

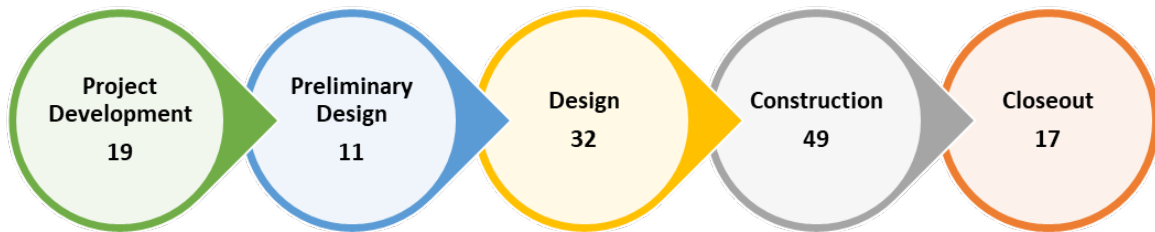
DATE: June 05, 2024

TO: Orange County Sanitation District Board of Directors

FROM: Rob Thompson, General Manager  
Through: Mike Dorman, Director of Engineering

This report summarizes the status, activities, and performance of construction contracts and consultant agreements. This report also identifies the names and status of projects being performed under master budgets for planning studies, research, small construction projects, Operations & Maintenance capital projects and information technology projects.

As of March 31, 2024, Orange County Sanitation District (OC San) Engineering Department manages 128 active projects, with project budgeting totaling close to \$3.5 billion. These projects are in various project phases, ranging from Project Development to Closeout. The graphic below shows the number of projects in each of the project phases.



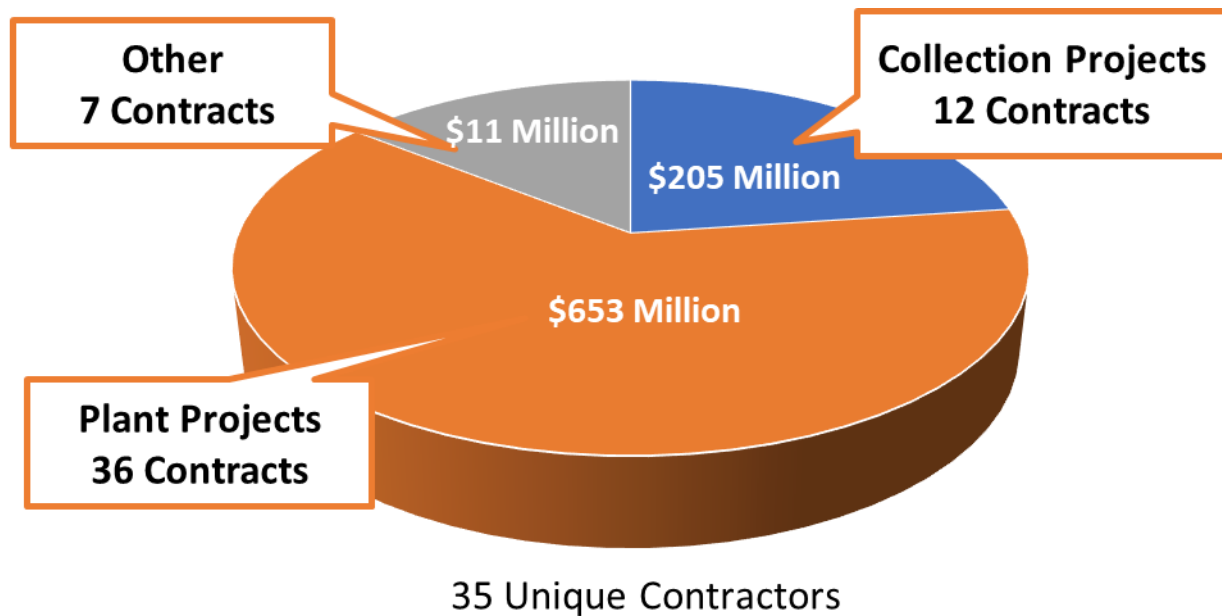
This report is organized into six parts, as follows. Detailed tables can be found in the appendix section of the report.

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**PART 1 - CONSTRUCTION CONTRACTS**

**Construction Contracts**

As shown in the graph below, there are currently 55 active construction contracts totaling \$869 million. The active construction contracts, include 36 plant projects, 12 collection projects and seven other projects (maintenance, small capital, and research projects). Table 1 in the appendix lists the Board-awarded construction contracts while Tables 2 and 3 list the Operations Committee and General Manager awarded construction contracts, active as of March 31, 2024. The General Manager may award contracts up to \$150,000 and task orders up to \$500,000.



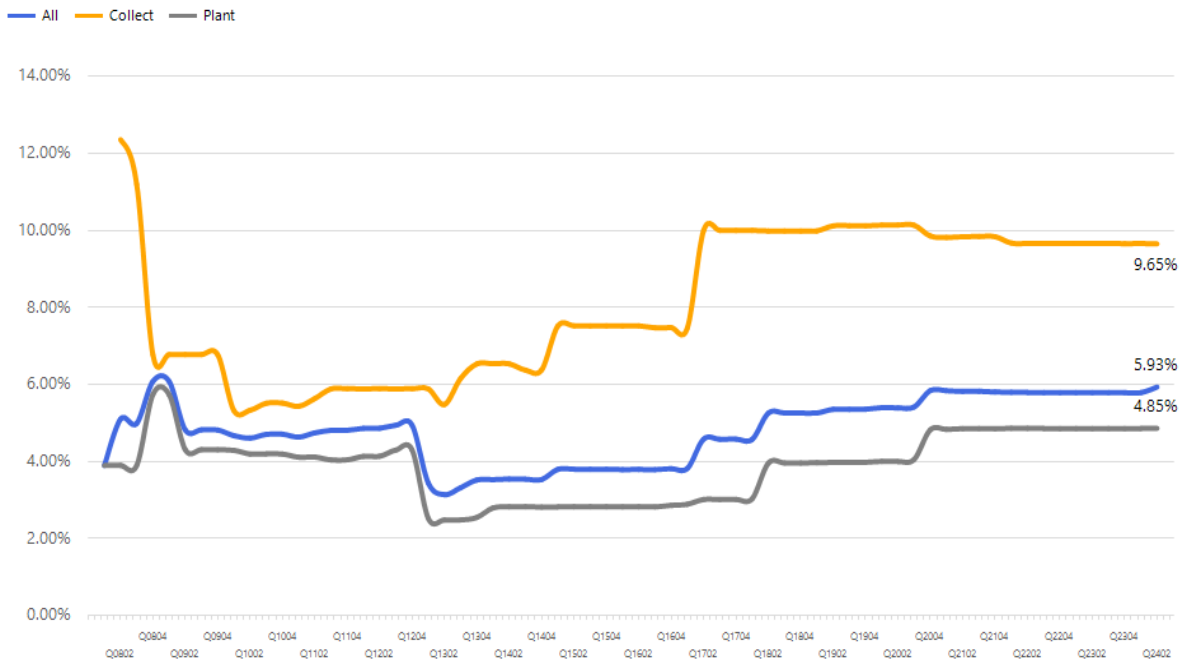
The table below summarizes the number of active and closed construction contracts and total contract amounts. See Tables 4, 5 and 6 in the appendix for a list of the closed contracts.

Type	Contracts	Total Contract Amount
Active Board-Awarded Construction Contracts	48	\$868,383,135
Active Ops Committee Awarded Construction Contracts	3	\$462,929
Active GM Awarded Construction Contracts	4	\$354,965
Closed Board-Awarded Construction Contracts	1	\$432,400
Closed Committee-Awarded Construction Contracts	0	\$0
Closed GM Awarded Construction Contracts	0	\$0

### Cumulative Change Order Rates

When the OC San Board of Directors awards a construction contract, they also approve a contingency which allows the General Manager to approve contract change orders up to the amount of the contingency. One purpose of this report is to document how much of the contingency is utilized. A contract's change order rate is only meaningful when the work is completed. As such, this report's change order performance charts are based only on contracts closed since the Board began approving contingencies in 2008. The following chart shows how cumulative change order rates have changed for plant, collections, and all contracts since the contingency system was implemented.

