

Capital Improvement Program



Presented by:

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Raul Cuellar

Engineering
Supervisors

January 21, 2021



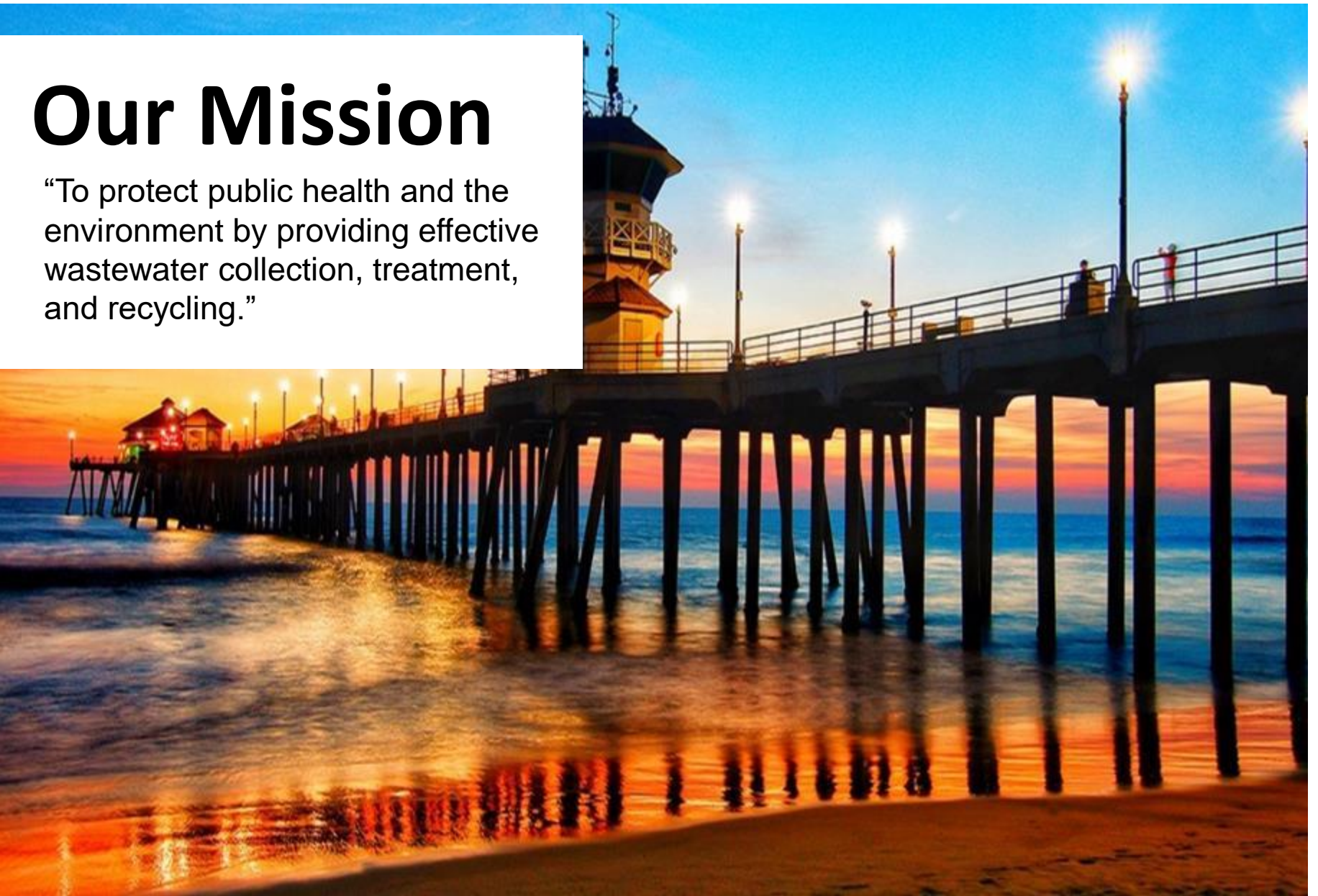
OC SAN
ORANGE COUNTY SANITATION DISTRICT

