

Agenda Item

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Engineering Committee Meeting

Meeting Date: August 12, 2021

REVISED

TO: Engineering Committee Members

STAFF CONTACT: Amber Baylor, Director of Environmental Compliance

SUBJECT: Use Audit Flow and Solids Methodology – Annual Update FY 20-21

Summary

The Use Audit flow allocation methodology has relied on historical practice for allocation of costs. The intent of this agenda item is to review the historical methodology per project committee (PC) which is presented to the Engineering Committee and Finance Committee members on an annual basis for review and comment. The only request for a change in methodology from FY 19-20 versus FY 20-21 was requested by ETWD to include additional percent solids used in the pounds contributed from ETWD. SOCWA staff analyzes samples three times a week, while ETWD analyzes samples five times a week thus providing a more accurate sample percent solid. Please note that this change would result in a slight difference in the monthly operations report compared to the Use Audit inclusion of data. In addition, SOCWA worked to program this report into the Water Information Management System to provide an automated report which will increase efficiency of delivery of the raw and calculated data to member agencies in FY 21-22.

Results

Captured herein are the methodologies employed and the results by member agency based on the raw and calculated data. Please note that PC5 and PC24 are attributed to fixed costs.

PC2

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

PC2 - JB Latham Plant					
Liquids Summary (mgd)					
Member	2020-2021 Budgeted	2020-2021 Budgeted	2020-2021 Total	2020-2021 Total	Total Percent
Agency	Flow (mgd)	Percent	Avg. Flow (mgd)	Billing Flow (mgd)	To Date
CSJC	2.17	36.61%	2.207	2.207	31.15%
MNWD	1.40	23.62%	Constant	1.400	19.76%
SCWD	1.64	27.65%	1.684	1.684	23.76%
SMWD	0.72	12.11%	3.195	1.795	25.33%
	5.93	2.17%	7.086	7.086	100.00%

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

Solids Summary Loading (mgd)					
Member	2020-2021 Budgeted	2020-2021 Budgeted	Total Avg. Loadings	Total Avg. Loadings	Total Percent
Agency	Flow	Percent	FY 2020-2021	Billing Loading	To Date
CSJC	5815.44	23.90%	6317	6317	24.07%
MNWD	5123.93	21.06%	Constant	4006	15.27%
SCWD	4399.25	18.08%	6035	6035	23.00%
SMWD	8991.56	36.96%	13889	9882	37.66%
	24330.19	100.00%	26240	26240	100.00%

Table 1: PC2 Liquids and Solids Summary Table

PC12

The PC12 method of production is detailed by member agency in the following narrative. San Juan Capistrano it is the acre-foot sum of the Rosebaum well, the Mission Street Well, and the total reclaimed water from the SMWD/CSJC intertie. For MNWD it is the amount of reclaimed water produced from the Regional Treatment Plant (RTP) and the 3A Treatment Plant (split with SMWD). South Coast Water District (SCWD) is the total reclaimed water produced from the Coastal Treatment Plant (CTP). The Santa Margarita Water District (SMWD) is the combined sum of reclaimed water produced from the 3A Treatment Plant (split with MNWD), the Oso Creek Water Reclamation Plant (OCWRP), the Chiquita Water Reclamation Plant (CWRP), and the Nichols Water Reclamation Plant (NWRP). The Trabuco Canyon Water District (TCWD) is reclaimed water produced from the Robinson Ranch Water Reclamation Plant (RRWRP). Summary results for PC2 are included in Table 2.

PC 12 Recycled Water		
Master Recycled Water Permit		
2020-2021		
Member Agency	Region 9 Recycled Production FY 2020-2021	% RW Produced FY 2020-2021
	acft	%
CSJC	414	2.64
MNWD	6557	41.76
SCWD	1090	6.94
SMWD	7064	44.98
TCWD	578	3.68
Total	15704	100.00

Table 2: PC12 Liquids and Solids Summary Table

PC15

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

PC 15 Actual Flows		
FY 2020-2021		
Coastal Treatment Plant		
Member	Plant Flows MGD	Plant Flow Percent
Agency		
CLB	1.566	58.11
EBSD	0.078	2.89
SCWD	1.051	38.99
MNWD	0.00	0.00
Total	2.69	100.00

Table 3: PC15 Liquids and Solids Summary Table

PC17

PC17 has liquid and solids contribution. The liquid flow allocation is based on influent flow to the plant. The influent flow is solely contributed by the MNWD. Due to liquid flow from CTP, the centrate flow is divided by 5 and distributed to each agency then summed to create a total liquid flow to the RTP. The flows are then distributed on a proportional basis. The solids contribution is based on the total daily average pounds contributed by each agency distributed proportionally. Additional ETWD solids samples were not programmed into the use audit this year due to problem with the automated report. Staff will include the additional monitoring in FY21-22 to align with the pounds reported in the Operations report for consistency. The meter calibration is performed annually in June. Summary results for PC17 are included in Table 4.

