

**NOTICE OF SPECIAL MEETING
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

ENGINEERING COMMITTEE
TELECONFERENCE MEETING**

**May 11, 2022
8:30 a.m.**

Join Zoom Meeting by clicking on the link below:

Join Zoom Meeting
<https://socwa.zoom.us/>

Meeting ID: 841 1088 0681

Passcode: 864045

One tap mobile

+16699006833,,84110880681#,,,,*864045# US (San Jose)

+13462487799,,84110880681#,,,,*864045# US (Houston)

Dial by your location

+1 669 900 6833 US (San Jose)

+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)

+1 312 626 6799 US (Chicago)

+1 929 205 6099 US (New York)

+1 301 715 8592 US (Washington DC)

Find your local number: <https://socwa.zoom.us/j/84110880681>

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 **May 11, 2022**, 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. 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 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 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"), BUT ARE NOT OPEN TO THE PUBLIC DURING THE PERIOD OF STAY AT HOME ORDERS. 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. Operations Report

Recommended Action: Information Items.

4. Capital Improvement Construction Projects Report [Project Committees 2, 15, and 17]

Recommended Action: Staff recommends that the Engineering Committee recommend to the PC 2 Board to approve Olsson Construction Change Orders:

- Change Order 45 for \$10,762.85, including 0 additional day(s)
- Change Order 46 for \$5,389.66, including 0 additional day(s)

For a total of \$16,152.51 and a revised contract value of \$18,730,994.51 for the J.B. Latham Package B Project.

5. Regional Treatment Plant Consequence of Failure Analysis, Dudek Engineering in the amount not to exceed \$58,970.00 [Project Committee 17]

Recommended Action: Staff requests that the Engineering Committee recommend to the PC-17 Board of Directors to authorize the General Manager to execute a contract with Dudek Engineering for the Regional Treatment Plant Consequence of Failure Analysis (47224C-000) for a fee not to exceed \$58,970.00.

6. BioRad QX200 Instrument Purchase for \$159,214 (plus tax and shipping) [Project Committees 5 and 24]

Recommended Action: Staff recommends that the Engineering Committee recommend to the PC 5 and PC 24 Board to:

1. Authorize a small capital budget in the amount of \$80,500 (PC 5), and \$80,500 (PC 24), and staff is authorized to adjust the budget as needed to cover tax and shipping; and

2. Authorize the purchase of the BioRad ddPCR QX200 in the amount of \$159,214 (plus tax and shipping to be determined at the time of shipping).
7. **Director of Engineering Recruitment Question Solicitation**

Recommended Action: Information Item.

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 4th day of May 2022.



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

Agenda Item

4

Engineering Committee Meeting

Meeting Date: May 11, 2022

TO: Engineering Committee

FROM: David Baranowski, Senior Engineer

SUBJECT: Capital Improvement Construction Projects Progress and Change Order Report (**May**) [Project Committee Nos. 2, 15 & 17]

Overview

Active Construction Project Updates:
Attached are the updated CIP reports.

Please note that there are two new change orders for PC 2 J.B. Latham Package B project totaling \$16,152.51.

This is informational for PC 15 and PC 17 member agencies.

Recommended Action: Staff recommends that the Engineering Committee recommend to the PC 2 Board to approve Olsson Construction Change Orders:

- Change Order 45 for \$10,762.85, including 0 additional day(s)
- Change Order 46 for \$5,389.66, including 0 additional day(s)

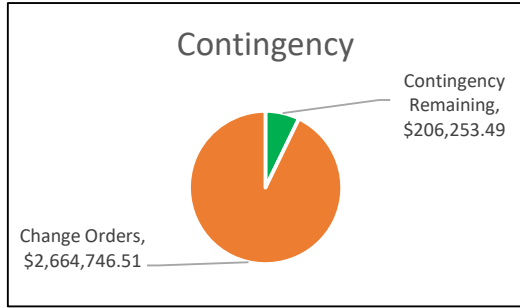
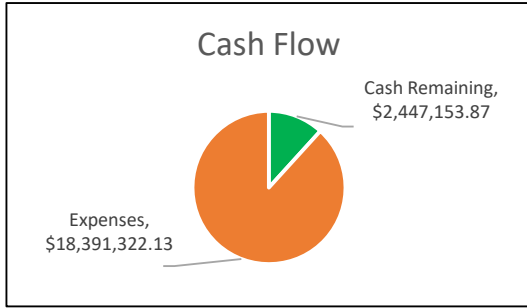
For a total of \$16,152.51 and a revised contract value of \$18,730,994.51 for the J.B. Latham Package B Project.

Project Financial Status

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

Data Last Updated

April 26, 2022



Cash Flow

Collected	\$ 20,838,476.00
Expenses	\$ 18,391,322.13

Project Completion

Schedule	91%
Budget	78%

Contracts

Company	PO No.	Original	Change Orders*	Total	Invoiced
Olsson	13497	\$ 17,325,000.00	\$ 1,405,994.51	\$ 18,730,994.51	\$ 14,471,142.21
Butier	13647	\$ 895,727.00	\$ 612,715.00	\$ 1,508,442.00	\$ 1,423,192.00
Carollo	13616	\$ 846,528.00	\$ 616,037.00	\$ 1,462,565.00	\$ 1,143,748.86
TetraTech	13605	\$ 94,000.00	\$ -	\$ 94,000.00	\$ 87,057.20
Ninyo & Moore	14279	\$ 49,399.00	\$ 30,000.00	\$ 79,399.00	\$ 42,227.27
ADS Environmental	16452	\$ 24,875.00	\$ -	\$ 24,875.00	\$ 24,875.00
Hallsten	16578	\$ 251,422.00	\$ -	\$ 251,422.00	\$ -
Dudek	17401	\$ 48,360.00	\$ -	\$ 48,360.00	\$ 18,600.00
		\$ 19,535,311.00	\$ 2,664,746.51	\$ 22,200,057.51	\$ 17,210,842.54

