

DATE: May 5, 2022

TO: Orange County Sanitation District
Board of Directors

FROM: James D. Herberg, General Manager
Through: Kathy Millea, Director of Engineering

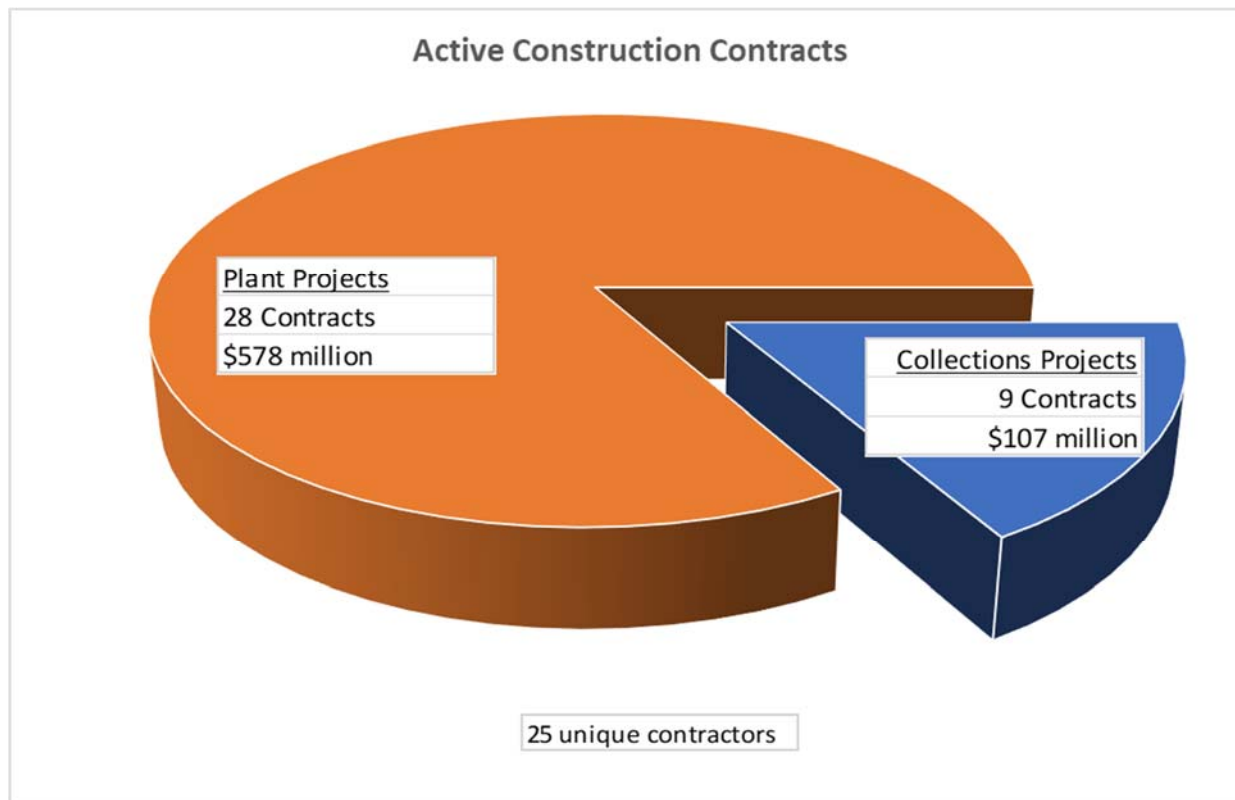
This report summarizes the status, activities, and performance of construction contracts and consultant agreements. This report also identifies the names and status of projects being performed under master budgets for planning studies, research, small construction projects, O&M capital projects, and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

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PART 1 - CONSTRUCTION CONTRACTS

Table 1 lists the Board-awarded construction contracts active as of March 31, 2022, while Table 2 lists the General Manager-awarded construction contracts. The General Manager may award contracts up to \$100,000 and task orders up to \$300,000. The graph below shows the number and total value of projects broken down by plant and collections.



Two Board-awarded construction contract were closed in this quarter, as listed in Table 3. No construction contract awarded by the General Manager was closed in this quarter, as listed in Table 4.

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 1 - Active Board-Awarded Construction Contracts as of 3/31/2022