PC 17 Liquids				
Regional Treatment Plant				
FY 2020-2021				
Member Agency	Plant Flow (MGD)	Centrate Flow (MGD)	Total Flow (MGD)	Liquid Flow (%)
CLB	0.00	0.01307	0.00759	0.09802
EBSD	0.00	0.00066	0.00002	0.00025
SCWD	0.00	0.00870	0.00339	0.04376
ETWD	0.00	0.01529	0.01529	0.19737
MNWD	7.66	0.06623	7.72220	99.66060
Total	7.66	0.10395	7.74850	100.00000

PC 17 Solids		
Regional Treatment Plant		
FY 2020-2021		
Member	#/Day	%
Agency		
CLB	4514.39	12.46
ETWD	5311.70	14.66
EBSD	223.74	0.62
MNWD	23154.71	63.93
SCWD	3016.21	8.33
Total	36220.76	100.00

Table 4: PC17 Liquids and Solids Summary Table

Recommendation:

SOCWA requests approval of the Use Audit calculated results for close of the Audit for disbursement or collection of additional funds.

Agenda Item

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Engineering Committee Meeting

Meeting Date: August 12, 2021

TO: Engineering Committee

REVISED

FROM: Jason Manning, Director of Engineering

SUBJECT: Capital Improvement Construction Projects Report

Overview

Active Construction Project Updates:

Attached are the updated CIP reports. Please note that there are two new change orders for PC 2 JB Latham Package B project totaling \$510,256 and three new change orders for PC 15 Coastal Treatment Plant Export Sludge Replacement project totaling \$24,649. A separate Staff Report is presented for the CTP Export Sludge Replacement Geotechnical Services change order.

JBL Package B

Olsson Change Order 23 - Background Information for MCC F1

MCC F1 replaces MCC F which is currently located outside in a Class I Division I area. MCC F1 will provide power to Digesters 1 and 2 for pumping, heating, and instrumentation. The MCC was originally planned to be located in the access road behind Digesters 1 and 2 but during potholing and trenching, utility conflicts arose that prevented any further consideration of a fully buried duct bank. The design for the MCC was then moved so that the cabinet would be located in an area where overhead conduit bridges would be used. The cost estimate for the construction of this redesign was significantly higher than anticipated. Carollo Engineers then provided three potential alternatives to the first overhead redesign.

Option 1: Keep the overhead design but utilize a duct bank in the adjacent planter eliminating exposed conduit and use a cable tray for the bridges.

Option 2: Utilize surface duct banks across the access road.

Option 3: Utilize precast "Trenwa" style trenches across the access road.

Options 2 and 3 pose more potential conflicts with some shallow utilities and would raise the height of the access road. A pipe bridge that transports hot water and digester gas to/from the digesters is already located across the road. The access road is used for large equipment to service not just the digesters but the digester gas conditioning system further down the access road. The road height increase may prevent some larger vehicles from accessing areas past the bridge. Storm flows, spills, and issues with below grade conductor and conduit is another concern with a precast trench.

SOCWA directed Carollo Engineers to update the design using Option 1. Olsson provided pricing and schedule impacts based on Option 1. After review by the construction management, design, and engineering teams was completed, it was determined that the cable tray provided no overall cost savings and could have a significant impact on the project schedule. It was therefore decided to revert to the conduit bridge design. The conduit bridge design has the least likelihood for further related change orders, is the preferred method for conductor protection, and will have minimal impacts to the construction schedule.