*Values include change orders to be reviewed by Engineering Committee

Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3220-000	\$ 916,800.00	\$ 908,519.07	\$ 8,280.93	99.1%
Common	3231-000	\$ 96,800.00	\$ 83,680.00	\$ 13,120.00	86.4%
Solids	3287-000	\$ 1,857,400.00	\$ 1,672,547.44	\$ 184,852.56	90.0%
		\$ 2,871,000.00	\$ 2,664,746.51	\$ 206,253.49	92.8%

Summary of New Change Orders

Change Order No	CSJC	MNWD	SCWD	SMWD	\$ Amount
45	\$ 3,228.86	\$ 2,327.10	\$ 2,152.57	\$ 3,054.32	\$ 10,762.85
46	\$ 1,658.36	\$ 1,243.77	\$ 1,554.71	\$ 932.83	\$ 5,389.66

Change Orders

Change Order No.	Vendor Name	Project ID	Description	Status Date	Days	Amount
Approved by Board of Directors					190	\$ 2,631,924.38
1	Olsson	3287-000	Addition of Loop Piping to the Existing Hot Water Lines Adjacent to Digester 3	12/12/2019	0	\$ 4,725.00
2	Olsson	3287-000	Asbestos Gaskets in Boiler hazardous disposal	6/4/2020	0	\$ 6,343.10
3	Olsson	3287-000	Add Analog Infrastructure and Cabling	6/4/2020	11	\$ 37,969.60
4	Olsson	3287-000	Digester 4 Coating Additional Sealant	6/4/2020	3	\$ 24,001.54
5	Olsson	3220-000	Valve Handwheel Ergonomic extension	8/6/2020	28	\$ 16,370.30
6	Olsson	3287-000	Change to DeZurik Plug Valves to match existing	8/6/2020	90	\$ 41,993.87
7	Olsson	3287-000	Digester 4 Additional Concrete Repair	8/6/2020	3	\$ 7,412.74
8	Olsson	3287-000	Repair Existing Damaged Electrical Box	8/6/2020	0	\$ (1,829.00)

<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
9	Olsson	3220-000	Change the Telescoping Valve Boxes and Piping from Carbon Steel to Stainless Steel	8/6/2020	0	\$ 18,677.63
10	Olsson	3287-000	Duct bank J Interferences	12/17/2020	18	\$ 73,639.42
11	Olsson	3220-000	Blasting of Existing Influent Pipe Spools	12/17/2020	5	\$ 20,868.52
12	Olsson	3220-000	Duct bank K Interferences	12/17/2020	0	\$ 15,567.08
13	Olsson	3287-000	Digester 3/4 PLC Relocation	12/17/2020	14	\$ 41,367.51
14	Olsson	3287-000	Digester 4 Additional Tank Repair	12/17/2020	18	\$ 33,642.75
15	Olsson	3220-000	Duct bank O Interferences	12/17/2020	0	\$ 1,686.88
16	Olsson	3287-000	Digester 3/4 Control Building Roof Replacement	2/4/2021	0	\$ 42,780.00
17	Olsson	3287-000	MCC-D1 Modifications due to Change in Motor Size	5/6/2021	0	\$ 34,392.02
18	Olsson	3287-000	Integrator Additional Site Visits	5/6/2021	0	\$ 7,571.97
19	Olsson	3287-000	Multi-zone air conditioning unit in the Cogen MCC Room and Office	6/3/2021	0	\$ 29,417.20
20	Olsson	3220-000	Overhead Walkway Removal at Plant 1 Secondary Basins 5 through 9	6/3/2021	0	\$ 62,113.50

<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
21	Olsson	3287-000	Cogeneration PLC Modifications and Integration	6/3/2021	0	\$ 42,922.67
22	Olsson	3220-000	Plant 1 Secondary Basins UV Rated Wear Strips	9/2/2021	0	\$ 28,965.33
23	Olsson	3287-000	MCC-F1 Design Change	9/2/2021		\$ 481,290.42
24	Olsson	3287-000	DAF 2 Investigation Work and Inspection Blast	10/7/2021		\$ 67,838.71
25	Olsson	3287-000	New Fiber Conduit in West Blower Building	10/7/2021		\$ 4,957.71
26	Olsson	3220-000	Plant 1 Primary Basin Conduit Obstruction	10/7/2021		\$ 8,444.20
27	Olsson	3220-000	Plant 1 Influent Channel Additional Coating between Primary Basins 5 and 6	10/7/2021		\$ 15,469.98
28	Olsson	3287-000	MCC-F1 Lighting Changes	10/7/2021		\$ 7,843.04
29	Olsson	3287-000	Digester 3 Ground Rod	10/14/2021		\$ 7,269.16
30	Olsson	3220-000	New Fiber Conduits at East Electrical and Storm Water Buildings	10/14/2021		\$ 8,045.43
31	Olsson	3220-000	Plant 2 Primary Influent Channel Repair Credit	12/9/2021		\$ (15,903.00)
32	Olsson	3220-000	Plant 1 and 2 Telescoping Valve Pipe Supports	12/9/2021		\$ 6,132.27