OC San - New Name and Look

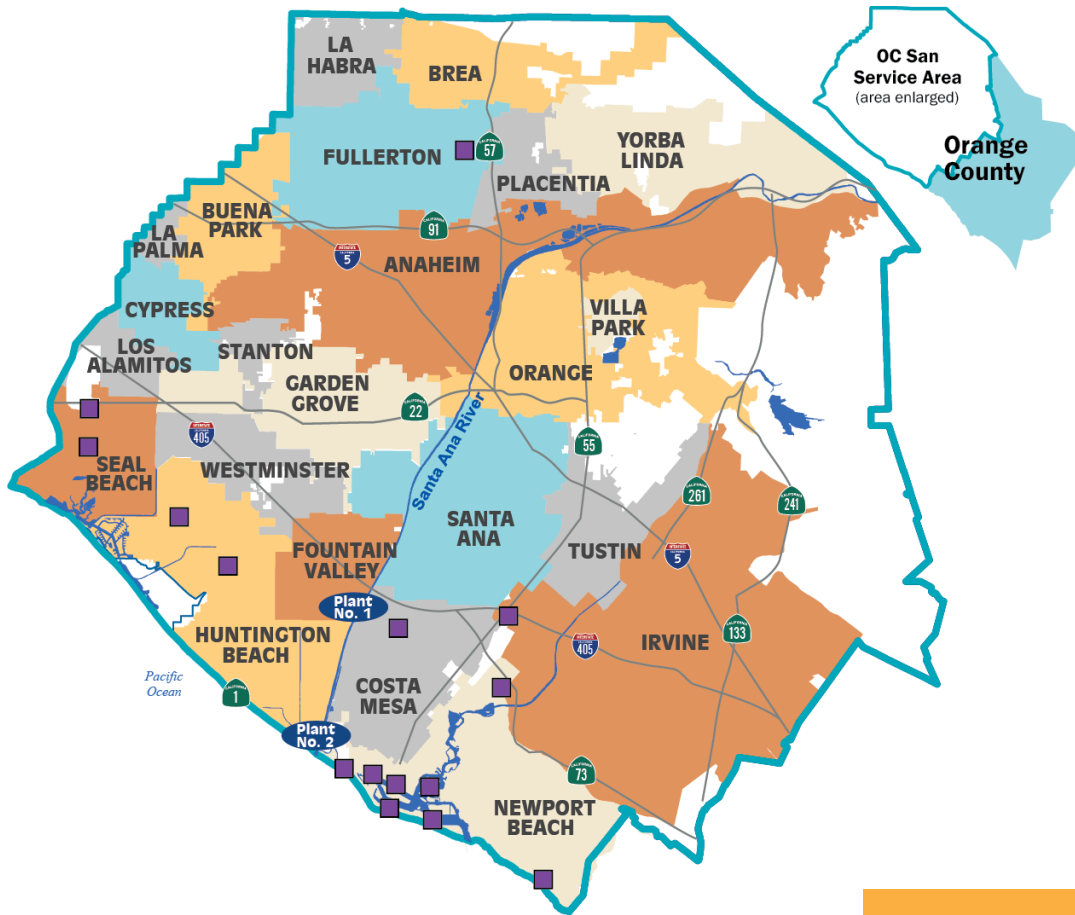


Our Mission

“To protect public health and the environment by providing effective wastewater collection, treatment, and recycling.”





