

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

**November 18, 2021  
8:30 a.m.**

**Join Zoom Meeting by clicking on the link below:**

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Meeting ID: 829 9871 6469  
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NOTICE IS HEREBY GIVEN that a Special Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee was called to be held by Teleconference on **November 18, 2021 at 8:30 a.m.** SOCWA staff will be present and conducting the call at the SOCWA Administrative Office located at 34156 Del Obispo Street, Dana Point, California.

*MEMBERS OF THE PUBLIC ARE INVITED TO PARTICIPATE IN THIS TELECONFERENCE MEETING AND MAY JOIN THE MEETING VIA THE TELECONFERENCE PHONE NUMBER AND ENTER THE ID CODE. THIS IS A PHONE CALL MEETING AND NOT A WEB-CAST MEETING SO PLEASE REFER TO AGENDA MATERIALS AS POSTED WITH THE AGENDA THE WEB-SITE [WWW.SOCWA.COM](http://WWW.SOCWA.COM). ON YOUR REQUEST, EVERY EFFORT WILL BE MADE TO ACCOMMODATE PARTICIPATION. 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 DISABILITY RELATED 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.*

*AGENDA EXHIBITS 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 BY PHONE REQUEST MADE TO THE AUTHORITY ADMINISTRATIVE OFFICE AT 949-234-5452. THE AUTHORITY ADMINISTRATIVE OFFICES ARE LOCATED AT 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE"). IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE ENGINEERING*

COMMITTEE LESS THAN TWENTY-FOUR (24) HOURS PRIOR TO THE MEETING, THEY WILL BE SENT TO PARTICIPANTS REQUESTING VIA EMAIL DELIVERY. IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IMMEDIATELY ON VERBAL REQUEST TO BE DELIVERED VIA EMAIL TO REQUESTING PARTIES.

**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.

**3. Approval of Minutes**

- Engineering Committee Meeting of September 9, 2021

**Recommended Action:** Staff recommends the Engineering Committee to approve subject Minutes as submitted.

**4. Operations Report**

**Recommended Action:** Information Item

**5. Capital Improvement Construction Projects Report**

**Recommended Action:** Staff recommends that the Engineering Committee recommend:

- to the PC-2 Board of Directors to approve Olsson Construction Change Order 31 for (\$15,903.00), Change Order 32 for \$6,132.27, Change Order 33 for \$18,147.07, and Change Order 34 for \$12,383.89 for a total of \$20,759.23 and a revised contract value of \$18,537,518.51 for the J.B. Latham Package B project and;
- to the PC-15 Board of Directors to approve PCL Construction Change Order 39 for \$2,817.00 and Change Order 40 for \$2,962.00 for a total of \$5,776 and a revised contract value of \$8,485,016.00 for the CTP Facility Improvements project.

**6. Effluent Transmission Main Trail Bridge Crossing Project Update  
[Project Committee 21, Reach D]**

**Recommended Action:** Staff recommends that the Engineering Committee recommend to the PC-21 Reach D Board of Directors to approve the Tetra Tech Amendment No. 2 in the amount of \$142,634 for a total revised contract amount of \$509,762 for the final design of the Effluent Transmission Main Trail Bridge Crossing Project.

**7. J.B. Latham Treatment Plant Hydraulic Modeling and Flow Management Study Update  
[Project Committee 2]**

**Recommended Action:** Information Item.

**8. J.B. Latham Treatment Plant Package B Construction Update  
[Project Committee 2]**

**Recommended Action:** Information Item.

**9. Contract Amendment for the J.B. Latham Treatment Plant Package B Engineering Services during Construction [Project Committee 2]**

**Recommended Action:** Staff recommends that the Engineering Committee recommend to the PC 2 Board to approve the contract amendment to Carollo in the amount of \$388,420 for a total revised contract amount of \$1,462,565 for the Engineering Services during Construction for the J.B. Latham Package B Project.

**10. Contract Amendment for the J.B. Latham Treatment Plant Package B Geotechnical Services [Project Committee 2]**

**Recommended Action:** Staff recommends that the Engineering Committee recommend to the PC 2 Board to approve the contract amendment to Ninyo & Moore in the amount of \$30,000 for a total revised contract amount of \$79,399 for the geotechnical services for the J.B. Latham Package B Project.

**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 Regular 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](http://www.socwa.com).

Dated this 11th day of November 2021.



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Betty Burnett, General Manager/Secretary  
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

**MINUTES OF REGULAR MEETING  
OF THE  
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY  
Engineering Committee**

**DRAFT**

**September 9, 2021**

The Regular Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee Meeting was held on September 9, 2021, at 8:30 a.m. via teleconferencing from the Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members of the Engineering Committee were present via Teams Meeting:

DAVID SHISSLER	City of Laguna Beach
MIKE MARQUIS	City of San Juan Capistrano
DENNIS CAFFERTY	El Toro Water District
MIKE DUNBAR	Emerald Bay Service District
ROD WOODS	Moulton Niguel Water District
DON BUNTS	Santa Margarita Water District [arrived @ 8:38a]
MARC SERNA	South Coast Water District [exited @ 9:30a]
LORRIE LAUSTEN	Trabuco Canyon Water District

**Absent:**

KEVIN BURTON	Irvine Ranch Water District
DAVE REBENDORF	City of San Clemente

**Staff Present:**

JASON MANNING	Director of Engineering
JIM BURROR	Director of Operations
AMBER BAYLOR	Director of Environmental Compliance
DAVID BARANOWSKI	Senior Engineer
RONI YOUNG	Associate Engineer
MATT CLARKE	IT Administrator
NADYN KIM	Accounting
KONSTANTIN SHILKOV	Senior Accountant
DANITA HIRSH	Executive Assistant

**Also Present:**

*TARYN KJOLSING	South Coast Water District	<i>*Ms. Kjolsing represented SCWD on behalf of Mr. Serna exiting the meeting at 9:30 a.m.</i>
SHERRY WANNINGER	Moulton Niguel Water District	
HANNAH FORD	El Toro Water District	
CHRIS NEWTON	South Coast Water District	

**1. Call Meeting to Order**

Mr. Manning, Director of Engineering called the meeting to order at 8:32 a.m.

**2. Public Comments**

Mr. Cafferty, General Manager for El Toro Water District (ETWD) introduced Ms. Hannah Ford as their new Engineering Manager. He stated going forward, Ms. Ford will be the SOCWA Engineering Committee representative for El Toro Water District.

Mr. Manning, Director of Engineering announced Ms. Baylor, Director of Environmental Compliance has an early exit and would be presenting agenda item 4 before agenda item 3. He also stated Mr. Dunbar of Emerald Bay Service District (EBSD) requested information about how change orders are processed. He noted SOCWA was in the processes of closing out the financials for FY 2020-21 and will be addressing the change order process at the October Engineering Committee meeting.

Mr. Dunbar, (EBSD) requested an update on the Hazen and Sawyer Report on the Coastal Treatment Plant and that a PC-15 Committee meeting be scheduled to discuss the report.

### **3. Operations Report**

Mr. Burror reported the status of projects that are closing out and gave an update on the Regional Treatment Plant AWT. He commented on several items that needed programming and startup testing or needing troubleshoot before completing. Mr. Burror stated the valves that were backordered were starting to arrive and are being installed by staff. Mr. Burror also stated he is bringing chemical contracts forward to be approved noting price increases for chemicals. An open discussion ensued.

This was an information item; no action was taken.

### **4. Use Audit Flow and Solids Methodology – Annual Update FY 20-21**

Ms. Amber Baylor, Director of Environmental Compliance reported the Use Audit and its methodology is in its 3rd year. She stated the push for efficiencies in the water information management system by automating the report. Ms. Baylor commented on the Engineering Committee's review of the data which originally resulted in a review of the calculation included in the report. She thanked Dennis Cafferty, General Manager of El Toro Water District for the inclusion of their data points as well as the new addition to the methodology that resulted in more pounds loading for the El Toro Water District that offered better data quality. Ms. Baylor noted a few Engineering Committee members who reached out and asked questions relating to the tables. She stated all of the methodology tables utilizing the flows and solids are used for accounting to apply percentages included in the Use Audit. An open discussion ensued.

Mr. Don Bunts, Santa Margarita Water District (SMWD) noted there's an error in the spreadsheet for PC 2 Latham Plant of Liquids Summary. He noted the constant didn't get picked up noting when you subtract the total and take 1.4 out, the 3.195 goes down to the same number (1.795) as shown in the next cell. Mr. Bunts stated those numbers seemed to be more accurate. He stated he would like for the tables to be corrected before going to the Board for approval.

#### **ACTION TAKEN**

A motion was made by Mr. Bunts and seconded by Mr. Woods to approve the Use Audit calculated results for the close of the Use Audit for disbursement of collection of additional funds in fiscal year 2020-21 based on the Board approved methodology that is currently in place pending additional conversations between Mr. Woods and Ms. Baylor confirming data as presented.

Motion Carried: Aye 8, Nay 0, Abstained 0, Absent 2  
David Shissler (CLB) Aye  
Mike Marquis (CSJC) Aye  
Mike Dunbar (EBSD) Aye  
Dennis Cafferty (ETWD) Aye

Rod Woods (MNWD)	Aye
Marc Serna (SCWD)	Aye
Don Bunts (SMWD)	Aye
Lorrie Lausten (TCWD)	Aye
Dave Rebensdorf (CSC)	Absent
Kevin Burton (IRWD)	Absent

**5. Capital Improvement Construction Projects Report**

Mr. Manning, Director of Engineering commented he had updated the table on page 137. He stated proposed change orders (PCO) 45, 86, and 89 should be removed from the list shown because those items were duplicates or had already been presented.

Ms. Roni Young, Associate Engineer reported on project status and change orders 24 through 28 to Olsson Construction totaling \$104,554 for the J.B. Latham Package B Project. An open discussion ensued.

Mr. David Baranowski, Senior Engineer reported on the Export Sludge Force Main Replacement Project. He noted contractor is laying the last two hundred feet of pipeline going towards Alicia Parkway. He noted the final stage of the project will be connecting everything together and the cutover. He stated the project should be online within the next few months and that there were no change orders to present. An open discussion ensued.

**ACTION TAKEN**

There was consensus of the PC 2 Engineering Committee members to recommend to the PC 2 Board of Directors to approve Olsson Construction Change Orders 24 through 28 for \$104,554.

Motion Carried: Aye 4, Nay 0, Abstained 0, Absent 0  
Don Bunts (SMWD) Aye  
Marc Serna (SCWD) Aye  
Rod Woods (MNWD) Aye  
Mike Marquis (CSJC) Aye

**6. J.B. Latham Treatment Plant Package B Liquids Contingency [Project Committee 2]**

Mr. Jason Manning, Director of Engineering reported we recently went over an additional increase for contingency for the solids portion of this project. At the time, we had just begun work in the Primary Basins, and after going through the process on the solids we found that each of the basins had some additional issues that we were not aware of at the time of design or when we went out to bid the project. He stated we're working to separate out the items that can keep the project moving forward as quickly as possible and get it completed cost-effectively. Mr. Manning stated this \$300,000 request is for liquids and will be an increase to the contingency in the budget. An open discussion ensued.