<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
33	Olsson	3287-000	4" Gas Line Routing Modifications	12/9/2021		\$ 18,146.07
34	Olsson	3287-000	Gas Mixer Conduit Conflict	12/9/2021		\$ 12,383.89
35	Olsson	3220-000	P1 Primary Tanks 5 and 6 Temporary Power	3/10/2022		\$ 7,256.05
36	Olsson	3220-000	P1 Primary Tanks Skimmers Starter Modification	3/10/2022		\$ 45,374.13
37	Olsson	3220-000	P1 Primary Tanks Hopper Wall Coating	3/10/2022		\$ 34,505.41
38	Olsson	3220-000	P1 Effluent Channel Conduit Conflict	3/10/2022		\$ 9,274.98
39	Olsson	3220-000	P1 Primary Tanks Torque Limit Switch	3/10/2022		\$ 7,149.86
40	Olsson	3287-000	Multi-zone air conditioning unit in the Cogen MCC Room and Office	3/10/2022		\$ (2,309.09)
41	Olsson	3287-000	DAFT 2 Repair	3/10/2022		\$ 59,403.53
1CM Common	Butier	3231-000	CM Change Order No. 1	7/13/2021		\$ 48,995.00
1CM Liquids	Butier	3220-000	CM Change Order No. 1	7/13/2021		\$ 294,125.00
1CM Solids	Butier	3287-000	CM Change Order No. 1	7/13/2021		\$ 269,595.00
1ESDC Common	Carollo	3231-000	ESDC Change Order No. 1	6/3/2021		\$ 18,210.00
1ESDC Liquids	Carollo	3220-000	ESDC Change Order No. 1	6/3/2021		\$ 109,256.00
1ESDC Solids	Carollo	3287-000	ESDC Change Order No. 1	6/3/2021		\$ 100,151.00
1G Common	Ninyo & Moore	3231-000	Geotechnical Services Change Order No. 1	2/3/2022		\$ 5,400.00

<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
1G Liquids	Ninyo & Moore	3220-000	Geotechnical Services Change Order No. 1	2/3/2022		\$ 12,300.00
1G Solids	Ninyo & Moore	3287-000	Geotechnical Services Change Order No. 1	2/3/2022		\$ 12,300.00
2ESDC Common	Carollo	3231-000	ESDC Change Order No. 2	12/9/2021		\$ 11,075.00
2ESDC Liquids	Carollo	3220-000	ESDC Change Order No. 2	12/9/2021		\$ 196,440.00
2ESDC Solids	Carollo	3287-000	ESDC Change Order No. 2	12/9/2021		\$ 180,905.00
Within Contingency, approved by Engineering Committee					1	\$ 16,669.62
42	Olsson	3287-000	Digesters 1 and 2 Heat Exchanger Layout Reconfiguration Electrical	4/14/2022	1	\$ 12,885.18
43	Olsson	3287-000	Digester 3 Heat Exchanger Hot Water Loop Tie-In	4/14/2022		\$ 2,774.58
44	Olsson	3220-000	Plant 1 Primary Basin 1 Shutdown Repair Work	4/14/2022		\$ 1,009.86
Within Contingency, to be reviewed by Engineering Committee						\$ 16,152.51
45	Olsson	3287-000	Replace Compressor Line and Valve at Digester 4	5/11/2022		\$ 10,762.85
46	Olsson	3220-000	Plant 2 Influent Gates Removal and Concrete Demo	5/11/2022		\$ 5,389.66
Potential Change						\$ (1,023,345.00)
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.	(blank)		\$ (1,000.00)

<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
PCO 004	Olsson	3287-000	Digester 4 Control Narrative needed	(blank)		\$ 5,000.00
PCO 005	Olsson	3287-000	TWAS Slab Modifications	(blank)		\$ 50,000.00
PCO 009	Olsson	3287-000	PLC East Headworks Integration	(blank)		\$ 10,000.00
PCO 018	Olsson	3287-000	Duct bank L Interferences	(blank)		\$ 10,000.00
PCO 026	Olsson	3287-000	Gas Hatch Lids Mating Connection	(blank)		\$ 7,771.00
PCO 037	Olsson	3231-000	Energy Building Monorail and Other Conflicts	12/10/2020		\$ 10,000.00
PCO 039	Olsson	3220-000	Diversion Structure Gate Actuator Power Feed Replacement	8/13/2020		\$ 5,000.00
PCO 050	Olsson	3220-000	Telescoping Valves Rework	12/23/2020		\$ 27,884.00
PCO 066	Olsson	3287-000	DAFT 1 Repair	(blank)		\$ 60,000.00
PCO 083	Olsson	3220-000	Plant 1 Primary Basins Additional Repairs and Replacement	(blank)		\$ 126,000.00
PCO 088	Olsson	3220-000	Plant 1 Primary Existing Coating Removal	(blank)		\$ 36,000.00
PCO 092	Olsson	3287-000	Hot Water System Expansion Tank	8/31/2021		\$ 5,000.00
PCO 093	Olsson	3287-000	DAFT Light Change	8/31/2021		\$ 10,000.00
PCO 094	Olsson	3287-000	Additional Red Coloring Agent to Concrete	9/1/2021		\$ 5,000.00
PCO 095	Olsson	3287-000	Foul Air Rerouting at DAFT 2	9/2/2021		\$ 5,000.00

