita Water District
MARC SERNA	South Coast Water District [arrived @ 8:34 a.m.]

Absent:

DAVE REBENSDORF	City of San Clemente

Staff Present:

JIM BURROR	Acting General Manager/Director of Operations
AMBER BOONE	Director of Environmental Compliance
RONI GRANT	Associate Engineer
JEANETTE COTINOLA	Procurement/Contracts Manager
MARY CAREY	Finance Controller
DANITA HIRSH	Executive Assistant

Also Present:

TARYN KJOLSING	South Coast Water District
ROGER BUTOW	Clean Water Now (CWN)
SAUNDRA JACOBS	Santa Margarita Water District
SHERRY WANNINGER	Moulton Niguel Water District

1. Call Meeting to Order

   Ms. Roni Grant, Associate Engineer, called the meeting to order at 8:33 a.m.

2. Public Comments

   None.

3. Approval of Minutes

   - Engineering Committee Minutes of April 11, 2024.

   ACTION TAKEN
   A motion was made by Mr. McAvoy and seconded by Mr. Bunts to approve the Engineering Committee Minutes for April 11, 2024.

Motion carried:	Aye 4, Nay 0, Abstained 0, Absent 3	
	Mr. McAvoy	Aye
	Ms. Ford	Aye
	Mr. Dunbar	Absent
	Mr. Larsen	Aye
	Mr. Bunts	Aye
	Mr. Serna	Absent
	Mr. Rebensdorf	Absent

4. Operations Report

Ms. Amber Boone, Director of Environmental Compliance, reported on the National Water Research Institute draft report on the effect of ocean acidification from the ROM spec model. She also reported a draft report on the exfiltration of collection sewers conducted due to an investigative order of 14 permittees with the San Diego region to understand the effect of exfiltration within the watershed. An open discussion ensued.

Mr. Burror reported that staff complied with the South Coast Water District's requests regarding the Regional Treatment Plant facility's valuation. An open discussion ensued.

This was an information item; no action was taken.

5. Capital Improvement Construction Projects Progress and Change Order Report (June) [Project Committees 2, and 15]

This was an information item; no action was taken.

6. Laboratory Feasibility Study Proposal Review Update

ACTION TAKEN
A motion was made by Mr. Bunts and seconded by Mr. McAvoy to recommend that the Board of Directors i) approve the contract to Austin Company for a total of $83,800 for the Laboratory Feasibility Study, ii) approve a contract contingency of $15,000 for unknown issues discovered during design, iii) approve a project allocation method (Method 4) that follows the O&M costs for the operation of the Laboratory.

Motion carried:	Aye 6, Nay 0, Abstained 0, Absent1	
	Mr. McAvoy	Aye
	Ms. Ford	Aye
	Mr. Dunbar	Aye
	Mr. Larsen	Aye
	Mr. Bunts	Aye
	Mr. Serna	Aye
	Mr. Rebensdorf	Absent

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7. Regional Treatment Plant (RTP) Motor Control Centers (MCC) A, C, G, and H, Replacement Design [Project Committee 17]

ACTION TAKEN
A motion was made by Mr. Larsen and seconded by Mr. Dunbar to recommend that the PC 17 Board of Directors i) approve a contract with Carollo Engineers for a total of $492,503 for the RTP MCC A, C, G, and H Replacement Design, and ii) approve a contract contingency of $20,000 for unknown issues discovered during design.

Motion carried:	Aye 5, Nay 0, Abstained 0, Absent 0	
	Mr. McAvoy	Aye
	Ms. Ford	Aye
	Mr. Dunbar	Aye
	Mr. Larsen	Aye
	Mr. Serna	Aye

8. J.B. Latham Treatment Plant (JBL) Effluent Pump Station and Energy Building Design Contract [Project Committee 2]

ACTION TAKEN
A motion was made by Mr. Serna and seconded by Mr. Larsen to recommend that the PC 2 Board approve the contract to Carollo Engineers for a total of $175,516 for the JBL Effluent Pump Station and Energy Building improvements.

Motion carried:	Aye 3, Nay 0, Abstained 0, Absent 0	
	Mr. Larsen	Aye
	Mr. Bunts	Aye
	Mr. Serna	Aye

9. Contract Award for Effluent Transmission Reaches D and E Main Valves Bidding and Engineering Services During Construction [Project Committee 21]

ACTION TAKEN
A motion was made by Ms. Ford and seconded by Mr. Larsen to recommend that the PC 21 Board of Directors approve the contract to Tetra Tech in the amount of $47,500 for the bidding and ESDC services for the ETM Reaches D and E Air Valve Replacement project.

Motion carried:	Aye 2, Nay 0, Abstained 0, Absent 0	
	Ms. Ford	Aye
	Mr. Larsen	Aye

10. Coastal Treatment Plant (CTP) Funding Plan Implementation [Project Committee 15]

ACTION TAKEN
A motion was made by Mr. Dunbar and seconded by Mr. Serna to recommend that the PC 15 Board award a contract to Hazen & Sawyer in the amount of $150,000 for the implementation of the Phase 2 Funding Strategy Plan.

Motion carried:	Aye 3, Nay 0, Abstained 1, Absent 0	
	Mr. Dunbar	Aye
	Mr. McAvoy	Aye
	Mr. Larsen	Abstain
	Mr. Serna	Aye

11. Contract Award for Coastal Treatment Plant (CTP) West Primary and Secondary Scum Skimmer System Pre-Procurement [Project Committee 15]

ACTION TAKEN

A motion was made by Mr. McAvoy and seconded by Mr. Serna to recommend that the PC 15 Board of Directors i) approve a contract with Brentwood Polychem, represented by Coombs Hopkins, for a total of $930,960 for the Coastal Treatment Plant West Primary and Secondary Scum Skimming Systems, and ii) approve a contract contingency of 10% in the amount of $93,096 to cover delivery and unloading charges.

Motion carried:	Aye 3, Nay 0, Abstained 1, Absent 0	
	Mr. Dunbar	Aye
	Mr. McAvoy	Aye
	Mr. Larsen	Abstain
	Mr. Serna	Aye

Adjournment

There being no further business, Ms. Grant adjourned the meeting at 9:36 a.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Regular Meeting of the South Orange County Wastewater Authority Engineering Committee of June 13, 2024, and approved by the Engineering Committee and received and filed by the Board of Directors of the South Orange County Wastewater Authority.

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Danita Hirsh, Assistant Board Secretary
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

Agenda Item 4

Engineering Committee Meeting

Meeting Date: August 15, 2024

TO: Engineering Committee

FROM: Jim Burror, Acting General Manager/Director of Operations

SUBJECT: Operations Report

Overview

Verbal update on operations and maintenance activities.

Recommended Action: Information Item.

Agenda Item 5

Engineering Committee Meeting

Meeting Date: August 15, 2024

TO: Engineering Committee

FROM: Amber Boone, Director of Environmental Compliance

SUBJECT: Use Audit Flows and Solids FY 2023-24

Summary

The Use Audit flow allocation methodology has relied on historical practice for allocation of costs. This agenda item reviews the methodology per project committee (PC), which is presented to the Engineering Committee members on an annual basis for review, comment, and approval for use in the annual Use Audit for FY 2022-23.

Results

Captured herein are the methodologies employed and the results by member agency based on the raw and calculated data, which have been distributed to Engineering Committee members for review and comment. Please note that PC 5 and PC 24 are attributed to fixed costs.

PC 2

Member agency average flows for the FY were used in the flow allocation and applied proportionally from the total combined flow from each tributary trunk line. The PC 2 uses FY flows and three-year FY average solid loadings to reconcile the budgeted amounts. Solids loadings are calculated from adding the average FY BOD and TSS and, dividing by 2 and then multiplying the result by the flow and the 8.34 pounds conversion factor. In March 2018, PC2 members Moulton Niguel Water District (MNWD) and Santa Margarita Water District (SMWD) came to an agreement on how to allocate solids for budgeting and use audit purposes. The new method captures the influent loading at Plant 3A as it was recognized that this allocation would isolate MNWD's solids contributions to JBL to a single variable. SMWD solids to JBL would then be the balance of solids contributed by the Oso Creek Water Reclamation Plant, 3A, and any other discharges to the Oso Trabuco line to JBL. Summary results for PC2 are included in Table 1. The total sum of the metered flows on the line influent into the JB Latham facility was 8.12 mgd. Calculated values with the 1.4mgd constant from MNWD is 8.0 mgd. The percentage difference between metered and billing flows was 1.5%.

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Table 1: PC2 Liquids and Solids Summary Table

PC2 - JB Latham Plant					
Liquids Summary (mgd)					
	FY 23-24	**FY 23-24**	**FY 23-24**	**FY 23-24**	**Total**
Member Agency	**Budgeted Flow (mgd)**	**Budgeted Percent**	**Total Avg. Flow (mgd)**	**Total Billing Flow (mgd)**	**Total Billing (%)**
San Juan Trunkline (1)	2.24		2.23		
MNWD (2)	Constant	19.08 %	Constant	1.40	17.50 %
SCWD	1.74	23.75 %	1.79	1.79	22.38 %
Oso-Trabuco Trunkline/SMWD (1),(2),(3)	3.36	57.17 %	3.98	4.81	60.13 %
	7.34	100.00 %	8.00	8.00	100.00 %
Solids Summary Loading (mgd)					
	FY 23-24	**FY 23-24**	**Total**	**Total**	**Total**
Member Agency	**Budgeted Solids (pounds)**	**Budgeted Percent (%)**	**Total Solids (pounds)**	**Billing Solids (pounds)**	**Total Billing (%)**
San Juan Trunkline (1)			6619.84		
MNWD (2)	5134.17	19.29 %	Constant	5101.24	18.74 %
SCWD	6279.59	23.59 %	6421.54	6421.54	23.59 %
Oso-Trabuco Trunkline/SMWD (1),(2),(3)	15206.71	57.12 %	14174.82	15693.42	57.66 %
	26620.47	1.00	27216.20	27216.20	100.00%

(1) San Juan Trunkline was previously allocated to the City of San Juan Capistrano (CSJC). With the acquisition of CSJC's flow by SMWD, the flows are included in SMWD's total flows and solids loading and included for clarity in total flows and solids contribution due to sharing of the Oso-Trabuco line by SMWD and MNWD.

(2) Please refer to the MNWD & SMWD Agreement from 2018 for flow/solids splitting in the Oso-Trabuco line.

(3) SMWD Includes Flow from San Juan Creek trunkline flow plus Oso Trabuco flow split minus the 1.4mgd flow constant from MNWD

PC 12

The PC 12 method of production is detailed by member agency in the following narrative. San Juan Capistrano is the acre-foot sum of the Rosembaum well, the Mission Street Well, and the total reclaimed water from the SMWD/CSJC intertie. For MNWD, it is the amount of reclaimed water produced from the Regional Treatment Plant (RTP) and the 3A Treatment Plant (split with SMWD). South Coast Water District (SCWD) is the total reclaimed water produced from the Coastal Treatment Plant (CTP). The Santa Margarita Water District (SMWD) is the combined sum of reclaimed water produced from the 3A Treatment Plant (split with MNWD), the Oso Creek

Water Reclamation Plant (OCWRP), the Chiquita Water Reclamation Plant (CWRP), and the Nichols Water Reclamation Plant (NWRP). The Trabuco Canyon Water District (TCWD) is reclaimed water produced from the Robinson Ranch Water Reclamation Plant (RRWRP). Summary results for PC2 are included in Table 2.

Table 2: PC12 Liquids Summary Table

PC 12 Recycled Water		
Master Recycled Water Permit		
FY 23-24		
Member Agency	**Region 9 Recycled Production FY 23-24 (AF)**	**% RW Produced FY 2023-2024 %**
MNWD	4436.66	36.03%
SCWD	602.81	4.90%
SMWD	6794.19	55.18%
TCWD	478.70	3.89%
Total	**12312.36**	**100.00%**

PC 15

Due to the lack of solids handling capacity at the Coastal Treatment Plant (CTP), allocation methodology is based on flows to the treatment plant. In addition, there are no current flow meters installed to account for any flow sent to CTP from MNWD, so no flow is being accounted for in this PC flow allocation methodology. The City of Laguna Beach (CLB) is the average annual flow into CTP (metered). The Emerald Bay Services District (EBSD) is the average annual flow into CTP (calculated from monthly meter read from the lift station divided by the days in the month). The South Coast Water District (SCWD) is the average annual flow into CTP (metered). The meter calibration is performed annually in June. Summary results for PC2 are included in Table 3.

Table 3: PC15 Liquids and Solids Summary Table

PC 15 Actual Flows FY 23-24 Coastal Treatment Plant		
Member Agency	**Plant Flows MGD**	**Plant Flow Percent**
CLB	**1.66**	**57.84%**
EBSD	**0.07**	**2.44%**
SCWD	**1.14**	**39.72%**
MNWD	**0.00**	**0.00%**
Total	**2.87**	**100.00%**

PC 17

PC 17 has liquid and solids contribution. The liquid flow allocation is based on influent flow to the plant. The influent flow is solely contributed by the MNWD. Due to liquid flow from CTP, the centrate flow is divided by 5 and distributed to each agency, then summed to create a total liquid flow to RTP. The flows are then distributed on a proportional basis. The solids contribution is based on the total daily average pounds contributed by each agency distributed proportionally. The meter calibration is performed annually in June. Summary results for PC17 are included in Tables 4 and 5 with significant digits to the ten thousand digit due to lower comparative flows of the centrate.