Cumulative Change Order Rates  
Closed Construction Contracts



## **PART 2 – ENGINEERING PROFESSIONAL SERVICES AGREEMENTS**

### **Professional Design and Related Service Agreements**

OC San engages engineering consultants through Professional Service Agreements (PSAs), Professional Design Services Agreements (PDSAs), and Professional Construction Services Agreements (PCSAs). PDSAs are used to obtain design engineering services, and PCSAs are a subsequent agreement with the design consultant to provide support services during construction. PSAs are used for planning studies and other consultant assignments. There are currently 50 Professional Design and Related Service Agreements (29 individual firms) with total agreement amount of \$236,693,371. Table 7 in the appendix provides a detailed list of Professional Design and Related Service Agreements.

### **Master Agreements**

Master Agreements are issued to a pool of pre-qualified consultants for smaller projects. On those smaller projects, OC San solicits task order proposals from interested firms and awards a task order to the most qualified consultant. There are currently five sets of Master Agreements.

- 2017 Master Agreements for Planning Studies (expired)
- 2018 Master Professional Design Services Agreements (expired)
- 2020 Master Agreements for Planning Studies
- 2021 Master Professional Design Services Agreements
- Agreement for Design Installation, Implementation and Maintenance of a Process Control System

The 2017 Master Agreements for Planning Studies and the 2018 Master Professional Design Services Agreements have expired, meaning no new task orders can be issued under them, but previously issued task orders remain active until completed. Task Orders are limited by OC San Ordinance No. OC SAN-61 to \$500,000 per task order. Below is a summary of the various master agreements with active task orders. See Table 8 in the appendix for a detailed list of task orders.

Task Order	Contracts	Total Contract Amount
2017 Master Agreements for Planning Studies	1	\$274,888
2018 Master Professional Design Service Agreements	19	\$3,515,372
2020 Master Agreements for Planning Studies	5	\$1,181,073
2021 Master Professional Design Service Agreement	12	\$2,584,151

### Master Service Agreements

Through a competitive procurement process, a Master Services Agreement (MSA) was awarded to ABB Inc. for the design, installation, implementation, and maintenance of a control system for a term of 15 years with renewals up to 25 years under Project SP-196, Process Control Systems Upgrades Study. Specific equipment and services will be procured under task orders associated with each CIP project and operating budget.

Task Order	Contracts	Total Contract Amount
Design Installation, Implementation and Maintenance of a Process Control System Master Agreement	1	\$11,803,801

**PART 3 – MASTER BUDGET PROJECTS**

The Board-adopted budget for Fiscal Years 2022-23 and 2023-24 includes master program budgets that allow staff to initiate, execute, and manage smaller projects that fit within the scope of a particular program more quickly. The projects chartered under these program budgets are referred to as sub-projects and are managed to the same standards as projects specifically listed in the adopted budget. A status table for each of these programs listing the sub-projects is attached in the appendix. These projects include Planning Studies (PS), Research (RE), Facility Engineering (FE), Information Technology (IT), Maintenance (MP), and Small Capital (SC).

Master Program Title	Status Table	Number of Projects	Total Allocated Budget
Planning Studies Program	Table 9	20	\$16,230,660
Research Program	Table 10	2	\$8,101,029
Small Construction Projects Program	Table 11	34	\$80,369,700
Information Technology Capital Program	Table 12	9	\$2,220,076
Operations & Maintenance Capital Program	Table 13	8	\$15,578,000

**PART 4 – SUPPLEMENTAL ENGINEERING SERVICES CONTRACT**

In April of 2022, the OC San Board of Directors approved two Professional Service Agreements - one with AECOM Technical Services, Inc. and one with Jacobs Project Management Co. - to provide Supplemental Engineering Services for a three-year period commencing May 1, 2022, through April 30, 2025, with two one-year renewal options. The Board approved the agreements for an amount not to exceed \$29,700,000 per individual agreement.

The benefits of using a supplemental engineering services contract, as opposed to hiring full-time staff or limited-term employees, include rapid mobilization of highly skilled/technical staff, flexibility to change the mix of staff positions on an immediate and as-needed basis, the ability to reduce staff as workloads decrease, access to technical experts to support special tasks, and access to staff with wastewater project experience.

Status tables for the supplemental engineering services contract and labor summary for the 2022 Supplemental Engineering Services Contract with AECOM and Jacobs Project Management Co. are included below.

2022 Supplemental Engineering Services Contract Status (AECOM)			
	Total Fees		Time
<b>Contract</b>	\$29,700,000		60 months <sup>(1)</sup>
<b>Actuals to Date</b>	\$1,647,187	5.5%	23 Months 38.3%
<b>Remaining</b>	\$28,052,813	94.5%	37 Months 61.7%

<sup>(1)</sup> Assuming two additional 1-year extensions

2022 Supplemental Engineering Services Labor Summary (AECOM)		
	This Quarter	Inception to Date
<b>Labor Hours</b>	1,745	9,379
<b>Full Time Equivalents</b>	3.88	2.72
<b>Labor Costs (no expenses)</b>	\$314,461	\$1,608,518
<b>Average Hourly Rate</b>	\$180.21	\$171.50

2022 Supplemental Engineering Services Contract Status (Jacobs)				
	Total Fees		Time	
<b>Contract</b>	\$29,700,000		60 Months	(1)
<b>Actuals to Date</b>	\$8,806,200	29.7%	23 Months	38.3%
<b>Remaining</b>	\$20,893,800	70.3%	37 Months	61.7%

(1) Assuming two additional 1-year extensions

2022 Supplemental Engineering Services Labor Summary (Jacobs)		
	This Quarter	Inception to Date
<b>Labor Hours</b>	13,952	53,518
<b>Full Time Equivalents</b>	29	21
<b>Labor Costs (no expenses)</b>	\$2,271,776	\$8,430,583
<b>Average Hourly Rate</b>	\$163	\$163



**PART 5 – PROGRAMMING PROFESSIONAL SERVICES CONTRACT**

In April of 2022, the OC San Board of Directors approved two Professional Service Agreements - one with Enterprise Automation and one with Maverick Technologies - to provide Programming Professional Services for a three-year period commencing May 11, 2022, through May 10, 2025, with two one-year renewal options. The Board approved the agreements for an amount not to exceed \$4,900,000 per individual agreement.

The programming professional services will program, test, commission, maintain, upgrade, and configure programmable logic controllers, HMI graphics, databases, servers, and networks for select projects. The benefits of using a programming professional services contract, as opposed to hiring full-time staff or limited-term employees, include the ability to provide the needed short-term resources during the execution of Project No. J-120, Process Control Systems Upgrades, rapid mobilization of highly skilled technical resources, flexibility to change the mix of needed resources to match project requirements, and the ability to increase or reduce project resources as workloads change.

Status tables for the programming professional services contract and labor summary for the 2022 Programming Professional Services Contract with Enterprise Automation and Maverick Technologies are included below.

<b>2022 Programming Professional Services Contract Status (Enterprise Automation)</b>			
	<b>Total Fees</b>		<b>Time</b>
<b>Contract</b>	\$4,900,000		60 months <sup>(1)</sup>
<b>Actuals to Date</b>	\$1,663,148	34%	23 Months 38%
<b>Remaining</b>	\$3,236,852	66%	37 Months 62%

<sup>(1)</sup> Assuming two additional 1-year extensions

<b>2022 Programming Professional Services Labor Summary (Enterprise Automation)</b>		
	<b>This Quarter</b>	<b>Inception to Date</b>
<b>Labor Hours</b>	803	8870
<b>Full Time Equivalents</b>	1.5	2.2
<b>Labor Costs (no expenses)</b>	\$158,195	\$1,663,065
<b>Average Hourly Rate</b>	\$197	\$187

<b>2022 Programming Professional Services Contract Status (Maverick Technologies)</b>				
	<b>Total Fees</b>		<b>Time</b>	
<b>Contract</b>	\$4,900,000		60 months	<sup>(1)</sup>
<b>Actuals to Date</b>	\$769,380	16%	23 Months	38%
<b>Remaining</b>	\$4,130,620	89%	37 Months	62%

<sup>(1)</sup> Assuming two additional 1-year extensions

<b>2022 Programming Professional Services Labor Summary (Maverick Technologies)</b>		
	<b>This Quarter</b>	<b>Inception to Date</b>
<b>Labor Hours</b>	1144	4117
<b>Full Time Equivalents</b>	2.2	1.1
<b>Labor Costs (no expenses)</b>	\$208,547	\$769,380
<b>Average Hourly Rate</b>	\$182	\$187

**PART 6 – ON-CALL SERVICES AGREEMENTS**

OC San uses three sets of on-call services agreements for coating inspection and corrosion testing; materials testing, inspection, and other geotechnical testing; and surveying. Services are typically requested by inspection supervisors as needs arise, and the work is generally spread among the available firms.