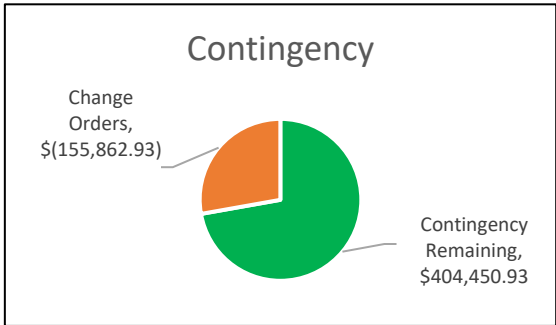
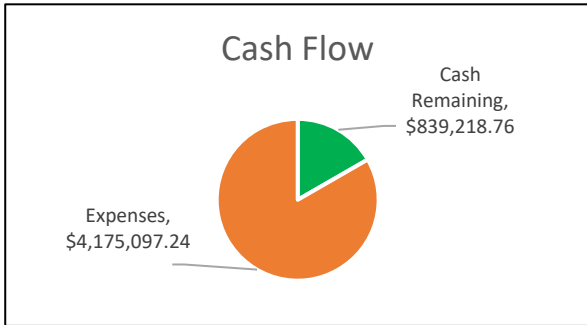
<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
PCO 097	Olsson	3287-000	Digester Hot Water Temperature Gauge Setting	9/15/2021		\$ 5,000.00
PCO 998	Olsson	3220-000	Effluent Pump Station Descope (A1-A6)	(blank)		\$ (800,000.00)
PCO 999	Olsson	3223-000	Energy Building Modifications Descope (F1-F4, G1-G2, & H1-H2)	(blank)		\$ (600,000.00)
Grand Total					191	\$ 1,641,401.51

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

April 26, 2022



Cash Flow

Collected	\$ 5,014,316.00
Expenses	\$ 4,175,097.24

Project Completion

Schedule	100%
Budget	92%

Contracts

Company	PO No.	Original	Change Orders*	Total	Invoiced
Filanc	15949	\$ 3,107,346.00	\$ (155,862.93)	\$ 2,951,483.07	\$ 2,804,182.94
Butier	16164	\$ 226,100.00	\$ -	\$ 226,100.00	\$ 210,342.50
PSOMAS	15961	\$ 277,368.00	\$ -	\$ 277,368.00	\$ 183,712.62
Dudek	15947	\$ 387,750.00	\$ 25,000.00	\$ 412,750.00	\$ 367,022.00
Ninyo & Moore	16268	\$ 65,790.00	\$ 43,166.00	\$ 108,956.00	\$ 108,950.75
		\$ 4,064,354.00	\$ (87,696.93)	\$ 3,976,657.07	\$ 3,674,210.81

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

Filanc Contingency

Area	Project Code	Amount	Change Orders*	Total Remaining	Percent Used
Liquids	3541-000	\$ 248,588.00	\$ (155,862.93)	\$ 404,450.93	-62.7%
		\$ 248,588.00	\$ (155,862.93)	\$ 404,450.93	-62.7%

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

Change Orders

<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
Approved by Board of Directors					45	\$ (155,862.93)
1	Filanc	3541-000	Alternative Fiber Optic Conduit Installation at Jack and Bore	6/3/2021	0	\$ 5,689.53
2	Filanc	3541-000	HDPE Pipe Price Adjustment	9/2/2021	0	\$ 15,615.19
3	Filanc	3541-000	Existing 6-Inch Sludge Line Fix for Pressure Test	9/2/2021	0	\$ 6,666.27
4	Filanc	3541-000	18-Inch VCP Sewer Line Conflicts	9/2/2021	0	\$ 2,367.81
5	Filanc	3541-000	Lost Production with Equipment Movement	2/3/2022	2	\$ 19,000.00
6	Filanc	3541-000	Abandoned 4" PVC Water Line Interference	2/3/2022	1	\$ 4,833.91
7	Filanc	3541-000	18-Inch VCP Sewer Line Conflict at Sta. 96+55	2/3/2022	1	\$ 6,198.46
8	Filanc	3541-000	Encasement at Sta. 88+90 to 89+90	2/3/2022	0	\$ 3,515.83
9	Filanc	3541-000	Concrete Demo and Potholing	2/3/2022	1	\$ 3,525.37
10	Filanc	3541-000	Abandoned 12" PVC Interference	2/3/2022	1	\$ 5,461.87