Recommended Action: Staff recommends that the Engineering Committee:

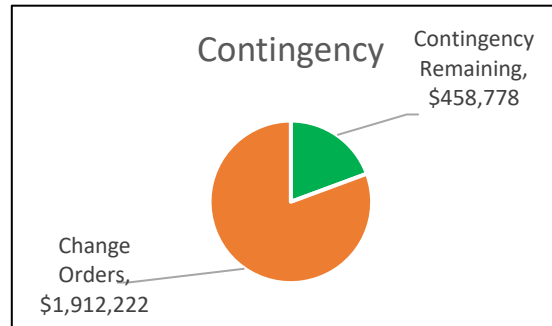
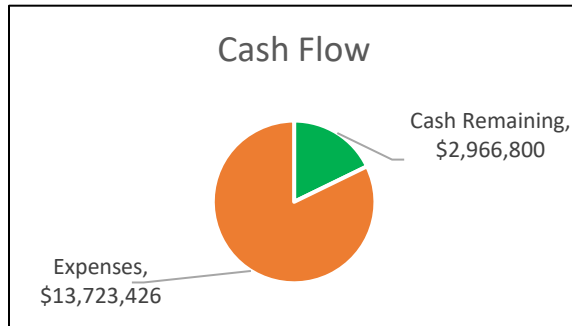
- recommend to the PC-2 Board of Directors to approve Olsson Construction Change Orders 22 and 23 for \$510,256; and
- recommend to the PC-15 Board of Directors to approve JR Filanc Change Orders 2 through 4 for \$24,649 for the CTP **Export Sludge Replacement Project.**

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

August 4, 2021



Cash Flow

Collected	\$16,690,226
Expenses	\$13,723,426

Project Completion

Schedule	80%
Budget	60%

Contracts

Company	PO No.	Original	Change Orders	Total	Paid
Olsson	13497	\$ 17,325,000	\$ 1,071,890	\$ 18,396,890	\$ 10,668,328
Butler	13647	\$ 895,727	\$ 612,715	\$ 1,508,442	\$ 895,727
Carollo	13616	\$ 846,528	\$ 227,617	\$ 1,074,145	\$ 947,580
TetraTech	13605	\$ 94,000	\$ -	\$ 94,000	\$ 81,837
		\$ 19,161,255	\$ 1,912,222	\$ 21,073,477	\$12,593,472

Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3220-000	\$ 616,800	\$ 567,630	\$ 49,170	92.0%
Common	3231-000	\$ 96,800	\$ 67,205	\$ 29,595	69.4%
Solids	3287-000	\$ 1,657,400	\$ 1,277,387	\$ 380,013	77.1%
		\$ 2,371,000	\$ 1,912,222	\$ 458,778	80.7%

Summary of New Change Orders

Change Order No	CSJC	MNWD	SCWD	SMWD	Amount
22	\$8,912	\$6,684	\$8,355	\$5,013	\$28,965
23	\$144,387	\$104,063	\$96,258	\$136,582	\$481,290
Grand Total	\$153,300	\$110,747	\$104,613	\$141,596	\$510,256

Change Orders

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final 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		\$ 4,725
2	Olsson	3287-000	Asbestos Gaskets in Boiler hazardous disposal	Approved by Board of Directors	6/4/2020		\$ 6,343
3	Olsson	3287-000	Add Analog Infrastructure and Cabling	Approved by Board of Directors	6/4/2020		\$ 37,970
4	Olsson	3287-000	Digester 4 Coating Additional Sealant	Approved by Board of Directors	6/4/2020		\$ 24,002
5	Olsson	3220-000	Valve Handwheel Ergonomic extension	Approved by Board of Directors	8/6/2020		\$ 16,370
6	Olsson	3287-000	Change to DeZurik Plug Valves to match existing	Approved by Board of Directors	8/6/2020		\$ 41,994

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

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
17	Olsson	3287-000	MCC-D1 Modifications due to Change in Motor Size	Approved by Board of Directors	5/6/2021		\$ 34,392
18	Olsson	3287-000	Integrator Additional Site Visits	Approved by Board of Directors	5/6/2021		\$ 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		\$ 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		\$ 62,114
21	Olsson	3287-000	Cogeneration PLC Modifications and Integration	Approved by Board of Directors	6/3/2021		\$ 42,923
22	Olsson	3220-000	Plant 1 Secondary Basins UV Rated Wear Strips	Within Contingency, to be reviewed by Engineering Committee	8/12/2021		\$ 28,965
23 See discussion in staff report.	Olsson	3287-000	MCC-F1 Design Change	Within Contingency, to be reviewed by Engineering Committee	8/12/2021		\$ 481,290

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
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
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	
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	