Table 4 & 5: PC 17 Liquids (Table 4) and Solids (Table 5) Summary Tables

PC 17 Liquids

Regional Treatment Plant
FY 23-24

Member Agency	Plant Flow (MGD)	Centrate Flow (MGD)	Total Flow (MGD)	Liquid Flow (%)
CLB	0.00	0.0161	0.0161	0.21%
EBSD	0.00	0.0007	0.0007	0.01%
SCWD	0.00	0.0109	0.0109	0.14%
ETWD	0.00	0.0150	0.0150	0.20%
MNWD	7.49	0.0657	7.5557	99.44%
Total	**7.49**	**0.1085**	**7.60**	**100.00%**

PC 17 Solids
Regional Treatment Plant
FY 23-24

Member Agency	#/Day	%
CLB	5729.40	15.04%
ETWD	5088.17	13.36%
EBSD	252.72	0.66%
MNWD	23142.01	60.75%
SCWD	3879.28	10.18%
Total	**38091.58**	**100.00%**

Previous Committee Review

This is the first time the use audit for FY 2023-24 will be before the Engineering Committee for discussion and comment.

Recommended Action: Staff recommends that the Engineering Committee recommend that the Board of Directors approve the Use Audit calculated results for the close of the Use Audit for disbursement or collection of additional funds in FY 2023-24.

Attachment(s)

FY 2023-24 Use Audit distributed under separate cover.

Agenda Item 6

Engineering Committee Meeting

Meeting Date: August 15, 2024

TO: Engineering Committee

FROM: Amber Boone, Director of Environmental Compliance

SUBJECT: Wastewater-Based Epidemiology

Overview

As noted in the June 2024 General Managers Report, SOCWA staff was notified by Verily that the Wastewater SCAN program would officially end on June 30, 2024. The Verily program provided a stipend for SOCWA to participate in the wastewater based epidemiology (WBE) surveillance of the three SOCWA treatment facilities: Regional Treatment Plant, Coastal Treatment Plant, and the JB Latham Plant. The program tested for SARS-CoV-2, Influenza, Respiratory syncytial virus (RSV), norovirus, mPox, and Hepatitis. The program concluded at the end of June due to a reduction in funding that Verily has received for this project. SOCWA staff reached out to Verily and requested additional pricing for FY 24-25. Verily indicated that they can provide testing for two years for the price of one, with a cost due July 2025 due to SOCWA's historic participation in the Wastewater SCAN program.

Discussion

The Wastewater SCAN program partners with the California Department of Public Health (CDPH), which oversees the California Wastewater Surveillance (Cal-SuWers) Program. The Wastewater SCAN program has been privately funded, while the Cal-SuWers program is partially funded by the Centers for Disease Control (CDC) under the National Wastewater Surveillance System. Congressman Robert Garcia and Congressman Don Bacon recently introduced the *Surveilling Effluent Water for Epidemic Response (SEWER) Act*, which will fund the work of the CDC's National Wastewater Surveillance System. The bill authorizes the program at $150 million for each of the next five fiscal years but has not yet passed, which leaves a funding gap for WBE services that have found renewed interest in the public as an indicator of public health outbreaks[1].

SOCWA reached out to the Orange County Health Care Agency (OCHCA) to understand how the OCHCA utilizes the WBE information in any related public health decisions. OCHCA pointed SOCWA staff to their website[2] , which tracks COVID cases and associated deaths. The OCHCA indicated they review the wastewater surveillance data periodically as part of their community public health surveillance, along with percent positivity and hospitalizations due to COVID. The WBE data is not used for public policy decision-making.

[1] Lin II, R.G. California hits 'very high' COVID levels as virus in wastewater jumps significantly. LA Times. July 15, 2024. LA Times: https://www.latimes.com/california/story/2024-07-15/covid-levels-jump-in-california-l-a-county-wastewater

[2] Orange County Health Care Agency. COVID tracker. https://ochealthinfo.com/covid.

Fiscal Impact

SOCWA reached out for updated pricing for its WBE services to continue monitoring through two potential providers: Verily and an unnamed private company. The goal was to compare costs and services for ongoing monitoring.

Verily offered a comprehensive package that includes testing twice per week at three treatment plants. Their service would measure SARS-CoV-2 and three additional pathogens at a cost of $90 per sampling event. Verily proposed a two-year contract with payment due in July 2025.

In contrast, the private company quoted a higher price of $300 per sampling event, with the same number of samples per week. There were options to increase the number of pathogens, but the pricing included a tiered increase in rate per sampling event.

After reviewing both options, the staff recommends continuing the WBE program with Verily and the Wastewater SCAN program. Verily offers a two-year contract to restart testing without any payments due FY 2024-25. The total cost of this contract would not exceed $9,360 per facility over the two-year period from FY 24-25 through FY 25-26.

Recommended Action: Staff recommends that the Engineering Committee recommend that the Board of Directors approve a two-year contract with Verily for wastewater-based epidemiology services for three facilities: PC 2, PC 15, and PC 17 at a cost not to exceed $9,360 per facility with payment due July 2025.

Agenda Item 7

Engineering Committee

Meeting Date: August 15, 2024

TO: Engineering Committee

FROM: Roni Grant, Associate Engineer

SUBJECT: Capital Improvement Construction Projects Progress and Change Order Report (August) [Project Committees 2 and 15]

Overview

This agenda item provides an update on projects in construction, including any change orders. Attached are the updated CIP reports.

Project Updates

JBL Centrate Line Upgrades
SS Mechanical finished the project with no change orders.

CTP Diffusers Replacement
The contractor completed the installation of fine-bubble diffusers in the two basins.

Upcoming Projects

- JBL Scum Line Replacement
- JBL Stormwater Pump Station Roof Replacement
- JBL MCC Pre-Purchasing
- CTP Aeration Deck Grating Replacement
- CTP Personnel Building Reconstruction

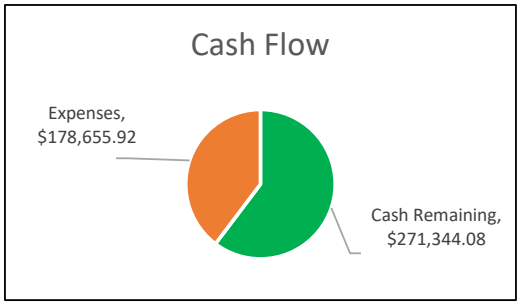
Recommended Action: Information Item.

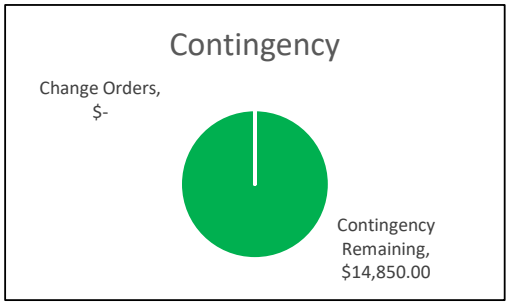
Project Financial Status

Project Committee	2
Project Name	Centrate Line Upgrades - 3234
Project Description	Removal and replacement of centrate drain piping, non-potable water piping in the Solids Dewatering Building

Data Last Updated

August 8, 2024





Cash Flow

Collected	$ 450,000.00
Expenses	$ 178,655.92

Project Completion

Schedule	100%
Budget	81%

Contracts

Company	PO No.	Original	Change Orders*	Total	Costs to Date
S&S Mechanical	19635	$ 148,455.00		$ 148,455.00	$ 148,455.00
Kleinfelder	14234	$ 71,374.00	$ -	$ 71,374.00	$ 6,625.25
SOCWA Staff Time	3234	$ -	$ -	$ -	$ 23,575.67
		$ 219,829.00	**$ -**	**$ 219,829.00**	**$ 178,655.92**

**Values include change orders to be reviewed by Engineering Committee*

Contingency

Area	Project Code	Amount	Change Orders*	Total Remaining	Percent Used
Solids	3234	$ 14,850.00		$ 14,850.00	0.0%
		$ 14,850.00	**$ -**	**$ 14,850.00**	**0.0%**

**Values include change orders to be reviewed by Engineering Committee*

Change Orders

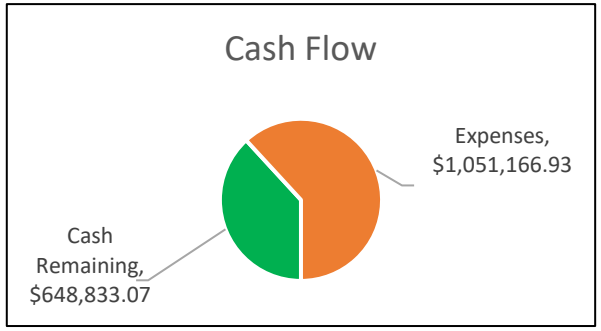
Change Order No.	Vendor Name	Project ID	Description	Status Date	Days	Amount
						$ -

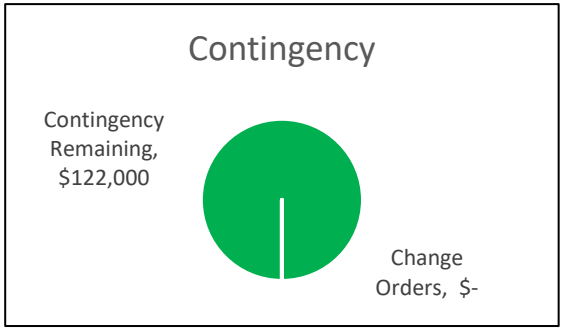
Project Financial Status

Project Committee	15
Project Name	CTP Diffusers
Project Description	Replacement of diffusers in the aeration basins

Data Last Updated

August 8, 2024





Cash Flow

Collected	$ 1,700,000.00
Expenses	$ 1,051,166.93

Project Completion

Schedule	60%
Budget	88%

Construction Contracts

Company	PO No.	Original	Change Orders	Amendments	Total	Costs to Date
Filanc	19640	$ 1,022,250.00			$ 1,022,250.00	$ 512,724.78
EDI	16620	$ 250,490.00			$ 148,455.00	$ 250,490.00
Hazen	17256/19641	$ 93,578.00			$ 6,625.25	$ 251,320.50
SOCWA Staff Time	35228L				$ 23,575.67	$ 36,631.65
		$ 1,366,318.00	**$ -**	**$ -**	**$ 1,200,905.92**	**$ 1,051,166.93**

**Values include change orders to be reviewed by Engineering Committee and deductive change orders*

Construction Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	35228L	$ 122,000.00		$ 122,000.00	0.0%
		$ 122,000.00	**$ -**	**$ 122,000.00**	**0.0%**

Change Order No.	Vendor Name	Project ID	Description	Status Date	Days	Amount
1	Filanc	35228L	Contract Extension	4/4/2024	273	$ -
						$ -

Agenda Item 8

Engineering Committee Meeting

Meeting Date: August 15, 2024

TO: Engineering Committee

FROM: Amber Boone, Director of Environmental Compliance

SUBJECT: Coastal Treatment Plant (CTP) Pioneering Pilot Project (Unsolicited Proposal) [Project Committee 15]

Overview

Pure Legacy Water Inc., in collaboration with multiple environmental advocacy groups in Laguna Beach, proposes a strategic meeting to discuss a pioneering pilot project at the Coastal Treatment Plant (CTP). The project aims to implement a 100-gallon per minute electrocoagulation system to remove compounds of emerging concern (CECs), including endocrine-disrupting compounds (EDCs) and per- and polyfluoroalkyl substances (PFAS). This proposal outlines the benefits of electrocoagulation, complementary technologies, and phased implementation to enhance wastewater treatment, reduce environmental impact, and align with sustainability goals.

Background

Compounds of emerging concern (CECs) such as EDCs and PFAS pose significant public health and ecological risks due to their persistence and bioaccumulation. Traditional wastewater treatment methods have proven inadequate in effectively removing these contaminants. The proposed electrocoagulation system offers a groundbreaking, chemical-free approach with several advantages:

1. Chemical-Free Process - Eliminates the need for hazardous chemical coagulants.
2. Smaller Footprint - Compact modular design ideal for space-constrained facilities.
3. Enhanced Contaminant Removal - Efficiently targets a wide range of pollutants.
4. Cost Efficiency - Reduces operational costs by eliminating chemical coagulants.
5. Simpler Operation and Maintenance - Easier to manage compared to traditional methods.
6. Environmental Impact - Lower risk of chemical spills and less contaminated sludge.
7. Adaptability and Scalability - Easily scaled to meet changing treatment needs.

In addition to electrocoagulation, complementary technologies such as solids separation and dewatering will be tested to validate the efficacy and cost savings of this approach.

Discussion

Pure Legacy Water proposed the following phases of implementation:

Phase 1 - Demonstrates the system's capability to prevent catastrophic plant failures while producing irrigation-quality water, reducing ocean discharge, and lowering operating costs.

Phase 2 - Addresses unresolved issues with CECs, including EDCs and PFAS.

Phase 3 - Integrates advanced analytics to monitor and optimize treatment processes through real-time data collection, enhancing system adaptability and long-term effectiveness.

Phase 4 - Develops a reporting system to correlate treatment performance with environmental impact assessments, providing clear insights into ecological and health benefits.

The project's success could establish Laguna Beach as a leader in sustainable wastewater management, with potential public-private partnership financing for full-scale implementation. A documentary series will document the project, educating and inspiring broader community engagement and innovation.

Pure Legacy Water Inc., supported by local environmental groups and approved by EPA Region 9, is keen to discuss this initiative further. A proposed meeting is sought to explore collaborative efforts towards sustainable wastewater management.

Next Step

- Schedule an in-person or virtual meeting to discuss the project details.
- Consider the phased implementation plan and potential benefits to the community and environment.
- Explore public-private partnership financing options for scaling the project.

Contact information

Pure Legacy Water Inc. will follow up by scheduling an initial conversation early next week.

Recommended Action: Staff recommends that the Engineering Committee schedule a meeting to discuss the unsolicited proposal in detail and explore potential collaboration opportunities.