<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
11	Filanc	3541-000	ACWHEP Unknown Buried Concrete	2/3/2022	3	\$ 27,903.24
12	Filanc	3541-000	Old Sludge Force Main Emergency Repair	4/7/2022	5	\$ -
13	Filanc	3541-000	Jack and Bore Conflict	4/7/2022	4	\$ 100,587.08
14	Filanc	3541-000	Nesting Bird Restrictions	4/7/2022	5	\$ -
15	Filanc	3541-000	COVID Time Impacts	4/7/2022	5	\$ -
16	Filanc	3541-000	Piping Interference at RTP Connection	4/7/2022	3	\$ 11,449.65
17	Filanc	3541-000	Additional Field Survey	4/7/2022	0	\$ 4,569.59
18	Filanc	3541-000	Concrete Removal	4/7/2022	2	\$ 14,909.28
19	Filanc	3541-000	Removing Chlorine Lines at RTP	4/7/2022	0	\$ 1,588.58
20	Filanc	3541-000	Sign Revisions	4/7/2022	0	\$ 1,332.33
21	Filanc	3541-000	Weather Delay	4/7/2022	11	\$ -
22	Filanc	3541-000	Additional Moisture Conditioning	4/7/2022	1	\$ 7,817.39
23	Filanc	3541-000	Credit for Unused Bid Items	4/7/2022	0	\$ (398,894.31)
Within Contingency, reviewed by Engineering Committee					51	\$ -
24	Filanc	3541-000	Project Closeout Time Extension	4/14/2022	51	\$ -
Potential Change					9	\$ 94,953.64

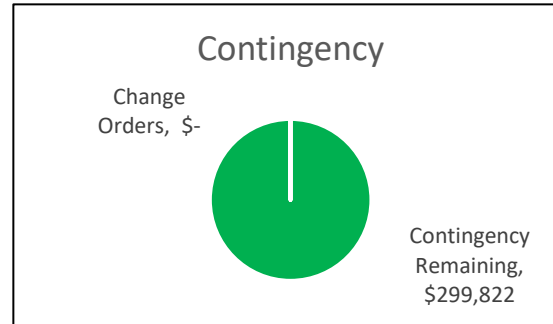
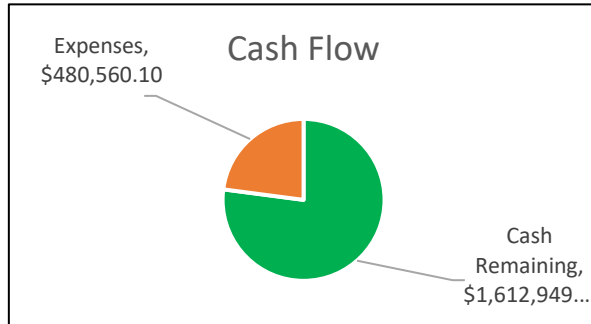
<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Days</u>	<u>Amount</u>
PCO 019	Filanc	3541-000	CTP and RTP Connection Modifications	(blank)	9	\$ 80,000.00
PCO 025	Filanc	3541-000	Slope Repairs	(blank)		\$ 25,000.00
PCO 031	Filanc	3541-000	Revegetation Credit	(blank)		\$ (12,000.00)
PCO 035	Filanc	3541-000	Culvert Repair and Trash Removal	(blank)		\$ 7,000.00
PCO 036	Filanc	3541-000	Credit for Optional Bid Item	(blank)	0	\$ (5,046.36)
Grand Total					105	\$ (60,909.29)

Project Financial Status

Project Committee	17
Project Name	Aeration Diffuser Replacements
Project Description	Replacing panel diffusers with disc diffusers in all six aeration basins. Includes replacement of drop pipes and air distribution piping inside the basins.

Data Last Updated

April 26, 2022



Cash Flow

Total Cash Collected	\$ 2,093,510.00
Total Project Expenses	\$ 480,560.10

Project Completion

Schedule	
Budget	26%

Construction Contracts

Company	PO No.	Original	Change Orders	Total	Invoiced
Filanc	16306	\$ 1,747,194.00	\$ -	\$ 1,747,194.00	\$ 460,607.20
Lee & Ro	16119	\$ 37,738.00	\$ -	\$ 37,738.00	\$ 11,671.71
		\$ -	\$ -	\$ -	\$ -
		\$ 1,784,932.00	\$ -	\$ 1,784,932.00	\$ 472,278.91

**Value includes approved change orders and to be reviewed by Engineering Committee*

Construction Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3753-000	\$ 299,822.00	\$ -	\$ 299,822.00	0.0%
		\$ 299,822.00	\$ -	\$ 299,822.00	0.0%

Change Orders

<u>Change Order No.</u>	<u>Vendor Name</u>	<u>Project ID</u>	<u>Description</u>	<u>Status Date</u>	<u>Amount</u>	<u>Days</u>
Potential Change					\$ 6,000.00	365
PCO 01	Filanc	3753-000	Corroded Grating Angle Replacement	3/30/2022	\$ 6,000.00	
PCO 02	Filanc	3753-000	Diffuser Delivery Time Delay	3/30/2022	\$ -	365
Grand Total					\$ 6,000.00	365

Agenda Item

5

Engineering Committee Meeting

Project: 47224C-000

Budget: \$75,000 FY22-23 Budget

Meeting Date: May 11, 2022

TO: Engineering Committee

FROM: David Baranowski, Senior Engineer

SUBJECT: Regional Treatment Plant Consequence of Failure Analysis, Dudek Engineering in the amount not to exceed \$58,970.00 [Project Committee 17]