**ACTION TAKEN**

There was consensus of the PC 2 Engineering Committee to recommend to the PC 2 Board of Directors to approve the addition of \$300,000 of contingency to the J.B. Latham Package B Liquids Project (3220-000) for a total Liquids contingency of \$916,800 and to increase the project budget by \$300,000 to 3,150,000 for the 2021/22 FY.

Motion Carried: Aye 4, Nay 0, Abstained 0, Absent 0  
Don Bunts (SMWD) Aye  
Marc Serna (SCWD) Aye  
Rod Woods (MNWD) Aye  
Mike Marquis (CSJC) Aye

**7. Consequence of Failure Analysis Update {Project Committee 2}**

Mr. Manning, Director of Engineering reported the Consequence of Failure Analysis (CoFA) was completed for the J.B. Latham Facility. He commented that there were four sessions with the Operations staff identifying critical or pinch areas of the plant and came up with a list of projects that ranked based on risk designated for each area of the plant. The purpose for the analysis was to assist with proper planning of SOCWA's CIP Program and helps to prioritize projects based on the budget costs. He noted the complete CoFA table provided by Dudek was included in the agenda packet as "Exhibit A" starting on page 52.

Mr. Manning also presented the proposal from Dudek to complete the CoFA process at the Coastal Treatment Plant as Exhibit B. An open discussion ensued.

**ACTION TAKEN**

There was consensus of the PC 15 Engineering Committee to recommend to the PC 15 Board of Directors to approve the Coastal Treatment Plant Consequence of Failure Analysis to Dudek for \$49,970.

Motion Carried: Aye 3, Nay 0, Abstained 1, Absent 0  
David Shissler (CLB) Aye  
Mike Dunbar (EBSD) Aye  
Rod Woods (MNWD) Abstain  
Taryn Kjolsing (SCWD) Aye

**Adjournment**

There being no further business, Mr. Manning adjourned the meeting at 9.45 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 September 9, 2021 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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Betty Burnett, General Manager/Secretary  
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

# Agenda Item

# 5

**Engineering Committee Meeting**

**Meeting Date:** November 18, 2021

**TO:** Engineering Committee  
**FROM:** Jason Manning, Director of Engineering  
**SUBJECT:** Capital Improvement Construction Projects Report

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## Overview

### *Active Construction Project Updates:*

Attached are the updated CIP reports. Please note that there are six new change orders for PC 2 J.B. Latham Package B project totaling \$437,179 and two new change orders for PC 15 Coastal Treatment Plant Facility Improvements project totaling \$5,779.

**Recommended Action:** Staff recommends that the Engineering Committee recommends:

- to the PC-2 Board of Directors to approve Olsson Construction Change Order 31 for (\$15,903.00), Change Order 32 for \$6,132.27, Change Order 33 for \$18,147.07, and Change Order 34 for \$12,383.89 for a total of \$20,759.23 and a revised contract value of \$18,537,518.51 for the J.B. Latham Package B project and;
- to the PC-15 Board of Directors to approve PCL Construction Change Order 39 for \$2,817.00 and Change Order 40 for \$2,962.00 for a total of \$5,776 and a revised contract value of \$8,485,016.00 for the CTP Facility Improvements project.

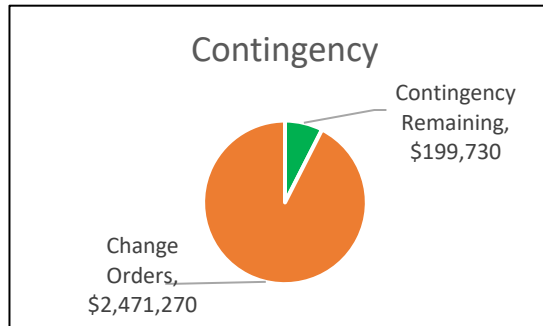
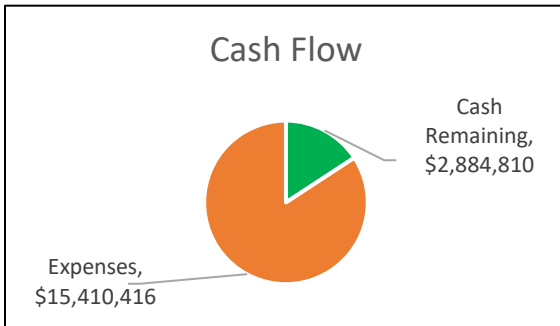


**Project Financial Status**

**Data Last Updated**

November 8, 2021

Project Committee	2
Project Name	Package B
Project Description	Plant 1 basin repairs, DAF rehabilitation, Energy Building seismic retrofit and minor rehabilitation, Digester 4 rehabilitation



**Cash Flow**

Collected	\$18,295,226
Expenses	\$15,410,416

**Project Completion**

Schedule	76%
Budget	66%

**Contracts**

Company	PO No.	Original	Change Orders	Total	Invoiced
Olsson	13497	\$ 17,325,000	\$ 1,212,518	\$ 18,537,518	\$ 11,963,682
Butier	13647	\$ 895,727	\$ 612,715	\$ 1,508,442	\$ 1,108,857
Carollo	13616	\$ 846,528	\$ 616,037	\$ 1,462,565	\$ 1,042,972
TetraTech	13605	\$ 94,000	\$ -	\$ 94,000	\$ 83,602
		<b>\$ 19,161,255</b>	<b>\$ 2,441,270</b>	<b>\$ 21,602,525</b>	<b>\$14,199,113</b>

**Contingency**

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3220-000	\$ 916,800	\$ 798,559	\$ 118,241	87.1%
Common	3231-000	\$ 96,800	\$ 83,680	\$ 13,120	86.4%
Solids	3287-000	\$ 1,657,400	\$ 1,589,030	\$ 68,370	95.9%
		<b>\$ 2,671,000</b>	<b>\$ 2,471,270</b>	<b>\$ 199,730</b>	<b>92.5%</b>

**Summary of New Change Orders**

Change Order No	CSJC	MNWD	SCWD	SMWD	\$ Amount
31	-\$4,893	-\$3,670	-\$4,587	-\$2,752	-\$15,903
32	\$1,887	\$1,415	\$1,769	\$1,061	\$6,132
33	\$5,444	\$3,923	\$3,629	\$5,150	\$18,146
34	\$3,715	\$2,678	\$2,477	\$3,514	\$12,384
<b>Grand Total</b>	<b>\$6,153</b>	<b>\$4,346</b>	<b>\$3,288</b>	<b>\$6,973</b>	<b>\$20,759</b>

**Change Orders**

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
1	Olsson	3287-000	Addition of Loop Piping to the Existing Hot Water Lines Adjacent to Digester 3	Approved by Board of Directors	12/12/2019	0	\$4,725
2	Olsson	3287-000	Asbestos Gaskets in Boiler hazardous disposal	Approved by Board of Directors	6/4/2020	0	\$6,343
3	Olsson	3287-000	Add Analog Infrastructure and Cabling	Approved by Board of Directors	6/4/2020	11	\$37,970
4	Olsson	3287-000	Digester 4 Coating Additional Sealant	Approved by Board of Directors	6/4/2020	3	\$24,002
5	Olsson	3220-000	Valve Handwheel Ergonomic extension	Approved by Board of Directors	8/6/2020	28	\$16,370
6	Olsson	3287-000	Change to DeZurik Plug Valves to match existing	Approved by Board of Directors	8/6/2020	90	\$41,994

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
7	Olsson	3287-000	Digester 4 Additional Concrete Repair	Approved by Board of Directors	8/6/2020	3	\$7,413
8	Olsson	3287-000	Repair Existing Damaged Electrical Box	Approved by Board of Directors	8/6/2020	0	-\$1,829
9	Olsson	3220-000	Change the Telescoping Valve Boxes and Piping from Carbon Steel to Stainless Steel	Approved by Board of Directors	8/6/2020	0	\$18,678
10	Olsson	3287-000	Duct bank J Interferences	Approved by Board of Directors	12/17/2020	18	\$73,639
11	Olsson	3220-000	Blasting of Existing Influent Pipe Spools	Approved by Board of Directors	12/17/2020	5	\$20,869
12	Olsson	3220-000	Duct bank K Interferences	Approved by Board of Directors	12/17/2020	0	\$15,567
13	Olsson	3287-000	Digester 3/4 PLC Relocation	Approved by Board of Directors	12/17/2020	14	\$41,368
14	Olsson	3287-000	Digester 4 Additional Tank Repair	Approved by Board of Directors	12/17/2020	18	\$33,643
15	Olsson	3220-000	Duct bank O Interferences	Approved by Board of Directors	12/17/2020	0	\$1,687
16	Olsson	3287-000	Digester 3/4 Control Building Roof Replacement	Approved by Board of Directors	2/4/2021	0	\$42,780

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
17	Olsson	3287-000	MCC-D1 Modifications due to Change in Motor Size	Approved by Board of Directors	5/6/2021	0	\$34,392
18	Olsson	3287-000	Integrator Additional Site Visits	Approved by Board of Directors	5/6/2021	0	\$7,572
19	Olsson	3287-000	Multi-zone air conditioning unit in the Cogen MCC Room and Office	Approved by Board of Directors	6/3/2021	0	\$29,417
20	Olsson	3220-000	Overhead Walkway Removal at Plant 1 Secondary Basins 5 through 9	Approved by Board of Directors	6/3/2021	0	\$62,114
21	Olsson	3287-000	Cogeneration PLC Modifications and Integration	Approved by Board of Directors	6/3/2021	0	\$42,923
22	Olsson	3220-000	Plant 1 Secondary Basins UV Rated Wear Strips	Approved by Board of Directors	9/2/2021	0	\$28,965
23	Olsson	3287-000	MCC-F1 Design Change	Approved by Board of Directors	9/2/2021		\$481,290
24	Olsson	3287-000	DAF 2 Investigation Work and Inspection Blast	Approved by Board of Directors	10/7/2021		\$67,839

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
25	Olsson	3287-000	New Fiber Conduit in West Blower Building	Approved by Board of Directors	10/7/2021		\$4,958
26	Olsson	3220-000	Plant 1 Primary Basin Conduit Obstruction	Approved by Board of Directors	10/7/2021		\$8,444
27	Olsson	3220-000	Plant 1 Influent Channel Additional Coating between Primary Basins 5 and 6	Approved by Board of Directors	10/7/2021		\$15,470
28	Olsson	3287-000	MCC-F1 Lighting Changes	Approved by Board of Directors	10/7/2021		\$7,843
29	Olsson	3287-000	Digester 3 Ground Rod	Approved by Board of Directors	10/14/2021		\$7,269
30	Olsson	3220-000	New Fiber Conduits at East Electrical and Storm Water Buildings	Approved by Board of Directors	10/14/2021		\$8,045
31	Olsson	3220-000	Plant 2 Primary Influent Channel Repair Credit	Within Contingency, to be reviewed by Engineering Committee	11/18/2021		-\$15,903
32	Olsson	3220-000	Plant 1 and 2 Telescoping Valve Pipe Supports	Within Contingency, to be reviewed by Engineering Committee	11/18/2021		\$6,132