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
PCO 008	Olsson	3287-000	Conduit Routing Conflict from MCC-F1 and Relocation of MCC-F1	Potential Change	(blank)	\$350,000	
PCO 009	Olsson	3287-000	PLC East Headworks Integration	Potential Change	(blank)	\$10,000	
PCO 012	Olsson	3287-000	PCL-CG Integration	Potential Change	(blank)	\$5,000	
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 028	Olsson	3287-000	4" Gas Line Routing Modifications	Potential Change	(blank)	\$18,147	
PCO 032	Olsson	3287-000	Gas Mixer Conduit Conflict	Potential Change	(blank)	\$12,384	
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 43	Olsson	3220-000	Telescoping Valve Pipe Support	Potential Change	(blank)	\$3,754	

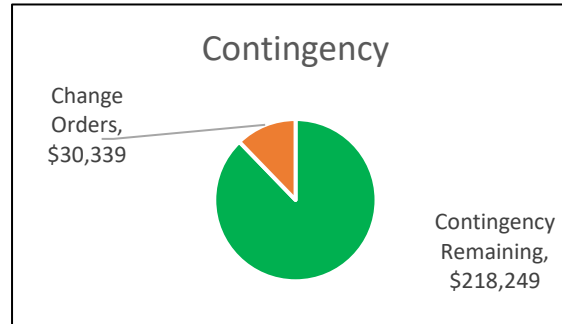
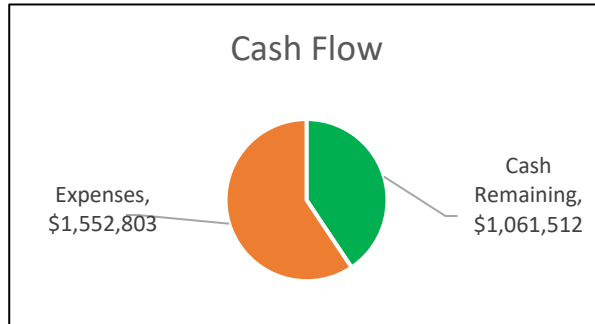
Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
PCO 46	Olsson	3220-000	UV Protected Wear Strips	Potential Change	(blank)	\$29,545	
PCO 66	Olsson	3287-000	DAFT 1 and 2 Repairs	Potential Change	(blank)	\$300,000	
PCO 98	Olsson	3220-000	Effluent Pump Station Descope (A1-A6)	Potential Change	(blank)	-\$800,000	
PCO 99	Olsson	3223-000	Energy Building Modifications Descope (F1-F4, G1-G2, & H1-H2)	Potential Change	(blank)	-\$600,000	
Grand Total						-\$538,369	\$ 1,912,222

Project Financial Status

Data Last Updated

Project Committee	15
Project Name	Export Sludge Forcemain 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

August 4, 2021



Cash Flow

Collected	\$2,614,315
Expenses	\$1,552,803

Project Completion

Schedule	60%
Budget	36%

Contracts

Company	PO No.	Original	Change Orders	Total	Paid
Filanc	15949	\$ 3,107,346	\$ 30,339	\$ 3,137,685	\$ 1,135,552
Butier	16164	\$ 226,100	\$ -	\$ 226,100	\$ 61,570
PSOMAS	15961	\$ 277,368	\$ -	\$ 277,368	\$ 40,275
Dudek	15947	\$ 387,750	\$ -	\$ 387,750	\$ 190,459
Ninyo & Moore	16268	\$ 65,790	\$ 43,166	\$ 108,956	\$ 48,889
		\$ 4,064,354	\$ 73,505	\$ 4,137,859	\$1,476,744

Filanc Contingency

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

Summary of New Change Orders

Change Order No	CLB	EBS	MNWD	SCWD	Amount
2	\$5,920	\$466	\$4,568	\$4,661	\$15,615
3	\$2,527	\$199	\$1,950	\$1,990	\$6,666
4	\$898	\$71	\$693	\$707	\$2,368
GT 01	\$16,364	\$1,289	\$12,628	\$12,885	\$43,166
Grand Total	\$25,709	\$2,024	\$19,838	\$20,243	\$67,815