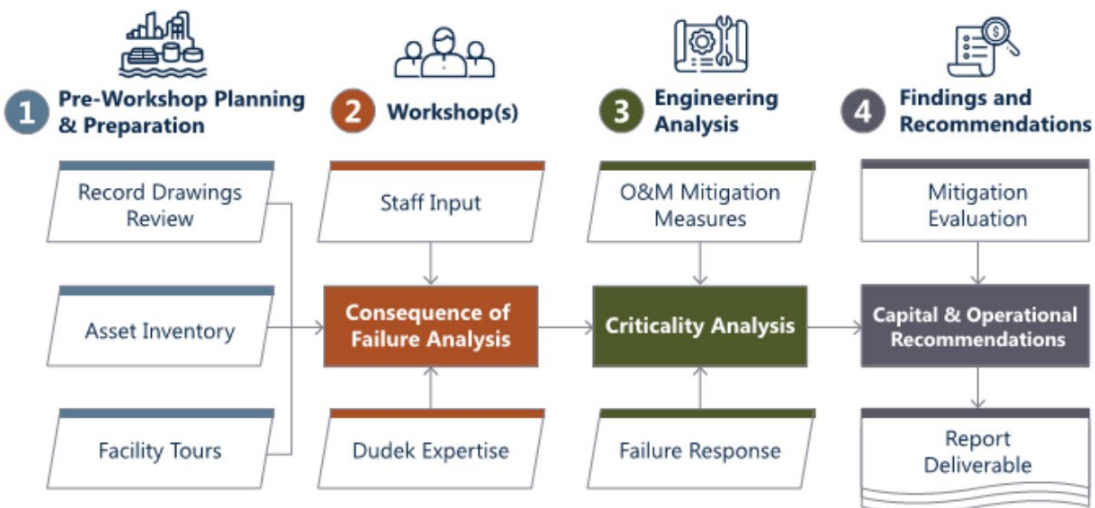
Overview

The SOCWA staff are requesting approval of a contract with Dudek to conduct a Consequence of Failure Analysis (CoFA) for the Regional Treatment Plant for a fee not to exceed \$58,970.00.

Background

SOCWA worked with Dudek to develop a CoFA process that uses a scoring system to identify the consequence of a failure, the probability of that failure, and a risk designation for each item analyzed.

Figure 1 – Consequence of Failure Analysis Flow Chart



Dudek assisted SOCWA with a CoFA for the J.B. Latham Treatment Plant in 2021. This pilot effort was completed and presented to the SOCWA Engineering Committee and Board. Based on the project's success, SOCWA staff budgeted similar assessments for CTP and RTP.

The CoFA by Dudek for CTP is nearly complete. The next step is to perform a CoFA for the Regional Treatment Plant. The intent is to use the results to update the Ten-Year Plan once all three plants are completed.

The item will be presented to the Engineering Committee on May 11, 2022. Staff will report the outcome of the Engineering Committee's consideration of this item and any updates or changes to the recommended action(s) at the May 12, 2022, Board meeting.

Financial Status

The J.B. Latham CoFA was completed for a fee of \$49,510.00. The Coastal Treatment Plant CoFA is underway for a fee of \$49,970.00. The proposed cost to complete the CoFA for the Regional Treatment Plant is \$58,970.00. The total for completing all three plants is \$158,450.00.

Table 1 shows the cost allocation by member agency for the CoFA for the Regional Treatment Plant.

Table 1 – Cost allocation by member agency

Agency	Dudek Amendment
	<i>47224C-000</i>
CLB	\$ 3,697.42
EBSB	\$ 194.60
ETWD	\$ 6,050.32
MNWD	\$ 46,072.75
SCWD	\$ 2,954.91
Total	\$ 58,970.00

The work will be completed in the Fiscal Year 2022-2023.

Recommended Action: Staff requests that the Engineering Committee recommend to the PC-17 Board of Directors to authorize the General Manager to execute a contract with Dudek Engineering for the Regional Treatment Plant Consequence of Failure Analysis (47224C-000) for a fee not to exceed \$58,970.00.

Agenda Item

6

Budgeted: No

Line Item: PC-05/24 Small Capital

Legal Counsel Review: No

Meeting Date: May 11, 2022

TO: Engineering Committee

FROM: Amber Baylor, SOCWA Director of Environmental Compliance

SUBJECT: BioRad QX200 Instrument Purchase for \$159,214 (plus tax and shipping)
[Project Committees 5 and 24]

Summary

SOCWA's mission for the protection of public health and requirements under the Aliso Creek Ocean Outfall and San Juan Creek Ocean Outfall NPDES required monitoring is accomplished through monitoring efforts on the beaches of the SOCWA service area and in the respective outfalls. Additionally, the Master Recycled Water permit requires daily monitoring of public health markers to ensure water quality at irrigation sites. For molecular signal-based watershed related work, SOCWA has been working with California State University, Fullerton as a lead role in the development of signals of molecular markers in the environment in step with activities in EPA's Region IX, the San Diego Water Quality Control Board, and the EPA's Office of Research. This work resulted in removal of recycled water producers from proposed investigative orders and provided important evidence related to signals for the protection of public health.

From a policy development perspective, EPA Region IX has recently approved the use of digital droplet Polymerase Chain Reaction (ddPCR) for use in water quality monitoring at beaches in San Diego County, through regulatory discretion under the BEACH Act. The use of molecular methods for site specific same day notice of elevated bacterial levels, spill responses, and signal articulation for waste load allocations is becoming a standard practice which is projected to replace culture-based methods for compliance purposes. Staff is recommending the SOCWA lab purchase equipment to allow for in-house, compliance required testing. This improvement will allow SOCWA greater engagement with regulatory entities in policy developments when water quality objectives and beach action values are being considered within the SOCWA service area.