Mike Marriner
388 Jasmine Street
Laguna Beach, CA
Monday May 13, 2024

Engineering Committee
South Orange County Wastewater Authority
34156 Del Obispo Street
Dana Point, CA 92629

Dear Members of the Engineering Committee,

I am writing to you on behalf of Pure Legacy Water Inc., alongside multiple environmental advocacy groups in Laguna Beach, to propose a strategic meeting to explore a pioneering pilot project at our expense at the Coastal Treatment Plant. Our primary focus is on implementing a 100-gallon per minute electrocoagulation system to ultimately target and remove compounds of emerging concern (CECs), including endocrine-disrupting compounds (EDCs) and per- and polyfluoroalkyl substances (PFAS), often referred to as "forever chemicals."

These contaminants, found in 98% of humans and ubiquitous in our environment, pose significant challenges to both public health and ecological stability. Traditional wastewater treatment technologies have been largely ineffective in addressing the full spectrum of these harmful substances. Our proposed electrocoagulation system offers a groundbreaking approach, focusing on the efficient removal of these complex pollutants, which are known for their persistence and bioaccumulation in the environment.

Electrocoagulation offers several advantages over the existing primary and secondary treatment methods currently used at the Laguna Beach Coastal Treatment Plant. Here are the summarized benefits:

1. Chemical-Free Process: Electrocoagulation does not require the addition of chemicals for the coagulation process. This contrasts sharply with traditional methods that often depend on chemical coagulants like alum or ferric chloride, which can be hazardous and require careful handling and disposal.

2. Smaller Footprint: The modular nature of electrocoagulation systems allows for a significantly smaller physical footprint compared to conventional treatment setups. This compact size makes it ideal for facilities where space is at a premium or where expansion of existing facilities is challenging.

3. Enhanced Contaminant Removal: Electrocoagulation is particularly effective at removing a wide range of pollutants including suspended solids, heavy metals, pathogens, and in particular, compounds of emerging concern such as endocrine-disrupting compounds and other micro-pollutants that are often inadequately addressed by traditional treatments.

4. Cost Efficiency: By eliminating the need for chemical coagulants, the operational costs associated with purchasing, transporting, and handling these materials are significantly reduced. Additionally, the simplicity and efficiency of the electrocoagulation process can lead to lower energy and maintenance costs over time.

5. Simpler Operation and Maintenance: Electrocoagulation systems are generally simpler to operate and maintain than traditional treatment methods, which often involve complex chemical dosing systems and mechanical components that require regular maintenance and monitoring.

6. Environmental Impact: Since no chemicals are used in the process, there is a reduced risk of chemical spills or residuals that could harm the aquatic environment. Furthermore, the sludge produced is typically less contaminated with chemical additives, which can simplify disposal and potentially allow for recycling or repurposing of the waste product.

7. Adaptability and Scalability: Electrocoagulation systems can be easily scaled up or down to meet changing treatment needs without extensive modifications to existing infrastructure. This adaptability makes it a versatile solution capable of addressing both current and future wastewater treatment challenges.

Overall, replacing the primary and secondary treatment methods with an electrocoagulation system at the Laguna Beach Coastal Treatment Plant could offer enhanced performance, environmental benefits, and cost savings, aligning with sustainability goals and improving the treatment efficiency.

In addition to electrocoagulation, we will be testing complementary technologies such as solids separation and dewatering at a pilot scale, all at our expense. This comprehensive testing aims not only to validate the efficacy of electrocoagulation in reducing the levels of CECs and EDCs but also to demonstrate substantial cost savings in both capital and operational expenditures. By enhancing the removal efficiency of these dangerous compounds, we also foresee a significant reduction in environmental and health impacts, aligning with broader sustainability and public health goals.

Phase 1: Is proving the ability to overcome the concerns regarding a catastrophic failure at the plant and at the same time producing water of sufficient quality for it all to be used for irrigation, eliminating any ocean discharge, substantially reducing operating costs and providing options regarding solids treatment.

Phase 2: Is addressing any unresolved issues concerning CECs, including EDCs and PFAS.

For Phase 3 and Phase 4, we will shift towards the integration and evaluation of cutting-edge innovations in process analytics and environmental management. Here's how these phases could be structured and their potential impacts:

Phase 3: Advanced Analytics Integration
1. Objective: Implement advanced analytical tools to monitor and optimize the new water treatment processes. This phase aims to incorporate real-time data collection systems, such as sensors and automated analytics, to closely monitor the efficacy and efficiency of the electrocoagulation process.

2. Approach: Install state-of-the-art sensors and data analytics software that can measure a wide range of chemical and physical parameters in real time. This technology will enable the plant operators to adjust processes dynamically, enhancing the system's adaptability to varying wastewater characteristics.

3. Benefits: By utilizing comprehensive analytics, this phase will ensure that the water quality is consistently maintained and that any deviations are promptly addressed. Moreover, the data collected will be invaluable in assessing long-term trends and effectiveness, leading to continuously improved treatment strategies.

Phase 4: Environmental Impact Correlation and Reporting
1. Objective: Develop a sophisticated reporting system that not only tracks the performance of the wastewater treatment but also correlates these findings with environmental impact assessments. This phase will focus on understanding how enhancements in the treatment process directly benefit ecological and human health metrics.

2. Approach: Collaborate with environmental scientists to create models that link the output of the treatment process—such as reduced levels of CECs, EDCs, and PFAS—with improvements in local water bodies and reductions in negative health impacts. This effort will involve developing a comprehensive database that integrates process data with environmental quality indicators.

3. Benefits: The ultimate goal of this phase is to provide clear, actionable insights that can be used to protect and enhance the environment. By clearly demonstrating the correlation between advanced wastewater treatment and ecological health, the project aims to set a benchmark for sustainable practices and inform policy decisions at higher levels of government and industry.

Together, Phases 3 and 4 will not only ensure the technical success of the treatment innovations but also foster a deeper understanding of their broader environmental implications. This approach will position Laguna Beach as a leader in sustainable wastewater management, showcasing how advanced technology and thoughtful analysis can converge to solve complex environmental challenges.

Our primary technology partner for this pilot project has garnered significant attention and approval, having previously piloted systems under the observation of the head of the EPA for biosolids in Region 9, covering the four Western states, including Hawaii. The EPA representative is enthusiastic about Laguna Beach serving as a proving ground and showcase for a long list of other communities. The EPA is particularly concerned with communities including Laguna Beach whose aging wastewater treatment plant infrastructure is at high risk of failure, which could result in catastrophic toxic events. Your support could set a precedent for innovative solutions in regions facing similar challenges.

Furthermore, we have garnered additional support from the Laguna Bluebelt and the Laguna Beach Environmental Sustainability Committee, both of whom will be actively participating in this process. Their involvement underscores the community's commitment to pioneering sustainable and effective wastewater treatment solutions.

Should this pilot prove successful, Pure Legacy Water Inc. and its partners are prepared to discuss public-private partnership financing options for scaling up to full operational capacity.

Additionally, we plan to document our journey through a documentary series, aiming to showcase our progress and the tangible benefits of these technologies. This initiative will not only educate the broader community but also inspire the next generation to tackle emerging environmental challenges with innovative solutions. In addition to episodes about Laguna Beach, we have started discussions with other cities that share our concerns and plan episodes about the cities joining this journey of collaboration and accelerating innovation for how we manage our municipal water and wastewater.

The backing from local environmental groups emphasizes the community's strong desire for innovative and effective solutions to these pressing issues. We are committed to thorough testing and evaluation of this technology at the Coastal Treatment Plant, with the goal of proving its effectiveness on Laguna Beach's unique wastewater profile.

We are keen to share more about this initiative and discuss how we can collaboratively work towards a safer, more sustainable wastewater management strategy. Could we schedule a time for an in-person or virtual meeting at your earliest convenience to go into further detail about this project?

I will call your office this Monday morning to hopefully schedule an initial conversation for this Monday afternoon or Tuesday after 11am.

Thank you for considering this opportunity to advance our shared goals of environmental protection and innovative wastewater treatment. We look forward to potentially collaborating with SOCWA to address these critical issues effectively.

Warm regards,

Mike Marriner
President
Pure Legacy Water Inc.
Mobile 949 395 6269
Mike@purelegacygroup.com

Executive Summary

Project Overview:
Pure Legacy Water Inc., in collaboration with environmental advocacy groups in Laguna Beach, is proposing an urgent pilot project at the Coastal Treatment Plant. The initiative introduces a 100-gallon per minute electrocoagulation system designed to efficiently remove harmful contaminants, including endocrine-disrupting compounds (EDCs) and per- and polyfluoroalkyl substances (PFAS). This system targets compounds of emerging concern (CECs) that are prevalent and hazardous in our environment.

Urgency of Implementation:
The Coastal Treatment Plant, now 75 years old, is on the brink of a potential catastrophic failure that could result in the most significant environmental disaster the region has ever faced. The head of the EPA for biosolids in region 9 has underscored the critical nature of this situation, highlighting the plant's outdated infrastructure as a disaster waiting to happen. This project is not just a preventive measure but an essential response to an imminent threat, aiming to prevent a major ecological and public health crisis.

Objectives:
1. Prevent a catastrophic environmental disaster by updating and enhancing the plant's treatment capabilities.
2. Eliminate hazardous chemicals used in current wastewater treatment processes, aligning with modern environmental standards.
3. Improve operational efficiency and pollutant removal effectiveness, particularly targeting persistent and bio accumulative toxins.
4. Eliminating all wastewater currently discharged into the ocean, approx 2 to 3 MGD for Laguna Beach.

Phases of Implementation:
- Phase 1: Rapidly address the potential for catastrophic failure, implementing solutions that also improve water quality to levels suitable for irrigation and eliminating the need for ocean discharge.
- Phase 2: Resolve ongoing issues with CECs, enhancing safety and compliance with environmental regulations.
- Phase 3 and 4: Develop and integrate state-of-the-art analytical tools and environmental impact assessments to ensure the plant meets future challenges and regulatory expectations effectively.

Expected Outcomes:
The pilot is expected to significantly reduce both the risk of disaster and ongoing operational costs, offering a scalable solution that modernizes wastewater treatment in Laguna Beach. It sets a precedent for other aging facilities facing similar risks.

Stakeholder Engagement:
Supported by significant regulatory attention and local advocacy groups, this project aligns with broader community and governmental goals for sustainable infrastructure development. The initiative will also explore public-private partnerships to support wide-scale implementation.

Documentation and Outreach:
The project will be documented through a series of educational documentaries aimed at raising awareness and promoting similar initiatives in other municipalities, thus multiplying its impact and serving as a beacon for proactive environmental management.

This executive summary highlights the critical urgency and transformative potential of the proposed pilot project at the Coastal Treatment Plant, framing it as an essential intervention to avert a looming environmental crisis while setting new standards in wastewater treatment efficiency and sustainability.

Agenda Item 9

Engineering Committee Meeting

Meeting Date: August 15, 2024

TO: Engineering Committee

FROM: Roni Grant, Associate Engineer

SUBJECT: Coastal Treatment Plant (CTP) Drainage Pump Station Final Design [Project Committee 15]

Overview

The Coastal Treatment Plant (CTP) Drainage Pump Station (DPS) was originally built in 1967 and modified in 1987. The original purpose of the DPS was to handle all incoming flows from the north influent sewer. The DPS is located adjacent to the facility property line, next to Aliso Creek, and is within the flood zone of the creek.

Currently, there are no flows from the north influent sewer, but the DPS still handles all drainage flows at the facility. Flows include stormwater, process return flows (tank drains, AWT backwash, etc.), and building drains. Originally, the DPS discharged into an influent force main just before it entered the Headworks Facility. In 2019, the influent force main was rehabilitated, and the DPS discharge location was changed to the primary influent channel.

No major upgrades have occurred since 1987, and the DPS is now in need of rehabilitation and modifications to ensure proper and effective operations. The DPS was included as part of the Facility Improvements Project but was removed from the scope because not all potential flows were accounted for.

SOCWA retained Tetra Tech in 2019 to design the upgrade of the north drainage system and in 2023 to perform the conceptual design of the DPS, including a wet well condition assessment. The conceptual design was completed earlier in 2024.

The final design project elements include the following:

- Review the wet well condition assessment report and conceptual design report as the basis of design for the final design.
- Design a new discharge location based on the conceptual design recommendation.
- Provide a final design of the facility that meets current functional needs and code requirements. The design shall maintain the current facility capacity. In addition, the design should take the existing sampling process into consideration without disruption and coordinate with the north drainage upgrades effort.
- The design should include construction feasibility, bypassing, and sequencing to minimize disruption to the DPS and treatment in the most timely and cost-effective manner.

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Proposals

SOCWA solicited proposals through PlanetBids on 5/29/2024. Six firms were contacted during this process:

- Black and Veatch
- Carollo Engineers
- Dudek
- Hazen and Sawyer
- HDR
- Tetra Tech

Only Tetra Tech submitted a proposal. Staff reached out to the firms that did not propose. The firms indicated that since Tetra Tech performed the conceptual design, the same firm should continue with the final design.

A summary of proposals and SOCWA's staff ratings are in Table 1.

Table 1 – Summary of Proposals

Firm	**Tetra Tech**
Project Manager	Tom Epperson
Total Labor Hours	2,198
Total Fee	$380,000
SOCWA Staff Rating (80 max)	78

Staff recommends Tetra Tech due to the following:

- The Project Manager is the most familiar with the CTP DPS project.
- The project team is the most familiar with the CTP DPS project.
- The firm has the most realistic project understanding and approach.
- The project team and manager have recently completed similar work.

Table 2 shows the allocation of costs by member agency.

Table 2 –Cost Allocation by Member Agency

Agency	**DPS Rehabilitation (35220L)**
City of Laguna Beach	$151,641.79
Emerald Bay Service District	$11,940.30
Moulton Niguel Water District	$117,014.93
South Coast Water District	$119,402.99
Total	$400,000.00

The proposals were distributed to the evaluation committee (PC 15 Engineering Committee members and SOCWA staff) on July 10, 2024. Committee members were requested to provide their rating sheets for discussion at or before the August Engineering Committee meeting.

Staff also requests a contingency of $20,000 for unknown issues discovered during design.