Change Orders

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
1	Filanc	3541-000	Alternative Fiber Optic Conduit Installation at Jack and Bore	Approved by Board of Directors	6/3/2021		\$ 5,690
2	Filanc	3541-000	HDPE Pipe Price Adjustment	Within Contingency, to be reviewed by Engineering Committee	8/12/2021		\$ 15,615
3	Filanc	3541-000	Existing 6-Inch Sludge Line Fix for Pressure Test	Within Contingency, to be reviewed by Engineering Committee	8/12/2021		\$ 6,666
4	Filanc	3541-000	18-Inch VCP Sewer Line Conflicts	Within Contingency, to be reviewed by Engineering Committee	8/12/2021		\$ 2,368

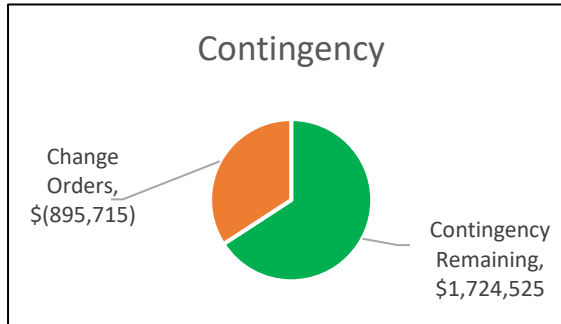
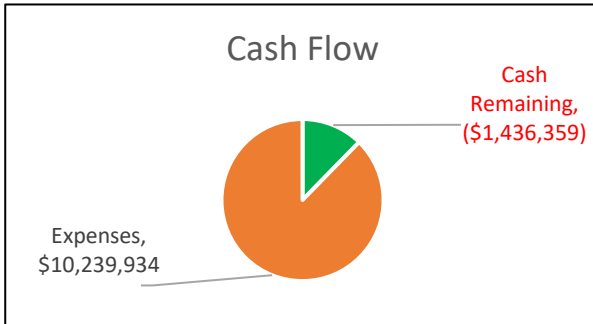
Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
PCO 007	Filanc	3541-000	Lost Production with Equipment Movement	Potential Change	(blank)		
PCO 008	Filanc	3541-000	Abandoned 4" PVC Water Line Interference	Potential Change	(blank)		
PCO 009	Filanc	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)	\$6,000	
PCO 015	Filanc	3541-000	18-Inch VCP Sewer Line Conflict at Sta. 96+55	Potential Change	(blank)	\$6,000	
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)	\$4,000	
Grand Total						\$192,000	\$ 30,339

Project Financial Status

Project Committee	15
Project Name	Facility Improvements
Project Description	New ferric chloride system, new collection equipment in East Sedimentation basins, concrete repair, structural improvements, new switchgear and numerous electrical upgrades

Data Last Updated

August 4, 2021



Cash Flow

Collected	\$8,803,575
Expenses	\$10,239,934

Project Completion

Schedule	91%
Budget	97%

Contracts

Company	PO No.	Original	Change Orders	Total	Paid
PCL	13751	\$ 9,209,000	\$ (895,715)	\$ 8,313,285	\$ 8,861,557
Butier	13647	\$ 812,288	\$ 612,715	\$ 1,425,003	\$ 808,498
Hazen & Sawyer	13648	\$ 490,484	\$ -	\$ 490,484	\$ 279,793
		\$ 10,511,772	\$ (283,000)	\$ 10,228,772	\$9,949,848

Contingency

Area	Project Code	Amount	Change Orders	Total Remaining	Percent Used
Liquids	3539-000	\$ 828,810	\$ (895,715)	\$ 1,724,525	-108.1%
		\$ 828,810	\$ (895,715)	\$ 1,724,525	-108.1%

Summary of New Change Orders

Change Order No	CLB	EBSD	MNWD	SCWD	Amount
Grand Total					

Change Orders

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
1	PCL	3539-000	Additional Potholing	Approved by Board of Directors	8/6/2020		\$ 22,936
2	PCL	3539-000	Gas Line Replacement	Approved by Board of Directors	8/6/2020		\$ 41,006
3	PCL	3539-000	Main Switchgear Building Underground Conflicts	Approved by Board of Directors	8/6/2020		\$ 8,683
4	PCL	3539-000	Mud Valve Bolt Removal	Approved by Board of Directors	8/6/2020		\$ 6,577
5	PCL	3539-000	Additional Anchor Bolt Removal	Approved by Board of Directors	8/6/2020		\$ 15,271
6	PCL	3539-000	Slide Gate Concrete Repair	Approved by Board of Directors	8/6/2020		\$ 3,396
7	PCL	3539-000	Sludge Collector Wear Strips	Approved by Board of Directors	8/6/2020		\$ 5,304
8	PCL	3539-000	SCE Transformer Slab Box	Approved by Board of Directors	9/3/2020		\$ 4,378
9	PCL	3539-000	Duct Bank 5 Buried Utility Conflicts	Approved by Board of Directors	10/1/2020		\$ 32,224
10	PCL	3539-000	Telescoping Valve Modifications	Approved by Board of Directors	10/1/2020		\$ 36,067
11	PCL	3539-000	Secondary Effluent Channel Improvements	Approved by Board of Directors	12/17/2020		\$ 5,153

