

I hereby certify that the following Agenda was posted at least 72 hours prior to the time of the Board Meeting so noticed below, at the usual agenda posting location of the South Orange County Wastewater Authority [SOCWA] and at www.socwa.com.



Betty Burnett, General Manager
SOCWA and the Board of Directors thereof

AGENDA

Regular Meeting of The South Orange County Wastewater Authority Board of Directors

October 3, 2019
8:30 a.m.

THE BOARD OF DIRECTORS MEETING ROOM IS LOCATED AT 34156 DEL OBISPO STREET, DANA POINT, CA. THE ROOM IS WHEELCHAIR ACCESSIBLE. IF YOU REQUIRE ANY SPECIAL DISABILITY-RELATED ACCOMMODATIONS (I.E., ACCESS TO AN AMPLIFIED SOUND SYSTEM, ETC.), PLEASE CONTACT THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY'S SECRETARY'S OFFICE AT 949-234-5421 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE SCHEDULED MEETING. THIS AGENDA CAN BE OBTAINED IN AN ALTERNATE FORMAT UPON WRITTEN REQUEST TO THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY SECRETARY AT LEAST SEVENTY-TWO (72) 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 BOARD OF DIRECTORS IN CONNECTION WITH A MATTER SUBJECT TO DISCUSSION OR CONSIDERATION AT AN OPEN MEETING OF THE BOARD OF DIRECTORS ARE AVAILABLE FOR PUBLIC INSPECTION IN THE AUTHORITY OFFICE, 34156 DEL OBISPO STREET, DANA POINT, CA ("AUTHORITY OFFICE"). IF SUCH WRITINGS ARE DISTRIBUTED TO MEMBERS OF THE BOARD OF DIRECTORS LESS THAN SEVENTY-TWO (72) HOURS PRIOR TO THE MEETING, THEY WILL BE AVAILABLE IN THE RECEPTION AREA OF THE AUTHORITY OFFICE AT THE SAME TIME AS THEY ARE DISTRIBUTED TO THE BOARD OF DIRECTORS, EXCEPT THAT, IF SUCH WRITINGS ARE DISTRIBUTED IMMEDIATELY PRIOR TO, OR DURING, THE MEETING, THEY WILL BE AVAILABLE IN THE BOARD OF DIRECTORS MEETING ROOM.

1. CALL MEETING TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ORAL COMMUNICATIONS

A. Members of the public may address the board regarding an item on the agenda or may reserve this opportunity during the meeting at the time the item is discussed by the board. There will be a three-minute limit for public comments.

AGENDA
 South Orange County Wastewater Authority
 Board of Directors Meeting
 October 3, 2019

4. CONSENT CALENDAR

A. Resolution No. 2019-05, Commendation for Brian Peck..... 1

ACTION The Board will be requested to approve Resolution No. 2019-05 and authorize Chairman Ferons to sign the Commendation for Mr. Peck on behalf of the Board of Directors of the South Orange County Wastewater Authority.

B. Financial Matters

- 1) Budget vs. Actual Financial Reports for the fiscal year ended June 30, 2019:
 - 1) Capital Schedule (Exhibit D) 4
 - Capital Project – Graph (Exhibit D-1) 5
 - 2) Budget vs. Actual Expenses:
 - Operations and Environmental Summary (Exhibit E-1) 6
 - Operations and Environmental by PC (Exhibit E-1.2)..... 8
 - Residual Engineering, after transfer to Capital (Exhibit E-2) 15
 - Administration (Exhibit E-3) 16
 - Information Technology (IT) (Exhibit E-4)..... 17

ACTION The Board of Directors will be requested to receive and file the June 2019 Financial Reports as submitted.

C. Operational Reports – August 2019

- 2) Monthly Operations Report – August 2019 19
- 3) Ocean Outfall Discharges 28
- 4) Beach/Ocean Monitoring Report 30
- 5) Recycled Water Report 51
- 6) Pretreatment Report – August and September 2019 56

ACTION The Board will be requested to receive and file the August and September 2019 Operations Reports.

D. Minutes of Engineering Committee Meeting(s)

- 1) Engineering Committee July 18, 2019 60
- 2) Engineering Committee August 15, 2019..... 65

ACTION The Board will be requested to receive and file subject Minutes.

E. Capital Improvement Program

- 1) Status Report(s) 70

ACTION The Board will be requested to receive and file report(s).

AGENDA

South Orange County Wastewater Authority
Board of Directors Meeting
October 3, 2019

5. ENGINEERING MATTERS

A. Project Committee No. 2

- 1) Award of Engineering Services for the JB Latham Treatment Plant Electrical System..... 83

ACTION The Project Committee No. 2 Board will be requested to approve the award of the engineering services contract to Hazen & Sawyer at a fee of \$199,546.

- 2) Award of Engineering Services for JB Latham Treatment Plant Hydraulic Modeling and Flow Management Study 100

ACTION The Project Committee No. 2 Board will be requested to approve the award of the engineering services contract to Carollo Engineers at a fee of \$152,971.

- 3) Award of Engineering Services for JB Latham Treatment Plant Centrate System Final Design 115

ACTION The Project Committee No. 2 Board will be requested to approve the award of the engineering services contract to Kleinfelder at a fee of \$152,360.

B. Project Committee(s) 5, 17, and 24

- 1) Award of Program and Construction Management Services for SOCWA's Fiscal Year 2019/2020 Capital Improvement Program 137

ACTION The Project Committees No. 5, 17, and 24 Board will be requested to approve the award of the program and construction services to Dudek at a fee of \$256,545.

6. GENERAL MANAGER'S REPORTS

- A. FY2018-19 Annual Financial Statements Audit, Use Audit and Cash Roll Forward Update 156

ACTION The Board will be requested to receive and file the report.

- B. General Manager's Status Report..... 168

ACTION Information item

Agenda Item

Legal Counsel Review:

Meeting Date: October 3, 2019

TO: Board of Directors
FROM: Betty Burnett, General Manager
STAFF CONTACT: Dina Ash, Human Resources Administrator
SUBJECT: Resolution No. 2019-05 Commendation for Brian Peck

Summary

Brian Peck has been employed by SOCWA for over 19 years. He retired on October 1, 2019. Resolution No. 2019-05 commends Mr. Peck for his services to SOCWA

Fiscal impact

None

Recommendation

Staff recommends the Board approve Resolution No. 2019-05 and authorize Chairman Ferons to sign the Commendation on behalf of the Board of Directors of the South Orange County Wastewater Authority

RESOLUTION OF COMMENDATION
Resolution No. 2019-05
ADOPTED BY THE BOARD OF DIRECTORS
OF THE
SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
October 3, 2019

COMMENDATION TO BRIAN PECK FOR PROVIDING DEDICATED SERVICE TO
THE SOUTH ORANGE COUNTY WASTEWATER AUTHORITY AND THE
RESIDENTS OF SOUTHERN ORANGE COUNTY FOR THE PERIOD OF
MARCH 2000 TO OCTOBER 2019

WHEREAS: South Orange County Wastewater Authority (SOCWA) facilitates and manages the collection, transmission, treatment, reuse and disposal of wastewater for more than 500,000 homes and businesses across South Orange County.

WHEREAS: Brian Peck began his nineteen + year career with South East Regional Reclamation Authority (SERRA) as a Project Engineer. In 2001, AWMA/SERRA became a part of SOCWA, and Brian was promoted to Director of Engineering.

WHEREAS: Brian has consistently performed at a high level with successful completion of major capital projects. His knowledge of SOCWA's facilities has been a significant benefit to the long-term plan development he has engaged in over the last several years. His expertise along with his historical knowledge of the SOCWA facilities will be missed.

WHEREAS: Brian has served as Chair of CWEA Engineering and Research Committee and actively participated in SARBS Professional Development Committee seminars.

WHEREAS: Brian also served as CWEA Director/WEF Delegate.

WHEREAS: During Brian's tenure with SOCWA he has been known as a supportive boss for his staff committed to their betterment and encouraging of their grow in knowledge and opportunity. Brian has always exhibited a fair-minded approach to each challenge. He has instilled a client-based attitude in working with the member agencies, asking staff to remain helpful at all times and in an attitude of service.

THEREFORE, BE IT RESOLVED: That the Board of Directors of the South Orange County Wastewater Authority and on the behalf of the member agencies of SOCWA does hereby commend Brian Peck for his dedicated service and commitment to the mission of the South Orange County Wastewater Authority.

PASSED AND ADOPTED by the Board of Directors of the SOUTH ORANGE COUNTY WASTEWATER AUTHORITY, County of Orange, State of California on the 3rd day October 2019.

(Seal)

Daniel R. Feron, Chairman

Betty Burnett, General Manager and Board Secretary

Agenda Item

Legal Counsel Review: N/A

Meeting Date: October 3, 2019

TO: Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Mary Carey, Finance Controller

SUBJECT: Budget vs. Actual Financial Reports for the fiscal year ended June 30, 2019

Summary/Discussion

The following Budget vs. Actual financial reports are routinely provided monthly to the Finance Committee for recommendation to the Board of Directors to receive and file the documents.

The reports included are as follows:

- a) Capital Schedule (Exhibit D)
 - Capital Projects – Graph (Exhibit D-1)
- b) Budget vs. Actual Expenses:
 - Operations and Environmental Summary (Exhibit E-1)
 - Operations and Environmental by PC (E-1.2)
 - Residual Engineering, after transfer to Capital (Exhibit E-2)
 - Administration (Exhibit E-3)
 - Information Technology (IT) (Exhibit E-4)

Recommendation

Staff recommends to the Board of Directors to receive and file the June 2019 Financial Reports as submitted.

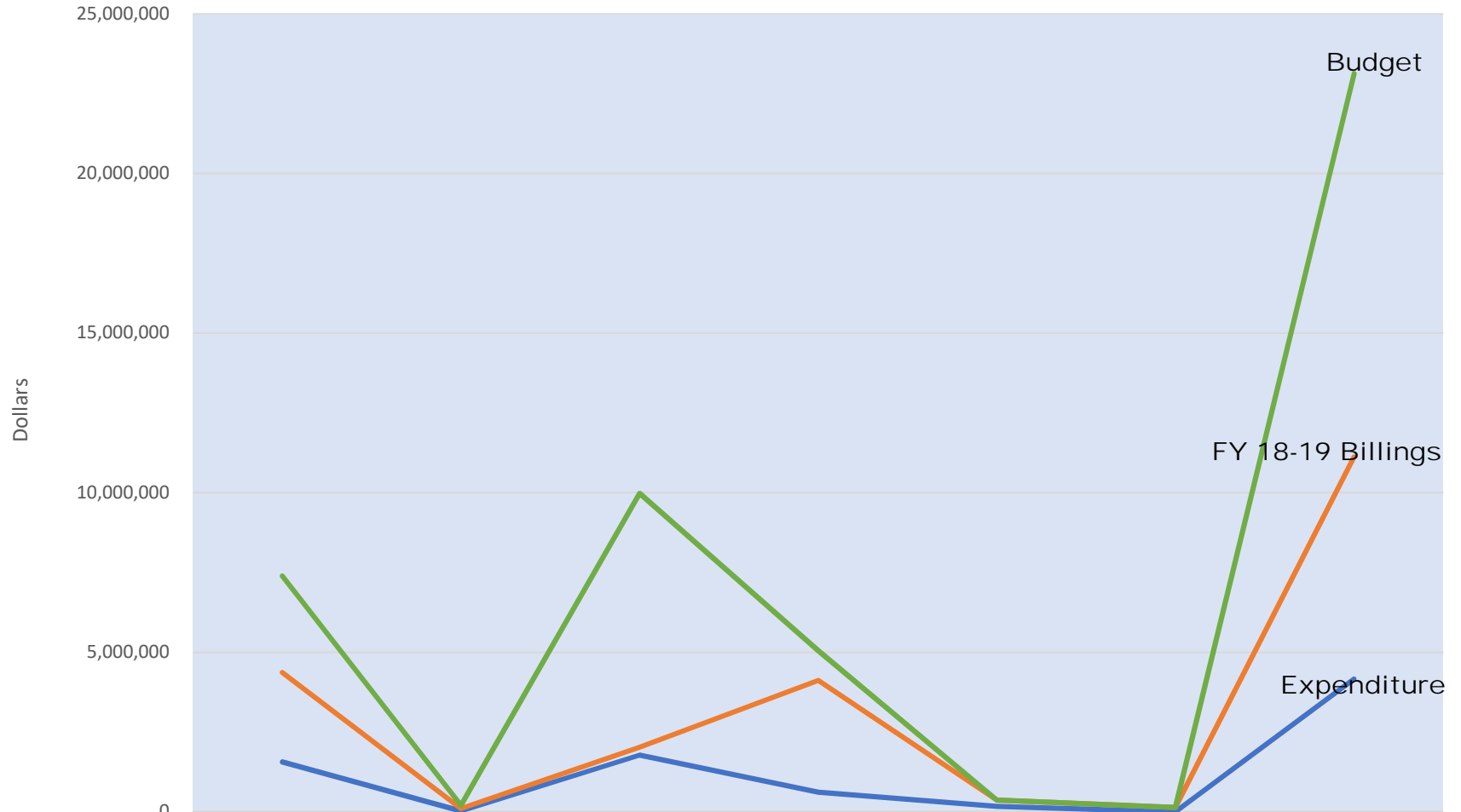
**South Orange County Wastewater Authority
Capital Projects Summaries
For the Period Ended June 30, 2019**

FY 2018-19 Budget vs. Actual Spending							
<u>Description</u>	Capital Budget	Fiscal Year Spending	(Over)/ Under Budget	% Expended	Member Agency Billed	Member Agency Collections	% Expended vs. Billed
PC 2-JB Latham	7,390,500	1,566,747	5,823,752	21.2%	4,367,007	4,367,007	35.9%
PC 5-San Juan Creek Outfall	205,148	21,489	183,659	10.5%	102,574	102,574	20.9%
PC 15-Coastal	9,976,376	1,780,239	8,196,136	17.8%	2,026,501	2,026,501	87.8%
PC 17-Regional	5,045,535	617,880	4,427,654	12.2%	4,114,533	4,114,533	15.0%
PC 21 Effluent Transmission	371,500	173,764	197,736	46.8%	371,504	371,504	46.8%
PC 24 Aliso Creek Outfall	135,000	825	134,175	0.6%	135,001	135,001	0.6%
Total Large Capital	23,124,057	4,160,944	18,963,113	18.0%	11,117,120	11,117,120	37.4%
Non-Capital Engineering	44,500	127,459	(82,959)	286.4%	44,500	44,500	286.4%
Small Internal Capital	2,011,000	1,606,546	404,454	79.9%	2,011,000	2,011,000	79.9%
Total Capital	25,179,557	5,894,949	19,284,608	23.4%	13,172,620	13,172,620	44.8%

(1) Non-Capital expenditures in excess of budget or amount invoiced will be included in the Use Audit results for the first time; there is a carryover from FY 17-18 of \$81k plus the current year budget variance, \$83k, which equals the \$164k in the FY 18-19 Use Audit.

(2) Small capital Expenditures were \$404k under budget, however, \$173k is being held by the Authority to cover costs of completing projects that were in-process at year end; \$231k will be refunded in the FY 18-19 Use Audit.

Large Capital Projects Fiscal Year '18-19 Budget vs. Exhibit D-1 Year-to-Date Projected Expenditures & Billings as of 6/30/2019



	PC 2-JB Latham	PC 5-San Juan Creek Outfall	PC 15-Coastal	PC 17-Regional	PC 21 Effluent Transmission	PC 24 Aliso Creek Outfall	Total Large Capital
Spent - YTD 6/30/19	1,566,747	21,489	1,780,239	617,880	173,764	825	4,160,944
FY 18-19 Billings	4,367,007	102,574	2,026,501	4,114,533	371,504	135,001	11,117,120
Capital Budget 18/19	7,390,500	205,148	9,976,376	5,045,535	371,500	135,000	23,124,057

**South Orange County Wastewater Authority
O & M & Environmental Safety Costs Summary**
For the Period Ended June 30, 2019

Exhibit E-1

	FY 2018-19 Budget	Actual	(Over)/Under Budget	% Expended	
Salary and Fringe					
5000.	Regular Salaries-O&M	4,510,404	4,109,613	400,791	91.1%
5001.	Overtime Salaries-O&M	115,036	186,185	(71,149)	161.8% (1)
5306.	Scheduled Holiday Work	49,860	27,874	21,986	55.9%
5315.	Comp Time - O&M	1,828	20,215	(18,387)	1105.8% (1)
5401.	Fringe Benefits IN to PC's & Depts.	3,247,504	3,103,713	143,791	95.6%
5700.	Standby Pay	69,292	67,452	1,840	97.3%
	Total Payroll Costs	7,993,924	7,515,052	478,872	94.0%
Other Expenses					
5002.	Electricity	1,055,968	1,312,224	(256,256)	124.3% (2)
5003.	Natural Gas	148,532	248,855	(100,323)	167.5% (3)
5004.	Potable & Reclaimed Water	69,012	76,756	(7,744)	111.2% (4)
5005.	Co-generation Power Credit	(250,012)	(423,049)	173,037	169.2% (5)
5006.	Chlorine/Sodium Hypochlorite	489,012	539,221	(50,209)	110.3% (6)
5007.	Polymer Products	658,028	524,794	133,234	79.8%
5008.	Ferric Chloride	265,000	361,750	(96,750)	136.5% (7)
5009.	Odor Control Chemicals	163,008	116,360	46,648	71.4%
5010.	Other Chemicals - Misc.	5,000	-	5,000	0.0%
5011.	Laboratory Services	41,696	28,961	12,735	69.5%
5012.	Grit Hauling	134,008	114,827	19,181	85.7%
5013.	Landscaping	185,008	173,627	11,381	93.8%
5014.	Engineering - Misc.	175,004	34,824	140,180	19.9%
5015.	Management Support Services	363,936	145,354	218,582	39.9%
5016.	Audit - Environmental	500	-	500	0.0%
5017.	Legal Fees	23,020	94,380	(71,360)	410.0%
5018.	Public Notices/ Public Relations	2,008	178	1,830	8.9%
5019.	Contract Services Misc.	375,012	297,985	77,027	79.5%
5021.	Small Vehicle Expense	21,024	33,416	(12,392)	158.9% (8)
5022.	Miscellaneous Expense	18,488	26,150	(7,662)	141.4%
5023.	Office Supplies - All	38,004	35,020	2,984	92.1%
5024.	Petroleum Products	59,980	25,086	34,894	41.8%
5025.	Uniforms	37,016	50,613	(13,597)	136.7% (9)
5026.	Small Vehicle Fuel	35,680	19,868	15,812	55.7%
5027.	Insurance - Property/Liability	185,132	203,645	(18,513)	110.0%
5028.	Small Tools & Supplies	85,664	93,729	(8,065)	109.4% (10)
5030.	Trash Disposal	6,992	4,537	2,455	64.9%
5031.	Safety Program & Supplies	106,396	118,750	(12,354)	111.6% (11)
5032.	Equipment Rental	7,008	2,006	5,002	28.6%
5033.	Recruitment	3,024	1,618	1,406	53.5%
5034.	Travel Expense/Tech. Conferences	72,068	53,765	18,303	74.6%
5035.	Training Expense	63,380	83,837	(20,457)	132.3% (12)
5036.	Laboratory Supplies	90,328	83,107	7,221	92.0%
5037.	Office Equipment	24,996	41,450	(16,454)	165.8% (13)
5038.	Permits	415,952	406,121	9,831	97.6% (14)
5039.	Membership Dues/Fees	11,920	13,771	(1,851)	115.5%
5044.	Offshore Monitoring	36,000	34,289	1,711	95.2%
5045.	Offshore Biochemistry - 20B	110,000	-	110,000	0.0%
5046.	Effluent Chemistry	28,004	54,595	(26,591)	195.0% (15)
5047.	Access Road Expenses	48,000	32,960	15,040	68.7%
5048.	Storm Damage	20,008	139,435	(119,427)	696.9% (16)
5049.	Biosolids Disposal	1,639,008	1,381,075	257,933	84.3%
5050.	Contract Services Generators	21,004	18,604	2,400	88.6%
5052.	Janitorial Services	100,024	72,838	27,186	72.8%
5053.	Contract Serv - Digester Cleaning - 29E	60,000	-	60,000	0.0%
5054.	Diesel Truck Maint	41,004	37,222	3,782	90.8%
5055.	Diesel Truck Fuel	14,004	10,386	3,618	74.2%
5056.	Maintenance Equip. & Facilities (Solids)	338,000	414,025	(76,025)	122.5% (17)
5057.	Maintenance Equip. & Facilities (Liquids)	591,996	642,977	(50,981)	108.6% (18)
5058.	Maintenance Equip. & Facilities (Common)	76,004	90,048	(14,044)	118.5% (19)
5059.	Maintenance Equip. & Facilities (Co-Gen)	1,135,016	712,103	422,913	62.7% (20)
5060.	Maintenance Equip. & Facilities (AWT)	72,000	58,633	13,367	81.4%
5061.	Mileage	2,036	2,332	(296)	114.5%
5067.	Port Cleaning	35,000	-	35,000	0.0%
5068.	MNWD Potable Water Supplies & Svcs.	24,484	41,172	(16,688)	168.2%
5069.	Misc-Capital-Dilution & Metering Study	7,996	1,500	6,496	18.8%
5076.	SCADA Infrastructure	57,000	306	56,694	0.5%
5077.	IT Direct	-	2,216	(2,216)	0.0%
5101.	Employee Recognition	1,004	-	1,004	0.0%
5105.	Co-Generation Power Credit - Offset	249,972	423,049	(173,077)	169.2% (5)
5303.	Group Insurance Waiver	10,824	14,368	(3,544)	132.7%
5305.	Medicare Tax Payments for Employees	9,452	4,743	4,709	50.2%
5309.	Operating Leases	31,004	22,202	8,802	71.6%
5705.	Monthly Car Allowance	25,376	28,491	(3,115)	112.3%
5706.	Effluent Pond Cleaning	90,000	-	90,000	0.0%
5799.	Zephyr Wall Costs Share - O&M	-	(14,142)	14,142	0.0%
5802.	Shipping/Freight	200	494	(294)	247.2%
6500.	IT Allocations in to PC's & Depts.	646,448	561,926	84,522	86.9%
	Total Other Expenses	10,707,660	9,731,383	976,277	90.9%
	Total O&M	18,701,584	17,246,435	1,455,149	92.2%

South Orange County Wastewater Authority
O & M & Environmental Safety Costs Summary
For the Period Ended June 30, 2019

Exhibit E-1

- (1) Elevated overtime costs were associated with several ongoing construction projects, staff vacancies, several large Fall/Winter storm events, larger repair projects at the plants, and PC15 litigation.
The new engine's emissions control system and gas cleaning systems required troubleshooting during startup, which
- (2) required shutdowns that resulted in an additional purchase of electricity and power transmission costs. O&M is working with Engineering to resolve outstanding equipment and AQMD compliance issues.
- (3) The plants continue to see decreases in wastewater flows and loads leading to less digester gas for the new engines and increased natural gas usage.
- (4) Water use was higher than planned to meet a new recommendation for odor scrubber operations to reduce equipment fouling.
- (5) The credit for power generated at RTP is higher than projected due to the increased value of the electricity. The value is calculated each month based on SCE rates and has doubled since 2016.
Bleach usage was elevated in the first quarter due to elevated recycled water use and decreased flows to the plant causing partial nitrification that consumed elevated levels of bleach in the disinfection process. O&M staff removed
- (6) one aeration tank from service to reduce nitrification. The change was planned for the winter to minimize potential disruptions of recycled water in the summer and fall.
- (7) Ferric Chloride usage was elevated above the budget estimated for the new engines to maintain compliance with AQMD permits for Hydrogen Sulfide. Budgets were increased for FY19/20.
- (8) New vehicles were outfitted with gear to allow maintenance staff to work remotely between the 3 sites.
- (9) Uniform expenses were elevated due to new employee change outs and required PPE being added to employee inventories.
- (10) Small tools spending was elevated due to purchases to outfit new employees.
Additional personnel gas monitoring equipment was required to mitigate work area restrictions in newly identified
- (11) classified areas with fixed gas detection equipment. The newly identified areas were discovered during a O&M staff lead audit of existing confined and classified areas.
- (12) Training expenses were elevated due to the large number of newer employees in O&M.
- (13) A large number equipment items were removed and replaced based on an ergonomic assessment of office equipment and workstations.
- (14) SOCWA permits are primarily paid in July and November each year; the RWQCB increased its fees higher than anticipated. The increase was due to a shortfall in State funding for their permitting programs.
- (15) Additional toxicity testing due to NPDES permitting accelerated monitoring at Aliso Creek Ocean Outfall.
- (16) The FY16-17 storm damage repair was completed and was determined to be a maintenance expense. SOCWA received FEMA funds of \$136,995 during FY 2017-18 was already refunded to Member Agencies.
- (17) Solids expenses at JBL included the planned major overhaul of Centrifuge #2. Solids at RTP included a large emergency repair of the hot water and gas systems.
- (18) Liquids expenses included several large repairs at RTP in anticipation of the FY18/19 winter weather.
- (19) Several HVAC units failed with the first heat of the summer and required extensive repairs at RTP and CTP.
Engine maintenance costs were lower than projected due to delays in receiving the engine from the construction
- (20) contractor at RTP. The RTP engine also had significant downtime for startup and troubleshooting. JBL Cogen costs were below estimated budget due to better than expected gas cleaning media run time.

South Orange County Wastewater Authority
O & M & Environmental Safety Costs by PC
For the Period Ended June 30, 2019

		FY 2018-19 Budget	Actual	(Over)/Under Budget	% Expended
02 - Jay B. Latham Plant					
Salary and Fringe					
02-5000.**.**	Regular Salaries-O&M	1,472,936	1,394,973	77,963	94.7%
02-5001.**.**	Overtime Salaries-O&M	32,908	65,199	(32,291)	198.1% (1)
02-5306.**.**	Scheduled Holiday Work	14,732	12,733	1,999	86.4%
02-5315.**.**	Comp Time - O&M	752	10,939.65	(10,188)	1454.7% (1)
02-5401.**.**	Fringe Benefits IN to PC's & Depts.	1,060,520	1,057,849	2,671	99.7%
02-5700.**.**	Standby Pay	27,048	27,750	(702)	102.6%
	Total Payroll Costs	2,608,896	2,569,444	39,452	98.5%
Other Expenses					
02-5002.**.**	Electricity	374,976	500,758	(125,782)	133.5% (2)
02-5003.**.**	Natural Gas	120,024	138,976	(18,952)	115.8% (3)
02-5004.**.**	Potable & Reclaimed Water	20,008	24,337	(4,329)	121.6% (4)
02-5006.**.**	Chlorine/Sodium Hypochlorite	28,000	-	28,000	0.0%
02-5007.**.**	Polymer Products	250,008	184,645	65,363	73.9%
02-5008.**.**	Ferric Chloride	105,004	133,363	(28,359)	127.0% (5)
02-5009.**.**	Odor Control Chemicals	28,004	31,481	(3,477)	112.4%
02-5010.**.**	Other Chemicals - Misc.	1,000	-	1,000	0.0%
02-5011.**.**	Laboratory Services	10,692	6,968	3,725	65.2%
02-5012.**.**	Grit Hauling	50,004	49,214	790	98.4%
02-5013.**.**	Landscaping	50,004	55,167	(5,163)	110.3% (6)
02-5014.**.**	Engineering - Misc.	30,004	19,413	10,591	64.7%
02-5015.**.**	Management Support Services	59,004	50,473	8,531	85.5%
02-5017.**.**	Legal Fees	4,992	1,177	3,815	23.6%
02-5019.**.**	Contract Services Misc.	115,004	79,455	35,549	69.1%
02-5021.**.**	Small Vehicle Expense	8,004	12,628	(4,624)	157.8% (7)
02-5022.**.**	Miscellaneous Expense	8,000	7,704	296	96.3%
02-5023.**.**	Office Supplies - All	27,000	16,275	10,725	60.3%
02-5024.**.**	Petroleum Products	15,992	7,986	8,006	49.9%
02-5025.**.**	Uniforms	13,004	20,651	(7,647)	158.8% (8)
02-5026.**.**	Small Vehicle Fuel	14,980	11,551	3,429	77.1%
02-5027.**.**	Insurance - Property/Liability	65,464	67,983	(2,519)	103.8%
02-5028.**.**	Small Tools & Supplies	40,004	45,262	(5,258)	113.1% (9)
02-5030.**.**	Trash Disposal	2,000	1,656	344	82.8%
02-5031.**.**	Safety Supplies	34,704	44,970	(10,266)	129.6% (10)
02-5032.**.**	Equipment Rental	3,000	1,834	1,166	61.1%
02-5033.**.**	Recruitment	1,024	976	48	95.4%
02-5034.**.**	Travel Expense/Tech. Conferences	18,876	22,559	(3,683)	119.5% (11)
02-5035.**.**	Training Expense	26,188	38,347	(12,159)	146.4% (12)
02-5036.**.**	Laboratory Supplies	14,296	13,737	559	96.1%
02-5037.**.**	Office Equipment	13,000	9,672	3,328	74.4%
02-5038.**.**	Permits	22,432	24,536	(2,104)	109.4% (13)
02-5039.**.**	Membership Dues/Fees	8,040	6,479	1,561	80.6%
02-5049.**.**	Biosolids Disposal	600,000	494,633	105,367	82.4%
02-5050.**.**	Contract Services Generators	9,000	11,136	(2,136)	123.7% (14)
02-5052.**.**	Janitorial Services	40,004	35,142	4,862	87.8%
02-5053.**.**	Contract Serv - Digester Cleaning - 29E	60,000	-	60,000	0.0%
02-5054.**.**	Diesel Truck Maint	20,996	13,072	7,924	62.3%
02-5055.**.**	Diesel Truck Fuel	6,000	4,221	1,779	70.3%
02-5056.**.**	Maintenance Equip. & Facilities (Solids)	142,004	207,501	(65,497)	146.1% (15)
02-5057.**.**	Maintenance Equip. & Facilities (Liquids)	246,996	263,603	(16,607)	106.7%
02-5058.**.**	Maintenance Equip. & Facilities (Common)	27,000	39,486	(12,486)	146.2% (16)
02-5059.**.**	Maintenance Equip. & Facilities (Co-Gen)	485,004	270,982	214,022	55.9% (17)
02-5061.**.**	Mileage	2,036	1,214	822	59.6%
02-5076.**.**	SCADA Infrastructure	19,000	306	18,694	1.6%
02-5077.**.**	IT Direct	-	1,153	(1,153)	0.0%
02-5303.**.**	Group Insurance Waiver	3,604	3,592	12	99.7%
02-5305.**.**	Medicare Tax Payments for Employees	3,864	2,793	1,071	72.3%
02-5309.**.**	Operating Leases	25,004	22,202	2,802	88.8%
02-5705.**.**	Monthly Car Allowance	8,416	15,757	(7,341)	187.2%
02-5799-01-00-00	Zephyr Wall Costs Share - O&M	0	(14,142)	14,142	0.0%
02-5802.**.**	Shipping/Freight	-	176	(176)	0.0%
02-6500.**.**	IT Allocations in to PC's & Depts.	211,128	179,318	31,810	84.9%
	Total Other Expenses	3,492,792	3,182,378	310,414	91.1%
	Total Expenses	6,101,688	5,751,822	349,866	94.3%

South Orange County Wastewater Authority
O & M & Environmental Safety Costs by PC
For the Period Ended June 30, 2019

		FY 2018-19 Budget	Actual	(Over)/Under Budget	% Expended
05 - San Juan Creek Ocean Outfall					
Salary and Fringe					
05-5000.**.**	Regular Salaries-O&M	123,972	76,170	47,802	61.4%
05-5001.**.**	Overtime Salaries-O&M	1,116	713	403	63.8%
05-5306.**.**	Scheduled Holiday Work	740	126	614	17.0%
05-5401.**.**	Fringe Benefits IN to PC's & Depts.	89,252	57,526	31,726	64.5%
	Total Payroll Costs	215,080	134,534	80,546	62.6%
Other Expenses					
05-5002.**.**	Electricity	1,004	-	1,004	0.0%
05-5003.**.**	Natural Gas	512	-	512	0.0%
05-5014.**.**	Engineering - Misc.	10,000	1,508.00	8,492	15.1%
05-5015.**.**	Management Support Services	9,404	10,203	(799)	108.5%
05-5017.**.**	Legal Fees	2,000	1,108	892	55.4%
05-5022-02-00-00	Miscellaneous Expense	0	94	(94)	0.0%
05-5026.**.**	Small Vehicle Fuel - 37A	512	-	512	0.0%
05-5027.**.**	Insurance - Property/Liability	5,756	4,837	919	84.0%
05-5031.**.**	Safety Supplies	1,004	-	1,004	0.0%
05-5034.**.**	Travel Expense/Tech. Conferences	4,456	4,902	(446)	110.0%
05-5035.**.**	Training Expense	564	3,000	(2,436)	531.9% (12)
05-5036.**.**	Laboratory Supplies	19,236	19,190	46	99.8%
05-5038.**.**	Permits	155,000	172,815	(17,815)	111.5% (13)
05-5044.**.**	Offshore Monitoring	18,000	17,144	856	95.2%
05-5045.**.**	Offshore Biochemistry - 20B	64,996	-	64,996	0.0%
05-5046.**.**	Effluent Chemistry	14,000	25,690	(11,690)	183.5% (18)
05-5058.**.**	Maintenance Equip. & Facilities (Common)	1,004	586.66	417	58.4%
05-5069.**.**	Misc-Capital-Dilution & Metering Study	7,996	1,500.00	6,496	18.8%
05-5101.**.**	Employee Recognition	1,004	-	1,004	0.0%
05-5305.**.**	Medicare Tax Payments for Employees	2,460	-	2,460	0.0%
05-5705.**.**	Monthly Car Allowance	4,204	-	4,204	0.0%
05-6500.**.**	IT Allocations in to PC's & Depts.	17,772	12,571	5,201	70.7%
	Total Other Expenses	340,884	275,150	65,734	80.7%
	Total Expenses	555,964	409,684	146,280	73.7%
08 - Pre Treatment					
Salary and Fringe					
08-5000.**.**	Regular Salaries-O&M	80,312	82,054	(1,742)	102.2%
08-5001.**.**	Overtime Salaries-O&M	1,380	-	1,380	0.0%
08-5306.**.**	Scheduled Holiday Work	200	-	200	0.0%
08-5315.**.**	Comp Time - Environment	-	3,027	(3,027)	0.0%
08-5401.**.**	Fringe Benefits IN to PC's & Depts.	57,824	57,650	174	99.7%
	Total Payroll Costs	139,716	142,731	(3,015)	102.2%
Other Expenses					
08-5011.**.**	Laboratory Services	3,000	1,100	1,900	36.7% (19)
08-5015.**.**	Management Support Services	4,004	906	3,098	22.6%
08-5016.**.**	Audit - Environmental	500	-	500	0.0%
08-5017.**.**	Legal Fees	2,008	16,206	(14,198)	807.1%
08-5018.**.**	Public Notices/ Public Relations	2,008	178	1,830	8.9%
08-5021.**.**	Small Vehicle Expense - 31A	1,016	12.25	1,004	1.2%
08-5022.**.**	Miscellaneous Expense	1,496	-	1,496	0.0%
08-5026.**.**	Small Vehicle Fuel - 37A	1,196	81.25	1,115	6.8%
08-5027.**.**	Insurance - Property/Liability	2,016	2,050	(34)	101.7%
08-5028.**.**	Small Tools & Supplies	6,648	840	5,808	12.6%
08-5034.**.**	Travel Expense/Tech. Conferences	4,248	2,823	1,425	66.5%
08-5035.**.**	Training Expense	3,872	1,152	2,720	29.7%
08-5038.**.**	Permits and Fines	10,012	-	10,012	0.0%
08-5039.**.**	Membership Dues/Fees	324	430	(106)	132.7%
08-6500.**.**	IT Allocations in to PC's & Depts.	11,516	10,786	730	93.7%
	Total Other Expenses	53,864	36,564	17,300	67.9%
	Total Expenses	193,580	179,295	14,285	92.6%
12 - Water Reclamation Permits					
Salary and Fringe					
12-5000.**.**	Regular Salaries-O&M	30,396	42,893	(12,497)	141.1%
12-5401.**.**	Fringe Benefits IN to PC's & Depts.	21,880	32,394	(10,514)	148.1%
	Total Payroll Costs	52,276	75,287	(23,011)	144.0%
Other Expenses					
12-5015.**.**	Management Support Services	130,516	53,779	76,737	41.2%
12-5017.**.**	Legal Fees	2,004	1,872	132	93.4%
12-5027.**.**	Insurance - Property/Liability	1,000	1,833	(833)	183.3%
12-5034.**.**	Travel Expense/Tech. Conferences	2,240	58	2,182	2.6%
12-5038.**.**	Permits	18,488	16,347	2,141	88.4%
12-6500.**.**	IT Allocations in to PC's & Depts.	4,356	6,069	(1,713)	139.3%
	Total Other Expenses	158,604	79,959	78,645	50.4%
	Total Expenses	210,880	155,246	55,634	73.6%

South Orange County Wastewater Authority
O & M & Environmental Safety Costs by PC
For the Period Ended June 30, 2019

		FY 2018-19 Budget	Actual	(Over)/Under Budget	% Expended
15 - Coastal Treatment Plant					
Salary and Fringe					
15-5000.**.**	Regular Salaries-O&M	897,448	777,137	120,311	86.6%
15-5001.**.**	Overtime Salaries-O&M	21,252	32,497	(11,245)	152.9% (1)
15-5306.**.**	Scheduled Holiday Work	6,548	3,470	3,078	53.0%
15-5315.**.**	Comp Time - O&M	-	868.97	(868.97)	0.0% (1)
15-5401.**.**	Fringe Benefits IN to PC's & Depts.	646,172	586,919	59,253	90.8%
15-5700.**.**	Standby Pay	16,900	6,138	10,762	36.3%
	Total Payroll Costs	1,588,320	1,407,029	181,291	88.6%
Other Expenses					
15-5002.**.**	Electricity	297,000	220,842	76,158	74.4%
15-5003.**.**	Natural Gas	2,996	2,830	166	94.5%
15-5004.**.**	Potable & Reclaimed Water	13,004	26,452	(13,448)	203.4% (4)
15-5006.**.**	Chlorine/Sodium Hypochlorite	100,004	59,277	40,727	59.3%
15-5007.**.**	Polymer Products	2,008	0	2,008	0.0%
15-5008.**.**	Ferric Chloride	30,996	65,924	(34,928)	212.7% (20)
15-5009.**.**	Odor Control Chemicals	85,004	40,365	44,639	47.5%
15-5011.**.**	Laboratory Services	11,500	7,935	3,565	69.0%
15-5012.**.**	Grit Hauling	30,004	21,200	8,804	70.7%
15-5013.**.**	Landscaping	60,008	42,255	17,753	70.4%
15-5014.**.**	Engineering - Misc.	20,000	5,618	14,382	28.1%
15-5015.**.**	Management Support Services	10,000	5,412	4,588	54.1%
15-5017.**.**	Legal Fees	5,000	56,479	(51,479)	1129.6%
15-5019.**.**	Contract Services Misc.	110,000	96,967	13,033	88.2%
15-5021.**.**	Small Vehicle Expense	6,004	12,317	(6,313)	205.1% (7)
15-5022.**.**	Miscellaneous Expense	2,996	4,509	(1,513)	150.5% (21)
15-5023.**.**	Office Supplies - All	4,004	7,936	(3,932)	198.2% (21)
15-5024.**.**	Petroleum Products	2,000	5,304	(3,304)	265.2% (22)
15-5025.**.**	Uniforms	6,004	7,478	(1,474)	124.5% (8)
15-5026.**.**	Small Vehicle Fuel	6,004	1,219	4,785	20.3%
15-5027.**.**	Insurance - Property/Liability	26,436	31,993	(5,557)	121.0%
15-5028.**.**	Small Tools & Supplies	11,000	12,300	(1,300)	111.8% (9)
15-5030.**.**	Trash Disposal	2,996	1,489	1,507	49.7%
15-5031.**.**	Safety Program & Supplies	34,692	32,974	1,718	95.0%
15-5032.**.**	Equipment Rental	1,000	172	828	17.2%
15-5033.**.**	Recruitment	1,000	0	1,000	0.0%
15-5034.**.**	Travel Expense/Tech. Conferences	18,872	6,348	12,524	33.6%
15-5035.**.**	Training Expense	13,652	8,382	5,270	61.4%
15-5036.**.**	Laboratory Supplies	14,496	9,631	4,865	66.4%
15-5037.**.**	Office Equipment	2,000	10,098	(8,098)	504.9% (23)
15-5038.**.**	Permits	22,000	6,045	15,955	27.5%
15-5039.**.**	Membership Dues/Fees	968	1,688	(720)	174.3% (24)
15-5047.**.**	Access Road Expenses	48,000	32,960	15,040	68.7%
15-5048.**.**	Storm Damage	20,008	139,435	(119,427)	696.9% (25)
15-5049.**.**	Biosolids Disposal - 21B	125,004	0	125,004	0.0%
15-5050.**.**	Contract Services Generators	4,004	2,604	1,400	65.0%
15-5052.**.**	Janitorial Services	20,008	11,196	8,812	56.0%
15-5054.**.**	Diesel Truck Maint	1,004	115	889	11.4%
15-5055.**.**	Diesel Truck Fuel - 37B	1,004	72	932	7.2%
15-5057.**.**	Maintenance Equip. & Facilities (Liquids)	175,000	161,448	13,552	92.3%
15-5058.**.**	Maintenance Equip. & Facilities (Common)	21,000	12,031	8,969	57.3%
15-5060.**.**	Maintenance Equip. & Facilities (AWT)	36,000	11,098	24,902	30.8%
15-5061.**.**	Mileage	-	286	(286)	0.0%
15-5076.**.**	SCADA Infrastructure	19,000	0	19,000	0.0%
15-5077.**.**	IT Direct	-	1,063	(1,063)	0.0%
15-5303.**.**	Group Insurance Waiver	3,600	3,592	8	99.8%
15-5305.**.**	Medicare Tax Payments for Employees	2,996	1,912	1,084	63.8%
15-5705.**.**	Monthly Car Allowance	1,368	4,191	(2,823)	306.3%
15-5802.**.**	Shipping/Freight	-	22	(22)	0.0%
15-6500.**.**	IT Allocations in to PC's & Depts.	128,644	109,035	19,609	84.8%
	Total Other Expenses	1,560,288	1,302,498	257,790	83.5%
	Total Expenses	3,148,608	2,709,527	439,081	86.1%