Project / Contract	Contractor	Award Date	% Spent	Board Award Amount	Change Orders	Current Contract Amount	Original Contingency	Current Contingency	Contingency Used	Contingency Remaining
2-72 Newhope-Placentia Trunk Replacement										
2-72B Newhope-Placentia Trunk Replacement, Segment B	OHL USA, INC.	06/15/2018	99%	\$58,242,000	\$5,885,108	\$64,127,108	6.5%	12.0%	10.1%	1.9%
3-62 Westminster Blvd Force Main Replacement										
3-62 Westminster Blvd Force Main Replacement	Teichert Energy & Utilities Group, Inc.	12/18/2019	72%	\$27,743,000	\$971,036	\$28,714,036	10.0%	10.0%	3.5%	6.5%
3-64 Rehabilitation of Western Regional Sewers										
3-64B Los Alamitos Trunk Sewer Rehabilitation	Steve P. Rados, Inc.	05/26/2021	18%	\$17,775,000	\$0	\$17,775,000	10.0%	10.0%	0.0%	10.0%
J-117 Ocean Outfall System Rehabilitation										
J-117B Outfall Low Flow Pump Station	Shimmick Construction Co., Inc.	12/19/2018	69%	\$90,200,000	\$675,585	\$90,875,585	8.0%	8.0%	0.7%	7.3%
J-120 Process Control Systems Upgrades										
J-120 Process Control Systems Upgrades	ABB Inc.	07/20/2021	0%	\$11,818,480	\$0	\$11,818,480	10.0%	10.0%	0.0%	10.0%
J-127 Natural Gas Pipelines Replacement at Plant Nos. 1 and 2										
J-127 Natural Gas Pipelines Replacement at Plant Nos. 1 and 2	Innovative Construction Solutions	07/22/2020	79%	\$745,500	\$0	\$745,500	10.0%	10.0%	0.0%	10.0%
J-135 Central Generation Engine Overhauls at Plant No. 1 and 2										
J-135A Central Generation Engine Overhaul at Plant No. 1	Cooper Machinery Services LLC	03/24/2021	76%	\$3,705,932	\$187,330	\$3,893,262	20.0%	20.0%	5.1%	14.9%
MI-FE Small Construction Projects Program										
FE10-21 Area 02 Craig Regional Park Manhole Improvements	Deark E&C, Inc.	07/28/2021	0%	\$427,400	\$0	\$427,400	9.9%	9.9%	0.0%	9.9%
FE18-11 Headworks Explosive Gas Monitoring Systems at Plant No. 1 and No. 2	Baker Electric, Inc.	03/25/2020	100%	\$223,984	\$0	\$223,984	10.0%	10.0%	0.0%	10.0%
FE18-14 Plant Water Pipeline Replacement in Kinnison, Lindstrom, and Scott Tunnels at Plant No. 2	MMC, Inc.	12/16/2020	0%	\$1,134,000	\$0	\$1,134,000	15.0%	15.0%	0.0%	15.0%
FE18-15 Plant Boiler System Relief at Plant No. 2	MMC, Inc.	04/21/2021	0%	\$230,000	\$0	\$230,000	15.0%	15.0%	0.0%	15.0%
FE18-16 Truck Loading Basement Drain Modifications at Plant No. 1	Mehta Mechanical Company, Inc.	10/27/2021	0%	\$162,500	\$0	\$162,500	10.0%	10.0%	0.0%	10.0%
FE18-19 12KV Distribution B and East RAS Pump Station Roofing Replacement	O'Connell Engineering & Construction, Inc.	05/27/2020	100%	\$674,800	\$16,664	\$691,464	10.0%	10.0%	2.5%	7.5%
FE19-01 Pump Station Portable Generator Connectors	Pacific Industrial Electric	09/22/2021	0%	\$1,207,479	\$0	\$1,207,479	10.0%	10.0%	0.0%	10.0%
FE19-04 Sunflower Pump Replacement at Plant No. 1	GSE Construction Company, Inc.	10/27/2021	0%	\$2,123,200	\$0	\$2,123,200	10.0%	10.0%	0.0%	10.0%
FE19-03 Trickling Filter Sludge and Scum Pumps Replacement at Plant No. 1	Garney Pacific, Inc	02/02/2022	0%	\$778,000	\$0	\$778,000	10.0%	10.0%	0.0%	10.0%
FE19-13 VFD Replacements at Seal Beach Pump Station	Energy Management Corporation	02/15/2022	0%	\$138,650	\$0	\$138,650	20.0%	20.0%	0.0%	20.0%
FE19-08 Secondary Treatment VFD Replacements at Plant No. 2	ACS Engineering	3/23/2022	0%	\$1,433,000	\$0	\$1,433,000	10.0%	10.0%	0.0%	10.0%
FE20-06 Thickening and Dewatering Building Pipe Support Improvements at Plant No. 1	Garney Pacific, Inc	02/23/2022	0%	\$793,000	\$0	\$793,000	10.0%	10.0%	0.0%	10.0%
MI-SM-CAP Operations & Maintenance Capital Program										
SC19-03 Return Activated Sludge Pump Station Elevator Rehabilitation at Plant No. 2	OTIS	12/16/2020	5%	\$432,400	\$0	\$432,400	20.0%	20.0%	0.0%	20.0%
Operationally-Funded Projects										
FR1-0007 Control Center Offices and Day Training Room Remodeling at Plant No. 1	Thomas Solar Energy	05/26/2021	18%	\$256,790	\$0	\$256,790	10.0%	10.0%	0.0%	10.0%
FR1-0014 Laboratory Building HVAC Controls Replacement at Plant No. 1	Retrofit Service Company	02/02/2022	0%	\$176,847	\$0	\$176,847	10.0%	10.0%	0.0%	10.0%
FR1-0016 Waste Sidesream Pump Station VFD replacements at Plant No.1	Leed Electric, Inc.	03/23/2022	0%	\$344,889	\$0	\$344,889	10.0%	10.0%	0.0%	10.0%
FRC-0002 Bay Bridge Pump Station Valve Replacement	Innovative Construction Solutions	11/18/2020	47%	\$598,000	\$33,647	\$631,647	10.0%	55.0%	5.6%	49.4%
FRC-0004 Seal Beach Pump Station Isolation Valve Replacement	J.R. Filanc Construction Company, Inc.	12/16/2020	82%	\$466,830	\$0	\$466,830	20.0%	20.0%	0.0%	20.0%

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 1 - Active Board-Awarded Construction Contracts as of 3/31/2022