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

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
22	PCL	3539-000	Additional Spall Repair - East Secondary Basins	Approved by Board of Directors	6/3/2021		\$ 9,722
23	PCL	3539-000	Grit Chamber Conflicts	Approved by Board of Directors	6/3/2021		\$ 3,888
24	PCL	3539-000	1/2" Ferric Line Conflicts	Approved by Board of Directors	6/3/2021		\$ 784
25	PCL	3539-000	Helical Skimmer Wiring	Approved by Board of Directors	8/5/2021		\$ 1,072
26	PCL	3539-000	MCC 15 Unmarked Wire Chasing	Approved by Board of Directors	8/5/2021		\$ 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		\$(1,200,188)
28	PCL	3539-000	Unilateral for 21 calendar days for weather and COVID-19 delays	Approved	6/16/2021		\$ -
PCO 006	PCL	3539-000	Additional Pothole Paving	Potential Change	(blank)	\$5,000	
PCO 013	PCL	3539-000	Ferric Containment Foundation	Potential Change	(blank)	\$15,000	

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
PCO 015	PCL	3539-000	RAS Channel Modification Desclope	Potential Change	(blank)	-\$2,000	
PCO 016	PCL	3539-000	Spray Water Piping Replacement	Potential Change	(blank)	\$1,500	
PCO 026	PCL	3539-000	Additional Spall Repair - East Secondary Basins	Potential Change	(blank)	\$10,000	
PCO 028	PCL	3539-000	Ops Building Gas Line Relocation	Potential Change	(blank)	\$5,000	
PCO 029	PCL	3539-000	Building 15 Concrete Restoration	Potential Change	(blank)	\$20,000	
PCO 031	PCL	3539-000	Roll Up Door Fascia	Potential Change	(blank)	\$3,000	
PCO 032	PCL	3539-000	DAF Stair Railing	Potential Change	(blank)	-\$500	
PCO 035	PCL	3539-000	Grit Chamber Conflicts	Potential Change	(blank)	\$20,000	
PCO 038	PCL	3539-000	Aeration Channel Conflicts	Potential Change	(blank)	\$8,000	
PCO 044	PCL	3539-000	Building 10 Wall Repair	Potential Change	(blank)	\$2,000	
PCO 046	PCL	3539-000	1/2" Ferric Line Conflicts	Potential Change	(blank)	\$5,000	
PCO 047	PCL	3539-000	West Telescoping Valve Improvements	Potential Change	(blank)	\$25,000	

Change Order No.	Vendor Name	Project ID	Description	Status	Status Date	Potential Change Amount	Final Amount
PCO 048	PCL	3539-000	West Secondary Effluent Channel Concrete Repair	Potential Change	(blank)	\$20,000	
PCO 050	PCL	3539-000	RAS Box Leaks	Potential Change	(blank)	\$0	
PCO 051	PCL	3539-000	Grit Grating Modifications	Potential Change	(blank)	\$0	
PCO 053	PCL	3539-000	West Grit Channel Unforeseen Conflicts	Potential Change	3/26/2021	\$15,000	
PCO 059	PCL	3539-000	Telescoping Valve Stand Modifications	Potential Change	(blank)	\$5,000	
PCO 060	PCL	3539-000	Headworks Roofing Additions	Potential Change	(blank)	\$3,500	
PCO 061	PCL	3539-000	Headworks bypass	Potential Change	(blank)	\$20,000	
PCO 062	PCL	3539-000	Additional Ferric Area Work	Potential Change	(blank)		
PCO 065	PCL	3539-000	SCE XFMR Slab Box	Potential Change	(blank)	\$20,000	
PCO 066	PCL	3539-000	Ferric Tank LIT	Potential Change	(blank)	\$2,500	
Grand Total						\$203,000	\$ (895,715)

Agenda Item

7

Engineering Committee Meeting

Meeting Date: August 12, 2021

TO: Engineering Committee

REVISED

FROM: David Baranowski, Senior Engineer

SUBJECT: Coastal Treatment Plant Sludge Force Main Replacement Project Geotechnical Services During Construction Change Order [Project Committee 15]

Overview

To support the construction of the Export Sludge Force Main Project, a geotechnical firm is needed for soils and materials testing. They work in conjunction with the construction management firm to test soil samples, test backfill compaction, and concrete strength testing.