Our Service Area

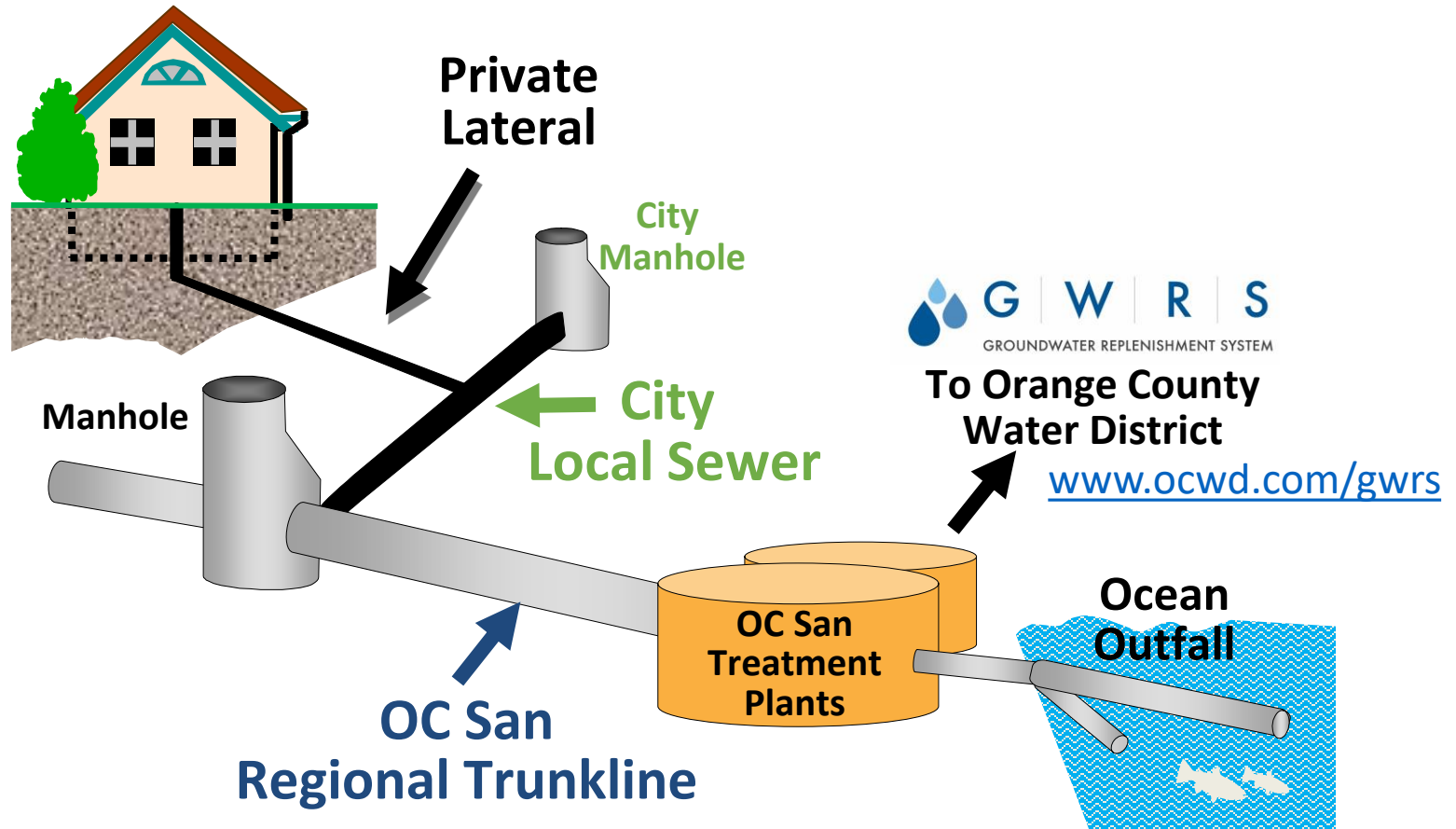


OC San
Service Area
(area enlarged)