**South Orange County Wastewater Authority
O & M & Environmental Safety Costs by PC**
For the Period Ended June 30, 2019

		FY 2018-19 Budget	Actual	(Over)/Under Budget	% Expended
17 - Joint Regional Wastewater Reclamation and Sludge Handling					
Salary and Fringe					
17-5000-**-***	Regular Salaries-O&M	1,776,684	1,659,824	116,860	93.4%
17-5001-**-***	Overtime Salaries-O&M	57,712	86,465	(28,753)	149.8% (1)
17-5306-**-***	Scheduled Holiday Work	27,320	11,467	15,853	42.0%
17-5315-**-***	Comp Time - O&M	1,076	5,379.35	(4,303)	499.9% (1)
17-5401-**-***	Fringe Benefits IN to PC's & Depts.	1,279,200	1,253,553	25,647	98.0%
17-5700-**-***	Standby Pay	25,344	33,563	(8,219)	132.4%
	Total Payroll Costs	3,167,336	3,050,253	117,083	96.3%
Other Expenses					
17-5002-**-***	Electricity	381,988	590,624	(208,636)	154.6% (2)
17-5003-**-***	Natural Gas	25,000	107,049	(82,049)	428.2% (3)
17-5004-**-***	Potable & Reclaimed Water	36,000	25,967	10,034	72.1%
17-5005-**-***	Co-generation Power Credit	(250,012)	(423,049)	173,037	169.2% (26)
17-5006-**-***	Chlorine/Sodium Hypochlorite	361,008	479,944	(118,936)	132.9% (27)
17-5007-**-***	Polymer Products	406,012	340,149	65,863	83.8%
17-5008-**-***	Ferric Chloride	129,000	162,463	(33,463)	125.9% (5)
17-5009-**-***	Odor Control Chemicals	50,000	44,513	5,487	89.0%
17-5010-**-***	Other Chemicals - Misc.	4,000	-	4,000	0.0%
17-5011-**-***	Laboratory Services	16,504	12,959	3,545	78.5%
17-5012-**-***	Grit Hauling - 21A	54,000	44,413	9,587	82.2%
17-5013-**-***	Landscaping	74,996	76,205	(1,209)	101.6%
17-5014-**-***	Engineering - Misc.	32,500	6,433	26,067	19.8%
17-5015-**-***	Management Support Services	123,500	16,561.55	106,938	13.4%
17-5017-**-***	Legal Fees	5,008	6,320	(1,312)	126.2%
17-5019-**-***	Contract Services Misc.	150,008	120,626	29,382	80.4%
17-5021-**-***	Small Vehicle Expense	6,000	8,458	(2,458)	141.0% (7)
17-5022-**-***	Miscellaneous Expense	5,996	13,842	(7,846)	230.9%
17-5023-**-***	Office Supplies - All	7,000	10,810	(3,810)	154.4% (28)
17-5024-**-***	Petroleum Products	41,988	11,796	30,192	28.1%
17-5025-**-***	Uniforms	18,008	22,485	(4,477)	124.9% (8)
17-5026-**-***	Small Vehicle Fuel	12,988	7,016	5,972	54.0%
17-5027-**-***	Insurance - Property/Liability	78,860	90,040	(11,180)	114.2%
17-5028-**-***	Small Tools & Supplies	28,012	35,327	(7,315)	126.1% (9)
17-5030-**-***	Trash Disposal	1,996	1,392	604	69.7%
17-5031-**-***	Safety Program & Supplies	35,000	40,806	(5,806)	116.6% (10)
17-5032-**-***	Equipment Rental	3,008	-	3,008	0.0%
17-5033-**-***	Recruitment	1,000	642	358	64.2%
17-5034-**-***	Travel Expense/Tech. Conferences	18,880	12,659	6,221	67.0%
17-5035-**-***	Training Expense	18,584	29,957	(11,373)	161.2% (12)
17-5036-**-***	Laboratory Supplies	22,740	19,660	3,080	86.5%
17-5037-**-***	Office Equipment	9,996	21,681	(11,685)	216.9% (23)
17-5038-**-***	Permits	40,016	21,252	18,764	53.1%
17-5039-**-***	Membership Dues/Fees	2,588	5,175	(2,587)	200.0% (24)
17-5049-**-***	Biosolids Disposal	914,004	886,442	27,562	97.0%
17-5050-**-***	Contract Services Generators	8,000	4,865	3,135	60.8%
17-5052-**-***	Janitorial Services	40,012	26,501	13,511	66.2%
17-5054-**-***	Diesel Truck Maint	19,004	24,035	(5,031)	126.5% (29)
17-5055-**-***	Diesel Truck Fuel	7,000	6,093	907	87.0%
17-5056-**-***	Maintenance Equip. & Facilities (Solids)	195,996	206,523	(10,527)	105.4%
17-5057-**-***	Maintenance Equip. & Facilities (Liquids)	170,000	217,926	(47,926)	128.2% (30)
17-5058-**-***	Maintenance Equip. & Facilities (Common)	26,000	35,826	(9,826)	137.8% (31)
17-5059-**-***	Maintenance Equip. & Facilities (Co-Gen)	650,012	441,121	208,891	67.9% (32)
17-5060-**-***	Maintenance Equip. & Facilities (AWT)	36,000	47,536	(11,536)	132.0% (33)
17-5061-**-***	Mileage	-	832	(832)	0.0%
17-5068-**-***	MNWD Potable Water Supplies & Svcs.	24,484	41,172	(16,688)	168.2% (35)
17-5076-**-***	SCADA Infrastructure	19,000	-	19,000	0.0%
17-5105-**-***	Co-Generation Power Credit - Offset	249,972	423,049	(173,077)	169.2% (26)
17-5303-**-***	Group Insurance Waiver	3,620	7,184	(3,564)	198.5%
17-5305-**-***	Medicare Tax Payments for Employees	132	39	93	29.2%
17-5309-**-***	Operating Leases	6,000	-	6,000	0.0%
17-5705-**-***	Monthly Car Allowance	11,388	8,543	2,845	75.0%
17-5706-**-***	Effluent Pond Cleaning	90,000	-	90,000	0.0%
17-5802-**-***	Shipping/Freight	-	296	(296)	0.0%
17-6500-**-***	IT Allocations in to PC's & Depts.	254,744	232,735	22,009	91.4%
	Total Other Expenses	4,677,540	4,574,890	102,650	97.8%
Total Expenses		7,844,876	7,625,143	219,733	97.2%

South Orange County Wastewater Authority
O & M & Environmental Safety Costs by PC
For the Period Ended June 30, 2019

		FY 2018-19 Budget	Actual	(Over)/Under Budget	% Expended
21 - Effluent Transmission Main					
Salary and Fringe					
21-5000-**-***	Regular Salaries-O&M	500	356	144	71.2%
21-5401-**-***	Fringe Benefits IN to PC's & Depts.	360	269	91	74.7%
	Total Payroll Costs	860	625	235	72.6%
Other Expenses					
21-5014-**-***	Engineering - Misc.	62,496	1,852	60,644	3.0%
21-5015-**-***	Management Support Services	2,500	-	2,500	0.0%
21-5019-**-***	Contract Services Misc. - 29	-	937	(937)	0.0%
21-5027-**-***	Insurance - Property/Liability	-	40.78	(40.78)	0.0%
	Total Other Expenses	64,996	2,829	62,167	4.4%
	Total Expenses	65,856	3,454	62,402	5.2%
23 - North Coast Interceptor					
Other Expenses					
23-5017-**-***	Legal Fees	-	10,743	(10,743)	0.0%
23-5027-**-***	Insurance - Property/Liability	-	128	(128)	0.0%
	Total Other Expenses	-	10,871	(10,871)	0.0%
	Total Expenses	-	10,871	(10,871)	0.0%
24 - Aliso Creek Ocean Outfall					
Salary and Fringe					
24-5000-**-***	Regular Salaries-O&M	128,156	76,205	51,951	59.5%
24-5001-**-***	Overtime Salaries-O&M	668	1,312	(644)	196.3% (1)
24-5306-**-***	Scheduled Holiday Work	320	78	242	24.5%
24-5401-**-***	Fringe Benefits IN to PC's & Depts.	92,296	57,553	34,743	62.4%
	Total Payroll Costs	221,440	135,148	86,292	61.0%
Other Expenses					
24-5002-**-***	Electricity	1,000	-	1,000	0.0%
24-5014-**-***	Engineering - Misc.	20,004	-	20,004	0.0%
24-5015-**-***	Management Support Services	25,008	8,020	16,988	32.1%
24-5017-**-***	Legal Fees	2,008	474	1,534	23.6%
24-5027-**-***	Insurance - Property/Liability	5,600	4,740	861	84.6%
24-5031-**-***	Safety Supplies	996	-	996	0.0%
24-5034-**-***	Travel Expense/Tech. Conferences	4,496	4,416	80	98.2%
24-5035-**-***	Training Expense	520	3,000.00	(2,480)	576.9% (12)
24-5036-**-***	Laboratory Supplies	19,560	20,889	(1,329)	106.8%
24-5038-**-***	Permits	148,004	165,126	(17,122)	111.6% (13)
24-5044-**-***	Offshore Monitoring	18,000	17,144	856	95.2%
24-5045-**-***	Offshore Biochemistry - 20B	45,004	-	45,004	0.0%
24-5046-**-***	Effluent Chemistry	14,004	28,905	(14,901)	206.4% (18)
24-5058-**-***	Maintenance Equip. & Facilities (Common) 41	1,000	2,118	(1,118)	211.8% (34)
24-5067-**-***	Port Cleaning	35,000	-	35,000	0.0%
24-5802-**-***	Shipping/Freight	200	-	200	0.0%
24-6500-**-***	IT Allocations in to PC's & Depts.	18,288	11,412	6,876	62.4%
	Total Other Expenses	358,692	266,244	92,448	74.2%
	Total Expenses	580,132	401,392	178,740	69.2%
	Total O&M	18,701,584	17,246,435	1,455,149	92.2%

South Orange County Wastewater Authority
O & M & Environmental Safety Costs by PC
 For the Period Ended June 30, 2019

- (1) Elevated overtime costs were associated with several ongoing construction projects, staff vacancies, several large Fall/Winter storm events, larger repair projects at the plants, and PC15 litigation.

The JBL emissions controls system required several upgrades, which required shutdowns that resulted in additional purchases of electricity and power transmission costs. O&M is working with Engineering to resolve outstanding equipment compliance issues. Electricity costs at RTP have been elevated due to delays in completing the new Engine project and emissions controls system testing and studies.
- (2) The plants continued to see decreases in wastewater flows and loads leading to less digester gas for the new engines and increased natural gas usage.
- (3) Water use is higher than planned to meet a new recommendation for odor scrubber operations to reduce equipment fouling.
- (4) Ferric Chloride usage was elevated above the budget that was based on engineering estimates for usage to maintain compliance with AQMD permits for the new engines. Budgets will be increased in FY19/20.
- (5) Several large trees were removed that were in danger of falling onto the adjacent properties; expenses are planned to level off.
- (6) New vehicles were outfitted with gear to allow maintenance staff to work remotely between the 3 sites.
- (7) Uniform expenses are elevated due to new employee change outs and required PPE has been added to employee inventories.
- (8) Small tools spending was elevated due to purchases to outfit new employees.
- (9) Additional personnel gas monitoring equipment was required to mitigate work area restrictions in newly identified classified areas with fixed gas detection equipment. The newly identified areas were discovered during a O&M staff lead audit of existing confined and classified areas.
- (10) Travel expenses for training have been elevated due to the large number of newer employees in O&M.
- (11) Training expenses have been elevated due to the large number of newer employees in O&M.
- (12) SOCWA permits are primarily paid in July and November each year; the RWQCB increased its fees higher than anticipated. The increase was due to a shortfall in State funding for their permitting programs.
- (13) Standby Generator maintenance was completed for the Fiscal Year in July.
- (14) Solids expenses included the planned major overhaul of Centrifuge #2 in July that were more extensive than expected.
- (15) Common expenses included several large repairs in anticipation of winter weather and several extensive HVAC repairs with the first heat.
- (16) JBL Cogen costs were below the estimated budget due to better than expected gas cleaning media run time.
- (17) Additional toxicity testing due to NPDES permitting accelerated monitoring at Aliso Creek Ocean Outfall.
- (18) These are pass through costs that will be billed to private companies directly and reversed during the year.
- (19) Ferric Chloride usage is elevated due to higher than normal hydrogen sulfides in the sewer systems discharging to CTP.

Staff at CTP completed a project to clean up and organize the historical documents stored at CTP following the replacement of the flooring. Additional funds were used to purchase shelving and other supplies not anticipated at the beginning of the fiscal year to complete the project.
- (20) Staff at CTP completed a project to clean up and organize the historical documents stored at CTP following the replacement of the flooring. Additional funds were used to purchase shelving and other supplies not anticipated at the beginning of the fiscal year to complete the project.

South Orange County Wastewater Authority
O & M & Environmental Safety Costs by PC
For the Period Ended June 30, 2019

- (22) Elevated use of generator fuel at CTP was due to power company work in the area.
- (23) A large number equipment items were removed and replaced based on an ergonomic assessment of office equipment and workstations.
- (24) More staff than was anticipated joined CWEA and WEF.
- (25) The FY16-17 storm damage repair was completed and was determined to be a maintenance expense. SOCWA received FEMA funds of \$136,995 during FY 2017-18 which were already refunded to Member Agencies.
- (26) The credit for power generated at RTP is higher than projected due to the increased value of the electricity. The value is calculated each month based on SCE rates and has doubled since 2016.
- (27) Bleach usage has been elevated in the first quarter due to elevated recycled water use and decreased flows to the plant causing partial nitrification that consumes elevated levels of bleach in the disinfection process. O&M staff
- (28) Office supply costs were elevated due to the large number of new employees being outfitted.
- (29) An axle on the semitruck broke at the landfill and the undercarriage of the two trailers required overhauling, both were unplanned.
- (30) Liquids expenses included several large repairs in anticipation of the FY18/19 winter weather.
- (31) Several HVAC units failed with the first heat of the summer and required extensive repairs. Units that could not be repaired were replaced under the small capital budget.
- (32) Engine maintenance costs were lower than projected due to delays in receiving the engine from the construction contractor. The engine has also had significant downtime for startup and troubleshooting.
- (33) Staff has repaired more equipment than anticipated this FY due to the elevated levels of recycling.
- (34) The Aliso Creek Ocean Outfall sampling station has failed and is in the process of being assessed for potential replacement.
- (35) Credit from vendor due to duplicate order has not been received. Expected credit is approximately \$9,000. Additional exceedance due to required quality control testing.

South Orange County Wastewater Authority
Budget vs. Actual Comparison - Residual Engineering, after transfer to Capital
 For the Period Ended June 30, 2019

		FY 2018-19 Budget	Actual	(Over)/Under Budget	% Expended
Salary and Fringe					
_5000--**-00	Regular Salaries-O&M	199,834	208,085	(8,251)	104.1%
01-5401-03-00-00	Fringe Benefits IN to PC's & Depts.	143,880	157,152	(13,272)	109.2%
	Total Payroll Costs	343,714	365,237	(21,523)	106.3%
Other Expenses					
01-5015-03-00-00	Management Support Services	7,500	-	7,500	0.0%
01-5022-03-00-00	Miscellaneous Expense	3,060	74	2,986	2.4%
01-5023-03-00-00	Office Supplies - All	200	192	8	95.8%
01-5031-03-00-00	Safety Supplies	-	145	(145)	0.0%
01-5033-03-00-00	Recruitment	-	14,000	(14,000)	0.0%
01-5034-03-00-00	Travel Expense/Tech. Conferences	6,659	12,763	(6,104)	191.7%
01-5035-03-00-00	Training Expense	4,000	897	3,103	22.4%
01-5037-03-00-00	Office Equipment	5,000	1,890	3,111	37.8%
01-5039-03-00-00	Membership Dues/Fees	2,025	996	1,029	49.2%
01-5061-03-00-00	Mileage	300	389	(89)	129.7%
01-5309-03-00-00	Operating Leases	20,637	6,174	14,463	29.9%
01-5705-03-00-00	Monthly Car Allowance	4,200	4,191	9	0.0%
01-5802-03-00-00	Shipping/Freight	300	26	274	8.6%
01-6500-03-00-00	IT Allocations in to PC's & Depts.	59,860	50,202	9,658	83.9%
	Total Other Expenses	113,741	91,938	21,803	80.8%
Total Expenses		457,455	457,175	280	99.9%

The costs in this department will vary based on the amount of work required to support Capital Projects vs. Non-Capital Projects.

**South Orange County Wastewater Authority
Budget vs. Actual Comparison - Administration**

For the Period Ended June 30, 2019

		FY 2018-19 Budget	*Board Approved Expenditure not in Budget	Adjusted Budget	Actual	(Over)/Under Budget	% Expended
Salary and Fringe							
01-6000-04-00-00	Regular Salaries-Admin or IT	985,352		985,352	896,766	88,586	91.0%
01-6001-04-00-00	Overtime Salaries-Admin or IT	12,000		12,000	12,171	(171)	101.4%
01-6315-04-00-00	Comp Time - Admin	10,000		10,000	10,014	(14)	100.1%
01-6401-04-00-00	Fringe Benefits IN to ADMIN or IT	709,453		709,453	677,267	32,186	95.5%
	Total Payroll Costs	1,716,805	-	1,716,805	1,596,217	120,588	93.0%
Other Expenses							
01-5018-04-00-00	Public Notices/ Public Relations	1,400		1,400	-	1,400	0.0%
01-6101-04-00-00	HR Recruitment & Employee Relations	21,200		21,200	19,836	1,364	93.6%
01-6102-04-00-00	Subscriptions	3,243		3,243	2,977	266	91.8%
01-6200-04-00-00	Management Support Services	112,500	92,391	204,891	213,329	(8,438)	104.1% (1)
01-6201-04-00-00	Audit	40,000		40,000	20,000	20,000	50.0%
01-6202-04-00-00	Legal	250,000		250,000	257,966	(7,966)	103.2% (2)
01-6204-04-00-00	Postage	2,319		2,319	1,751	568	75.5%
01-6223-04-00-00	Office Supplies - Admin	8,471		8,471	4,698	3,773	55.5%
01-6224-04-00-00	Office Equipment Admin or IT	8,000		8,000	476	7,524	5.9%
01-6234-04-00-00	Memberships & Trainings	89,520		89,520	70,166	19,354	78.4%
01-6239-04-00-00	Travel & Conference	20,800		20,800	24,189	(3,389)	116.3%
01-6240-04-00-00	Scholarship Sponsorship	1,000		1,000	-	1,000	0.0%
01-6241-04-00-00	Education Reimbursement	-		-	4,500	(4,500)	0.0%
01-6310-04-00-00	Miscellaneous	20,000		20,000	24,830	(4,830)	124.1%
01-6311-04-00-00	Mileage	1,000		1,000	897	104	89.6%
01-6317-04-00-00	Contract Services Misc	4,936		4,936	4,922	15	99.7%
01-6500-04-00-00	IT Allocations in to PC's & Depts.	141,240		141,240	95,635	45,605	67.7%
01-6601-04-00-00	Shipping/Freight	1,500		1,500	5,819	(4,319)	387.9%
01-6705-04-00-00	Monthly Car Allowance	12,000		12,000	11,974	26	99.8%
	Total Other Expenses	739,130	92,391	831,521	763,965	67,557	91.9%
	Total Expenses	2,455,935	92,391	2,548,326	2,360,182	188,145	92.6%

* Additional Budget disclosed during Finance Committee meeting 2/19

(1) Costs include Carollo Engineering utility cost allocation study, \$52,529, and Actuaries costs for the Long Term Liabilities Methodologies Study, \$40,453. These Board Approved Projects were not included in the Administration Budget. The Board approved a Budget increase of \$92,391 on March 7, 2019 to cover these costs

(2) Procopio Firm is anticipated to be over legal budget due to start-up work and project to evaluate changes to JPA Agreement this FY.

**South Orange County Wastewater Authority
Budget vs. Actual Comparison-IT
For the Fiscal Year Ended June 30, 2019**

		FY 2018-19 Budget	FY 2018-19 Actual	(Over)/Under Budget	% Expended
Salary & Fringe					
01-6000-05-00-00	Regular Salaries-Admin or IT	93,378	85,028	8,350	91.1%
01-6001-05-00-00	Overtime Salaries-Admin or IT	3,082	1,500	1,582	48.7%
01-6315-05-00-00	Comp Time - IT	2,332	3,529	(1,197)	
01-6401-05-00-00	Fringe Benefits IN to ADMIN or IT	67,232	64,216	3,016	95.5%
	Total Salary & Fringe	166,024	154,274	11,750	92.9%
Other Expenses					
01-5028-05-00-00	Small Tools & Supplies	1,000	-	1,000	0.0%
01-5035-05-00-00	Training Expense	12,000	340	11,660	2.8%
01-5037-05-00-00	Office Equipment	400	-	400	0.0%
01-5061-05-00-00	Mileage	-	778	(778)	
01-6200-05-00-00	Management Support Services	64,500	8,663	55,837	
01-6234-05-00-00	Memberships & Trainings	2,750	96	2,654	
01-6239-05-00-00	Travel & Conference	4,210	-	4,210	0.0%
01-6300-05-00-00	Software Maintenance Agreements	98,893	75,792	23,101	76.6%
01-6301-05-00-00	Hardware Maintenance Agreements	11,657	7,851	3,806	67.3%
01-6302-05-00-00	Cloud Subscriptions (Internet)	45,800	87,528	(41,728)	191.1% (1)
01-6303-05-00-00	Telecommunications	129,940	143,411	(13,471)	110.4% (2)
01-6305-05-00-00	IT Professional Services	157,000	83,433	73,567	53.1%
01-6306-05-00-00	Small Hardware Purchases (< \$5k)	46,800	65,435	(18,635)	139.8% (3)
01-6307-05-00-00	Small Software Purchases & Licenses (<\$5k)	43,735	28,313	15,423	64.7%
01-6308-05-00-00	IT Memberships	160	194	(34)	121.3%
01-6309-05-00-00	Operating Leases	55,200	48,727	6,473	88.3%
01-6310-05-00-00	Miscellaneous	5,000	329	4,671	6.6%
01-6312-05-00-00	Computer & Photocopy Supplies	2,275	2,598	(323)	114.2%
01-6601-05-00-00	Shipping/Freight	276	-	276	0.0%
	Total Other Expenses	681,596	553,489	128,108	81.2%
	Total Expenses before Allocation	847,620	707,763	139,858	83.5%
	IT Allocations (Out) to PC's & Depts				
01-6400-05-00-00	IT Allocations (OUT) to PC's & Depts.	(847,620)	(707,763)	139,858	83.5%
		(847,620)	(707,763)	139,858	83.5%
		(847,620)	(707,763)	139,858	83.5%

(1) Allocation of software maintenance agreements to cloud subscriptions.
 (2) Deployment of cellular services for operations staff for emergency communication preparedness exceeded budgeted amount.
 (3) Device purchase exceedance for cellular phones for operations staff for emergency communication preparedness.

Agenda Item

Meeting Date: October 3, 2019

TO: Board of Directors
FROM: Betty Burnett, General Manager
STAFF CONTACT: Jim Burror, Director of Operations
SUBJECT: August 2019 Operations Report

Summary/Discussion

The following selected operational reports are provided monthly to the Board of Directors. The operational reports included are as follows:

1) Monthly Operational Report

An eight (8) page overview and comparison of owner use of facilities, including influent and recycled water production. The pages include ongoing calculation used by SOCWA for billing the agencies. Other items include important statistics for regulatory compliance, visits by the public to the treatment works, and other vendor interactions. The information is broken down by facility and by member agency.

2) SOCWA Ocean Outfall Discharges by Agency

This data shows how much water is being discharged to the ocean each month and for the last 12 months. This data is presented for the agencies planning reuse projects to better understand the potential to expand water reuse in their service area.

3) Beach Ocean Monitoring Report

4) Recycled Water Report

5) Pretreatment Report

Fiscal impact

No change.

Recommendation

Receive and file the Operational Reports.

Monthly Operational Report

SOCWA Operational Report August, 2019

Excursion, Complaint, and Violation Event

Events	CTP	RTP	JBL	Totals
Odor	0	0	0	0
Noise	0	0	1(1)	1
Spills	0	0	0	0
Violations	0	0	0	0
Others	0	0	0	0

(1) Construction contractor truck arrived before 7 A.M.

Plant Wastewater Billing Characteristics

Key Parameters	CTP	RTP	JBL TP1	JBL TP2	Totals
Influent (mgd) (1)	2.42	7.40	4.99	0.90	15.70
Effluent (mgd)	1.75	0.87	4.99	1.76	9.37
Peak Flow (mgd)	8.12	19.83	12.30	5.29	45.54
Influent BOD (mg/l)	326	216	233	249	
Influent TSS (mg/l)	407	337	556	404	
Effluent BOD (mg/l)	5.4	2.7	4.7	4.1	
Effluent TSS (mg/l)	6.4	5.4	6.8	5.9	
Effluent Turbidity (NTU)	2.1	2.6	2.3	1.9	

(1) CTP Influent value does not include AWT backwash in this table.

Recycled Water (AWT) Operations

Key Parameters	CTP	RTP	JBL	Totals
Average Flow (mgd)	1.50	6.53		8.03
Days of Operation (days)	31	31		
Total Flow (million gallons)	46.6	202.3		248.9
Plant Irrigation (million gallons)	0.00	0.00	0.33	
AWT Time Online (%)	99.4	100.0		

Wastewater Unit Definitions

mgd = million gallons per day

mg/l = milligram per liter also known as parts per million

NTU = Nephelometric Turbidity Units

SOCWA Operational Report August, 2019 (cont'd)

Biosolids Management

Biosolids Management Site	CTP	RTP	JBL	Totals
Synagro Compost (tons)		789.3	0.0	789.3
Nursery Products (tons)		282.0	549.3	831.3
Prima Deshecha (tons)		206.0	252.0	458.0
Other: (tons)		0.0	0.0	0.0
Total Processed (tons)		1,277.3	801.3	2,078.6

Summary of Maintenance Activities

Task Type	CTP	RTP	JBL	Totals
Preventative Maintenance	245	557	513	1,315
Corrective Maintenance	48	37	59	144

Site Visitors

Visitor Types	CTP	RTP	JBL	Totals
Regulatory	0	0	1	1
Member Agency	0	2	7	9
Residents	0	0	0	0
Others	27	0	75	102
Tours #/Visitors	1	30	0	31

Grit Disposal Management

Grit & Screenings	CTP	RTP	JBL	Totals
Simi Valley Landfill (tons)	12.1	36.9	NA	49.0

Chemical and Energy Utilization

Chemical/Utility	CTP	RTP	JBL	Totals
Ferric Chloride (tons)	NA	NA	NA	0.0
Utility Power Purchase (kWh)	207,757	380,511	143,275	351,032
Cogen Power (kWh)		214,493	399,160	613,653
Natural Gas (Dth)	NA	1,062	1,370	2,432
Digester Gas to Engine (scfm)		2,891,045	6,236,827	9,127,872
Digester Gas to Boiler (scfm)		0		
Digester Gas to Flares (scfm)		7,138,069	1,259,456	8,397,525
Digester Gas Power Savings		\$29,081		

(1) The bills to calculate these values are received after this report is prepared for the Board meeting, but will be available upon request at the Board meeting.

NA = Not Available at the time this report was generated.

Wastewater Unit Definitions

kWh = kilowatt hours

Dth = Dekatherms

scfm = standard cubic feet per minute

SOCWA Operational Report August, 2019 (cont'd)

Agency Wastewater Flows to SOCWA by Facility (Including Internal Waste Streams Used for Billing)

Agency	CTP (mgd)	CTP (%)	RTP (mgd)	JBL (mgd)	JBL (%)	Total (mgd)
CLB	1.738	68.01%				1.74
EBSB	0.046	1.80%				0.05
SCWD	0.772	30.19%		1.595	27.09%	2.37
MNWD	0.000	0.00%	7.40	1.400	23.78%	8.80
CSJC				2.041	34.67%	2.04
SMWD				0.851	14.45%	0.85
Total	2.556	100.00%	7.40	5.886	100.00%	15.84

Total Agency Outfall Flows by Outfall System-Billing Flows

Agency	SJCOO (mgd)	SJCOO (%)	SJCOO Meter (mgd)	ACOO (mgd)	ACOO (%)	Total (mgd)	Notes
CLB				1.74	33.27%	1.74	
EBSB				0.05	0.88%	0.05	
SCWD	1.78	18.56%		-0.13	-2.47%	1.65	Includes Desalters
MNWD	1.74	18.11%		0.87	16.64%	2.61	
ETWD				1.41	27.06%	1.41	Direct Outfall Only
CSJC	2.50	26.08%				2.50	Includes Desalter
SMWD	1.13	11.77%				1.13	Includes Chiquita
CSC	2.44	25.49%				2.44	Direct Outfall Only
IRWD				1.29	24.61%	1.29	Direct Outfall Only
Total	9.59	100.00%	11.57	5.22	100.00%	14.81	

SOCWA Operational Report August, 2019 (cont'd)

FY Flow/Solids Summary-Billing

Project Committee No. 2 Liquids (JBL)

Agency	Own (mgd)	Own (%)	Budget (mgd)	Budget (%)	Month (mgd)(1)	Month (%)	FY Avg to Date (mgd)	FY Avg to Date (%)
CSJC	4.00	30.77%	2.12	31.98%	2.041	34.67%	2.09	34.56%
MNWD	3.00	23.08%	1.40	21.12%	1.400	23.78%	1.40	23.13%
SCWD	3.75	28.85%	1.70	25.64%	1.595	27.09%	1.62	26.83%
SMWD	2.25	17.31%	1.41	21.27%	0.851	14.45%	0.94	15.47%
Total	13.00	100.00%	6.63	100.00%	5.886	100.00%	6.05	100.00%

Project Committee No. 2 Solids (JBL)

Agency	Own (lbs/d)	Own (%)	Budget (lbs/d)	Budget (%)	Month (lbs/d)	Month (%)	36 Month Rol. Avg. (lbs/d) (2)	36 Month Rol. Avg. (%)
CSJC	11,572	30.00%	5,767	24.54%	5,772	28.86%	5,938	29.08%
MNWD	8,340	21.62%	4,396	18.70%	5,756	28.79%	5,542	27.14%
SCWD	7,715	20.00%	5,391	22.94%	4,971	24.86%	5,167	25.30%
SMWD	10,946	28.38%	7,949	33.82%	3,498	17.49%	3,775	18.49%
Total	38,573	100.00%	23,503	100.00%	19,997	100.00%	20,422	100.00%

Project Committee No. 5 - Effluent Pumping Station (SJCOO EPS)

Agency	Own (%)	Variable Budget (mgd)	Variable Budget (%)	Month Outfall Flow (mgd)	Month Outfall Flow (%)	Month EPS Outfall Flow (mgd)	Month EPS Outfall Flow (%)
CSC	16.62%	2.531	21.57%	2.44	25.49%		
CSJC	11.08%	2.348	20.01%	2.50	26.08%	2.04	34.67%
MNWD(3)	15.51%	2.013	17.16%	1.74	18.11%	1.40	23.78%
SCWD	12.47%	1.740	14.83%	1.78	18.56%	1.59	27.09%
SMWD	44.32%	3.101	26.43%	1.13	11.77%	0.85	14.45%
Total	100.00%	11.733	3.10%	9.59	100.00%	5.89	100.00%

(1) Influent billing meter summary:

- a. CSJC is metered daily in the collection system. The area-velocity meter has an accuracy of +/- 20%.
- b. MNWD is assumed to be 1.4 mgd unless Treatment Plant 3A is discharging to the sewer. If other discharges occur, they are estimated.
- c. SCWD flows are the summation of the DPSD and Victoria PS meters. The two metering systems have an accuracy of +/- 10%.
- d. The Oso Trabuco sewer is metered daily in the collection system. The flows from MNWD are subtracted from the metering data collected to determine SMWD's flows. The metering system in the collection system has an accuracy of +/- 20%.

(2) The 36-month average is the average of the past 36 months. The Use Audit is based on the last 3 Fiscal Years versus the average of the past 36 months.

(3) All monthly flow data for 3A is reported as part of MNWD's flow to the ocean outfall.

SOCWA Operational Report August, 2019 (cont'd)

FY Flow/Solids Summary-Billing (cont'd)

Project Committee No. 5 - Outfall (SJCOO)

Agency	FY Avg Outfall Flow (mgd)	FY Avg Outfall Flow (%)	FY Avg EPS Outfall Flow (mgd)	FY Avg EPS Outfall Flow (%)
CSC	2.308	23.69%		
CSJC	2.551	26.19%	2.09	34.56%
MNWD	1.860	19.10%	1.40	23.13%
SCWD	1.811	18.59%	1.62	26.83%
SMWD	1.211	12.43%	0.94	15.47%
Total	9.742	100.00%	6.05	100.00%

Project Committee No. 15 (CTP)

Agency	Own (mgd)	Own (%)	Budget (mgd)	Budget (%)	Month (mgd)	Month (%)	FY Avg to Date (mgd)	FY Avg to Date (%)
CLB	2.54	37.91%	1.770	59.00%	1.738	68.01%	1.769	65.33%
EBS	0.20	2.99%	0.050	1.67%	0.046	1.80%	0.050	1.83%
SCWD	2.00	29.85%	1.180	39.33%	0.772	30.19%	0.890	32.84%
MNWD	1.96	29.25%	0.000	0.00%	0.000	0.00%	0.000	0.00%
Total	6.70	100.00%	3.000	100.00%	2.556	100.00%	2.709	100.00%

Project Committee No. 17 Liquids (RTP)

Agency	Budget Liquids (mgd)	Budget Liquids (%)	Month Plant Influent (mgd)	Month Centrate (mgd)	Month Total (mgd)(1)	Month Total (%)	FY Avg to Date (mgd)	FY Avg to Date (%)
CLB	0.01220	0.157%	0.0000	0.0126	0.0126	0.17%	0.0131	0.18%
EBS	0.00040	0.005%	0.0000	0.0003	0.0003	0.00%	0.0004	0.01%
SCWD	0.00810	0.104%	0.0000	0.0056	0.0056	0.07%	0.0066	0.09%
ETWD	0.01410	0.181%	0.0000	0.0149	0.0149	0.20%	0.0150	0.20%
MNWD	7.75000	99.553%	7.3955	0.0611	7.4565	99.55%	7.2976	99.52%
Total	7.78480	100.000%	7.3955	0.0944	7.4899	100.00%	7.3327	100.00%

(1) Month total does not double count MNWD centrate. It is included in the Monthly Plant Influent too.

SOCWA Operational Report August, 2019 (cont'd)

FY Flow/Solids Summary (cont'd)

Project Committee No. 17 Solids (RTP)

Agency	Own (lbs/d)	Own (%)	Budget (lbs/d)	Budget (%)	Total Month (lbs)	Total Month (%)	FY Avg Total to Date (lbs)	FY Avg Total to Date (%)
CLB	5,605	11.22%	5,133	12.48%	142,497	13.30%	153,314	14.05%
EBSD	295	0.59%	158	0.38%	3,770	0.35%	4,306	0.39%
SCWD	4,480	8.96%	3,546	8.62%	63,269	5.90%	77,546	7.11%
ETWD	10,200	20.41%	5,755	13.99%	169,165	15.79%	174,376	15.98%
MNWD	29,395	58.82%	26,532	64.52%	692,883	64.66%	681,513	62.46%
Total	49,975	100.00%	41,124	100.00%	1,071,584	100.00%	1,091,054	100.00%

Project Committee No. 24 (ACOO)

Agency	Own (%)	Budget (mgd)	Budget (%)	Month Outfall Flow (mgd)	Month Outfall Flow (%)	FY Avg Outfall Flow (mgd)	FY Avg Outfall Flow (%)
CLB	11.000%	1.89	17.73%	1.738	33.27%	1.769	32.99%
EBSD	0.780%	0.05	0.47%	0.046	0.88%	0.050	0.92%
ETWD	16.302%	2.46	23.08%	1.414	27.06%	1.486	27.70%
IRWD	15.760%	2.48	23.26%	1.286	24.61%	1.299	24.23%
MNWD	43.848%	3.08	28.89%	0.869	16.64%	0.838	15.62%
SCWD	12.310%	0.70	6.57%	-0.129	-2.47%	-0.078	-1.46%
Total	100.000%	10.66	100.00%	5.225	0.00%	5.363	100.00%

SOCWA Operational Report August, 2019 (cont'd)

Select Critical Equipment Repairs

JBL - PC2

Replaced failed Centrifuge Feed Pump #2.
Replumbed and replaced failed 9-side Water Softener.
Replaced failed Backflow Preventer on 9-side Scrubber.
Replaced failing piping in the Process Water System.
Replaced leaking Suction Reducer on Grit Pump #1.
Completed Lab relocation to 4-side Blower Building.
Commenced rust removal on the Aerzen Blower Filter Housing.
Removed RSP #3 for 5-year overhaul.
Replaced failed bearings on spare DAFT Drive Motor.
Troubleshoot Aeration #2 Sump Pump.
Repaired Truck Bay #2 Door.
Repaired bleach and caustic piping leaks on the Solids Scrubber.
Annual cleaning of the fuel in the Diesel Storage Tank.
Overhauled Boiler #1.
Removed pipe supports for Aerzen Blower #6 piping for needed servicing.

CTP - PC15

Installed new Plant Fire Permits.
Replaced failing South DAFT TWAS Pump.
Replaced failing North DAFT TWAS Pump.
Repaired East Waste Pump pipe leak.
Work with construction contractor to locate trailers and install utilities.
Installed a new sample storage cabinet for the AWT.
Replaced failing handrailing in and around the AWT area.
Repaired broken 2" Potable Water pipe near the AWT.
Supported warranty repairs for the AWT Clear Well #1 Pump and Check Valve.
Replaced failed pressures gauges on the Odor Scrubber.
Troubleshoot the DAFT Sludge Level Sensor.

RTP - PC17

Troubleshoot and cleared the clogged Comminutor.
Replaced gas cleaning media in H₂S Vessel #2.
Replaced failed Isolation and Check Valve on 3WHP Pump #3.
Replaced failed Isolation and Check Valve on Storm Water Pump.
Replaced failing Mud Well Pump.
Prepared Scrubber #2 Bleach Tank for internal repair.
Removed, rebuilt, and reinstall failing SET Pump #2.
Removed and replaced the failed Heat Loop Air Separator.
Removed and inspected faulty CTP Sludge Flow Meter.
Began fabrication of a new Odor Box to replacing the corroded one in Aeration Tank #2.

Items with a (*) have been identified as preventable repairs.

SOCWA Operational Report August, 2019 (cont'd)

Select Critical Equipment Repairs (cont'd)

RTP - PC17 (Cont'd)

Completed the annual OSHA crane inspections.
Replaced broken hardware on the Sludge Cross-conveyor.
Replaced failed couplings on RAS #6 and #66.
Pumped out and inspected Stormwater Drain #5 for the upcoming sliplining project.

ELECTRICAL - ALL PC'S

Continued Headworks PLC and SCADA Upgrade Project at JBL.
Installed ultrasonic level at the RTP Headworks to replace the bubbler system.
Troubleshoot the EBSD flow metering for CTP.
Modified the operator interface equipment for the Bleach System at RTP.
Troubleshoot the aeration control valve systems at CTP.
Completed the annual thermal inspection of the MCC's at all three Plants.
Replace the antiquated centrifuge to PLC Smartwire at RTP.
Troubleshoot the Digester MCC Breakers at JBL after power failure.
Troubleshoot the Aeration Tank #1 Valves at RTP.
Troubleshoot the RTP Waste Pump #2 wiring.
Repaired and calibrated failed sensor equipment for the CTP Vapex.
Completed the replacement of the Waste Oil Control Panel.
Troubleshoot the CTP Effluent Turbidity Meter.
Replaced failing Effluent Meter at JBL.
Replaced failing Plant Air Compressor at JBL.
Continued troubleshooting of RTP Engine SCR.
Replaced failing RTP Engine Jacket Water Pump.
Installed new solenoid valve on Scum Flush Manifold at JBL.
Replaced failed DAFT #1 Drive Motor.

Items with a (*) have been identified as preventable repairs.