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
<b>33</b>	<b>Olsson</b>	<b>3287-000</b>	<b>4" Gas Line Routing Modifications</b>	<b>Within Contingency, to be reviewed by Engineering Committee</b>	<b>11/18/2021</b>		<b>\$18,146</b>
<b>34</b>	<b>Olsson</b>	<b>3287-000</b>	<b>Gas Mixer Conduit Conflict</b>	<b>Within Contingency, to be reviewed by Engineering Committee</b>	<b>11/18/2021</b>		<b>\$12,384</b>
1CM Common	Butier	3231-000	CM Change Order No. 1	Approved by Board of Directors	7/13/2021		\$48,995
1CM Liquids	Butier	3220-000	CM Change Order No. 1	Approved by Board of Directors	7/13/2021		\$294,125
1CM Solids	Butier	3287-000	CM Change Order No. 1	Approved by Board of Directors	7/13/2021		\$269,595
1ESDC Common	Carollo	3231-000	ESDC Change Order No. 1	Approved by Board of Directors	6/3/2021		\$18,210
1ESDC Liquids	Carollo	3220-000	ESDC Change Order No. 1	Approved by Board of Directors	6/3/2021		\$109,256
1ESDC Solids	Carollo	3287-000	ESDC Change Order No. 1	Approved by Board of Directors	6/3/2021		\$100,151
1G Common	Ninyo & Moore	3231-000	Geotechnical Services Change Order No. 1	Within Contingency, to be reviewed by Engineering Committee	11/18/2021		\$5,400

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
1G Liquids	Ninyo & Moore	3220-000	Geotechnical Services Change Order No. 1	Within Contingency, to be reviewed by Engineering Committee	11/18/2021		\$12,300
1G Solids	Ninyo & Moore	3287-000	Geotechnical Services Change Order No. 1	Within Contingency, to be reviewed by Engineering Committee	11/18/2021		\$12,300
2ESDC Common	Carollo	3231-000	ESDC Change Order No. 2	Within Contingency, to be reviewed by Engineering Committee	11/18/2021		\$11,075
2ESDC Liquids	Carollo	3220-000	ESDC Change Order No. 2	Within Contingency, to be reviewed by Engineering Committee	11/18/2021		\$196,440
2ESDC Solids	Carollo	3287-000	ESDC Change Order No. 2	Within Contingency, to be reviewed by Engineering Committee	11/18/2021		\$180,905
PCO 002	Olsson	3287-000	Digester 4 Rail Coating. The coating is not needed and resulting in a credit but some rehabilitation work will be needed.	Potential Change	(blank)		-\$1,000

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
PCO 004	Olsson	3287-000	Digester 4 Control Narrative needed	Potential Change	(blank)		\$5,000
PCO 005	Olsson	3287-000	TWAS Slab Modifications	Potential Change	(blank)		\$50,000
PCO 009	Olsson	3287-000	PLC East Headworks Integration	Potential Change	(blank)		\$10,000
PCO 014	Olsson	3287-000	Digester 4 Compressor Supply Line	Potential Change	(blank)		\$18,146
PCO 018	Olsson	3287-000	Duct bank L Interferences	Potential Change	(blank)		\$10,000
PCO 026	Olsson	3287-000	Gas Hatch Lids Mating Connection	Potential Change	(blank)		\$7,771
PCO 037	Olsson	3231-000	Energy Building Monorail and Other Conflicts	Potential Change	12/10/2020		\$10,000
PCO 039	Olsson	3220-000	Diversion Structure Gate Actuator Power Feed Replacement	Potential Change	8/13/2020		\$5,000
PCO 050	Olsson	3220-000	Telescoping Valves Rework	Potential Change	12/23/2020		\$27,884
PCO 066	Olsson	3287-000	DAFT 1 and 2 Repairs	Potential Change	(blank)		\$232,161
PCO 083	Olsson	3220-000	Plant 1 Primary Basins Additional Repairs and Replacement	Potential Change	(blank)		\$126,000
PCO 088	Olsson	3220-000	Plant 1 Primary Existing Coating Removal	Potential Change	(blank)		\$36,000



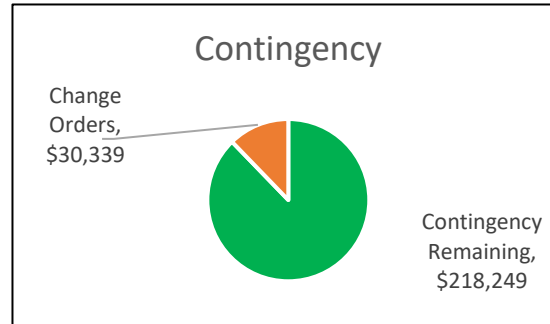
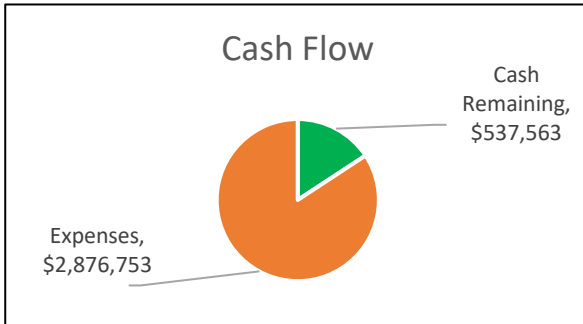
Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
PCO 092	Olsson	3287-000	Hot Water System Expansion Tank	Potential Change	8/31/2021		\$5,000
PCO 093	Olsson	3287-000	DAFT Light Change	Potential Change	8/31/2021		\$10,000
PCO 094	Olsson	3287-000	Additional Red Coloring Agent to Concrete	Potential Change	9/1/2021		\$5,000
PCO 095	Olsson	3287-000	Foul Air Rerouting at DAFT 2	Potential Change	9/2/2021		\$5,000
PCO 097	Olsson	3287-000	Digester Hot Water Temperature Gauge Setting	Potential Change	9/15/2021		\$5,000
PCO 998	Olsson	3220-000	Effluent Pump Station Descopes (A1-A6)	Potential Change	(blank)		-\$800,000
PCO 999	Olsson	3223-000	Energy Building Modifications Descopes (F1-F4, G1-G2, & H1-H2)	Potential Change	(blank)		-\$600,000
Grand Total						190	\$1,638,232

**Project Financial Status**

Project Committee	15
Project Name	Export Sludge Force Main Replacement
Project Description	New 6-inch HDPE force main replacing ageing 4-inch (x2) lines from the Coastal Treatment Plant to the Regional Treatment Plant through Aliso Canyon

**Data Last Updated**

November 8, 2021



**Cash Flow**

Collected	\$3,414,316
Expenses	\$2,876,753

**Project Completion**

Schedule	88%
Budget	67%

**Contracts**

Company	PO No.	Original	Change Orders	Total	Invoiced
Filanc	15949	\$ 3,107,346	\$ 30,339	\$ 3,137,685	\$ 2,102,260
Butier	16164	\$ 226,100	\$ -	\$ 226,100	\$ 183,458
PSOMAS	15961	\$ 277,368	\$ -	\$ 277,368	\$ 86,614
Dudek	15947	\$ 387,750	\$ -	\$ 387,750	\$ 279,543
Ninyo & Moore	16268	\$ 65,790	\$ 43,166	\$ 108,956	\$ 100,091
		<b>\$ 4,064,354</b>	<b>\$ 73,505</b>	<b>\$ 4,137,859</b>	<b>\$2,751,965</b>

**Filanc Contingency**

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3541-000	\$ 248,588	\$ 30,339	\$ 218,249	12.2%
		<b>\$ 248,588</b>	<b>\$ 30,339</b>	<b>\$ 218,249</b>	<b>12.2%</b>

**Summary of New Change Orders**

Change Order No	CLB	EBSD	MNWD	SCWD	Amount
<b>Grand Total</b>					

**Change Orders**

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
1	Filanc	3541-000	Alternative Fiber Optic Conduit Installation at Jack and Bore	Approved by Board of Directors	6/3/2021	0	\$ 5,690
2	Filanc	3541-000	HDPE Pipe Price Adjustment	Approved by Board of Directors	9/2/2021	0	\$ 15,615
3	Filanc	3541-000	Existing 6-Inch Sludge Line Fix for Pressure Test	Approved by Board of Directors	9/2/2021	0	\$ 6,666
4	Filanc	3541-000	18-Inch VCP Sewer Line Conflicts	Approved by Board of Directors	9/2/2021	0	\$ 2,368
PCO 007	Filanc	3541-000	Lost Production with Equipment Movement	Potential Change	(blank)		\$ 21,552
PCO 008	Filanc	3541-000	Abandoned 4" PVC Water Line Interference	Potential Change	(blank)		\$ -
PCO 009	Filanc	3541-000	Wider Trench in Low Cover	Potential Change	(blank)		\$ 36,000
PCO 012	Filanc	3541-000	Jack and Bore Conflict	Potential Change	(blank)		\$ 110,000
PCO 013	Filanc	3541-000	Nesting Bird Restrictions	Potential Change	(blank)		\$ -
PCO 014	Filanc	3541-000	Abandoned 12" PVC Interference	Potential Change	(blank)		\$ 5,462
PCO 015	Filanc	3541-000	18-Inch VCP Sewer Line Conflict at Sta. 96+55	Potential Change	(blank)		\$ 6,199
PCO 016	Filanc	3541-000	ACWHEP Unknown Buried Concrete	Potential Change	(blank)		\$ 30,000
PCO 017	Filanc	3541-000	Encasement at Sta. 88+90 to 89+90	Potential Change	(blank)		\$ 3,516

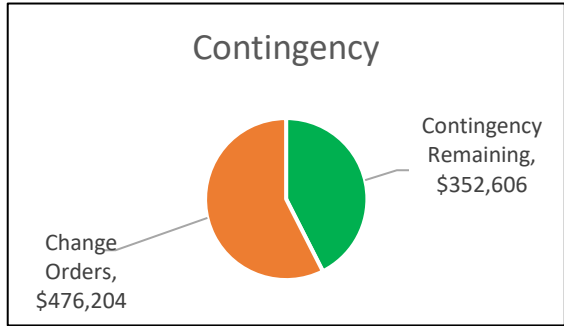
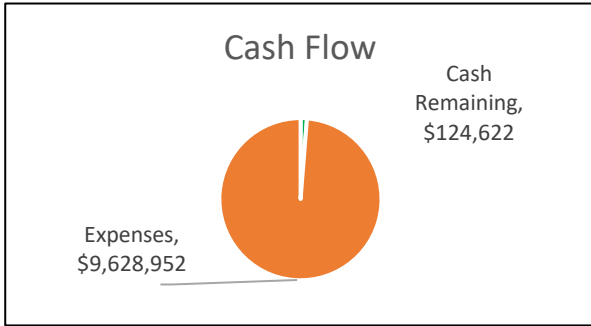
Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
PCO 018	Filanc	3541-000	Test Pit for Jack and Bore	Potential Change	(blank)		\$ 9,639
PCO 019	Filanc	3541-000	CTP and RTP Connection Modifications	Potential Change	(blank)		\$ -
PCO 021	Filanc	3541-000	Turtle Protection	Potential Change	(blank)		\$ -
PCO 022	Filanc	3541-000	Concrete Demo and Potholing	Potential Change	(blank)		\$ 3,525
Grand Total						0	\$ 256,232

**Project Financial Status**

Project Committee	15
Project Name	Facility Improvements
Project Description	New ferric chloride system, new collection equipment in East