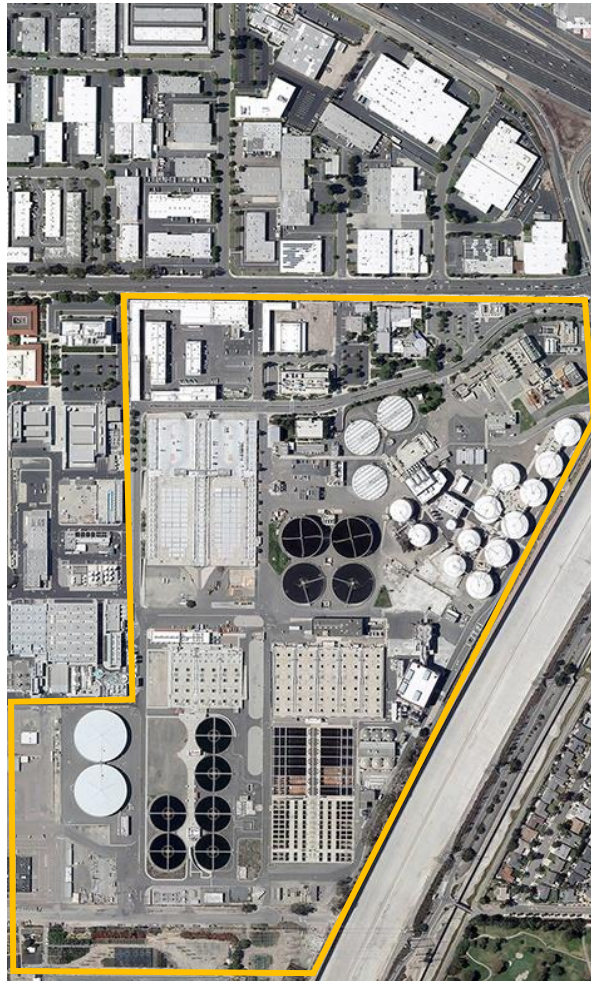
Orange
County

- 388 miles of sewers
- 480 square miles
- 189 million gallons per day
- 2.6 million population
- 20 cities, 4 special districts
- 15  pump stations
- 2  treatment plants