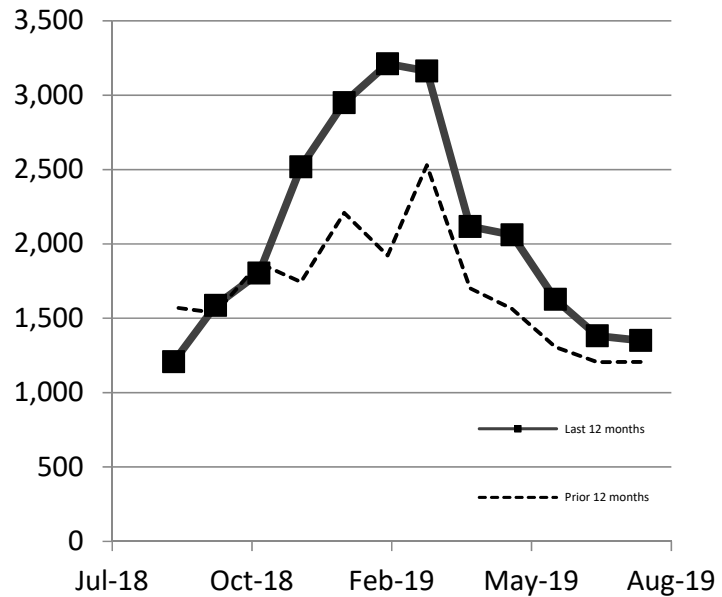
SOCWA Ocean Outfall Discharges by Agency

SOCWA Outfall Discharge Report August, 2019

Agency	SJCOO (mgd)	SJCOO (%)	ACOO (mgd)	ACOO (%)	Total (mgd)
CLB			1.74	33.27%	1.74
EBSD			0.05	0.88%	0.05
SCWD	1.78	18.56%	-0.13	-2.47%	1.65
MNWD	1.74	18.11%	0.87	16.64%	2.61
ETWD			1.41	27.06%	1.41
CSJC	2.50	26.08%			2.50
SMWD	1.13	11.77%			1.13
CSC	2.44	25.49%			2.44
IRWD			1.29	24.61%	1.29
Total	9.59	100.00%	5.22	100.00%	14.81
or Acre-Feet per year equivalent					16,592

12-Month Running Total Discharge to Ocean Outfalls (AF)

Aug-19	1,351
Jul-19	1,382
Jun-19	1,628
May-19	2,061
Apr-19	2,117
Mar-19	3,163
Feb-19	3,211
Jan-19	2,950
Dec-18	2,518
Nov-18	1,804
Oct-18	1,587
Sep-18	1,208
Total	24,981



Beach / Ocean Monitoring Report

ALISO CREEK OCEAN OUTFALL MONITORING REPORT

August 2019

DATE	IRWD LOS ALISOS WRP				EL TORO WRP				SOCWA REGIONAL PLANT				SOCWA COASTAL PLANT				IRWD IDP	IRWD SGU	SCWD ACWRF	ACOO FLOW	Rain Fall
	FLOW	TSS	cBOD	SS	FLOW	TSS	cBOD	SS	FLOW	TSS	cBOD	SS	FLOW	TSS	cBOD	SS	FLOW	FLOW	FLOW	MGD	inches
	MGD	mg/L	mg/L	ml/L	MGD	mg/L	mg/L	ml/L	MGD	mg/L	mg/L	ml/L	MGD	mg/L	mg/L	ml/L	MGD	MGD	MGD	MGD	
08/01/19	No Flow				1.367	10.8	5.6	0.1	0.560	4.4	3.0	<0.1	1.578	11.5	5.0	<0.1	0.756	0.597	0.109	4.967	0.00
08/02/19	No Flow				1.322	9.0	6.1	0.2	0.70	3.3	7.0	0.2	1.549	5.6	3.0	0.1	0.757	0.625	0.104	5.057	0.00
08/03/19	No Flow				1.563	11.6		0.1	0.620				1.706				0.756	0.619	0.094	5.358	0.00
08/04/19	No Flow				1.141	10.2		0.2	0.680	4.6	2.0	<0.1	1.915	3.6	3.0	0.1	0.757	0.610	0.089	5.192	0.00
08/05/19	No Flow				1.502	10.2	5.1	0.1	0.790	4.1	2.0	<0.1	1.985	8.7	5.0	0.1	0.756	0.608	0.087	5.728	0.00
08/06/19	No Flow				1.870	11.4	5.0	<0.1	0.670	4.7	<2.0	<0.1	1.815	7.9	5.0	<0.1	0.757	0.607	0.080	5.799	0.00
08/07/19	No Flow				1.092	13.2	5.9	0.1	0.820	3.9	<2.0	0.1	1.934	9.4		0.1	0.757	0.605	0.091	5.299	0.00
08/08/19	No Flow				1.097	12.4	5.6	0.3	0.640	4.9	2.0	0.1	1.561	2.3	<2.0	0.1	0.757	0.603	0.135	4.793	0.00
08/09/19	No Flow				1.018	10.8	5.4	0.2	0.620	3.2	6.0	0.1	0.947	9.1	4.0	0.1	0.757	0.602	0.092	4.036	0.00
08/10/19	No Flow				1.850	8.8		0.2	0.710	4.5	3.0	0.1	1.331	5.3	4.0	0.2	0.714	0.602	0.103	5.310	0.00
08/11/19	No Flow				2.230	8.4	4.7	0.1	0.660	8.6	3.0	0.1	2.029	11.8	7.0	0.1	0.448	0.600	0.082	6.049	0.00
08/12/19	No Flow				2.026	9.4	5.6	<0.1	2.150	5.3	2.0	0.1	1.840	4.1	3.0	<0.1	0.380	0.599	0.097	7.092	0.00
08/13/19	No Flow				1.764	8.4	4.3	<0.1	0.660	7.5	2.0	<0.1	1.932	7.4	5.0	<0.1	0.380	0.598	0.127	5.461	0.00
08/14/19	No Flow				1.184	7.4	3.9	<0.1	1.290	5.1	2.0	<0.1	1.391		15.0	<0.1	0.380	0.597	0.067	4.909	0.00
08/15/19	No Flow				1.479	8.2	4.0	<0.1	0.840	4.5	2.0	<0.1	1.289	5.5	4.0	<0.1	0.622	0.553	0.107	4.890	0.00
08/16/19	No Flow				1.067	10.2	6.6	<0.1	0.990	4.4	2.0	0.1	1.987	3.8	4.0	0.2	0.757	0.549	0.107	5.457	0.00
08/17/19	No Flow				1.347	13.0	6.7	0.5	0.650				1.645	11.8	10.0	0.2	0.756	0.547	0.106	5.051	0.00
08/18/19	No Flow				1.693	10.4		0.1	0.890	6.2	3.0	<0.1	1.965	3.2	7.0		0.757	0.547	0.087	5.939	0.00
08/19/19	No Flow				1.522	13.0	7.6	0.1	0.960	8.0	2.0	<0.1	2.122	5.3	4.0	<0.1	0.757	0.546	0.083	5.990	0.00
08/20/19	No Flow				1.914	10.4	6.4	0.1	0.770	7.7	3.0	<0.1	1.569	5.8	7.0	<0.1	0.757	0.546	0.101	5.657	0.00
08/21/19	No Flow				1.229	12.4	7.2	0.1	1.090	6.3	2.0	0.2	1.626	4.5	5.0	<0.1	0.757	0.544	0.094	5.340	0.00
08/22/19	No Flow				1.148	11.0	7.0	0.1	0.800	5.7	2.0	0.1	1.433	5.7	6.0	<0.1	0.756	0.544	0.112	4.793	0.00
08/23/19	No Flow				0.875	12.0	7.6	0.1	0.740	5.2	2.0	0.1	1.181	4.5	3.0	0.1	0.757	0.542	0.096	4.191	0.00
08/24/19	No Flow				1.531	10.2		0.1	0.760	5.4	2.0	0.2	1.677	5.3	4.0	0.2	0.757	0.602	0.106	5.433	0.00
08/25/19	No Flow				1.507	8.0		0.1	0.790	5.8	3.0	0.1	1.596	7.0	6.0		0.756	0.610	0.084	5.343	0.00
08/26/19	No Flow				1.355	9.2	5.2	0.1	2.160	4.9	4.0	<0.1	2.837	7.9	6.0	0.1	0.757	0.611	0.099	7.819	0.00
08/27/19	No Flow				1.587	9.0	4.9	0.1	0.780	6.9	3.0	<0.1	0.745	9.3	9.0	<0.1	0.757	0.610	0.117	4.596	0.00
08/28/19	No Flow				1.034	13.2	6.7	0.2	0.770	5.6	2.0	<0.1	0.979	4.5	5.0	0.1	0.757	0.560	0.088	4.188	0.00
08/29/19	No Flow				1.354	9.2	4.2	0.2	0.750	5.3	3.0	<0.1	1.794	4.6	3.0	<0.1	0.757	0.560	0.128	5.343	0.00
08/30/19	No Flow				0.798	12.2	5.8	0.1	0.830	4.1	3.0	<0.1	1.717	4.2	6.0	<0.1	0.756	0.560	0.092	4.753	0.00
08/31/19	No Flow				1.368	11.6		<0.1	0.810				1.650				0.757	0.509	0.113	5.207	0.00
AVG	No Flow				1.414	10.5	5.7	<0.1	0.869	5.4	2.7	<0.1	1.656	6.4	5.4	<0.1	0.705	0.581	0.099	5.324	
TOTAL	No Flow				43.83				26.95				51.33				21.84	18.01	3.077	165.04	0.00

Unified Beach Monitoring

#1

South Orange County Wastewater Authority-Aliso Creek Ocean Outfall

REPORT FOR: August 2019
 REPORT DUE: October 1 2019
 SAMPLE SOURCE: Surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: Low Tide 749

Weather: Clear

COMMENTS:

STA#	DATE	TIME	Total Coliform	Fecal Coliform	Entero-coccus	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			CFU/100ml SM9222B	CFU/100ml SM9222D	CFU/100ml EPA 1600	Onshore	Offshore							
S3	08/06/19	750	<10	<10	<2	None	None	None	None	Green	64	Clear		
S4	08/06/19	1040	<10	<10	<2	None	None	None	None	Green		Clear		
S5	08/06/19	1030	10	<10	2	None	None	None	None	Green		Clear		
S6	08/06/19	1015	10	<10	<2	None	None	None	None	Green		Clear		
WEST	08/06/19	1010	<10	<10	2	None	None	None	None	Green		Clear		
S7	08/06/19	1000	<10	<10	<2	None	None	None	None	Green		Clear		
S8	08/06/19	950	<10	10	<2	None	None	None	None	Blue		Clear		
S9	08/06/19	930	<10	<10	<2	None	None	None	None	Green	65	Clear		
ACM1	08/06/19	920	<10	<10	<2	None	None	None	None	Green		Clear		
S10	08/06/19	905	<10	<10	<2	None	None	None	None	Green		Clear		
S11	08/06/19	855	<10	<10	2	None	None	None	None	Green		Clear		
S12	08/06/19	835	<10	<10	2	None	None	None	None	Green		Clear		

RECREATIONAL WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.

South Orange County Wastewater Authority-Aliso Creek Ocean Outfall

REPORT FOR: August 2019
 REPORT DUE: October 1, 2019
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High Tide 0857

Weather: Overcast

COMMENTS:

STA#	DATE	TIME	Total	Fecal	Entero-	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			Coliform CFU/100ml SM9222B	Coliform CFU/100ml SM9222D	coccus CFU/100ml EPA 1600	Onshore	Offshore							
S3	08/12/19	7:50	10	<10	<2	None	None	None	None	Green	61	Slightly Turbid		
S4	08/12/19	8:10	<10	<10	8	None	None	None	None	Green		Slightly Turbid		20
S5	08/12/19	8:21	<10	<10	4	None	None	None	None	Green		Slightly Turbid		
S6	08/12/19	8:35	<10	<10	<2	None	None	None	None	Green	67	Slightly Turbid		
WEST	08/12/19	8:40	<10	<10	<2	None	None	None	None	Green		Slightly Turbid		
S7	08/12/19	8:43	<10	<10	<2	None	None	None	None	Green	66	Slightly Turbid		
S8	08/12/19	8:50	30	30	2	None	None	None	None	Green		Slightly Turbid		
S9	08/12/19	10:05	20	30	18	None	None	None	None	Green		Slightly Turbid		10
ACM1	08/12/19	9:59	<100	<10	10	None	None	None	None	Green		Slightly Turbid	Flowing	
S10	08/12/19	9:22	<10	<10	2	None	None	None	None	Green	66	Slightly Turbid		
S11	08/12/19	9:36	20	<10	2	None	None	None	None	Green		Slightly Turbid		
S12	08/12/19	9:46	10	10	2	None	None	None	None	Green	66	Clear		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.

South Orange County Wastewater Authority-Aliso Creek Ocean Outfall

REPORT FOR: August 2019
 REPORT DUE: October 1, 2019
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High Tide 1207

Weather: Overcast

COMMENTS:

STA#	DATE	TIME	Total	Fecal	Entero-	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			Coliform CFU/100ml SM9222B	Coliform CFU/100ml SM9222D	coccus CFU/100ml EPA 1600	Onshore	Offshore							
S3	08/19/19	7:45	<10	<10	<2	None	None	None	None	Green	61	Slightly Turbid		1
S4	08/19/19	8:03	<10	<10	6	None	None	None	None	Green	62	Slightly Turbid		
S5	08/19/19	8:19	<10	<10	8	None	None	None	None	Green		Slightly Turbid		
S6	08/19/19	8:32	<10	<10	10	None	None	None	None	Green		Slightly Turbid		
WEST	08/19/19	8:35	10	10	<2	None	None	None	None	Green		Slightly Turbid		
S7	08/19/19	8:38	30	10	<2	None	None	None	None	Green		Slightly Turbid		
S8	08/19/19	8:48	<10	<10	<2	None	None	None	None	Green		Clear		
S9	08/19/19	10:01	<10	<10	<2	None	None	None	None	Green		Slightly Turbid		
ACM1	08/19/19	9:16	<10	<10	<2	None	None	None	None	Green		Slightly Turbid		15
S10	08/19/19	9:21	<10	<10	<2	None	None	None	None	Green	63	Slightly Turbid		
S11	08/19/19	9:40	<10	<10	4	None	None	None	None	Green		Slightly Turbid		5
S12	08/19/19	9:49	<10	<10	<2	None	None	None	None	Green		Slightly Turbid		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.

South Orange County Wastewater Authority-Aliso Creek Ocean Outfall

REPORT FOR: August 2019
 REPORT DUE: October 1, 2019
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High Tide 0931

Weather: Partly Cloudy

COMMENTS:

STA#	DATE	TIME	Total	Fecal	Entero-	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			Coliform CFU/100ml SM9222B	Coliform CFU/100ml SM9222D	coccus CFU/100ml EPA 1600	Onshore	Offshore							
S3	08/29/19	1015	<10	<10	<2	None	None	None	None	Green	72	Clear		
S4	08/29/19	0945	<10	<10	<2	None	None	None	None	Green		Turbid		
S5	08/29/19	0930	<10	<10	<2	None	None	None	None	Green		Turbid		
S6	08/29/19	0915	<10	<10	<2	None	None	None	None	Green		Clear		
WEST	08/29/19	0910	<10	<10	2	None	None	None	None	Green		Slightly Turbid		
S7	08/29/19	0905	<10	<10	<2	None	None	None	None	Green		Slightly Turbid		
S8	08/29/19	0850	<10	<10	<2	None	None	None	None	Green		Clear		
S9	08/29/19	0845	10	<10	<2	None	None	None	None	Green		Slightly Turbid		
ACM1	08/29/19	0840	<10	10	<2	None	None	None	None	Green	70	Slightly Turbid		
S10	08/29/19	0820	<10	<10	<2	None	None	None	None	Green		Slightly Turbid		
S11	08/29/19	0815	<10	<10	<2	None	None	None	None	Green		Clear		
S12	08/29/19	0810	10	10	<2	None	None	None	None	Green		Clear		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.

Unified Beach Water Quality Sample Station Map – Aliso Creek Ocean Outfall



Aliso Creek Ocean Outfall

Unified Beach Water Quality Monitoring Stations

SOCWA's NPDES discharge permit requires participation in the South Orange County Unified Beach Water Quality Monitoring Program. The monitoring stations below are tested by SOCWA at least once per week for Total and Fecal Coliform and Enterococcus Bacteria.

Station	Location
S3	Three Arch Bay Beach; 10,000' down-coast from ACOO
S4	Ninth Street-1000 Steps; 5,000' down-coast from ACOO
S5	Laguna Lido Beach; 4,000 down-coast from ACOO
West	West Street Drain; 2,000' down-coast from ACOO
S6	Table Rock Beach; 3,000' down-coast from ACOO
S7	Camel Point Beach; 2,000' down-coast from ACOO
S8	Aliso Beach south; 1,000' down-coast from ACOO
S9	Aliso Beach middle; at ACOO
ACM1	Aliso Beach at Aliso Creek Outlet
S10	Aliso Beach north; 1,000' up-coast of ACOO
S11	Treasure Island Beach; 2,000' up-coast of ACOO
S12	Goff Island Beach; 3,000' up-coast of ACOO

MONITORING REPORT

Off Shore Stations

South Orange County Wastewater Authority

DISCHARGE: Aliso Creek Ocean Outfall

REPORT FOR: August 2019

REPORT DUE: October 1, 2019

SAMPLE SOURCE: Receiving water, nearshore and offshore

EXACT SAMPLE POINTS: As specified in permit

SAMPLES COLLECTED BY: Seaventures/SOCWA staff

SAMPLES ANALYZED BY: SOCWA Lab

REPORT FREQUENCY: Monthly

SAMPLING FREQUENCY: Monthly

TYPE OF SAMPLE: Grab

Comments: High Tide 952

Sta No.	Sample Depth	Sample Date	Total Coliform CFU/100ml SM9222B	Fecal Coliform CFU/100ml SM9222D	Enterococcus CFU/100ml EPA 1600	Sample Time	Oil & Grease	Sewage Debris	0 - None 1 - Mild 2 - Moderate 3 - Severe
A-1	Surface	08/14/19	<2	<2	<2	759	0	0	
A-1	Mid depth	08/14/19	10	<10	<10				
A-2	Surface	08/14/19	<2	<2	<2	747	0	0	
A-2	Mid depth	08/14/19	<10	<10	<10				
A-3	Surface	08/14/19	<2	<2	<2	751	0	0	
A-3	Mid depth	08/14/19	10	<10	<10				
A-4	Surface	08/14/19	<2	<2	<2	803	0	0	
A-4	Mid depth	08/14/19	20	<10	<10				
A-5	Surface	08/14/19	<2	<2	<2	755	0	0	
A-5	Mid depth	08/14/19	10	<10	<10				
B-1	Surface	08/14/19	<2	<2	<2	738	0	0	
B-1	Mid depth	08/14/19	<10	<10	<10				
B-2	Surface	08/14/19	<2	<2	<2	811	0	0	
B-2	Mid depth	08/14/19	10	<10	<10				
N1	Surface	08/14/19	<2	<2	<2	825	0	0	
N2	Surface	08/14/19	2	2	<2	823	0	0	
N3	Surface	08/14/19	<2	<2	<2	822	0	0	
N4	Surface	08/14/19	4	2	<2	822	0	0	
N5	Surface	08/14/19	6	8	<2	821	0	0	
N6	Surface	08/14/19	6	4	<2	819	0	0	
N7	Surface	08/14/19	2	<2	<2	817	0	0	

REQUIREMENT: (1) Floating particulates and grease and oil shall not be visible. (2) The discharge of wasteshall not cause aesthetically undesirable discoloration of the ocean surface.

**Compliance Summary Report
Aliso Creek Ocean Outfall 2019**

ACOO Permit Order No. R9-2012-0013							
Agency - Facility	Violation Date	Constituent	Effluent Limit Violation	Units	Permit Limit	Reported Value	Potential Fine
ACOO - SOCWA Outfall	5/14/2019	Chronic Toxicity	Monthly	Tuc	238	500	\$3000
South Coast Water District - CTP	5/1/2019	Dissolved Oxygen	Weekly	mg/L	Weekly	Not Reported	\$3000
South Coast Water District - CTP	5/1/2019	Temperature	Weekly	C	Weekly	Not Reported	\$3000

**SOCWA and MEMBER AGENCY FACILITIES
ACOO Spill / Overflow Report Log - 2019
Order No. R9-2012-0013 ~ NPDES Permit No. CA0107611**

Reporting Agency	Responsible Agency	Estimated Volume (Gallons)	Type of Discharge	Location/Comments	Receiving Waters	Date Reported To State	Date Resolved
SOCWA	SOCWA - Coastal Treatment Plant	10,800	Raw Sewage	The spill was completely recovered recirculated back into the treatment plant. There was no raw sewage that left the facility.	N/A	No	02-09-19

SAN JUAN CREEK OCEAN OUTFALL MONITORING REPORT

August 2019

DATE	J.B. LATHAM FACILITY				SAN CLEMENTE WRP				SMWD CHIQUITA WRP				3-A PLANT				CSJC	SCWD	SJCOO	Rain
	FLOW MGD	TSS mg/L	cBOD mg/L	SS ml/L	FLOW MGD	TSS mg/L	cBOD mg/L	SS ml/L	FLOW MGD	TSS mg/L	cBOD mg/L	SS ml/L	FLOW MGD	TSS mg/L	cBOD mg/L	SS ml/L	Desalter FLOW MGD	Desalter FLOW MGD	FLOW MGD	Fall inches
08/01/19	7.260	7.0	4.5	0.1	3.730	4.3	5.0	<0.1	1.240	10.4	8.0	0.2	0.236	10.8	9.2	ND	0.506	0.187	11.470	0.00
08/02/19	7.160	5.0	3.4	0.1	1.090	3.8	4.0	<0.1	0.010	3.3	4.8	0.1	0.240				0.492	0.183	11.420	0.00
08/03/19	7.050				2.370				0.000				0.235				0.513	0.184	9.650	0.00
08/04/19	7.190	5.5	3.7	<0.1	3.168				0.010	1.5	2.5	<0.1	0.203	7.6	7.0	ND	0.513	0.188	10.690	0.00
08/05/19	7.060	8.3	5.0	<0.1	4.090	5.0	6.0	<0.1	0.010	2.3	3.1	<0.1	0.230	10.4	8.3	ND	0.513	0.183	11.190	0.00
08/06/19	6.560	6.5	3.0	<0.1	1.387	6.6	6.0	<0.1	0.150	2.3	2.0	<0.1	0.232	10.0	8.8	0.1	0.513	0.184	9.540	0.00
08/07/19	6.840	4.8	3.3	0.1	1.624	8.2	7.0	<0.1	0.410	3.1	3.3	<0.1	1.224	16.0	10.5	ND	0.513	0.188	9.860	0.00
08/08/19	6.750	7.5	3.8	0.1	2.215	12.4	8.0	<0.1	1.280	4.0	4.9	0.3	1.439	19.8	12.4	0.1	0.494	0.183	10.910	0.00
08/09/19	6.990	6.1	3.8	0.1	2.110	10.5	8.0	<0.1	0.010	3.6	4.7	<0.1	1.496		10.2	0.1	0.514	0.183	12.510	0.00
08/10/19	6.990	5.9	4.0	0.2	1.834				0.250	2.1	3.6	<0.1	1.524				0.501	0.187	10.470	0.00
08/11/19	7.330	7.1	5.7	<0.1	1.832	14.2	15.0	0.3	0.690	2.9	4.8	<0.1	1.442	8.0	6.8	ND	0.502	0.184	11.550	0.00
08/12/19	7.000	7.1	3.7	0.1	2.150	15.3	16.0	<0.1	0.550	4.6	9.2	0.1	0.256	8.4	7.6	0.1	0.501	0.188	10.810	0.00
08/13/19	6.930	6.7	4.5	<0.1	2.658	17.0	13.0	2.0	0.220	4.2	8.0	0.1	0.061	5.0	6.5	ND	0.501	0.184	10.920	0.00
08/14/19	6.720	5.7	5.7	<0.1	3.172	48.4	19.0	2.8	0.000				0.032	4.4	5.8	ND	0.501	0.185	11.460	0.00
08/15/19	6.700	6.2	5.0	<0.1	3.346	23.2	12.0	0.2	0.510	3.0	3.3	0.4	0.032	8.8	7.0	ND	0.501	0.187	10.560	0.00
08/16/19	6.250	7.0	5.7	0.1	4.897	35.4	27.0	<0.1	0.020	3.9	3.6	<0.1	0.036				0.503	0.183	11.350	0.00
08/17/19	6.460				2.790	23.0	19.0	0.1	0.000				0.077				0.501	0.184	10.880	0.00
08/18/19	6.690	3.8	4.0		3.526	20.6	14.0	<0.1	0.000				0.077	3.0	4.9	ND	0.501	0.187	10.690	0.00
08/19/19	6.470	7.4	3.7	<0.1	3.418	17.4	10.0	<0.1	0.000				0.017	13.2	8.3	ND	0.502	0.184	10.810	0.00
08/20/19	6.730	9.0	6.2	<0.1	3.079	17.4	8.0	<0.1	0.070	2.6	6.0	<0.1	0.027	3.4	6.8	ND	0.501	0.184	10.810	0.00
08/21/19	6.840	8.6	5.8	<0.1	2.263	19.8	9.0	<0.1	0.000				0.039	3.2	4.4	ND	0.492	0.187	9.670	0.00
08/22/19	6.630	7.8	5.2	0.1	1.765	23.6	9.0	<0.1	0.220	2.6	2.6	<0.1	0.039	6.8	5.5	ND	0.512	0.183	9.770	0.00
08/23/19	6.490	6.6	4.0	0.1	1.976	23.2	10.0	<0.1	0.030	2.6	2.8	<0.1	0.036				0.511	0.184	9.280	0.00
08/24/19	6.360	4.9	3.0	0.1	1.642				0.000				0.073				0.512	0.187	9.110	0.00
08/25/19	6.670	6.5	5.5		1.913	17.8	8.0	<0.1	0.000				0.286	17.2	12.0	ND	0.514	0.183	9.550	0.00
08/26/19	6.520	5.4	3.7	<0.1	2.409	4.8	3.0	<0.1	0.000				0.309	11.2	9.2	ND	0.513	0.184	9.850	0.00
08/27/19	6.500	6.0	5.6	<0.1	1.845	11.4	8.0	<0.1	0.000				0.036	4.8	5.1	ND	0.549	0.189	9.730	0.00
08/28/19	6.250	6.7	4.8	<0.1	1.853	6.4	4.0	<0.1	0.000				0.008	7.4	7.0	ND	0.556	0.182	9.610	0.00
08/29/19	6.370	7.5	4.0	0.1	1.412	5.4	8.0	<0.1	0.410	4.0	4.1	0.3	0.011	7.8	7.4	ND	0.001	0.183	8.650	0.00
08/30/19	6.360	6.6	6.5	0.2	2.014	2.6	3.0	<0.1	1.140	2.7	3.7	<0.1	0.236				0.000	0.187	10.740	0.00
08/31/19	6.300				2.206	3.1	3.0	<0.1	1.390				0.238				0.000	0.184	10.830	0.00
AVG	6.723	6.5	4.5	<0.1	2.445	14.8	9.7	<0.3	0.278	3.5	4.5	<0.1	0.336	8.9	7.8	ND0.0	0.460	0.185	10.463	
TOTAL	208.420				75.784				8.620				10.427				14.246	5.733	324.340	0.00

REPORT FOR: August 2019
 REPORT DUE: October 1, 2019
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: Low Tide 0711

Weather: Overcast

COMMENTS:

STA#	DATE	TIME	Total	Fecal	Entero-	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			Coliform CFU/100ml SM9222B	Coliform CFU/100ml SM9222D	coccus CFU/100ml EPA 1600	Onshore	Offshore							
S0	08/05/19	850	<20	20	<2	None	None	None	None	Green		Turbid		
S1	08/05/19	900	<20	<20	4	None	None	None	None	Green		Turbid		
S2	08/05/19	838	<20	<20	<2	None	None	None	None	Green	72	Turbid		
DSB5	08/05/19	826	60	60	<2	None	None	None	None	Green		Clear		
S3	08/05/19	904	<20	<20	4	None	None	None	None	Green		Turbid		
DSB4	08/05/19	905	<20	<20	2	None	None	None	None	Green		Turbid		
S5	08/05/19	910	<20	<20	2	None	None	None	None	Green	72	Turbid		
DSB1	08/05/19	920	<20	<20	20	None	None	None	None	Green		Turbid		
SJC1	08/05/19	848	<100	<100	<10	None	None	None	None	Green		Turbid		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.

South Orange County Wastewater Authority-San Juan Creek Ocean Outfall

REPORT FOR: August 2019
 REPORT DUE: October 1, 2019
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High tide 910

Weather: Overcast

COMMENTS: SJ Creek 816 pooled

STA#	DATE	TIME	Total Coliform	Fecal Coliform	Enterococcus	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			CFU/100ml SM9222B	CFU/100ml SM9222D	CFU/100ml EPA 1600	Onshore	Offshore							
S0	08/12/19	812	<20	<20	2	None	None	None	None	Green	71	Turbid		
S1	08/12/19	820	<20	<20	4	None	None	None	None	Green		Turbid		
S2	08/12/19	802	<20	<20	2	None	None	None	None	Green		Turbid		
DSB5	08/12/19	752	80	80	6	None	None	None	None	Green		Turbid		
S3	08/12/19	825	<20	<20	2	None	None	None	None	Green	71	Turbid		
DSB4	08/12/19	827	<20	<20	2	None	None	None	None	Green		Turbid		
S5	08/12/19	845	<20	<20	2	None	None	None	None	Green		Turbid		
DSB1	08/12/19	855	<20	<20	2	None	None	None	None	Green		Turbid		
C1	08/12/19	814	<100	<100	<10	None	None	None	None	Green		Turbid		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.

REPORT FOR: August 2019
 REPORT DUE: October 1, 2019
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: Low tide 550
 Weather: Overcast
 COMMENTS:

STA#	DATE	TIME	Total	Fecal	Entero-	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			Coliform CFU/100ml SM9222B	Coliform CFU/100ml SM9222D	coccus CFU/100ml EPA 1600	Onshore	Offshore							
S0	08/19/19	815	<20	<20	<2	None	None	None	None	Green	71	Turbid		
S1	08/19/19	825	<20	<20	<2	None	None	None	None	Green		Turbid		
S2	08/19/19	757	<20	<20	2	None	None	None	None	Green		Turbid		
DSB5	08/19/19	743	<20	<20	140	None	None	None	None	Green		Slightly Turbid		
S3	08/19/19	830	<20	<20	4	None	None	None	None	Green	72	Turbid		
DSB4	08/19/19	835	<20	20	2	None	None	None	None	Green		Turbid		
S5	08/19/19	945	<20	<20	2	None	None	None	None	Green		Turbid		
DSB1	08/19/19	900	<20	<20	2	None	None	None	None	Green		Turbid		
C1	08/19/19	820	<100	<100	<2	None	None	None	None	Blue		Turbid		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.

South Orange County Wastewater Authority-San Juan Creek Ocean Outfall

REPORT FOR: August 2019
 REPORT DUE: October 1, 2019
 SAMPLE SOURCE: Receiving water surf zone
 TYPE OF SAMPLE: Grab

REPORT FREQUENCY: Monthly
 EXACT SAMPLE POINTS: As specified in Unified Monitoring Plan
 SAMPLES COLLECTED BY: SOCWA Lab
 SAMPLES ANALYZED BY: SOCWA Lab

Tidal Condition: High tide 736

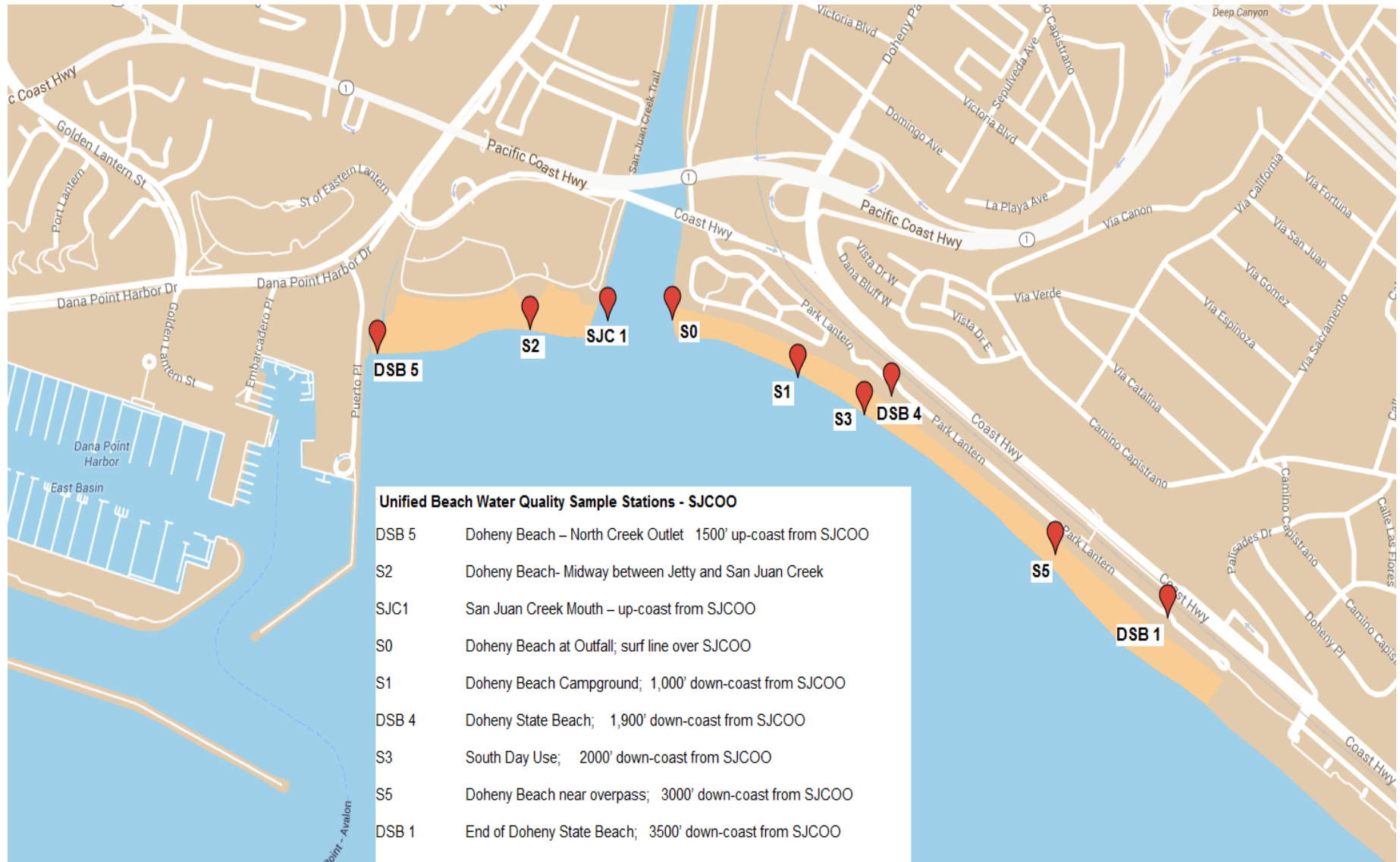
Weather: Clear

COMMENTS:

STA#	DATE	TIME	Total Coliform	Fecal Coliform	Entero-coccus	Material of Sewage		Oil & Grease	Odor	Water Color	H2O Temp(F)	Water Condition	Water Outlet	Birds
			CFU/100ml SM9222B	CFU/100ml SM9222D	CFU/100ml EPA 1600	Onshore	Offshore							
S0	08/26/19	830	<20	<20	<2	None	None	None	None	Green	70	Turbid		
S1	08/26/19	845	<20	<20	<2	None	None	None	None	Green		Turbid		
S2	08/26/19	820	<20	<20	2	None	None	None	None	Green		Turbid		
DSB5	08/26/19	808	<20	<20	6	None	None	None	None	Green		Turbid		
S3	08/26/19	850	<20	<20	2	None	None	None	None	Green	70	Turbid		
DSB4	08/26/19	855	<20	<20	<2	None	None	None	None	Green		Turbid		
S5	08/26/19	902	<20	<20	2	None	None	None	None	Green		Turbid		
DSB1	08/26/19	908	<20	<20	<2	None	None	None	None	Green		Turbid		
C1	08/26/19	832	<100	<100	<2	None	None	None	None	Green		Turbid		

RECEIVING WATER LIMITATIONS: Single Sample Maximum - Total coliform density shall not exceed 10,000 per 100ml; Fecal coliform density shall not exceed 400 per 100ml; Enterococcus density shall not exceed 104 per 100ml.

Unified Beach Water Quality Sample Station Map – San Juan Creek Ocean Outfall



San Juan Creek Ocean Outfall

Unified Beach Water Quality Monitoring Stations

SOCWA's NPDES discharge permit requires participation in the South Orange County Unified Beach Water Quality Monitoring Program. The monitoring stations below are tested by SOCWA at least once per week for Total and Fecal Coliform and Enterococcus Bacteria.

Station	Location
DSB 5	Doheny Beach – North Creek Outlet 1500' up-coast from SJCOO
S2	Doheny Beach- Midway between Jetty and San Juan Creek
SJC1	San Juan Creek Mouth – up-coast from SJCOO
S0	Doheny Beach at Outfall; surf line over SJCOO
S1	Doheny Beach Campground; 1,000' down-coast from SJCOO
DSB 4	Doheny State Beach; 1,900' down-coast from SJCOO
S3	South Day Use; 2000' down-coast from SJCOO
S5	Doheny Beach near overpass; 3000' down-coast from SJCOO
DSB 1	End of Doheny State Beach; 3500' down-coast from SJCOO

MONITORING REPORT

Offshore

South Orange County Wastewater Authority

DISCHARGE: San Juan Creek Ocean Outfall

REPORT FOR: August 2019

REPORT FREQUENCY: Monthly

REPORT DUE: October 1, 2019

SAMPLE SOURCE: Receiving water, nearshore and offshore

SAMPLING FREQUENCY: Monthly

EXACT SAMPLE POINTS: As specified in permit

TYPE OF SAMPLE: Grab

SAMPLES COLLECTED BY: Seaventures/SOCWA staff

SAMPLES ANALYZED BY: SOCWA Lab

Comments: A4 & B2 Yellow foam found. High Tide 952

Sta No.	Sample Depth	Sample Date	Total Coliform CFU/100ml SM9222B	Fecal Coliform CFU/100ml SM9222D	Enterococcus CFU/100ml EPA 1600	Sample Time	Oil & Grease	Sewage Debris	
A-1	Surface	08/14/19	<2	<2	<2	924	0	0	0 - None
A-1	Mid depth	08/14/19	1,040	1,120	170				1 - Mild
A-2	Surface	08/14/19	<2	<2	<2	928	0	0	2 - Moderate
A-2	Mid depth	08/14/19	<10	<10	<10				3 - Severe
A-3	Surface	08/14/19	<2	2	<2	932	0	0	
A-3	Mid depth	08/14/19	10	10	<10				
A-4	Surface	08/14/19	<2	<2	<2	939	0	0	
A-4	Mid depth	08/14/19	140	120	20				
A-5	Surface	08/14/19	4	<2	<2	935	0	0	
A-5	Mid depth	08/14/19	>2,000	1,600	180				
B-1	Surface	08/14/19	<2	<2	<2	915	0	0	
B-1	Mid depth	08/14/19	<10	10	<10				
B-2	Surface	08/14/19	<2	<2	<2	946	0	0	
B-2	Mid depth	08/14/19	20	<10	<10				
N1	Surface	08/14/19	2	<2	<2	911	0	0	
N2	Surface	08/14/19	<2	<2	<2	909	0	0	
N3	Surface	08/14/19	<2	<2	<2	907	0	0	
N4	Surface	08/14/19	2	<2	<2	900	0	0	
N5	Surface	08/14/19	<2	<2	<2	855	0	0	
N6	Surface	08/14/19	<2	<2	<2	852	0	0	

REQUIREMENT: (1) Floating particulates and grease and oil shall not be visible. (2) The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.

**Compliance Summary Report
San Juan Creek Ocean Outfall 2019**

SJCOO Permit Order No. R9-2012-0012							
Agency	Violation Date	Constituent	Effluent Limit Violation	Units	Permit Limit	Reported Value	Potential Fine
City of San Clemente	6/26/2019	cBOD	Monitoring Failure	mg/L	Daily	Not Reported	\$3,000
Moulton Niguel Water District	6/18/2019	cBOD	Monitoring Failure	mg/L	Daily	Not Reported	\$3,000
Moulton Niguel Water District	6/18/2019	Total Suspended Solids	Monitoring Failure	mg/L	Daily	Not Reported	\$3,000
Moulton Niguel Water District	06/21/2019	cBOD	Monitoring Failure	mg/L	Daily	Not Reported	\$3,000
Moulton Niguel Water District	06/21/2019	Total Suspended Solids	Monitoring Failure	mg/L	Daily	Not Reported	\$3,000
Moulton Niguel Water District	06/21/2019	Settleable Solids	Monitoring Failure	mg/L	Daily	Not Reported	\$3,000

SOCWA and MEMBER AGENCY FACILITIES SJCOO Spill / Overflow Report Log - 2019 Order No. R9-2012-0012 ~ NPDES Permit No. CA0107417

Reporting Agency	Responsible Agency	Estimated Volume (Gallons)	Type of Discharge	Location/Comments	Receiving Waters	Date Reported To State	Date Resolved
SOCWA	SMWD	5,000	Recycled Water	Transferring sludge from digester 5 to sludge holding tank through common transfer line connected to digester 1 which is offline and being cleaned caused flow through open flush valve at digester 1. Operator stopped flow through valve after about 10 minutes of transfer but cleanup required use of around 5000 gallons of plant wash water. Everything is contained in the plant.	None	Yes	05-26-19

Recycled Water Report

**Compliance Summary Report
Recycled Water Permit
2019**

Waste Discharge Requirement Order 97 - 52

Agency - Facility	Violation Date	Constituent	Effluent Limit Violation	Units	Permit Limit	Reported Value	Remarks
TCWD - RRWRP	10/19/2018	Nitrate as NO3	Annual	mg/L	45	68	Results reported in January. Agency to begin quarterly accelerated monitoring.
SOCWA - RTP	1/16/2019-1/22/2019	Coliform	30-day Max	cfu/100mL	23	37-548	There were six instances of exceedances of MPN greater than 23 cfu/100mL. Permit limits no more than one sample in excess of 23 in 30 day period. Chlorine contact basin past scheduled annual maintenance due to storm as key contributor to exceedances. Chlorine contact basin cleaned early February.
SOCWA - RTP	1/16/2019	Coliform	Instaneous	cfu/100mL	240	548	Chlorine contact basin past scheduled annual maintenance due to storm as key contributor to exceedances. Chlorine contact basin cleaned early February.
SOCWA - RTP	1/22/2019-1/30/2019	Coliform	7 Day Median	cfu/100mL	2.2	3-37	There were nine exceedances of the 7 day median. Chlorine contact basin past scheduled annual maintenance due to storm as key contributor to exceedances. Chlorine contact basin cleaned early February.
SOCWA - RTP	1/3/2019	Manganese	12-Month	mg/L	0.05	0.07	
SOCWA - RTP	1/3/2019	TDS	12-Month	mg/L	1000	1024	SOCWA began accelerated monitoring.
SMWD - 3A	1/1/2019	Manganese	12-Month	mg/L	0.05	0.06	Plant offline but running annual average continues to be above the permit limit.
SOCWA - RTP	2/5/2019	Manganese	12-Month	mg/L	0.05	0.08	
SOCWA - RTP	2/5/2019	TDS	12-Month	mg/L	1000	1072	
SOCWA - CTP	2/28/2019	Manganese	12-Month	mg/L	0.05	0.06	Plant offline but running annual average continues to be above the permit limit.
SMWD - 3A	2/7/2019	Manganese	12-Month	mg/L	0.05	0.06	
SMWD - 3A	2/9/2019	Coliform	Instaneous	cfu/100mL	<2	2419	Suspected sample contamination.
SOCWA - RTP	3/5/2019	Manganese	12-Month	mg/L	0.05	0.07	
SMWD - 3A	3/20/2019	Manganese	12-Month	mg/L	0.05	0.07	
SOCWA - RTP	4/16/2019	Manganese	12-Month	mg/L	0.05	0.07	
SMWD - 3A	4/30/2019	Manganese	12-Month	mg/L	0.05	0.07	
SOCWA - RTP	5/16/2019	Manganese	12-Month	mg/L	0.05	0.09	
SOCWA - RTP	5/16/2019	TDS	12-Month	mg/L	1000	1123	
SMWD - 3A	offline	Manganese	12-Month	mg/L	0.05	0.07	Offline
SOCWA - RTP	6/4/2019	Manganese	12-Month	mg/L	0.05	0.09	
SOCWA - RTP	6/4/2019	TDS	12-Month	mg/L	1000	1084	
SOCWA - CTP	6/4/2019	Manganese	12-Month	mg/L	0.05	0.06	
SMWD - 3A	6/12/2019	Manganese	12-Month	mg/L	0.05	0.07	
SOCWA - RTP	7/23/2019	Manganese	12-Month	mg/L	0.05	0.09	
SOCWA - RTP	7/23/2019	TDS	12-Month	mg/L	1000	1071	

**Compliance Summary Report
Recycled Water Permit
2019**

Waste Discharge Requirement Order 97 - 52

Agency - Facility	Violation Date	Constituent	Effluent Limit Violation	Units	Permit Limit	Reported Value	Remarks
SOCWA - CTP	7/23/2019	Manganese	12-Month	mg/L	0.05	0.06	
SMWD - 3A	7/3/2019	Manganese	12-Month	mg/L	0.05	0.07	
SOCWA - RTP	8/15/2019	Manganese	12-Month	mg/L	0.05	0.09	
SOCWA - RTP	8/15/2019	TDS	12-Month	mg/L	1000	1064	
SOCWA - CTP	8/15/2019	Manganese	12-Month	mg/L	0.05	0.06	
SMWD - 3A	8/1/2019	Manganese	12-Month	mg/L	0.05	0.07	

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY

QUARTERLY RECYCLED WATER MONITORING

Monitoring Period Ending: Aug 31, 2019

Constituent	Units	12-month Avg Maximum Permit Limit	RWD-LAWRP 12-month Average	ETWD-WRP 12-month Average	TCWD 12-month Average	SMWD Oso 12-month Average	SMWD Chiquita 12-month Average	SMWD Nichols 12-month Average	MNWD-3A 12-month Average	MNWD-RTP 12-month Average	SCWD-CTP 12-month Average
			*	**							***
TDS	mg/L	1000	832	1,000	867	724	783	890	935	1,064	878
Chloride	mg/L	375	180	250	241	188	187	253	203	245	212
Sulfate	mg/L	400	226	330	243	236	206	266	262	294	225
Sodium	mg/L	None	168	195	170	150	153	195	170	162	140
Alkalinity	mg/L	None	-	-	-	-	-	-	240	264	188
Adjusted SAR	Ratio	None	5.00	-	5.17	4.88	4.95	5.75	4.36	3.88	4.18
Iron	mg/L	0.3	0.016	0.090	0.024	0.011	0.167	0.037	0.13	0.196	0.102
Manganese	mg/L	0.05	0.038	0.015	0.017	0.014	0.033	0.014	0.070	0.093	0.057
MBAS	mg/L	0.5	0.11	0.00	0.15	0.19	0.25	0.09	0.14	0.03	0.04
Boron	mg/L	0.75	0.30	0.270	0.291	0.320	0.360	0.383	0.32	0.343	0.34
Fluoride	mg/L	None	0.39	0.980	0.36	0.700	0.72	0.57	0.83	1.07	0.81
Total Organic Carbon	mg/L	None	11.0	-	10.0	11.0	11.1	8.1	7.0	14.1	10.0

* The LAWRP 12-month permit limits are listed below: **The ETWD 12-month permit limits are listed below:

TDS 1000 mg/L
Chloride 180 mg/L
Sulfate 340 mg/L

TDS 910 mg/L

*** The CTP 12-month permit limits are listed below:

TDS 1200 mg/L
Chloride 400 mg/L
Sulfate 500 mg/L

SOCWA Service Area
Recycled Water Production (ac-ft) 2019

Agency	Facility or Region	Jan '19	Feb '19	Mar '19	Apr '19	May '19	Jun '19	Jul '19	Aug '19	Sep '19	Oct '19	Nov '19	Dec '19	Annual Totals
CSJC 1	3-A Plant/MNWD	0.00	0.00	0.00	0.00	0.00	0.00	0.72	19.72					20.440
CSJC 2	Chiquita/SMWD	0.18	0.00	3.89	35.02	38.25	38.77	37.01	42.02					195.151
CSJC 3	Non-Domestic Well	13.29	3.41	11.50	27.69	18.43	30.35	46.26	43.49					194.420
ETWD	Region 8	23.64	10.09	41.03	130.77	98.00	147.87	197.72	217.60					866.728
IRWD														
4	IRWD - 8	35.00	11.25	16.55	82.85	115.79	106.75	158.69	161.82					688.698
4	IRWD - 9	15.72	2.97	10.97	60.60	59.54	69.00	95.59	106.49					420.883
SCWD	SOCWA CTP	-0.83	0.00	0.00	0.00	54.27	97.46	130.23	142.98					424.108
MNWD	JRP	245.54	221.48	112.32	373.36	471.17	551.26	597.14	620.87					3,193.147
	3-A Plant	0.00	14.35	74.85	176.55	0.00	0.00	95.39	118.70					479.842
5	CTP	10.71	1.48	-15.58	-74.25	-30.10	5.53	13.20	17.60					-71.415
SMWD	Oso Creek	103.42	142.27	151.76	139.67	138.56	122.54	126.90	147.21					1,072.331
	Chiquita	179.53	45.27	55.06	235.14	174.22	364.74	454.75	465.46					1,974.154
	Nichols	2.00	1.97	1.94	1.73	1.90	2.03	2.14	2.34					16.041
TCWD	RRWRP	41.93	23.76	22.53	35.95	42.75	41.75	39.98	30.95					279.600
TOTALS		670.1	478.3	486.8	1,225.1	1,182.8	1,578.1	1,995.7	2,137.2					9,754.128

- 1 Denotes transfer of recycled water from MNWD (3A Plant) for use in the CSJC service area. Not counted as additional production. Denotes
2 recycled water purchased from SMWD Chiquita-WRP used in the CSJC service area. Not counted as additional production. Denotes non-
3 domestic groundwater produced from wells used for landscape irrigation.
4 IRWD production is from recycled water production, non-potable water wells, and surface water impoundments
5 Denotes transfer of recycled water from SCWD (SOCWA CTP) for use in the MNWD service area. Not counted as additional production.
Note: All of ETWD reclaimed water produced and used in Region 8.
NR = No Report

Pretreatment Report

Agenda Item

Legal Counsel Review: N/A

Meeting Date: October 3, 2019

TO: SOCWA Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Katie Greenwood, Source Control Manager

SUBJECT: Monthly Pretreatment Report, August and September 2019
San Juan Creek Ocean Outfall
NPDES Permit #CA0107417 Order #R9-2012-0012
Aliso Creek Ocean Outfall
NPDES Permit #CA0107611 Order #R9-2012-0013

Summary of Program Activities

Orange County Sanitation District (OCSD) and SOCWA Staff have partnered to place an educational ad related to the Dental Amalgam Rule in the Orange County Dental Society (OCDS) seasonal newsletter. The ad aims to inform dentists of the Rule and their obligation to submit a One-Time Compliance Report (published on SOCWA's website) to their local control authority. The ad is expected to be included in the Fall or Spring OCDS newsletter and can be found at: <https://www.ocds.org/home>.