Ninyo & Moore has been providing these services since construction began in March 2021. The initial contract value of \$65,790 was based on a set of assumptions we provided bidders, which included the number of days to be on site. However, construction has not progressed as quickly as we assumed, therefore, the initial budget will not cover the work through the completion of the project.

Using the rate of construction so far and the remaining work to be completed, Ninyo & Moore estimates an additional budget of \$43,166 will be needed. Since this is a time and materials contract, we will only pay for services provided.

Cost Allocation

Table 1 – Cost allocation by member agency for the Ninyo & Moore change order.

Agency	Geotechnical Services
	3534-000
CLB	\$ 16,364.42
EBSD	\$ 1,288.54
MNWD	\$ 12,627.67
SCWD	\$ 12,885.37
Total	\$ 43,166.00

Project 3534-000 is already funded and within budget.

Table 2 – Contact Allocation

	Original Contract	Change Order No. 1	Total
Geotechnical Services	\$ 65,790	\$43,166	\$ 108,956

Recommended Action: Staff recommends that the Engineering Committee recommend to the PC-15 Board of Directors to approve the Ninyo & Moore change order in the amount of \$43,166 for a total revised contract amount of \$108,956 for the geotechnical services during construction for the Coastal Treatment Plant Export Sludge Replacement Project.



July 15, 2021
Project No. 202426007

Mr. David Baranowski
South Orange County Water Authority
34156 Del Obispo Street
Dana Point, California 92629-2916

Subject: Budget Status for Geotechnical and Materials Testing Services
Coastal Treatment Plant Export Sludge Force Main Project
Dana Point, California.

Reference: Ninyo & Moore, 2021, Proposal for Geotechnical and Materials Testing Services
Coastal Treatment Plant Export Sludge Force Main Project
Dana Point, California, dated February 24.

Dear Mr. Baranowski:

Per your authorization and request, we have provided geotechnical and materials testing services pertaining to construction of the Coastal Treatment Plant Export Sludge Force Main project. We have provided our services on an as-requested basis as scheduled by representatives of Butier Engineering, Inc. Due to slower than expected construction progress, our expenses have been higher than originally anticipated. In order to continue to provide geotechnical and materials testing services through the end of the project, we will require additional budget. Therefore based on project's current progress and the length of pipeline that still needs to be installed, we request that our total budget be increased by \$43,166. Please sign and return one copy of this letter to our office at your earliest convenience.

Ninyo & Moore appreciates the opportunity to provide services on this project and we look forward to working with you.

Sincerely,
NINYO & MOORE

A handwritten signature in blue ink, appearing to read "RMB".

Robert M. Bigger
Senior Project Manager
RMB/mlc

Attachment: Table 1 - Breakdown of Estimated Fees Beyond 7/14/2021.

Authorized by:
South Orange County Water Authority

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Signature

Print Name and Title

Date

Table 1 - Breakdown of Estimated Fees Beyond 7/14/2021**Field Services**

Senior Field Technician - Trench Backfill	338 hours @ \$ 97.00 /hour	\$ 32,786.00
Vehicle and Equipment Expense	338 hours @ \$ 15.00 /hour	\$ 5,070.00
	Subtotal	\$ 37,856.00

Laboratory Testing

Proctor Density	2 tests @ \$ 220.00 /test	\$ 440.00
		\$ 440.00

Project Coordination and Management

Senior Project Engineer/Geologist	12 hours @ \$ 163.00 /hour	\$ 1,956.00
	Subtotal	\$ 1,956.00

Report Preparation

Principal Engineer/Geologist	2 hours @ \$ 178.00 /hour	\$ 356.00
Senior Project Engineer/Geologist	13 hours @ \$ 163.00 /hour	\$ 2,119.00
Data Processing	6 hours @ \$ 73.00 /hour	\$ 439.00
	Subtotal	\$ 2,914.00

TOTAL ESTIMATED FEE		\$ 43,166.00
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