Wastewater Collection System



Our Facilities



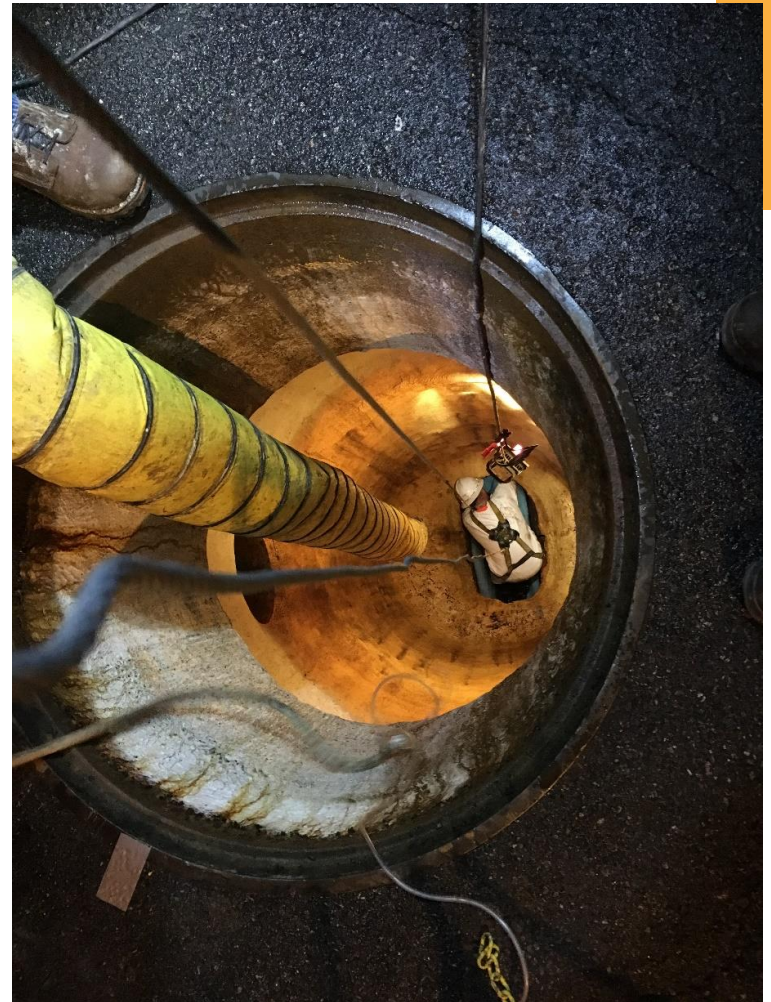
Reclamation Plant No. 1
Fountain Valley



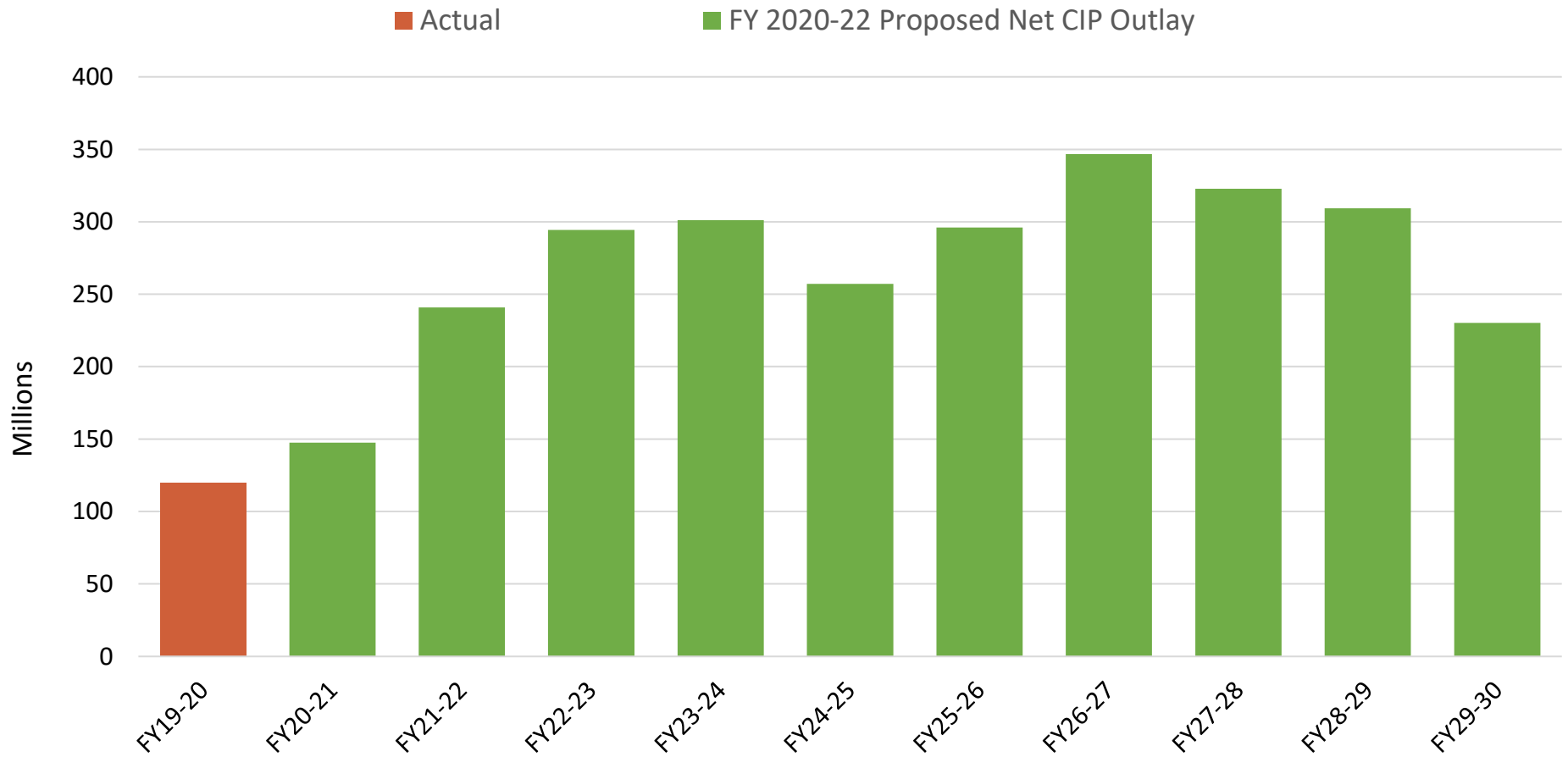
Treatment Plant No. 2
Huntington Beach

Key CIP Drivers

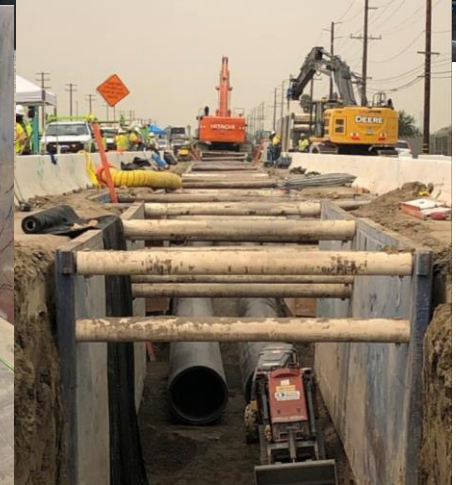
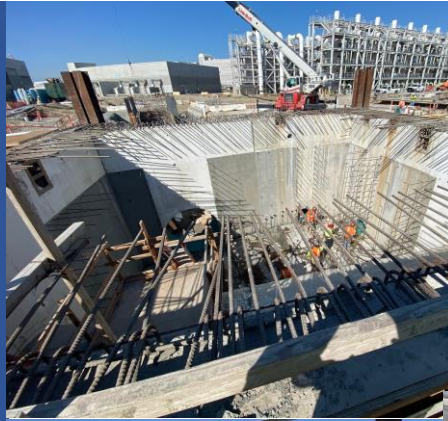
- Replace and maintain aging facilities – Asset Management
- Groundwater Replenishment System (GWRS) Expansion
- Comply with regulatory requirements
- Improve levels of service, especially odor control