Staff continues to utilize the CA Manufacturers Directory to identify industrial users.

Permit Related Activities

The following Wastewater Discharge (WD) Permits, Special Wastewater Discharge (SWD) Permits, Nuisance Water-Special Wastewater Discharge (NSWD) Permits, Non-Industrial Wastewater Discharge (NIWD) forms, and BMP letters were issued or are in the process of being drafted for issuance:

CLB - NSWD Permit No. CLB-N4-001 – Multiple Dry Weather Diversions – Renewal NSWD Permit to continue to allow dry weather diversion flows to be discharge to the sewer. A renewal permit was issued on July 30, 2019. SCWD and CLB have worked out a New Agreement for three diversion structures located in SCWD jurisdiction and operated by CLB Staff. Once signed, SOCWA will modify the CLB NSWD Permit and attach the Agreement.

CSC – WD Permit No. CSC-1-001 – South Coast Fashion Jewelry (SCFJ) – Renewal WD Permit to continue to allow process wastewater from metal finishing operations to be discharge to the sewer. The current permit expires September 20, 2019. A renewal permit application was provided to SCFJ on August 20, 2019.

Public Outreach Events

On September 21, 2019 SOCWA Staff joined CSC Staff in conducting the annual California Coastal Clean-up Day event. Staff set-up a table with CSC Staff at the SC pier and helped check in volunteers at the T-Street beach site. Additionally, Staff displayed environmental educational information related to water quality issues and engaged with clean-up volunteers and the public. Staff also provided give-away items such as reusable water bottles for outstanding clean-up volunteers.

Trainings and Committee Meetings Attended

SOCWA Staff continues to attend monthly OC Strike Force Meetings to receive and share legal information related to environmental cases and incidents throughout the county.

Inspections

SOCWA Staff is conducting its annual site inspections and monitoring/sampling of all SIU/CIU's in the SOCWA service area. This is a required activity of the SOCWA pretreatment program. The information and data obtained from these required activities will be incorporated into the SOCWA Pretreatment Annual Report.

On September 6, 2019, SOCWA Staff conducted a facility wide inspection of Dynacast and performed the annual compliance sampling. All parameters analyzed measured in compliance with permit limits.

On September 23, 2019, SOCWA Staff conducted a facility wide inspection of Reynard Corporation (in CSC) to determine whether new processes warrant the need for a WD permit.

During September 2019, SOCWA Staff conducted a site inspection of the Mission Riding Park to document recent process changes and discuss proposed changes.

During September 2019, SOCWA Staff conducted an industrial waste inspection of the CSJC's Groundwater Treatment Plant to document treatment process changes.

Enforcement

ETWD - On September 10, 2019, SOCWA and ETWD issued a follow-up letter to the notice of violation (NOV) issued on July 30, 2019 to Troy's Painting. The follow-up letter included an invoice for the cost of cleaning paint residue from the District main line at the connection point with the business private lateral line.

SMWD - On September 19, 2019, SOCWA issued a warning notice of non-compliance (WNON) to Applied Medical (Permit No. SMWD-1-004) for failing to collect a sample during the month of August 2019. The sample was collected one day too early on July 31, 2019.

SMWD - On September 19, 2019, SOCWA issued a NON to Applied Medical (Permit No. SMWD-1-003) for exceeding the permit limit for oil and grease of 100 mg/L on August 1, 2019. Applied Medical collected an additional sample within 30 days as required on August 16, 2019 and oil and grease was measured as non- detect, in compliance with permit limits. SOCWA considers this enforcement action resolved.

Summary of IWS Activities in the SOCWA Service Area – YTD through September 18, 2019

<u>MA</u>		<u>Events</u>	<u>Permit</u>	<u>NIWD</u>	<u>BMP</u>	<u>FSE</u>	<u>OSE</u>	<u>Closed</u>	<u>Enforcement</u>	<u># of</u>
<u>IUs</u>										
CLB	(S)	0	3	2	5	8	111	0	0	129
CSC	(M)	0	7	35	18	181	1283	0	2	1524
CSJC	(S)	0	2	27	59	137	1669	0	1	1894
ETWD	(M)	1	3	98	0	262	134	0	1	497
EBSD	(U)	0	1	0	0	0	0	0	0	1
IRWD	(S)	0	4	51	21	63	920	0	0	1059
MNWD	(S)	97	4	123	40	625	2057	18	0	2922
SMWD	(S)	53	6	19	20	199	759	10	3	1037
SCWD	(S)	0	7	33	7	148	184	0	1	380
TCWD	(S)	0	11	0	0	7	33	0	0	51
SOCWA	(S)	0	3	1	0	0	0	0	1	4
Totals		151	51	389	170	1630	7150	28	7	9498
Dentist (All)										484
Total Known IUs										9982

(S) = SOCWA conducts PT program.
(M) = MA conducts PT program /w SOCWA oversight.
(U) = Urban Diversion Only.
YTD = Year to Date.

NIWD = Non-industrial Waste Discharger.
BMP = Best Management Practices.
FSE = Food Service Establishment.
OSE = Other Surveyed Establishment.

Recommendation

Information Item

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

Engineering Committee

July 18, 2019

The Special Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee was held on July 18, 2019, at 8:30 a.m. at their Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members present:

MIKE MARQUIS	City of San Juan Capistrano [exit 9:32 a.m.]
DON BUNTS	Santa Margarita Water District [exit 9:32 a.m.]
MARC SERNA	South Coast Water District
MIKE DUNBAR	Emerald Bay Service District
DAVID SHISSLER	City of Laguna Beach [exit 9:32 a.m.]
ROD WOODS	Moulton Niguel Water District
LORRIE LAUSTEN	Trabuco Canyon Water District [exit 9:32 a.m.]
BOBBY YOUNG	El Toro Water District [exit 9:32 a.m.]
KEVIN BURTON	Irvine Ranch Water District [exit 9:32 a.m.]

Absent:

DAVE REBENS DORF	City of San Clemente
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Staff present:

BRIAN PECK	Director of Engineering
JASON MANNING	Senior Engineer
RONI YOUNG	Associate Engineer
BETTY BURNETT	General Manager
JEANETTE COTINOLA	Procurement/Contracts Administrator
DAN WHEELER	Superintendent of Operations & Maintenance
MIKE MATSON	Support Service Manager [exit 9:32 a.m.]

Also Present:

DENNIS ERDMAN	South Coast Water District
DENNIS CAFFERTY	El Toro Water District [exit 9:32 a.m.]
GRAHAM MCCARTHY	Citizen [exit 9:32 a.m.]

1. Call Meeting to Order

Mr. Peck called the meeting to order at 8:30 a.m. and welcomed everyone present.

2. Public Comments

Mr. Peck asked if members of the public desired to address the Engineering Committee or desired to reserve addressing the Engineering Committee during the meeting regarding any item on the Agenda. *Mr. Erdman asked to address the Committee. Mr. Erdman reported on a presentation by Brad Coffey of the Metropolitan Water District (MWD) of Southern California at the Orange County Water Association on July 17, 2019. Mr. Coffey talked about the role of wastewater in long term water resources planning. Specifically, Mr. Coffey*

talked about “flange-to-flange” systems where the wastewater is directly reused as potable water. Mr. Erdman stated that this approach needs to be reflected in the Ten Year Plan as facilities keep going through new iterations of rehabilitation. This is particularly true at the Latham Plant where there is currently no recycling. Mr. Erdman called on the Engineering Committee to provide leadership in setting new directions for utilization of the SOCWA facilities.

3. Review/Approval of Meeting Minutes (June 2019)

ACTION TAKEN

Motion was made by Mr. Dunbar and seconded by Mr. Bunts to approve the June 2019 Engineering Committee Meeting minutes as submitted.

Motion carried: Aye 9; Nay 0; Abstain 0; Absent 1

Mike Dunbar	Aye
Kevin Burton	Aye
Marc Serna	Aye
Mike Marquis	Aye
Dave Rebensdorf	Absent
Don Bunts	Aye
Lorrie Lausten	Aye
Bobby Young	Aye
David Shissler	Aye
Rod Woods	Aye

4. Operations Report

DISCUSSION

An Operations Report was not provided.

ACTION TAKEN

None.

5. Coastal Treatment Plant AWT Upgrade Project Status Report (Project Committee 15)

DISCUSSION

This item was deferred to the August 2019 Engineering Committee Meeting.

ACTION TAKEN

None.

**6. Coastal Treatment Plant Facility Improvements Project Status Report
(Project Committee 15)**

DISCUSSION

Ms. Young reviewed Change Orders 12 through 14 and 19, 20 and 22 to the Hazen and Sawyer design services contract for the Coastal Treatment Plant Facility Improvements Project.

ACTION TAKEN

Engineering Committee recommended Change Orders 12 through 14 and 19, 20 and 22 to the design services contract with Hazen and Sawyer for the Coastal Treatment Plant Facility Improvements Project (PC 15, Task 3592-000), in the amount of -\$7,854.00 be submitted to the Board of Directors for approval at the August 2019 Board Meeting. The representative from the Moulton Niguel Water District abstained from the action.

7. Regional Treatment Plant Miscellaneous Improvements 2018 Construction Services Proposal Review (Project Committee 17)

DISCUSSION

Mr. Manning provided a brief overview of the RTP Miscellaneous Improvements 2018 Engineering Services during Construction proposal from Lee & Ro. Members of the Engineering Committee were supportive of award of the engineering services during construction contract to Lee & Ro. However, Committee members indicated a preference for including base construction services as part of large design contracts.

ACTION TAKEN

The Engineering Committee recommended the engineering services during construction contract to Lee & Ro for the RTP Miscellaneous Improvements 2018 Project (PC 17, Tasks 3701-000, 3769-000 and 3751-000), at a fee of \$123,310 be submitted to the Board of Directors for approval at the August 2019 Board Meeting.

**8. J. B. Latham Treatment Plant, Plant 1 Grit Basin Rehabilitation Project Status Report
(Project Committee 2)**

DISCUSSION

Mr. Peck reviewed Change Orders 1 through 3 to the S.S. Mechanical construction contract for the JBLTP Plant 1 Grit Basin Rehabilitation Project.

ACTION TAKEN

The Engineering Committee recommended Change Orders 1 through 3 to the construction contract with S.S. Mechanical Construction for the JBLTP Plant 1 Grit Basin Rehabilitation Project (PC2, Task 3250-000), in the amount of \$14,515.30 be submitted to the Board of Directors for approval at the August 2019 Board Meeting.

9. Draft Ten Year Plan Review (Project Committees 2, 5, 15, 17, 21 and 24)

DISCUSSION

Mr. Peck reviewed the draft Ten Year Plan. An open discussion ensued. *Mr. Peck noted that the Ten Year Plan had been developed based on the notion that new studies and condition assessments in each year of the plan would be used to provide more precise information about the cost and needed timing of improvements. The first revision of the current Ten Year Plan is projected in March, 2020.*

ACTION TAKEN

Engineering Committee members were asked to provide comments to SOCWA staff by August 1, 2019. The Engineering Committee recommended the Ten Year Plan be submitted for a receive and file action at the August 2019 Board Meeting.

10. Coastal Treatment Plant Aeration System Upgrade Review (Project Committee 15)

DISCUSSION

Ms. Young and Mr. Peck reviewed the PowerPoint presentation on the Coastal Treatment Plant Aeration System Upgrade. An open discussion ensued. *The general consensus of the participants was that the plant would need to be configured to meet a potential 6.7 mgd capacity until that time that the existing Project Committee 15 agreement either expired or was modified. Mr. Peck indicated a desire to find a more cost-effective means of providing aeration to meet the 6.7 mgd goal. This goal might be met by avoiding the construction of a new blower building. SOCWA staff would like to retain Hazen & Sawyer to evaluate a series of focused options for a modified aeration approach. This information would then be brought back to the Engineering Committee for further discussion. Mr. Peck noted that the goal was to begin design of the upgrade to the aeration system in January, 2020. Therefore, any further technical analysis would need to be reviewed with the Engineering Committee in the autumn of 2019.*

ACTION TAKEN

SOCWA staff is to contact Hazen & Sawyer to obtain a scope and fee proposal for further evaluation of the aeration system.

Adjournment

There being no further business, Mr. Peck adjourned the meeting at 11:05 a.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Special Regular Meeting of the South Orange County Wastewater Authority Engineering Committee of July 18, 2019 and approved by the Board of Directors of the South Orange County Wastewater Authority.

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

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

Engineering Committee

August 15, 2019

The Special Meeting of the South Orange County Wastewater Authority (SOCWA) Engineering Committee was held on Thursday, August 15, 2019, at 8:30 a.m. at their Administrative Offices located at 34156 Del Obispo Street, Dana Point, California. The following members present:

MIKE MARQUIS	City of San Juan Capistrano
DON BUNTS	Santa Margarita Water District
MIKE DUNBAR	Emerald Bay Service District
DAVID SHISSLER	City of Laguna Beach [arrival 8:58 a.m.]
ROD WOODS	Moulton Niguel Water District
LORRIE LAUSTEN	Trabuco Canyon Water District
BOBBY YOUNG	El Toro Water District
MARC SERNA	South Coast Water District

Absent:

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

Staff present:

BRIAN PECK	Director of Engineering
JASON MANNING	Director of Engineering
RONI YOUNG	Associate Engineer
JEANETTE COTINOLA	Contracts Administrator
DAN WHEELER	Operations Superintendent
AMBER BAYLOR	Director of Environmental Compliance [exit 8:55 a.m.]
TERI NOSON	Clerk of the Board

Also Present:

DENNIS CAFFERTY	El Toro Water District
DENNIS ERDMAN	South Coast Water District

1. Call Meeting to Order

Mr. Peck called the meeting to order at 8:31 a.m. and welcomed everyone present. Mr. Peck introduced Mr. Manning as the new Director of Engineering for SOCWA; Mr. Manning presided over the remainder of the meeting.

2. Public Comments

Mr. Manning asked if members of the public desired to address the Engineering Committee or desired to reserve addressing the Engineering Committee during the meeting regarding any item on the Agenda.

No comments were received.

3. Review/Approval of Meeting Minutes (July '19)

DISCUSSION

Mr. Dunbar noted that there were comments about made at the beginning of July 2019, Engineering Committee meeting that should be noted in the minutes. Mr. Woods indicated that there were also some key points made during the course of the meeting that should be reflected in the minutes. Mr. Manning indicated that the minutes would be revised and presented at the September Engineering Committee meeting.

ACTION TAKEN

This item was deferred to the September 12, 2019, Engineering Committee meeting.

4. Operations Report

DISCUSSION

No Operations Report was presented.

ACTION TAKEN

No action necessary at this time.

5. Consideration of Kingmen Construction for SOCWA's Select List of General Contractors

DISCUSSION

Ms. Young reviewed the statement of qualifications for Kingmen Construction along with their request to be added to SOCWA's Select List of General Contractors. Ms. Young noted that the staff at several of the member agencies provided strong references for Kingmen. It was noted that Kingmen did not technically meet the experience requirement based on its founding date. Discussion ensued. The Engineering Committee recommended that Kingmen be added to the Select List with the provision that SOCWA initially limit them to bids on smaller, less complicated projects.

ACTION TAKEN

The Engineering Committee recommended that SOCWA staff add Kingmen Construction to the SOCWA Select List of General Contractors.

6. Use Audit Flow and Solids Methodology – Annual Update

DISCUSSION

Ms. Baylor provided an update on the Use Audit Allocation Methodology. The Use Audit flow allocation methodology has relied on historical practice for allocation of costs. Historically, flow allocation data has been assembled from available flow reporting with estimations based on known circumstances. Ms. Baylor reviewed the four proposed changes to the allocation methodology. Ms. Baylor indicated that this information was also being transmitted to the Finance Committee and to the member agencies' financial staff. Mr. Bunts asked if it would be possible to get the Excel spreadsheets referenced in the staff report. Ms. Baylor indicated that this could be provided to the committee members. Discussion ensued. Several committee members requested additional time to evaluate the information.

ACTION TAKEN

No action necessary at this time. Ms. Baylor will provide the Excel spreadsheets to the Committee members. Committee members will forward questions and comments to Ms. Baylor.

7. Ten Year Plan Review

DISCUSSION

Mr. Peck summarized the Board action regarding the Ten Year Plan with the resulting File and Receive action. Mr. Peck noted that the members of the Engineering Committee had not been given a long review period for a very large document. He indicated that SOCWA's Engineering Committee would continue to receive comments in the coming months. Studies and condition assessments in the current fiscal year will be used to update the Ten Year Plan. The goal is for staff to issue a revised plan in late March 2020.

ACTION TAKEN

No action to be taken at this time.

8. Coastal Treatment Plant AWT Upgrade Project Status Report (Project Committee 15)

DISCUSSION

Ms. Young discussed the project status. She reviewed Change Orders 6, 7, and 8 to the S.S. Mechanical construction contract for the Coastal Treatment Plant (CTP) Tertiary Treatment System Upgrades Project. It was noted that this was a strictly PC 15 AWT project.

ACTION TAKEN

The Project Committee 15 Engineering Committee recommended Change Orders 6 through 8 to the construction contract with S.S. Mechanical Construction for the CTP Tertiary Treatment System Upgrades (PC15, Task 3366-000), in the amount of \$4,593.14 be submitted to the Board of Directors for approval at the September 2019, Board Meeting.

**9. Coastal Treatment Plant Aeration System Review
(Project Committee 15)**

DISCUSSION

Mr. Peck reviewed the discussion regarding the Coastal Treatment Plant Aeration System. Based on this discussion SOCWA staff has issued two purchase orders to Hazen and Sawyer. The first purchase order addresses ways to simplify the aeration system for operation at a maximum plant capacity of 6.7 mgd; the second purchase order involves the evaluation of how the new aeration system might be integrated in a future membrane bioreactor system. Drafts of the two technical memoranda are scheduled for delivery in late September for review at the October Engineering Committee meeting.

ACTION TAKEN

No action to be taken at this time.

**10. J. B. Latham Treatment Plant – Plant 1 Grit Basin Rehabilitation Project Status Report Update
(Project Committee 2)**

DISCUSSION

Mr. Peck indicated that the project was substantially complete. Mr. Peck reviewed Change Orders 4 to the S.S. Mechanical construction contract for the J. B. Latham Treatment Plant (JBLTP) Plant 1 Grit Basin Rehabilitation Project.

ACTION TAKEN

The Project Committee 2 Engineering Committee recommended Change Order 4 to the construction contract with S.S. Mechanical Construction for the Plant 1 Grit Basin Rehabilitation Project (PC 2, Task 3250), in the amount of \$556.09 be submitted to the Board of Directors for approval at the September, 2019, Board Meeting.

**11. J. B. Latham Treatment Plant Blower Building (Plant 1) Condition Assessment Proposal Review
(Project Committee 2)**

DISCUSSION

Mr. Manning reviewed the scope of work for the J. B. Latham Treatment Plant (JBLTP) Blower Building (Plant 1) Condition Assessment. This is an important assessment for the subsequent number of rehabilitation projects that might result from assessment. He noted that proposals for the condition assessment had been received from Carollo Engineers and Hazen & Sawyer. Discussion ensued regarding the relative merits of each proposal. Mr. Manning noted that Hazen's approach was heavily based on an asset management approach. This resulted in a proposed fee that approximately \$60,000 higher for Hazen. Mr. Manning indicated that Carollo's approach included confined space access into the pump station wetwells. Mr. Manning also indicated that Carollo's fee was almost \$10,000 over the project budget. The present Project Committee 2 members recommended award to Carollo Engineers with an increase of \$15,000 in the project budget.

ACTION TAKEN

The Project Committee 2 Engineering Committee recommended an award of the JBLTP Plant 1 Blower Building Condition Assessment engineering services contract at a fee of \$95,813 and a line item budget increase of \$15,000 to be submitted to the Board of Directors for approval at the September 2019, Board Meeting.

12. J. B. Latham Treatment Plant Centrate System Final Design Proposal Review (Project Committee 2)

DISCUSSION

Ms. Young reviewed the proposed J. B. Latham Treatment Plant Centrate System Design project. The concept was initially developed by Carollo Engineers as part of the Package 'B' project. Engineering services proposals were received from Kleinfelder, ProjectLine and Tetra Tech. Ms. Young summarized each of the proposals. The number of drawings, the hours, and the fees varied significantly with the Tetra Tech proposal having the highest fee/effort and ProjectLine having the lowest fee/effort. Discussion ensued. The majority of participants felt that Kleinfelder had the most well thought out proposal. The Project Committee 2 Engineering Committee members asked SOCWA staff to review the proposal with Kleinfelder to determine if the number of drawings/hours could be reduced.

ACTION TAKEN

SOCWA staff is to negotiate with Kleinfelder. Potential revisions to the Kleinfelder proposal are to be presented at the September 2019, Engineering Committee meeting.

Adjournment

There being no further business, Mr. Manning adjourned the meeting at 9:23 a.m.

I HEREBY CERTIFY that the foregoing Minutes are a true and accurate copy of the Minutes of the Special Meeting of the South Orange County Wastewater Authority Engineering Committee of August 15, 2019 and approved by the Board of Directors of the South Orange County Wastewater Authority.

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

Agenda Item

Legal Counsel Review: N/A

Meeting Date: October 3, 2019

TO: Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Jason Manning, Director of Engineering

SUBJECT: Capital Improvement Program Status Report

The status of the SOCWA Capital Improvement Program is presented in the tables on the following pages.

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 2(R) - JB LATHAM TREATMENT PLANT CAPITAL PROJECTS
('19/'20)**

<i>Task Code</i>	<i>Description</i>	<i>Phase</i>	<i>Status</i>
CAPITAL IMPROVEMENT PROJECT LIQUIDS			
3220-000	Package B Liquids	Construction	The construction contract for Package 'B' was awarded at the April 4, 2019, SOCWA Board meeting. Tasks 3226-000 and 3228-000 have been combined into to this one Task Code.
4201-000	Plant 1 Blower Building Condition Assessment	Study	The contract was awarded at the September 5, 2019 SOCWA Board Meeting.
4202-000	Pipeline Condition Assessment Methodology Evaluation	Study	Project scheduled to begin in November 2019.
4203-000	Plant Hydraulic Model and Flow Management Plan	Study	The recommendation for award of the contract is being presented at the October 3, 2019 SOCWA Board Meeting.
3250-000	Plant 1 Grit Basin Improvements (2017)	Construction	This project has been completed.
3350-000	Motor Control Center 'M' Replacement (2019)	Design	This project is part of the JBL Electrical System Evaluation project. The recommendation for award of the contract is being presented at the October 3, 2019 SOCWA Board Meeting.
CAPITAL IMPROVEMENT PROJECT COMMON			
3231-000	Package B Common	Construction	The construction contract for Package 'B' was awarded at the April 4, 2019, SOCWA Board meeting. Tasks 3216-000 and 3230-000 have been combined into to this one Task Code.
3221-000	Electrical System Evaluation	Study	This project is part of the JBL Electrical System Evaluation project. The recommendation for award of the contract is being presented at the October 3, 2019 SOCWA Board Meeting.
4001-000	Plant Drain System Study (2017) (NCP)	Study	TetraTech is proceeding with the mapping of the drain system.
4204-000	Electrical Manhole Condition Assessment	Study	This project is part of the JBL Electrical System Evaluation project. The recommendation for award of the contract is being presented at the October 3, 2019 SOCWA Board Meeting.

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 2(R) - JB LATHAM TREATMENT PLANT CAPITAL PROJECTS
('19/'20)**

<i>Task Code</i>	<i>Description</i>	<i>Phase</i>	<i>Status</i>
CAPITAL IMPROVEMENT PROJECT SOLIDS			
3287-000	Package B Solids	Construction	The construction contract for Package 'B' was awarded at the April 4, 2019, SOCWA Board meeting. Tasks 3224-000, 3233-000 and 3236-000 have been combined into to this one Task Code.
3210-000	Facility Improvements - Solids Area (2015)	Construction	This work is part of the Package 'B' Improvements. The construction contract for Package 'B' was awarded at the April 4, 2019, SOCWA Board meeting.
3353-000	Centrate System Design (2019)	Design	The recommendation for award of the contract is being presented at the October 3, 2019 SOCWA Board Meeting.
4214-000	Solids Management Plan	Study	Project is scheduled to begin in February 2020.

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 5 - SAN JUAN CREEK OCEAN OUTFALL CAPITAL PROJECTS
(‘19/’20)**

<i>Task Code</i>	<i>Description</i>	<i>Phase</i>	<i>Status</i>
CAPITAL IMPROVEMENT PROJECTS			
3601-000	Junction Structure Rehabilitation Design	Design	The proposals for this work were approved at the June 6, 2019 Board Meeting.
3357-000	Junction Structure Reinforcement Permitting and Final Design	Design	The proposals for this work were approved at the June 6, 2019 Board Meeting.

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 15(R) - COASTAL TREATMENT PLANT CAPITAL PROJECTS
('19/'20)**

<i>Task Code</i>	<i>Description</i>	<i>Phase</i>	<i>Status</i>
CAPITAL IMPROVEMENT PROJECTS LIQUIDS			
3539-000	Facility Improvements	Construction	The construction contract for Facility Improvements Project was awarded at the June 6, 2019 SOCWA Board meeting. Task 3595-000 has been combined into to this one Task Code.
3534-000	Export Sludge System (1997)	Design	The California Coastal Commission approved the permit extension. Approval of the Public Access Plan is pending. Due to the timing of the permitting and nesting season, the project has been delayed to start in the fall of 2020.
3358-000	Personnel Building Reconstruction (2019)	Bid	Project to advertise for bids in October 2019.
3361-000	AWMA Road Sites West 1 and 2 Embankment Protection (2019)	Design	The engineering services contracts were awarded to Tetra Tech and Dudek at the August 8, 2019 SOCWA Board meeting.
3362-000	Aliso Creek Long Term Repair Planning (2019)	Planning	The engineering services contracts were awarded to Tetra Tech and Dudek at the August 8, 2019 SOCWA Board meeting.
3553-000	Plant Drainage Improvements (2017)	Design	TetraTech has completed design. Project expected to advertise for bid in October 2019.
3360-000	Vehicle Storage Building Roof (2019)	Construction	Project completed by Operations staff.
4501-000	Electrical Manhole/Cable Assessment	Study	Project is scheduled to begin in October 2019.
4502-000	Building Roof Condition Assessment	Study	Project is scheduled to begin in October 2019.
CAPITAL IMPROVEMENT PROJECT AWT			
3364-000	Chlorine Contact Basin Mixer Construction (AWT) (2019)	Construction	Installation of clearwell pump valves was completed in August 2019. There is no further anticipated field work for this project.

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 17(R) - REGIONAL TREATMENT PLANT CAPITAL PROJECTS
('19/'20)**

<i>Task Code</i>	<i>Description</i>	<i>Phase</i>	<i>Status</i>
CAPITAL IMPROVEMENT PROJECT LIQUIDS			
3701-000	Miscellaneous Improvements 2018	Construction	The construction contract was awarded to Filanc at the May 16, 2019 SOCWA Board meeting. Tasks 3702-000, 3730-000, 3784-000, 3785-000, and 3786-000 have been combined into to this one Task Code.
3752-000	AWT No.2 Upgrade Design (2017)	Design	The design by Carollo is completed. The timing of the bid is under discussion.
3758-000	AWT No.2 Upgrade Construction	Bid	A small portion of this project will be completed this year to maintain operation of the AWT
3759-000	AWT No.2 Electrical Upgrades	Bid	A small portion of this project will be completed this year to maintain operation of the AWT
3741-000	Southwest Influent Sewer and Manhole Design (2019)	Design	The draft RFP for this item will be presented to the Engineering Committee after completion of the Moulton Niguel Water District design.
4008-000	Effluent Equalization Pond and Gate Condition Assessment (2017) (NCP)	Condition Assessment	Due to weather, this will be delayed until Spring of 2020

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 17(R) - REGIONAL TREATMENT PLANT CAPITAL PROJECTS
('19/'20)**

<i>Task Code</i>	<i>Description</i>	<i>Phase</i>	<i>Status</i>
CAPITAL IMPROVEMENT PROJECT COMMON			
3769-000	Trailer Drain Line	Construction	This is the common portion of the Miscellaneous Improvement 2018 project. The construction contract was awarded to Filanc at the May 16, 2019 SOCWA Board meeting.
3761-000	External Lighting Upgrade	Bid	This item has been removed from the Miscellaneous Improvements 2018 project and will be repackaged in a subsequent project.
3744-000	Administration Building Repair Design (2019)	Design	This project has been awarded to Tetra Tech.
3745-000	West Slope Protection Evaluation (2019)	Study	This project has been awarded to Tetra Tech.
3746-000	Motor Control Center A, G, H Design (2019)	Design	The SOCWA Board approved the award of contract to Lee & Ro at the March 7, 2019, SOCWA Board Meeting.
3747-000	Southside Plant Flooding Evaluation (2019)	Study	This project has been awarded to Tetra Tech.
3740-000	SE Electrical Manhole Reconstruction (2018)	Design	The SOCWA Board approved the award of contract to Lee & Ro at the March 7, 2019, SOCWA Board Meeting.
4703-000	Laboratory Reconstruction Evaluation	Study	Project is scheduled to begin in February 2019.
4704-000	Evaluate Plant and Storm Water Drainage System	Study	Project is scheduled to begin in October 2019.

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 17(R) - REGIONAL TREATMENT PLANT CAPITAL PROJECTS
('19/'20)**

<i>Task Code</i>	<i>Description</i>	<i>Phase</i>	<i>Status</i>
CAPITAL IMPROVEMENT PROJECT SOLIDS			
3751-000	Miscellaneous Improvements 2018	Construction	The construction contract was awarded to Filanc at the May 16, 2019 SOCWA Board meeting. Task 3790-000 has been combined into to this one Task Code.
3749-000	Phase I Solids Piping Upgrade (2019)	Construction	This project is expected to advertise for bid in October 2019.
3750-000	Dewatering Room Floor Sealing and Lighting (2019)	Design	Harper & Associates has been retained to provide a specification for the floor sealing.
3754-000	SET Piping Reconstruction (2019)	Construction	This project is expected to advertise for bid in November 2019.
3790-000	Solids Area Upgrade Design (2018)	Design	Lee & Ro is working on the design for the modifications to the digester gas piping.
3772-000	Hot Water Piping Reconstruction	Design	Carollo has completed the initial design for upgrading the Hot Water Piping.
3773-000	Cogeneration System Modifications	Design	A review is being conducted to identify the needed elements for this project. The project should advertise for design in October.

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 21 - EFFLUENT TRANSMISSION MAIN CAPITAL PROJECTS
(‘19/‘20)**

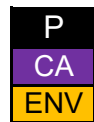
<i>Task Code</i>	<i>Description</i>	<i>Phase</i>	<i>Status</i>
CAPITAL IMPROVEMENT PROJECTS			
3105-000	Air Vacuum Release Valve Replacement Reach D Design and Permitting	Design	RFP for design to be submitted in January 2020
3106-000	Air Vacuum Release Valve Replacement Reach E Design and Permitting	Design	RFP for design to be submitted in January 2020
3101-000	Trail Bridge Creek Crossing Protection (Reach D) Design and Permitting	Design	Tetra Tech has submitted a set of design drawings for SOCWA review.

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 24 - ALISO CREEK OCEAN OUTFALL CAPITAL PROJECTS
(‘19/‘20)**

<i>Task Code</i>	<i>Description</i>	<i>Phase</i>	<i>Status</i>
CAPITAL IMPROVEMENT PROJECTS			
3480-000	Internal Seal Replacement (2018)	Design	A purchase order has been issued to Black & Veatch to provide design documents. The project is expected to advertise for bidding in November 2019.

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 2(R) - JB LATHAM TREATMENT PLANT CAPITAL PROJECTS**

		Fiscal Year 19/20				Fiscal Year 20/21			
		Quarter	1st	2nd	3rd	4th	1st	2nd	3rd
3220-000; 3216-000; 3287-000	Facility Improvements Package B	C	C	C	C	C	C	C	C
3350-000	MCC "M" Replacement Design	D	D						
3221-000	Electrical System Evaluation	P	P						
3353-000	Centrate System Design	D	D						
4001-000	Plant Drain System Study	P							
4201-000	Plant 1 Blower Building Condition Assessment	CA	CA						
4204-000	Electrical Manhole Condition Assessment	CA	CA						
4214-000	Solids Management Plan			P	P				
4202-000	Pipeline Condition Assessment Methodology Evaluation		P	P					
4203-000	Plant Hydraulic Model and Flow Management Plan	P	P						
3234-000	Centrate Piping Reconstruction						B&A	C	C
3235-000; 3227-000	Package D Solids Design					D	D	D	D
3285-000	Main Plant Drain Line Reconstruction						B&A	C	C
4205-000	Influent Flow Metering Evaluation					P			
4206-000	Plant 1 Grit Handling Evaluation						P	P	
4207-000	Chlorine Contact Basin/Effluent Pump Station Condition Assessment						CA		
4208-000	Dana Point Influent Sewer Condition Assessment					CA			
4209-000	Plant 1 Influent Sewer Condition Assessment					CA			
4210-000	Plant 1 Bypass Sewer Condition Assessment					CA			
4211-000	Site Storage Evaluation							P	P
3229-000	Drainage Pump Station Reconstruction						B&A	C	C
4212-000	Buried Utility Master Plan						P	P	
4213-000	Electrical Conduit and Cable Master Plan					P	P		



P Planning
CA Condition Assessment
ENV Environmental/Permitting



D Design
B&A Bidding and Award
C Construction

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 15(R) - COASTAL TREATMENT PLANT CAPITAL PROJECTS**

		Fiscal Year 19/20				Fiscal Year 20/21			
		Quarter	1st	2nd	3rd	4th	1st	2nd	3rd
3525-000	Personnel Building Reconstruction		B&A	C					
3539-000	Facility Improvements Construction	C	C	C	C	C	C	C	C
3541-000	Export Sludge System Reconstruction					B&A	C	C	C
3553-000	Plant Drainage Improvements		B&A	C	C				
4501-000	Electrical Manhole/Cable Assessment		CA	CA					
4502-000	Building Roof Condition Assessment		CA	CA					
3542-000	South Section Embankment Protection					ENV	ENV	ENV	ENV
15137	Foul Air System Condition Assessment						CA		
15138	Scum Pump Station Condition Assessment							CA	
4503-000	Site Storage Evaluation						P	P	
15139	Buried Utility Master Plan							P	P
3544-000	Aeration Upgrade Construction			D	B&A	C	C	C	
3546-000	Chlorine Contact Basin Gates					D	B&A	C	

P	Planning	D	Design
CA	Condition Assessment	B&A	Bidding and Award
ENV	Environmental/Permitting	C	Construction

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 17(R) - REGIONAL TREATMENT PLANT CAPITAL PROJECTS**

		Fiscal Year 19/20				Fiscal Year 20/21			
		Quarter	1st	2nd	3rd	4th	1st	2nd	3rd
3701-000; 3769-000; 3751-000	Miscellaneous Improvement 2018	C	C	C	C	C			
3753-000	Aeration Diffuser Upgrade		B&A	C	C	C			
3741-000	Southwest Influent Sewer and MH Repair Design			D	D				
3756-000	Secondary Clarifier Safety Repairs		B&A	C	C				
3757-000	Miscellaneous Safety Imps - Liquids		B&A	C	C				
3761-000	External Lighting Upgrade		B&A	C	C				
3771-000	Miscellaneous Safety Imps - Solids		B&A	C	C				
3749-000	Phase I Solids Piping Upgrade			B&A	C	C			
3755-000	SE Sewer Rehabilitation			B&A	C	C			
3758-000	AWT No. 2 Reconstruction				B&A	C	C		
3759-000	AWT No. 2 Electrical Upgrades				B&A	C	C		
3772-000	Hot Water Piping Reconstruction			B&A	C	C			
3766-000	AWT Hypochlorite Tanks Shade			B&A	C	C			
3773-000	Cogeneration System Modifications	D	D	B&A	C	C			
4704-000	Evaluate Plant and Storm Water Drainage System	P	P						
4703-000	Laboratory Reconstruction Evaluation			P	P	P			

P	Planning	D	Design
CA	Condition Assessment	B&A	Bidding and Award
ENV	Environmental/Permitting	C	Construction

**SOUTH ORANGE COUNTY WASTEWATER AUTHORITY
PROJECT COMMITTEE NO. 17(R) - REGIONAL TREATMENT PLANT CAPITAL PROJECTS CONTINUED**

		Fiscal Year 19/20				Fiscal Year 20/21			
		Quarter	1st	2nd	3rd	4th	1st	2nd	3rd
17087	Odor Control Chemical Tank					C			
17088	Primary Sedimentation Condition Assessment					CA			
37001-000; 37002-000; 3779-000	MCC A, C, G, H Replacement					B&A	C	C	
37002-000	West Slope Protection						B&A	C	C
37003-000	Admin Building Door & Window Repair						B&A	C	C
3775-000	Aeration Basin Handrail Upgrade						B&A	C	C
3776-000	Effluent Pond Gate Replacement					B&A	C	C	
3777-000; 3778-000	Site Lighting Upgrade							B&A	C
4701-000	Interstage Pump Station Condition Assessment						CA		
4702-000	Site Storage Evaluation							P	P

P	Planning	D	Design
CA	Condition Assessment	B&A	Bidding and Award
ENV	Environmental/Permitting	C	Construction

Agenda Item

Budgeted: Yes

Budget amount: \$215,977

Line Item: PC 2 Tasks 4204-000; 3252-000

Legal Counsel Review: No

Meeting Date: October 3, 2019

TO: Project Committee 2 Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Jason Manning, Director of Engineering

SUBJECT: Award of Engineering Services for the JB Latham Treatment Plant Electrical System Evaluation

Summary

This agenda item provides a recommendation for the award of an engineering services contract to Hazen and Sawyer for the JB Latham Treatment Plant Electrical System Evaluation.

Overview

The J. B. Latham Treatment Plant has five 480-volt service connections from the San Diego Gas & Electric (SDG&E) Company. The two largest services provide power to Plant 1 and Plant 2. The original Plant 1 power supply system was originally constructed from 1965 to 1974. This system was vulnerable to periodic flooding on the east side of the treatment plant. In addition, the underground conduit was prone to inundation due to high groundwater levels. The 480-volt power supply system was largely reconstructed in 2010 with a new switchgear located in a prefabricated building on the east side of the treatment plant.

The Plant 2 switchgear was installed in 1980 outdoors on the west side of the Plant 2 Blower Building. This switchgear as well as several Plant 2 motor control centers were replaced as part of the Package 'A/C' Facility Improvements in 2016. The new switchgear was installed in the newly constructed Plant 2 Power Supply Building. The modified switchgear was tied into the reconstructed co-generation system for the treatment plant.

The electrical systems for both Plant 1 and Plant 2 are equipped with standby power generators. The Plant 1 Standby Power Generator can supply power to the Plant 1 bar screens, screening compactor, raw sewage pumps and odor control scrubber in the event of a power failure. The existing standby power generator is a Caterpillar 415kw, 600 horsepower unit fed by natural gas. The unit is over 35 years old. The generator requires replacement as it has exceeded its useful life. Hazen & Sawyer was retained in 2015 to design the replacement of the generator. This project was envisioned as an in-kind replacement to be located in the same spot as the existing unit. The SOCWA Operations staff requested that the unit be upsized to serve all of Plant 1 during

an early phase of design. The project was placed on hold as the original budget did not consider the larger unit.

Electrical manholes and pull boxes have been installed on site through numerous projects since 1965. Many of the manholes have suffered damage through surface traffic and material deterioration.

The J. B. Latham Treatment Plant Electrical System Evaluation includes a broad range of activities including condition assessments, evaluations, and design. The key goals of the project include the following:

- Prepare an up-to-date master single line diagram for both the Plant 1 and Plant 2 480-volt distribution systems
- Prepare condition assessments of Motor Control Centers 'A-1', 'CF', and '2'
- Prepare a plot plan identifying the location of electrical manhole, hand holes, and pull boxes
- Prepare conditions assessments of electrical manhole, hand holes, and pull boxes
- Develop the concept for the replacement and relocation of MCC 'M' and 'G' to the Chlorination Building
- Develop the concept for the Plant 1 Standby Power Generator with a unit large enough to supply back-up power to all of Plant 1
- Design the replacement and relocation of MCC 'M'.

Proposals Received

Requests for Proposals were sent to the following five firms through Planet Bids:

- Carollo Engineers
- HDR Engineers
- Hazen & Sawyer
- Lee & Ro, Inc.
- ProjectLine

Two proposals from Hazen & Sawyer and Lee & Ro were received for this project.

Discussion/Analysis

A summary of the proposals is presented in Table 1.