The table below lists the contract limits and funds expended to date for each of the agreements which became effective on March 23, 2022, and will expire on April 30, 2025. For each of these services, OC San typically uses a single firm for a particular construction contract.

Consultant	Contract Limit	Total Costs Incurred	Remaining
<b>Coating Inspection Services (PSA2022-001)</b>			
CSI Services, Inc.	\$300,000	\$36,412	\$263,588
Diversified Project Services Int'l (DPSI)	\$300,000	\$78,076	\$221,924
<b>Geotechnical Testing Services (PSA2022-003)</b>			
AESCO	\$400,000	\$273,497	\$126,503
Atlas Technical Consultants	\$400,000	\$215,287	\$184,713
Koury Engineering and testing, Inc.	\$400,000	\$179,727	\$220,273
MTGL, Inc	\$400,000	\$114,956	\$285,044
<b>Surveying Services (PSA2022-002)</b>			
D.Woolley & Associates	\$200,000	\$15,085	\$184,915
Michael Baker International, Inc.	\$200,000	\$8,848	\$191,152
Psomas	\$200,000	\$6,438	\$193,562
Stantec Consulting Services, Inc.	\$200,000	\$45,435	\$154,565

OC San uses an on-call corrosion engineering service agreement to perform condition assessments and an on-call corrosion engineering support agreement to support condition assessment and provide confined space entry support.

The table below list the contract limits and funds expended to date for each of the agreements. The Corrosion Management Support Services is a one-year agreement with four one-year renewal options that became effective on February 1, 2020. The Condition Assessment On-Call Contractor Support Services is a one-year agreement with four one-year renewal options that became effective on November 1, 2021.

Consultant	Contract Limit	Total Costs Incurred	Remaining
<b>Corrosion Management Support Services</b>			
Corrpro Companies Inc	\$600,000	\$88,709	\$511,292
<b>Condition Assessment On-Call Contractor Support Services</b>			
Jamison Engineering Contractors, Inc	\$783,470	\$194,846	\$588,624

# APPENDIX

**Table 1 - Board-Awarded Construction Contracts**

Project/Contract		Contractor	Award Date	Contract Amount				Contingency			
				Award	Change Orders	Current	% Spent	Original	Current	Used	Remaining
3-62	Westminster Blvd Force Main Replacement	Teichert Energy - Utilities Group, Inc.	12/18/2019	\$27,743,000	\$3,875,135	\$31,618,135	100.0%	10.0%	14.0%	14.0%	0.0%
3-64B	Los Alamitos Trunk Sewer Rehabilitation	Steve P. Rados, Inc.	05/26/2021	\$17,775,000	\$204,958	\$17,979,958	84.1%	10.0%	10.0%	1.2%	8.8%
3-67	Seal Beach Pump Station Replacement	Walsh Construction Company II, LLC	12/14/2023	\$97,032,743	\$0	\$97,032,743	0.0%	10.0%	10.0%	0.0%	10.0%
5-68	Newport Beach Pump Station Pressurization Improvements	Innovative Construction Solutions	04/25/2023	\$937,500	\$64,715	\$1,002,215	86.7%	10.0%	17.0%	6.9%	10.1%
7-65	Gisler-Red Hill Interceptor and Baker Force Main Rehabilitation	Steve P. Rados, Inc.	05/24/2023	\$44,706,000	(\$1,216,714)	\$43,489,286	9.5%	10.0%	10.0%	-2.7%	12.7%
7-66	Sunflower and Red Hill interceptor Repairs	Charles King Company	07/28/2021	\$4,777,000	\$494,952	\$5,271,952	100.0%	10.0%	11.0%	10.4%	0.7%
7-68	MacArthur Force Main Improvements	SRK Engineering, Inc.	10/20/2023	\$3,897,000	\$0	\$3,897,000	7.5%	10.0%	10.0%	0.0%	10.0%
FE18-13	Redhill Relief Sewer Relocation at State Route 55	SRK Engineering, Inc.	06/22/2022	\$2,213,000	\$0	\$2,213,000	0.0%	15.0%	15.0%	0.0%	15.0%
FE18-14	Plant Water Pipeline Replacement in Kinnison, Lindstrom, and Scott Tunnels at Plant No. 2	MMC, Inc.	12/16/2020	\$1,134,000	\$4,348	\$1,138,348	59.3%	15.0%	15.0%	0.4%	14.6%

**Table 1 - Board-Awarded Construction Contracts**

Project/Contract		Contractor	Award Date	Contract Amount				Contingency			
				Award	Change Orders	Current	% Spent	Original	Current	Used	Remaining
FE18-15	Plant Boiler System Relief at Plant No. 2	MMC, Inc.	04/28/2021	\$230,000	\$24,528	\$254,528	100.0%	15.0%	15.0%	10.7%	4.3%
FE19-01	Pump Station Portable Generator Connectors	Pacific Industrial Electric	09/29/2021	\$1,207,479	\$87,020	\$1,294,499	70.1%	10.0%	16.0%	7.2%	8.8%
FE19-03	Trickling Filter Sludge and Scum Pumps Replacement at Plant No. 1	Garney Pacific, Inc.	02/23/2022	\$778,000	\$18,317	\$796,317	75.3%	10.0%	10.0%	2.4%	7.6%
FE19-04	Sunflower Pump Replacement at Plant No. 1	GSE Construction Company, Inc.	10/27/2021	\$2,123,200	\$0	\$2,123,200	42.2%	10.0%	10.0%	0.0%	10.0%
FE19-06	EPSA Motor Cooling Improvements at Plant No. 2	MMC, Inc.	09/29/2021	\$854,000	\$43,916	\$897,916	100.0%	10.0%	10.0%	5.1%	4.9%
FE19-08	Secondary Treatment VFD Replacements at Plant No. 2	ACS Engineering	03/23/2022	\$1,433,000	\$0	\$1,433,000	6.5%	10.0%	10.0%	0.0%	10.0%
FE20-01	Wastehauler Station Safety and Security Improvements	Leed Electric	09/28/2022	\$1,689,788	\$148,992	\$1,838,780	96.4%	10.0%	16.0%	8.8%	7.2%
FE20-03	Return Activated Sludge Discharge Piping Replacement at Activated Sludge Plant No. 1	GSE Construction Company, Inc.	12/15/2022	\$3,985,400	\$0	\$3,985,400	54.6%	10.0%	10.0%	0.0%	10.0%
FE20-04	Cengen Cooling Water Pipe Replacement at Plant No. 2	Innovative Construction Solutions	11/16/2022	\$3,487,600	\$0	\$3,487,600	24.6%	10.0%	10.0%	0.0%	10.0%