10-Year Net CIP Outlay: \$2.7 Billion



**\$2.7 Billion in
Capital
Investment
over the next
10 years**



Contract Types

1. Design/Planning Study Contracts
Individual Basis, RFP selection
2. Construction Contracts – Design Bid Build
Public Bid, Lowest Responsive Bidder
3. Specialty On-Call Contracts –
Every 3 years, up to \$300K per task
 - Planning Study – Next Contract 2023
 - Small Project Task Order Design (FE21-00) – Next Contract 2021
 - Survey, Geotechnical, Corrosion – Next Contract 2022
 - 7-pack Contractors (Repairs) – Next Contract 2021
4. Supplemental Engineering Services – Next Contract 2022
Multi-year contracts, RFP Selection
5. Special Case: 3rd Party CM – Headquarters Building

2020 Design & Construction Accomplishments

- Professional Design Services
5 Contracts – Approx. \$50 Million
- Specialty On-Call
4 Contracts – Approx. \$700K
- Construction Contracts
12 Contracts – Approx. \$21 Million

2021 Design & Construction Projections

- Professional Design Services
7 Contracts – Approx. \$18 Million
- Design Task Orders
12 Contracts – Approx. \$1.8 Million
- Construction Contracts
36 Contracts – Approx. \$590 Million