Table 1
Proposal Summary

Firm	Lee & Ro	Hazen & Sawyer
Project Manager	Fred Young	Chris Thunhorst
Project Engineer	Mario Manansala	Ian McKenzie
Principal	Dhiru Patel	Dawn Guendert
Subconsultants	Jamison Engineering	V & A
Qualifications	Familiar with JBL. Multiple similar evaluations including the previous evaluations at SOCWA and member agency facilities.	Familiar with JBL. Multiple similar evaluations and MCC upgrade projects. Worked on previous standby generator upgrade project for SOCWA.
QA/QC	Lee Badertscher	Jerry Ratasky
Total Labor Hours	1,120	1,121 (not including sub time)
Schedule	Completion by February 27, 2020 (Page 9)	Study Completion by February 27, 2020 & MCC Design Completion by May 7, 2020 (Page 10)
Contract Issues	None	None
Proposal Requirement Compliance	Complied	Complied

The proposed fees for each firm are as shown in Table 2.

Table 2
Proposal Fee Summary

Firm	Lee & Ro	Hazen & Sawyer
Total Fee	\$184,760	\$199,546

The Engineering Committee for Project Committee 2 reviewed each of the proposals. The level of effort was similar for both proposals. The Engineering Committee noted that Hazen & Sawyer had provided additional resources for the condition assessment and consideration of creative options for MCC replacement. It was therefore the opinion of the Committee that the proposal by Hazen & Sawyer would provide a better understanding of the condition and options for future electrical projects at the JB Latham plant.

The scope of work for the proposed project is presented in Exhibit A.

Advisory Committee Review

Proposals for the JB Latham Treatment Plant Electrical System Evaluation were reviewed by the Engineering Committee on September 12, 2019. The present members of Project Committee 2 Engineering Committee recommended award of the contract to Hazen & Sawyer.

Fiscal Impact

The proposed fee is within funds available for this effort. The budget is presented in Table 3 below.

Table 3
Proposed Budget

Task	Budget	JBL Electrical System Evaluation	Contingency
4204-000	\$90,875	\$90,875	\$0
3252-000	\$125,102	\$108,671	\$16,431
Total	\$215,977	\$199,546	\$16,431

The allocation of the project cost to the member agencies is presented in Table 4.

Table 4
Allocation of Cost to Member Agencies

	Electrical System Evaluation	Total
	<i>4204-000; 3252-000</i>	
City of San Juan Capistrano	\$60,631	\$60,631
Moulton Niguel Water District	\$44,597	\$44,597
South Coast Water District	\$48,735	\$48,735
Santa Margarita Water District	\$45,582	\$45,582
Total	\$199,546	\$199,546

Recommendations

Staff recommends the Project Committee 2 Board of Directors approve the award of the engineering services contract to Hazen & Sawyer at a fee of \$199,546.

EXHIBIT A SCOPE OF SERVICES

Tasks include the following:

1. Progress Meetings. FIRM shall conduct five progress meetings at SOCWA's Administration building in Dana Point. This does not include site inspections. FIRM shall prepare all meeting presentation materials. FIRM shall maintain and distribute meeting decision and action items logs.
2. Document Review and Site Inspection. FIRM shall review all applicable drawings, plant data and prior evaluations. FIRM shall conduct site inspections and interviews with appropriate SOCWA staff members.
3. Single Line Drawing. FIRM shall prepare comprehensive single line drawing(s) for the Plant 1 and Plant 2 480-volt distribution systems. FIRM shall submit PDF version of the single line drawing to SOCWA for review and comment. FIRM shall address comments and finalize single line drawing(s). FIRM shall submit both PDF version and AutoCAD file to SOCWA.
4. Mapping Manholes and Pullboxes. FIRM shall prepare plot plan showing location of all electrical manholes and pullboxes on the Latham site. The plot plan will include routing of the primary 480-volt conduits and identify general locations of switchgear and motor control centers. A matrix shall be prepared showing material, size and general contents of manholes and pull boxes.
5. Condition Assessment Manholes and Pullboxes. FIRM shall perform condition assessment of electrical manholes, pullboxes and hand holes. The evaluation will include structure covers, the visible structure, miscellaneous metals within the structure and exposed conduit. Hand holes will be evaluated from ground level. The evaluation of the electrical manholes will include an internal inspection. FIRM shall identify recommended improvements and associated costs.
6. Condition Assessment Motor Control Centers. FIRM shall conduct condition assessment of Motor Control Centers 'A-1', 'CF' and '2'. Assessment shall address frame, breakers, and bus bar. Assessments shall be conducted during night and early morning hours when the units can be deenergized. FIRM shall consider existing and prospective utilization of motor control centers. FIRM shall identify needed improvements and related costs.
7. Motor Control Centers 'G' and 'M' Replacement. FIRM shall identify size, capacity and key features of replacement motor control centers. FIRM shall develop concept for installation of new MCC's in Chlorine Building in a manner to minimize interference with the storage functions in the Chlorine Building. FIRM shall develop floor plan and section views of MCC installation in Chlorine Building. FIRM shall develop sizing and routing of conduits/cables feeding power to MCC 'G' and 'M'. FIRM shall identify estimated construction cost of MCC relocation.
8. Standby Power Generator No.1 Replacement. FIRM shall identify size, fuel source and location of standby power generator large enough to handle entire Plant 1 load. FIRM

shall identify additional modifications necessary to integrate standby power generator with existing electrical system. FIRM shall prepare plan view and simplified single line drawing showing extent of improvements. FIRM shall identify estimated capital cost of standby power generator installation.

9. Technical Memorandum. FIRM shall summarize Items 2. Through 8. in one technical memorandum. FIRM shall submit draft to SOCWA for review. FIRM shall respond to all SOCWA comments, revise, and submit final memorandum.
10. Motor Control Center 'M' Final Design. FIRM shall develop plans and specifications for the MCC 'M' relocation. Note that Division 0 of the Specifications is prepared by SOCWA staff.
11. Motor Control Center 'M' Submittals. FIRM shall make three submittals: 50%, 95% and 100%.

FIRM shall address all SOCWA comments on the 50% and 95% submittals. FIRM shall provide one set of specifications on 8-1/2 x 11 paper, one copy of the final drawings on full size (22 x 34) mylar and one copy of the final drawings on 1/2 size bond paper. FIRM shall all provide specifications in electronic form (in *.doc format) and drawings in electronic form (in *.dwg and *.pdf format).

12. Motor Control Center 'M' Final Design Cost Estimate. FIRM shall provide a detailed cost estimate with the 50% and 95% submittals.



REQUEST FOR PROPOSALS

FOR

**J. B. LATHAM TREATMENT PLANT
ELECTRICAL SYSTEM EVALUATION STUDY**

July 24, 2019

**Proposals Due – September 5, 2019
at 2:00 p.m. (local time)**

AT

South Orange County Wastewater Authority
Administration Building
34156 Del Obispo Street
Dana Point, CA 92629
(949) 234-5411

Attention: Mr. Jason Manning, Senior Engineer

REQUEST FOR PROPOSALS

FOR THE
**J. B. LATHAM TREATMENT PLANT
ELECTRICAL SYSTEM EVALUATION STUDY**

GENERAL DESCRIPTION OF SERVICES REQUIRED

The South Orange County Wastewater Authority (SOCWA), a Joint Powers Authority, and several of its Member Agencies intend to retain a qualified FIRM to provide engineering services for the electrical systems evaluation study at the J. B. Latham Treatment Plant.

RECEIPT OF PROPOSALS

Five (5) copies of your proposal, signed by an officer of the FIRM who is authorized to execute legally binding agreements shall be delivered to: Jason Manning, SOUTH ORANGE COUNTY WASTEWATER AUTHORITY, 34156 Del Obispo Street, Dana Point, CA 92629 no later than 2:00 p.m. on September 5, 2019. Late proposals will be returned unopened to the respondent. FIRM is also to submit a PDF version of the proposal and an Excel version of the labor and fee proposal on disk or flash drive.

PROPOSAL AND SITE INQUIRIES

A pre-proposal meeting will be held at the JB Latham Treatment Plant at 1:30 p.m. on August 15, 2019. This meeting allows FIRMS to ask questions of staff and to investigate the site firsthand.

Should a FIRM desire additional information prior to submitting a proposal, please contact Jason Manning at (949) 234-5435.

BACKGROUND

The J. B. Latham Treatment Plant (JBLTP) consists of Plant 1 and Plant 2. Plant 1 has a rated capacity of 9 million gallons per day (mgd). Plant 2 has a rated capacity of 4 mgd. JBLTP receives flow from four upstream agencies including the City of San Juan Capistrano (CSJC), Moulton Niguel Water District (MNWD), South Coast Water District (SCWD), and Santa Margarita Water District (SMWD). There are two upstream reclamation plants, Plant 3A (owned and operated by the MNWD) and Oso Water Reclamation Plant (owned and operated by the SMWD).

The J. B. Latham Treatment Plant has five 480-volt service connections from the San Diego Gas & Electric (SDG&E) Company. The two largest services provide power to Plant 1 and Plant 2. The original Plant 1 power supply system was originally constructed from 1965 to 1974. This system was vulnerable to periodic flooding on the east side of the treatment plant. In addition, the underground conduit was prone to inundation due to high groundwater levels. The 480-volt power supply system was largely reconstructed

in 2010 with a new switchgear located in a prefabricated building on the east side of the treatment plant. There are only two motor control centers (MCC's) remaining for the Plant 1 that were constructed before 2000:

- MCC A1: Located in the Plant 1 Blower Building; servicing equipment on the Plant 1 basins
- MCC G: Located in the subterranean Scum Pump Station; servicing the scum pumping station.

Much of the 480-volt distribution system was reconstructed in 2010. The conduits are largely located above ground on the east and north walls of the plant. Large portions of the conduit system feeding Blower Building No.1 were mounted along the basin walls.

The Plant 2 switchgear was installed in 1980 outdoors on the west side of the Plant 2 Blower Building. This switchgear as well as several Plant 2 motor control centers were replaced as part of the Package 'A/C' Facility Improvements in 2016. The new switchgear was installed in the newly constructed Plant 2 Power Supply Building. The modified switchgear was tied into the reconstructed co-generation system for the treatment plant.

Motor Control Center 'D' was replaced in 2002. This MCC is unique in that a kirk-key configuration allows the MCC to be fed from either the Plant 1 or Plant 2 switchgear.

Motor Control Center 'M' was installed in 1989 largely to service the non-potable water system. MCC 'M' has been scheduled for replacement in SOCWA's capital improvement program due to the deterioration of the MCC in its current outdoor location. It has been proposed that the MCC be relocated inside the existing Chlorine Building.

The electrical systems for both Plant 1 and Plant 2 are equipped with standby power generators. The Plant 1 Standby Power Generator can supply power to the Plant 1 bar screens, screening compactor, raw sewage pumps and odor control scrubber in the event of a power failure. The existing standby power generator is a Caterpillar 415kw, 600 horsepower unit fed by natural gas. The unit is over 35 years old. The generator requires replacement as it has exceeded its useful life. Hazen & Sawyer was retained in 2015 to design the replacement of the generator. This project was envisioned as an in-kind replacement to be located in the same spot as the existing unit. The SOCWA Operations staff requested that the unit be upsized to serve all of Plant 1 during an early phase of design. The project was placed on hold as the original budget did not consider the larger unit.

Electrical manholes and pullboxes have been installed on site through numerous projects since 1965. Many of the manholes have suffered damage through surface traffic and material deterioration.

Goals

The J. B. Latham Treatment Plant Electrical System Evaluation includes a broad range of activities including condition assessments, evaluations, and design. The key goals of the project include the following:

- Prepare an up-to-date master single line diagram for both the Plant 1 and Plant 2 480-volt distribution systems
- Prepare condition assessments of Motor Control Centers 'A-1', 'CF', and '2'
- Prepare a plot plan identifying the location of electrical manhole, hand holes, and pull boxes
- Prepare conditions assessments of electrical manhole, hand holes, and pull boxes
- Develop the concept for the replacement and relocation of MCC 'M' and 'G' to the Chlorination Building
- Develop the concept for the Plant 1 Standby Power Generator with a unit large enough to supply back-up power to all of Plant 1
- Design the replacement and relocation of MCC 'M'.

The project deliverables are to include the following items:

- Technical memorandum in pdf format
- Single line diagram in pdf and AutoCAD format
- Electrical plot plan in pdf and AutoCAD format
- Meeting agendas, action item log and decision log in pdf format
- Motor Control Center 'M' drawings in pdf and AutoCAD format
- Motor Control Center 'M' specifications in pdf and Word format.

SCOPE OF SERVICES

Tasks are to include the following:

1. Progress Meetings. FIRM shall conduct five progress meetings at SOCWA's Administration building in Dana Point. This does not include site inspections. FIRM shall prepare all meeting presentation materials. FIRM shall maintain and distribute meeting decision and action items logs.
2. Document Review and Site Inspection. FIRM shall review all applicable drawings, plant data and prior evaluations. FIRM shall conduct site inspections and interviews with appropriate SOCWA staff members.

3. Single Line Drawing. FIRM shall prepare comprehensive single line drawing(s) for the Plant 1 and Plant 2 480-volt distribution systems. FIRM shall submit PDF version of the single line drawing to SOCWA for review and comment. FIRM shall address comments and finalize single line drawing(s). FIRM shall submit both PDF version and AutoCAD file to SOCWA.
4. Mapping Manholes and Pullboxes. FIRM shall prepare plot plan showing location of all electrical manholes and pullboxes on the Latham site. The plot plan will include routing of the primary 480-volt conduits and identify general locations of switchgear and motor control centers. A matrix shall be prepared showing material, size and general contents of manholes and pull boxes.
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8. Standby Power Generator No.1 Replacement. FIRM shall identify size, fuel source and location of standby power generator large enough to handle entire Plant 1 load. FIRM shall identify additional modifications necessary to integrate standby power generator with existing electrical system. FIRM shall prepare plan view and simplified single line drawing showing extent of improvements. FIRM shall identify estimated capital cost of standby power generator installation.
9. Technical Memorandum. FIRM shall summarize Items 2. Through 8. in one technical memorandum. FIRM shall submit draft to SOCWA for review. FIRM shall respond to all SOCWA comments, revise, and submit final memorandum.

10. Motor Control Center 'M' Final Design. FIRM shall develop plans and specifications for the MCC 'M' relocation. Note that Division 0 of the Specifications is prepared by SOCWA staff.

11. Motor Control Center 'M' Submittals. FIRM shall make three submittals: 50%, 95% and 100%.

FIRM shall address all SOCWA comments on the 50% and 95% submittals. FIRM shall provide one set of specifications on 8-1/2 x 11 paper, one copy of the final drawings on full size (22 x 34) mylar and one copy of the final drawings on 1/2 size bond paper. FIRM shall all provide specifications in electronic form (in *.doc format) and drawings in electronic form (in *.dwg and *.pdf format).

12. Motor Control Center 'M' Final Design Cost Estimate. FIRM shall provide a detailed cost estimate with the 50% and 95% submittals.

QUALITY ASSURANCE

The FIRM shall administer a program of quality assurance procedures for producing quality work. Specific procedures shall cover, but not be limited to, planning, checking, reviewing and scheduling the work.

All documents prepared by the FIRM shall be subject to the FIRM's in-house procedures prior to submittal to SOCWA for review. Each submittal shall be accompanied by a written statement from the principal-in-charge of the project stating that documents being submitted have been checked.

Discipline checks shall be made of all design calculations, drawings, specifications, construction cost estimates, and reports. An integrated design review shall be performed for multidisciplinary documents to provide coordination and to avoid conflicts in the documents. Checking shall be performed by qualified individuals who are not directly involved in the design or supervision of the work.

DESIGN EXPECTATIONS

Design Standards

SOCWA does not currently maintain a set of either design or CAD standards. The FIRM shall be responsible for the providing the design documents in sufficient detail and quality to allow accurate bidding and construction of the project. The design requirements include but are not limited to the requirements below.

As-Built Drawings

The as-built drawings of the SOCWA treatment facilities are of uncertain quality. The design consultant shall perform field measurements as necessary to verify key as-built information. Areas where dimensions cannot be verified (e.g. buried facilities) shall be addressed by

directing the contractor to pothole at key locations. Field verification is also necessary for power supply systems (including single line diagrams and panel drawings) and control/monitoring systems.

Unless noted otherwise the FIRM shall assume that SOCWA does not possess any electronic versions of either drawings or specifications.

Demolition Drawings

Demolition plans shall show both the removal and the necessary repair. Broad statements in the specifications regarding the repair of damaged facilities shall be deemed inadequate

Site Drawings

Site plans shall be provided as necessary. General civil plans shall be described with one foot contours. The limits of excavation shall be described for new foundation and for pipeline/conduit trenches. Remedial actions for damaged facilities and landscaping shall be identified. The location of new structures shall be established with coordinates.

Material Selection

SOCWA's treatment facilities are located in corrosive environments due both to the wastewater handling and the marine environment. The FIRM is expected to select materials designed for long life in these environments. Where material selection is anticipated to have a significant impact on project the FIRM is to review the cost difference with SOCWA staff.

PROPOSAL CONTENTS

Proposals shall be concise and shall not exceed ten (10) pages. Resumes will not be included in the page count. Proposals will be prepared in a letter proposal format. Proposals are not to have formal covers. Proposals are to be stapled without binding.

FIRM proposals shall include, at a minimum, the following information:

1. Indication that the FIRM has a clear understanding of each project task. This should include a description of the work to be performed, how the project tasks will be accomplished and the problems that may be encountered.
2. Descriptions of previous projects of similar type, scope, and size that the FIRM has completed. The description shall include project name, client, and client references (including telephone numbers).
3. Name, project responsibilities, and experience of designated personnel that will be assigned to work on SOCWA's projects with emphasis on the Project Manager.
4. List of all subconsultants proposed to be used by the FIRM.

5. The FIRM should submit a table showing the proposed number of drawings along with the amount of engineering and CAD time allocated to each drawing.
6. A table of effort is to be included in the Proposal that includes the FIRM hours by classification and the total hours for each subconsultant. This breakout is to be provided for each work item shown in the Scope of Services. The breakout shall clearly identify the hours associated with each cost center shown in the scope of services.
7. A proposed fee and schedule of hourly rates, provided in a separate sealed envelope marked "Estimate Fee – Engineering Services Proposal" and indicating the FIRM'S name. The schedule shall clearly identify the cost associated with each cost center.
8. Proposal shall include a listing (data, drawings, shop drawings) of all information needed by the FIRM to be provided by SOCWA.
9. A proposed project schedule. Identify availability of key staff members over the duration of the project.
10. A copy of the SOCWA's standard engineering contract is attached as Exhibit 'A'. The Proposal is to verify that the submitting firm will maintain the required insurance levels. The Proposal should identify whether the submitting firm agrees to the contract language. Any discrepancies should be identified.

Note that items 1. through 6. and 8. through 10. must be addressed within the proposal page limit identified above.

LEGAL REQUIREMENTS AND GENERAL CONDITIONS

Interpretation of Documents

A FIRM contemplating submitting a proposal for this proposed contract who is in doubt as to the true meaning of any part of this Request for Proposal or finds discrepancies in or omissions from this Request for Proposal, may submit to SOCWA a verbal or written request for interpretation or correction thereof. Any interpretation or correction of the documents will be made only by addendum duly issued. A copy of such an addendum will be mailed or delivered to each FIRM receiving this Request for Proposal. SOCWA will not be responsible for any explanations or interpretations of the documents other than written addenda.

Submission of a proposal shall be evidence that the FIRM did, in fact, conduct all necessary inspections and is aware of and acknowledges all conditions, restrictions and limitations affecting performance and cost.

Addenda

All addenda issued during the proposal period shall be noted in the FIRM's proposal.

Rejection of Proposal

SOCWA reserves the right to reject any and all proposals, to negotiate with one or more FIRMS, to waive any informality in a proposal, to delete or add items of work prior to award, and to make an award in the best interest of SOCWA.

Contract Award

The selected FIRM shall enter into a written contract with SOCWA binding all terms, conditions, and provisions of the proposal, and other terms, conditions, and provisions negotiated prior to award of the contract. The contract period will be for the duration of the project. A copy of the standard engineering services contract that SOCWA utilizes is attached with this Request for Proposals.

SOCWA's Use of Proposal Material

All material submitted in or with the proposal shall become the property of SOCWA, unless it is clearly marked as proprietary information. SOCWA reserves the right to use any ideas presented in the proposals, without compensation paid to the FIRM. Selection or rejection of the proposal shall not affect this right.

Proposal Development

The cost for developing and submitting the proposal shall be entirely the responsibility of the FIRM.

SELECTION CRITERIA

Proposals will be evaluated based on their response to all provisions of this RFP. The Agency may use some or all the following criteria in its evaluation and comparison of proposals submitted. The following list of criteria is not intended to be all inclusive and the order is not intended to indicate their relative importance:

- The experience, qualifications and availability of the Proposer's consultant team and, in particular, the Project Manager assigned to the project.
- The experience of the Proposer's team with respect to the project elements.
- The Proposer's technical approach and methodology to performing the scope of services will be evaluated based upon completeness, demonstrated capability, responsiveness to the Agency's needs and demonstrated understanding of the work requirements.

- Successful completion of previous work for SOCWA and its member agencies.
- Recent references from local clients on similar type work performed by Proposer.
- The proposed effort and fee for completing the scope of services.
- The Proposer's demonstrated ability to meet all the SOCWA's administrative requirements including insurance, liability, equal opportunity practices and any exceptions taken to the SOCWA's Professional Services Contract.

SELECTION PROCEDURES

Proposals received by SOCWA will be reviewed based on the proposal contents. It is the intent of SOCWA to select the firm based on the proposals. However, SOCWA reserves the right to conduct interviews with one or more firms prior to final selection.

If agreement cannot be reached with the selected FIRM, SOCWA will terminate negotiations with that FIRM and open negotiations with the next ranked FIRM. The compensation discussed with one FIRM will not be disclosed or discussed with another FIRM.

When a final selection and negotiated fee and terms for the contract have been reached, a recommendation for award will be made to the SOCWA Project Committee for approval.

SCHEDULE

- Pre-proposal Meeting: August 15, 2019
- Final Date for Proposal Submittal: September 5, 2019
- Engineering Committee Review: September 12, 2019
- Approval of Award by Board: October 3, 2019
- Study Completion: February 27, 2019

Agenda Item

Budgeted: Yes

Budget amount: \$176,849

Line Item: PC 2 Tasks 4203-000

Legal Counsel Review: No

Meeting Date: October 3, 2019

TO: Project Committee 2 Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Jason Manning, Director of Engineering

SUBJECT: Award of Engineering Services for the JB Latham Treatment Plant Hydraulic Modeling and Flow Management Study

Summary

This agenda item provides a recommendation for the award of an engineering services contract to Carollo Engineers for the JB Latham Treatment Plant Hydraulic Modeling and Flow Management Study.

Overview

The JBLTP consists of Plant 1 and Plant 2. Plant 1 has a rated capacity of 9 million gallons per day (mgd), and Plant 2 has a rated capacity of 4 mgd. JBLTP receives flow from four upstream agencies including the City of San Juan Capistrano (CSJC), Moulton Niguel Water District (MNWD), South Coast Water District (SCWD), and Santa Margarita Water District (SMWD). There are two upstream reclamation plants, Plant 3A (owned and operated by the MNWD) and Oso Water Reclamation Plant (owned and operated by the SMWD). Depending on how these plants are operated, influent flows to JBLTP may increase or decrease.

At each plant, wastewater influent is treated at headworks facilities and pumped to primary clarifiers. Flow continues to aeration tanks and secondary clarifiers. Secondary effluent pipes carry flow to tanks previously used as chlorine contact basins before effluent is pumped and discharged to the ocean.

The plant has experienced two trends over the past five years:

- The daily flow has decreased over the past five years to an annual average of 5.8 mgd for 2018
- The plant has experienced significant peak wet weather events with the flow exceeding 35 mgd on several occasions.

A hydraulic model of the JBLTP was developed in 2016 from the primary inlet channels through the secondary sedimentation basins as part of the Package 'B' Improvements planning phase. The modeling was prepared by Carollo Engineers with a spreadsheet-based steady-state hydraulic model used to calculate the hydraulic and energy grade lines through the treatment plant. A copy of the resultant report is included with this RFP as Exhibit A. The modeling did not reflect the severe storm events experienced by the plant in the winters of 2017 and 2019.

Updating the hydraulic modeling has become a goal for SOCWA to provide input into the decision-making process as the overall plan utilization is being reviewed.

The hydraulic model shall be a basic EXCEL spreadsheet which calculates energy grade line and water surface elevations at each component of the plant. The EXCEL spreadsheet shall include a summary sheet that displays discharge/submergence of key weirs, velocities of key pipes and channels, and available freeboard at key structures. The EXCEL spreadsheet shall provide capability to adjust the inputs for influent flows, recycle flows, and number of basins or units in service. The EXCEL spreadsheet shall include basic user directions and state assumptions. The FIRM shall provide a reference package that identifies plant components on existing drawings used as a basis for the model (such as channel dimensions or pipe sizes). The EXCEL spreadsheet will not require a graphical interface or automatic outputs as graphic images.

The project deliverables are to include the following items:

- Hydraulics TM in pdf format
- Hydraulics model in basic EXCEL spreadsheet format
- Hydraulics model's associated existing drawing reference package in pdf format
- Meeting agendas, action item log and decision log in pdf format
- Meeting presentation materials in pdf and PowerPoint format.

Proposals Received

Requests for Proposals were sent to the following five firms through Planet Bids:

- Carollo Engineers
- HDR Engineers
- Hazen & Sawyer
- TetraTech
- Woodard & Curran

One proposal from Carollo was received for this project.

Discussion/Analysis

A summary of the proposals is presented in Table 1.

Table 1
 Proposal Summary

Firm	Carollo
Project Manager	Rashi Gupta
Project Engineer	Teri Raasch
Principal	Doug Lanning
Subconsultants	None
Qualifications	Familiar with JBL. Completed a similar partial hydraulic study for Package B design. Worked on similar projects at several other California Agencies.
QA/QC	Jeff Weishaar
Total Labor Hours	643 + 84 for optional Temporary Flow Metering and Peak Flow Stress Test
Schedule	Completion by February 27, 2020 (Page 9)
Contract Issues	None
Proposal Requirement Compliance	Complied

The proposed fees for each firm are as shown in Table 2.

Table 2
Proposal Fee Summary

Firm	Carollo
Total Fee	\$152,971

The Engineering Committee for Project Committee 2 reviewed the proposal and discussed the issue of having only one firm submitting a proposal. In reviewing the planned budget, the detail in the proposal, and Carollo's knowledge and previous similar work at JBL, it was determined that the proposal was a high-quality effort. In addition, the hydraulic modeling will provide the basis for future projects at the JB Latham facility. It was therefore the opinion of the Committee that the proposal by Carollo would meet the requirements of the project and was well within the budgeted amount for this effort.

The scope of work for the proposed project is presented in Exhibit A.

Advisory Committee Review

The proposal for the JB Latham Treatment Hydraulic Modeling and Flow management Study was reviewed by the Engineering Committee on September 12, 2019. The present members of Project Committee 2 Engineering Committee recommended award of the contract to Carollo Engineers.

Fiscal Impact

The proposed fee is within funds available for this effort. The budget is presented in Table 3 below.

Table 3
Proposed Budget

Task	Budget	JBL Hydraulic Modeling and Flow Management Study	Contingency
4203-000	\$176,849	\$152,971	\$23,878
Total	\$176,849	\$152,971	\$23,878

The allocation of the project cost to the member agencies is presented in Table 4.

Table 4
Allocation of Cost to Member Agencies

	Hydraulic Modeling and Flow Management Study	Total
	<i>4203-000</i>	
City of San Juan Capistrano	\$47,068	\$47,068
Moulton Niguel Water District	\$35,301	\$35,301
South Coast Water District	\$44,126	\$44,126
Santa Margarita Water District	\$26,476	\$26,476
Total	\$152,971	\$152,971

Recommendations

Staff recommends the Project Committee 2 Board of Directors approve the award of the engineering services contract to Carollo Engineers at a fee of \$152,971.

EXHIBIT A
SCOPE OF SERVICES

Tasks include the following:

1. Progress Meetings. FIRM shall conduct four progress meetings at SOCWA's Administration building in Dana Point. This does not include site inspections. FIRM shall prepare all meeting presentation materials. FIRM shall maintain and distribute meeting decision and action items logs.
2. Document Review. FIRM shall review all applicable drawings, plant data and prior evaluations.
3. Hydraulic Model. FIRM shall submit for SOCWA review and approval a map showing all nodes in the model. The Plant 1 and Plant 2 models shall include a minimum of thirty nodes (grade calculation points) each. FIRM shall prepare model in EXCEL spreadsheet.
4. Calibration Coordination. FIRM shall meet with SOCWA staff to review calibration data request. Calibration data shall be obtained through a third-party surveying firm hired directly by SOCWA.
5. Model Calibration. FIRM shall calibrate model according to the existing flow and field measurements of water surface elevations. FIRM will develop the test plan for the field calibration and coordinate with SOCWA staff.
6. Evaluation. FIRM shall meet with SOCWA to determine the conditions for six separate combinations of flow and plant utilization. FIRM will conduct hydraulic evaluation for these scenarios.
7. Capacity Estimate. SOCWA will identify two basin utilization scenarios. FIRM shall estimate hydraulic capacity using the hydraulic model.
8. Engineering Committee Meeting. FIRM shall participate in one Engineering Committee meeting. FIRM shall not be responsible for presentation. FIRM shall be present to answer questions that arise during the meeting.
9. Technical Memorandum. FIRM shall summarize Items 2. Through 7. in one technical memorandum. FIRM shall submit draft to SOCWA for review. FIRM shall respond to all SOCWA comments, revise, and submit final memorandum.
10. Model Transfer. FIRM shall transmit EXCEL hydraulic model to SOCWA. FIRM shall conduct one 1 to 2-hour training session for SOCWA staff.



REQUEST FOR PROPOSALS

FOR

**J. B. LATHAM TREATMENT PLANT
HYDRAULIC MODELING AND FLOW MANAGEMENT STUDY**

July 22, 2019

**Proposals Due – August 28, 2019
at 2:00 p.m. (local time)**

AT

South Orange County Wastewater Authority
Administration Building
34156 Del Obispo Street
Dana Point, CA 92629
(949) 234-5411

Attention: Mr. Jason Manning, Senior Engineer

REQUEST FOR PROPOSALS

FOR THE **J. B. LATHAM TREATMENT PLANT HYDRAULIC MODELING AND FLOW MANAGEMENT STUDY**

GENERAL DESCRIPTION OF SERVICES REQUIRED

The South Orange County Wastewater Authority (SOCWA), a Joint Powers Authority, and several of its Member Agencies intend to retain a qualified FIRM to provide engineering services for the modeling and evaluation of the plant flow hydraulics at the J. B. Latham Treatment Plant.

RECEIPT OF PROPOSALS

Five (5) copies of your proposal, signed by an officer of the FIRM who is authorized to execute legally binding agreements shall be delivered to: Jason Manning, SOUTH ORANGE COUNTY WASTEWATER AUTHORITY, 34156 Del Obispo Street, Dana Point, CA 92629 no later than 2:00 p.m. on August 28, 2019. Late proposals will be returned unopened to the respondent. FIRM is also to submit a PDF version of the proposal and an Excel version of the labor and fee proposal on disk or flash drive.

PROPOSAL AND SITE INQUIRIES

A pre-proposal meeting will be held at the JB Latham Treatment Plant at 1:30 p.m. on August 8, 2019. This meeting allows FIRMS to ask questions of staff and to investigate the site firsthand.

Should a FIRM desire additional information prior to submitting a proposal, please contact Jason Manning at (949) 234-5435.

BACKGROUND

The J. B. Latham Treatment Plant (JBLTP) is a conventional activated sludge treatment plant with a secondary treatment design capacity of 13 MGD. The main wastewater treatment processes are screening, aerated grit removal, primary sedimentation, activated sludge aeration and secondary sedimentation. The plant has sodium hypochlorite feed facilities that are used for plant biological control and disinfection of the plant water (however, the main effluent discharge from the plant is not chlorinated).

The JBLTP consists of Plant 1 and Plant 2. Plant 1 has a rated capacity of 9 million gallons per day (mgd), and Plant 2 has a rated capacity of 4 mgd. JBLTP receives flow from four upstream agencies including the City of San Juan Capistrano (CSJC), Moulton Niguel Water District (MNWD), South Coast Water District (SCWD), and Santa Margarita Water District (SMWD). There are two upstream reclamation plants, Plant 3A (owned and operated by the MNWD) and Oso Water Reclamation Plant (owned and operated by the

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At each plant, wastewater influent is treated at headworks facilities and pumped to primary clarifiers. Flow continues to aeration tanks and secondary clarifiers. Secondary effluent pipes carry flow to tanks previously used as chlorine contact basins before effluent is pumped and discharged to the ocean.

The plant has experienced two trends over the past five years:

- The daily flow has decreased over the past five years to an annual average of 5.8 mgd for 2018
- The plant has experienced significant peak wet weather events with the flow exceeding 35 mgd on several occasions.

A hydraulic model of the JBLTP was developed in 2016 from the primary inlet channels through the secondary sedimentation basins as part of the Package 'B' Improvements planning phase. The modeling was prepared by Carollo Engineers with a spreadsheet-based steady-state hydraulic model used to calculate the hydraulic and energy grade lines through the treatment plant. A copy of the resultant report is included with this RFP as Exhibit A. The modeling did not reflect the severe storm events experienced by the plant in the winters of 2017 and 2019.

Updating the hydraulic modeling has become a goal for SOCWA to provide input into the decision-making process as the overall plan utilization is being reviewed.

Goals

The purpose of this project is to develop a plant-wide hydraulic model of the J.B. Latham Treatment Plant (JBLTP). The model will be used to determine the hydraulic profile at peak wet weather events and provide recommendations for flow management to reflect changed plant utilization and infrequent storms. In the future, this model will be used by SOCWA staff to perform preliminary calculations of hydraulic feasibility for potential projects.

It is expected that the FIRM will develop a hydraulic model of the JBLTP liquid treatment stream from the upstream diversion structure through a portion of the effluent pipeline. Figures 1 and 2 show the specific upstream and downstream boundaries for the model. SOCWA will provide FIRM with water surface elevations at these locations to be used as a downstream control point and upstream constraint for the hydraulic analysis:

- Downstream control (Figure 1): The model calculations will begin at the intersection where JBLTP effluent connects with upstream effluent from the Oso Creek WRP, Plant 3A WWTP, and Chiquita WRP
- Upstream constraint (Figure 2): The model calculations will end at the influent diversion structure.

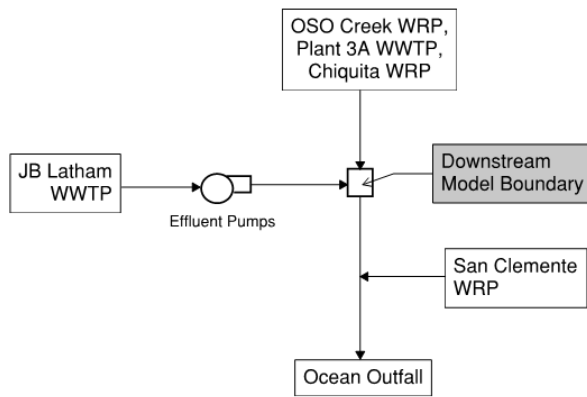


Figure 1: Downstream Model Boundary at SOCWA Ocean Outfall

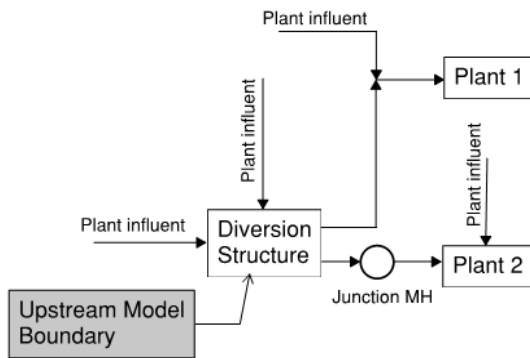


Figure 2: Upstream model boundary at JBLTP Influent Diversion Structure

The hydraulic model shall be a basic EXCEL spreadsheet which calculates energy grade line and water surface elevations at each component of the plant. The EXCEL spreadsheet shall include a summary sheet that displays discharge/submergence of key weirs, velocities of key pipes and channels, and available freeboard at key structures. The EXCEL spreadsheet shall provide capability to adjust the inputs for influent flows, recycle flows, and number of basins or units in service. The EXCEL spreadsheet shall include basic user directions and state assumptions. The FIRM shall provide a reference package that identifies plant components on existing drawings used as a basis for the model (such as channel dimensions or pipe sizes). The EXCEL spreadsheet will not require a graphical interface or automatic outputs as graphic images.

The project deliverables are to include the following items:

- Hydraulics TM in pdf format
- Hydraulics model in basic EXCEL spreadsheet format
- Hydraulics model's associated existing drawing reference package in pdf format
- Meeting agendas, action item log and decision log in pdf format
- Meeting presentation materials in pdf and PowerPoint format.

SCOPE OF SERVICES

Tasks are to include the following:

1. Progress Meetings. FIRM shall conduct four progress meetings at SOCWA's Administration building in Dana Point. This does not include site inspections. FIRM shall prepare all meeting presentation materials. FIRM shall maintain and distribute meeting decision and action items logs.
2. Document Review. FIRM shall review all applicable drawings, plant data and prior evaluations.
3. Hydraulic Model. FIRM shall submit for SOCWA review and approval a map showing all nodes in the model. The Plant 1 and Plant 2 models shall include a minimum of thirty nodes (grade calculation points) each. FIRM shall prepare model in EXCEL spreadsheet.
4. Calibration Coordination. FIRM shall meet with SOCWA staff to review calibration data request. Calibration data shall be obtained through a third-party surveying firm hired directly by SOCWA.
5. Model Calibration. FIRM shall calibrate model according to the existing flow and field measurements of water surface elevations. FIRM will develop the test plan for the field calibration and coordinate with SOCWA staff.
6. Evaluation. FIRM shall meet with SOCWA to determine the conditions for six separate combinations of flow and plant utilization. FIRM will conduct hydraulic evaluation for these scenarios.
7. Capacity Estimate. SOCWA will identify two basin utilization scenarios. FIRM shall estimate hydraulic capacity using the hydraulic model.
8. Engineering Committee Meeting. FIRM shall participate in one Engineering Committee meeting. FIRM shall not be responsible for presentation. FIRM shall be present to answer questions that arise during the meeting.
9. Technical Memorandum. FIRM shall summarize Items 2. Through 7. in one technical memorandum. FIRM shall submit draft to SOCWA for review. FIRM shall respond to all SOCWA comments, revise, and submit final memorandum.
10. Model Transfer. FIRM shall transmit EXCEL hydraulic model to SOCWA. FIRM shall conduct one 1 to 2 hour training session for SOCWA staff.

QUALITY ASSURANCE

The FIRM shall administer a program of quality assurance procedures for producing quality work. Specific procedures shall cover, but not be limited to, planning, checking, reviewing and scheduling the work.

All documents prepared by the FIRM shall be subject to the FIRM's in-house procedures prior to submittal to SOCWA for review. Each submittal shall be accompanied by a written statement from the principal-in-charge of the project stating that documents being submitted have been checked.

Discipline checks shall be made of all design calculations, drawings, specifications, construction cost estimates, and reports. An integrated design review shall be performed for multidisciplinary documents to provide coordination and to avoid conflicts in the documents. Checking shall be performed by qualified individuals who are not directly involved in the design or supervision of the work.

PROPOSAL CONTENTS

Proposals shall be concise and shall not exceed ten (10) pages. Resumes will not be included in the page count. Proposals will be prepared in a letter proposal format. Proposals are not to have formal covers. Proposals are to be stapled without binding.

FIRM proposals shall include, at a minimum, the following information:

1. Indication that the FIRM has a clear understanding of each project task. This should include a description of the work to be performed, how the project tasks will be accomplished and the problems that may be encountered.
2. Descriptions of previous projects of similar type, scope, and size that the FIRM has completed. The description shall include project name, client, and client references (including telephone numbers).
3. Name, project responsibilities, and experience of designated personnel that will be assigned to work on SOCWA's projects with emphasis on the Project Manager.
4. List of all subconsultants proposed to be used by the FIRM.
5. A table of effort is to be included in the Proposal that includes the FIRM hours by classification and the total hours for each subconsultant. This breakout is to be provided for each work item shown in the Scope of Services. The breakout shall clearly identify the hours associated with each cost center shown in the scope of services.
6. A proposed fee and schedule of hourly rates, provided in a separate sealed envelope marked "Estimate Fee – Engineering Services Proposal" and indicating

the FIRM'S name. The schedule shall clearly identify the cost associated with each cost center.

7. Proposal shall include a listing (data, drawings, shop drawings) of all information needed by the FIRM to be provided by SOCWA.
8. A proposed project schedule. Identify availability of key staff members over the duration of the project.
9. A copy of the SOCWA's standard engineering contract is attached as Exhibit 'B'. The Proposal is to verify that the submitting firm will maintain the required insurance levels. The Proposal should identify whether the submitting firm agrees to the contract language. Any discrepancies should be identified.

Note that items 1. through 5. and 7. through 9. must be addressed within the proposal page limit identified above.

LEGAL REQUIREMENTS AND GENERAL CONDITIONS

Interpretation of Documents

A FIRM contemplating submitting a proposal for this proposed contract who is in doubt as to the true meaning of any part of this Request for Proposal or finds discrepancies in or omissions from this Request for Proposal, may submit to SOCWA a verbal or written request for interpretation or correction thereof. Any interpretation or correction of the documents will be made only by addendum duly issued. A copy of such an addendum will be mailed or delivered to each FIRM receiving this Request for Proposal. SOCWA will not be responsible for any explanations or interpretations of the documents other than written addenda.

Submission of a proposal shall be evidence that the FIRM did, in fact, conduct all necessary inspections and is aware of and acknowledges all conditions, restrictions and limitations affecting performance and cost.

Addenda

All addenda issued during the proposal period shall be noted in the FIRM's proposal.

Rejection of Proposal

SOCWA reserves the right to reject any and all proposals, to negotiate with one or more FIRMS, to waive any informality in a proposal, to delete or add items of work prior to award, and to make an award in the best interest of SOCWA.

Contract Award

The selected FIRM shall enter into a written contract with SOCWA binding all terms, conditions, and provisions of the proposal, and other terms, conditions, and provisions negotiated prior to award of the contract. The contract period will be for the duration of the project. A copy of the standard engineering services contract that SOCWA utilizes is attached with this Request for Proposals.

SOCWA's Use of Proposal Material

All material submitted in or with the proposal shall become the property of SOCWA, unless it is clearly marked as proprietary information. SOCWA reserves the right to use any ideas presented in the proposals, without compensation paid to the FIRM. Selection or rejection of the proposal shall not affect this right.

Proposal Development

The cost for developing and submitting the proposal shall be entirely the responsibility of the FIRM.

SELECTION CRITERIA

Proposals will be evaluated based on their response to all provisions of this RFP. The Agency may use some or all the following criteria in its evaluation and comparison of proposals submitted. The following list of criteria is not intended to be all inclusive and the order is not intended to indicate their relative importance:

- The experience, qualifications and availability of the Proposer's consultant team and, in particular, the Project Manager assigned to the project.
- The experience of the Proposer's team with respect to the project elements.
- The Proposer's technical approach and methodology to performing the scope of services will be evaluated based upon completeness, demonstrated capability, responsiveness to the Agency's needs and demonstrated understanding of the work requirements.
- Successful completion of previous work for SOCWA and its member agencies.
- Recent references from local clients on similar type work performed by Proposer.
- The proposed effort and fee for completing the scope of services.
- The Proposer's demonstrated ability to meet all the SOCWA's administrative requirements including insurance, liability, equal opportunity practices and any exceptions taken to the SOCWA's Professional Services Contract.

SELECTION PROCEDURES

Proposals received by SOCWA will be reviewed based on the proposal contents. It is the intent of SOCWA to select the firm based on the proposals. However, SOCWA reserves the right to conduct interviews with one or more firms prior to final selection.

If agreement cannot be reached with the selected FIRM, SOCWA will terminate negotiations with that FIRM and open negotiations with the next ranked FIRM. The compensation discussed with one FIRM will not be disclosed or discussed with another FIRM.