**Table 1 - Board-Awarded Construction Contracts**

Project/Contract		Contractor	Award Date	Contract Amount				Contingency			
				Award	Change Orders	Current	% Spent	Original	Current	Used	Remaining
FE20-06	Thickening and Dewatering Building Pipe Support Improvements at Plant No. 1	Garney Pacific, Inc.	02/23/2022	\$793,000	\$8,062	\$801,062	100.0%	10.0%	10.0%	1.0%	9.0%
FE20-07	Santa Ana Trunk Rehabilitation at Plant No. 1	Sancon Technologies Inc.	04/27/2022	\$395,082	\$5,497	\$400,579	100.0%	20.0%	20.0%	1.4%	18.6%
FE20-08	Olive Sub-Trunk Siphon Rehabilitation at Santa Ana River	MMC, Inc.	04/26/2023	\$1,944,000	\$0	\$1,944,000	2.3%	10.0%	10.0%	0.0%	10.0%
FE20-09	CenGen Smoke Detection Improvements at Plant No. 1 and No. 2	ADT Commercial, LLC	12/15/2022	\$313,000	\$0	\$313,000	85.6%	10.0%	10.0%	0.0%	10.0%
FE21-07	Liquid Oxygen Tank A Replacement at Plant No. 2	J.R. Filanc Construction Company, Inc.	01/18/2023	\$2,608,007	\$0	\$2,608,007	12.0%	10.0%	10.0%	0.0%	10.0%
FR1-0005	Cengen and 12Kv Service Center Switchgear Battery System Upgrades at Plant No. 1	Mass Electric Construction Co.	11/27/2023	\$970,000	\$0	\$970,000	0.0%	10.0%	10.0%	0.0%	10.0%
FR1-0007R	Control Center Offices and Day Training Room	A2Z Construct Inc.	02/20/2024	\$348,000	\$0	\$348,000	0.0%	0.0%	10.0%	0.0%	10.0%
FR1-0011	VFD Replacements at Plant No. 1	ACS Engineering	12/15/2022	\$1,214,888	\$0	\$1,214,888	12.9%	10.2%	10.2%	0.0%	10.2%



**Table 1 - Board-Awarded Construction Contracts**

Project/Contract		Contractor	Award Date	Contract Amount				Contingency			
				Award	Change Orders	Current	% Spent	Original	Current	Used	Remaining
FR1-0016	Waste Sidestream Pump Station VFD replacements at Plant No.1	Leed Electric	03/23/2022	\$344,889	\$0	\$344,889	95.7%	15.0%	15.0%	0.0%	15.0%
FR1-0017	Trickling Filter Valve Replacement at Plant No. 1	Vicon Enterprise	02/13/2024	\$257,300	\$0	\$257,300	0.0%	10.0%	10.0%	0.0%	10.0%
FR2-0018	Activated Sludge Clarifier Repairs at Plant No. 2	Garney Pacific, Inc.	07/27/2022	\$5,091,686	\$32,693	\$5,124,379	82.1%	10.0%	10.0%	0.6%	9.4%
FR2-0023	Activated Sludge Clarifier Entry Improvements at Plant No. 2	Tharsos, Inc.	03/21/2024	\$1,171,000	\$0	\$1,171,000	0.0%	10.0%	10.0%	0.0%	10.0%
FR2-0026	Headworks Phase 3 Cable Replacement at Plant No. 2	ACS Engineering	02/22/2023	\$575,360	\$0	\$575,360	11.2%	20.0%	20.0%	0.0%	20.0%
FR2-0027	Heavy Mechanics Group Office Space Upgrade at Plant No. 2	MBE Construction	02/07/2024	\$195,676	\$0	\$195,676	0.0%	10.0%	10.0%	0.0%	0.0%
J-117B	Outfall Low Flow Pump Station	Shimmick Construction	12/19/2018	\$90,200,000	\$4,413,784	\$94,613,784	90.7%	8.0%	8.0%	4.9%	3.1%
J-120	Process Control Systems Upgrades	ABB, Inc.	07/28/2021	\$11,818,480	(\$14,679)	\$11,803,801	30.8%	10.0%	10.0%	-0.1%	10.1%
J-135B	Engine and Generator Overhauls at Plant No. 1 and 2	Cooper Machinery Services	07/27/2022	\$29,361,029	\$2,703,260	\$32,064,289	46.6%	10.0%	15.6%	9.2%	6.4%

**Table 1 - Board-Awarded Construction Contracts**

Project/Contract		Contractor	Award Date	Contract Amount				Contingency			
				Award	Change Orders	Current	% Spent	Original	Current	Used	Remaining
MP-307	Bushard Diversion Structure Repair	Abhe - Svoboda, Inc.	06/22/2022	\$1,762,545	\$0	\$1,762,545	0.0%	10.0%	10.0%	0.0%	10.0%
P1-105	Headworks Rehabilitation at Plant 1	Kiewit Infrastructure West Co.	03/24/2021	\$222,330,000	\$2,711,063	\$225,041,063	46.1%	4.0%	4.0%	1.2%	2.8%
P1-128A	Headquarters Complex at Plant No. 1	Swinerton Builders	05/26/2021	\$102,544,973	\$3,482,408	\$106,027,381	97.1%	5.0%	5.0%	3.4%	1.6%
P1-128A.1	Headquarters Complex at Plant No. 1	EIDIM Group, Inc.	09/20/2023	\$1,580,000	\$0	\$1,580,000	39.9%	10.0%	10.0%	0.0%	10.0%
P1-132	Uninterruptable Power Supply Improvements at Plant 1	Leed Electric	12/15/2022	\$5,765,789	\$0	\$5,765,789	49.2%	10.0%	10.0%	0.0%	10.0%
P1-133	Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1	Shimmick Construction	02/23/2022	\$6,275,000	\$0	\$6,275,000	72.0%	10.0%	10.0%	0.0%	10.0%
P1-134	South Perimeter Security and Utility Improvements at Plant No.1	Tovey-Shultz Construction, Inc.	07/28/2021	\$4,396,779	\$329,003	\$4,725,782	97.7%	10.0%	10.0%	7.5%	2.5%
P2-122	Headworks Modifications at Plant No. 2 for GWRS Final Expansion	Shimmick Construction	01/22/2020	\$14,487,735	\$739,246	\$15,226,981	100.0%	10.0%	10.0%	5.1%	4.9%

**Table 1 - Board-Awarded Construction Contracts**

Project/Contract		Contractor	Award Date	Contract Amount				Contingency			
				Award	Change Orders	Current	% Spent	Original	Current	Used	Remaining
P2-127	Collections Yard Relocation and Warehouse Demolition at Plant No. 2	Archico Design Build, Inc.	09/19/2023	\$6,500,000	\$21,106	\$6,521,106	15.2%	10.0%	10.0%	0.3%	9.7%
P2-98A	A-Side Primary Clarifiers Replacement at Plant 2	PCL CONSTRUCTION INC.	05/26/2021	\$111,405,880	\$934,874	\$112,340,754	39.0%	6.0%	6.0%	0.8%	5.2%
RE21-01	Supercritical Water Oxidation Demonstration at Plant No. 1	Garney Pacific, Inc.	12/15/2022	\$1,172,000	\$78,842	\$1,250,842	94.3%	10.0%	10.0%	6.7%	3.3%
SC19-06	EPSA Standby Power Generator Control Upgrades at Plant No. 2	Shimmick Construction	10/17/2023	\$3,500,000	\$0	\$3,500,000	4.3%	10.0%	10.0%	0.0%	10.0%
SC22-01	EPSA Electrical Building and Distribution Center H HVAC System Replacement at Plant No. 2	Trane U.S. Inc.	06/28/2023	\$3,862,000	\$0	\$3,862,000	17.5%	10.0%	10.0%	0.0%	10.0%
			<b>Total</b>	<b>\$849,187,808</b>	<b>\$19,195,326</b>	<b>\$868,383,135</b>					

**Table 2 - Operations Committee Awarded Construction Contracts**

Project/Contract		Contractor	Award Date	Contract Amount				Contingency			
				Award	Change Orders	Current	% Spent	Original	Current	Used	Remaining
FE19-13	VFD Replacements at Seal Beach Pump Station	Energy Management Corporation	02/02/2022	\$138,650	\$3,991	\$142,641	100.0%	20.0%	20.0%	2.9%	17.1%
FR2-0029	Influent Pump Station Plant Water Piping Repair at Plant No. 2	W.A. Rasic Construction Company	06/07/2023	\$177,063	\$0	\$177,063	0.0%	20.0%	20.0%	0.0%	20.0%
SC23-01	Electric Vehicle Charging Stations and Network Installation	Chargie, LLC	11/14/2023	\$143,225	\$0	\$143,225	0.0%	20.0%	20.0%	0.0%	20.0%
			<b>Total</b>	<b>\$458,938</b>	<b>\$3,991</b>	<b>\$462,929</b>					