Project / Contract	Contractor	Award Date	% Spent	Board Award Amount	Change Orders	Current Contract Amount	Original Contingency	Current Contingency	Contingency Used	Contingency Remaining
FRC-0013 Bay Bridge Pump Station Foremain Isolation Valve Replacement	Charles King Company, Inc.	08/25/2021	95%	\$289,585	\$0	\$289,585	50.0%	68.0%	0.0%	68.0%
MP-305 Cengen Supply Air Fan Support Replacement at Plant No. 2	J.R. Filanc Construction Company, Inc.	12/16/2020	95%	\$297,000	\$27,878	\$324,878	15.0%	15.0%	9.4%	5.6%
P1-105 Headworks Rehabilitation at Plant 1										
P1-105 Headworks Rehabilitation at Plant 1	Kiewit Infrastructure West Co.	02/24/2021	10%	\$222,330,000	\$62,251	\$222,392,251	4.0%	4.0%	0.0%	4.0%
P1-128 Headworks Complex										
P1-128A Headworks Complex at Plant No. 1	Swinerton Builders	05/26/2021	14%	\$102,544,973	\$77,872	\$102,622,845	5.0%	5.0%	0.1%	4.9%
P1-134 South Perimeter Security and Utility Improvements at Plant No.1										
P1-134 South Perimeter Security and Utility Improvements at Plant No.1	Tovey/Shultz Construction, Inc.	07/28/2021	10%	\$4,396,779	\$0	\$4,396,779	10.0%	10.0%	0.0%	10.0%
P1-135 Digester Ferric Chloride Piping Replacement at Plant No. 1										
P1-135 Digester Ferric Chloride Piping Replacement at Plant No. 1	PPM Contracting (PPM)	02/02/2021	57%	\$515,000	\$0	\$515,000	10.0%	10.0%	0.0%	10.0%
P2-98 Primary Treatment Rehabilitation at Plant No. 2										
P2-98A A-Side Primary Clarifiers Replacement at Plant 2	PCL CONSTRUCTION, INC.	05/26/2021	5%	\$111,405,880	\$0	\$111,405,880	6.0%	6.0%	0.0%	6.0%
P2-122 Headworks Modifications at Plant No. 2 for GWRS Final Expansion										
P2-122 Headworks Modifications at Plant No. 2 for GWRS Final Expansion	Shimmick Construction Co., Inc.	03/25/2020	77%	\$14,487,735	\$364,676	\$14,852,411	10.0%	10.0%	2.5%	7.5%
P2-123 Return Activated Sludge Piping Replacement at Plant 2										
P2-123 Return Activated Sludge Piping Replacement at Plant 2	Shimmick Construction Co., Inc.	09/25/2019	79%	\$6,042,110	\$228,873	\$6,270,983	10.0%	10.0%	3.8%	6.2%
Total				\$684,140,743	\$8,530,920	\$692,671,663				

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 2 - Active GM-Awarded Construction Contracts and Task Orders as of 3/31/2022

Project / Contract	Contractor	Award Date	% Spent	Original Award Amount	Change Orders	Current Contract Amount
Operationally-Funded Projects						
FR1-0008 Tricking Filter 480 Volt Cable Replacement at Plant No. 1	Baker Electric, In.	12/22/2021	0%	\$251,586	\$0	\$251,586
FR2-0024 Headworks 480V Cable Replacement at Plant No. 2	J.R. Filanc Construction Company, Inc.	6/3/21	0%	\$259,150	\$0	\$259,150
		Total		\$510,736	\$0	\$510,736

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

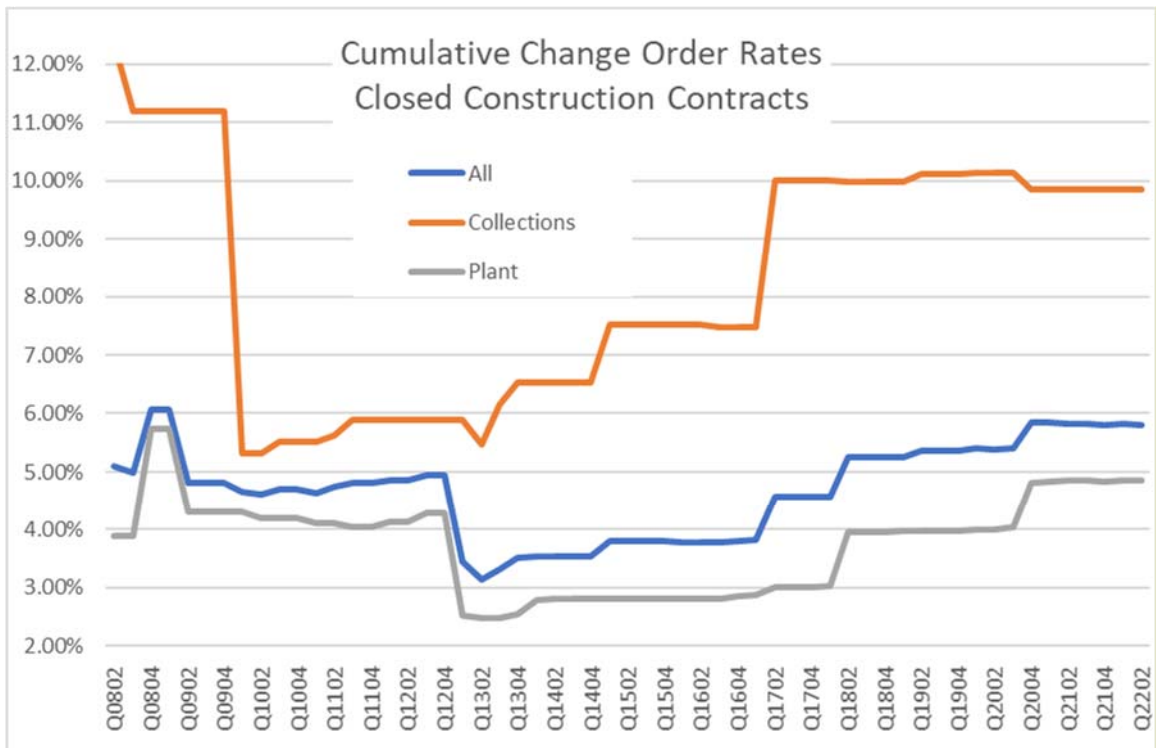
Table 3 - Board-Awarded Construction Contracts Closed in Last Quarter