When a final selection and negotiated fee and terms for the contract have been reached, a recommendation for award will be made to the SOCWA Project Committee for approval.

SCHEDULE

- Pre-proposal Meeting: August 8, 2019
- Final Date for Proposal Submittal: August 28, 2019
- Engineering Committee Review: September 12, 2019
- Approval of Award by Board: October 3, 2019
- Study Completion: February 27, 2019

Agenda Item

Budgeted: Yes

Budget amount: \$167,596

Line Item: PC 2 Task 3222-000; 3209-000

Legal Counsel Review: No

Meeting Date: October 3, 2019

TO: Project Committee 2 Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Roni Young Grant, Associate Engineer

SUBJECT: Award of Engineering Services Contract for the J.B. Latham Treatment Plant Centrate System Final Design

Summary

This agenda item provides a recommendation for the award of an engineering services contract to Kleinfelder for the J.B. Latham Treatment Plant Centrate System final design.

Overview

Solids treatment at the Latham Treatment Plant consists of dissolved air flotation thickening, anaerobic digestion and mechanical dewatering. Centrifuges located in the Dewatering Building are used for mechanical dewatering. The first centrifuge was installed in 1999; the remaining two centrifuges were installed in 2002.

New centrate piping was provided within the Dewatering Building to accommodate the new system in 1999, when the belt press system was replaced with the centrifuge system. In 2006, SOCWA installed a new centrate line which covered a portion of the distance between the Dewatering Building and the Plant 1 Headworks. The system is subject to periodic clogging and foaming.

SOCWA retained Carollo Engineers in 2017 to prepare a preliminary design for the Package 'B' Facility Improvements at the JBLTP. This scope included a technical memorandum for additional improvements to the centrate conveyance system. The design and construction of these improvements were not included in the Package 'B' project.

The scope for this project includes the following key elements:

- Centrate Piping within the Dewatering Building
- Centrate Pump Station
- Centrate Yard Piping and Discharge Location
- Influent Sampling
- Electrical Design

- Control Strategy

Proposals Received

Requests for Proposals were sent to the following six firms:

- Black and Veatch
- Kleinfelder
- Lee & Ro
- ProjectLine
- Tetra Tech
- Woodard & Curran

Three proposals from Kleinfelder, ProjectLine and Tetra Tech were received for this project.

Discussion/Analysis

A summary of the proposals is presented in Table 1.

Table 1
Proposal Summary

Firm	Kleinfelder	ProjectLine	TetraTech
Project Manager	Simon Wong	Robert Getter	Tom Epperson/ Neha Gajjar
Project Engineer	Arturo Garcia	Justin Chin	Derek Kurtti
Principal	Mark Peabody	Robert Getter	Tom Epperson
Subconsultants	MPA for Electrical and I&C	None	C-Below for Potholing
Qualifications	Worked on multiple projects for SOCWA's member agencies and solids handling and dewatering projects for other agencies	Pump station projects for other agencies and Coastal Treatment Plant grit valve replacement project for SOCWA	Worked on various projects for SOCWA at the three plants
QA/QC	Richard Vanderschaaf Edward Matthews	Robert Getter	Mark Maxwell
Total Labor Hours	867.2 (26 sheets/351 CAD hours)	446 (13 sheets/152 CAD hours)	1,328 (40 sheets/600 CAD hours)
Firm	Kleinfelder	ProjectLine	TetraTech
Schedule	Completion by April 30, 2020 (Page 10)	Completion by April 30, 2020 (Page 5)	Completion by April 15, 2020 (Page 7)
Contract Issues	Comments included in the proposal	None	Comments included in the proposal
Proposal Requirement Compliance	Complied	Complied	Complied

The proposed fees for each firm are as shown in Table 2.

Table 2
Proposal Summary

Firm	Kleinfelder	ProjectLine	Tetra Tech
Total Fee	\$152,360	\$65,644	\$209,800

The Engineering Committee for Project Committee 2 reviewed each of the proposals at the August meeting. The difference in effort was noted by the Engineering Committee. Engineering Committee requested staff to contact the proposed firms to obtain additional information. After reviewing the additional information at the September meeting, the majority of participants felt that Kleinfelder had properly addressed the requirements of the requested work with a fee that was appropriate for the task.

The scope of work for the proposed project is presented in Exhibit A.

Advisory Committee Review

Proposals for the J. B. Latham Treatment Plant Centrate System Final Design were reviewed by the Engineering Committee on August 15 and September 12, 2019. The present members of Project Committee 2 Engineering Committee recommended award of the contract to Kleinfelder.

Fiscal Impact

The proposed fee is within funds available for this effort. The budget is presented in Table 3 below.

Table 3
Proposed Budget

Task	Budget	Centrate System	Contingency
3222-000	\$85,000	\$85,000	\$0
3209-000	\$82,596	\$67,360	\$15,236
Total	\$167,596	\$152,360	\$15,236

The allocation of the project cost to the member agencies is presented in Table 4.

Table 4
Allocation of Cost to Member Agencies

	Centrate System	Total
	3222-000; 3209-000	
City of San Juan Capistrano	\$45,708.00	\$45,708.00
Moulton Niguel Water District	\$32,940.23	\$32,940.23
South Coast Water District	\$30,472.00	\$30,472.00
Santa Margarita Water District	\$43,239.77	\$43,239.77
Total	\$152,360.00	\$152,360.00

Recommendations

Staff recommends the Project Committee 2 Board of Directors approve the award of the Centrate System engineering services contract to Kleinfelder at a fee of \$152,360.

EXHIBIT A
SCOPE OF SERVICES

Tasks include the following:

- I. Progress Meetings. FIRM shall conduct monthly progress meetings at SOCWA's Dana Point Administration Building. FIRM shall prepare the agenda, the action item list and the decision log for each meeting. FIRM shall plan for a maximum of 6 progress meetings including one kickoff meeting.
- II. Document Review. FIRM shall review all planning documentations available including, but not limited to Carollo's Package "B" planning technical memoranda and Carollo's solids area condition assessment. FIRM shall also review facility drawings and visit the field to determine the correctness of existing as-built drawings. FIRM shall review project needs with Operations and Maintenance staff.

FIRM shall note that SOCWA does not have CAD drawings for any of the as-built drawings. SOCWA can provide CAD drawings for the following: (a) aerial topography and (b) field survey.

- III. 35% Submittal. This submittal shall include plans, specifications and cost estimate. The plans shall include base sheets, plan views, P&ID, single line diagram, equipment list including cut sheets. FIRM shall provide specifications in electronic form (in *.doc format) and drawings in electronic form (in *.pdf format). Note: after the 35% submittal, SOCWA and FIRM shall agree to the equipment list. SOCWA will take two weeks to review the submittal and return comments. FIRM shall prepare an implementation plan showing how work can be done while maintain the facility in service.
- IV. 90% Submittal. The 90% submittal shall address all SOCWA's comments from the 35% submittal. This submittal shall also include the same elements as the 35% submittal with the completed plans, specifications and cost estimate. FIRM shall provide specifications in electronic form (in *.doc format) and drawings in electronic form (in *.pdf format). SOCWA will take two weeks to review the submittal and return comments.
- V. 100% Submittal. The 100% submittal shall address all SOCWA's comments from the 90% submittal. This submittal shall also include the same elements as the 90% submittal with the completed plans, specifications and cost estimate. FIRM shall provide specifications in electronic form (in *.doc format) and drawings in electronic form (in *.pdf format). SOCWA will take two weeks to review the submittal and return comments.
- VI. Final Submittal. FIRM shall provide one set of specifications on 8-12 x 11 paper, one copy of the final drawings on full size (22 x 34) paper and one copy of the final drawings on ½ size bond paper. FIRM shall also provide specifications in electronic form (in *.doc format) and drawings in electronic form (in *.dwg and *.pdf format).

- VII. Divisions 0 and 1. SOCWA will provide the FIRM with the listing of standard specifications Divisions 0 and 1 to be used for the project after the 35% submittals review. FIRM is responsible for preparing Section 01010, Summary of Work and Section 01014, Work Restrictions and Sequence. FIRM shall meet with SOCWA to discuss coordination of specifications sections referenced in the technical specifications. FIRM shall submit required information for review at the 90% submittal.



REQUEST FOR PROPOSALS

FOR

**J.B. LATHAM TREATMENT PLANT
CENTRATE SYSTEM FINAL DESIGN**

June 19, 2019

**Proposals Due – July 31, 2019
at 2:00 p.m. (local time)**

AT

South Orange County Wastewater Authority
Administration Building
34156 Del Obispo Street
Dana Point, CA 92629
(949) 234-5410

Attention: Ms. Jeanette Cotinola, Procurement and Contract Administrator

REQUEST FOR PROPOSALS

FOR THE **FINAL DESIGN OF THE J. B. LATHAM TREATMENT PLANT CENTRATE SYSTEM**

GENERAL DESCRIPTION OF SERVICES REQUIRED

The South Orange County Wastewater Authority (SOCWA), a Joint Powers Authority, and several of its Member Agencies intend to retain a qualified FIRM to provide engineering services for the Centrate System at the J.B. Latham Treatment Plant (JBLTP).

RECEIPT OF PROPOSALS

Nine (9) copies of your proposal, signed by an officer of the FIRM who is authorized to execute legally binding agreements shall be delivered to: Roni Young Grant, SOUTH ORANGE COUNTY WASTEWATER AUTHORITY, 34156 Del Obispo Street, Dana Point, CA 92629 no later than 2:00 p.m. on July 31, 2019. Late proposals will be returned unopened to the respondent. FIRM is also to submit a pdf version of the proposal on disk or flash drive.

PROPOSAL AND SITE INQUIRIES

A pre-proposal meeting will be held on Thursday, July 11, 2019 at 10:30 AM at the J.B. Latham Treatment Plant. This meeting allows FIRMS to ask questions of staff and to investigate the site firsthand.

Should a FIRM desire additional information prior to submitting a proposal, please contact Roni Young Grant at (949) 234-5410.

BACKGROUND – J. B. LATHAM TREATMENT PLANT (JBLTP)

The J. B. Latham Treatment Plant is a conventional activated sludge treatment plant with a secondary treatment design capacity of 13 MGD. The liquid handling portion of the treatment plant is normally operated as two separate plants referred to as the 9 MGD (East) side and the 4 MGD (West) side. The main wastewater treatment processes are screening, aerated grit removal, primary sedimentation, activated sludge aeration and secondary sedimentation. The plant has sodium hypochlorite feed facilities that are used for plant biological control and disinfection of the plant water (however, the main effluent discharge from the plant is not chlorinated).

Solids treatment at the Latham Treatment Plant consists of dissolved air flotation thickening, anaerobic digestion and mechanical dewatering. Centrifuges located in the Dewatering Building are used for mechanical dewatering. The first centrifuge was installed in 1999; the remaining two centrifuges were installed in 2002.

New centrate piping was provided within the Dewatering Building to accommodate the new system in 1999, when the belt press system was replaced with the centrifuge system. This piping tied into the existing filtrate collection pipe that diverted flow to Plant 1 and Plant 2 for retreatment. SOCWA Operations staff opted to primarily divert flow to Plant 1 as the centrate caused treatment problems at the more lightly loaded Plant 2. In 2006 SOCWA installed a new centrate line which covered a portion of the distance between the Dewatering Building and the Plant 1 Headworks. This new PVC pipeline runs above grade after exiting the north side of the Dewatering Building. The pipeline which is located adjacent to the north retaining wall eventually goes below grade and connects to the Plant 1 primary influent pipeline. The system is subject to periodic clogging and foaming. The existing centrate routing is shown in Exhibit 1.

SOCWA retained Carollo Engineers in 2017 to prepare a preliminary design for the Package 'B' Facility Improvements at the JBLTP. This scope included a technical memorandum for additional improvements to the centrate conveyance system. The design and construction of these improvements were not included in the Package 'B' project.

Project Elements

Two technical memoranda (see listings under "Documentation") prepared by Carollo Engineers identified the issues of the existing centrate system and included preliminary recommendations. The project elements include the following:

1. Centrate Piping within the Dewatering Building. To address the issue of centrate backing up in to the centrifuge units, the centrate piping within the Dewatering Building should be replaced, including the manifolds and collection piping at each of the centrifuge. The desired piping material is chlorinated polyvinyl chloride (CPVC) due to its cost effectiveness and ease for replacement. While struvite is forming within the system, it does not currently appear to be the primary reason for the pipe clogs. It is also important for the centrate discharge location be designed to minimize turbulence. Exhibit 2 shows a conceptual centrifuge piping manifold and Exhibit 3 shows a preliminary centrate collection piping within the Dewatering Building.
2. Centrate Pump Station. The existing gravity system can be replaced with a pumped system at Plant 1 to reduce pipe clogging and ease pipe routing. For redundancy, the ability to divert centrate to Plant 2 by gravity should be maintained through the use of diversion valves within the Dewatering Building. The primary components of the centrate pump station include the centrate collection wetwell, two centrate pumps operating in duty-standby, and a magnetic flow meter. The pumps should be constant speed pumps. As part of the Package 'B' planning effort, Carollo performed process modeling in 2017, the preliminary design criteria for the pump station is shown in the table below.

Criteria	Unit	Current Conditions	JBLTP Plant Capacity
Centrate Flow	gpm	165	270
Max Pump Starts per Hour ⁽¹⁾	Hours	4	4
Minimum Wet Well Volume Required	ft ³	83	135

(1) Preliminary design criteria based on constant speed pumps.

Carollo evaluated four alternatives related to the pump station, two above-grade alternatives and two below-grade alternatives. SOCWA’s preferred alternative includes an above-grade centrate tank and pump station outside the existing masonry retaining wall boundary. Exhibit 4 shows the location of the preferred alternative.

3. Centrate Yard Piping and Discharge Location. The existing centrate yard piping will be replaced with new pipeline that connects the new centrate pump station with Plant 1. The preferred route will tie into a manhole for connection to the Plant 1 Primary Influent Channel. An additional manhole will be constructed on the new centrate system as a sample station prior to the Plant 1 Primary Influent Channel. Exhibit 5 shows a preliminary layout of the centrate discharge piping to the Plant 1 primary Influent Channel. Exhibit 5 shows a preliminary layout of the centrate discharge piping to the Plant 1 primary Influent Channel.
4. Influent_Sampling. An additional manhole will be constructed on the new centrate system as a sample station prior to the Plant 1 Primary Influent Channel. A 120 Volt power will be required to power the sampling station.
5. Electrical Design. The Dewatering Building is served by two Motor Control Centers (MCC), MCC-2 and MCC-CF (Fed from MCC-2 and MCC-D). MCC-CF should have sufficient spare capacity an additional 10 hp of centrate pump load. It is recommended the additional loads be connected to the side fed from MCC-D. A local control panel should be provided at the pump station. Exhibit 6 shows a partial single-line diagram of the modified MCC-CF.
6. Control Strategy. The centrate pump station should be capable of local-manual, remote-manual, and remote-automatic control, with remote-automatic control being the recommended normal mode of operation. The local control station, MCC, remote human machine interface (HMI), and the programmable logic control (PLC) should be utilized to control the pumping system. The pump station should have two pumps with one duty and one standby. The tank should be equipped with high-high and low-low level switch, an ultrasonic level transmitter, and discharge pressure gauges, discharge pressure switches, and a magnetic flow meter. Exhibit 7 shows a preliminary process flow diagram.

Listing of Documents

Elements of the work are listed in the following documents:

- SOCWA Dewatering System and Digester Gas Control and Heating Condition Assessment Technical Memorandum, Carollo, November 2017
- JBLTP Package B Design Technical Memorandum No. 1, Centrate Pump Station, Carollo, January 2019

The following tasks of the Scope of Services is to include each of the items of the work.

SCOPE OF SERVICES

Tasks are to include the following:

- I. Progress Meetings. FIRM shall conduct monthly progress meetings at SOCWA's Dana Point Administration Building. FIRM shall prepare the agenda, the action item list and the decision log for each meeting. FIRM shall plan for a maximum of 6 progress meetings including one kickoff meeting.
- II. Document Review. FIRM shall review all planning documentations available including, but not limited to Carollo's Package "B" planning technical memoranda and Carollo's solids area condition assessment. FIRM shall also review facility drawings and visit the field to determine the correctness of existing as-built drawings. FIRM shall review project needs with Operations and Maintenance staff.

FIRM shall note that SOCWA does not have CAD drawings for any of the as-built drawings. SOCWA can provide CAD drawings for the following: (a) aerial topography and (b) field survey.

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form (in *.pdf format). SOCWA will take two weeks to review the submittal and return comments.

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QUALITY ASSURANCE

The FIRM shall administer a program of quality assurance (QA) procedures for producing quality work. Specific procedures shall cover, but not be limited to, planning, checking, reviewing and scheduling the work.

All documents prepared by the FIRM shall be subject to the FIRM's in-house procedures prior to submittal to SOCWA for review. Each submittal shall be accompanied by a written statement from the principal-in-charge of the project stating that documents being submitted have been checked.

DESIGN EXPECTATIONS

Design Standards

SOCWA does not currently maintain a set of either design or CAD standards. The FIRM shall be responsible for the providing the design documents in sufficient detail and quality to allow accurate bidding and construction of the project. The design requirements include but are not limited to the requirements below.

As-Built Drawings

The as-built drawings of the four SOCWA treatment facilities are of uncertain quality. The design consultant shall perform field measurements as necessary to verify key as-built information. Areas where dimensions cannot be verified (e.g. buried facilities) shall be addressed by directing the contractor to pothole at key locations. Field verification is also necessary for power supply systems (including single line diagrams and panel drawings) and control/monitoring systems.

Unless noted otherwise the FIRM shall assume that SOCWA does not possess any electronic versions of either drawings or specifications.

Demolition Drawings

Demolition plans shall show both the removal and the necessary repair. Broad statements in the specifications regarding the repair of damaged facilities shall be deemed inadequate

Site Drawings

Site plans shall be provided as necessary. General civil plans shall be described with one-foot contours. The limits of excavation shall be described for new foundation and for pipeline/conduit trenches. Remedial actions for damaged facilities and landscaping shall be identified. The location of new structures shall be established with coordinates.

Material Selection

SOCWA's treatment facilities are in corrosive environments due both to the wastewater handling and the marine environment. The FIRM is expected to select materials designed for long life in these environments. Where material selection is anticipated to have a significant impact on project the FIRM is to review the cost difference with SOCWA staff.

PROPOSAL CONTENTS

Proposals shall be concise and shall not exceed 10 pages. Resumes will not be included in the page count. Proposals will be prepared in a letter proposal format. Proposals are not to have formal covers. Proposals are to be stapled without binding.

Proposals shall include, at a minimum, the following information:

1. Indication that the FIRM has a clear understanding of each project task. This should include a description of the work to be performed, how the project tasks will be accomplished and the problems that may be encountered.
2. Descriptions of previous projects of similar type, scope, and size that the FIRM has completed. The description shall include project name, client, and client references (including telephone numbers).
3. Name, project responsibilities, availability, and experience of designated personnel that will be assigned to work on SOCWA's projects with emphasis on the Project Manager.
4. List of all subconsultants proposed to be used by the FIRM.
5. The FIRM should submit a list of anticipated drawings with the estimated hours for engineering and CAD technician time.
6. A table of effort is to be included in the Proposal that includes the FIRM hours by classification and the total hours for each subconsultant. This breakout is to be provided for each work task shown in the scope of services.

7. A proposed fee and schedule of hourly rates provided in a separate sealed envelope marked “Estimate Fee – Engineering Services Proposal” and indicating the FIRM'S name. This breakout is to be provided for each work item and each cost center shown in the scope of services.
8. Proposal shall include a listing (data, drawings, shop drawings) of all information needed by the FIRM to be provided by SOCWA.
9. A proposed project schedule. Identify availability of key staff members over the duration of the project.
10. A copy of the SOCWA's standard consulting contract is attached as Exhibit A. The Proposal is to verify that the submitting firm will maintain the required insurance levels. The Proposal should identify whether or not the submitting firm agrees to the contract language. Any discrepancies should be identified.

Note that items 1. through 6. and 8. through 10. must be addressed within the proposal page limit identified above.

LEGAL REQUIREMENTS AND GENERAL CONDITIONS

Interpretation of Documents

A FIRM contemplating submitting a proposal for this proposed contract who is in doubt as to the true meaning of any part of this Request for Proposal or finds discrepancies in or omissions from this Request for Proposal, may submit to SOCWA a verbal or written request for interpretation or correction thereof. Any interpretation or correction of the documents will be made only by addendum duly issued. A copy of such an addendum will be mailed or delivered to each FIRM receiving this Request for Proposal. SOCWA will not be responsible for any explanations or interpretations of the documents other than written addenda.

Submission of a proposal shall be evidence that the FIRM did, in fact, conduct all necessary inspections and is aware of and acknowledges all conditions, restrictions and limitations affecting performance and cost.

Addenda

All addenda issued during the proposal period shall be noted in the FIRM's proposal.

Rejection of Proposal

SOCWA reserves the right to reject any and all proposals, to negotiate with one or more FIRMS, to waive any informality in a proposal, to delete or add items of work prior to award, and to make an award in the best interest of SOCWA.

Contract Award

The selected FIRM shall enter into a written contract with SOCWA binding all terms, conditions, and provisions of the proposal, and other terms, conditions, and provisions negotiated prior to award of the contract. The contract period will be for the duration of the project. A copy of the standard consulting services contract that SOCWA utilizes is attached with this Request for Proposals.

SOCWA's Use of Proposal Material

All material submitted in or with the proposal shall become the property of SOCWA, unless it is clearly marked as proprietary information. SOCWA reserves the right to use any ideas presented in the proposals, without compensation paid to the FIRM. Selection or rejection of the proposal shall not affect this right.

Proposal Development

The cost for developing and submitting the proposal shall be entirely the responsibility of the FIRM.

SELECTION CRITERIA

Proposals will be evaluated on the basis of their response to all provisions of this RFP. The Agency may use some or all of the following criteria in its evaluation and comparison of proposals submitted. The following list of criteria is not intended to be all inclusive and the order is not intended to indicate their relative importance:

- The experience, qualifications and availability of the Proposer's consultant team and, in particular, the Project Manager assigned to the project.
- The experience of the Proposer's team with respect to the project elements.
- The Proposer's technical approach and methodology to performing the scope of services will be evaluated based upon completeness, demonstrated capability, responsiveness to the Agency's needs and demonstrated understanding of the work requirements.
- Successful completion of previous work for SOCWA and its member agencies.
- Recent references from local clients on similar type work performed by Proposer.
- The proposed effort and fee for completing the scope of services.
- The Proposer's demonstrated ability to meet all of the SOCWA's administrative requirements including insurance, liability, equal opportunity practices and any exceptions taken to the SOCWA's Professional Services Contract.

SELECTION PROCEDURES

Proposals received by SOCWA will be reviewed on the basis of the proposal contents. It is the intent of SOCWA to select the firm based on the proposals. However, SOCWA reserves the right to conduct interviews with one or more firms prior to final selection.

If agreement cannot be reached with the selected FIRM, SOCWA will terminate negotiations with that FIRM and open negotiations with the next ranked FIRM. The compensation discussed with one FIRM will not be disclosed or discussed with another FIRM.

When a final selection and negotiated fee and terms for the contract have been reached, a recommendation for award will be made to the SOCWA Project Committee for approval.

SCHEDULE

- Final Date for Proposal Submittal: July 31, 2019
- Engineering Committee Review: August 8, 2019
- Approval of Award by Board: September 5, 2019
- Design Completion: April 30, 2020

Exhibit 1. Current Centrate Routing to Plant 1 and Plant 2

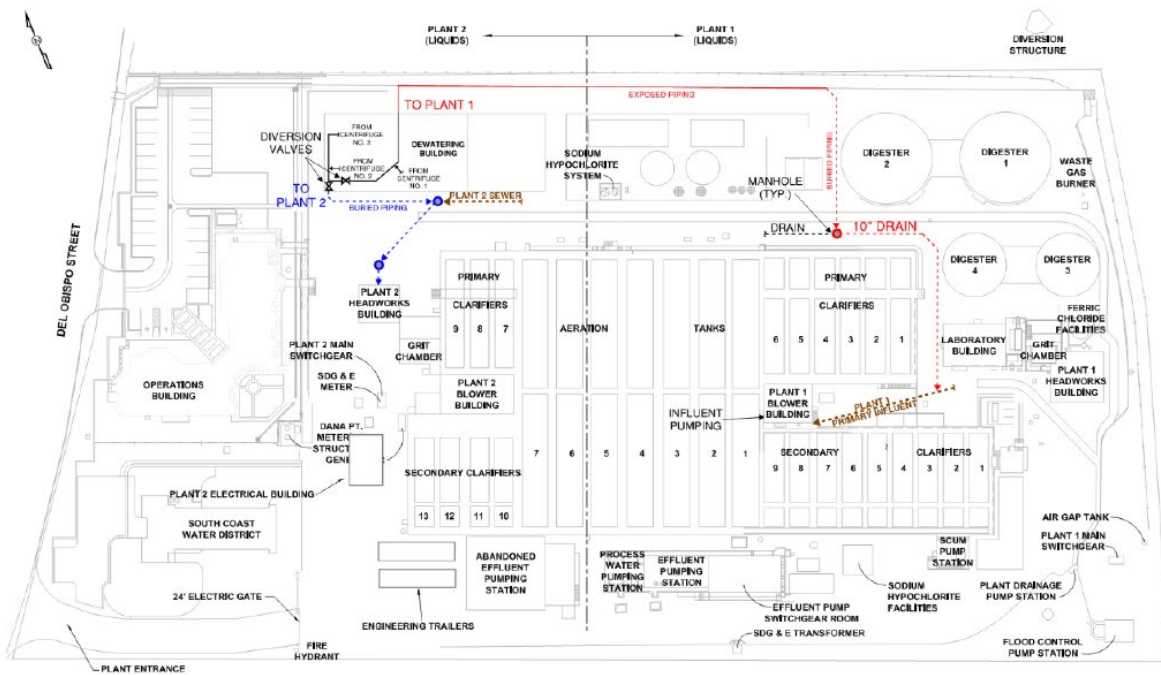


Exhibit 2. Conceptual Centrifuge Piping Manifold

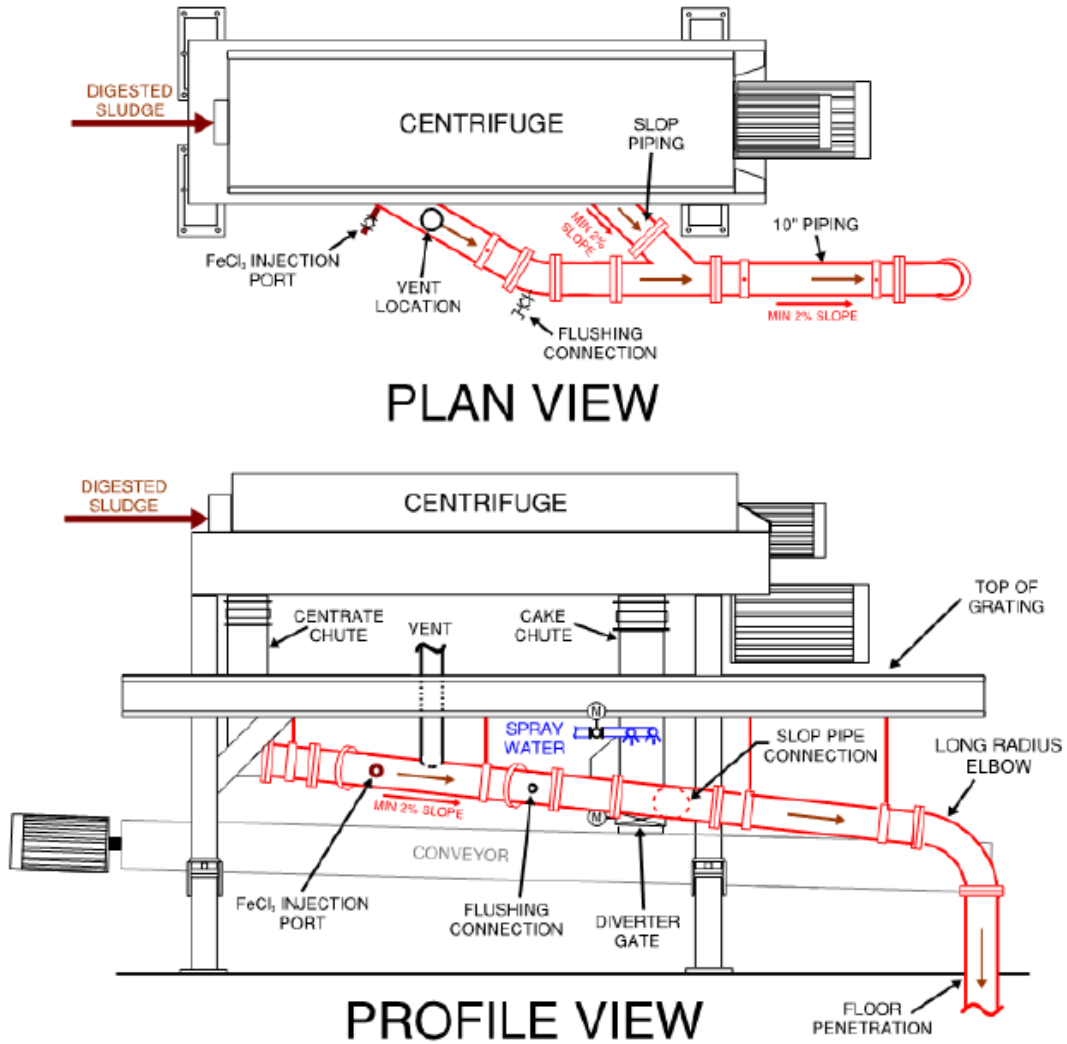


Exhibit 4. Above-Grade Centrate Tank and Pump Station Outside the Existing Masonry Retaining Wall Boundary

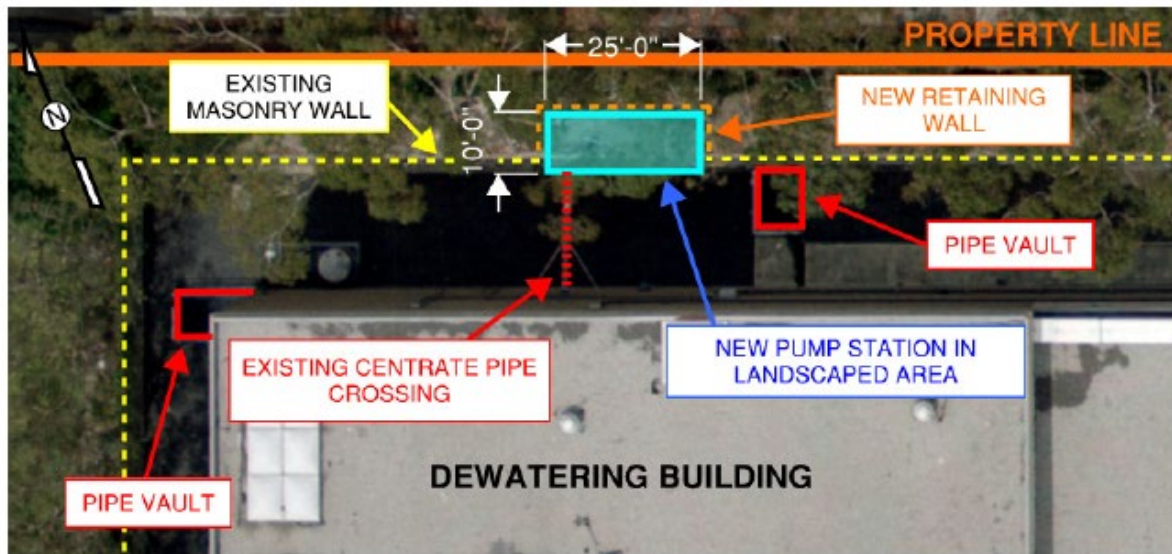


Exhibit 5. Preliminary Centrate Discharge to Plant 1 Primary Influent Channel

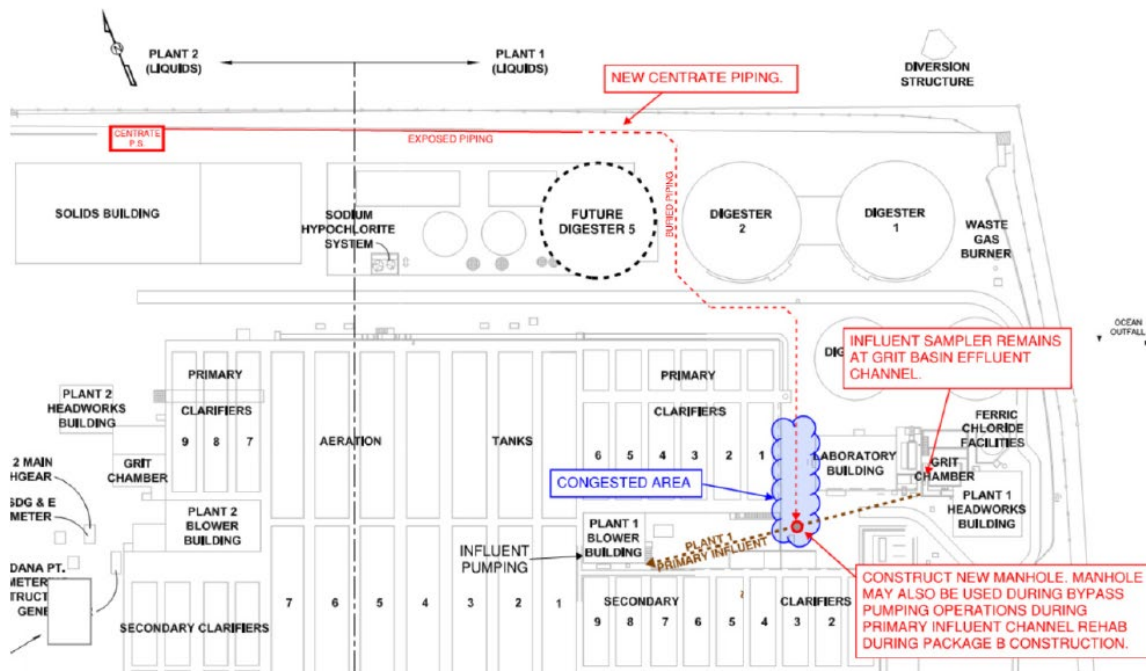


Exhibit 6. MCC-CF Modifications Partial Single Line Diagram

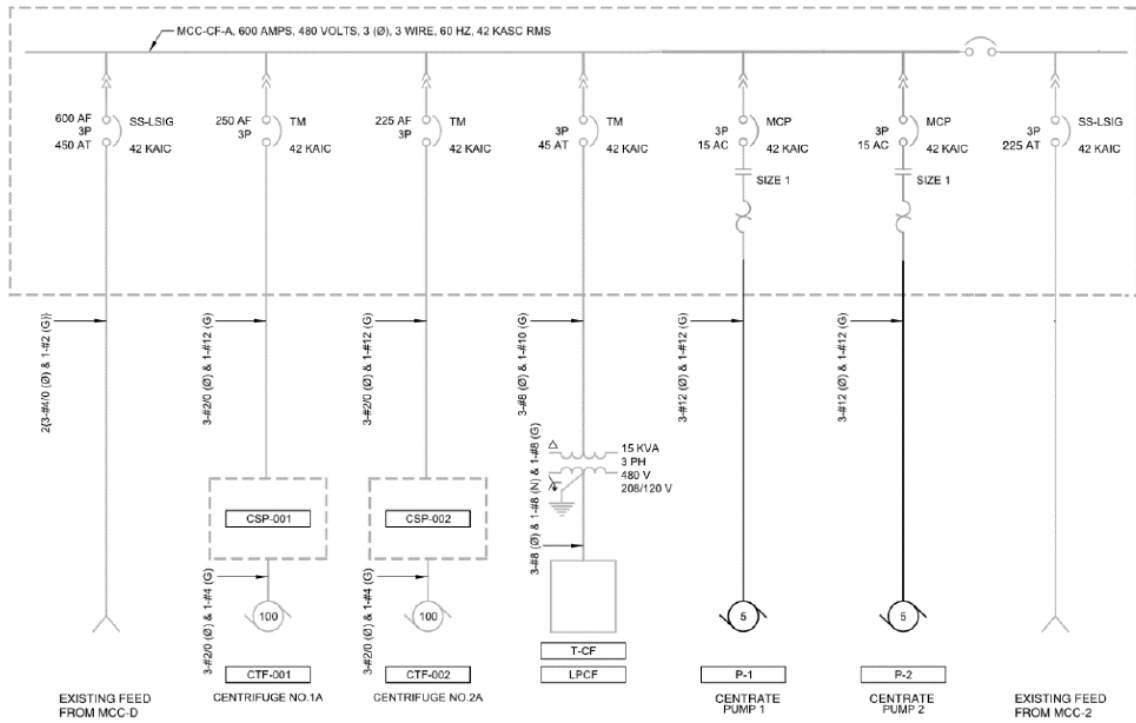
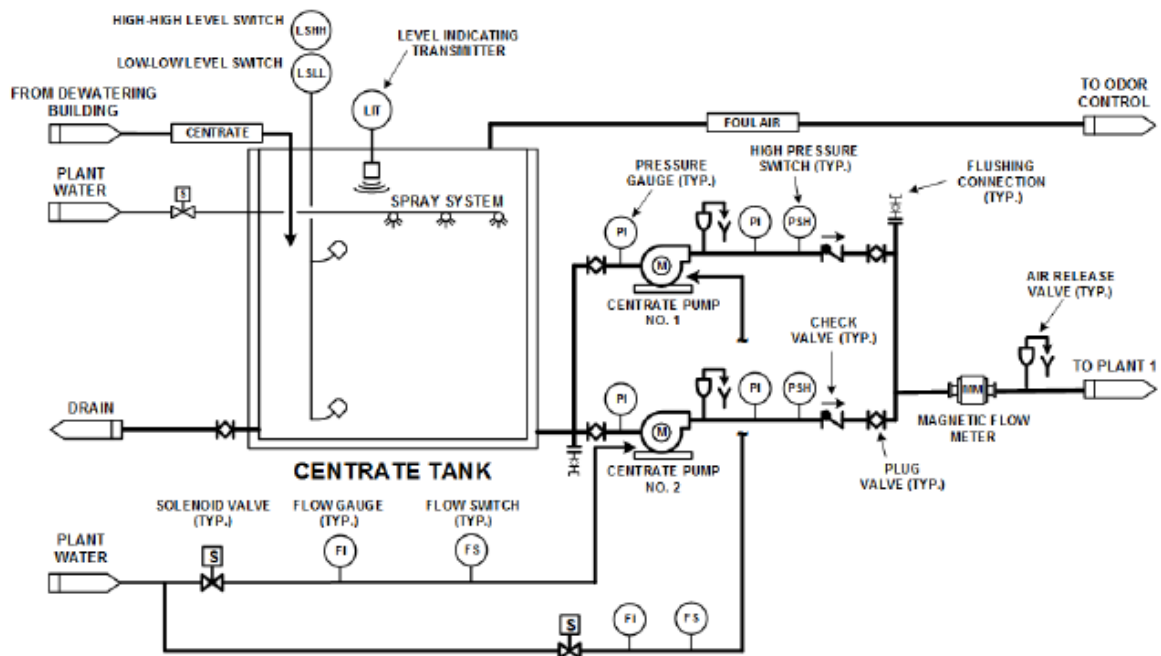


Exhibit 7. Preliminary Process Flow Diagram



Agenda Item

Budgeted: Yes

Budget amount: \$309,000

Line Item: PC 5 Task 3601-000;
PC 17 Tasks 3701-000; 3751-000;
PC 24 Tasks 3401-000; 3480-000

Legal Counsel Review: No

Meeting Date: October 3, 2019

TO: Project Committee 5, 17, and 24 Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Jason Manning, Director of Engineering

SUBJECT: Award of Program and Construction Management Services for SOCWA's Fiscal Year 2019/2020 Capital Improvement Program

Summary

This agenda item provides a recommendation for the award of a program and construction services contract to Dudek for the Program and Construction Management Services for SOCWA's Fiscal Year 2019/2020 Capital Improvement Program.

Overview

There are currently three active major construction projects, four planned smaller construction projects, and over ten other condition assessments, designs, and studies to be managed by SOCWA engineering staff this fiscal year. SOCWA currently has two full time engineers on staff with an open position of Senior Engineer for a third engineer expected to be filled before the end of the current calendar year.

A construction management firm (Butier) is providing construction management and inspection services for the JB Latham Package B and Coastal Treatment Plant Facility Improvement projects. The third construction project, the Regional Treatment Plant Miscellaneous Improvements project, has construction management and inspection services currently being provided by SOCWA staff.

The purpose of this request for proposal is to provide SOCWA with temporary support for the construction management services for the Regional Treatment Plant Miscellaneous Improvements project and to provide program management support for The San Juan Creek Ocean Outfall Junction Structure Upgrade and several Aliso Creek Watershed projects.

Proposals Received

Requests for Proposals were sent to the following four firms:

- Butier
- DDB Engineering
- Dudek
- Wallace & Associates

Three proposals from Butier, Dudek, and Wallace & Associates were received for this project.

Discussion/Analysis

A summary of the proposals is presented in Table 1.

Table 1
Proposal Summary

Firm	Butier	Dudek	Wallace & Associates
Project Manager	Vladimir Burce	Bob Ohlund	Barry Safa, John Robinson
Project Engineer	Kenji Shintaku	Michael Metts, Neil Harper, Servando Diaz, Elizabeth Caliva	Paul Allison, Gary McCredie
Construction Manager/Inspector	Casey Harris, Martin Bruneniek, Joseph Hawes	George Litzinger, John Griffin	Paul Allison, Gary McCredie
Subconsultants	None	None	John Robinson Consulting and Leighton Consulting
Qualifications	Strong CM and inspection experience. Familiar with SOCWA and it's facilities. Worked on multiple projects for member agencies.	Familiar with SOCWA and has completed similar assignments with other local agencies including member agencies. Provides a large pool of resources.	Strong CM and inspection experience. Worked on multiple projects for other agencies in Southern California.
Total Labor Hours	1,752	1,412	2,585
Schedule	Completion by June 30, 2020	Completion by June 30, 2020	Completion by June 30, 2020
Contract Issues	None	None	None
Proposal Requirement Compliance	Complied	Complied	Complied

The proposed fees for each firm are as shown in Table 2.

Table 2
Proposal Fee Summary

Firm	Butier	Dudek	Wallace & Associates
Total Fee	\$291,320	\$256,545	\$388,662

The Engineering Committee did not review the proposals but did review the request for proposal.

The scope of work for the proposed project is presented in Exhibit A.

Advisory Committee Review

The request for proposal was reviewed in the September 12, 2019 Engineering Committee meeting. The discussion mostly revolved around the legal aspect of temporary support staff and to ensure that the scope was for short-term augmentation. The present Committee members were supportive of the effort and asked that the proposals be provided to the Committee prior to the October Board meeting. Electronic copies of the three proposals were provided to the Engineering Committee on September 20, 2019 for their review.

Staff Recommendation

SOCWA staff is recommending Dudek for this work based on the information provided in the proposal. Although cost was a consideration, the relevant experience and approach were the key factors in recommending Dudek.

Fiscal Impact

The proposed fee is within funds available for this effort. The budget is presented in Table 3 below.

Table 3
Proposed Budget

Project Committee	Task	Budget	Staff Augmentation (Dudek)	Contingency
PC 5	3601-000	\$125,000	\$93,890	\$31,110
<i>PC 5 Total</i>		<i>\$125,000</i>	<i>\$93,890</i>	<i>\$31,110</i>
PC 17 Liquids	3701-000	\$125,000	\$114,687	\$10,313
PC 17 Solids	3751-000	\$25,000	\$22,938	\$2,062
<i>PC 17 Total</i>		<i>\$150,000</i>	<i>\$137,625</i>	<i>\$12,375</i>
PC 24	3401-000	\$24,000	\$24,000	\$0
PC 24	3480-000	\$10,000	\$1,030	\$8,970
<i>PC 24 Total</i>		<i>\$34,000</i>	<i>\$25,030</i>	<i>\$8,970</i>
Grand Total		\$309,000	\$256,545	\$52,455

The allocation of the project cost to the member agencies is presented in Table 4.