**Table 3 - GM Awarded Construction Contracts**

Project/Contract		Contractor	Award Date	Contract Amount				Contingency			
				Award	Change Orders	Current	% Spent	Original	Current	Used	Remaining
FE21-06	Chemical Dosing Station Installation at Westside Pump Station	RP Controls, Inc.	05/09/2023	\$62,565	\$0	\$62,565	100.0%	20.0%	20.0%	0.0%	20.0%
FR2-0022	Digester O Structural repairs at Plant No. 2	Jamison Engineering	03/14/2022	\$89,500	\$0	\$89,500	0.0%	10.0%	10.0%	0.0%	10.0%
FR2-0025	Digester O-T and Q-R Bridge Repair at Plant No. 2	O'Connell Engineering & Construction, Inc.	03/14/2022	\$115,450	\$38,000	\$153,450	90.7%	10.0%	32.9%	32.9%	0.0%
MP2-002	Ella Tunnel Walkway Replacement at Plant 2	O'Connell Engineering & Construction, Inc.	10/20/2022	\$49,450	\$0	\$49,450	100.0%	10.0%	10.0%	0.0%	10.0%
			<b>Total</b>	<b>\$316,965</b>	<b>\$38,000</b>	<b>\$354,965</b>					

**Table 4 - Closed Board-Awarded Construction Contracts**

Project/Contract		Contractor	Award Date	Closed Date	Contract Amount			Contingency		
					Award	Change Orders	Final	Original	Final	Unused
SC19-03	Return Activated Sludge Pump Station Elevator Rehabilitation at Plant No. 2	OTIS	12/16/2020	02/09/2024	\$432,400	\$0	\$432,400	20.0%	20.0%	20.0%
				<b>Total</b>	<b>\$432,400</b>	<b>\$0</b>	<b>\$432,400</b>			

**Table 5 - Closed Committee -Awarded Construction Contracts**

Project/Contract		Contractor	Award Date	Closed Date	Contract Amount			Contingency		
					Original Award Amount	Change Orders	Final Contract Amount	Original	Final	Unused
				<b>Total</b>						
No Committee-awarded construction contract closed this quarter										

**Table 6 - Closed GM-Awarded Construction Contracts**

Project/Contract		Contractor	Award Date	Closed Date	Contract Amount			Contingency		
					Original Award Amount	Change Orders	Final Contract Amount	Original	Final	Unused
				Total						
No GM-awarded construction contract closed this quarter										

**Table 7 - Active Engineering Services Agreements**

Project/Contract		Consultant	Type	Award Date	Contract Amount				Contingency			
					Award	Amendments	Current	% Spent	Original	Current	Used	Remaining
11-33	Edinger Pump Station Replacement	Arcadis U.S., Inc.	PDSA	09/27/2023	\$3,125,590	\$0	\$3,125,590	36%	10.0%	10.0%	0.0%	10.0%
1-23	Santa Ana Trunk Sewer Rehabilitation	Stantec Consulting Services, Inc.	PDSA	04/27/2022	\$3,880,000	\$0	\$3,880,000	54%	10.0%	10.0%	0.0%	10.0%
1-24	Greenville Trunk Improvements	Brown and Caldwell	PDSA	10/26/2022	\$4,730,000	\$0	\$4,730,000	33%	10.0%	10.0%	0.0%	10.0%
2-49	Taft Branch Improvements	Woodard & Curran, Inc.	PDSA	02/24/2021	\$2,200,000	\$147,062	\$2,347,062	97%	10.0%	10.0%	6.7%	3.3%
3-60	Knott - Miller Holder Artesia Branch Rehabilitation	Dudek	PDSA	10/24/2023	\$1,200,000	\$0	\$1,200,000	8%	10.0%	10.0%	0.0%	10.0%
3-62	Westminster Blvd Force Main Replacement	Stantec Consulting Services, Inc.	PCSA	12/18/2019	\$1,183,000	(\$400,000)	\$783,000	75%	10.0%	10.0%	0.0%	43.8%
3-64	Rehabilitation of Western Regional Sewers	AECOM Technical Services, Inc.	PDSA	01/27/2016	\$17,639,250	\$195,850	\$17,835,100	63%	10.0%	10.0%	1.1%	8.9%
3-64B	Los Alamitos Trunk Sewer Rehabilitation	AECOM Technical Services, Inc.	PCSA	05/26/2021	\$610,000	\$0	\$610,000	68%	10.0%	10.0%	0.0%	10.0%
3-67	Seal Beach Pump Station Replacement	Lee & Ro, Inc.	PCSA	12/14/2023	\$6,148,000	\$0	\$6,148,000	0%	10.0%	10.0%	0.0%	10.0%
3-67	Seal Beach Pump Station Replacement	Lee & Ro, Inc.	PDSA	12/18/2019	\$5,947,850	\$744,435	\$6,692,285	98%	10.0%	12.6%	12.5%	0.1%



**Table 7 - Active Engineering Services Agreements**

Project/Contract		Consultant	Type	Award Date	Contract Amount				Contingency			
					Award	Amendments	Current	% Spent	Original	Current	Used	Remaining
5-67	Bay Bridge Pump Station Replacement	Arcadis U.S., Inc.	PDSA	10/25/2017	\$7,137,000	\$1,779,825	\$8,916,825	85%	10.0%	35.0%	24.9%	10.1%
5-68	Newport Beach Pump Station Pressurization Improvements	Dudek	PCSA	02/01/2023	\$124,979	\$0	\$124,979	22%	10.0%	10.0%	0.0%	10.0%
6-20	Fairview Sewer Rehabilitation	Dudek	PDSA	07/27/2022	\$1,200,000	\$0	\$1,200,000	39%	10.0%	10.0%	0.0%	10.0%
7-65	Gisler-Red Hill Interceptor and Baker Force Main Rehabilitation	CDM Smith Inc.	PCSA	05/24/2023	\$988,460	\$0	\$988,460	22%	10.0%	10.0%	0.0%	10.0%
7-66	Sunflower and Red Hill Interceptor Repairs	GHD, Inc.	PCSA	07/28/2021	\$166,000	\$0	\$166,000	48%	10.0%	10.0%	0.0%	10.0%
7-68	MacArthur Force Main Improvements	Michael Baker International, Inc.	PCSA	09/11/2023	\$272,002	\$0	\$272,002	8%	10.0%	10.0%	0.0%	10.0%
7-68	MacArthur Force Main Improvements	Michael Baker International, Inc.	PDSA	05/26/2021	\$500,000	\$0	\$500,000	100%	10.0%	10.0%	0.0%	10.0%
FR1-0007	Control Center Offices and Day Training Room Remodeling at Plant No. 1	AECOM Technical Services, Inc.	PSA	07/24/2017	\$48,000	\$33,351	\$81,351	88%	N/A	N/A	0.0%	N/A

**Table 7 - Active Engineering Services Agreements**

Project/Contract		Consultant	Type	Award Date	Contract Amount				Contingency			
					Award	Amendments	Current	% Spent	Original	Current	Used	Remaining
J-117B	Outfall Low Flow Pump Station	SEL Engineering Services Inc.	PSA	03/27/2019	\$1,096,074	\$0	\$1,096,074	61%	10.0%	10.0%	0.0%	10.0%
J-117B	Outfall Low Flow Pump Station	Brown and Caldwell	PCSA	12/19/2018	\$8,563,913	\$824,932	\$9,388,845	78%	10.0%	10.0%	9.6%	0.4%
J-124	Digester Gas Facilities Rehabilitation	Brown and Caldwell	PDSA	11/15/2017	\$11,770,000	\$9,760,000	\$21,530,000	59%	10.0%	89.9%	82.9%	6.9%
J-128	Project Management Information System	PMWeb, Inc.	PSA	06/27/2017	\$1,022,500	\$200,817	\$1,223,317	79%	20.0%	20.0%	19.6%	0.4%
J-98	Electrical Power Distribution System Improvements	Schweitzer Engineering Laboratories, Inc	PSA	03/25/2020	\$1,296,878	\$0	\$1,296,878	36%	10.0%	10.0%	0.0%	10.0%
J-98	Electrical Power Distribution System Improvements	Brown and Caldwell	PDSA	02/26/2020	\$2,240,000	\$147,592	\$2,387,592	97%	10.0%	10.0%	6.6%	3.4%
P1-105	Headworks Rehabilitation at Plant 1	SEL Engineering Services Inc.	PSA	01/30/2024	\$137,275	\$0	\$137,275	0%	9.3%	9.3%	0.0%	9.3%
P1-105	Headworks Rehabilitation at Plant 1	Carollo Engineers, Inc	PCSA	03/24/2021	\$16,500,000	\$0	\$16,500,000	43%	10.0%	10.0%	0.0%	10.0%
P1-126	Primary Sedimentation Basins No. 3-5 Replacement at Plant No. 1	Black & Veatch	PDSA	04/27/2022	\$14,163,000	\$177,504	\$14,340,504	24%	10.0%	10.0%	1.3%	8.7%