**Data Last Updated**

November 8, 2021



**Cash Flow**

Collected	\$9,753,574
Expenses	\$9,628,952

**Project Completion**

Schedule	100%
Budget	95%

**Contracts**

Company	PO No.	Original	Change Orders	Total	Invoiced
PCL	13751	\$ 9,209,000	\$ (723,984)	\$ 8,485,016	\$ 8,217,673
Butier	13647	\$ 812,288	\$ -	\$ 812,288	\$ 812,228
Hazen & Sawyer	13648	\$ 490,484	\$ -	\$ 490,484	\$ 290,159
		<b>\$ 10,511,772</b>	<b>\$ (723,984)</b>	<b>\$ 9,787,788</b>	<b>\$9,320,060</b>

**Contingency**

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3539-000	\$ 828,810	\$ 476,204	\$ 352,606	57.5%
		<b>\$ 828,810</b>	<b>\$ 476,204</b>	<b>\$ 352,606</b>	<b>57.5%</b>

**Summary of New Change Orders**

Change Order No	CLB	EBSD	MNWD	SCWD	\$ Amount
39	\$1,068	\$84	\$824	\$841	\$2,817
40	\$1,123	\$88	\$866	\$884	\$2,962
<b>Grand Total</b>	<b>\$2,191</b>	<b>\$173</b>	<b>\$1,691</b>	<b>\$1,725</b>	<b>\$5,779</b>

**Change Orders**

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
1	PCL	3539-000	Additional Potholing	Approved by Board of Directors	8/6/2020	0	\$ 22,936
2	PCL	3539-000	Gas Line Replacement	Approved by Board of Directors	8/6/2020	0	\$ 41,006
3	PCL	3539-000	Main Switchgear Building Underground Conflicts	Approved by Board of Directors	8/6/2020	0	\$ 8,683
4	PCL	3539-000	Mud Valve Bolt Removal	Approved by Board of Directors	8/6/2020	0	\$ 6,577
5	PCL	3539-000	Additional Anchor Bolt Removal	Approved by Board of Directors	8/6/2020	0	\$ 15,271
6	PCL	3539-000	Slide Gate Concrete Repair	Approved by Board of Directors	8/6/2020	0	\$ 3,396
7	PCL	3539-000	Sludge Collector Wear Strips	Approved by Board of Directors	8/6/2020	0	\$ 5,304
8	PCL	3539-000	SCE Transformer Slab Box	Approved by Board of Directors	9/3/2020	0	\$ 4,378
9	PCL	3539-000	Duct Bank 5 Buried Utility Conflicts	Approved by Board of Directors	10/1/2020	0	\$ 32,224
10	PCL	3539-000	Telescoping Valve Modifications	Approved by Board of Directors	10/1/2020	0	\$ 36,067

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
11	PCL	3539-000	Secondary Effluent Channel Improvements	Approved by Board of Directors	12/17/2020	0	\$ 5,153
12	PCL	3539-000	Portable Generator Tap Enclosures in Buildings 2 & 15	Approved by Board of Directors	12/10/2020	0	\$ 18,356
13	PCL	3539-000	Conduit, wiring, and mounting of LL1 fixtures	Approved by Board of Directors	12/10/2020	0	\$ 5,001
14	PCL	3539-000	MCC Feeder Credit	Approved by Board of Directors	2/4/2021	0	\$ (8,803)
15	PCL	3539-000	Switchgear Building Concrete Repair	Approved by Board of Directors	3/11/2021	0	\$ 40,144
16	PCL	3539-000	Sludge Collector Mounting Plate Replacement	Approved by Board of Directors	3/11/2021	0	\$ 10,623
17	PCL	3539-000	Basin Leaking Crack Repair in East Secondaries	Approved by Board of Directors	3/11/2021	0	\$ 1,863
18	PCL	3539-000	Additional Spall Repair - Grit Channels	Approved by Board of Directors	3/11/2021	0	\$ 26,405
19	PCL	3539-000	Mixed Liquor Channel Remobilization	Approved by Board of Directors	3/11/2021	0	\$ 5,323
20	PCL	3539-000	Building 10 Roof Repairs	Approved by Board of Directors	3/11/2021	0	\$ 2,245
21	PCL	3539-000	Building 8 Gas Line Rerouting	Approved by Board of Directors	3/11/2021	0	\$ 717

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
22	PCL	3539-000	Additional Spall Repair - East Secondary Basins	Approved by Board of Directors	6/3/2021	0	\$ 9,722
23	PCL	3539-000	Grit Chamber Conflicts	Approved by Board of Directors	6/3/2021	0	\$ 3,888
24	PCL	3539-000	1/2" Ferric Line Conflicts	Approved by Board of Directors	6/3/2021	0	\$ 784
25	PCL	3539-000	Helical Skimmer Wiring	Approved by Board of Directors	8/5/2021	0	\$ 1,072
26	PCL	3539-000	MCC 15 Unmarked Wire Chasing	Approved by Board of Directors	8/5/2021	0	\$ 6,138
27	PCL	3539-000	Unilateral Descope of Drainage Pump Station, East Basin RAS Channel, and West Secondary Sludge Collection Equipment	Approved	6/11/2021	0	\$(1,200,188)
28	PCL	3539-000	Unilateral for 21 calendar days for weather and COVID-19 delays	Approved	6/16/2021	21	\$ -
29	PCL	3539-000	Building 10 Wall Repair	Approved by Board of Directors	10/14/2021	0	\$ 2,638
30	PCL	3539-000	West Telescoping Valve Improvements	Approved by Board of Directors	10/14/2021	0	\$ 12,168



Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
31	PCL	3539-000	RAS Box Leaks	Approved by Board of Directors	10/14/2021	0	\$ 1,907
32	PCL	3539-000	West Grit Channel Unforeseen Conflicts	Approved by Board of Directors	10/14/2021	0	\$ 10,294
33	PCL	3539-000	Extra Work in Generator Building	Approved by Board of Directors	10/14/2021	0	\$ 3,714
34	PCL	3539-000	Power for Bldg 15 HVAC	Approved by Board of Directors	10/14/2021	0	\$ 2,301
35	PCL	3539-000	Additional Ferric Area Work	Approved by Board of Directors	10/14/2021	0	\$ 1,094
36	PCL	3539-000	Ferric Tank LIT	Approved by Board of Directors	10/14/2021	0	\$ 2,547
37	PCL	3539-000	PLC-TC1 Upgrades	Approved by Board of Directors	10/14/2021	0	\$ 9,699
38	PCL	3539-000	Aeration Channel Conflicts	Approved by Board of Directors	10/14/2021	0	\$ 10,314
<b>39</b>	<b>PCL</b>	<b>3539-000</b>	<b>Telescoping Valve Stand Modifications</b>	<b>Within Contingency, to be reviewed by Engineering Committee</b>	<b>11/18/2021</b>	<b>0</b>	<b>\$ 2,817</b>
<b>40</b>	<b>PCL</b>	<b>3539-000</b>	<b>Wiring for West Secondary Basins</b>	<b>Within Contingency, to be reviewed by Engineering Committee</b>	<b>11/18/2021</b>	<b>0</b>	<b>\$ 2,962</b>

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Days	Amount
PCO 013.1	PCL	3539-000	Ferric Containment Foundation	Potential Change	(blank)		\$ 53,876
PCO 048	PCL	3539-000	West Secondary Effluent Channel Concrete Repair	Potential Change	(blank)		\$ 26,000
PCO 060	PCL	3539-000	Headworks Roofing Conflicts	Potential Change	(blank)		\$ 15,000
PCO 061	PCL	3539-000	Headworks bypass	Potential Change	(blank)		\$ 11,371
PCO 065	PCL	3539-000	SCE XFMR Slab Box	Potential Change	(blank)		\$ 18,029
Grand Total						21	\$ (708,984)

# Agenda Item

# 6

**Engineering Committee Meeting**

**Meeting Date:** November 18, 2021

**TO:** Engineering Committee

**FROM:** Jason Manning, Director of Engineering

**SUBJECT:** Effluent Transmission Main Trail Bridge Crossing Project Update  
[Project Committee 21, Reach D]

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## Overview

This agenda item provides a recommendation for the amendment of the engineering services contract for Tetra Tech for the final design of the Effluent Transmission Main Trail Bridge Crossing Design Project. The original contract was awarded in March 2018 for \$345,370, Amendment No. 1 in October 2018 for \$21,758, and the addition for Amendment No. 2 is \$142,634 for a total revised contract amount of \$509,762.

## Background

The Effluent Transmission Main (ETM) conveys treated secondary effluent from the Irvine Ranch Water District (IRWD) Los Alisos Water Reclamation Plant, the El Toro Water District (ETWD) Reclamation Plant, the SOCWA Regional Treatment Plant and the SOCWA Coastal Treatment Plant to the Aliso Creek Ocean Outfall. The ETM also carries brine flow from two IRWD groundwater treatment facilities.

The ETM largely follows the path of the Aliso Creek. This includes several crossings beneath Aliso Creek. One site, the Trail Bridge ETM Crossing, is in need of protection against potential channel scour and erosion. The Trail Bridge ETM Crossing is a 24-inch reinforced concrete pipe (RCP) with a concrete encasement that diagonally crosses Aliso Creek. The Trail Bridge ETM Crossing is located approximately 1,000 feet north of Aliso Viejo Middle School. The top of existing concrete encasement for the ETM is exposed and scoured to a depth of 30 inches within Aliso Creek and potentially subject to additional scour and structural damage by channel debris.

The Trail Bridge ETM crossing is part of Reach D of the ETM. The capacity in this reach of the ETM is jointly owned by the IRWD and the ETWD.

SOCWA retained Tetra Tech to prepare a Technical Memorandum in 2014 to develop a conceptual level alternative design for the Trail Bridge ETM crossing site. In March 2018, Tetra Tech was awarded the contract to complete the design for the crossing protection project. In October 2018, scope was added to the project with Amendment No. 1.

**Cost Allocation**

The proposed Amendment No. 2 would increase the following Tetra Tech tasks as noted in Table 1:

Table 1 – Fees by Task

Task No.	Description	Original Contract	Amendment No. 1	Amendment No. 2	Total
1	Progress Meetings	\$8,782.00	\$ -	\$ -	\$8,782.00
2	Survey	\$55,908.00	\$ -	\$ -	\$55,908.00
3	Concept Review	\$9,670.00	\$ -	\$ -	\$9,670.00
4	Creek Hydraulics	\$9,822.00	\$ -	\$ -	\$9,822.00
5	Constructability Review	\$4,562.00	\$ -	\$ -	\$4,562.00
6	Identify and Contact Key Landowners	\$4,310.00	\$ -	\$ -	\$4,310.00
7	Coordination with the County of Orange	\$5,861.00	\$ -	\$ -	\$5,861.00
8	Biological Survey	\$50,575.00	\$ -	<b>\$12,051.00</b>	\$62,626.00
9	Cultural Survey	\$5,915.00	\$ -	<b>\$4,525.00</b>	\$10,440.00
10	CEQA Preparation	\$60,315.00	\$ -	<b>\$44,216.00</b>	\$104,531.00
11	Resource Agency Permit Application	\$59,205.00	\$ -	<b>\$58,201.00</b>	\$117,406.00
12	County of Orange Permit Application	\$5,086.00	\$ -	\$ -	\$5,086.00
13	Final Design	\$54,866.00	\$ -	<b>\$12,080.00</b>	\$66,946.00
14	Submittal	\$3,805.00	\$ -	\$ -	\$3,805.00
15	Cost Estimates	\$6,688.00	\$ -	<b>\$1,538.00</b>	\$8,226.00
16	Potential Risk of Failure at Project Site	\$ -	\$15,570.00	\$ -	\$15,570.00
17	Conceptual-level Design (Pipe Tunneling)	\$ -	\$ -	\$ -	\$ -
18	Presentation at Engineering Committee	\$ -	\$6,188.00	\$ -	\$6,188.00
19	Permit Related Meetings and Hearings	\$ -	\$ -	<b>\$10,023.00</b>	\$10,023.00
		\$345,370.00	\$21,758.00	<b>\$142,634.00</b>	\$509,762.00

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Table 2 – Cost allocation by member agency for Tetra Tech Amendment No. 2

<b>Agency</b>	<b>Tetra Tech Amendment No. 1</b>
	<i>3101-000</i>
ETWD	\$ 71,317.00
IRWD	\$ 71,317.00
<b>Total</b>	<b>\$142,634.00</b>

Project 3101-000 is already funded and within budget.