Discussion/Analysis

Enterococcus bacteria is included with coliform bacteria to represent fecal indicator bacteria (FIB). FIB is utilized to test reclaimed water compliance standards and in public health testing of beaches and other recreational water bodies. *Enterococcus* viability determination was included in the FY18-19 approved PC 12 funds (see previous Board action below) due to the ubiquitous nature of the bacteria in the environment and is a standing research question in the development of public health markers. *Enterococcus* is also used as a model marine organism as it is salt tolerant, hence the application of the bacteria for a marker of human health at beaches in California.

San Diego Department of Public Health (SD DPH) used ddPCR and Enterolert (EPA approved method) in a correlation study against their current EPA approved method (Enterolert) at 51

beaches along the San Diego Coastline during the AB411 sampling season (April 1 through October 31). In 2014, the EPA published Site-Specific Alternative Recreational Criteria Technical Support Materials for Alternative Indicators and Methods that was utilized as the technical basis for San Diego's correlation study. The SD DPH demonstrated that ddPCR can be used to reliably determine levels of *Enterococci* bacteria as an indication of overall microbiological fecal contamination for San Diego beaches. The rapid method employed has been determined a preferable alternative to allow for rapid notification to at risk public if contamination is present.

On April 19, 2022, SOCWA met with representatives from the Unified Beach Monitoring Group including the County of Orange MS4 group, Orange County Public Health Laboratory, Orange County Parks Department, City of Dana Point, City of San Clemente, and the San Diego Regional Water Quality Control Board. This annual meeting summarizes the public health metrics obtained throughout coordinated sampling from the group, discusses issues at site locations for better sampling coordination, and discusses new methodologies developing to ensure that all parties are utilizing similar sampling strategies.

At the Unified meeting, SOCWA and Orange County Health Care Agency presented a parallel study design to determine the following: logistical challenges of same day public health notifications, and scientific study components for correlation analysis like the SD DPH study. The Unified group was in support of these efforts keeping with the advancements of science. The current method utilized for compliance is EPA Method 1600 which costs the agency approximately \$5/sample for results received in 18-24 hours. If SOCWA acquires and utilizes the equipment for ddPCR testing the cost per sample will be \$5/per sample.

Beyond the immediate evaluation of recreational water quality standards, comparison to qPCR methods for viability is also a priority. There is a requirement for testing of ocean waters in the NPDES permit and initial results of viability indicate that there is not a viable signal coming from the outfalls at the limited sampling locations. The EPA indicates that it is looking at utilizing the ddPCR instrument in an update to the EPA approved Hf183 method.

SOCWA staff investigated the cost of three (3) different BioRad instruments with input from laboratories on the realities of each instrument to efficiently deliver on the primary project goal of compliance with developing water quality methods and future needs for companion studies for Hf183, enterococcus, and wastewater-based epidemiology. The 3 models evaluated were QX1, QX200, and QX 600. While the QX1 is the latest product offering used by SD DPH and others, there are many mechanical issues that have been reported and the cost was \$200,000. The QX600 is the model that is coming to market next that allows for multiplexing for variant analysis in wastewater epidemiology due to the six-channel configuration.

SOCWA staff is recommending the QX200 at a price of \$159,214. The instrument is a two-channel model which allows for companion testing with different molecular markers and includes automatic droplet generation. This model is best suited to SOCWA's needs.

Advisory Committee Review

The SOCWA Engineering Committee is the first to review this item.

Prior Related Project Committee or Board Action(s)

SOCWA Board of Directors previously supported molecular work in FY18-19 with the budget approval of a three-question research portfolio related to molecular markers. The SOCWA Project

Committee 12 (Recycled Water) approved budgeted funds to ascertain the viability of molecular signals in the environment in areas of recycled water application. The molecular marker utilized for this purpose is Hf183 to determine if the molecular signal was from live or dead bacteria. This PC 12 funded research removed recycled water from the requirements of the developing SDRWQRCB Investigative Order R9-2018-0021.

Fiscal impact

PC 5 and PC 24 are fixed capital costs at the respective Project Committees. The tax and shipping costs will be determined at the time of shipping. The cost breakdown per PC (without tax and shipping) is displayed in Tables 1 & 2 below. Table 3 includes the total cost per member agency.

Table 1: PC 5 Member Agency Costs

Member Agency	Percent Ownership (%)	Cost Per Agency (\$)
City of San Clemente	16.6	\$ 13,214.76
City of San Juan Capistrano	11.1	\$ 8,836.38
Moulton Niguel Water District	15.5	\$ 12,339.09
Santa Margarita Water District	44.3	\$ 35,265.90
South Coast Water District	12.5	\$ 9,950.87
		\$ 79,607.00

SMWD and CSJC total \$44,102.28.

Table 2: PC 24 Member Agency Costs

Member Agency	Percent Ownership (%)	Cost Per Agency (\$)
City of Laguna Beach	11	\$ 8,756.77
El Toro Water District	16.3	\$ 12,975.94
Emerald Bay Service District	0.8	\$ 636.86
Irvine Ranch Water District	15.8	\$ 12,577.91
Moulton Niguel Water District	43.8	\$ 34,867.87
South Coast Water District	12.3	\$ 9,791.65
		\$ 79,607.00

///

///

///

Table 3: Member Agency Total Costs

Member Agency	Cost Per Agency (\$)
City of Laguna Beach	\$ 8,756.77
City of San Clemente	\$ 13,214.76
City of San Juan Capistrano	\$ 8,836.38
El Toro Water District	\$ 2,975.94
Emerald Bay Service District	\$ 636.86
Irvine Ranch Water District	\$ 12,577.91
Moulton Niguel Water District	\$ 47,206.96
Santa Margarita Water District	\$ 35,265.90
South Coast Water District	\$ 19,742.52
	\$ 159,214.00

SMWD and CSJC total \$44,102.28.