Table 4
Allocation of Cost to Member Agencies

	PC 5 3601-000	PC 17 Liquids 3701-000	PC 17 Solids 3751-000	PC 24 3401-000	PC 24 3480-000	Total
City of Laguna Beach	\$0	\$0	\$2,574	\$2,640	\$113	\$5,327
City of San Clemente	\$15,605	\$0	\$0	\$0	\$0	\$15,605
City of San Juan Capistrano	\$10,403	\$0	\$0	\$0	\$0	\$10,403
Emerald Bay Service District	\$0	\$0	\$135	\$187	\$8	\$331
El Toro Water District	\$0	\$0	\$4,682	\$3,912	\$168	\$8,762
Irvine Ranch Water District	\$0	\$0	\$0	\$3,782	\$162	\$3,945
Moulton Niguel Water District	\$14,562	\$114,687	\$13,492	\$10,524	\$452	\$153,717
South Coast Water District	\$11,708	\$0	\$2,055	\$2,954	\$127	\$16,845
Santa Margarita Water District	\$41,612	\$0	\$0	\$0	\$0	\$41,612
Total	\$93,890	\$114,687	\$22,938	\$24,000	\$1,030	\$256,545

Recommendation

Staff recommends Project Committee(s) 5, 17, and 24 Board of Directors approve the award of the program and construction services contract to Dudek at a fee of \$256,545.

EXHIBIT A SCOPE OF SERVICES

Tasks are to include the following. Note that this scope is provided only as a guideline. Proposing FIRM is expected to provide more detailed scope based on firm's anticipated approach to the project.

Regional Treatment Plant Miscellaneous Improvements 2018

1. Document Review. FIRM shall review conformed documents for project. FIRM shall meet with staff to review project restrictions and coordination needs.
2. Progress Meetings. FIRM shall conduct weekly (or as-needed) construction meetings at the project site with the Contractor, SOCWA staff and other parties as needed. FIRM shall maintain a Decision Log and an Action Log for each meeting.
3. Monthly Progress Reports. FIRM shall prepare and submit monthly progress reports.
4. Inspection. FIRM shall provide civil/mechanical, structural, coatings and electrical inspection as needed. The intent of the scope is to provide inspection on an as needed basis as opposed to constant staffing at the site. Inspectors shall prepare daily inspection reports of the construction activities including weather conditions, Contractor's equipment and labor, work performed, materials used, site visitors, note delays in work and reasons for the delays, and deficiencies. Prepare daily reports of deviations and non-conformance to specifications and provide a timely response.
5. Schedule Review. FIRM shall review, analyze and comment on the general contractor's initial CPM schedule along with all the monthly updates submitted by the Contractor. The FIRM shall closely monitor the Contractor's activities and make sure that the field activities and the duration of those activities match the information presented in the schedule. Schedule review shall be done in Microsoft Project.
6. Pay Request Reviews. FIRM shall meet each month with the Contractor to review the progress payment request. FIRM shall recommend progress payment request to SOCWA for execution.
7. Change Order Reviews. FIRM shall review all change order requests from Contractor including cost breakdown. FIRM shall review with SOCWA and with design firm. FIRM shall negotiate terms as necessary. FIRM shall make recommendation to SOCWA.
8. Testing Coordination. FIRM shall coordinate and schedule special testing including soils, concrete and welding. Testing services shall be provided under separate contract directly to SOCWA.
9. Operations Coordination. FIRM shall perform ongoing coordination with Operations staff. All temporary shutdowns shall be coordinated by the FIRM. FIRM shall work with Contractor and Operations staff to resolve potential conflicts. FIRM shall coordinate training with Operations staff.

10. Record Drawings. FIRM shall monitor Contractor's set of Record Drawings. Upon project completion the FIRM shall review, annotate and deliver Contractor's Record Drawings to design firms for preparation of Final Record Drawings. FIRM shall review and stamp Record Drawings when completed.
11. Project Close-Out. FIRM shall work with SOCWA staff to prepare punch list. FIRM shall work with Contractor to address all punch list items. FIRM shall prepare and transfer collective document files for project. FIRM shall prepare warranty item data base.
12. Additional Project Support. FIRM shall provide 160 hours of time for Construction Manager/Inspector to support additional projects as assigned.

San Juan Creek Ocean Outfall Junction Structure Upgrade

1. Program Management and Coordination. FIRM shall provide coordination between SOCWA staff, Black & Veatch and Dudek.
2. Monthly Progress Reports. FIRM shall prepare and submit monthly progress reports.
3. California State Parks Coordination. FIRM shall conduct four progress meetings with California State Parks staff.
4. California Lands Commission. FIRM shall provide 24 hours of time for coordination of response to California Lands Commission questions and comments.
5. Access Manway Evaluation. FIRM shall provide 48 hours of time for development of RFP, selection process and coordination for Access Manway Evaluation.

Miscellaneous Aliso Creek Watershed Projects

1. Aliso Creek Ocean Outfall Seal Replacement Bidding. With assistance from SOCWA staff FIRM will consolidate technical specifications with SOCWA's standard front-end documents. This will require working with SOCWA's legal staff to identify the appropriate insurance requirements for a diver-related project. FIRM will manage the bid process including the Pre-Bid meeting and response to requests for information. This task includes the preparation of Engineering Committee and Board agenda items with the recommendation of contract award.
2. Aliso Creek Ocean Outfall Seal Replacement Project Coordination. With assistance from SOCWA staff FIRM will coordinate construction – which involves nightly installations of seals – with SOCWA staff, SOCWA's member agencies, OC Parks, and the OC Sheriff's Department.
3. Aliso Creek Ocean Outfall Seal Replacement Project Inspection. FIRM will provide inspection staff to be present during three nights of installation. Note that the inspection need is limited to staff being present to deal with potential problems such as faulty seals, unexpected conditions, and neighborhood complaints. The inspection will not include entry into the manhole or outfall pipeline.

4. Effluent Transmission Main Air Release Valve Replacement design and permitting. FIRM shall provide 80 hours of time for development of RFP, selection process and design and permitting coordination.



REQUEST FOR PROPOSALS

FOR

PROGRAM AND CONSTRUCTION MANAGEMENT SERVICES

FOR

SOUTH ORANGE COUNTY WASTEWATER AUTHORITY'S

FISCAL YEAR 2019/2020 CAPITAL IMPROVEMENT PROGRAM

September 4, 2019

**Proposals Due – Thursday, September 19, 2019
at 2:00 p.m. (local time).**

AT

South Orange County Wastewater Authority
Administration Building
34156 Del Obispo Street
Dana Point, CA 92629
(949) 234-5430

Attention: Ms. Jeanette Cotinola, Purchasing Agent/Contracts Administrator

REQUEST FOR PROPOSALS

FOR THE **PROGRAM AND CONSTRUCTION MANAGEMENT SERVICES FOR SOCWA'S FISCAL YEAR 2019/2020 CAPITAL IMPROVEMENT PROGRAM**

GENERAL DESCRIPTION OF SERVICES REQUIRED

The South Orange County Wastewater Authority (SOCWA), a Joint Powers Authority, and several of its Member Agencies intend to retain a qualified FIRM to provide program and construction management services for specified projects in SOCWA's 2019/2020 Capital Improvement Program.

RECEIPT OF PROPOSALS

Eight (8) copies of your proposal, signed by an officer of the FIRM who is authorized to execute legally binding agreements shall be delivered to: Jeanette Cotinola, SOUTH ORANGE COUNTY WASTEWATER AUTHORITY, 34156 Del Obispo Street, Dana Point, CA 92629 no later than 2:00 p.m. on September 19, 2019. Late proposals will be returned unopened to the respondent. FIRM is also to submit a pdf version of the proposal on disk or flash drive.

PROPOSAL AND SITE INQUIRIES

There will be no pre-proposal meeting for the staff augmentation work. Proposing firms are invited to schedule individual appointments with SOCWA staff to address questions about this Request for Proposals.

Should a FIRM desire additional information prior to submitting a proposal, please contact Jeanette Cotinola at (949) 234-5430.

BACKGROUND

The proposed program and construction management services are intended to address the following projects.

Regional Treatment Plant Miscellaneous Improvements 2018

The Regional Treatment Plant (RTP) Miscellaneous Improvements 2018 Project includes the following key elements:

1. Furnish and install the new underground duct bank and power/control conductors between the Administration Building and the north end of the Mixed Liquor Channel.
2. Furnish, install and commission the new above ground conduit, and power/control conductors along the top of the Mixed Liquor Channel for the four Waste Activated Sludge (WAS) pumping systems, two scum pumps, and six secondary clarifiers.

3. Remove the existing above ground conduit, and power/control conductors along the top of the Mixed Liquor Channel for the four Waste Activated Sludge pumping systems, two scum pumps, and six secondary clarifiers.
4. Reconstruct the Dissolved Air Flotation Thickening (DAF) Polymer System in the Polymer Room of the Energy Building including new mix tanks, metering pumps, associated piping and valves, variable frequency drives, and programmable logical controller.
5. Reconstruct the DAF Mixing System in the Polymer Room of the Energy Building including new dissolution tanks and recirculation pumps.
6. Replace the compressed air piping system between the Polymer Room and the Compressor Room in the Energy Building.
7. Replace the primary scum pumps in the Primary Gallery.
8. Rehabilitate the Primary Gallery including demolition of the obsolete features, installation of new HVAC movers and ducting, installation of new lighting system and recoating.
9. Reconstruct the power supply system between the Energy Building and the Primary Gallery including a new underground duct bank.
10. Replace the existing louvered roof with solid, lightweight concrete roof.
11. Remove the louvers and install four new exhaust fans and metal siding with associated electrical upgrades.
12. Extend the equipment bay grating to the South wall and install a steel door between the equipment bay and the compressor room.
13. Fill the opening in the Northwest corner of the floor slab of the compressor room.
14. Install a new guardrail with gate at the existing bay ladder opening.

The project was designed by Lee & Ro. The design firm has been retained by SOCWA to perform engineering services during construction including shop drawing review, RFI response, change order review, and preparation of as-built drawings. The construction contract has been awarded to Filanc. Construction is expected to begin on October 1, 2019; the project is expected to last until June 30, 2020.

There will be several additional capital improvement projects taking place at the Regional Treatment Plant during the same time as the Miscellaneous Improvements 2018 project. Temporary staff may be requested to assist with this project.

San Juan Creek Ocean Outfall Junction Structure Upgrade

The San Juan Creek Ocean Outfall (SJCOO) Junction Structure Upgrade project was proposed to reinforce the structure around the entrance and exit of the 57-inch diameter outfall pipeline. The need for this work was identified in an analysis prepared by Carollo Engineers. This evaluation indicated that the structure would become stressed when flows through the outfall exceeded 60 mgd.

Black & Veatch was awarded the contract for Phase I of the design on September 24, 2014 to develop the design for the upgrade. The contract scope was to complete the design to a 30% level. The overall upgrade involved the insertion of a sleeve through the Junction Structure that would connect each end of the outfall pipeline. The structural weakness would thus be resolved by isolating it from the hydraulic forces within the outfall. The construction would be accomplished in two phases:

1. Remove top of Junction Structure. Confined space entry team enters Structure to make measurements. Temporary cap placed on Junction Structure. This work would take place in the mid- to late spring. The sleeve would then be fabricated during the summer months.
2. Remove temporary cap. Install pipeline insertion. Install final structural cap. This work would be accomplished in the fall.

Black & Veatch completed the design to the 30% level in early 2016. However, the project was placed on hold when storms significantly altered the project site. The risk associated with the delay was believed to be minimal due to the relatively low flows through the SJCOO. Flows in the outfall have not exceeded 60 mgd in over 20 years.

The topography around the Junction Structure has stabilized over the past three years. SOCWA staff has begun the process of restarting the project.

In June, 2019, the SOCWA Board of Directors awarded contracts to Black & Veatch and Dudek for engineering and environmental services respectively. The Black & Veatch scope is to complete the design documents; the Dudek scope is to complete the resource agency and the California Coastal Commission permitting processes. Neither firm has been tasked with negotiating with the California State Lands Commission or California State Parks.

An additional study will be conducted for the SJCOO in Fiscal Year 2019/2020. This project will evaluate the installation of a new entry point along the outfall to allow internal inspection in accordance with expected lease renewal requirements by the California State Lands Commission. Temporary staff may be requested to assist with this project.

Miscellaneous Aliso Creek Watershed Projects

Two small projects will be conducted within the Aliso Creek Watershed as described below:

1. Aliso Creek Ocean Outfall Seal Replacement. A portion of the Aliso Creek Ocean Outfall (ACOO) was damaged during the winter storms of 1992. The outfall was repaired five internal seals. The seals were replaced in 2002. Black & Veatch was retained in 2019 to prepare the design for a new set of replacement seals. Preparation of bid documents, bidding and installation of the replacement seals is to take place in Fiscal Year 2019/2020.
2. Effluent Transmission Main Air Release Valve Replacement. The Effluent Transmission Main (ETM) was constructed in 1980. The pipeline includes approximately fifteen air release valves. SOCWA staff identified a maintenance goal of replacing the air release valves with PVC units which would be lighter and easier to handle. TetraTech was retained in 2018 to prepare a preliminary design memorandum. This memorandum indicated that the replacement of the valves would be a more complicated issue due to missing isolation valves and complicated.

GOALS

Staff augmentation needs have been addressed in a number of areas. The proposing FIRM may propose on all or on a select number of the specified projects. SOCWA reserves the right to award the work for all of the proposed projects or for only individual projects.

Many of the specified projects will extend beyond Fiscal Year 2019/2020. However, the scope for this work only addresses staff augmentation services in the current fiscal year. Additional work will be budgeted and awarded in Fiscal Year 2020/2021 as needed.

Regional Treatment Plant Miscellaneous Improvements 2018

SOCWA is seeking a FIRM that can provide an individual to serve as a combined resident engineer/inspector for the construction project. This individual will interface between SOCWA staff, the general contractor (Filanc), and the design engineer (Lee & Ro). Given the complexity of the work it is anticipated that inspection will only be needed 25 to 50% of the time during the duration of the field work.

The individual serving as resident engineer/inspector will also be requested to assist with additional projects at the Regional Treatment Plant.

There is space in an existing construction trailer at the Regional Treatment Plant to serve as an office for the resident engineer/inspector.

San Juan Creek Ocean Outfall Junction Structure Upgrade

SOCWA is seeking an individual to serve as the program manager for the Junction Structure Upgrade Project. The individual will coordinate between SOCWA staff, member agency staff, the design engineer (Black & Veatch), the environmental/permitting firm (Dudek), and California State Parks. The firm will also work with SOCWA's Director of Environmental Compliance in coordinated proposed and potential future work on the San Juan Creek Ocean Outfall. Construction is not expected to begin in Fiscal Year 2019/2020.

The program manager will also be asked to develop the request for proposals (RFP) for the Access Manway Evaluation. The program manager will then direct the work of the firm selected to conduct the evaluation.

There is space in an existing construction trailer at the Regional Treatment Plant to serve as an office for the program manager. Otherwise, this individual will need to be housed in the FIRM'S offices.

Miscellaneous Aliso Creek Watershed Projects

SOCWA is seeking an individual to serve as the program/construction manager for the Aliso Creek Ocean Outfall Seal Replacement Project. This individual will manage the bid process through the award of contract. The individual will also coordinate the construction work between SOCWA staff, member agency staff, the design engineer (Black & Veatch), the general contractor, and OC Parks. The individual will monitor the nighttime installation work.

SOCWA is seeking an individual to serve as the program/construction manager for the Effluent Transmission Main Air Release Valve Replacement design and permitting process. The program manager will also be asked to develop the RFP for the work.

SCOPE OF SERVICES

Tasks are to include the following. Note that this scope is provided only as a guideline. Proposing FIRM is expected to provide more detailed scope based on firm's anticipated approach to the project.

Regional Treatment Plant Miscellaneous Improvements 2018

- I. Document Review. FIRM shall review conformed documents for project. FIRM shall meet with staff to review project restrictions and coordination needs.
- II. Progress Meetings. FIRM shall conduct weekly (or as-needed) construction meetings at the project site with the Contractor, SOCWA staff and other parties as needed. FIRM shall maintain a Decision Log and an Action Log for each meeting.
- III. Monthly Progress Reports. FIRM shall prepare and submit monthly progress reports.
- IV. Inspection. FIRM shall provide civil/mechanical, structural, coatings and electrical inspection as needed. The intent of the scope is to provide inspection on an as needed basis as opposed to constant staffing at the site. Inspectors shall prepare daily inspection reports of the construction activities including weather conditions, Contractor's equipment and labor, work performed, materials used, site visitors, note delays in work and reasons for the delays, and deficiencies. Prepare daily reports of deviations and non-conformance to specifications and provide a timely response.

- V. Schedule Review. FIRM shall review, analyze and comment on the general contractor's initial CPM schedule along with all the monthly updates submitted by the Contractor. The FIRM shall closely monitor the Contractor's activities and make sure that the field activities and the duration of those activities match the information presented in the schedule. Schedule review shall be done in Microsoft Project.
- VI. Pay Request Reviews. FIRM shall meet each month with the Contractor to review the progress payment request. FIRM shall recommend progress payment request to SOCWA for execution.
- VII. Change Order Reviews. FIRM shall review all change order requests from Contractor including cost breakdown. FIRM shall review with SOCWA and with design firm. FIRM shall negotiate terms as necessary. FIRM shall make recommendation to SOCWA.
- VIII. Testing Coordination. FIRM shall coordinate and schedule special testing including soils, concrete and welding. Testing services shall be provided under separate contract directly to SOCWA.
- IX. Operations Coordination. FIRM shall perform ongoing coordination with Operations staff. All temporary shutdowns shall be coordinated by the FIRM. FIRM shall work with Contractor and Operations staff to resolve potential conflicts. FIRM shall coordinate training with Operations staff.
- X. Record Drawings. FIRM shall monitor Contractor's set of Record Drawings. Upon project completion the FIRM shall review, annotate and deliver Contractor's Record Drawings to design firms for preparation of Final Record Drawings. FIRM shall review and stamp Record Drawings when completed.
- XI. Project Close-Out. FIRM shall work with SOCWA staff to prepare punch list. FIRM shall work with Contractor to address all punch list items. FIRM shall prepare and transfer collective document files for project. FIRM shall prepare warranty item data base.
- XII. Additional Project Support. FIRM shall provide 160 hours of time for Construction Manager/Inspector to support additional projects as assigned.

San Juan Creek Ocean Outfall Junction Structure Upgrade

- I. Program Management and Coordination. FIRM shall provide coordination between SOCWA staff, Black & Veatch and Dudek.
- II. Monthly Progress Reports. FIRM shall prepare and submit monthly progress reports.
- III. California State Parks Coordination. FIRM shall conduct four progress meetings with California State Parks staff.

- IV. California Lands Commission. FIRM shall provide 24 hours of time for coordination of response to California Lands Commission questions and comments.
- V. Access Manway Evaluation. FIRM shall provide 48 hours of time for development of RFP, selection process and coordination for Access Manway Evaluation.

Miscellaneous Aliso Creek Watershed Projects

- I. Aliso Creek Ocean Outfall Seal Replacement Bidding. With assistance from SOCWA staff FIRM will consolidate technical specifications with SOCWA's standard front-end documents. This will require working with SOCWA's legal staff to identify the appropriate insurance requirements for a diver-related project. FIRM will manage the bid process including the Pre-Bid meeting and response to requests for information. This task includes the preparation of Engineering Committee and Board agenda items with the recommendation of contract award.
- II. Aliso Creek Ocean Outfall Seal Replacement Project Coordination. With assistance from SOCWA staff FIRM will coordinate construction – which involves nightly installations of seals – with SOCWA staff, SOCWA's member agencies, OC Parks, and the OC Sheriff's Department.
- III. Aliso Creek Ocean Outfall Seal Replacement Project Inspection. FIRM will provide inspection staff to be present during three nights of installation. Note that the inspection need is limited to staff being present to deal with potential problems such as faulty seals, unexpected conditions, and neighborhood complaints. The inspection will not include entry into the manhole or outfall pipeline.
- IV. Effluent Transmission Main Air Release Valve Replacement design and permitting. FIRM shall provide 80 hours of time for development of RFP, selection process and design and permitting coordination.

QUALITY ASSURANCE

The FIRM shall administer a program of QA procedures for producing quality work. Specific procedures shall cover, but not be limited to, planning, checking, reviewing and scheduling the work.

All documents prepared by the FIRM shall be subject to the FIRM's in-house procedures prior to submittal to SOCWA for review. Each submittal shall be accompanied by a written statement from the principal-in-charge of the project stating that documents being submitted have been checked.

PROPOSAL CONTENTS

Proposals shall be concise and shall not exceed five (5) pages. Resumes will not be included in the page count. Proposals will be prepared in a letter proposal format. Proposals are not to have formal covers. Proposals are to be stapled without binding.

Proposals shall include, at a minimum, the following information:

1. Indication that the FIRM has a clear understanding of each project task. This should include a description of the work to be performed, how the project tasks will be accomplished and the problems that may be encountered.
2. Name, project responsibilities, and experience of designated personnel that will be assigned to work on SOCWA's projects.
3. List of all subconsultants proposed to be used by the FIRM.
4. A table of effort is to be included in the Proposal that includes the FIRM hours by classification and the total hours for each subconsultant. This breakout is to be provided for each work task shown in the scope of services. The table of effort shall reflect the number of hours for key subconsultants.
5. A proposed fee and schedule of hourly rates, This breakout is to be provided for each work item shown in the scope of services.
6. A copy of the SOCWA's standard consulting contract is attached as Exhibit 1. The Proposal is to verify that the submitting firm will maintain the required insurance levels. The Proposal should identify whether or not the submitting firm agrees to the contract language. Any discrepancies should be identified.

LEGAL REQUIREMENTS AND GENERAL CONDITIONS

Interpretation of Documents

A FIRM contemplating submitting a proposal for this proposed contract who is in doubt as to the true meaning of any part of this Request for Proposal or finds discrepancies in or omissions from this Request for Proposal, may submit to SOCWA a verbal or written request for interpretation or correction thereof. Any interpretation or correction of the documents will be made only by addendum duly issued. A copy of such an addendum will be mailed or delivered to each FIRM receiving this Request for Proposal. SOCWA will not be responsible for any explanations or interpretations of the documents other than written addenda.

Submission of a proposal shall be evidence that the FIRM did, in fact, conduct all necessary inspections and is aware of and acknowledges all conditions, restrictions and limitations affecting performance and cost.

Addenda

All addenda issued during the proposal period shall be noted in the FIRM's proposal.

Rejection of Proposal

SOCWA reserves the right to reject any and all proposals, to negotiate with one or more FIRMS, to waive any informality in a proposal, to delete or add items of work prior to award, and to make an award in the best interest of SOCWA.

Contract Award

The selected FIRM shall enter into a written contract with SOCWA binding all terms, conditions, and provisions of the proposal, and other terms, conditions, and provisions negotiated prior to award of the contract. The contract period will be for the duration of the project. A copy of the standard consulting services contract that SOCWA utilizes is attached with this Request for Proposals.

SOCWA's Use of Proposal Material

All material submitted in or with the proposal shall become the property of SOCWA, unless it is clearly marked as proprietary information. SOCWA reserves the right to use any ideas presented in the proposals, without compensation paid to the FIRM. Selection or rejection of the proposal shall not affect this right.

Proposal Development

The cost for developing and submitting the proposal shall be entirely the responsibility of the FIRM.

SELECTION CRITERIA

Proposals will be evaluated on the basis of their response to all provisions of this RFP. The Agency may use some or all of the following criteria in its evaluation and comparison of proposals submitted. The following list of criteria is not intended to be all inclusive and the order is not intended to indicate their relative importance:

- The experience, qualifications and availability of the Proposer's consultant team and, in particular, the Project Manager assigned to the project.
- The experience of the Proposer's team with respect to the project elements.
- Recent references from local clients on similar type work performed by Proposer.
- The proposed effort and fee for completing the scope of services.
- The Proposer's demonstrated ability to meet all of the SOCWA's administrative requirements including insurance, liability, equal opportunity practices and any exceptions taken to the SOCWA's Professional Services Contract.

SELECTION PROCEDURES

Proposals received by SOCWA will be reviewed on the basis of the proposal contents. It is the intent of SOCWA to select the firm based on the proposals. However, SOCWA reserves the right to conduct interviews with one or more firms prior to final selection.

If agreement cannot be reached with the selected FIRM, SOCWA will terminate negotiations with that FIRM and open negotiations with the next ranked FIRM. The compensation discussed with one FIRM will not be disclosed or discussed with another FIRM.

When a final selection and negotiated fee and terms for the contract have been reached, a recommendation for award will be made to the SOCWA Project Committee for approval.

SCHEDULE

- Final Date for Proposal Submittal: September 19, 2019
- Approval of Award by Board: October 3, 2019

Agenda Item

Legal Counsel Review: N/A

Meeting Date: October 3, 2019

TO: Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Mary Carey, Finance Controller

SUBJECT: FY 2018-19 Annual Financial Statements Audit, Use Audit and Cash Roll Forward Update

Summary/Discussion

FY 2018-19 Annual Financial Statements Audit

- The Annual Financial Statements Audit Fieldwork has been completed and there are No Audit Adjustments.
- The Audit Report will be available for review in mid-October prior to the November 12th Finance Committee.

FY 2018-19 Use Audit

- Preliminary Use Audit Results are attached (Exhibit 1)
 1. O&M Spending and/or Usage Variance is \$1.5 million or 7.2% under budget
 2. Small Capital is \$231 thousand or 11.5% under budget; there were projects in progress at year end which will carry over into FY 2019-20, the Authority is holding \$173 thousand in cash to cover completion costs.
 3. There were no Closed Large Capital Projects due to the Close Outs and Cash Refunds processed the end of March 2019, \$3.6 million.
 4. Non-Capital Engineering spending is \$164 thousand over amounts invoiced; this is 2 years activity.

Cash Roll Forward Q4, June 30, 2019

- Cash Roll Forward balances are attached:
 1. Cash Reconciliation as of June 30, 2019 (Exhibit 2)
 2. Large Capital Cash Roll Forward Balance by Project Committee and Project (Exhibit 3)
 3. Small Capital Cash Roll Forward Balance by Project Committee and Project (Exhibit 4)
 4. Non-Capital Cash Roll Forward Balance by Project Committee and Project (Exhibit 5)

Recommendation

Staff recommends the Board of Directors to receive and file the above information.

**South Orange County Wastewater Authority
FY 2018-19 USE AUDIT Summary**

SOCWA by Member Agency
 City of Laguna Beach
 City of San Clemente
 City of San Juan Capistrano
 El Toro Water District
 Emerald Bay Service District
 Irvine Ranch Water District
 Moulton Niguel Water District
 Santa Margarita Water District
 South Coast Water District
 Trabuco Canyon Water District
 Total Member Agency

Actual Spending and Actual Usage						
O&M			Small Capital	Large Capital	Non-Capital	Total
FY 2018-19 Budget	FY 2018-19 Actual	(Over)/Under Budget	(Over)/Under Budget	(Over)/Under Budget	(Over)/Under Budget	USE Audit Results
2,410,416	2,197,879	212,537	38,140		(111,304)	139,373
173,864	155,397	18,467			14,500	32,967
2,142,692	2,262,171	(119,479)	33,636		27,873	(57,970)
926,656	875,424	51,232	8,626		(38,578)	21,280
154,272	147,229	7,043	2,870		(8,580)	1,333
229,296	163,128	66,168			(25,759)	40,409
9,359,056	8,895,254	463,802	21,205		(81,676)	403,330
2,282,508	1,532,749	749,759	26,808		58,759	835,325
3,892,644	3,799,631	93,013	100,175		764	193,952
43,584	34,930	8,654				8,654
21,614,988	20,063,792	1,551,196	231,458	-	(164,001)	1,618,653
	92.8%	7.2%	11.5%			

SOCWA by Member Agency
 City of Laguna Beach
 City of San Clemente
 City of San Juan Capistrano
 El Toro Water District
 Emerald Bay Service District
 Irvine Ranch Water District
 Moulton Niguel Water District
 Santa Margarita Water District
 South Coast Water District
 Trabuco Canyon Water District
 *Total Member Agency

Actual Spending and Budget Usage						
O&M			Small Capital	Large Capital		Total
FY 2018-19 Budget	FY 2018-19	(Over)/Under Budget	(Over)/Under Budget	(Over)/Under Budget		USE Audit Results
2,410,416	2,237,433	172,983	38,140		(111,304)	99,819
173,864	161,387	12,477	-		14,500	26,978
2,142,692	1,988,922	153,770	33,636		27,873	215,279
926,656	860,155	66,501	8,626		(38,578)	36,549
154,272	143,201	11,071	2,870		(8,580)	5,361
229,296	212,841	16,455			(25,759)	(9,304)
9,359,056	8,687,405	671,651	21,205		(81,676)	611,180
2,282,508	2,118,704	163,804	26,808		58,759	249,370
3,892,644	3,613,289	279,355	100,175		764	380,294
43,584	40,456	3,128				3,128
21,614,988	20,063,792	1,551,196	231,458	-	(164,001)	1,618,653

SOCWA by Member Agency
 City of Laguna Beach
 City of San Clemente
 City of San Juan Capistrano
 El Toro Water District
 Emerald Bay Service District
 Irvine Ranch Water District
 Moulton Niguel Water District
 Santa Margarita Water District
 South Coast Water District
 Trabuco Canyon Water District
 Total Member Agency

Usage Variance (Used More)/Used Less						
O&M			Small Capital	Large Capital		Total
FY 2018-19 Budget	FY 2018-19 Actual	(Over)/Under Budget	(Over)/Under Budget	(Over)/Under Budget		USE Audit Results
	39,554					
	5,989					
	(273,249)					
	(15,269)					
	(4,028)					
	49,713					
	(207,849)					
	585,955					
	(186,342)					
	5,526					
	(0)					

*Budget was \$21,614,975, amount invoiced \$21,614,988, \$13 rounding

**South Orange County Wastewater Authority
Cash Reconciliation
Fiscal Year End 2016, 2017, 2018 and 2019**

	6/30/2016	6/30/2017	6/30/2018	6/30/2019
(1) Cash on Hand	5,777,486	12,949,694	13,557,237	20,857,094
Accounts Payable	(2,453,079)	(2,682,688)	(2,314,106)	(1,981,080)
Accrued Payroll	(129,958)	(102,661)	(127,396)	(100,221)
Accounts Receivable	316,772	1,069,282	1,660,444	14,179
(2) PTO Reserves	(684,767)	(653,282)	(620,032)	(683,536)
Due to Mbr Agency	(1,692,399)	(1,358,841)	(3,910,599)	(2,475,330)
Due From Mbr Agency	1,316,255	1,069,819	2,433,322	856,677
Mbr Agency Refund held for FY 19-20				(1,068,028)
Audit Adjustment	311,131			
Prepaid	65,614	65,082	204,867	211,725
Deposits	18,000	19,500	-	
(3) Available Cash	2,845,055	10,375,905	10,883,737	15,631,481
(4) Large Capital Cash June 30th 2016, 2017, 2018 & 2019	2,223,007	9,168,439	8,793,369	15,067,539
Non Capital Engineering Cash Balance		295,062	(81,041)	
Moulton Niguel Non Capital Engineering Accounts Rec.		(21,831)	(22,416)	
Moulton Niguel Large Capital Accounts Receivable		649,490	1,382,368	
Add Use Audit Settlement FY 17-18			216,467	
Add Use Audit Settlement FY 16-17	211,626	(49,931)	(49,931)	
(5) Total Large Capital Cash	2,434,633	10,041,229	10,238,817	15,067,539
(6) Small Capital Carryover	129,000	(129,000)		172,996
Mbr Agency Refund held for FY 19-20				
Cash Collected for PC 2 Zephyr Wall		76,318		76,318
Other misc., fringe adj, interest adj, etc.		22,331	(4,916)	
Total Capital Cash June 30th 2016, 2017, 2018 & 2019	2,563,633	10,010,879	10,233,900	15,316,853
(7) Difference	281,422	365,027	649,837	314,628

Additional Cash Is:				
Prior Year Balance		281,422	365,027	649,837
Payment to Member Agencies				(649,837)
County of Orange Bankruptcy Payment	18,714			
County of Orange Admin Fees	13,626			
County of Orange Access Maintenance	3,000			
City of Laguna Niguel Heat Transfer	31,320			
SMWD Lab Fees	17,820			
Coke machine	30			
FEMA Reimbursement			136,995	
Interest Income Received	24,587	45,294	114,150	249,482
Recycling Income	16,710	11,708	2,112	1,618
PC 23 Admin Payment		9,135		
Mutual Omaha Refund		8,034		
Interest received for 4th qtr		4,934	25,256	52,302
LAIF Interest Adj.		3,000		
Grant Revenue		1,500		
Other misc. expenses (fringe adj., interest adj., etc.)				
Sale of Fixed Assets	20,289		6,297	11,226
Other misc adjustments	135,326			
Total Other Cash	281,422	365,027	649,837	314,628

(Exhibit 2a)

Cash Roll Forward Notes Q4 FY 2018-19

1. Cash on Hand from Audited Financial Statements; amount confirmed with Bank, Bank Statements and reconciled to the General Ledger.
2. Adjustment for Current Assets and Liabilities, Obligations against the Cash (accounts payable, payroll accruals, Use Audit Due (To) Member Agencies; the offset to these items is in the Use Audit as an Expense or in Construction-in-Progress if Capital related.)

Amounts due to the Authority, Accounts Receivable, Use Audit Due From Member Agencies, Prepaids and Deposits.

3. Available Cash (Item 1 above less Item 2). The Authority does not carry Cash Reserves, residual cash from O&M and Small Capital is returned to the Member Agencies via the Use Audit, therefore, Cash on Hand should be Large Capital Cash.
4. Large Capital Cash is supported by a subsidiary reports detailing by project committee, wastewater code and capital project:
 - a) Beginning Cash Balance from the State Audited 6/30/2016 Cash Roll Forward
 - b) Contributions based on the quarterly capital billings
 - c) Actual expenditures taken from the general ledger
 - d) Use Audit Settlement
 - e) Net Cash balance

5. Total Large Capital Cash
6. Small Capital Carryover
7. Difference is additional cash from sources other than Member Agencies.

(Exhibit 3)

South Orange County Wastewater Authority
Total Large Capital Projects Cash Roll Forward for FY 2018-19

Large Capital Cash Balance as of June 30, 2019										
	16	17	18	19	20	21	22	23	24	
	CLB	CSC	CSJC	ETWD	EBSB	IRWD	MNWD	SMWD	SCWD	Total
PC 02 J B Latham										
Liquids										
3201-000 - Aeration/Cogeneration Design/Construction (2009)	-	-	-	-	-	-	-	-	-	-
3202-000 - Preliminary and Primary Treatment Improvements Design (2009)	-	-	80,054	-	-	-	60,081	45,065	75,102	260,303
3203-000 - Effluent Standby Generator ATS Repl (2016)	-	-	-	-	-	-	-	-	-	-
3204-000 - Facility Improvements - Structural Repairs (2015)	-	-	-	-	-	-	-	-	-	-
3211-000 - Scum Sump Relining/Reconstruction (2015)	-	-	-	-	-	-	-	-	-	-
3212-000 - East Primary Influent Channel Repair	-	-	-	-	-	-	-	-	-	-
3213-000 - Water System Piping Improvements (2014)	-	-	-	-	-	-	-	-	-	-
3214-000 - 4 MGD Diversion Flow Meter & Control Structure (2012)	-	-	-	-	-	-	-	-	-	-
3250-000 - Plant 1 Grit Basins and Handling (2017)	-	-	(48,874)	-	-	-	(36,630)	(27,468)	(45,788)	(158,760)
3251-000 - Effluent Flow Meter Replacement (2017)	-	-	-	-	-	-	-	-	-	-
3252-000 - Plant 1 Standby Power Generator Repl (2017)	-	-	57,666	-	-	-	43,271	32,455	54,090	187,482
3253-000 - Effluent System Valves Replacement (2107)	-	-	27,244	-	-	-	21,598	16,200	26,997	92,039
3254-000 - Additional Package B Liquids Design (2017)	-	-	46,669	-	-	-	35,016	26,262	43,771	151,718
3280-000 - Facility Improvements B - Basin Upgrades (2018)	-	-	18,584	-	-	-	14,006	10,575	17,530	60,695
3285-000 - Main Plant Drain Line Reconstruction (2018)	-	-	33,564	-	-	-	25,184	18,888	31,479	109,116
3215-000 - Motor Control Center M Replacement Design (2019)	-	-	10,000	-	-	-	7,500	5,625	9,375	32,500
3220-000 - Facility Improvements B - Basin Upgrades Construction I (2019)	-	-	587,179	-	-	-	440,384	330,288	550,481	1,908,333
Total PC 02 Liquids	-	-	812,086	-	-	-	610,411	457,891	763,038	2,643,425
Common										
3205-000 - West Side Power System Upgrade (2013)	-	-	-	-	-	-	-	-	-	-
3206-000 - Diesel Storage Tank (2016)	-	-	-	-	-	-	-	-	-	-
3207-000 - Foul Air System Evaluation (2016)	-	-	-	-	-	-	-	-	-	-
3216-000 - Hoist System for Maintenance Shop (2013)	-	-	(16)	-	-	-	(12)	(12)	(13)	(52)
3217-000 - Lighting System Improvements (2014)	-	-	-	-	-	-	-	-	-	-
3218-000 - Energy Building Roof reconstruction (2014)	-	-	(103)	-	-	-	(76)	(78)	(83)	(340)
3260-000 - SCADA System Upgrade (2017)	-	-	25,451	-	-	-	18,754	19,157	20,467	83,829
1113- Facility Safety Review (2015)	-	-	-	-	-	-	-	-	-	-
1114- Monitoring and Control Facility Plan (2015)	-	-	-	-	-	-	-	-	-	-
3286-000 - PLC Upgrades (2018)	-	-	15,568	-	-	-	11,464	11,712	12,516	51,260
3221-000 - Electrical System Evaluation (2019)	-	-	19,668	-	-	-	14,467	14,786	15,809	64,730
3231-000 Facility Improvements B - Common Upgrades Construction	-	-	(16)	-	-	-	(12)	(12)	(13)	(52)
Total PC 02 Common	-	-	60,552	-	-	-	44,586	45,553	48,684	199,375
Solids										
3209-000 - Facility Improvements - Co-Generation Rep. (2016)	-	-	367,232	-	-	-	264,654	347,399	244,823	1,224,108
3210-000 - Facility Improvements - Solids Area (2015)	-	-	(5,817)	-	-	-	(4,193)	(5,503)	(3,878)	(19,391)
3272-000 - Dewatering System Controls Upgrade (2017)	-	-	-	-	-	-	-	-	-	-
3287-000 - Facility Improvements B - DAFT and Ancillary Solids Improvements	-	-	531,175	-	-	-	382,818	502,474	354,117	1,770,583
3222-000 - Centrate System Design (2019)	-	-	25,228	-	-	-	18,182	23,864	16,818	84,092
3223-000 - Emulsion Polymer Feeder Replacement (2019)	-	-	36,060	-	-	-	25,989	34,111	24,040	120,200
3224-000 - Digester No.4 Rehabilitation (2019)	-	-	97,596	-	-	-	70,340	92,321	65,064	325,321
3225-000 - Facility Improvements B - DAFT and Ancillary Solids Improvements	-	-	(1,595)	-	-	-	(1,150)	(1,509)	(1,063)	(5,317)
Total PC 02 Solids	-	-	1,049,879	-	-	-	756,640	993,157	699,920	3,499,596
Total PC2 JB Latham	-	-	1,922,517	-	-	-	1,411,637	1,496,601	1,511,642	6,342,397
PC 05 San Juan Creek Ocean Outfall										
3601-000 Junction Structure Reinforcement Phase II (2016)	(3,137)	32,779	23,247	-	-	(2,927)	32,541	84,624	23,810	190,938
3602-000 Emergency Plan Development (2016)	(510)	170	340	-	-	(476)	476	(0)	(0)	(0)
3603-000 Dilution Study (2016)	-	9,889	6,593	-	-	-	9,228	26,370	7,420	59,500
3604-000 - Metering Vault - Piping Upgrades (2016)	-	-	-	-	-	-	-	-	-	-
3650-000 - Junction Structure Reinforcement Construction (2017)	-	4,294	2,863	-	-	-	4,007	10,962	3,220	25,346
3605-000 - Junction Structure Reinforcement Permitting and Final Design	-	16,052	10,702	-	-	-	14,980	42,806	12,044	96,585
Total PC5 San Juan Creek Ocean Outfall	(3,647)	63,184	43,745	-	-	(3,403)	61,232	164,763	46,495	372,369