Project / Contract	Contractor	Award Date	Date Closed	Board Award Amount	Change Orders	Final Contract Amount	Original Contingency	Final Contingency	Final Change Order Rate	Unused Contingency
M-FE Small Construction Projects Program										
FE18-12 Erosion Control at Santa Ana River and Hamilton Ave	Engineering & Environmental Construction	09/01/2021	2/28/22	\$162,281	\$0	\$162,281	15.0%	15.0%	0.0%	15.0%
Operationally-Funded Projects										
FR2-0013 P2 Trickling Filter Sludge Pump Room Exhaust Fan Relocation at Plant No.2	MMC, Inc.	04/21/2021	2/28/22	\$184,000	\$0	\$184,000	20.0%	20.0%	0.0%	20.0%
			Total	\$346,281	\$0	\$346,281				

Table 4 - GM-Awarded Construction Contracts and Task Order Closed in Last Quarter

Total	\$0	\$0	\$0
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When the Orange County Sanitation District (OC San) Board 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, the change order performance charts in this report 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.



PART 2 – ENGINEERING SERVICES AGREEMENTS

OC San engages engineering consultants through Professional Service Agreements (PSAs), Professional Design Services Agreements (PDSAs), Professional Construction Services Agreements (PCSAs), and Master Professional Services Agreements (Master Agreements). 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 18 firms with active engineering services agreements, not including firms with 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 four sets of Master Agreements.

- 2012 Master Design Agreements (expired)
- 2017 Master Agreements for Wastewater Treatment Planning Studies (expired)
- 2018 Master Design Agreements (expired)
- 2020 Master Agreements for On-Call Planning Studies
- 2021 Master Design Agreements

The two Master Design Agreement from 2012 and 2018, and the 2018 Master Agreements for Wastewater Planning Studies 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. OCSD-56 to \$300,000 per task order.

A status table for all Active Engineering Services Agreements (PDSAs and PCSAs) is attached under Table 5, and a status table for all Active Task Orders by Master Agreement is attached under Table 6 (Master Agreements).

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 5 - Active Engineering Services Agreements as of 3/31/2022

Project / Contract	Type	Consultant	Award Date	% Spent	Board Award Amount	Amendments	Current Contract Amount	Original Contingency	Current Contingency	Contingency Used	Contingency Remaining
2-49 Taft Branch Improvements											
2-49 Taft Branch Improvements	PDSA	Woodward and Curran	02/03/2021	10%	\$2,200,000	\$26,000	\$2,226,000	10.0%	10.0%	1.2%	8.8%
2-72 Newhope-Placencia Trunk Replacement											
2-72 Newhope-Placencia Trunk Replacement	PCSA	Lee & Ro	03/23/2016	92%	\$3,253,946	\$0	\$3,253,946	10.0%	10.0%	0.0%	10.0%
3-62 Westminster Blvd Force Main Replacement											
3-62 Westminster Blvd Force Main Replacement	PCSA	Stantec Consulting Services, Inc.	12/18/2019	38%	\$1,183,000	\$0	\$1,183,000	10.0%	10.0%	0.0%	10.0%
3-64 Rehabilitation of Western Regional Sewers											
3-64 Rehabilitation of Western Regional Sewers	PDSA	AECOM Technical Services, Inc.	01/27/2016	87%	\$17,639,250	\$195,850	\$17,835,100	10.0%	10.0%	1.1%	8.9%
3-64B Los Alamitos Trunk Sewer Rehabilitation	PCSA	AECOM Technical Services, Inc.	05/26/2021	19%	\$610,000	\$0	\$610,000	10.0%	10.0%	0.0%	10.0%
3-67 Seal Beach Pump Station Replacement											
3-67 Seal Beach Pump Station Replacement	PDSA	Lee & Ro	12/18/2019	88%	\$5,947,850	\$317,032	\$6,264,882	10.0%	10.0%	5.3%	4.7%
5-67 Bay Bridge Pump Station Replacement											
5-67 Bay Bridge Pump Station Replacement	PDSA	Arcadis US Inc.	10/25/2017	38%	\$7,137,000	\$1,750,315	\$8,887,315	10.0%	85.0%	24.5%	60.5%
5-68 Newport Beach Pump Station Pressurization Improvements											
5-68 Newport Beach Pump Station Pressurization Improvements	PDSA	Dudek	05/06/2020	77%	\$542,988	\$0	\$542,988	10.0%	10.0%	0.0%	10.0%
7-65 Gisler - Red Hill Interceptor Rehabilitation											
7-65 Gisler - Red Hill Interceptor Rehabilitation	PDSA	CDM Smith Inc.	09/23/2020	79%	\$1,754,000	\$140,312	\$1,894,312	10.0%	10.0%	8.0%	2.0%
7-66 Sunflower and Red Hill Interceptor Repairs											
7-66 Sunflower and Red Hill Interceptor Repairs	PCSA	GHD	07/28/2021	19%	\$166,000	\$0	\$166,000	10.0%	10.0%	0.0%	10.0%
7-68 MacArthur Force Main Improvements											
7-68 MacArthur Force Main Improvements	PDSA	Michael Baker International, Inc.	05/26/2021	0%	\$500,000	\$0	\$500,000	10.0%	10.0%	0.0%	10.0%
J-117 Ocean Outfall System Rehabilitation											
J-117B Outfall Low Flow Pump Station	PCSA	Brown and Caldwell	12/19/2018	47%	\$8,563,913	\$692,120	\$9,256,033	10.0%	10.0%	8.1%	1.9%
J-124 Digester Gas Facilities Replacement											
J-124 Digester Gas Facilities Replacement	PDSA	Brown and Caldwell	11/15/2017	95%	\$11,770,000	\$1,101,466	\$12,871,466	10.0%	10.0%	9.4%	0.6%
J-98 Electrical Power Distribution System Improvements											
J-98 Electrical Power Distribution System Improvements	PDSA	Brown and Caldwell	01/29/2020	61%	\$2,240,000	\$92,078	\$2,332,078	10.0%	10.0%	4.1%	5.9%
J-98 Electrical Power Distribution System Improvements	PSA	SEL Engineering Services, Inc.	02/26/2020	8%	\$1,296,878	\$0	\$1,296,878	10.0%	10.0%	0.0%	10.0%
M-FR-830 Master Operationally Funded											
FR1-0007 Control Center Offices and Day Training Room Remodeling at Plant No. 1	PSA	AECOM Technical Services, Inc.	01/15/2020	9%	*** \$81,351	\$0	\$81,351	0.0%	0.0%	0.0%	0.0%
M-STUDIES Planning Studies Program											
PS17-03 Active Fault Location Study at Plant No. 2	PSA	Lettis Consultants International, Inc.	03/06/2019	0%	\$868,286	\$12,500	\$880,786	10.0%	10.0%	1.4%	8.6%
PS18-09 Ocean Outfall Condition Assessment and Scoping Study	PSA	Carollo Engineers, Inc.	03/25/2020	0%	\$2,744,000	\$885,661	\$3,629,661	10.0%	40.0%	32.3%	7.7%
P1-105 Headworks Rehabilitation at Plant 1											
P1-105 Headworks Rehabilitation at Plant 1	PCSA	Carollo Engineers, Inc.	03/02/2021	9%	\$16,500,000	\$0	\$16,500,000	10.0%	10.0%	0.0%	10.0%
P1-128 Headquarters Complex											
P1-128 Headquarters Complex	PDSA	HDR Engineering, Inc.	06/22/2016	93%	\$11,785,709	\$1,148,553	\$12,934,262	10.0%	10.0%	9.7%	0.3%
P1-128A Headquarters Complex at Plant No. 1	PCSA	HDR Engineering, Inc.	05/26/2021	18%	\$4,900,000	\$96,700	\$4,996,700	10.0%	10.0%	2.0%	8.0%
P1-128A Headquarters Complex at Plant No. 1	PSA	AECOM Technical Services, Inc.	04/28/2021	14%	\$6,750,000	\$0	\$6,750,000	10.0%	10.0%	0.0%	10.0%
P1-132 Uninterruptable Power Supply Improvements at Plant 1											
P1-132 Uninterruptable Power Supply Improvements at Plant 1	PDSA	Tetra Tech, Inc.	10/23/2019	89%	\$784,680	\$62,755	\$847,435	10.0%	10.0%	8.0%	2.0%
P1-133 Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1											
P1-133 Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1	PDSA	Carollo Engineers, Inc.	09/25/2019	98%	\$1,219,667	\$0	\$1,219,667	10.0%	10.0%	0.0%	10.0%
P1-133 Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1	PCSA	Carollo Engineers, Inc.	3/23/22	0%	\$530,000	\$0	\$530,000	10.0%	10.0%	0.0%	10.0%
P1-134 South Perimeter Security and Utility Improvements at Plant No.1											
P1-134 South Perimeter Security and Utility Improvements at Plant No.1	PCSA	HDR Engineering, Inc.	07/28/2021	17%	\$235,000	\$0	\$235,000	10.0%	10.0%	0.0%	10.0%
P2-122 Headworks Modifications at Plant No. 2 for GWRS Final Expansion											
P2-122 Headworks Modifications at Plant No. 2 for GWRS Final Expansion	PCSA	CDM Smith Inc.	01/15/2020	55%	\$2,200,000	\$0	\$2,200,000	10.0%	10.0%	0.0%	10.0%