Budget

The Drainage Pump Station Rehabilitation (35220L) has a project budget of $4.2M, and $575,000 has been collected through June 30, 2024.

Recommended Action: Staff recommends that the Engineering Committee recommend that the PC 15 Board of Directors i) approve a contract with Tetra Tech for a total of $380,000 for the CTP Drainage Pump Station Rehabilitation Design and ii) approve a contract contingency of $20,000 for unknown issues discovered during design.

TETRA TECH

July 9, 2024

Jeanette Cotinola, CPCM, Procurement/Contracts Manager
South Orange County Wastewater Authority
34156 Del Obispo Street
Dana Point, CA 92629

Reference: Proposal to Provide Engineering Services for the Coastal Treatment Plant Drainage Pump Station Final Design Project

Dear Ms. Cotinola,

Thank you for the opportunity to submit our proposal to provide engineering design services for the Coastal Treatment Plant (CTP) Drainage Pump Station (DPS) Final Design project. Tetra Tech appreciates the relationship we have built with the South Orange County Wastewater Authority (SOCWA) during our past projects and looks forward to continuing and expanding this association in the future. The following are the distinct advantages our project team will bring to SOCWA and this project:

- **Extensive Sewer Lift Station Design Experience:** During the last twenty (20) years, members of our project team have been involved in the **design and/or construction of more than twenty (20) sewer lift station projects** for various Southern California agencies including several for your member agencies.
- **Submersible Pump Experience:** Our project team has recent design experience with sewage/drainage submersible pumps within wet wells. This experience includes three (3) facilities for IRWD's Peters Canyon Channel Water Capture, MNWD's North Aliso Lift Station Reconstruction and ETWD's Oso Lift Station.
- **SOCWA Experience:** Tetra Tech has been working with SOCWA on multiple projects since 2004. CTP projects include Conceptual Evaluation of DPS; Stormwater Control Study; Miscellaneous Stormwater Compliance Upgrades; North Side Drainage Evaluation; and the Design/Build Export Sludge Equalization Basin.
- **Best Understanding of the Project Objectives:** Tetra Tech completed the 2019 CTP North Drainage Area Study and the 2023 CTP Drainage Pump Station Conceptual Design. Therefore, Tetra Tech has the best understanding of the project objectives and can finalize the design in the most cost-effective manner.
- **Local In-House, Structural, Electrical, and Instrumentation Control Capabilities:** Tetra Tech has in-house local, registered structural, electrical and control engineers with vast lift station design experience.
- **Dedication to SOCWA:** Our approach will include a "teamwork and partnering" relationship. We will do this by exceeding your expectations through innovative and smart solutions, attention to detail, and our understanding of your design processes and requirements.

Our project team is committed to the success of this project, and we endeavor to exceed your expectations by delivering the services outlined in our proposal. Our proposal will remain valid for a period of six (6) months from the date submitted and we acknowledge and agree with all terms and conditions stated in the RFP. Furthermore, Tetra Tech certifies all information provided in connection with our proposal is true, complete, and correct. Should you have any questions regarding our proposal, please contact me at (949) 809-5156 or via email at tom.epperson@tetratech.com.

Sincerely,

Tom Epperson, PE
Vice President

M:\Marketing\Proposals\FY 2024\SOCWA_CTP PS Final Design

17885 Von Karman Avenue, Suite 500, Irvine, CA 92614-5227
Tel 949.809.5000 tetratech.com

FIRM OVERVIEW

Founded in 1966, Tetra Tech is a nationally recognized engineering and resource management firm of more than 28,000 engineers, scientists, construction specialists, and technical support personnel in 550 offices worldwide. Listed on the NASDAQ Exchange (TTEK), Tetra Tech's annual revenues now exceed $5 billion (2024). Thus, we are in an excellent financial position and can provide the necessary resources to rapidly deploy and meet aggressive project schedules.

Tetra Tech's goal is to provide the necessary expertise and resources to deliver projects on time, within budget, and in compliance with the design and construction standards of our clients and approval agencies. Leveraging our national presence, multi-disciplinary teams, and client focused service, we apply lessons learned from our vast experience to each and every challenge. Clients benefit from this approach with consistently high-quality service, innovative designs, and functional solutions that are responsive to their needs and often exceed their expectations. A cornerstone of our success is our client-focused service, staff qualifications, firm commitment, and desire to successfully complete each assignment to the satisfaction of our clients.

Tetra Tech is a leader in water/wastewater/recycled water facility design and consistently ranks among the top engineering firms annually according to the *Engineering News-Record*, a highly regarded news magazine. **In 2024, ENR rated Tetra Tech 1st in the "Water Treatment & Desalination" category, 2nd in the "Sewer & Waste" category, and 3rd among the "Top 500 Design Firms" nationwide!**

This project will be managed from our Irvine office located at:

Company Legal Name: Tetra Tech, Inc.
Address: 17885 Von Karman Avenue, Suite 500, Irvine, CA 92614
Project Manager: Tom Epperson, PE, Vice President; ☎ 949/809-5156; ✉ tom.epperson@tetratech.com

PROJECT APPROACH

Tetra Tech fully understands the importance of your project. We are offering an outstanding team, which combines the experience, depth, and understanding needed for the successful delivery of this project. Our core principles establish how we plan to work together with SOCWA to successfully complete this project:

✓	**Service:** Tetra Tech puts its clients first. We listen to and better understand our clients' needs and deliver smart, cost-effective solutions that meet those needs. Our philosophy is to "Do it Right."
✓	**Value:** Tetra Tech takes on our clients' problems as if they were our own. We develop and implement real-world solutions that are cost-effective, efficient, and practical.
✓	**Excellence:** Tetra Tech brings superior technical capability, disciplined project management, and excellence in safety and quality to all of our work.
✓	**Opportunity:** Our people are our number one asset. Our workforce is diverse and includes leading experts in our fields. Our entrepreneurial nature and commitment to success provides challenges and opportunities.

We value the relationship that has been established with SOCWA, and look forward to continuing and further developing this association in the future. We are committed to providing SOCWA with the same high-quality service you expect and deserve. **Our strength lies in our proven track record that has led to the successful completion of more than 60 projects for SOCWA, as well as other nearby agencies, since 2004.**

SCOPE OF WORK

The Project Elements will include the following:

- Review wet well condition assessment and conceptual design memos as basis of design for final design.
- Design a new discharge location based on the conceptual design recommendation.
- Provide a final design of the facility that meets current functional needs and code requirements. The design shall maintain the current facility capacity. The design should take the existing sampling process into consideration without disruption, and coordinate with the north drainage upgrade effort.
- The design should include construction feasibility, bypassing, and sequencing to minimize disruption to the DPS and treatment plant in the most timely and cost-effective manner.

The scope of services for this project consists of the following tasks:

Task 1: Project Management and Progress Meetings

Tetra Tech will include in the scope of services sufficient time and budget to manage the services provided. Project management/administration shall include: kick-off meeting at CTP; a maximum of six (6) virtual monthly progress meetings with SOCWA staff; and one (1) virtual coordination meeting with member agencies. The primary purpose of the monthly progress meetings is to review schedule, task progress, and outstanding action items. Tetra Tech will prepare the agenda, the action item list, and the decision log for each meeting.

Task 2: Data Collection and Document Review

SOCWA will provide available record drawings and previous studies involving the DPS (Tetra Tech has already been provided with these studies). Drawings do not exist for all modifications to the DPS. Tetra Tech will perform a site visit to confirm all site conditions have not changed since the preparation of the previous memorandums.

Task 3: Basis of Design

Tetra Tech will prepare a Basis of Design Memorandum based on the following: Option No. 1 (Submersible Pumps in Existing Wet Well) as summarized in the Conceptual Design Memorandum; and the drainage piping recommended in the CTP North Drainage Memorandum. In addition, the following tasks will be performed:

- ***Design Survey:*** A topographic survey of the DPS site as well as the north area of the plant.
- ***Geotechnical Evaluation:*** Minimum scope of work will be to perform a desktop study based on review of available existing reports for the project area at the plant. If there is insufficient information to perform the design of the perimeter wall and surrounding improvements, Tetra Tech will authorize Verdantas, Inc. to drill, sample and log one hollow-stem auger boring to a depth of 15 feet below existing grade. A geotechnical evaluation report will be prepared which will include recommendations for foundation design of the perimeter wall and site preparation for the modifications to the proposed electrical building.

Tetra Tech will prepare for and attend a design workshop that will include the basis of design and preliminary bypass/sequencing plan based on the conceptual design. Tetra Tech will prepare an implementation plan showing how the work can be done while maintaining the facility in service. The implementation plan will include a maximum of three (3) alternatives on the bypass during the proposed construction of the facility. For the preparation of the design schedule, Tetra Tech assumed SOCWA will take four (4) weeks to review the basis of design and select one bypass alternative from the implementation plan.

Task 4: Final Design

Tetra Tech will prepare final design based on the basis of design memorandum and the selected bypass alternative. Tetra Tech will perform the necessary calculation for the design (hydraulics, HVAC/ventilation, structural and electrical).

Tetra Tech envisions the final design plan set will include the following:

Sheet No.	Sheet Title
1	Title Sheet and Location Map
2	Abbreviations, Vicinity Map, Sheet Index and Symbols
3	General Notes, Demolition Notes and Contacts
4	Hydraulic Profile, Design Criteria, and Pipe Material Schedule
5	Horizontal Control Plan, Bench Mark, Basis of Bearing
6	Overall CTP Site Plan including Work Area and Staging Plan
7	North Site Improvement Plan
8	North Site Drainage Piping Profile and Details
9	Perimeter Wall Plan and Profile
10	Perimeter Wall Details, Typical Sections and Grated Catch Basin Details
11	DPS Site and Piping Plan (including existing drains into DPS wet well)
12	DPS Site and Piping Demolition Plan
13	DPS Dry Pit Demolition Plan
14	DPS Electrical Equipment and Stairway Demolition
15	DPS Dry Well, Electrical Equipment and Wet Well Demolition Sections
16	DPS Wet Well Rehabilitation and Details
17	Conceptual Bypassing Plan and Details (assume three separate locations)
18	Conceptual Construction Phasing and Interim Site Plan
19	DPS Discharge Piping Plan and Profile
20	Channel Discharge Plan, Section and Details
21	Drainage Piping, Connections and Miscellaneous Details
22	Site Details
23	Drainage Details
24	Miscellaneous Details
25	Mechanical Plan
26	Mechanical Sections
27	Mechanical Details
28	Pipe Supports and Miscellaneous Details
29	HVAC and Ventilation Plan and Details
30	General Structural Notes and Design Criteria
31	Special Inspections and Structural Observations
32	Wet Well Roof Plan
33	Wet Well Roof Section
34	Existing Building Sections
35	Structural Details (plugging penetrations/openings)
36	Existing Building Modifications
37	Miscellaneous Structural Details
38	Electrical Symbols and Abbreviations
39	Electrical Demolition Plan and Interim Electrical Plan
40	Electrical Site Plan
41	Site Power Plan

Sheet No.	Sheet Title
42	Building Power Plan
43	Site I&C Plan
44	Building I&C Plan
45	Lighting and Grounding Plan
46	Site Lighting Plan and HVAC Plan
47	Single Line Demolition and Single Line Diagram
48	Conduit and Panel Schedule
49	MSB and MCC Elevation
50	Pump Control Schematic Diagram
51	Lighting and Receptacle Details
52	Electrical Details
53	P&ID Symbols and Abbreviations
54	P&ID
55	Control Panel
56	PLC Network Details
57	Area Classification

Tetra Tech assumes the following submittals will be required:

50% Submittal: This submittal will address all SOCWA's comments from the design workshop and the basis of design memorandum. This submittal shall also include comments returned from the design workshop with the 50% complete stage plans, specifications and cost estimate. In preparing the schedule, Tetra Tech has assumed SOCWA will take two (2) weeks to review the submittal and return comments.

90% Submittal: This submittal will address all SOCWA's comments from the 50% design submittal. This submittal shall also include comments from the same elements as the 50% submittal with the 90% complete stage plans, specifications and cost estimate. In preparing the schedule, Tetra Tech as assumed SOCWA will take two (2) weeks to review the submittal and return comments.

Constructability Review Workshop: Tetra Tech will attend in person and perform a site walk with SOCWA staff prior to any discussions on the Bid Set submittal to determine work restriction and sequence of work.

Bid Set: Tetra Tech will provide the complete Bid Set with the final completed plans, specifications and estimate. This Bid Set will include SOCWA's comments from the previous submittals including the constructability review.

For all submittals, Tetra Tech will provide drawings in electronic form (in *.pdf format) and specifications in electronic form (in *.doc format).

Specifications: SOCWA will provide Tetra Tech with the listing of standard specifications from Division 1 to be used for the project after the 50% design submittal review. Tetra Tech will prepare Section 01010, Summary of Work, and Section 01014, Work Restrictions and Sequence. Tetra Tech will meet with SOCWA to discuss coordination of specification sections referenced in the Technical Specifications. Tetra Tech will submit required information for review at the 90% design submittal phase.

Coordination with Member Agencies: Tetra Tech will coordinate the work with member agencies on an as-needed basis to minimize disruption on their ongoing work if any. For this proposal, Tetra Tech has assumed one (1) virtual coordination meeting with member agencies.