**Recommended Action:** Staff recommends that the Engineering Committee recommend to the PC 21 Reach D Board of Directors to approve the Tetra Tech Amendment No. 2 in the amount of \$142,634 for a total revised contract amount of \$509,762 for the final design of the Effluent Transmission Main Trail Bridge Crossing Project.

# SOCWA Trail Bridge Effluent Transmission Main Crossing Design

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## **Modification No. 2 to Original SOW – Scope of Work for Additional Work**

This Scope of Work (SOW) is a modification (MOD) to the original contract to request additional funding to the original tasks to provide additional support requests by South Orange County Wastewater Authority (SOCWA). The SOW has been prepared based on the conference call discussion between SOCWA, Tetra Tech, and The Team on March 9, 2021, to complete the project.

A biological resources study and a Phase I cultural resources inventory was prepared in 2019 with negative findings, and a draft Mitigated Negative Declaration (MND) was completed and submitted to SOCWA for internal review. However, the documents were never circulated for public review. Given the age of the technical studies, updated biological and cultural resource surveys are needed to complete the MND process and to support wetlands regulatory permitting services required for the project.

## **Task 8: Biological Survey**

### Task 8e – Biological Resources Letter Report

The Team will update the existing 2018 report to reflect the current environmental baseline conditions and to incorporate the results of the 2021 special-status wildlife species surveys currently being conducted by the Team separately. The impacts assessment, report exhibits, and mitigation measures will also be updated to reflect the latest project understanding and wetlands permitting regulations, which have changed considerably since 2018.

Prior to conducting any updated field surveys, the Team will review the California Natural Diversity Database and U.S. Fish and Wildlife Service (USFWS) databases to identify any additional special-status species occurrences that have been recorded in the project area and vicinity since the 2018 report was prepared. The vegetation map within the previous study area will be verified and re-mapped, if necessary, to more accurately reflect current conditions. Vegetation

communities within the study area will be mapped on a 100-scale topographic/aerial photographic map, based on the List of California Vegetation Alliances and Associations system. Given the incised nature of Aliso Creek in this area, the wetland delineation will not be updated as the extent of agency jurisdiction will not likely have changed since the original assessment was done in 2018.

The Team will update the existing report to document the survey findings. The letter report will include a discussion of the survey methodology according to the appropriate protocol and adequacy of the surveys. The report will provide an updated assessment of existing conditions, an impacts analysis, an updated assessment of the significance of impacts in accordance with the California Environmental Quality Act (CEQA), and recommended mitigation measures. The existing regional, vicinity, and biological resource maps will be updated. No new report exhibits will be generated as a result of this update. The Team will perform one round of impacts/design review to support the impacts assessment based off the updated vegetation map. Electronic copies of the draft and final report will be provided as in PDF. Up to three (3) hard copies can be provided upon request.

## **Task 9: Cultural Survey**

Another critical technical study that the Team will need to update to support ongoing environmental planning and permitting services is the cultural resource analysis. Given the extent of prior disturbance in the project area, the likelihood of recovering significant archaeological resources remains low. However, in light of the cultural sensitivity in other regions of the Aliso and Wood Canyons Wilderness Park, the need to demonstrate compliance with CEQA, and with Section 106 of the National Historic Preservation Act as part of the regulatory permitting process, we will update the cultural resource technical report documenting the results of the California Historical Resources Information System records search, Native American coordination, and cultural resource pedestrian survey.

Cultural resource efforts will include an updated South Central Coastal Information Center (SCCIC) records search for the project site plus a half-mile surrounding buffer. The direct cost of this search is anticipated to be \$1,500.00 and may take up to 10 weeks to yield results due to COVID-19 protocols that continue to be implemented and enforced in the region. It should be further anticipated that a SCCIC records search will only provide review of digital files. The Team will additionally contact the Native American Heritage Commission (NAHC) for an updated Contact List of traditionally affiliated Native American representatives. Per U.S. Army Corps of Engineers (USACE) requirements, the Team will email and call these individuals. This information

will be integrated within the cultural resources report and appendices, with the intent of facilitating smooth review by USACE for Section 106 compliance.

The fee for this task includes \$1,500 in reimbursable direct costs associated with the updated SCCIC records search.

## **Task 10: CEQA Preparation**

To date, the Team prepared a Screencheck Draft MND in July 2019 addressing the environmental effects of the proposed action and associated approvals. The following discussion provides a description of our approach for completing the MND and CEQA process.

As a first step under this task, The Team will obtain comments from SOCWA staff on the First Screencheck Draft MND. Once obtained, and in close cooperation with SOCWA staff, the Team will prepare the public review Draft MND in conformance with the criteria, standards, and provisions of CEQA. It is assumed that The Team will not need to prepare a Second Screencheck Draft document. The Draft MND will be prepared in conformance with the criteria, standards, and provisions of CEQA, the California Public Resources Code Section 21000 et. seq., and the state CEQA guidelines. The document will identify potentially significant environmental effects and, in consultation with SOCWA, The Team will identify all feasible measures to mitigate those effects to a less than significant level. The MND will include the following sections:

1. Introduction
2. Project Description
  1. Initial Study Environmental Checklist (including the environmental checklist and a discussion of the environmental impacts)
3. Mitigation Monitoring and Reporting Program
4. Findings
5. Report Preparation Personnel
6. References and Supporting Information

The Team will conduct the environmental analysis of the project based on the data, background information, and technical studies collected and prepared as part of this work effort. Information from technical reports will be synthesized into the Draft MND for the technical reports listed herein. The Draft MND will also address all CEQA-Plus topics pursuant to the SRF loan funding requirements, and The Team will assist SOCWA in submitting CEQA-Plus deliverables to the State Water Resources Control Board.



In addition to preparing the MND for the 30-day public review period, the Team will prepare the Notice of Completion and Notice of Availability, which will accompany the public review documents. The Team will work with SOCWA staff to assemble and notice the Draft MND for public review; it is assumed SOCWA will be the lead for mailing out all notices. The Team will provide copies of the Draft MND to SOCWA staff for distribution during the 30-day public review period.

Following conclusion of the public review period, the Team will address public comments on the Draft MND, provide responses to comments, and prepare revisions to the Draft MND text, if necessary. The Team will catalog, bracket and categorize all comments on the Draft MND. The Team will prepare responses to comments for inclusion in the Final MND based on coordination with SOCWA staff. For purposes of cost estimation, this proposal assumes The Team's responses to no more than 50 individual public comments on the Draft MND from all comment letters received (note that a single comment letter may contain multiple comments). The Team assumes that comments received related to technical items prepared by other team members would be addressed by the appropriate individual/firm for final incorporation into the Final MND document.

The Team will prepare the Mitigation Monitoring and Reporting Program (MMRP) for inclusion in the Final MND. The MMRP will include a brief project description, a list of agencies with jurisdiction over the project, monitoring roles and responsibilities, and general monitoring procedures. For each mitigation measure identified in the Final MND, the party responsible for the monitoring, scheduling, and reporting requirements and effectiveness criteria will be identified. Mitigation measures contained in the MND will be developed in consideration of future monitoring requirements and written in sufficient detail to address impacts of all phases of project development, referencing the appropriate implementing permits such as grading permits and final maps.

Based on comments from SOCWA staff, the Team will prepare the Final MND for certification. We assume preparation of one Screencheck Final MND, followed by a Final MND, incorporating SOCWA comments. Related to the responses to comments, the Team will assemble text changes to the Final MND as appropriate. The Team will assemble the Final MND and provide the necessary copies and digital files to SOCWA staff to take the MND through the hearing process to certification.

The MMRP will also be finalized for inclusion in the Final MND. The Final MND, responses to comments, and the MMRP will be submitted to SOCWA for distribution.

## **Task 11: Resource Agency Permit Applications**

We are currently under contract with SOCWA to prepare and process a Section 404 Nationwide Permit with USACE, a Section 401 Water Quality Certification with the Regional Water Quality Control Board (RWQCB), and a Section 1602 Streambed Alteration Agreement with the California Department of Fish and Wildlife (CDFW). However, since the execution of the contract in 2018, there have been a number of notable regulation changes that have affected the content requirements of the wetlands regulatory permit submittals, specifically with respect to the Section 401 Water Quality Certification process. Additional budget is needed to prepare and process the Section 401 Water Quality Certification from the RWQCB as described in more detail below.

### **Task 11a Wetlands Resource Agency Permitting**

#### Prepare and Process Section 401 Water Quality Certification

Since the Team's original SOW and fee were approved by SOCWA to prepare and process wetlands regulatory permits in 2018, the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) issued by the State Water Resources Control Board went into effect on May 28, 2020. As a part of the process, applicants are now required to file a pre-application filing meeting request with the RWQCB 30 days prior to application submittal. During this 30-day period, the RWQCB may request a meeting to review the project in more detail or they may reach out with preliminary concerns they have that should be resolved to the greatest extent feasible before the application is submitted. This is due to the fact that under the "Clean Water Act Section 401 Certification Rule", administered by the Environmental Protection Agency on September 11, 2020, the RWQCB is now required to take action within 90 days from receipt of an application. The overall intent of the rule is to streamline agency review of applications and improve efficiencies in the application review and processing. Under this task, the Team will prepare and file on behalf of SOCWA the pre-application filing request letter, which is typically no more than 5-10 pages in length. The Team will then complete and submit the required application form along with the technical documents needed to accompany the application. Note, that as a result of the Procedures, the required application form has doubled in length from 15 pages in 2018 to 30 pages currently. Under this task, the Team will prepare, file, and process an application for Section 401 Water Quality Certification with the San Diego RWQCB office. The Team will continue to assume that SOCWA will pay the required filing fee to be coordinated by the Team during the wetlands regulatory permitting phase of the project.