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 5 - Active Engineering Services Agreements as of 3/31/2022

Project / Contract	Type	Consultant	Award Date	% Spent	Board Award Amount	Amendments	Current Contract Amount	Original Contingency	Current Contingency	Contingency Used	Contingency Remaining
P2-123 Return Activated Sludge Piping Replacement at Plant 2	PCSA	SPEC Services, Inc.	09/25/2019	98%	\$252,329	\$0	\$252,329	10.0%	10.0%	0.0%	10.0%
P2-124 Interim Food Waste Receiving Facility	PDSA	Kennedy/Jenks Consultants	09/05/2018	100%	\$695,000	\$31,168	\$726,168	10.0%	10.0%	4.5%	5.5%
P2-128 TPAD Digester Facility at Plant No.2	PDSA	Brown and Caldwell	06/23/2020	20%	\$39,300,000	\$93,380	\$39,393,380	10.0%	10.0%	0.2%	9.8%
P2-98 Primary Treatment Rehabilitation at Plant No. 2	PCSA	Black & Veatch	05/26/2021	6%	\$8,400,000	\$0	\$8,400,000	10.0%	10.0%	0.0%	10.0%
P2-98A A-Side Primary Clarifiers Replacement at Plant 2	PCSA	Black & Veatch	01/23/2019	56%	\$549,534	\$0	\$549,534	10.0%	10.0%	0.0%	10.0%
P2-98B B/C-Side Primary Clarifiers Interim Repair at Plant 2	PCSA	Black & Veatch									
Total					\$162,600,381	\$6,645,890	\$169,246,271				

*** This PSA was awarded by the General Manager because it is less than \$100,000.

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 6 - Active Task Orders by Master Agreement as of 3/31/2022