**South Orange County Wastewater Authority
Total Large Capital Projects Cash Roll Forward for FY 2018-19**

	Large Capital Cash Balance as of June 30, 2019									
	16	17	18	19	20	21	22	23	24	
	CLB	CSC	CSJC	ETWD	EBS	IRWD	MNWD	SMWD	SCWD	Total
PC 15 Coastal Treatment Plant										
Liquids										
3501-000 - Fire Protection (2013)	-	-	-	-	-	-	-	-	-	-
3502-000 - RAS Hypochlorite System (2013)	-	-	-	-	-	-	-	-	-	-
3503-000 - Scrubber Upgrade (2013)	-	-	-	-	-	-	-	-	-	-
3504-000 - Aeration System Modification Design (2015)	44,311	-	-	-	3,494	-	34,188	-	34,889	116,882
3505-000 - Headworks Overflow Pipe Modification (2015)	-	-	-	-	-	-	-	-	-	-
3506-000 - Structural Mods-Grating Sys & Curb Area E of Maint Shop (2015)	-	-	-	-	-	-	-	-	-	-
3507-000 - East Primary Influent Gates (2015)	-	-	-	-	-	-	-	-	-	-
3508-000 - Grit System Knife Gate Valve Replacement (2015)	-	-	-	-	-	-	-	-	-	-
3509-000 - Switchgear Replacement Design (2016)	55,901	-	-	-	4,406	-	43,131	-	44,016	147,453
3510-000 - East Primary/Aeration Grating Rebate and Concrete Repair (2016)	-	-	-	-	-	-	-	-	-	-
3511-000 - Influent/Overflow Condition Assessment (2016)	-	-	-	-	-	-	-	-	-	-
3512-000 - Basins Between HW Bldg and Primary Basin Grating Rebate (2016)	-	-	-	-	-	-	-	-	-	-
3513-000 - Grit System Condition Assessment (2016)	-	-	-	-	-	-	-	-	-	-
3514-000 - CTP Facility Upgrade Design and Financing (2016)	152,326	-	-	-	12,018	-	117,526	-	119,938	401,808
3515-000 - Existing Export Sludge Wetwell Refurbishment (2015)	-	-	-	-	-	-	-	-	-	-
3530-000 - Aliso Sulfur Creek Confluence (2014)	(1,177)	-	-	-	(93)	-	(908)	-	(927)	(3,105)
3531-000 - Lighting System Improvements (2014)	-	-	-	-	-	-	-	-	-	-
3532-000 - Fire Protection (2013)	12,081	-	-	-	952	-	8,684	-	9,513	31,230
3533-000 - Export Sludge Line Repair & Rip Rap (R-2) (2012)	-	-	-	-	-	-	-	-	-	-
3534-000 - Export Sludge System (1997)	287,258	-	-	-	22,624	-	221,658	-	226,187	757,727
3535-000 - Structural Modifications (2014)	-	-	-	-	-	-	-	-	-	-
3539-000 - Facility Construction Improvements - Part II (2020)	(20)	-	-	-	(2)	-	(15)	-	(15)	(52)
3540-000 - East Primary Sedimentation Scum Skimmers (2013)	-	-	-	-	-	-	-	-	-	-
3550-000 - Export Sludge Pump Addition (2017)	-	-	-	-	-	-	-	-	-	-
3551-000 - Add for CTP Facility Upgrade Design (2017)	55,357	-	-	-	4,365	-	42,713	-	43,588	146,023
3552-000 - SCADA System Improvements (2017)	46,760	-	-	-	3,689	-	36,077	-	36,819	123,344
3553-000 - Plant Drainage Improvements (2017)	69,580	-	-	-	5,485	-	53,689	-	54,787	183,541
3554-000 - Odor Scrubber Bleach Tank Replacement (2017)	-	-	-	-	-	-	-	-	-	-
3592-000 - Facility Improvements Project Design (2018)	65,007	-	-	-	5,191	-	50,112	-	51,179	171,490
3593-000 - Primary Sludge Valve Replacement (2018)	33,027	-	-	-	2,604	-	25,482	-	26,004	87,117
3594-000 - PLC Replacement (2018)	31,464	-	-	-	2,480	-	24,276	-	24,776	82,996
3595-000 - Primary Device Electrical Conduit and Conductor Replacement	38,288	-	-	-	3,020	-	29,544	-	30,148	101,000
79-CWest Primary Sedimentation Upgrade (2010)	-	-	-	-	-	-	-	-	-	-
88-CMCC-1 Replacement (2004)	-	-	-	-	-	-	-	-	-	-
1317-Facility Safety Review (2015)	-	-	-	-	-	-	-	-	-	-
1318-Monitoring and Control Facility Plan (2015)	-	-	-	-	-	-	-	-	-	-
1355-Channel Rebate Replacement (2013)	-	-	-	-	-	-	-	-	-	-
3525-000 - Personnel Building reconstruction (2019)	33,934	-	-	-	2,672	-	26,185	-	26,719	89,510
3526-000 - Facility Improvements Project Construction - Part I (2019)	(174)	-	-	-	(14)	-	(134)	-	(137)	(459)
3527-000 - Vehicle Storage Building Roof (2019)	32,224	-	-	-	2,537	-	24,866	-	25,373	85,000
3528-000 - AWMA Road Sites West 1 and West 2 Embankment Protection	66,180	-	-	-	5,211	-	51,068	-	52,110	174,570
3529-000 - Aliso Creek Long Term Repair Planning	31,395	-	-	-	2,472	-	24,226	-	24,721	82,814
Total PC 15 Liquids	1,053,718	-	-	-	83,112	-	812,366	-	829,685	2,778,881
AWT										
3516-000 - Disinfection System Upgrade AWT (2011)	-	-	-	-	-	-	-	-	-	-
3517-000 - AWT Backwash Pump Replacement (2016)	-	-	-	-	-	-	-	-	(298)	(298)
3518-000 - Chlorine Mixer Replacement (15AWT) (2015)	-	-	-	-	-	-	-	-	(7)	(7)
3519-000 - Hypochlorite Tank (AWT) (2013)	-	-	-	-	-	-	-	-	-	-
3532-000 - Fire Protection	-	-	-	-	-	-	-	-	(31,230)	(31,230)
3562-000 - Applied Water Pump System Replacement (AWT) (2017)	-	-	-	-	-	-	-	-	122,161	122,161
3596-000 - Applied Water VFD Pump Panel and Electrical (AWT) (2018)	-	-	-	-	-	-	-	-	17,305	17,305
3597-000 - MCC A Replacement Design (15) (2018)	-	-	-	-	-	-	-	-	55,890	55,890
3536-000 - Chlorine Contact Basin Mixer Design (AWT) (2018)	-	-	-	-	-	-	-	-	73,199	73,199
3537-000 - MCC A Replacement Construction (AWT) (2019)	-	-	-	-	-	-	-	-	(27,437)	(27,437)
3538-000 - AWT Filter Valve Upgrade Construction (AWT) (2019)	-	-	-	-	-	-	-	-	(23,806)	(23,806)
Total PC 15 AWT	-	-	-	-	-	-	-	-	185,778	185,778
Total PC 15 Coastal Treatment Plant	1,053,718	-	-	-	83,112	-	812,366	-	1,015,463	2,964,659

South Orange County Wastewater Authority
Total Large Capital Projects Cash Roll Forward for FY 2018-19

Large Capital Cash Balance as of June 30, 2019										
	16	17	18	19	20	21	22	23	24	
	CLB	CSC	CSJC	ETWD	EBSD	IRWD	MNWD	SMWD	SCWD	Total
PC 17 Joint Regional Wastewater Reclamation										
Liquids										
3701-000 - Secondary Electrical System Rerouting (2014)	-	-	-	-	-	-	338,136	-	-	338,136
3702-000 - Waste Activated Sludge VFD Control Panel (2013)	-	-	-	-	-	-	240,525	-	-	240,525
3703-000 - Influent Line Manhole Reconstruction (2013)	-	-	-	-	-	-	-	-	-	-
3704-000 - Odor Control Scrubber Control Panel No. 1 (2013)	-	-	-	-	-	-	-	-	-	-
3705-000 - Disinfection System Upgrade - Construction (2006)	-	-	-	-	-	-	-	-	-	-
3706-000 - Secondary Clarifier Retrofit (2) (2013)	-	-	-	-	-	-	-	-	-	-
3707-000 - Influent Manholes 1 and 2 and Sewer Rehabilitation (2016)	-	-	-	-	-	-	(121)	-	-	(121)
3708-000 - Influent Junction Structure Gate Replacement (2016)	-	-	-	-	-	-	(18)	-	-	(18)
3709-000 - Influent Junction Structure & Pipe Condition Assessment (2016)	-	-	-	-	-	-	-	-	-	-
3710-000 - AWT No. Water Quality Instrumentation Replacement (2016)	-	-	-	-	-	-	-	-	-	-
3711-000 - Primary Influent Channel Condition Assessment (2016)	-	-	-	-	-	-	-	-	-	-
3712-000 - Grit Basin Drop Gate and Weir Replacement (2016)	-	-	-	-	-	-	(4,681)	-	-	(4,681)
3713-000 - Primary Inlet Drop Gate Replacement (2016)	-	-	-	-	-	-	(5)	-	-	(5)
3728-000 - Secondary Clarifier Retrofit 2	-	-	-	-	-	-	-	-	-	-
3729-000 - Secondary Clarifier Retrofit	-	-	-	-	-	-	-	-	-	-
3730-000 - Primary Gallery Upgrade (2014)	-	-	-	-	-	-	127,994	-	-	127,994
3731-000 - Primary Clarifier Aluminum Beam Replacement (2013)	-	-	-	-	-	-	-	-	-	-
3732-000 - Standby Hypochlorite Feed System (AWT) (2009)	-	-	-	-	-	-	-	-	-	-
3733-000 - AWT Backwash Pipe Relocation (2014)	-	-	-	-	-	-	(602)	-	-	(602)
3734-000 - Secondary Clarifier Retrofit (2012)	-	-	-	-	-	-	-	-	-	-
3752-000 - AWT No.2 Upgrade Design (2017)013)	-	-	-	-	-	-	(382)	-	-	(382)
3753-000 - Aeration Diffuser Upgrade (2020)	-	-	-	-	-	-	(694)	-	-	(694)
3758-000 - AWT No.2 Reconstruction (2020)	-	-	-	-	-	-	(219)	-	-	(219)
3781-000 - Primary Scum Skimmer Replacement (2018)	-	-	-	-	-	-	19,475	-	-	19,475
3784-000 - Replace DAF (Mannich) Polymer System (2018)	-	-	-	-	-	-	640,382	-	-	640,382
3785-000 - Replace DAF Dissolution Tank System and Compressors (2018)	-	-	-	-	-	-	325,676	-	-	325,676
3786-000 - Primary Gallery Mechanical and Electrical Upgrade (2018)	-	-	-	-	-	-	835,745	-	-	835,745
3787-000 - Aeration Area Upgrade Design (2018)	-	-	-	-	-	-	81,255	-	-	81,255
1410 - Aeration System Analysis (2015)	-	-	-	-	-	-	-	-	-	-
3741-000 - Southwest Influent Sewer and MH Repair design (2019)	-	-	-	-	-	-	29,532	-	-	29,532
3742-000 - Aeration System Upgrade (2019)	-	-	-	-	-	-	(4,447)	-	-	(4,447)
3743-000 - Aeration Gate Replacement (2019)	-	-	-	-	-	-	-	-	-	-
Total PC 17 Liquids	-	-	-	-	-	-	2,627,551	-	-	2,627,551
Common										
3714-000 - Odor Analysis (2014)	-	-	-	-	-	-	-	-	-	-
3715-000 - Switchgear Upgrade (2006)	(2,834)	-	-	(4,638)	(149)	-	(35,320)	-	(2,265)	(45,207)
3716-000 - Secondary Access Road Design (2015)	-	-	-	-	-	-	-	-	-	-
3717-000 - Security Fencing (2015)	86	-	-	7	4	-	(165)	-	68	-
3718-000 - Access Bridge Upgrades (2015)	650	-	-	48	29	-	(1,257)	-	521	(8)
3725-000 - Disinfection Building Roof Repair (2014)	-	-	-	-	-	-	-	-	-	-
3740-000 - Electrical Manhole Reconstruction (2013)	-	-	-	-	-	-	-	-	-	-
3760-000 - Develop Buried Piping Reconstruction Master Plan (2017)	-	-	-	-	-	-	-	-	-	-
3761-000 - External Lighting Upgrade	16,873	-	-	29,072	895	-	223,716	-	13,482	284,037
3762-000 - Emergency Access Road CEQA and Permits (2017)	-	-	-	-	-	-	-	-	-	-
3763-000 - Reroute Drains on Plant Perimeter (2017)	1,687	-	-	3,073	90	-	23,898	-	1,349	30,096
3764-000 - SCADA Improvements (2017)	1,945	-	-	4,755	109	-	38,717	-	1,548	47,075
3765-000 - Additional Budget Switchgear Upgrade (2017)	-	-	-	-	-	-	-	-	-	-
3769-000 - Trailer Drain Line (2020)	(3)	-	-	(4)	-	-	(34)	-	(2)	(43)
3788-000 - PLC Upgrade	(3,255)	-	-	(4,470)	(168)	-	(32,677)	-	(2,603)	(43,173)
3789-000 - Switchgear Upgrade Project Completion (2018)	(920)	-	-	(1,505)	(48)	-	(11,459)	-	(735)	(14,666)
1411 - Facility Safety Review (2015)	-	-	-	-	-	-	-	-	-	-
1412 - Monitoring and Control Facility Plan (2015)	-	-	-	-	-	-	-	-	-	-
1453 - Lighting Upgrade (2014)	-	-	-	-	-	-	-	-	-	-
3744-000 - Admin Building Repair design (2019)	2,786	-	-	4,559	147	-	34,715	-	2,226	44,433
3745-000 - West Slope Protection Evaluation (2019)	3,532	-	-	5,780	186	-	44,015	-	2,823	56,336
3746-000 - Motor Control Center A, G, H Design (2019)	11,149	-	-	18,244	587	-	138,923	-	8,910	177,812
3747-000 - Southside Plant Manhole Reconstruction (2019)	2,249	-	-	3,680	118	-	28,023	-	1,797	35,868
3748-000 - SE electrical Manhole reconstruction (2019)	8,935	-	-	14,621	470	-	111,334	-	7,140	142,500
Total PC 17 Common	42,880	-	-	73,221	2,268	-	562,432	-	34,261	715,061

(Exhibit 3)

South Orange County Wastewater Authority
Total Large Capital Projects Cash Roll Forward for FY 2018-19

Large Capital Cash Balance as of June 30, 2019										
	16	17	18	19	20	21	22	23	24	
	CLB	CSC	CSJC	ETWD	EBSD	IRWD	MNWD	SMWD	SCWD	Total
Solids										
3719-000 - Digester Dome Recoating (2014)	-	-	-	-	-	-	-	-	-	-
3720-000 - Digester Dome Recoating (2011)	-	-	-	-	-	-	-	-	-	-
3721-000 - Underground Piping Upgrade (2006)	-	-	-	-	-	-	-	-	-	-
3722-000 - Co-gen Sys Retrofit (formerly Siloxane) (2015)	19,352	-	-	35,206	1,015	-	101,451	-	15,457	172,481
3723-000 - Recoat Top of Digesters (2016)	-	-	-	-	-	-	-	-	-	-
3724-000 - Energy Building Structural and HVAC Modifications (2015)	(963)	-	-	(1,752)	(51)	-	(5,048)	-	(769)	(8,583)
3726-000 - Co-Generation System Retrofit Design	(374)	-	-	(681)	(20)	-	(1,961)	-	(299)	(3,335)
3735-000 - Odor Control Scrubber Control Panel No. 2 (2013)	-	-	-	-	-	-	-	-	-	-
3736-000 - Co-Generation System Retrofit Design (2011)	-	-	-	-	-	-	-	-	-	-
3770-000 - Additional Budget CoGen Upgrade (2017)	-	-	-	-	-	-	1	-	-	1
3790-000 - Solids Area Upgrade Design (2018)	3,322	-	-	6,044	174	-	17,419	-	2,654	29,612
3791-000 - Cogeneration Area Upgrade Project Completion (2018)	1	-	-	1	-	-	1	-	1	2
3749-000 - Phase I Solids Piping Upgrade (2019)	76,638	-	-	139,410	4,030	-	401,767	-	61,201	683,045
3750-000 - Dewatering room Floor Sealing and Lighting (2019)	12,903	-	-	23,472	679	-	67,643	-	10,304	115,000
3751-000 - Energy Building Roof and Breezeway (2019)	62,033	-	-	112,843	3,262	-	325,203	-	49,538	552,879
3754-000 - SET Piping Reconstruction (2019)	6,115	-	-	11,123	322	-	32,057	-	4,883	54,500
Total PC 17 Solids	179,027	-	-	325,664	9,411	-	938,532	-	142,970	1,595,603
Total PC 17 Joint Regional Wastewater Reclamation	221,907			398,885	11,679		4,128,515		177,230	4,938,216
PC 21 Effluent Transmission Main										
3101-000 - Trail Bridge Crossing Protection - Phase I (D) (2016)	-	-	-	104,935	-	104,933	-	-	-	209,867
3102-000 - EMT Condition Assessment Methodology (B/C) (2016)	-	-	-	-	-	-	-	-	-	-
3181-000 - Air Vacuum Valve Replacement Reach D (2018)	-	-	-	-	-	-	-	-	-	-
3182-000 - Air Vacuum Valve Replacement Reach E (2018)	-	-	-	-	-	-	-	-	-	-
3104-000 - Aliso Creek Long term Repair Planning (E) (2019)	-	-	-	40,752	-	40,752	-	-	-	81,504
Total PC 21 Effluent Transmission Main	-	-	-	145,687	-	145,685	-	-	-	291,371
PC 24 Aliso Creek Ocean Outfall										
3401-000 - Emergency Plan Development (2016)	2,679	-	-	3,969	190	3,838	10,678	-	2,998	24,351
3480-000 - Internal Seal Replacement (2018)	14,759	-	-	21,871	1,047	21,146	58,836	-	16,517	134,176
Total PC 24 Aliso Creek Ocean Outfall	17,438	-	-	25,840	1,237	24,984	69,514	-	19,515	158,527
Total Large Capital Cash	1,289,417	63,184	1,966,261	570,411	96,027	167,265	6,483,264	1,661,364	2,770,345	15,067,539

(Exhibit 4)

**South Orange County Wastewater Authority
Total Small Capital Projects Cash Roll Forward for FY 2018-19**

		Small Capital Cash Balance as of June 30, 2019									
		16	17	18	19	20	21	22	23	24	Total
		CLB	CSC	CSJC	ETWD	EBS	IRWD	MNWD	SMWD	SCWD	
PC 02 J B Latham											
Liquids											
2218-008	JBL Bar Screen Removal and Replacement	-	-	(5,277)	-	-	-	(3,958)	(2,968)	(4,947)	(17,150)
2218-024	4" Trash Pump	-	-	(1,966)	-	-	-	(1,474)	(1,106)	(1,843)	(6,389)
2244-000	2 ISCO Samplers (between 3 PC's)	-	-	(624)	-	-	-	(468)	(351)	(585)	(2,027)
2245-000	Laboratory Equipment Replacement (between 3 PC's)	-	-	(2,096)	-	-	-	(1,572)	(1,179)	(1,965)	(6,811)
2246-000	Primary Motor Operated Valves	-	-	-	-	-	-	-	-	-	-
2247-000	Return Activated Sludge Pump Rebuild	-	-	(3,689)	-	-	-	(2,767)	(2,075)	(3,458)	(11,989)
2248-000	9-Side headworks exhaust fan	-	-	(2,761)	-	-	-	(2,071)	(1,553)	(2,589)	(8,975)
2249-000	Effluent Pump station gas line	-	-	119	-	-	-	90	67	112	388
2219-015	New Scum Pump and Controls	-	-	-	-	-	-	-	-	-	-
2219-016	Raw Sewage Pump Check Valve	-	-	3,077	-	-	-	2,308	1,731	2,885	10,000
2219-017	4 side blower room skylights	-	-	799	-	-	-	599	449	749	2,597
2219-018	Scrubber Fan (4-side)	-	-	9,846	-	-	-	7,385	5,538	9,231	32,000
2219-019	RSP Rebuild	-	-	7,692	-	-	-	5,769	4,327	7,212	25,000
2219-020	Stock pri & sec flights and chain	-	-	581	-	-	-	436	327	545	1,889
2219-021	Spare Vulcan or Grit Separator	-	-	-	-	-	-	-	-	-	-
2219-044	200 HP Motor for JBL Effluent Pump	-	-	(6,346)	-	-	-	(4,760)	(3,570)	(5,950)	(20,626)
	Total Liquids	-	-	(644)	-	-	-	(483)	(362)	(604)	(2,094)
Common											
2219-022	Safety Equipment	-	-	9,115	-	-	-	6,705	6,853	7,327	30,000
2219-023	Paint Oil Storage Building	-	-	2,279	-	-	-	1,676	1,713	1,832	7,500
2219-024	Pressure Washer/Steam Cleaner	-	-	1,671	-	-	-	1,229	1,256	1,343	5,500
2219-025	F-250 delivery vehicle (3 Plant Split)	-	-	65	-	-	-	48	49	52	215
2219-026	4" Trash Pump	-	-	3,038	-	-	-	2,235	2,284	2,442	10,000
2219-027	New Gate Drives for Plant Entrance	-	-	6,077	-	-	-	4,470	4,569	4,885	20,000
2219-028	Fixed gas Detector Equipment	-	-	6,077	-	-	-	4,470	4,569	4,885	20,000
2219-040	Surveillance Camera System Upgrades	-	-	11,242	-	-	-	8,269	8,452	9,037	37,000
2219-041	JBL Wireless Project	-	-	-	-	-	-	-	-	-	-
2219-042	Tig Welder	-	-	(3,237)	-	-	-	(2,381)	(2,434)	(2,602)	(10,655)
2219-048	Agenda Preparation Software / Audio Visual Hardware	-	-	-	-	-	-	-	-	-	-
2219-xxx	Prior Year Adjustment PC 02	-	-	(9,251)	-	-	-	(6,804)	(6,955)	(7,436)	(30,445)
	Total PC 2 Common	-	-	27,077	-	-	-	19,917	20,357	21,765	89,115
Solids											
2218-037	Centrifuge Rebuild	-	-	(6,413)	-	-	-	(4,622)	(6,066)	(4,275)	(21,375)
2218-042	Digester Gas Meters	-	-	(4,590)	-	-	-	(3,308)	(4,342)	(3,060)	(15,301)
2219-029	Air Compressor for DAFT	-	-	2,250	-	-	-	1,622	2,128	1,500	7,500
2219-030	Polymer Mixer Replacement	-	-	4,500	-	-	-	3,243	4,257	3,000	15,000
2219-031	Digester mix Pump Valves	-	-	18,000	-	-	-	12,973	17,027	12,000	60,000
2219-032	Spare RAS Bleach Pump	-	-	1,180	-	-	-	850	1,116	787	3,933
2219-033	Spare Recirc Pump	-	-	(1,981)	-	-	-	(1,428)	(1,874)	(1,321)	(6,603)
2219-034	Ferric Pump	-	-	1,458	-	-	-	1,051	1,379	972	4,859
2219-035	Spare Cogen Parts	-	-	-	-	-	-	-	-	-	-
2219-036	Valves	-	-	112	-	-	-	81	106	75	373
2219-037	Centrifuge Support Equipment	-	-	(2,938)	-	-	-	(2,117)	(2,779)	(1,958)	(9,792)
2219-038	Seepex split case pumps	-	-	(1,508)	-	-	-	(1,087)	(1,426)	(1,005)	(5,026)
2219-039	Centrifuge Rebuild	-	-	-	-	-	-	-	-	-	-
2219-043	Gas Blower	-	-	(2,868)	-	-	-	(2,067)	(2,713)	(1,912)	(9,558)
2219-047	Digester Gas Meters	-	-	-	-	-	-	-	-	-	-
2291-000	Centrifuge Support Equipment	-	-	-	-	-	-	-	-	-	-
	Total PC 2 Solids	-	-	7,203	-	-	-	5,191	6,813	4,802	24,009
	Total PC 2 JB Latham	-	-	33,636	-	-	-	24,625	26,808	25,963	111,031

(Exhibit 4)

**South Orange County Wastewater Authority
Total Small Capital Projects Cash Roll Forward for FY 2018-19**

		Small Capital Cash Balance as of June 30, 2019									
		16	17	18	19	20	21	22	23	24	Total
		CLB	CSC	CSJC	ETWD	EBSD	IRWD	MNWD	SMWD	SCWD	
PC 15 Coastal Treatment Plant											
Liquids											
2244-000	2 ISCO Samplers (between 3 PC's)	(2,436)	-	-	-	(192)	-	(1,880)	-	(1,918)	(6,426)
2515-000	Laboratory Equipment Replacement (between 3 PC's)	(8,591)	-	-	-	(676)	-	(6,629)	-	(6,764)	(22,660)
2516-000	Replacement Scrubber Water Softener	3,791	-	-	-	299	-	2,925	-	2,985	10,000
2517-000	Process Water Pump	(6,189)	-	-	-	(487)	-	(4,775)	-	(4,873)	(16,324)
2518-000	Secondary chain and flights	1,426	-	-	-	112	-	1,101	-	1,123	3,763
2519-000	Secondary Drive	3,222	-	-	-	254	-	2,487	-	2,537	8,500
2568-000	Valves	-	-	-	-	-	-	-	-	-	-
2569-000	Primary Skimmer	2,654	-	-	-	209	-	2,048	-	2,090	7,000
2570-000	Spare Export Sludge Mixer Gearbox	(2,373)	-	-	-	(187)	-	(1,832)	-	(1,869)	(6,261)
2571-000	Valves	(881)	-	-	-	(69)	-	(680)	-	(694)	(2,324)
2572-000	Aeration Panel Replacement	685	-	-	-	54	-	528	-	539	1,806
2573-000	Headwork Ventilation Fans	22,746	-	-	-	1,791	-	17,552	-	17,910	60,000
2574-000	Pump Rebuilds	(17,749)	-	-	-	(1,398)	-	(13,696)	-	(13,975)	(46,817)
2519-002	Grit Gate Installment	(3,147)	-	-	-	(248)	-	(2,429)	-	(2,478)	(8,302)
2519-003	Replacement of Existing AC System	(12,253)	-	-	-	(965)	-	(9,455)	-	(9,648)	(32,321)
2519-004	Tig Welder	(3,669)	-	-	-	(289)	-	(2,831)	-	(2,889)	(9,678)
2519-005	Service Cart	(2,972)	-	-	-	(234)	-	(2,293)	-	(2,340)	(7,839)
2519-006	Commercial Door	-	-	-	-	-	-	-	-	-	-
	Total PC 15 Liquids	(25,735)	-	-	-	(2,026)	-	(19,858)	-	(20,264)	(67,883)
Common											
2555-000	CTP Wireless Project	(27,446)	-	-	-	(2,161)	-	(21,179)	-	(21,611)	(72,396)
2575-000	Administration Building Flooring	(570)	-	-	-	(45)	-	(440)	-	(449)	(1,503)
2576-000	F-250 delivery vehicle (3 Plant Split)	81	-	-	-	6	-	63	-	64	215
2577-000	Concrete West of headworks - Driveway	18,955	-	-	-	1,493	-	14,627	-	14,925	50,000
2578-000	Locker Room Remodel and New Sewer	14,785	-	-	-	1,164	-	11,409	-	11,642	39,000
2579-000	Replacement 4X4 Vehicle	(737)	-	-	-	(58)	-	(569)	-	(580)	(1,945)
2580-000	Safety Equipment	-	-	-	-	-	-	-	-	-	-
2581-000	Fixed gas Detector Equipment	7,582	-	-	-	597	-	5,851	-	5,970	20,000
2586-000	Surveillance Camera System Upgrades	28,433	-	-	-	2,239	-	21,940	-	22,388	75,000
2587-000	Network Switches (Technology Steering Project, SCADA) - F	28,433	-	-	-	2,239	-	21,940	-	22,388	75,000
2519-xxx	Prior Year Adjustment PC 15	(10,737)	-	-	-	(845)	-	(8,285)	-	(8,455)	(28,323)
	Total PC 15 Common	58,779	-	-	-	4,628	-	45,357	-	46,283	155,048
AWT											
2519-001	AWT Bleach Pump	-	-	-	-	-	-	-	-	(10,878)	(10,878)
2582-000	Spare Turbidity Meter	-	-	-	-	-	-	-	-	10,000	10,000
2583-000	Spare Chlorine Analyzer Equipment	-	-	-	-	-	-	-	-	20,000	20,000
2584-000	AWT Bleach Pump Pad Cover	-	-	-	-	-	-	-	-	10,000	10,000
2585-000	Mixer Shaft and Blade	-	-	-	-	-	-	-	-	15,000	15,000
	Total PC 15 AWT	-	-	-	-	-	-	-	-	44,122	44,122
	Total PC 15 Coastal Treatment Plant	33,045	-	-	-	2,602	-	25,499	-	70,141	131,287

(Exhibit 4)

South Orange County Wastewater Authority
Total Small Capital Projects Cash Roll Forward for FY 2018-19

		Small Capital Cash Balance as of June 30, 2019									
		16	17	18	19	20	21	22	23	24	
		CLB	CSC	CSJC	ETWD	EBSD	IRWD	MNWD	SMWD	SCWD	Total
PC 17 Joint Regional Wastewater Reclamation											
Liquids											
2244-000	2 ISCO Samplers (between 3 PC's)	-	-	-	-	-	-	(2,027)	-	-	(2,027)
2713-000	Laboratory Equipment Replacement (between 3 PC's)	-	-	-	-	-	-	(6,811)	-	-	(6,811)
2714-000	Interstage #2 Pump and Motor Rebuild	-	-	-	-	-	-	(11,609)	-	-	(11,609)
2760-000	RAS#2 Pump and Motor Rebuild	-	-	-	-	-	-	2,194	-	-	2,194
2761-000	RAS#24 Pump and Motor Rebuild	-	-	-	-	-	-	11,000	-	-	11,000
2762-000	RAS#4 Pump and Motor Rebuild	-	-	-	-	-	-	16,000	-	-	16,000
2763-000	RAS#6 Pump and Motor Rebuild	-	-	-	-	-	-	801	-	-	801
2764-000	RAS#66 Pump and Motor Rebuild	-	-	-	-	-	-	801	-	-	801
2765-000	Spare Recirc Pump	-	-	-	-	-	-	(16,094)	-	-	(16,094)
2766-000	Check Valves	-	-	-	-	-	-	(24,084)	-	-	(24,084)
2767-000	Aeration Panels	-	-	-	-	-	-	(12,145)	-	-	(12,145)
2768-000	Ferric pumps	-	-	-	-	-	-	418	-	-	418
2719-001	3LP Strainer Replacement Project	-	-	-	-	-	-	(32,204)	-	-	(32,204)
	Total PC 17 Liquids	-	-	-	-	-	-	(73,761)	-	-	(73,761)
Common											
2769-000	F-250 delivery vehicle (3 Plant Split)	13	-	-	22	1	-	168	-	11	215
2770-000	Safety Equipment	(489)	-	-	(800)	(26)	-	(6,090)	-	(391)	(7,795)
2771-000	Fixed gas Detector Equipment	1,254	-	-	2,052	66	-	15,626	-	1,002	20,000
2772-000	Utility vehicle	419	-	-	686	22	-	5,221	-	335	6,683
2773-000	Slurry Seal asphalt	(894)	-	-	(1,463)	(47)	-	(11,141)	-	(715)	(14,260)
2782-000	Surveillance Camera System Upgrades	4,703	-	-	7,695	248	-	58,597	-	3,758	75,000
2783-000	Network Switches (Technology Steering Project, SCADA) - F	4,703	-	-	7,695	248	-	58,597	-	3,758	75,000
2719-002	Replace Existing A/C Systems	(656)	-	-	(1,074)	(35)	-	(8,177)	-	(524)	(10,466)
2719-003	Portable welder	(950)	-	-	(1,555)	(50)	-	(11,844)	-	(760)	(15,159)
2719-004	Fume Extractor	(550)	-	-	(900)	(29)	-	(6,856)	-	(440)	(8,776)
2719-005	Maintenance Utility Transport	(1,588)	-	-	(2,598)	(84)	-	(19,783)	-	(1,269)	(25,321)
2719-xxx	Prior Year Adjustment PC 17	(2,445)	-	-	(4,001)	(129)	-	(30,471)	-	(1,954)	(39,000)
	Total PC 17 Common	3,519	-	-	5,758	185	-	43,846	-	2,812	56,120
Solids											
2774-000	Centrifuge Incline Conveyor #2 Rehab	(174)	-	-	(317)	(9)	-	(913)	-	(139)	(1,552)
2775-000	Check Valves	1,459	-	-	2,653	77	-	7,647	-	1,165	13,000
2776-000	Spare Recirc Pump	(2,158)	-	-	(3,925)	(113)	-	(11,311)	-	(1,723)	(19,230)
2777-000	Centrifuge Room Lighting	3,366	-	-	6,123	177	-	17,646	-	2,688	30,000
2778-000	Cogen Door Project	700	-	-	1,273	37	-	3,669	-	559	6,237
2779-000	Centrifuge Rebuild	(2,299)	-	-	(4,183)	(121)	-	(12,055)	-	(1,836)	(20,494)
2780-000	Spare Cogen Parts	1,269	-	-	2,309	67	-	6,655	-	1,014	11,314
2719-007	Grit Storage Room Inline Fan	(586)	-	-	(1,067)	(31)	-	(3,074)	-	(468)	(5,226)
	Total PC 17 Solids	1,576	-	-	2,868	83	-	8,264	-	1,259	14,050
AWT											
2781-000	Spare AWT Bleach Pump	-	-	-	-	-	-	191	-	-	191
2719-006	Replacement Waste Backwash Pump	-	-	-	-	-	-	(7,460)	-	-	(7,460)
	Total PC 17 AWT	-	-	-	-	-	-	(7,269)	-	-	(7,269)
	Total PC 17 Joint Regional Wastewater Reclamation	5,095	-	-	8,626	268	-	(28,919)	-	4,071	(10,859)
	Total Small Capital Cash	38,140	-	33,636	8,626	2,870	-	21,205	26,808	100,175	231,458

(Exhibit 5)

**South Orange County Wastewater Authority
Total Non Capital Projects Cash Roll Forward for FY 2018-19**

Non Capital Cash Balance as of June 30, 2019										
	16	17	18	19	20	21	22	23	24	
	CLB	CSC	CSJC	ETWD	EBSD	IRWD	MNWD	SMWD	SCWD	Total
PC 02 J B Latham										
Total Liquids	-	-	(4,842)	-	-	-	18,462	(2,723)	(4,538)	6,360
Total Common	-	-	(5,060)	-	-	-	(3,681)	(3,771)	(4,050)	(16,562)
Total Solids	-	-	28,108	-	-	-	20,253	26,590	18,740	93,691
Total PC2 JB Latham	-	-	18,206.47	-	-	-	35,034.18	20,095.59	10,152.93	83,489.17
PC 05 San Juan Creek Ocean Outfall										
Total PC5 SJCOO	-	14,500	9,667	-	-	-	13,532	38,663	10,878	87,240
PC 15 Coastal Treatment Plant										
Total Liquids	(106,198)	-	-	-	(8,360)	-	(104,349)	-	(83,621)	(302,528)
Total AWT	-	-	-	-	-	-	-	-	66,559	66,559
Total PC 15 Coastal Treatment Plant	(106,198)	-	-	-	(8,360)	-	(104,349)	-	(17,062)	(235,969)
PC 17 Joint Regional Wastewater Reclamation										
Total Liquids	-	-	-	-	-	-	56,393	-	-	56,393
Total Solids	(633)	-	-	(1,151)	(34)	-	(3,317)	-	(505)	(5,640)
Total Common	(7,215)	-	-	(11,805)	(380)	-	(89,894)	-	(5,766)	(115,059)
Total PC 17 Joint Regional Wastewater Reclamation	(7,847)	-	-	(12,956)	(414)	-	(36,819)	-	(6,270)	(64,307)
PC 21 Effluent Transmission Main										
Total PC 21 ETM	-	-	-	(29,956)	-	(29,958)	-	-	-	(59,915)
PC 24 Aliso Creek Ocean Outfall										
Total PC 24 ACOO	2,741	-	-	4,334	194	4,199	10,926	-	3,065	25,460
Total Non Capital Cash	(111,304)	14,500	27,873	(38,578)	(8,580)	(25,759)	(81,676)	58,759	764	(164,001)

Agenda Item

Legal Counsel Review: N/A

Meeting Date: October 3, 2019

TO: SOCWA Board of Directors
FROM: Betty Burnett, General Manager
SUBJECT: General Manager's Status Report

Environmental Compliance Department Update

Aliso Creek Ocean Outfall Toxicity

On June 4, 2019, SOCWA initiated accelerated monitoring due to exceedance of chronic toxicity at the Aliso Creek Ocean Outfall. Testing was conducted bi-weekly over a 12-week period and was completed August 13, 2019 resulting in no permit limitation exceedances. Regular monthly toxicity testing and has been scheduled.

Annual Kelp Report

As required by the NPDES permits for the Aliso Creek Ocean Outfall and the San Juan Creek Ocean Outfall, the 2018 State of the Kelp Report was released. The report indicated that the total kelp canopy in Region 9 increased by 237% compared to 2017 but still below canopy coverage from 2013 through 2015. Three-fourths of the kelp beds increased in size with one kelp bed disappearing. Kelp beds in Laguna remained similar to kelp bed size observed in previous years. Sea surface water temperatures were warmer than average in the second half of the year but cooler in March, April, and May with strong upwelling occurring in the first half of 2018. The graphic below provides a map of the aerial surveys and the location of the SOCWA outfalls (labeled AWMA and SERRA outfalls).



Operations & Maintenance Department

Aliso Creek Ocean Outfall O&M Project

O&M staff supported Engineering's consultant to open and inspect the Aliso Creek Ocean Outfall sampling station. The sampling station piping in the Aliso Beach parking lot has failed and the consultant is in the process of designing a new system. James Jones is pictured setting up the confined space entry equipment for the consultant staff.



JBL O&M Projects Update

O&M staff at JBL performed several pump overhauls this past month. They worked on a Raw Sewage Pump (RSP), waste pump and leaking spool, and a digester mix pump. Each of the pumping systems is pictured below.



O&M staff at JBL have also been working with Engineering and Aerzen Blower representatives to perform several extensive maintenance activities. The three issues with the blowers (installed

in 2014) are scheduled replacement of electronic circuit boards, troubleshooting overheating of the variable frequency drives (VFD), and corrosion of the air intake structure.

The difficulty with servicing the blower electronics is that there are pipe supports blocking the drawers, causing obstruction of maintenance access. O&M staff temporarily supported the overhead piping to allow for the removal of pipe support obstructions. The Aerzen Blower representatives were then able to open the drawers and service the equipment. O&M staff is working with Engineering to permanently move the pipe supports for the 3 blowers which will allow unimpeded access to the blower equipment. Pictured below is our O&M staff carefully opening the equipment drawers once the piping supports were successfully removed.



The last issue with the Aerzen Blower system is that the air intake housing is corroding from the ocean air in Dana Point. O&M staff is removing the rust and is applying specialty paint recommended by the housing manufacturer for better protection. The corrosion on the edges of the housing is pictured below.



RTP O&M Projects Update

O&M staff at RTP have been performing multiple repairs on equipment that are beyond the end of their useful lives. Pictured below is an example of equipment replacement originally installed in 1991. The first photo is a failed Isolation Valve on Pump #3 of the High-Pressure Water System. The valve wedge has corroded and split in two pieces.



The second picture is the removal of the AWT#2 Mud Well Pump. The sand and debris that drains to the pump wears down the impeller and reduced the pump's capacity over time. Below is a picture of the AWT#2 Mud Well Pump being pulled from a tightly confined space by O&M staff.



O&M staff removed and rebuilt SET Pump #2. These sludge pump impellers also become worn from the sand and debris and slowly lose efficiency over time.



Staff replaced the Heat Loop Air Separator. The original unit was corroded and began to leak. The Air Separator is critical to the heat loop for the engine and digesters. The Air Separator removes entrained air that can damage pumps by causing them to cavitate.



O&M staff at RTP started fabricating a new odor box for Aeration Tank #2. The existing unit is severely corroded box and leaking. Below is the nearly completed odor box.



O&M Staffing Update

O&M staff will be replacing an Operator with a Mechanic as part of the overall Succession Plan. As part of the continuing Succession Plan to mitigate the large number of anticipated retirements, an extra Operator was used to help overlap and train incoming Operators. The Operations staff is now at a point where the open position can be permanently reverted to Maintenance. The Mechanic position will be used to reestablish a second mechanic at CTP. This is due to the anticipated retirement of the senior Mechanic at CTP in the next year. An existing Mechanic will be moved to CTP to train with CTP's senior Mechanic and a new hire will fill that vacancy.

These changes will also be presented with the updated O&M Staffing Plan with the next budget. There is no anticipated budget change, or employee count, with this change.

Aptean Tabware Software Renewal – Non-Discretionary Purchase over \$50,000

SOCWA is renewing its licensing and maintenance contract with Aptean for the Tabware. Tabware by Aptean is SOCWA's Computerized Maintenance Management System (CMMS) software. Tabware is a core piece of SOCWA's Maintenance Program. The software is specifically identified in the SOCWA's Uniform Purchasing Policy and Procedures as an essential Non-Discretionary Expense. Non-Discretionary Expenses are approved by the Board with the adoption of the Budget.

Where a Non-Discretionary Contractual Agreement with a vendor exceeds \$50,000, the award is subject to review by the Board of Directors. The total value of the contract is \$ 54,884.88 and includes \$26,384.88 for year one (1) and \$28,500.00 for year two (2). These costs were included in the FY19-20 Budget.

Agenda Item

Legal Counsel Review: N/A

Meeting Date: October 3, 2019

TO: Board of Directors

FROM: Betty Burnett, General Manager

STAFF CONTACT: Mary Carey, Finance Controller

SUBJECT: Monthly Progress on State Audit Recommendations

Attached are staff updates for the State Audit Response Schedule.

Recommendation

Information Item

SOCWA State Audit Response Schedule

Page	Recommendations	Supplemental Actions to Implement Recommendations	Preparation Schedule/Responsible Staff	Filing Date
	Annual Report to State Auditor on Progress			Filed on March 21, 2019 (Remaining Open Item – Consideration of Revision to SOCWA JPA to assign method/% of Member Agency Obligations for Unfunded Liabilities)
16	Finish Investigating difference in available cash balances per audited financial statements	<ul style="list-style-type: none"> (a) Complete investigation of differences in available cash balances to audited financial statements. (b) Develop a method that is agreeable to members for allocating additional cash to the credit of members: <ul style="list-style-type: none"> (i) Consider allocating to members based on existing proportion to available cash (ii) Implement improved procedures to account for member cash 	<ul style="list-style-type: none"> (a) Prepare results of investigation report, and discuss with Finance Committee and Board (b) Cash Roll Forward results discussed Finance Committee and Board of Directors April, 2018 <ul style="list-style-type: none"> (i) Board to review by June, 2018 (ii) Procedures in Place 	<ul style="list-style-type: none"> (a) To be completed: September, 2018 – Submitted to State 9/20/18 for 6 mo. compliance (b)(i) To be Completed: September, 2018 – FCM directed staff to provide alternative methods to allocate and to meet with Agency Finance Officers to review, meeting pending early October 2018 – completed. Board to review and determine final distribution option by 4/4/19. Completed. (ii) 2015-16 Cash Roll Forward was distributed to Board April, 2018; 2016-17 to be reviewed by Finance Committee May, 2018 – Completed. Page 1

Next Page	Recommendation	Supplements to Recommendation	Preparation/Schedule/ Responsible Staff	Filing Date
		(iii) Provide Monthly reports of available cash balances to members	(iii) 12/6/18 Board adjusted reporting of available cash to Quarterly Responsible: Finance Officer	(iii) Complete '17-18 update and implement quarterly updates 12/6/18; Fin Com reviewed Jan. 2019. Quarterly review 5/23/19 & 6/6/19.
19	SOCWA and Members should amend the current JPA to expressly state whether members will be responsible for SOCWA retirement benefits	SOCWA should inform plan participants.	Begin consideration of JPA Revisions with assistance of SOCWA Counsel by July, 2018 Submit to Agencies for approval, July, 2019 Responsible: GM/SOCWA Counsel	To be Completed: September, 2019. Plan presented by Procopio to SOCWA Executive Committee on 12/6/18 for review and comment. ExCom directed proceeding with meeting of agency attorneys to review – meeting held 2/14/18. Flow input from agencies requested 1/23/19, due 2/28/19. Response from IRWD & SJC received. Agency Managers Meeting held 5/13/19; continue 8/27/19.
28	Develop and follow a timeline with specific deadlines for completing each of its planned year-end tasks	i. Prepare a policy requiring correction of future internal control deficiencies within six months of identifying by external auditor ii. Develop accounting procedures including step-by-step instructions	(i) Counsel to develop by May 2018 Board meeting. Responsible: GM/SOCWA Counsel (ii) Underway. Responsible: Finance Controller (iii) Counsel to develop by May 2018 Board meeting.	(i) Completed, reported to State Auditor 5/10/18 (ii) Procedures & Schedule for Year End to review with Finance Committee August, 10 2018. Submitted to State

28 Cont.		<ul style="list-style-type: none"> iii. Amend policy on procurements to specify that SOCWA should enter into agreements of at least 5 years with competitively procured external audit firms. iv. Adopt policy to rotate external auditor when state law requires. 	<p>Responsible: GM/SOCWA Counsel. (iv) Counsel to develop by May 2018 Board meeting. Responsible: GM/SOCWA Counsel.</p>	<p>9/20/18 with 6-month compliance update. Completed. (iii)and(iv) completed and submitted to State Auditor with initial 60-day compliance 5/11/18.</p>
34	Assure full compliance with the Public Records Act	<ul style="list-style-type: none"> (i) Update policy on PRA at least annually to track any changes in laws. (ii) Develop more detailed procedures to ensure that SOCWA responds to requests for records in compliance with PRA. (iii) Establish a policy to retain accurate records and supporting documentation to demonstrate full compliance with all PRA requirements. 	<ul style="list-style-type: none"> (i) April 2018 Board Meeting (ii) May 2018, Procedures/Staff Training Responsible: GM/SOCWA Counsel (iii) April 2018 Board Meeting 	<ul style="list-style-type: none"> (i) Adopted April 2018 Board Meeting (ii) Pending (9/2018) (iii) Adopted April 2018 Board Meeting (iv) Submitted to State Auditor with initial 60- day report on 5/10/18