#### RWQCB Alternatives Analysis

As indicated in the Procedures, adopted by the State Water Resources Control Board on April 2, 2019, an alternatives analysis must be submitted to the RWQCB, consistent with the requirements of Section 230.10 of the State Supplemental Dredge or Fill Guidelines, unless the project qualifies for an exemption as outlined on page 6 of the Procedures. The alternatives analysis serves two primary purposes. The first purpose is to document that an appropriate sequence of actions has been taken first to avoid, and second to minimize, adverse impacts to waters of the state. The second purpose is to identify the least environmentally damaging practicable alternative (LEDPA). The analysis must establish that the proposed project alternative is the LEDPA in light of all potential direct, secondary (indirect), and cumulative impacts on the physical, chemical, and biological elements of the aquatic ecosystem.

1. As discussed in the state's Procedures, alternatives analyses shall be completed in accordance with the following tiers. The level of effort required for an alternatives analysis within each of the three tiers shall be commensurate with the significance of the impacts resulting from the impact.
2. Tier 3 projects include any discharge of dredged or fill material that directly impacts more than 0.2 acre or 300 linear feet of waters of the state; rare, threatened or endangered species habitat in waters of the state; wetlands or eel grass beds; or Outstanding National Resource Waters or Areas of Special Biological Significance, and is not a project that inherently cannot be located at an alternate location. Tier 3 projects shall provide an analysis of off-site and on-site alternatives.
3. Tier 1 projects include any discharge of dredged or fill material that directly impacts less than or equal to 0.1 acre or less than or equal to 100 linear feet of waters of the state, unless it meets the criteria for a Tier 3 project. Tier 1 projects shall provide a description of any steps that have been or will be taken to avoid and minimize loss of, or significant adverse impacts to, beneficial uses of waters of the state.

Based on the impact footprint evaluated in the draft MND, the preferred project exceeds over 0.2 acre of direct impacts to waters of the state. Therefore, the project meets the requirements of a Tier III evaluation, as defined in the state's Procedures. Under this task the Team will prepare a Tier III alternatives analysis focusing on on-site alternatives that were previously evaluated by SOCWA for the project. This fee assumes we will provide an evaluation of up to three on-site alternatives including the preferred project as well as a "No Project" alternative.

### Task 11c Endangered Species Act Permitting

Focused surveys for the state and federally endangered least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax trailli extimus*), and the federally threatened coastal California gnatcatcher (*Polioptila californica californica*) are currently being conducted to determine the presence/absence of these species within the project survey area, which includes the proposed impact footprint plus a 500 foot buffer. The 500-foot buffer is necessary to assess potential indirect effects to federally listed species that may occur in proximity to but not within the impact footprint.

Preliminary results of the 2021 focused riparian bird surveys indicate that least Bell's vireo is present roughly 150 feet downstream of the trail bridge. Because this species is present within the survey area, the USACE is required to consult with the USFWS under Section 7 of the federal Endangered Species Act to determine if the proposed project will have an adverse effect on the species. Under this task, The Team will prepare a Biological Assessment (BA) that discusses the specific effects of the project on least Bell's vireo, and any other federally listed species, to facilitate USFWS review of the project.

The USFWS will determine if the project "may affect" a listed species. If either of these determinations are made, the USFWS and USACE will enter consultation. Based on the complexity of issues and the severity of impact, either a formal or informal consultation process may be selected by USFWS. This scope of work includes necessary coordination time for either process. The informal consultation process generally requires less staff effort and time, although there is no statutory time limit for this consultation process. The formal consultation will conclude with a Biological Opinion issued by the USFWS within a statutory 135-day time period.

If the project impacts any species that are both state and federally listed, such as the least Bell's vireo, CDFW may require a 2080.1 Consistency Determination which allows for impacts to the species under conditions consistent with the federal determination. If necessary, The Team will facilitate issuance of the Consistency Determination. This scope of work does not include permitting of any state listed species which are not also federally listed nor does it include separate permit issuance by CDFW which may be required if CDFW does not agree with USFWS conclusions or conditions. If separate permitting with CDFW is required, an amended scope of work and cost estimate can be provided. This scope of work includes coordination with USFWS, and if necessary, CDFW, for up to six months following initiation of the consultation by the USACE including up to three meetings with agency staff.

## **Task 13: Final Design**

The 90% design plans and specifications were submitted to SOCWA for review in 2019. However, no review comments were received. SOCWA will provide review comments to the Team so they can be incorporated into the final design.

Prior to developing the final design, the Team will conduct a field visit of the project site to visually assess for any critical change in the existing conditions that would warrant the change in the 2019 design approach. If a critical change in the existing conditions is found in the field, the Team will coordinate with SOCWA to reach a design resolution as necessary. Additionally, the Team will revisit and reevaluate the 2019 design for its feasibility under the current site conditions and latest design standards. No additional site survey or hydraulics or geotechnical analysis will be performed. Findings from the environmental permit work will be incorporated into the final design.

The CAD files from 2019 design will be updated to the current version of CAD software.

## **Task 15: Cost Estimates**

The Team will revisit the unit costs of the 2019 cost estimates and update the unit costs and estimate as necessary to meet the 2021 price level.

## **Task 19: Permit Related Meetings and Hearings**

The Team will attend project meetings and one Board Committee hearing, as needed, throughout the duration of the contract. This task includes project management and administration, regular progress reports and communication with Tetra Tech and SOCWA, coordination of project team, and quality control. It is assumed that up to four meetings will be necessary.

### **Deliverables**

#### **Tasks 8 through 11**

The deliverables related to the environmental permit work, Tasks 8 through 11, are described in the SOW descriptions above.

#### **Tasks 13 and 15**

The final level design submittals, including the plans, specifications, and cost estimate, will be submitted to SOCWA 4 weeks after the completion of Tasks 8 through 11 to make sure the findings from the permit work are adequately addressed in the design documents.

**Proposed Task Fee Summary**

<b>Task No</b>	<b>Task</b>	<b>Fee</b>
8	Biological Survey	\$ 12,051
9	Cultural Survey	\$ 4,525
10	CEQA Survey	\$ 44,216
11	Resource Agency Permit Application	\$ 58,201
13	Final Design	\$ 12,080
15	Cost Estimates	\$ 1,538
19	Permit Related Meetings and Hearings	\$ 10,023
Total:		<b>\$ 142,634</b>

# Tetra Tech Fee Proposal

## Trail Bridge ETM Crossing

Revised on 2021/05/21

TASK NO.	Task	QA/QC (Program Manager)	Sr. PM	Project Manager	Sr Engineer 4	Project Engineer 1	Sr CAD/GIS Designer 1	CAD/GIS Designer	Sr. Engineer 4	Sr. Planner 4	Sr. Planner 3	Sr. Planner 1	Planner 2	Planner 1	TOTAL HOURS	ODC <sup>1</sup>	TOTAL FEE
		\$ 347	\$ 310	\$ 298	\$ 281	\$ 187	\$ 146	\$ 123	\$ 281	\$ 257	\$ 216	\$ 181	\$ 164	\$ 123			
1	Progress Meetings																
2	Survey																
2.a	Topographic Survey																
2.b	Property Survey																
2.c	Easement Survey																
2.d	Comprehensive Map																
3	Concept Review																
3.a	Review and Confirm 2014 Design & Cost																
3.b	Alternative Design Approach																
4	Creek Hydraulics																
5	Constructability Review																
6	Identify and Contact Key Landowners																
7	Coordination with the County of Orange																
8	Biological Survey																\$ 12,051
8a	General biological recon survey & Wetland Delineation																
8b	Focused California Gnatcatcher Survey (for Non-NCCP Participating Jurisdictions)																
8c	Focused Riparian Bird Surveys																
8d	Western Pond Turtle Survey (Optional)																
8e	Biological Resources Technical Report								4	18	10	2	20	7	59		
9	Cultural Survey										10	2	1	13	\$ 1,880	\$ 4,525	
10	CEQA Preparation								40	8	8		160	24	240		\$ 44,216
11	Resource Agency Permit Application																\$ 58,201
11a	Wetlands Resource Agency Permitting									115			25	5	145		
11b	Research Waters of the U.S. Mitigation Options																
11c	Endangered Species Permitting								3	53	22		25	5	108		
12	County of Orange Permit Application																
13	Final Design																\$ 12,080
13.1	90% Design																
13.2	100% Design		2	2	10	24	16	10							64		
14	Submittal																
14.1	Submittal Preparation																
15	Cost Estimates			1		4		4							9		\$ 1,538
16	Potential Risk of Failure at Project Site																
17	NOT USED																
18	Presentation at Engineering Committee																
19	Permit Related Meetings and Hearings			2		6			10	15	0	0	10		43		\$ 10,023
	<b>Total</b>		<b>2</b>	<b>5</b>	<b>10</b>	<b>34</b>	<b>16</b>	<b>14</b>	<b>57</b>	<b>209</b>	<b>50</b>	<b>2</b>	<b>240</b>	<b>42</b>	<b>681</b>	<b>\$ 1,880</b>	<b>\$ 142,634</b>

Note: 1. ODC includes 12% profit and 13.42% G&A, which are reflected in the cost shown.

# Agenda Item

7

**Engineering Committee Meeting**

**Meeting Date:** November 18, 2021

**TO:** Engineering Committee

**FROM:** Roni Young Grant, Associate Engineer

**SUBJECT:** J.B. Latham Treatment Plant Hydraulic Modeling and Flow Management Study Update [Project Committee 2]

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## Overview

Carollo Engineers prepared a presentation on the Hydraulic Modeling and Flow Management project for the J.B. Latham Treatment Plant.

**Recommended Action:** Information Item.



# Agenda Item

8

**Engineering Committee Meeting**

**Meeting Date:** November 18, 2021

**TO:** Engineering Committee

**FROM:** Roni Young Grant, Associate Engineer

**SUBJECT:** J.B. Latham Treatment Plant Package B Construction Update  
[Project Committee 2]

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## Overview

The J.B. Latham Treatment Plant Package B project is still under construction. Engineering staff have prepared a presentation to update the committee on the status of the construction.