SEWER/STORM DRAIN LIFT STATION EXPERIENCE

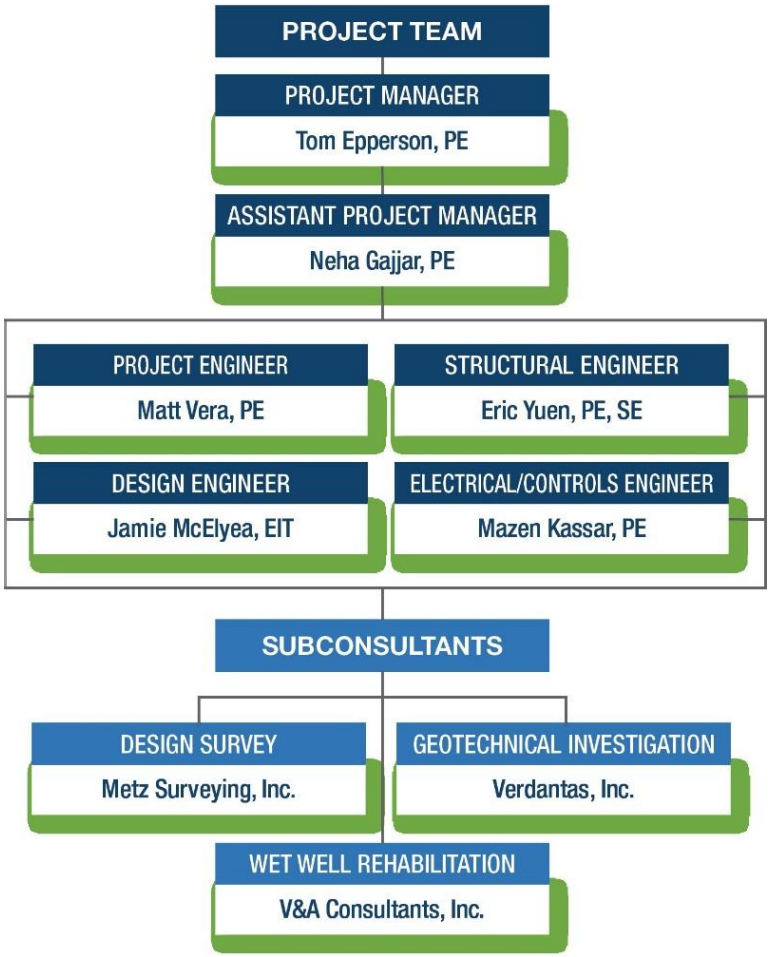
During the last 20 years, members of our project team have been involved in the design and/or construction of more than 20 sewer/storm drain lift station projects for various Southern California agencies. The following is a summary of our project team's completed lift station projects:

SEWER/STORM DRAIN LIFT STATION FACILITIES COMPLETED BY PROJECT TEAM		
Client	**Project Name**	**Completed**
SOCWA	CTP Drainage Pump Station Conceptual Design	2024
Moulton Niguel Water District	North Aliso Lift Station Reconstruction	Bidding
El Toro Water District	Aliso Creek LS Alternative Analysis Study	2024
City of Santa Ana	San Lorenzo Lift Station	2023
Moulton Niguel Water District	Regional Lift Station Enhancements	2022
El Toro Water District	Oso Lift Station Improvements	2021
Orange County Water District	Burris Pump Station including Packaged Lift Station	2017
Moulton Niguel Water District	North Aliso and Camino Capistrano Lift Station Preliminary Evaluation	2017
NAVFAC Southwest	Camp Pendleton Sewer Lift Station Package #1	2014
NAVFAC Southwest	Camp Pendleton Sewer Lift Station Package #2	2014
NAVFAC Southwest	Naval Base Coronado Sewer Lift Station	2013
Moulton Niguel Water District	Lower Salada Lift Station Oxygenation Upgrades	2008/2006/2000
Moulton Niguel Water District	Upper Salada Lift Station Oxygenation Upgrades	2007/2006
South Coast Water District	Sewer Lift Station Evaluation	2007
Moulton Niguel Water District	Del Avion Lift Station Pump/Motor Replacement	2006
South Coast Water District	Blue Lagoon Lift Station	2006
Moulton Niguel Water District	Regional Lift Station Pump/Motor Replacement	2004/2000
Moulton Niguel Water District	Upper Boundary Oak Lift Station Expansion	2006
Moulton Niguel Water District	Aliso Creek Lift Station Upgrades	2005
Irvine Ranch Water District	Coastal Ridge Lift Station	2004

In addition, the project team completed the design of the Peters Canyon Channel Water Capture and Reuse Pipeline for Irvine Ranch Water District. This project included three (3) separate diversion structures, with each diversion facility including a wet well, submersible pumps, valve vault and meter vaults. The construction was completed in 2018.

PROJECT TEAM

Tetra Tech has a depth of resources for staffing this project with experienced and qualified personnel. The following team has had extensive experience working on sewage/drainage lift stations. The following paragraphs provide a brief summary of the qualifications of our key staff. Brief resumes are included within the Appendix.



Tom Epperson, PE, Project Manager, will provide project oversight and ensure that the necessary resources are committed to the project to get the job done. Mr. Epperson will apply more than 43 years of professional experience which includes a myriad of projects which required finding solutions to complex issues within wastewater facilities.

Neha Gajjar, PE, Assistant Project Manager, will provide support to Mr. Epperson with project oversight. Ms. Gajjar has more than 32 years of professional experience in water and wastewater facilities design and played a major role on the 2021 Memorandum "Conceptual Evaluation for the Projection of the CTP Drainage Pump Station" as well as the "CTP Drainage Pump Station Conceptual Design".

Matt Vera, PE, Project Engineer, has more than 11 years of water/wastewater experience and has provided design engineering for various domestic and reclaimed water pipelines, gravity sewer mains, sewer main rehabilitations, pump stations, lift stations, wells, flow control facilities, and pressure reducing valve vaults. As Project Engineer, Matt previously played the same roll on MNWD's North Aliso Lift Station Reconstruction project.

Jamie McElyea, EIT, Design Engineer, as our Design Engineer, she has more than eight years of experience in civil engineering design, drafting with AutoCAD Civil 3D, and technical documentation. Jamie was also the Design Engineer on our MNWD North Aliso Lift Station Reconstruction project.

Eric Yuen, PE, SE, Structural Engineer, has more than 17 years of professional experience in design, analysis, and detailing in structural engineering. Eric is currently playing the same role on MNWD's North Aliso Lift Station Reconstruction project.

Mazen Kassar, PE, Electrical/Controls Engineer, more than 32 years of professional experience in electrical engineering and industry standards including, construction management and supervision, water and wastewater treatment, petro-chemical design, and environmental soil and groundwater treatment. Mazen is leading our Electrical Design Team on our North Aliso Lift Station Reconstruction project for MNWD.

Subconsultants: To provide the services requested in the RFP, Tetra Tech has added the following subconsultants to our project team:

- Design Survey: Metz Surveying, Inc.
- Geotechnical Investigation: Verdantas, Inc. (formerly Leighton Consulting, Inc.)
- Wet Well Rehabilitation Support: V&A Consultants, Inc.

The following lists Team Member's project responsibility, years of experience, percent available and completed projects:

Team Member	Project Responsibility	Years of Exp.	Percent Available	Projects
Tom Epperson, PE	Project Manager	43	10%	• SOCWA Coastal Treatment Plant Drainage Pump Station Conceptual Design • Santa Ana San Lorenzo Sewage Lift Station • MNWD North Aliso Lift Station Reconstruction • OCWD Burris Pump Station including Packaged Lift Station • IRWD Coastal Ridge Lift Station • ETWD Oso Lift Station Improvements
Neha Gajjar, PE	Assistant Project Manager	32	20%	• SOCWA Coastal Treatment Plant Drainage Pump Station Conceptual Design • Santa Ana San Lorenzo Sewage Lift Station • MNWD Regional Lift Station Force Main Replacement • ETWD Aliso Creek Lift Station Improvements Alternatives Analysis Study
Matt Vera, PE	Project Engineer	11	20%	• MNWD North Aliso Lift Station Reconstruction • MNWD Regional Lift Station Force Main Replacement • MNWD Regional Lift Station Enhancements • ETWD Oso Lift Station Improvements
Jamie McElyea, EIT	Design Engineer	8	30%	• SOCWA Coastal Treatment Plant Drainage Pump Station Conceptual Design • Santa Ana San Lorenzo Sewage Lift Station • MNWD North Aliso Lift Station Reconstruction • MNWD Regional Lift Station Force Main Replacement
Eric Yuen, PE, SE	Structural Engineer	17	10%	• SOCWA Coastal Treatment Plant Drainage Pump Station Conceptual Design • MNWD North Aliso Lift Station Reconstruction • MNWD Regional Lift Station Force Main Replacement • ETWD Oso Lift Station Improvements
Mazen Kassar, PE	Electrical/ Controls Engineer	32	10%	• SOCWA Coastal Treatment Plant Drainage Pump Station Conceptual Design • Santa Ana San Lorenzo Sewage Lift Station • MNWD North Aliso Lift Station Reconstruction • OCWD Burris Pump Station including Packaged Lift Station • ETWD Oso Lift Station Improvements

SATISFIED CLIENTS

Client satisfaction is a major objective for Tetra Tech. This commitment to our clients has earned us the privilege of providing continuous service to several of our below listed references. We believe our clients will attest to our technical experience and responsive staff, and we encourage you to contact our references to verify our past performance firsthand.

City of Santa Ana **Armando Fernandez, PE** 714/647-3316 afernandez@santa-ana.org 2 Lift Stations	**Moulton Niguel Water District** **Rodney Woods, PE** 949/425-3547 rwoods@mnwd.com 10 Lift Stations	**Orange County Water District** **Chris Olsen, PE** 714/378-3232 colsen@ocwd.com 2 Pump Stations and Well Injection	**Irvine Ranch Water District** **Richard Mori, PE** 949/453-5571 mori@irwd.com 2 Lift Stations and 4 Diversion Structures	**El Toro Water District** **Hannah Ford, PE** 949/837-7050, ext. 247 hford@etwd.com 2 Lift Stations

PROPOSED PROJECT SCHEDULE

Tetra Tech has reviewed current and planned workload schedules for our project team, and are available to immediately begin work on this project. The following presents our proposed project schedule.

Milestone	Key Milestone Dates
Notice of Award	August 15, 2024
Kick-off Meeting	August 21, 2024
Design Workshop	September 10, 2024
SOCWA Review/Comment Return	October 9, 2024
50% Design Submittal	October 30, 2024
SOCWA Review/Comment Return	November 13, 2024
90% Design Submittal	January 15, 2025
SOCWA Review/Comment Return	January 29, 2025
Constructability Review Workshop	February 12, 2025
Bid Set Submittal	March 12, 2025
SOCWA Review/Comment Return	March 26, 2025
Bid Documents Submittal	April 2, 2025

PRICING

Our Fee Spreadsheet presents an estimate of hours and budget to complete the work in accordance with the Scope of Work provided within the RFP and within this proposal. The budget includes all costs required to complete the work requested by the RFP. We have also included our Hourly Rate Schedule for 2024/2025.

MISCELLANEOUS ITEMS

Tetra Tech certifies that it is not aware of any actual or potential conflict of interest that exists or may arise by executing the contract or performing the work that is the subject of this proposal.

Attached to the proposal is our signed Attachment B (Non-Collusion Affidavit) and Attachment C (Conflict of Interest Affidavit).

Tetra Tech certifies that it is willing and able to obtain all insurance required by the form contract included as Attachment D.

Tetra Tech certifies it has conducted a reasonable and diligent inquiry concerning the minimum and/or prevailing wages required to be paid in connection with the performance of the work for this proposal.

Tetra Tech certifies the proposed pricing includes sufficient funds to allow Tetra Tech to comply with all applicable local, state, and federal laws or regulations governing the labor or services to be provided.

Tetra Tech acknowledges and agrees with all terms and conditions stated in the RFP and certifies that all information provided in connection with our proposal is true, complete and correct.

APPENDIX
Resumes

Education

BS, Environmental Engineering, University of California, Irvine, 1978

Registration

Professional Civil Engineer, California, No. 36399, 1983

Years of Experience

43

Years with Tetra Tech

32

Tom Epperson, PE

Project Manager

Mr. Epperson has more than 43 years of professional experience in water, wastewater, and reclaimed water engineering. Tom has been responsible for the preparation of water, wastewater, and reclaimed water master plans; project design reports for various water, wastewater, and reclaimed water facilities; and the planning and design of water, wastewater, and reclaimed water pipelines, along with, lift stations, pump stations and reservoirs. Mr. Epperson's experience includes completing the design, bidding, and construction management of over 300 miles of water/reclaimed water/sewer mains, 40 water/reclaimed water pump stations, 20 wellhead facilities, 20 sewer lift stations, and 28 water and reclaimed water storage reservoirs throughout Southern California.

PROJECT EXPERIENCE

Coastal Treatment Plant Drainage Pump Station Conceptual Design, South Orange County Wastewater Authority. Project Manager. The Coastal Treatment Plant Drainage Pump Station (DPS) located in Laguna Niguel, CA is a conventional activated sludge treatment plant with a secondary treatment design capacity of 6.7 MGD. Tetra Tech provided preliminary design services to rehabilitate the DPS by replacing aging equipment, upgrading the structure, and bringing it up to code. Tasks included a wet well condition assessment to determine the type of rehabilitation needed for the structure and interior components, evaluated options for a new discharge location, suggested a facility design to meet current functional needs and code requirements and evaluated construction feasibility, bypassing, and sequencing options to minimize disruption to the DPS and the treatment plant.

San Lorenzo Sewage Lift Station, City of Santa Ana. Project Manager. Prepared plans, specifications, and cost estimates to construct a new sewer lift station on San Lorenzo Avenue within the City of Santa Ana. The improvements included a wet well, dry well, three variable frequency drive pumps, aboveground CMU block control room, emergency generator, hardscape/landscape improvements and approximately 1,300 linear feet of new sewer main.

Lower Salada Lift Station Rehabilitation, Moulton Niguel Water District. Project Manager. Design and construction of a rehabilitation of the Lower Salada Lift Station, including rehabilitation of the existing wet well and replacement of existing valves.