**Table 7 - Active Engineering Services Agreements**

Project/Contract		Consultant	Type	Award Date	Contract Amount				Contingency			
					Award	Amendments	Current	% Spent	Original	Current	Used	Remaining
P1-128A	Headquarters Complex at Plant No. 1	AECOM Technical Services, Inc.	PSA	04/28/2021	\$6,750,000	\$0	\$6,750,000	82%	10.0%	10.0%	0.0%	10.0%
P1-128A	Headquarters Complex at Plant No. 1	HDR Engineering, Inc.	PCSA	05/26/2021	\$4,900,000	\$512,159	\$5,412,159	91%	10.0%	15.0%	10.5%	4.5%
P1-132	Uninterruptable Power Supply Improvements at Plant 1	Tetra Tech, Inc.	PCSA	11/09/2023	\$217,830	\$0	\$217,830	31%	10.0%	10.0%	0.0%	10.0%
P1-132	Uninterruptable Power Supply Improvements at Plant 1	Tetra Tech, Inc.	PDSA	11/20/2019	\$784,630	\$62,755	\$847,385	97%	10.0%	10.0%	8.0%	2.0%
P1-133	Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1	Carollo Engineers, Inc	PCSA	03/23/2022	\$530,000	\$0	\$530,000	48%	10.0%	10.0%	0.0%	10.0%
P1-134	South Perimeter Security and Utility Improvements at Plant No.1	HDR Engineering, Inc.	PCSA	07/28/2021	\$235,000	\$0	\$235,000	56%	10.0%	10.0%	0.0%	10.0%
P1-137	Support Buildings Seismic Improvements at Plant No. 1	Simpson, Gumpertz, and Heger	PDSA	07/27/2022	\$1,900,000	\$151,537	\$2,051,537	47%	10.0%	10.0%	8.0%	2.0%

**Table 7 - Active Engineering Services Agreements**

Project/Contract		Consultant	Type	Award Date	Contract Amount				Contingency			
					Award	Amendments	Current	% Spent	Original	Current	Used	Remaining
P1-140	Activated Sludge-1 Rehabilitation at Plant No. 1	HDR Engineering, Inc.	PDSA	12/15/2022	\$18,462,443	\$0	\$18,462,443	19%	10.0%	10.0%	0.0%	10.0%
P2-122	Headworks Modifications at Plant No. 2 for GWRS Final Expansion	CDM Smith Inc.	PCSA	01/22/2020	\$2,200,000	\$0	\$2,200,000	87%	10.0%	10.0%	0.0%	10.0%
P2-123	Return Activated Sludge Piping Replacement at Plant 2	Spec Services, Inc.	PCSA	09/25/2019	\$252,329	\$25,233	\$277,562	100%	10.0%	10.0%	10.0%	0.0%
P2-124	Interim Food Waste Receiving Facility	Kennedy/Jenks Consultants, Inc.	PDSA	09/26/2018	\$695,000	\$31,168	\$726,168	100%	10.0%	10.0%	4.5%	5.5%
P2-128	Digester Replacement at Plant No. 2	Brown and Caldwell	PDSA	07/22/2020	\$39,300,000	\$3,078,139	\$42,378,139	66%	10.0%	10.0%	7.8%	2.2%
P2-135	Chemical Systems Rehabilitation at Plant No. 2	Lee & Ro, Inc.	PDSA	03/22/2023	\$862,328	\$54,748	\$917,076	46%	10.0%	10.0%	6.3%	3.7%
P2-137	Digesters Rehabilitation at Plant No. 2	CDM Smith Inc.	PDSA	03/23/2022	\$2,700,000	\$270,000	\$2,970,000	84%	10.0%	10.0%	10.0%	0.0%
P2-138	Operations and Maintenance Complex at Plant No. 2.	Stantec Architecture Inc.	PDSA	01/25/2023	\$7,914,529	\$431,414	\$8,345,943	15%	10.0%	10.0%	5.5%	4.5%

**Table 7 - Active Engineering Services Agreements**

Project/Contract		Consultant	Type	Award Date	Contract Amount				Contingency			
					Award	Amendments	Current	% Spent	Original	Current	Used	Remaining
P2-98A	A-Side Primary Clarifiers Replacement at Plant 2	SEL Engineering Services Inc.	PSA	05/23/2023	\$97,399	\$0	\$97,399	0%			0.0%	0.0%
P2-98A	A-Side Primary Clarifiers Replacement at Plant 2	Black & Veatch	PCSA	05/26/2021	\$8,400,000	\$0	\$8,400,000	41%	10.0%	10.0%	0.0%	10.0%
PS20-02	Collection System Flow Level Monitoring Study	Woodard & Curran, Inc.	PSA	07/28/2021	\$616,562	\$0	\$616,562	53%	0.0%	10.0%	0.0%	10.0%
PS21-01	Exterior Lighting Study at Plant Nos. 1 and 2	IDS Group, Inc.	PSA	09/07/2022	\$151,660	\$0	\$151,660	73%	10.0%	10.0%	0.0%	10.0%
PS21-04	Energy and Digester Gas Master Plan	Brown and Caldwell	PSA	06/22/2022	\$1,438,036	\$0	\$1,438,036	65%	10.0%	10.0%	0.0%	10.0%
PS21-06	Urban Runoff Optimization Study	Michael Baker International, Inc.	PSA	03/22/2023	\$711,230	\$70,700	\$781,930	47%	10.0%	10.0%	9.9%	0.1%
PS21-07	Process Simulation Model Development for Cen Gen Facilities	Intelliflux Controls	PSA	02/05/2024	\$150,308	\$0	\$150,308	0%	10.0%	10.0%	0.0%	10.0%

**Table 7 - Active Engineering Services Agreements**

Project/Contract		Consultant	Type	Award Date	Contract Amount				Contingency			
					Award	Amendments	Current	% Spent	Original	Current	Used	Remaining
RE21-01	Supercritical Water Oxidation Demonstration at Plant No. 1	374Water Systems, Inc.	PSA	12/15/2021	\$5,139,000	\$96,095	\$5,235,095	41%	10.0%	10.0%	1.9%	8.1%
				<b>Total</b>	<b>\$218,298,055</b>	<b>\$18,395,316</b>	<b>\$236,693,371</b>					

**Table 8 - Active Task Orders by Master Agreement**

Agreement/Project		Consultant	Award Date	Original Task Order Value	Amendments	Current Task Order Value	% Spent
<b>2017 Master Agreements for On-Call Planning Studies</b>							
PS19-03	Laboratory Rehabilitation Feasibility Study	HDR Engineering, Inc.	10/20/2020	\$274,888	\$0	\$274,888	81%
<b>2018 Master Professional Design Service Agreements</b>							
FE18-06	CenGen Instrument Air Compressors Replacement at Plant No. 1	IDS Group, Inc.	04/27/2020	\$89,876	\$0	\$89,876	69%
FE18-13	Redhill Relief Sewer Relocation at State Route 55	GHD, Inc.	03/27/2020	\$168,612	\$105,331	\$273,943	84%
FE18-14	Plant Water Pipeline Replacement in Kinnison, Lindstrom, and Scott Tunnels at Plant No. 2	Dudek	11/06/2019	\$108,308	\$21,544	\$129,852	80%
FE18-15	Plant Boiler System Relief at Plant No. 2	IDS Group, Inc.	10/22/2019	\$23,299	\$0	\$23,299	55%
FE19-02	Cengen Plant Water Pipe Replacement at Plant No. 1	AECOM Technical Services, Inc.	07/08/2020	\$156,498	\$143,378	\$299,876	73%
FE19-03	Trickling Filter Sludge and Scum Pumps Replacement at Plant No. 1	Black & Veatch	09/02/2020	\$244,728	\$55,272	\$300,000	97%