**Recommended Action:** Information Item.

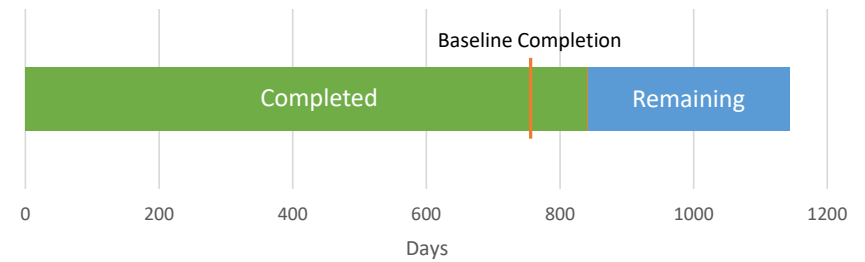


# JB Latham Package B Project

Construction Update  
November 18, 2021

# Construction Schedule Update

<b>Schedule Completion</b>	<b>76%</b>
Started	July 2019
Baseline Schedule Completion	August 2021
Revised Completion	September 2022



# Schedule and Budget Update

<b>Contractor Budget Completion</b>		<b>Total Project Budget Completion</b>	
	<b>66%</b>		<b>66%</b>
Original Contract Value	\$17,325,000	Original Contracts	\$19,161,255
Change Orders	\$1,212,518	Contingency	\$2,671,000
Revised Contract Value	\$18,537,518	Invoiced	\$14,199,113
Invoiced	\$11,963,682	Contingency Used	\$2,471,270
		Contract Remaining	\$6,573,835
		Contingency Remaining	\$199,730

*Schedule as of September update  
Budget as of Invoice 27 and Change Order 34*

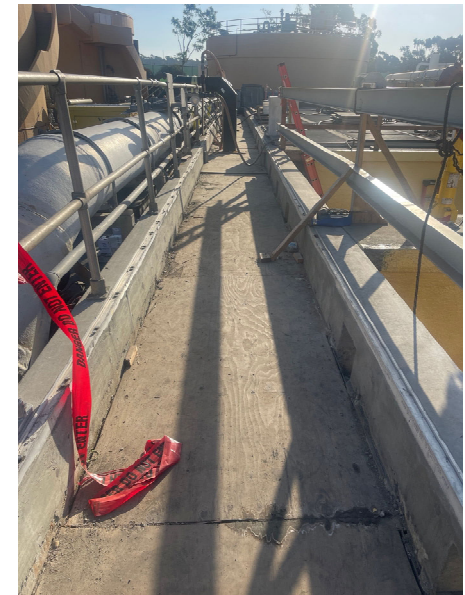
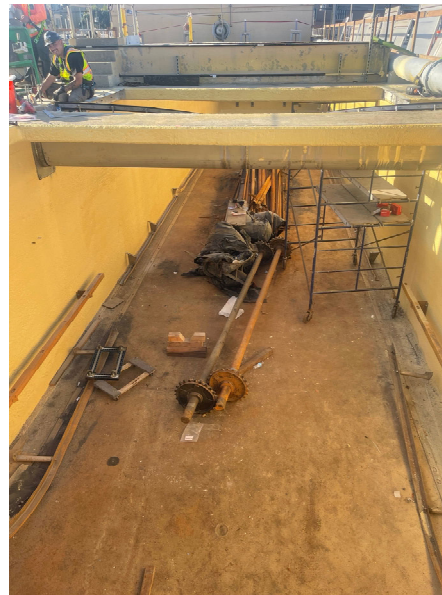
# Construction Status Update

	Scope	Status	Est. % Complete
	Plant 1 and 2 Primary and Secondary Basins Rehabilitations	Ongoing	75%
	DAFT, TWAS, Digesters 1 through 3 Improvements	Ongoing	50%
	Laboratory Demolition	Ongoing	10%
	Digester 4 Improvements	Ongoing	100%
	Liquids Facility Safety Improvements	Ongoing	10%
	Solids Facility Safety Improvements	Ongoing	50%
	Boiler System	Ongoing	10%
	Fiber Loop	Ongoing	90%
	MCC Upgrades	Ongoing	95%
	Effluent Pump Station Improvements	Removed	15%
	Energy Building Structural Improvements	Removed	15%

# Plant 1 Primary Basins

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- Primary Basins 5 and 6
- Scum Skimmers and Drive, Troughs, Chain and Flight
- Covers and Coating
- Ongoing



# Plant 1 Influent and Effluent Channels

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- Bypass of Effluent Channel
- Higher Peak Flow and Wet Season
- Wall Concrete Repair
- Coating
- Ongoing



# DAFT and TWAS Area

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- TWAS Pump Station - Completed
- New Covers and Surface on DAFT 2
- DAFT 2 is near Completion





# Digesters 3 and 4

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- Digester 4 rehabilitation - Completed
- Digester 3 heat loop – Completed



# Digesters 1 and 2

- Mixing and heating system
- Digester 1 cleaning is near completion
- Removal of the existing boiler
- Installation of a new boiler system in the Energy Recovery Building
- MCC-F1
- Ongoing



# Major Project Changes

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- Project delays due to various reasons
  - Underground Utilities Impacting Various Duct banks
  - DAFT Rehabilitation
  - Plant 1 Primary Basins and Channel Repairs with Unforeseen Conditions
  - Operating Conditions Change
  - National Supply Chain Issues
- Contract extension for Carollo and Ninyo & Moore

# Project Outlook

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- Contractor to Continue with Plant 1 Rehabilitation, Digesters 1 and 2, and DAFT Rehabilitation
- Olsson Submitted Time Impact Analysis and Monthly Schedule Updates
- Monthly Schedule Workshop with Stakeholders
- Plant 1 Rehabilitation Will Most Likely Drive the Critical Path
- SOCWA is working on a Supplemental Agreement with Olsson to Address Change Order Time Extensions and Descoped Items
  - Review other contracts with updates expected completion date
  - Request additional contingency/budget as needed

# Agenda Item

# 9

**Engineering Committee Meeting**

**Meeting Date:** November 18, 2021

**TO:** Engineering Committee

**FROM:** Roni Young Grant, Associate Engineer

**SUBJECT:** Contract Amendment for the J.B. Latham Treatment Plant Package B Engineering Services during Construction [Project Committee 2]

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## Overview

The engineering services during construction (ESDC) for the J.B. Latham Treatment Plant (JBL) Package B Construction Project includes preparation of the conformed documents, attendance at progress meetings, response to requests for information, review of shop drawings, review change orders, coordination with SCE, start-up services and the preparation of record drawings. Currently the anticipated substantial project completion for construction will be in September 2022. We are still working through schedule changes for other change orders including the descope items. Carollo's previously approved ESDC for Amendment No. 1 covered the time extension through November 2021.

Carollo Engineers, the design engineering firm for the project, has submitted the attached ESDC Amendment No.2 Proposal with a fee of \$388,420 for review. Table 1 shows the project allocation, and Table 2 shows the allocation by member agency for the ESDC Services.

Table 1 – Change Order No. 2 Project Allocation

Project	Original Contract	Change Order No. 1	Change Order No. 2	Total
PC 2, Task 3220-000, Facility Improvements Construction Liquids Area	\$417,574	\$109,256	\$196,440	\$723,270
PC 2, 3287-000 Facility Improvements Construction Solids Area	\$363,420	\$100,151	\$180,905	\$644,476
PC 2, 3231-000 Facility Improvements Construction Common Area	\$65,534	\$18,210	\$11,075	\$94,819
Total	\$846,528	\$227,617	\$388,420	\$1,462,565

Table 2 – Change Order No. 2 Allocation by Member Agency

Member Agency	PC2, Task 3222-000	PC2, Task 3287-000	PC2, Task 3231-000	Total
City of San Juan Capistrano	\$60,443.08	\$54,271.50	\$3,365.10	\$118,079.67
Moulton Niguel Water District	\$45,332.31	\$39,114.59	\$2,475.18	\$86,922.08
South Coast Water District	\$56,665.38	\$36,181.00	\$2,704.86	\$95,551.24
Santa Margarita Water District	\$33,999.23	\$51,337.91	\$2,529.87	\$87,867.00
Total	\$196,440	\$180,905	\$11,075	\$388,420

**Recommended Action:** Staff recommends that the Engineering Committee recommend to the PC 2 Board to approve the contract amendment to Carollo Engineers in the amount of \$388,420 for a total revised contract amount of \$1,462,565 for the Engineering Services during Construction for the J.B. Latham Package B Project.

November 10, 2021

Ms. Roni Young Grant, PMP  
South Orange County Wastewater Authority  
34156 Del Obispo Street  
Dana Point, CA 92629

Subject: South Orange County Wastewater Authority (SOCWA) J.B. Latham Treatment Plant  
Facility Improvements Package B; Proposal for Amendment No. 2 to Engineering Services  
During Construction (ESDC) Contract

Dear Ms. Grant:

Per your request, we have developed this letter proposal to request an amendment to our current engineering services during construction (ESDC) contract for the subject project. The intent of the ESDC is to provide overview of design intent, interpretation of the plans and specifications, and support of South Orange County Wastewater Authority's (SOCWA's) construction management and inspection staff. The effort includes office consulting services and limited field support services.

The reasons for this amendment include the following:

- The subject project schedule has extended past the original date for project completion due to construction delays.
- The rehabilitation nature of the project has yielded field conditions that were not apparent during design and has resulted in larger scopes and more senior staff involvement for the Requests for Information (RFIs) and potential change orders submitted. In particular, the following items took considerably more time and effort than expected or budgeted:
  - MCC-F1 relocation – The location for this motor control center (MCC) in the bid documents was revised during construction to allow for wider truck access along the road and to avoid conflict with duct banks found during potholing. The redesign of this MCC included multiple engineering disciplines and significant effort. In addition, once the cost for the proposed change was ultimately determined, several other options for conduit or duct bank routing were explored and developed sufficiently to assess feasibility and for the contractor to price the most-feasible option. Each option required analysis and some level of redesign by multiple disciplines, meetings with multiple team members, and responses to associated RFIs. Because the cost for the original change was finally determined and submitted after Carollo Engineers, Inc.'s (Carollo's) request for Amendment No. 1, all the subsequent associated effort was completed under that amendment. Because this significant effort was not expected during development of the amendment request, this work quickly drew down the amendment value.
  - Dissolved air flotation thickener (DAFT) tank assessment and rehabilitation design – Once DAFT 2 was taken down, cover removed, and internal tank blasted and inspected, spots of the tank wall were found to be in worse condition than expected during design. The assessment conducted during design was completed while one DAFT remained in service and the other remained covered and coated. The true condition of the tank was not apparent until it was completely blasted to remove existing coating. After this was done, it was determined that more extensive repairs or rehabilitation by "reskinning" the tank were required. Both options were evaluated and design details for the recommendations were developed. The evaluation

- and subsequent redesign required significant effort. Similar to the additional options evaluated for MCC-F1, this DAFT work was also completed after Carollo's request for Amendment No. 1 had been submitted. Because this significant effort was not expected during development of the amendment request, this work also quickly drew down the amendment value.
- During construction, operations staff determined that elements of the hot water system that had not been in the original design scope required replacement and modifications to address condition issues that had worsened during the intervening years. This necessitated new design work to replace the expansion tank and corroded makeup water piping within DCB 1.
  - Once equipment was delivered and the footprint for the Digester 1 and 2 hot water piping modifications was apparent to staff, it was felt that the remaining clear distance between the digesters was too narrow for comfortable access for some plant vehicles. Hence, the hot water piping modifications for both digesters had to be redesigned to increase the clearance distance. This necessitated significant design work that impacted multiple disciplines, including subsequent RFIs on the redesigned elements.
  - Once the contractor started submitting on elements of the boiler system, plant staff had questions on various elements that resulted in investigative effort and subsequent changes on the mechanical design.
  - Various field conditions for the Plant 1 and 2 Primary Sedimentation Basins resulted in numerous RFIs and subsequent effort. This ranged from the water intrusion and crack repair/coating to replacement of items found to be corroded once the tanks were drawn down and elements were visible. These items were not apparent during design or earlier condition assessment because the tanks were in service and full of wastewater at that time.
  - The original design of modifications in the Energy Recovery Building included a floor supported monorail system. During construction, different crane reach was desired, and several crane options were evaluated. A redesign was subsequently developed for the system. This effort involved multiple iterations, significant structural evaluation of the existing beams/floor, and meetings with several team members' involvement.
  - Below-grade obstructions necessitated revised design for the foul air duct rerouted around the new access platform near Aeration Basin No. 6. Several obstructions were found, which led to multiple RFIs and subsequent engineering to develop design modifications.
  - MCC-D1 was submitted and shipped to site before some of the elements powered by the MCC were submitted or approved (e.g., DAFT system motors). This lack of coordination between the MCC and submitted equipment resulted in design changes for MCC-D1.
  - During construction, it was determined that the existing lights at the DAFTs required replacement. Replacing the lights necessitated a new design during construction.
  - Supply chain issues led to delays in some materials and equipment. This resulted in requests to consider different types of materials or substitutions. These requests, like for the Digesters 1 and 2 roofing system, required investigation and outreach to manufacturers to assess suitability. Team members had to then formulate responses to the contractor's requests, including additional direction on items found during the investigations.
- Operating conditions for the plant related to flow from other plants and operational issues with existing systems have necessitated changes in the work and/or the schedule.