North Aliso Lift Station Reconstruction, Moulton Niguel Water District. Project Manager. The North Aliso Lift Station is located in Mission Viejo, CA and conveys raw wastewater from the MNWD's SubBasin 8 (North Aliso) to SubBasin 9 (3A) whereafter it flows by gravity to the MNWD's 3A Wastewater Treatment Plant. The existing lift station site includes a pump building with electrical equipment on the ground floor and two 1,400 gpm pumps located in a concrete dry pit directly below. The site also has a wet well, overflow basin, backup generator, diesel storage tank, and bypass pumping connection. Tetra Tech was tasked to provide engineering design services to reconstruct the North Aliso Lift Station in its entirety and to replace the existing facilities that have reached the end of their useful lives. Services include preliminary and final design; preparation of construction documents and construction cost estimates; permit acquisition support; bid phase support; and construction phase services.

Oso Lift Station Improvements, El Toro Water District. Project Manager. Provided engineering services for the relocation of the existing lift station to a new property within Laguna Woods. The work includes a preliminary analysis of sewer flows for the basis of design, evaluating pumps to select the most efficient for the lift station demands, configuring the site to accommodate new construction while the existing remains in service, evaluating on-site storage and response times, considering odor control alternatives and converting the existing wet well into an emergency storage basin.

Education

BS, Civil Engineering, University of California at Berkeley, 1991

Registration

Professional Civil Engineer, California, No. 55574, 1996

Years of Experience

32

Years with Tetra Tech

6

Neha Gajjar, PE

Assistant Project Manager

Ms. Gajjar has more than 32 years of professional experience providing project management, planning, and design of water transmission, distribution, and storage facilities projects. Neha has extensive experience preparing plans and specifications for water/sewer mains, storm drains, pipelines, and has an intimate understanding of these requirements for various municipalities. Ms. Gajjar's experience includes design, bidding, and construction management of over 100 miles of water/reclaimed water/sewer mains throughout Southern California. Her responsibilities as engineering lead include establishing design parameters, planning activities to meet client needs and project schedules, and managing required appropriate technical resources necessary for each project.

PROJECT EXPERIENCE

Coastal Treatment Plant Drainage Pump Station Conceptual Design, South Orange County Wastewater Authority. Assistant Project Manager. The Coastal Treatment Plant Drainage Pump Station (DPS) located in Laguna Niguel, CA is a conventional activated sludge treatment plant with a secondary treatment design capacity of 6.7 MGD. Tetra Tech provided preliminary design services to rehabilitate the DPS by replacing aging equipment, upgrading the structure, and bringing it up to code. Tasks included a wet well condition assessment to determine the type of rehabilitation needed for the structure and interior components, evaluated options for a new discharge location, suggested a facility design to meet current functional needs and code requirements and evaluated construction feasibility, bypassing, and sequencing options to minimize disruption to the DPS and the treatment plant.

Upper Salada Sewer Lift Station, Moulton Niguel Water District, Laguna Niguel, CA. Project Manager. Assumed position of Project Manager after preliminary design report was complete. Duties included coordination with MNWD to assess a new scope for the project based on current needs, preparation of plans and specifications to install a permanent generator on site, including documentation (plats and legal descriptions) for the District to use in acquiring portions of adjacent property, coordination and research at OCFA to determine the latest setback requirements and establishing the optimal location for the facilities to meet state and federal guidelines.

Aliso Creek Lift Station Improvements Alternatives Analysis Study, El Toro Water District. Assistant Project Manager. Provided evaluation to determine the most cost-effective approach to achieve the required capacity at the Aliso Creek Lift Station while also improving operations and maintenance, maintaining service, and protecting neighboring environmentally sensitive areas.

Regional Lift Station Force Main Replacement, Moulton Niguel Water District. Assistant Project Manager. Provided engineering services for the replacement of approximately 15,000 linear feet of 20-inch and 24-inch Techite sewer force main within Laguna Niguel Regional Park. Regional Lift Station and Force Mains are critical wastewater facilities that pump flow from MNWD sewer collection system to South Orange County Wastewater Authority Regional Treatment Plant. The replacement force main consists of dual 24-inch pipeline approximately 8,000 feet in length and will be constructed within Laguna Niguel Regional Park. Scope of services include preliminary design, final design and construction phase services.

San Lorenzo Sewage Lift Station, City of Santa Ana. Assistant Project Manager. Prepared plans, specifications, and cost estimates to construct a new sewer lift station on San Lorenzo Avenue within the City of Santa Ana. The improvements included a wet well, dry well, three variable frequency drive pumps, aboveground CMU block control room, emergency generator, hardscape/landscape improvements and approximately 1,300 linear feet of new sewer main.

Education

BS, Civil Engineering, University of California, Irvine, 2013

Registration

Professional Civil Engineer, California, No. 86663, 2016

Years of Experience

11

Years with Tetra Tech

6

Matt Vera, PE

Project Engineer

Mr. Vera has provided design engineering in various water and wastewater projects including domestic and reclaimed water pipelines, gravity sewer mains, sewer main rehabilitations, pump stations, lift stations, wells, flow control facilities, and pressure reducing valve vaults. Matt's responsibilities include preparation of construction plans, specifications, design calculations and preparing project reports and technical memorandums.

PROJECT EXPERIENCE

Aliso Creek Lift Station Improvements Alternatives Analysis Study, El Toro Water District. Project Engineer. Provided evaluation to determine the most cost-effective approach to achieve the required capacity at the Aliso Creek Lift Station while also improving operations and maintenance, maintaining service, and protecting neighboring environmentally sensitive areas.

Oso Lift Station Improvements, El Toro Water District. Project Engineer. Provided engineering services for the relocation of the existing lift station to a new property within Laguna Woods. The work includes a preliminary analysis of sewer flows for the basis of design, evaluating pumps to select the most efficient for the lift station demands, configuring the site to accommodate new construction while the existing remains in service, evaluating on-site storage and response times, considering odor control alternatives and converting the existing wet well into an emergency storage basin.

Regional Lift Station Force Main Replacement, Moulton Niguel Water District. Project Engineer. Provided engineering services for the replacement of approximately 15,000 linear feet of 20-inch and 24-inch Techite sewer force main within Laguna Niguel Regional Park. Regional Lift Station and Force Mains are critical wastewater facilities that pump flow from MNWD sewer collection system to South Orange County Wastewater Authority Regional Treatment Plant. The replacement force main consists of dual 24-inch pipeline approximately 8,000 feet in length and will be constructed within Laguna Niguel Regional Park. Scope of services include preliminary design, final design and construction phase services.

North Aliso Lift Station Reconstruction, Moulton Niguel Water District. Project Engineer. The North Aliso Lift Station is located in Mission Viejo, CA and conveys raw wastewater from the MNWD's SubBasin 8 (North Aliso) to SubBasin 9 (3A) whereafter it flows by gravity to the MNWD's 3A Wastewater Treatment Plant. The existing lift station site includes a pump building with electrical equipment on the ground floor and two 1,400 gpm pumps located in a concrete dry pit directly below. The site also has a wet well, overflow basin, backup generator, diesel storage tank, and bypass pumping connection. Tetra Tech was tasked to provide engineering design services to reconstruct the North Aliso Lift Station in its entirety and to replace the existing facilities that have reached the end of their useful lives. Services include preliminary and final design; preparation of construction documents and construction cost estimates; permit acquisition support; bid phase support; and construction phase services.

Regional Lift Station Enhancements, Moulton Niguel Water District. Project Engineer. Provided engineering services to provide a new back-up system to the existing lift station. The design included evaluating various pump capacities and performance curves with the system head curve with the intent to have an independently powered backup pumping system that will engage during scheduled maintenance or emergency conditions. Also, the design provided additional emergency wet well storage in the form of a pre-cast concrete structure adjacent to the existing sewer manhole.

Education

BS, Civil Engineering, Arizona State University, 2016

Registration

Engineer-in-Training, Arizona, No. 012527, 2017

Years of Experience

8

Years with Tetra Tech

8

Jamie McElyea, EIT

Design Engineer

Ms. McElyea has more than eight years of experience in civil engineering design, drafting with AutoCAD Civil 3D, and technical documentation. Jamie provides engineering support for a variety of civil engineering projects, such as grading, drainage, water and wastewater, and sanitary sewer design and modeling. In addition to engineering design, Jamie has experience working in the field as a survey technician, with topographic and field surveys and staking for construction.

PROJECT EXPERIENCE

Coastal Treatment Plant Drainage Pump Station Conceptual Design, South Orange County Wastewater Authority. Design Engineer. The Coastal Treatment Plant Drainage Pump Station (DPS) located in Laguna Niguel, CA is a conventional activated sludge treatment plant with a secondary treatment design capacity of 6.7 MGD. Tetra Tech provided preliminary design services to rehabilitate the DPS by replacing aging equipment, upgrading the structure, and bringing it up to code. Tasks included a wet well condition assessment to determine the type of rehabilitation needed for the structure and interior components, evaluated options for a new discharge location, suggested a facility design to meet current functional needs and code requirements and evaluated construction feasibility, bypassing, and sequencing options to minimize disruption to the DPS and the treatment plant.

North Aliso Lift Station Reconstruction, Moulton Niguel Water District. Design Engineer. The North Aliso Lift Station is located in Mission Viejo, CA and conveys raw wastewater from the MNWD's SubBasin 8 (North Aliso) to SubBasin 9 (3A) whereafter it flows by gravity to the MNWD's 3A Wastewater Treatment Plant. The existing lift station site includes a pump building with electrical equipment on the ground floor and two 1,400 gpm pumps located in a concrete dry pit directly below. The site also has a wet well, overflow basin, backup generator, diesel storage tank, and bypass pumping connection. Tetra Tech was tasked to provide engineering design services to reconstruct the North Aliso Lift Station in its entirety and to replace the existing facilities that have reached the end of their useful lives. Services include preliminary and final design; preparation of construction documents and construction cost estimates; permit acquisition support; bid phase support; and construction phase services.

Regional Lift Station Force Main Replacement, Moulton Niguel Water District. Design Engineer. Provided engineering services for the replacement of approximately 15,000 linear feet of 20-inch and 24-inch Techite sewer force main within Laguna Niguel Regional Park. Regional Lift Station and Force Mains are critical wastewater facilities that pump flow from MNWD sewer collection system to South Orange County Wastewater Authority Regional Treatment Plant. The replacement force main consists of dual 24-inch pipeline approximately 8,000 feet in length and will be constructed within Laguna Niguel Regional Park. Scope of services include preliminary design, final design and construction phase services.

San Lorenzo Sewage Lift Station, City of Santa Ana. Design Engineer. Prepared plans, specifications, and cost estimates to construct a new sewer lift station on San Lorenzo Avenue within the City of Santa Ana. The improvements included a wet well, dry well, three variable frequency drive pumps, aboveground CMU block control room, emergency generator, hardscape/landscape improvements and approximately 1,300 linear feet of new sewer main.

La Salina Wastewater Treatment Plant Decommissioning and Lift Station, Oceanside, CA. Design Engineer. Responsible for preparing plans and specifications for the decommissioning of an existing WWTP after the incoming flows are diverted via a new lift station to the San Luis Rey Water Reclamation Facility. Design considerations included asbestos/lead/hazardous materials abatement, removal of existing wastewater from various facilities, demolition of the aboveground facilities and piping up to five feet below grade, and rough grading for future site usage.

Education

BS, Civil Engineering, California State Polytechnic University, Pomona, 2007

MS, Structural Engineering, California State Polytechnic University Pomona, 2016

Registrations

Professional Civil Engineer, California, No. 75983, 2009

Professional Structural Engineer, California, No. 6177, 2014

Years of Experience

17

Years with Tetra Tech

17

Eric Yuen, PE, SE

Structural Engineer

Mr. Yuen has more than 17 years of professional experience in design, analysis, and detailing in structural engineering. Eric is knowledgeable in reinforced concrete, masonry, structural steel and wood frame design, and construction for a variety of building and infrastructure projects including reservoirs, water/wastewater treatment facilities, as well as seismic retrofit of existing structures.

PROJECT EXPERIENCE

Coastal Treatment Plant Drainage Pump Station Conceptual Design, South Orange County Wastewater Authority. Structural Manager. The Coastal Treatment Plant Drainage Pump Station (DPS) located in Laguna Niguel, CA is a conventional activated sludge treatment plant with a secondary treatment design capacity of 6.7 MGD. Tetra Tech provided preliminary design services to rehabilitate the DPS by replacing aging equipment, upgrading the structure, and bringing it up to code. Tasks included a wet well condition assessment to determine the type of rehabilitation needed for the structure and interior components, evaluated options for a new discharge location, suggested a facility design to meet current functional needs and code requirements and evaluated construction feasibility, bypassing, and sequencing options to minimize disruption to the DPS and the treatment plant.

Oso Lift Station Improvements, El Toro Water District. Structural Engineer. Provided engineering services for the relocation of the existing lift station to a new property within Laguna Woods. The work includes a preliminary analysis of sewer flows for the basis of design, evaluating pumps to select the most efficient for the lift station demands, configuring the site to accommodate new construction while the existing remains in service, evaluating on-site storage and response times, considering odor control alternatives and converting the existing wet well into an emergency storage basin.

North Aliso Lift Station Reconstruction, Moulton Niguel Water District. Structural Manager. The North Aliso Lift Station is located in Mission Viejo, CA and conveys raw wastewater from the MNWD's SubBasin 8 (North Aliso) to SubBasin 9 (3A) whereafter it flows by gravity to the MNWD's 3A Wastewater Treatment Plant. The existing lift station site includes a pump building with electrical equipment on the ground floor and two 1,400 gpm pumps located in a concrete dry pit directly below. The site also has a wet well, overflow basin, backup generator, diesel storage tank, and bypass pumping connection. Tetra Tech was tasked to provide engineering design services to reconstruct the North Aliso Lift Station in its entirety and to replace the existing facilities that have reached the end of their useful lives. Services include preliminary and final design; preparation of construction documents and construction cost estimates; permit acquisition support; bid phase support; and construction phase services.