**Table 8 - Active Task Orders by Master Agreement**

Agreement/Project		Consultant	Award Date	Original Task Order Value	Amendments	Current Task Order Value	% Spent
FE19-06	EPSA Motor Cooling Improvements at Plant No. 2	IDS Group, Inc.	05/05/2020	\$88,206	\$10,541	\$98,747	96%
FE19-10	Digesters C, D, F, G and I Gas Balance Lines Replacement at Plant No. 2	GHD, Inc.	02/03/2021	\$25,000	\$65,749	\$90,749	78%
FE19-11	Primary Clarifiers Nos. 6-31 Lighting and Alarm Improvements at Plant No. 1	AECOM Technical Services, Inc.	09/21/2020	\$226,685	\$6,137	\$232,822	75%
FE19-13	VFD Replacements at Seal Beach Pump Station	AECOM Technical Services, Inc.	03/24/2021	\$78,033	\$0	\$78,033	60%
FE20-01	Wastehauler Station Safety and Security Improvements	AECOM Technical Services, Inc.	03/16/2021	\$161,012	\$16,247	\$177,259	91%
FE20-02	Digester C, D, F, and G Mechanical Rehabilitation at Plant No. 2	HDR Engineering, Inc.	03/02/2021	\$188,212	\$34,352	\$222,564	85%
FE20-03	Return Activated Sludge Discharge Piping Replacement at Activated Sludge Plant No. 1	GHD, Inc.	06/14/2021	\$249,000	\$0	\$249,000	89%
FE20-04	Cengen Cooling Water Pipe Replacement at Plant No. 2	Dudek	05/18/2021	\$240,000	\$60,000	\$300,000	97%
FE20-05	Plant Water Piping Replacement at Secondary Clarifiers 1-26 at Plant No. 1	IDS Group, Inc.	06/22/2021	\$186,626	\$0	\$186,626	75%
FE20-08	Olive Sub-Trunk Siphon Rehabilitation at Santa Ana River	Dudek	06/10/2021	\$240,000	\$0	\$240,000	91%
FE20-09	CenGen Smoke Detection Improvements at Plant No. 1 and No. 2	IDS Group, Inc.	06/15/2021	\$63,275	\$0	\$63,275	82%
FR1-0011	VFD Replacements at Plant No. 1	Black & Veatch	04/08/2021	\$283,000	\$17,000	\$300,000	83%
FRC-0009	Bitter Point Trunk Sewer Repair at Bitter Point Pump Station	GHD, Inc.	06/17/2021	\$159,451	\$0	\$159,451	83%
<b>2020 Master Agreements for On-Call Planning Studies</b>							
PS19-03	Laboratory Rehabilitation Feasibility Study	Hazen and Sawyer	01/17/2023	\$23,825	\$0	\$23,825	100%
PS20-09	Thickening & Dewatering Plant Water Study at Plant No. 1	HDR Engineering, Inc.	04/21/2022	\$219,670	\$0	\$219,670	73%
PS21-08	Pure Oxygen Activated Sludge Operations Study at Plant No. 2	Hazen and Sawyer	09/22/2022	\$241,791	\$55,413	\$297,204	100%

**Table 8 - Active Task Orders by Master Agreement**

Agreement/Project		Consultant	Award Date	Original Task Order Value	Amendments	Current Task Order Value	% Spent
PS21-10	Integrated Nitrogen Management	Hazen and Sawyer	10/19/2023	\$247,000	\$0	\$247,000	13%
PS22-02	Onsite Oxygen Generation Feasibility Study at Plant No. 2	Black & Veatch	02/13/2023	\$393,374	\$0	\$393,374	50%
<b>2021 Master Professional Design Service Agreements</b>							
FE21-08	Newhope-Placentia Sewer Manhole Replacements	GHD, Inc.	02/28/2023	\$235,820	\$0	\$235,820	77%
FE22-01	Platform Modifications for Process Areas at Plant No. 1 and No. 2	ProjectLine Technical Services. Inc.	03/14/2023	\$159,296	\$0	\$159,296	80%
FR1-0017	Trickling Filter Valve Replacement at Plant No. 1	Dudek	08/16/2022	\$101,108	\$0	\$101,108	85%
FR1-0018	Dewatering Centrifuge Diverter Gate Improvements at Plant No. 1	Dudek	08/16/2022	\$140,000	\$93,191	\$233,191	47%
FR2-0023	Activated Sludge Clarifier Entry Improvements at Plant No. 2	AECOM Technical Services, Inc.	01/13/2022	\$120,030	\$79,828	\$199,858	57%
FR2-0027	Heavy Mechanics Group Office Space Upgrade at Plant No. 2	ProjectLine Technical Services. Inc.	09/13/2022	\$126,153	\$0	\$126,153	88%
FRC-0010	Warner Avenue Vault Cover Improvements	Kleinfelder, Inc.	11/16/2021	\$205,000	\$43,128	\$248,128	86%
FRC-0014	Magnolia Sewer Manhole Abandonment at Interstate-5	Brown and Caldwell	03/15/2023	\$195,055	\$0	\$195,055	17%
FRJ-0003	Interplant Gas Line Blow Off Vault Repairs	Dudek	09/08/2022	\$165,000	\$55,091	\$220,091	89%
J-120A	Control Room Reconfiguration at Plant No.1	ProjectLine Technical Services. Inc.	12/04/2023	\$255,036	\$0	\$255,036	18%
P2-127	Collections Yard Relocation and Warehouse Demolition at Plant No. 2	ProjectLine Technical Services. Inc.	08/02/2022	\$188,898	\$121,517	\$310,415	79%
SC19-06	EPSA Standby Power Generator Control Upgrades at Plant No. 2	Spec Services, Inc.	11/03/2021	\$241,153	\$58,847	\$300,000	73%
<b>Design Installation, Implementation and Maintenance of a Process Control System Master Agreement</b>							
J-120	Process Control System Upgrade	ABB (Contractor/Consultant)	9/15/2021	\$11,818,480	(\$14,679)	\$11,803,801	30%
				<b>Total</b>	<b>\$1,027,887</b>	<b>\$19,359,285</b>	



**Table 9 - Planning Studies Status Report**

<b>Project Number</b>	<b>Project Name</b>	<b>Status</b>	<b>Allocated Budget</b>
PS18-06	Go/No-Go Lights and Signage	Active	\$495,000
PS18-09	Ocean Outfall Condition Assessment and Scoping Study	Active	\$5,302,717
PS19-03	Laboratory Rehabilitation Feasibility Study	Active	\$450,000
PS20-02	Collection System Flow Level Monitoring Study	Active	\$743,218
PS20-08	Euclid Trunk Sewer Hydraulic Modeling and Odor Control Analyses	Active	\$500,000
PS20-09	Thickening & Dewatering Plant Water Study at Plant No. 1	Active	\$400,000
PS21-01	Exterior Lighting Study at Plant Nos. 1 and 2	Active	\$345,533
PS21-02	Public Announcement and Fire System at Plant Nos. 1 and 2	Active	\$500,000
PS21-04	Energy and Digester Gas Master Plan	Active	\$1,785,000
PS21-05	CAD Design Manual Update for 3D Design	Active	\$758,000
PS21-06	Urban Runoff Optimization Study	Active	\$1,100,000
PS21-07	Process Simulation Model Development for Cen Gen Facilities	Active	\$211,192
PS21-08	Pure Oxygen Activated Sludge Operations Study at Plant No. 2	Active	\$360,000
PS21-10	Integrated Nitrogen Management	Active	\$372,000
PS22-02	Onsite Oxygen Generation Feasibility Study at Plant No. 2	Active	\$295,000
PS23-01	Fleet Facilities Improvements Study	Active	\$350,000
PS23-02	Staff Parking Study at Plant No. 2	Active	\$163,000
PS23-03	2025 Outfall Initial Dilution Model	Active	\$370,000
PS23-04	Digital Asset Management Study	Active	\$630,000
PS23-05	Utility Water Planning Study at Plant Nos. 1 and 2	Active	\$1,100,000
<b>Grand Total</b>			<b>\$16,230,660</b>
Number of Chartered Projects			20
Board Approved Program Budget			\$28,652,000
Remaining Unallocated Budget			\$12,421,340