Master Agreement / Project	Consultant	Award Date	Original Task Order Value	Amendments	Current Task Order Value
2012 Master Professional Design Service Agreements (Expired)					
FE10-21 Area 02 Craig Regional Park Manhole Improvements	GHD	10/8/2012	\$58,440	\$41,560	\$100,000
2017 Master Agreements for Wastewater Treatment Planning Studies					
PS18-11 ETAP Model Updates for Plant Nos 1 and 2	Brown and Caldwell	3/17/2020	\$227,412	\$0	\$227,412
PS19-03 Laboratory Rehabilitation Feasibility Study	HDR Engineering, Inc.	10/20/2020	\$274,888	\$0	\$274,888
2018 Master Professional Design Service Agreements					
FR2-0013 Trickling Filter Sludge Pump Room Exhaust Fan Relocation at Plant No. 2	AECOM	11/6/2019	\$75,120	\$0	\$75,120
FE19-02 Cengen Plant Water Pipe Replacement at Plant No. 1	AECOM	04/30/2020	\$156,498	\$0	\$156,498
FE19-11 Primary Clarifiers Nos. 6-31 Lighting and Alarm Improvements at Plant No. 1	AECOM	9/15/2020	\$226,685	\$6,137	\$232,822
FE19-13 VFD Replacements at Seal Beach Pump Station	AECOM	3/12/2021	\$78,033	\$0	\$78,033
FE20-01 Wastewater Station Safety and Security Improvements	AECOM	3/12/2021	\$161,012	\$0	\$161,012
FR2-0022 Digester O Structural Repairs at Plant No. 2	AECOM	4/6/2021	\$46,115	\$0	\$46,115
J-127 Natural Gas Pipelines Replacement at Plant Nos. 1 and 2	Black & Veatch	1/21/2019	\$271,964	\$28,036	\$300,000
FE19-03 Trickling Filter Sludge and Scum Pumps Replacement at Plant No. 1	Black & Veatch	9/1/2020	\$244,728	\$55,272	\$300,000
FR1-0011 VFD Replacements at Plant No. 1	Black & Veatch	3/30/2021	\$283,000	\$17,000	\$300,000
FE18-14 Plant Water Pipeline Replacement in Kinnison, Lindstrom, and Scott Tunnels at Plant No. 2	Dudek	11/6/2019	\$108,308	\$0	\$108,308
P1-135 Digester Ferric Chloride Piping Replacement at Plant No. 1	Dudek	2/19/2020	\$127,174	\$0	\$127,174
FE20-04 Cengen Cooling Water Pipe Replacement at Plant No. 2	Dudek	5/18/2021	\$240,000	\$0	\$240,000
FE20-08 Olive Sub-Trunk Siphon Rehabilitation at Santa Ana River	Dudek	6/15/2021	\$240,000	\$0	\$240,000
FE18-16 Truck Loading Basement Drain Modifications at Plant No. 1	GHD, Inc.	12/4/2019	\$70,130	\$18,365	\$88,495
FE18-13 Redhill Relief Sewer Relocation at State Route 55	GHD, Inc.	3/27/2020	\$168,612	\$54,883	\$223,495
FE19-10 Digesters C, D, F, G, and I Gas Balance Lines Replacement at Plant No. 2	GHD, Inc.	1/19/2021	\$25,000	\$58,000	\$83,000
FE20-07 Santa Ana Trunk Rehabilitation at Plant No. 1	GHD, Inc.	5/4/2021	\$100,625	\$0	\$100,625

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 6 - Active Task Orders by Master Agreement as of 3/31/2022

Master Agreement / Project	Consultant	Award Date	Original Task Order Value	Amendments	Current Task Order Value
FE20-03 Return Activated Sludge Discharge Piping Replacement at Activated Sludge Plant No. 1	GHD, Inc.	6/15/2021	\$249,000	\$0	\$249,000
FRC-0009 Bitter Point Trunk Sewer Repair at Bitter Point Pump Station	GHD, Inc.	6/15/2021	\$159,451	\$0	\$159,451
FE18-19 12KV Distribution Center B and East RAS Pump Station Roof Replacement	HDR Engineering, Inc.	09/16/2019	\$74,771	\$8,672	\$83,443
FE18-20 Blower Building No. 1 Air Compressors at Plant No. 1	HDR Engineering, Inc.	8/18/2020	\$243,954	\$11,982	\$255,936
FE20-02 Digester C, D, F, and G Mechanical Rehabilitation at Plant No. 2	HDR Engineering, Inc.	3/2/2021	\$188,212	\$22,396	\$210,608
FE18-15 Plant Boiler System Relief at Plant No. 2	IDS Group, Inc.	10/22/2019	\$23,299	\$0	\$23,299
FE18-06 CenGen Instrument Air Compressors Replacement at Plant No. 1 and No. 2	IDS Group, Inc.	04/28/2020	\$89,876	\$0	\$89,876
FE19-06 EPSA Motor Cooling Improvements at Plant No. 2	IDS Group, Inc.	05/05/2020	\$88,206	\$0	\$88,206
FE20-09 CenGen Smoke Detection Improvements at Plant No. 1 and No. 2	IDS Group, Inc.	6/15/2021	\$63,275	\$0	\$63,275
FE20-05 Plant Water Piping Replacement at Secondary Clarifiers 1-26 at Plant No. 1	IDS Group, Inc.	6/15/2021	\$186,626	\$0	\$186,626
FRC-0010 Warner Avenue Vault Cover Improvements	Kleinfelder, Inc.	11/10/2021	\$205,000	\$0	\$205,000
2020 Master Agreements for On-Call Planning Studies					
PS20-01 Collections Yard Relocation Feasibility Study	AECOM	4/30/2020	\$147,181	\$0	\$147,181
PS20-04 Power Generation Overhaul Feasibility Study	Brown and Caldwell	4/6/2021	\$122,748	\$101,518	\$224,266
RE20-02 Chemical Resilience Study	Hazen and Sawyer	6/1/2021	\$278,784	\$0	\$278,784
PS20-03 Truck Loading Bay Odor Control Improvements Study at Plant No. 2	Hazen and Sawyer	7/20/2021	\$226,021	\$0	\$226,021
2021 Master Professional Design Service Agreements					
FRC-0010 Warner Avenue Vault Cover Improvements	Kleinfelder, Inc.	11/10/2021	\$205,000	\$0	\$205,000
SC19-06 EPSA Standby Power Generator Control Upgrades at Plant No. 2	SPEC Services, Inc.	11/2/2021	\$241,153	\$0	\$241,153
Total			\$5,976,301	\$423,821	\$6,400,122

PART 3 – MASTER BUDGET PROJECTS

The Board-adopted budget for Fiscal Years 2020-21 and 2021-22 includes master program budgets that allow staff to more quickly initiate, execute, and manage smaller projects that fit within the scope of a particular program. 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.