Regional Lift Station Force Main Replacement, Moulton Niguel Water District. Structural Manager. Providing engineering services for the replacement of approximately 15,000 linear feet of 20-inch and 24-inch Techite sewer force main with Laguna Niguel Regional Park. Regional Lift Station and Force Mains are critical wastewater facilities that pump flow from MNWD sewer collection system to South Orange County Wastewater Authority Regional Treatment Plant. The replacement force main consists of dual 24-inch pipeline approximately 8,000 feet in length and will be constructed within Laguna Niguel Regional Park. Scope of services include preliminary design, final design and construction phase services.

Education

BS, Electrical Engineering, California State University, Long Beach, 1990

Registrations

Professional Electrical Engineer, California, No. 15809, 1998

General Construction, Class B, California, No. 777845, 2008

Years of Experience

32

Years with Tetra Tech

15

Mazen Kassar, PE

Electrical/Controls Engineer

Mr. Kassar has more than 32 years of professional experience in electrical engineering and industry standards that include electrical engineering staff management, project management, construction management and supervision, water and wastewater treatment, petro-chemical design, and environmental soil and groundwater treatment. Mazen's background includes designing medium and low voltage power distribution, instrumentation design, control systems and SCADA systems for a wide variety of water/wastewater projects, and the installation of electrical systems for remediation projects, including soil vapor extraction systems, and groundwater pump and-treat systems.

PROJECT EXPERIENCE

Coastal Treatment Plant Drainage Pump Station Conceptual Design, South Orange County Wastewater Authority. Electrical Project Manager. The Coastal Treatment Plant Drainage Pump Station (DPS) located in Laguna Niguel, CA is a conventional activated sludge treatment plant with a secondary treatment design capacity of 6.7 MGD. Tetra Tech provided preliminary design services to rehabilitate the DPS by replacing aging equipment, upgrading the structure, and bringing it up to code. Tasks included a wet well condition assessment to determine the type of rehabilitation needed for the structure and interior components, evaluated options for a new discharge location, suggested a facility design to meet current functional needs and code requirements and evaluated construction feasibility, bypassing, and sequencing options to minimize disruption to the DPS and the treatment plant.

San Lorenzo Sewage Lift Station, City of Santa Ana. Electrical Project Manager. Prepared plans, specifications, and cost estimates to construct a new sewer lift station on San Lorenzo Ave. in Santa Ana, CA. The improvements included a wet well, dry well, three variable frequency drive pumps, aboveground CMU block control room, emergency generator, hardscape/landscape improvements and approximately 1,300 linear feet of new sewer main.

Oso Lift Station Improvements, El Toro Water District. Electrical/Controls Manager. Provided engineering services for the relocation of the existing lift station to a new property within Laguna Woods. The work includes a preliminary analysis of sewer flows for the basis of design, evaluating pumps to select the most efficient for the lift station demands, configuring the site to accommodate new construction while the existing remains in service, evaluating on-site storage and response times, considering odor control alternatives and converting the existing wet well into an emergency storage basin.

North Aliso Lift Station Reconstruction, Moulton Niguel Water District. Electrical/Controls Manager. The North Aliso Lift Station is located in Mission Viejo, CA and conveys raw wastewater from the MNWD's SubBasin 8 (North Aliso) to SubBasin 9 (3A) whereafter it flows by gravity to the MNWD's 3A Wastewater Treatment Plant. The existing lift station site includes a pump building with electrical equipment on the ground floor and two 1,400 gpm pumps located in a concrete dry pit directly below. The site also has a wet well, overflow basin, backup generator, diesel storage tank, and bypass pumping connection. Tetra Tech was tasked to provide engineering design services to reconstruct the North Aliso Lift Station in its entirety and to replace the existing facilities that have reached the end of their useful lives. Services include preliminary and final design; preparation of construction documents and construction cost estimates; permit acquisition support; bid phase support; and construction phase services.

Regional Lift Station Enhancements, Moulton Niguel Water District. Electrical/Controls Manager. Provided engineering services to provide a new back-up system to the existing lift station. The design included evaluating various pump capacities and performance curves with the system head curve with the intent to have an independently powered backup pumping system that will engage during scheduled maintenance or emergency conditions. Also, the design provided additional emergency wet well storage in the form of a pre-cast concrete structure adjacent to the existing sewer manhole.

SIGNED CERTIFICATIONS

ATTACHMENT B
NON-COLLUSION AFFIDAVIT

The undersigned declares:

I am the Vice President of Tetra Tech, Inc., the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration is executed on 7/9/24 [date], at Irvine [city], CA [state].

Signature: 

Title: Vice President

ATTACHMENT C
CONFLICT OF INTEREST AFFIFIDAVIT

The undersigned declares:

I am the Vice President of Tetra Tech, Inc. ("Consultant"), the party entering into the forgoing contract.

As a California public agency, SOCWA is subject to conflicts of interest rules under the Political Reform Act ("PRA") and California Government Code Section 1090 ("Section 1090").

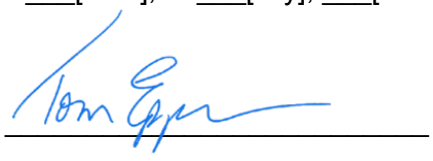
The PRA prohibits a public official at any level of state or local government from making, participate in making, or in any way attempt to use their official position to influence a governmental decision in which the official has a financial interest. A public official has a financial interest in a decision if it is reasonably foreseeable that the decision will have a material financial effect on the public official, a member of the public official's immediate family, or on: (a) a business in which the public official has a direct or indirect investment worth $2,000 or more; (b) real property in which the public official has a direct or indirect interest worth $2,000 or more; (c) any source of income of $500 or more received within 12 months prior to the time when the decision is made; (d) a business in which the public official is a director, officer, partner, trustee, employee, or has a management position; or (e) the donor of a gift to the public official of $250 within 12 months prior to the time when the decision is made.

Section 1090 provides that public officials and public employees may not be "financially interested" in "any contract made by them in their official capacity."

By signing below, Consultant acknowledges that it (I) has considered persons with whom it has business relationships as to the potential for such persons to have a conflict of interest, (ii) has considered the requirements and provisions of the PRA and Section 1090, (iii) certifies that it does not know of any facts which constitute a violation, or should be further investigated to prevent a violation of those provisions, and (iv) agrees that Consultant will immediately notify SOCWA if it becomes aware of any such fact at a later date.

Any person executing this declaration on behalf of a Consultant that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the Consultant.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration is executed on 7/9/24 [date], at Irvine [city], CA [state].

Signature: 

Title: Vice President

TETRA TECH

July 9, 2024

Jeanette Cotinola, CPCM
Procurement/Contracts Manager
South Orange County Wastewater Authority
34156 Del Obispo Street
Dana Point, CA 92629

Reference: Fee Proposal to Provide Engineering Services for the Coastal Treatment Plant Drainage Pump Station Final Design Project

Dear Ms. Cotinola,

Tetra Tech is pleased to present our fee proposal in response to South Orange County Wastewater Authority Request for Proposal to provide engineering services for the Coastal Treatment Plant Drainage Pump Station Final Design project. All work will be performed on a time and material basis "not-to-exceed" the contract price and no additional compensation will be received beyond the price negotiated to be performed unless changes are approved in advance by an amendment to our contract.

Our technical proposal, scope of work, and schedule form the basis of our Fee Proposal. Attached is a detailed spreadsheet showing a breakdown of labor hours by employee billing classification, together with the cost of non-labor and subconsultant services. The attached rate schedule includes Tetra Tech's billing rates for this project for all classifications of staff likely to be involved in the project; as well as overhead, profit, and expenses.

South Orange County Wastewater Authority is counted among Tetra Tech's most valued clients, and we are excited about the opportunity to continue to grow our relationship by delivering a project that exceeds your expectations.

Our fee proposal will remain valid for a period of six (6) months from the date submitted. Should you have any questions or wish to discuss the information presented in our proposal, please feel free to contact me at (949) 809-5156 or via email at tom.epperson@tetratech.com.

Respectfully,

Tom Epperson, PE
Vice President

Attachments

M:\Marketing\Proposals\FY 2024\SOCWA_CTP PS Final Design

17885 Von Karman Avenue, Suite 500, Irvine, CA 92614-5227
Tel 949.809.5000 tetratech.com

Price Proposal

Coastal Treatment Plant Drainage Pump Station
Final Design

Submitted to: South Orange County Wastewater Authority

Contract Type: T&M

Price Summary / Totals	
Task Pricing Totals	380,000
Specify Add'l Fees on Setup	0
Technology Use Fee	
Total Price	**380,000**

		360.00	315.00	190.00	150.00	130.00	120.00	140.00	260.00	170.00	130.00	155.00	315.00	170.00	130.00	120.00	**Pricing by Resource**			
		Civil/Mechanical	Civil/Mechanical	Civil/Mechanical	Civil/Mechanical	Civil/Mechanical	Civil/Mechanical	Civil/Mechanical	Structural	Structural	Structural	Structural	Electrical	Electrical	Electrical	Electrical				
Project Phases / Tasks	**Total Labor Hrs**	Project Manager (Tom Epperson)	Assistant Project Manager (Neha Gajjar)	Lead Project Engineer (Matt Vera)	Lead Design Engineer (Jamie McElyea)	Design Engineer (Patrick Kol)	Engineer/CADD (Miranda Leibig)	WP (Deana Escamilla)	Structural Manager (Eric Yuen)	Structural Engineer (Jose Quiroz)	Structural Design (Miguel Manpanlay)	Structural CADD (Eric Hutchins)	Electrical Manager (Mazen Kassar)	Electrical Engineer (Doug Seaman)	Electrical Designer (James Roberts)	Electrical Designer (Johnson Le)	Labor	Subs	ODCs	**Task Pricing Totals**
	2,084	60	40	180	280	280	280	16	40	102	16	80	120	80	230	280	339,760	38,042	2,198	**380,000**
Task 1 Project Management and Meetings	**56**	**20**	**24**	**12**													**17,040**		**160**	**17,200**
Management (9 mths)	16	8	8														5,400		60	5,460
Virtual Meetings (7)	24	8	8	8													6,920			6,920
Meeting at CTP	8	4	4														2,700		100	2,800
Monthly Submittals (9)	8		4	4													2,020			2,020
Task 2 Data Collection and Document Review	**18**			**6**	**8**	**4**											**2,860**		**140**	**3,000**
Data Collection/Document Review	10			2	4	4											1,500			1,500
Site Visit	8			4	4												1,360		140	1,500
Task 3 Basis of Design	**234**	**10**	**12**	**44**	**62**	**40**	**60**	**6**									**38,280**	**22,402**	**118**	**60,800**
Basis of Design - Option No. 1	73	1		12	24	20	16										10,760			10,760
Basis of Design - North Drainage	29	1		4	8	8	8										4,320			4,320
Preliminary bypass/sequencing Plan (3 alt)	57	1		8	12	12	24										8,120			8,120
Implementation Plan	13	1		4	8												2,320			2,320
Basis of Design Memorandum	46	2	8	12	8		12	4									8,720			8,720
Design Survey	2				1			1									290	3,427		3,717
Geotechnical Evaluation	2				1			1									290	18,975		19,265
Basis of Design Workshop	12	4	4	4													3,460		118	3,578
Task 4 Final Design	**1,776**	**30**	**4**	**118**	**210**	**236**	**220**	**10**	**40**	**102**	**16**	**80**	**120**	**80**	**230**	**280**	**281,580**	**15,640**	**1,781**	**299,001**
Hydraulic Calculations	13	1		4	8												2,320			2,320
HVAC/Ventilation Calculations	41	1		16	24												7,000			7,000
Structural Calculations	40								8	16	16						6,880			6,880
Electrical Sizing/Calculations	32												8	16	8		6,280			6,280
General Sheets (5 shts)	78			6	12	20	40										10,340			10,340
Overall Site Plan/Work Area/Staging Plan	14			2	4		8										1,940			1,940
North Site Civil Plans (2 shts)	51	1		6	12	16	16										7,300			7,300
Perimeter Wall (2 shts)	45	1		4	12	16	12										6,440			6,440
DPS Site and Piping Plan	24	1		1	6	8	8										3,450			3,450
DPS Demolition Plans (4 shts)	77	1		4	16	32	24										10,560			10,560
DPS Wet Well Rehab	21			1	4	8	8										2,790	15,640		18,430
Conceptual Bypass/Phasing/Interim (2 shts)	50	2		8	12	16	12										7,560			7,560
DPS Discharge Piping (2 shts)	51	1		6	12	16	16										7,300			7,300
Drainage/Piping/Site/Misc Details (4 shts)	104	2		12	30	32	28										15,020			15,020
Mechanical Plan and Sections (2 shts)	53	1		8	12	20	12										7,720			7,720
Mechanical Details (2 shts)	41	1		4	8	16	12										5,840			5,840
HVAC/Ventilation	43	1		4	10	16	12										6,140			6,140
Structural Sheets (8 shts)	156								16	68		72					26,880			26,880
Electrical Sheets (15 shts)	410												60		150	200	62,400			62,400
Instrumentation/Controls (5 shts)	160												20	40	40	60	25,500			25,500
Submittal Process (50%, 90%, Bid)	120	2		6	12	12	12	2	12	10		8	12	8	8	16	21,100		1,517	22,617
Constructability Review Workshop	12	4		4									4				3,460		132	3,592
Specifications	76	4	4	14	8			8	2	4			8	8	16		14,840			14,840
Cost Estimates/Schedule	60	2		8	8	8			2	4			8	8	8	4	11,080			11,080
Coordination with Member Agencies	4	4															1,440		132	1,572
Totals	**2,084**	**60**	**40**	**180**	**280**	**280**	**280**	**16**	**40**	**102**	**16**	**80**	**120**	**80**	**230**	**280**	**339,760**	**38,042**	**2,198**	**380,000**