The small capital budget for FY21-22 did not identify this expenditure for PC 5 or PC 24. However, due to supply chain issues the overall small capital budget is anticipated to be underspent for FY21-22. Thus, these costs would be within the overall small capital budget capital outlay for FY21-22. However, PC 24 and 5 are recommended to create a small budget for this purchase. The expenses would be reconciled with the FY21-22 Use Audit.

Recommendation

SOCWA staff recommend to that the SOCWA Engineering Committee Members for PC 5 and PC 24 approve the allocation of small capital funds in FY 21-22 in the amount of \$159,214.00 (plus tax and shipping to be determined at the time of shipping) for the purchase of the BioRad QX200 instrument.

Recommended Action: Staff recommends that the Engineering Committee recommend to the PC 5 and PC 24 Board to:

1. Authorize a small capital budget in the amount of \$80,500 (PC 5), and \$80,500 (PC 24), and staff is authorized to adjust the budget as needed to cover tax and shipping; and
2. Authorize the purchase of the BioRad ddPCR QX200 in the amount of \$159,214 (plus tax and shipping to be determined at the time of shipping).



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Lars Seifert, Chief
Land & Water Quality Division
San Diego County Department of Environmental Health

Re: REQUEST FOR CONCURRENCE TO IMPLEMENT ddPCR FOR BEACH WATER QUALITY
RAPID DETECTION METHOD FOR RECREATIONAL BEACHES IN SAN DIEGO COUNTY

Dear Mr Seifert:

EPA Region 9 is approving the use of the method digital droplet Polymerase Chain Reaction (ddPCR) and beach action value (BAV) for beach water quality monitoring under EPA's BEACH program in San Diego County as a pilot program for California. The ddPCR method will be used by the County of San Diego to provide same-day notice of elevated bacteria at beaches in lieu of the current beach action value using the Enterolert method.

When EPA published revised Recreational Water Quality Criteria in 2012, the agency recognized that technologies were changing rapidly and created a path for the use of new bacterial methods and indicators. In 2014, EPA published a technical support manual¹ (TSM) that described the process the agency would use in approving new bacterial methods or indicators on a site-specific basis for ambient water monitoring and serve as an alternative to the Alternate Testing Procedures (ATP) pursuant to 40 CFR§136. The TSM allows for comparison of different methods and indicators to evaluate health risk.

San Diego Department of Public Health (SD DPH) and collaborators analyzed samples using ddPCR and Enterolert (an EPA approved method for ambient water bacteria) at 51 diverse beaches along the San Diego coastline for over the AB411 beach season (April 1 to October 31). Following the procedures in the TSM, SD DPH established an acceptable level of agreement between the two indicators/methods and also showed a 90% agreement in beach notification decisions. The error rates for ddPCR are comparable to error rates associated with other EPA approved bacteria methods such membrane filtration for *Enterococci* (EPA Method 1600). The false positive rate for the application in San Diego County is 6%, making beach notifications protective 96% of the time with increased sensitivity than EPA approved methods.²

¹ EPA 2014. Site-Specific Alternative Recreational Criteria Technical Support Materials For Alternative Indicators and Methods EPA-820-R-14-011 U.S. Environmental Protection Agency Office of Water Office of Science and Technology Health and Ecological Criteria Division December 2014.

² C. Crain et al. In Review. Application of ddPCR for the detection of *Enterococcus* spp. for coastal water quality monitoring. Submitted to Journal of Microbiological Methods

In summary, San Diego County has demonstrated that ddPCR can be used to reliably determine levels of *Enterococci* bacteria as an indication of overall microbiological fecal contamination conditions for San Diego County beaches. This rapid test method can effectively and quickly determine the need for public notification for recreational beach water quality surveillance, thereby reducing the period of time the public is at risk.

If you have any questions about the attached study, please contact me at 415-972-3462 or fleming.terrence@epa.gov.

Sincerely,

TERRENCE FLEMING Digitally signed by TERRENCE FLEMING
Date: 2020.10.06 08:43:48 -0700
Terrence Fleming
EPA Region 9 BEACH Coordinator

cc: Dr. Wilma Wooten, Health Officer, County of San Diego
Brett Austin, Director, County of San Diego Public Health Laboratory
William Draper, CDPH, Drinking Water & Radiation Laboratory Branch
Chad Crain, CDPH, Drinking Water & Radiation Laboratory Branch
Dr. John Griffith, Southern California Coastal Water Research Project
Dr. Marva Seifert, University of California, San Diego
Tracy Bone, US EPA, Office of Water, Standards and Health Protection Division

Agenda Item

7

Engineering Committee Meeting

Meeting Date: May 11, 2022

TO: Engineering Committee
FROM: Dina Ash, Human Resources Administrator
SUBJECT: Director of Engineering Recruitment Question Solicitation

Overview

SOCWA is beginning to prepare to interview candidates for SOCWA's Director of Engineering. The General Manager, Betty Burnett, has requested that the Engineering Committee members be given an opportunity to submit questions to be considered for the interview process.

Please submit your questions to human resources in writing directly by email at dash@socwa.com by May 18, 2022.

Recommended Action: Information item