Master Program Title	Status Table
Planning Studies Program	Table 7
Research Program	Table 8
Small Construction Projects Program	Table 9
Information Technology Capital Program	Table 10
Operations & Maintenance Capital Program	Table 11

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022
Table 7 - Planning Studies Status Report**

Project Number	Project Name	Status	Allocated Budget
PS17-03	Active Fault Location Study at Plant No. 2	Active	\$ 1,300,000
PS18-06	Go/No-Go Lights and Signage	Active	\$ 495,000
PS18-09	Ocean Outfall Condition Assessment and Scoping Study	Active	\$ 4,205,117
PS19-03	Laboratory Rehabilitation Feasibility Study	Active	\$ 450,000
PS20-01	Collections Yard Relocation Feasibility Study	Active	\$ 375,000
PS20-02	Collection System Flow Level Monitoring Study	Active	\$ 743,218
PS20-03	Truck Loading Bay Odor Control Improvements Study at Plant No. 2	Active	\$ 383,682
PS20-04	Power Generation Overhaul Feasibility Study	Active	\$ 320,000
PS20-05	Cen Gen Pressure Vessel Integrity Assessment at Plant Nos. 1 and 2	Active	\$ 400,000
PS20-07	College Pump Station Wet Well Condition Assessment Study	Active	\$ 365,000
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	\$ 550,000
PS21-03	Process Model for Denitrification Alternatives at Activated Sludge 1	Active	\$ 47,500
PS21-04	Energy and Digester Gas Master Plan	Active	\$ 1,102,000
Grand Total			\$ 12,136,517
Number of Chartered Projects			15
Board Approved Program Budget			\$ 28,652,000
Remaining Unallocated Budget			\$ 16,515,483

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022
Table 8 - Research Program Status Report**

Project Number	Project Name	Status	Allocated Budget
RE19-01	Primary Scum Equipment Evaluation at Plant No. 1	Active	\$ 69,853
RE20-01	Co-Thickened Sludge Density Meter Trial atl Plant No. 1	Active	\$ 121,000
RE20-02	Chemical Resilience Study at Plant No.1 and 2	Active	\$ 329,996
RE20-04	Holding Digester 6 Solids Shredder Study at Plant No. 1	Active	\$ 95,000
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	\$ 6,890,000
Grand Total			\$ 7,665,849
Number of Chartered Projects			6
Board Approved Program Budget			\$ 8,500,000
Remaining Unallocated Budget			\$ 834,151

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022
Table 9 - Small Construction Projects Program Status Report**

Project Number	Project Name	Status	Allocated Budget
FE10-21	Area 02 Craig Regional Park Manhole Improvements	Active	\$ 1,359,000
FE17-03	Battery Storage System at Plant No. 1	Active	\$ 650,000
FE17-05	Plant 1 ICS Network Extension	Active	\$ 1,050,000
FE18-06	CenGen Instrument Air Compressors Replacement at Plant No. 1	Active	\$ 1,150,000
FE18-08	West Trunk Bypass Sewer Realignment	Active	\$ 158,000
FE18-11	Headworks Explosive Gas Monitoring Systems at Plant No. 1 and No. 2	Active	\$ 605,000
FE18-12	Erosion Control at Santa Ana River and Hamilton Ave	Active	\$ 445,000
FE18-13	Redhill Relief Sewer Relocation at State Route 55	Active	\$ 3,470,000
FE18-14	Plant Water Pipeline Replacement in Kinnison, Lindstrom, and Scott Tunnels at Plant No. 2	Active	\$ 1,895,000
FE18-15	Plant Boiler System Relief at Plant No. 2	Active	\$ 560,000
FE18-16	Truck Loading Basement Drain Modifications at Plant No. 1	Active	\$ 592,000
FE18-19	12KV Distribution B and East RAS Pump Station Roofing Replacement	Active	\$ 1,188,000
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	\$ 2,250,000
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	\$ 6,300,000
FE19-06	EPSA Motor Cooling Improvements at Plant No. 2	Active	\$ 1,475,000
FE19-08	Secondary Treatment VFD Replacements at Plant No. 2	Active	\$ 2,900,000
FE19-09	Newhope - Placentia Trunk Grade Separation Replacement Repair	Active	\$ 500,000
FE19-10	Digesters C, D, F, G and I Gas Balance Lines Replacement at Plant No. 2	Active	\$ 1,200,000
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	\$ 1,510,000
FE20-02	Digester C, D, F, and G Mechanical Rehabilitation at Plant No. 2	Active	\$ 2,800,000
FE20-03	Return Activated Sludge Discharge Piping Replacement at Activated Sludge Plant No. 1	Active	\$ 4,250,000
FE20-04	Cengen Cooling Water Pipe Replacement at Plant No. 2	Active	\$ 3,500,000
FE20-05	Plant Water Piping Replacement at Secondary Clarifiers 1-26 at Plant No. 1	Active	\$ 1,545,000
FE20-06	Thickening and Dewatering Building Pipe Support Improvements at Plant No. 1	Active	\$ 1,500,000
FE20-07	Santa Ana Trunk Rehabilitation at Plant No. 1	Active	\$ 1,240,000
FE20-08	Olive Sub-Trunk Siphon Rehabilitation at Santa Ana River	Active	\$ 1,850,000
FE20-09	CenGen Smoke Detection Improvements at Plant No. 1 and No. 2	Active	\$ 600,000
FE20-10	Adolfo Lopez Chemical Dosing Station Installation	Active	\$ 1,000,000
FE21-01	Plasma Cutting Fume Extractor installation at Plant No. 1 Rebuild Shop	Active	\$ 277,000
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
Grand Total			\$ 57,829,000
Number of Chartered Projects			37
Board Approved Program Budget			\$ 90,000,000
Remaining Unallocated Budget			\$ 32,171,000