TETRA TECH

2024/2025
HOURLY CHARGE RATE AND EXPENSE REIMBURSEMENT SCHEDULE

Project Management	
Project Manager 1	$230.00
Project Manager 2	$260.00
Sr Project Manager	$315.00
Program Manager	$360.00
Principal in Charge	$360.00
Engineers	
Engineering Technician	$100.00
Engineer 1	$120.00
Engineer 2	$130.00
Engineer 3	$150.00
Project Engineer 1	$170.00
Project Engineer 2	$190.00
Sr Engineer 1	$200.00
Sr Engineer 2	$210.00
Sr Engineer 3	$220.00
Principal Engineer	$300.00
Planners	
Planner 1	$105.00
Planner 2	$115.00
Sr Planner 1	$125.00
Sr Planner 2	$150.00
Sr Planner 3	$175.00
Designers & Technicians	
CAD Technician 1	$65.00
CAD Technician 2	$75.00
CAD Technician 3	$90.00
CAD Designer	$100.00
Sr CAD Designer 1	$145.00
Sr CAD Designer 2	$155.00
CAD Director	$160.00
Survey Tech 1	$50.00
Health & Safety	
H&S Administrator	$95.00
Sr H&S Administrator	$115.00
H&S Manager	$145.00

Construction	
Construction Project Rep 1	$78.00
Construction Project Rep 2	$85.00
Sr Constr Project Rep 1	$100.00
Sr Constr Project Rep 2	$115.00
Construction Manager 1	$165.00
Construction Manager 2	$185.00
Construction Director	$233.00
General & Administrative	
Project Assistant 1	$75.00
Project Assistant 2	$80.00
Project Administrator	$100.00
Sr Project Administrator	$140.00
Sr Graphic Artist	$150.00
Technical Writer 1	$97.00
Technical Writer 2	$124.00
Sr Technical Writer	$155.00
Information Technology	
Systems Analyst / Programmer 1	$77.00
Systems Analyst / Programmer 2	$115.00
Sr Sys Analyst / Programmer 1	$130.00
Sr Systems Analyst / Programmer 2	$196.00
Project Accounting	
Project Analyst 1	$90.00
Project Analyst 2	$114.00
Sr Project Analyst	$155.00

Reimbursable In-House Costs	
Photo Copies (B&W 8.5”x11”)	$ 0.15/Each
Photo Copies (B&W 11”x17”)	$ 0.40/Each
Color Copies (up to 8.5"x11")	$ 2.00/Each
Color Copies (to 11"x17")	$ 3.00/Each
Compact Discs	$10/each
Large format copies	$0.40 S.F.
Mileage-Company Vehicle	$0.80/mile
Mileage-POV	$0.55/mile*

*current GSA POV mileage rate subject to change

All other direct costs, such as production, special photography, postage, delivery services, overnight mail, printing and any other services performed by subconsultant will be billed at cost plus 15%.

NOTE: Rates subject to change annually.

Agenda Item 11

Engineering Committee Meeting

Meeting Date: August 15, 2024

TO: Engineering Committee

FROM: Roni Young Grant, Associate Engineer

SUBJECT: Contract Award for Coastal Treatment Plant (CTP) Grating Replacement on Aeration/Secondary Deck [Project Committee 15]

Overview

The existing Coastal Treatment Plant (CTP) gratings at the west Aeration and Secondary decks have either deteriorated, are missing, have gaps, or are uneven, which causes safety concerns. The project scope consists of the following:

1. West Aeration Basin Step-Feed Channel concrete and grating improvement.
2. West Secondary Basin Effluent Channel grating and supports improvement.
3. West Secondary Basin Walkway grating improvement.

Bids

SOCWA solicited bids from qualified contractors through Planetbids on June 13, 2024, and met with potential bidders for a site walk. Two bids were received on July 29, 2024, and are summarized below in Table 1. The apparent responsive low bidder is SS Mechanical Construction.

Table 1- Summary of Bids

	Base Bid Item A -	**Filanc**	**SS Mechanical**
1	Mobilization/Demobilization	$25,000.00	$5,700.00
2	Repair concrete channel edges, corroded rebar, replace grating supports and provide additional aluminum plate grating where missing in West Aeration Basin step-feed channel	$153,000.00	$109,240.00
3	Replace existing gratings and add supports around gates, where missing in West Secondary Basin effluent area	$80,000.00	$21,916.00

	Base Bid Item A – (Cont.)	Filanc	SS Mechanical
4	Replace gratings in West Secondary Basin walkway	$25,000.00	$10,270.00
5	All other items necessary to complete the work not in Items 1 through 4	$10,000.00	$0.00
	ADD/DEDUCT - List Bid Items Affected and Amount	N/A	N/A
	Sub Total Add (+) Deduct (-) Items	$0.00	$0.00
	Total Contract Price	$293,000.00	$147,126.00

Cost Allocation

The cost allocation for the construction and contingency is shown in Table 2. Staff requests a contingency of $12,874 for a total project budget of $160,000.

Table 2 – Cost allocation by member agency

Agency	Aeration and Secondary Deck Grating Replacement (35245L)
City of Laguna Beach	$60,656.72
Emerald Bay Service District	$4,776.12
Moulton Niguel Water District	$46,805.97
South Coast Water District	$47,761.19
Total	$160,000.00

Budget

The CTP Grating Replacement on Aeration/Secondary Deck (35245L) has a project budget of $50,000, and funds have been collected through June 30, 2024. Staff requests an additional budget of $110,000 for a total revised project budget of $160,000 to cover the project contract and contingency.

Recommended Action: Staff recommends that the Engineering Committee recommend that the PC 15 Board of Directors i) add $110,000 to the CTP Grating Replacement on Aeration /Secondary Deck budget for a total amended budget of $160,000, ii) approve a contract with SS Mechanical Construction for a total of $147,126, and iii) approve a contract contingency of $12,874 for unknown issues discovered during construction.

Agenda Item 12

Engineering Committee Meeting

Meeting Date: August 15, 2024

TO: Engineering Committee

FROM: Roni Young Grant, Associate Engineer

SUBJECT: Contract Award for J.B. Latham Treatment Plant (JBL) Scum Line Contract Award [Project Committee 2]

Overview

The existing J.B. Latham Treatment Plant (JBL) scum line located at the Plant 1 Aeration Basin No. 1 has deteriorated and is in need of replacement. The project scope consists of the following:

1. Removal and replacement of scum line at the Plant 1 Aeration Basin 1.
2. Removal and replacement of all connections and appurtenances to connect the scum line into the existing system.

Bids

SOCWA solicited bids from qualified contractors through Planetbids on May 29, 2024, and met with potential bidders for a site walk. Three bids were received on August 1, 2024, and are summarized below in Table 1. The apparent responsive low bidder is SS Mechanical.

Table 1- Summary of Bids

	Base Bid Item A -	**Filanc**	**Kingmen**	**SS Mechanical**
1	Mobilization/Demobilization	$30,000.00	$20,000.00	$13,819.00
2	Replacement of approximately 200 feet of scum pipe	$145,000.00	$160,000.00	$158,630.00
3	Replacement of pipe supports, grooved couplings, CIPP liner and sleeve	$175,000.00	$125,000.00	$106,500.00
4	All other items necessary to complete the work not in Items 1 through 3	$20,000.00	$9,500.00	$0.00

	Base Bid Item A – (Cont.)	Filanc	Kingmen	SS Mechanical
	ADD/DEDUCT - List Bid Items Affected and Amount	N/A	N/A	N/A
	Sub Total Add (+) Deduct (-) Items	$0.00	$0.00	$0.00
	Total Contract Price	$370,000.00	$314,500.00	$278,949.00

Cost Allocation

The cost allocation for the construction and contingency is shown in Table 2. Staff requests a contingency of $21,051 for a total project budget of $300,000.

Table 2 – Cost allocation by member agency

Agency	Scum Line Replacement (32233S)
Moulton Niguel Water District	$64,860.00
South Coast Water District	$60,000.00
Santa Margarita Water District	$175,140.00
Total	$300,000.00

Budget

The JBL Scum Line Replacement (32233S) has a project budget of $150,000, and funds have been collected through June 30, 2024. Staff requests an additional budget of $150,000 for a revised budget of $300,000 to cover the project contract and contingency.

Recommended Action: Staff recommends that the Engineering Committee recommend that the PC 2 Board of i) approve an additional $150,000 to be added to the JBL Scum Line Replacement Project budget for a revised budget of $300,000, ii) approve a contract with SS Mechanical Construction for a total of $278,949, and iii) approve a contract contingency of $21,051 for unknown issues discovered during construction.

Agenda Item 13

Engineering Committee Meeting

Meeting Date: August 15, 2024

TO: Engineering Committee

FROM: Roni Grant, Associate Engineer

SUBJECT: Contract Award for J. B. Latham Treatment Plant (JBL) MCC-M, Switchgear Circuit Breaker, and Portable Generator Connection Pre-Procurement [Project Committee 2]

Overview

SOCWA staff is currently working on a project to replace MCC-M, switchgear breaker-generator feed, and adding a portable generator connection for the existing Magnum breaker at the J.B. Latham treatment plant (JBL) under Project 3252-000, MCC M and G Replacement. The lead time for the MCC and appurtenances is approximately 60 weeks.

SOCWA staff has been looking into pre-purchasing this and other equipment due to the reported long lead times. Pre-purchasing would allow SOCWA to coordinate the construction bidding with the equipment delivery date. This approach will reduce the contractor's schedule and reduce the contractor's overhead costs.

SOCWA staff solicited quotes through Sourcewell for MCC-M, switchgear circuit breaker feed, and portable generator connection. One quote was received from Pacific Parts & Controls, representing the manufacturer Eaton. The vendor for Square D was non-responsive.

This item was discussed at the January 18, 2024, Engineering Committee Meeting and the February 1, 2024 Board of Directors Meeting. The PC 2 Board requested additional information, including a tour of JBL, to understand the ongoing projects better. The tour was conducted by SOCWA staff and participated by the PC 2 Board on May 15, 2024. This item was discussed at the June 13, 2024 Engineering Committee Meeting. The direction was to obtain an updated quote from Eaton representative (Pacific Parts) and reach out to Square D representative (Graybar) again. Two quotes were received in August 2024 and are summarized below in Table 1. The quote from Pacific Parts is the most responsive of the two quotes received.

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Table 1 - JBL MCC Quotes

	Line Item	Eaton/Pacific Parts	Square D/Graybar
1	MCC with spare parts	$150,890	$196,862
2	Site Acceptance Testing	$11,528	$34,037
3	Training	$5,604	$8,182
4	Generator Breaker	$33,854	$33,854*
5.	Docking Station	$17,473	$17,473*
6.	Freight (2%)	$4,045	included
7.	Sales Tax	$15,672	$18,615
	Total	$239,065	$309,022

*Square D did not provide costs for the generator breaker and docking station; therefore, the same costs were assumed from the Eaton quote.

Cost Allocation

The total quote from Eaton/Pacific Parts is $239,065. The engineer's estimate was $350,000. Staff requests a contingency of $20,000 to cover other fees that might not be included in the quote for the project. Table 2 shows the allocation of costs by member agency, including contingency.

Table 2 – Cost Allocation by Member Agency

Agency	Cost
Moulton Niguel Water District	$59,792
Santa Margarita Water District	$124,558
South Coast Water District	$74,714
Total	$259,065

The FY23/24 budget for Project 3252-000 (MCC M and G Replacement) is $1M, which was intended for pre-purchasing equipment.

Recommended Action: Staff recommends that the Engineering Committee recommend that the PC 2 Board approve i) the contract to Pacific Parts & Controls for a total of $239,065 and ii) approve a contract contingency of $20,000 for the JBL MCC M and appurtenances pre-procurement.

Agenda Item 14

Engineering Committee Meeting

Meeting Date: August 15, 2024

TO: Engineering Committee

FROM: Sean Peacher, Environmental Compliance Safety Risk Manager

SUBJECT: Multi-Jurisdictional Hazard Mitigation Plan (MJHMP)

Overview

SOCWA is a Participating Agency in the WEROC Multi-jurisdictional Hazard Mitigation Plan (MJHMP). The MJHMP is a five-year strategic plan to improve local resilience to hazard events. In addition to protecting WEROC and Participating Agencies from current and future hazards, agencies are required to maintain a current, approved Hazard Mitigation Plan under the provisions of the federal Robert T. Stafford Act and the Disaster Mitigation Act of 2000 in order to be eligible for Federal Emergency Management Agency (FEMA) hazard mitigation funding. The current MJHMP was adopted by the SOCWA Board of Directors (Resolution No. 2019-04), is required to be updated every five years to maintain grant eligibility, and will expire in March 2025. WEROC (including El Toro Water District, Laguna Beach County Water District, Moulton Niguel Water District, Santa Margarita Water District, and South Coast Water District) plan on releasing a public review draft in Fall 2024, with final adoption planned for Winter 2025 following approval from the California Office of Emergency Services and FEMA.

The MJHMP is being prepared by a project team comprised of SOCWA staff, members from participating hazard mitigation planning committees, key stakeholders (non-governmental organizations, businesses, other public agencies, etc.), and technical consultants. During the MJHMP planning process, members of the general public and key stakeholders are provided an opportunity to become engaged. This is because guidelines from FEMA require that the agency preparing the plan create opportunities for members of the public to become involved in developing their MJHMP. This process helps ensure the MJHMP reflects local community values, concerns, and priorities. The MJHMP will analyze how stakeholders, buildings, and infrastructure are vulnerable to the threats posed by natural and human-caused hazards that threaten the community. Following these guidelines, WEROC and Participating Agencies propose to meet FEMA requirements through the stakeholder outreach process, with the intent to educate the community and obtain feedback openly and transparently to support the preparation of the plan. The MHJMP will outline a Hazard Mitigation Strategy that will provide specific policy and action recommendations to SOCWA to improve overall resiliency to hazard events.

Recommended Action: Committee Discussion/Direction and Action.