**Table 10 - Research Program Status Report**

<b>Project Number</b>	<b>Project Name</b>	<b>Status</b>	<b>Allocated Budget</b>
RE20-06	Co-Thickened Sludge Pump Trial at Plant No. 1	Active	\$160,000
RE21-01	Supercritical Water Oxidation Demonstration at Plant No. 1	Active	\$7,941,029
<b>Grand Total</b>			<b>\$8,101,029</b>
Number of Chartered Projects			2
Board Approved Program Budget			\$10,000,000
Remaining Unallocated Budget			\$1,898,971

**Table 11 - Small Construction Projects Program Status Report**

<b>Project Number</b>	<b>Project Name</b>	<b>Status</b>	<b>Allocated Budget</b>
FE18-06	CenGen Instrument Air Compressors Replacement at Plant No. 1	Active	\$1,150,000
FE18-13	Redhill Relief Sewer Relocation at State Route 55	Active	\$3,550,000
FE18-14	Plant Water Pipeline Replacement in Kinnison, Lindstrom, and Scott Tunnels at Plant No. 2	Active	\$2,300,000
FE18-15	Plant Boiler System Relief at Plant No. 2	Active	\$675,000
FE18-16	Truck Loading Basement Drain Modifications at Plant No. 1	Active	\$592,000
FE18-20	DAFT Air Compressors Replacement at Plant No. 1	Active	\$1,360,000
FE19-01	Pump Station Portable Generator Connectors	Active	\$2,570,000
FE19-02	Cengen Plant Water Pipe Replacement at Plant No. 1	Active	\$4,165,000
FE19-03	Trickling Filter Sludge and Scum Pumps Replacement at Plant No. 1	Active	\$3,200,000
FE19-04	Sunflower Pump Replacement at Plant No. 1	Active	\$4,300,000
FE19-06	EPSA Motor Cooling Improvements at Plant No. 2	Active	\$1,825,000
FE19-08	Secondary Treatment VFD Replacements at Plant No. 2	Active	\$2,900,000
FE19-10	Digesters C, D, F, G and I Gas Balance Lines Replacement at Plant No. 2	Active	\$176,000
FE19-11	Primary Clarifiers Nos. 6-31 Lighting and Alarm Improvements at Plant No. 1	Active	\$1,250,000
FE19-12	Rebuild Shop Fume Extractor Installation at Plant No 1	Active	\$560,000
FE19-13	VFD Replacements at Seal Beach Pump Station	Active	\$520,000
FE20-01	Wastehauler Station Safety and Security Improvements	Active	\$2,923,000
FE20-02	Digester C, D, F, and G Mechanical Rehabilitation at Plant No. 2	Active	\$6,622,000
FE20-03	Return Activated Sludge Discharge Piping Replacement at Activated Sludge Plant No. 1	Active	\$6,840,000
FE20-04	Cengen Cooling Water Pipe Replacement at Plant No. 2	Active	\$5,180,000
FE20-05	Plant Water Piping Replacement at Secondary Clarifiers 1-26 at Plant No. 1	Active	\$1,545,000
FE20-07	Santa Ana Trunk Rehabilitation at Plant No. 1	Active	\$765,000
FE20-08	Olive Sub-Trunk Siphon Rehabilitation at Santa Ana River	Active	\$3,500,000
FE20-09	CenGen Smoke Detection Improvements at Plant No. 1 and No. 2	Active	\$950,000
FE21-01	Plasma Cutting Fume Extractor installation at Plant No. 1 Rebuild Shop	Active	\$400,700
FE21-02	Lighting Improvements Boiler and Sludge Dewatering Areas at Plant No. 1	Active	\$320,000
FE21-04	Thickening and Dewatering Facility Handrail Installation at Plant No. 1	Active	\$230,000
FE21-06	Chemical Dosing Station Installation at Westside Pump Station	Active	\$560,000
FE21-07	Liquid Oxygen Tank A Replacement at Plant No. 2	Active	\$3,800,000
FE21-08	Newhope-Placentia Sewer Manhole Replacements	Active	\$1,225,000
FE22-01	Platform Modifications for Process Areas at Plant No. 1 and No. 2	Active	\$1,300,000
FE22-02	Liquid Oxygen Tank B Replacement at Plant No. 2	Active	\$4,200,000
FE23-01	Digester Gas Compressor Dryer Replacements at Plant Nos. 1 and 2	Active	\$8,000,000

**Table 11 - Small Construction Projects Program Status Report**

<b>Project Number</b>	<b>Project Name</b>	<b>Status</b>	<b>Allocated Budget</b>
FE23-04	Truck Loading Scale Replacement at Plant No. 2	Active	\$916,000
<b>Grand Total</b>			<b>\$80,369,700</b>
Number of Chartered Projects			34
Board Approved Program Budget			\$90,000,000
Remaining Unallocated Budget			\$9,630,300

**Table 12 - Information Technology Capital Program Status Report**

<b>Project Number</b>	<b>Project Name</b>	<b>Status</b>	<b>Allocated Budget</b>
IT19-01	IT Safety VPP Systems (IT19-01)	Active	\$210,000
IT19-05	IT P1 & P2 Data Refresh (IT19-05)	Active	\$1,200,000
IT20-05	Client Management Modernization (ICE-69_IT20-05) 6520005	Active	\$99,000
IT20-08	Field Computer for Nerissa and Interface with LIMS(ICE-68_IT20-07) 6520008	Active	\$121,000
IT20-10	Digitize Quality Assurance Tracking Processes/TNI/ELAP Standards (ICE-76_IT20-10) 6520010	Active	\$145,700
IT21-04	Databridge Scale Management Software (ICE - 84_IT21-04)	Active	\$42,752
IT23-02	RMIS (Laserfische) Implementation - Phase 2 (ICE - 97_IT23-02)	Active	\$204,624
IT23-03	Workforce Timecard Migration (ICE-98_IT23-03)	Active	\$21,000
IT23-04	Evacuation Mustering & Visitor Management System (ICE -99_IT23-04)	Active	\$176,000
<b>Grand Total</b>			<b>\$2,220,076</b>
Number of Chartered Projects			9
Board Approved Program Budget			\$10,000,000
Remaining Unallocated Budget			\$7,779,924

**Table 13 - Operations & Maintenance Capital Program Status Report**

<b>Project Number</b>	<b>Project Name</b>	<b>Status</b>	<b>Allocated Budget</b>
SC19-03	Return Activated Sludge Pump Station Elevator Rehabilitation at Plant No. 2	Active	\$890,000
SC19-06	EPSA Standby Power Generator Control Upgrades at Plant No. 2	Active	\$4,800,000
SC20-02	Ocean Outfall Booster Station Elevator Rehabilitation	Active	\$410,000
SC22-01	EPSA Electrical Building and Distribution Center H HVAC System Replacement at Plant No. 2	Active	\$5,100,000
SC22-02	HVAC Replacement for Plant 2 Centrifuge Building, Operations Building, and Bitter Point PS	Active	\$3,712,000
SC23-01	Electric Vehicle Charging Stations and Network Installation	Active	\$391,000
SC23-02	Effluent Junction Box Security Fence Replacement at Plant No. 1	Active	\$130,000
SC23-03	Collection System Critical Assets	Active	\$145,000
<b>Grand Total</b>			<b>\$15,578,000</b>
Number of Chartered Projects			8
Board Approved Program Budget			\$15,622,000
Remaining Unallocated Budget			\$44,000