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022**

Table 10 - Information Technology Capital Program Status Report

Project Number	Project Name	Status	Allocated Budget
IT18-09	Records Management Information System	Active	\$ 246,215
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
IT20-06	Nintex Workflow Cloud Implementation (ICE-75_IT20-06) 6520006	Active	\$ 350,000
IT20-07	Professional Services for Valo/SharePoint (ICE-74_IT20-07) 6520007	Active	\$ 100,000
IT20-08	Field Computer for Nerissa and Interface with LIMS(ICE-68_IT20-07) 6520008	Active	\$ 121,000
IT20-09	ITSM Migration (ICE-70_IT20-09) 6520009	Active	\$ 797,000
IT20-10	Digitize Quality Assurance Tracking Processes /TNI/ELAP Standards(ICE-76_IT20-10) 6520010	Active	\$ 145,700
IT20-12	Web-based Cloud Proxy Security with an Isolation Platform (ICE-78_6520012)	Active	\$ 50,000
IT21-01	Access Network Equipment Obsolescence Replacement (ICE-79_IT21-01) 6521001	Active	\$ 1,249,500
IT21-02	Hyper Converged Infrastructure for Plant 1 ICS network (ICE-80 IT21-02) 6521002	Active	\$ 610,000
IT21-03	Door Access Control System for P2 Construction Management Trailers (ICE-83_IT21-03652100)	Active	\$ 79,706
IT21-04	Databridge Scale Management Software (ICE - 84_IT21-04)	Active	\$ 39,263
Grand Total			\$ 5,297,384
Number of Chartered Projects			14
Board Approved Program Budget			\$ 10,000,000
Remaining Unallocated Budget			\$ 4,702,616

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022
Table 11 - Operations & Maintenance Capital Program Status Report**

Project Number	Project Name	Status	Allocated Budget
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	\$ 1,600,000
SC20-02	Ocean Outfall Booster Station Elevator Rehabilitation	Active	\$ 410,000
Grand Total			\$ 2,900,000
Number of Chartered Projects			3
Board Approved Program Budget			\$ 15,622,000
Remaining Unallocated Budget			\$ 12,722,000

PART 4 – SUPPLEMENTAL ENGINEERING SERVICES CONTRACT

In May 2016, OC San Board of Directors approved a \$41 million professional services agreement with Jacobs Project Management Co. to provide supplemental engineering and support staff services for a four-year term with the option of three one-year renewals. 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.

A status table for the supplemental engineering services contract summary is attached under Table 12, and the supplemental engineering services labor summary can be found under Table 13.

Table 12 – Supplemental Engineering Services Contract Status

	Total Fees	Time
Contract	\$41,000,000	86 months ⁽¹⁾
Actuals to Date	\$28,862,907 70%	68 months 79%
Remaining	\$12,137,093 30%	18 months 21%

⁽¹⁾ Assuming one more 1-year extension

Table 13 - Supplemental Engineering Services Labor Summary

	This Quarter	Inception to Date
Labor Hours	9,621	210,607
Full Time Equivalents	21.4	20.6
Labor Costs (no expenses)	\$1,535,350	\$28,181,186
Average Hourly Rate	\$160	\$134

This existing contract can be extended through June 2023. Staff will be requesting Board approval of two new supplemental engineering services agreements on April 27, 2022. All new resource requests will utilize these two new agreements, while the existing resource requests will either be completed prior under the existing contract or transferred some time in the next year to the new contracts.

PART 5 – ON-CALL SERVICES AGREEMENTS

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

Table 14 lists the contract limits and funds expended to date for each of the agreements which became effective in May 2019 and expired on April 30, 2022. The contract limit for Ninyo & Moore was increased from \$300,000 to \$600,000 in April 2020 because that firm was conducting all the associated testing for Newhope-Placentia Trunk Sewer Replacement Project, Project No. 2-72 B&C, and the original contract limit was not adequate. For each of these services, OC San typically uses a single firm for a particular construction contract.

Three new sets of contracts were approved by the Board on March 23, 2022 and expire on April 30, 2025. The status of those contracts will be included in the next quarterly report.

**Engineering Program Contract Performance Report
for Quarter Ending 3/31/2022
Table 14 - On-Call Services Agreements Status Report**

Consultant	Contract Limit	Total Costs Incurred
Coating Inspection and Corrosion Testing Services (PSA2019-001)		
On-Site Technical Services, Inc.	\$200,000	\$158,809
Corrpro Companies, Inc.	\$200,000	\$18,400
CSI Services, Inc.	\$200,000	\$77,974
Surveying Services (PSA2019-002)		
Michael Baker International, Inc.	\$200,000	\$170,422
Stantec Consulting Services, Inc.	\$200,000	\$98,237
D. Woolley & Associates	\$200,000	\$71,261
Bush and Associates, Inc.	\$200,000	\$10,846
Cannon Corporation	\$200,000	\$109,438
Materials Testing, Inspection, & Geotech Testing Services (PSA2019-003)		
Ninyo & Moore	\$600,000	\$560,955
Atlas Technical Consultants	\$300,000	\$169,282
Koury Engineering and Testing, Inc.	\$300,000	\$167,075