In the attached Exhibit A, we have estimated the effort remaining on the project. The estimate is based on the effort and the staff classes it has taken thus far to complete the ESDC services per the reasons listed above and the expected work remaining until project completion.

To Carollo's knowledge, the latest substantial completion date of the remaining work per the contractor's schedule is September 15, 2022, and the final completion date is October 21, 2022. It is assumed that most work requiring Carollo's services would be completed by September 30, 2022. The projected completion date that Amendment No. 1 was based on was November 30, 2021. For work continuing from November 30, 2021 to September 30, 2022, approximately 10 months remain until project completion. Hence, Carollo's estimated effort in Exhibit A is based on a 10-month schedule extension.

The scope of this amendment includes the following tasks. Associated assumptions are noted where appropriate. Estimates of remaining RFIs, shop drawings, change orders, or the associated effort per item were not approximated due to wide fluctuations in the type and effort for each item. These fluctuations, which are largely based on unknown conditions or changes necessitated by plant needs, make accurate estimates difficult. Rather, the average monthly effort required throughout the project thus far was used to estimate the remaining work for the extended schedule.

1. RFI Responses – Respond to Design Clarifications and RFIs. Contractor will submit all requests in writing to SOCWA. All responses will be submitted in writing to SOCWA. It is not expected that the level of effort or number of RFIs will decrease as the project approaches completion.
2. Shop Drawing Review – Review shop drawings and other submittals as required in the Contract Documents. Review procedures will be as specified in the Contract Documents and as directed by SOCWA. Carollo will review shop drawings for conformance with the design documents. The review does not relieve the Contractor from specification or contractual requirements. Contractor is expected to provide complete submittals. Carollo will provide two submittal reviews. Additional reviews of the same submittal will be considered an extra scope item. Carollo will track the budget expended for submittal review beyond two submittals for reimbursement by SOCWA and the Contractor. Unless additional time is requested, all submittals will be reviewed and returned within 15 workdays after Carollo has received the submittal. Some especially large or complex submittals may require additional time.
3. Vendor Test/Certifications/Report Review – Review submitted test reports, certifications, and reports for specific equipment and tasks.
4. Change Order Assistance – Review and analyze Change Order Requests to determine their merit relative to the Contract Documents and design intent. The review of change orders will only be upon the request of SOCWA. Carollo's review and analysis of Change Order Requests will include review of scope and pricing information submitted by the Contractor and/or SOCWA. It is not expected that the level of effort or number of Change Order Requests will decrease as the project approaches completion.
5. Start-Up Assistance – This includes engineering support and troubleshooting during start-up and review of the Contractor's start-up and testing plan.
6. Project Close-Out – This task includes review of construction during a site visit at substantial completion and preparation of a punch list of corrective actions.

Ms. Roni Young Grant, PMP  
South Orange County Wastewater Authority  
November 10, 2021

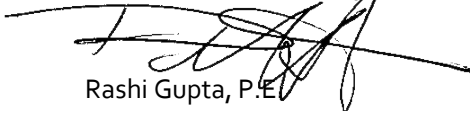
Page 4

7. Record Drawing Preparation – Carollo will prepare record drawings from markups made by the Contractor and reviewed by SOCWA’s construction manager. Total number of drawings is 184, and record drawings will be submitted electronically, as PDF files in half- and full-size formats, and as two full-size hard copies, in Draft and Final.
8. Conformed Plans and Specifications – Prepare conformed plans and specifications, integrating bidding documents with issued addenda. This task has been completed, and no additional effort is required or included in this amendment request.
9. Digester Hatch Repair Design – This task has been completed, and no additional effort is required or included in this amendment request.
10. Meetings with construction manager and SOCWA.

Please contact me if you have questions or comments.

Sincerely,

CAROLLO ENGINEERS, INC.



Rashi Gupta, P.E.  
Project Manager

RG:blm

Enclosures: Exhibit A: Estimated Labor Hours and Fee

cc: Jason Manning (SOCWA)  
Doug Lanning (Carollo – OCO)  
Jeff Weishaar (Carollo – SDO)

EXHIBIT A  
ESTIMATED LABOR HOURS AND FEE  
AMENDMENT 2

Task	Task Description	HOURS							COSTS				
		Principal/ Project Manager	Senior Engineer	Lead Engineer	Staff Engineer	Technicians and Aides	Support Staff	Total Labor Hours (Carollo)	Total Labor Cost (Carollo)	PECE	OTHER DIRECT COSTS	DIRECT COSTS	Total
JBLTP Package B ESDC													
1	RFI Responses	160	160	140	62	0	0	522	\$ 127,468	\$ 6,786	\$ -	\$ 6,786	\$ 134,254
2	Shop Drawing Review	72	120	60	42	0	0	294	\$ 70,884	\$ 3,822	\$ -	\$ 3,822	\$ 74,706
3	Vendor Tests/Certs/Report Review	8	12	10	28	0	0	58	\$ 11,856	\$ 754	\$ -	\$ 754	\$ 12,610
4	Change Order Assistance	84	142	40	40	0	0	306	\$ 75,332	\$ 3,978	\$ -	\$ 3,978	\$ 79,310
5	Start-Up Assistance	4	8	24	24	8	8	76	\$ 14,180	\$ 988	\$ -	\$ 988	\$ 15,168
6	Project Close-Out	0	4	16	20	0	0	40	\$ 7,536	\$ 520	\$ -	\$ 520	\$ 8,056
7	Record Drawings Preparation	4	10	41	100	110	0	265	\$ 43,898	\$ 3,445	\$ 3,218	\$ 6,663	\$ 50,561
8	Conformed Specs/Dwgs	0	0	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -	\$ -
9	Digester Hatch Repair Design	0	0	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -	\$ -
10	Meetings with CM/Client	32	6	6	2	0	0	46	\$ 12,640	\$ 598	\$ 518	\$ 1,116	\$ 13,756
<b>TOTAL HOURS FOR PROJECT COMPLETION</b>		<b>364</b>	<b>462</b>	<b>337</b>	<b>318</b>	<b>118</b>	<b>8</b>	<b>1607</b>					
RATE		\$ 298.00	\$ 250.00	\$216.00	\$154.00	\$145.00	\$118.45			\$ 13.00			
<b>REQUESTED AMENDMENT AMOUNT</b>		<b>\$108,472</b>	<b>\$115,500</b>	<b>\$72,792</b>	<b>\$48,972</b>	<b>\$17,110</b>	<b>\$ 948</b>		<b>\$ 363,794</b>	<b>\$ 20,891</b>	<b>\$ 3,736</b>	<b>\$ 24,627</b>	<b>\$ 388,420</b>

# Agenda Item

# 10

**Engineering Committee Meeting**

**Meeting Date:** November 18, 2021

**TO:** Engineering Committee

**FROM:** Roni Young Grant, Associate Engineer

**SUBJECT:** Contract Amendment for the J.B. Latham Treatment Plant Package B Geotechnical Services [Project Committee 2]

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## Overview

The geotechnical services during construction for the J.B. Latham Treatment Plant (JBL) Package B Construction Project includes geotechnical, material testing, and special inspection services. Currently the anticipated substantial project completion is in September 2022. The current approved budget is \$49,399, which will likely be spent by the end of 2021.

Ninyo & Moore, the geotechnical firm for the project, has submitted the attached amended geotechnical services proposal with a fee of \$30,000 for review. Table 1 shows the project allocation, and Table 2 shows the allocation by member agency for the geotechnical services.

Table 1 – Change Order No. 1 Project Allocation

Project	Original Contract	Change Order No. 1	Total
PC 2, Task 3220-000, Facility Improvements Construction Liquids Area	\$20,253.59	\$12,300	\$32,553.59
PC 2, 3287-000 Facility Improvements Construction Solids Area	\$20,253.59	\$12,300	\$32,553.59
PC 2, 3231-000 Facility Improvements Construction Common Area	\$8,891.82	\$5,400	\$14,291.82
<b>Total</b>	<b>\$49,399</b>	<b>\$30,000</b>	<b>\$79,399</b>

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Table 2 – Change Order No. 1 Allocation by Member Agency

Member Agency	PC2, Task 3222-000	PC2, Task 3287-000	PC2, Task 3231-000	Total
City of San Juan Capistrano	\$3,785	\$3,690	\$1,640	\$9,115
Moulton Niguel Water District	\$2,839	\$2,659	\$1,207	\$6,705
South Coast Water District	\$3,547	\$2,460	\$1,319	\$7,326
Santa Margarita Water District	\$2,129	\$3,491	\$1,234	\$6,854
Total	\$12,300	\$12,300	\$5,400	\$30,000

**Recommended Action:** Staff recommends that the Engineering Committee recommend to the PC 2 Board to approve the contract amendment to Ninyo & Moore in the amount of \$30,000 for a total revised contract amount of \$79,399 for the geotechnical services for the J.B. Latham Package B Project.

October 14, 2021  
Project No. 211281001

Ms. Roni Young  
South Orange County Waste Water  
34156 Del Obispo Street  
Dana Point, California 92626

Subject: Earthwork and Materials Testing Services  
J.B. Latham Plant Facility Improvements Package "B"  
P.O Box No. 14279  
Dana Point, California 92626

Dear Ms. Young:

Per your authorization and request, we are providing geotechnical, materials testing, and special inspection services for the above referenced project. To date, we have been providing our services on an as-requested basis, as scheduled by William Baker, the project inspector. We understand that our current approved budget is \$49,399.00.

We contacted yourself and Mr. William Baker, the project inspector, to help estimate our remaining scope of work. We anticipate that our remaining scope of services will include backfilling, subgrade, finish grade, asphalt testing, and concrete, and welding inspections, and laboratory testing, and project coordination. Based on the information described above, our revised estimated fee for the project is approximately \$79,399.00. We will continue to provide our services as requested with the understanding that we will be reimbursed on a time and materials basis for our additional services. The following describes our budget status:

Revised Total Estimated Fee	\$79,399.00
Current Approved Budget	<u>\$49,399.00</u>
Requested Budget Increase (difference)	\$30,000.00

Therefore, we request that our total budget be increased by \$30,000.00 to \$79,399.00. In order to have written authorization for the additional expenditure, please sign and return one copy of this letter to our office at your earliest convenience.

We appreciate the opportunity to be of service on this project. If you have any questions regarding this letter, please contact the undersigned at your convenience.

Respectfully submitted,  
**NINYO & MOORE**



Jeff Dalgity  
Project Manager

JWD/GMS/mlc

Authorized by:  
South Orange County Waste Water



Garreth Saiki, PE, GE  
Principal Engineer

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Signature

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Date

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Print Name and Title