Plant 1 Projects

Orange
County Water
District

Project Start Year

- Recently Completed
- Current
- 2022 - 2026
- 2027 - 2031
- 2032 - 2037

PRIMARY CLARIFIERS 6-31 REHABILITATION

AS2 AERATION REHABILITATION

AS1 AERATION BASINS/BLOWERS REHABILITATION

AS1 CLARIFIER REHABILITATION

**P1-126
PRIMARY CLARIFIERS REPLACEMENTS AND IMPROVEMENTS**

**5
PUMP STATION**

TRICKLING FILTERS

POWER BLDG 7

PRIMARY SCRUBBER REHAB

ODOR CONTROL

PS

TRICKLING FILTERS

TRICKLING FILTERS

AS1 AERATION BASINS/BLOWERS REHABILITATION

AS1 AERATION BASINS/BLOWERS REHABILITATION

DAFT DEMO

DAFT DEMO

WASTE SIDESTREAM PS

P1-126

**3
PRIMARY CLARIFIERS REPLACEMENTS AND IMPROVEMENTS**

**4
PRIMARY CLARIFIERS REPLACEMENTS AND IMPROVEMENTS**

**5
PUMP STATION**

TRICKLING FILTERS

TRICKLING FILTERS

TRICKLING FILTERS

PRIMARY SCRUBBER REHAB

ODOR CONTROL

PS

TRICKLING FILTERS

TRICKLING FILTERS

AS1 AERATION BASINS/BLOWERS REHABILITATION

AS1 AERATION BASINS/BLOWERS REHABILITATION

DAFT DEMO

DAFT DEMO

METERING

GRIT HANDLING

PRI CLAR 1&2

CEN GEN

GAS HANDLING

J-124

J-124

J-124

J-124

J-124

J-124

J-124

J-124

J-124

J-124

J-124

PUMPING

GRIT HEAD BOX

GRIT HANDLING

POWER BLDG

STANDBY GENERATOR BUILDING

CEN GEN

CEN GEN SWITCHGEAR REPLACEMENT

GAS HANDLING

J-124

J-124

J-124

J-124

J-124

J-124

J-124

J-124

J-124

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SCREENINGS HANDLING

ODOR CONTROL FACILITY

ODOR CONTROL FACILITY

ODOR CONTROL FACILITY

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P1-105

HEADWORKS REHAB AND EXPANSION

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CITY WATER PUMP STATION

P1-100

DIGESTER REHABILITATION

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P1-101

SLUDGE DEWATERING AND ODOR CONTROL

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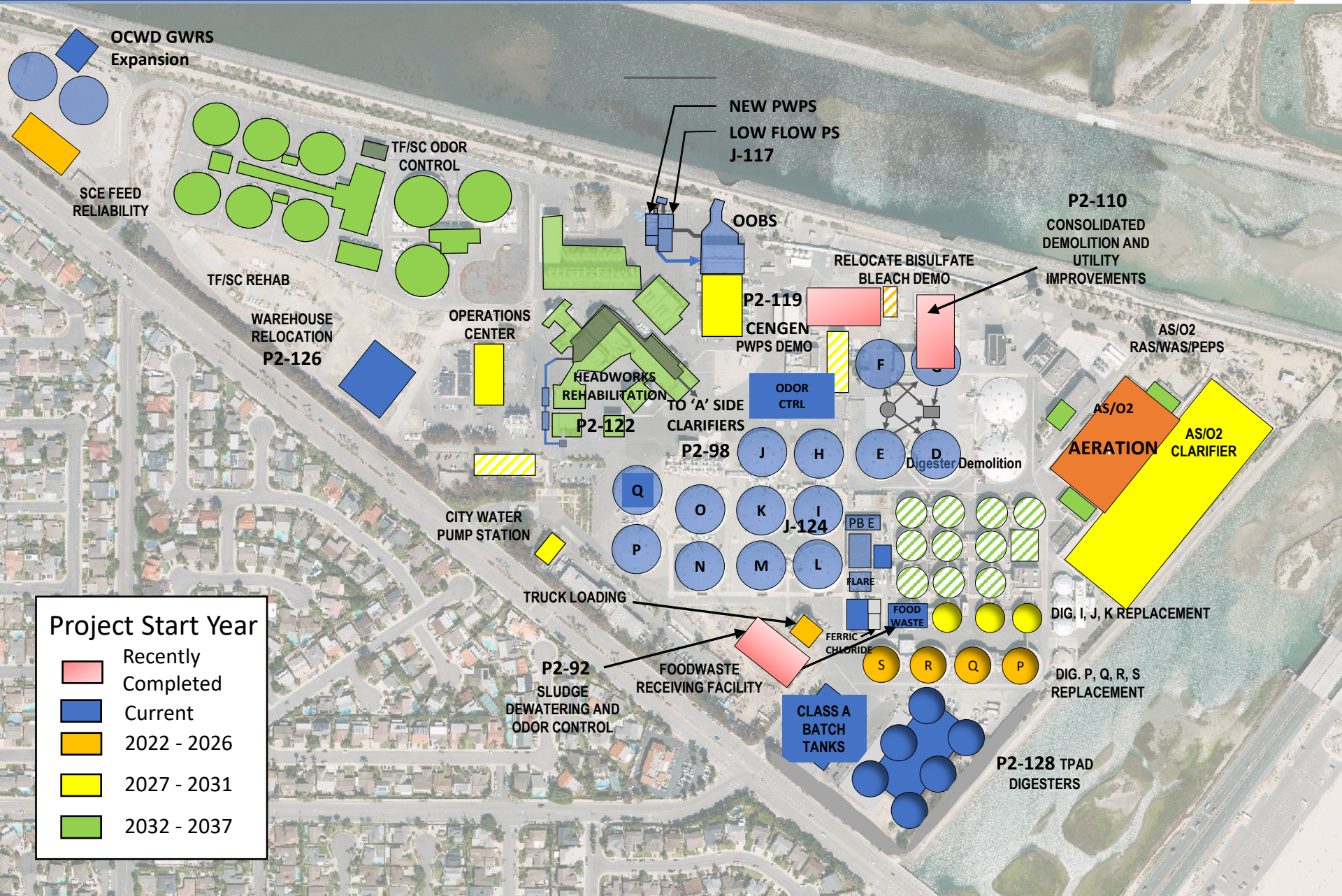
SLUDGE DEWATERING AND ODOR CONTROL

SLUDGE DEWATERING AND ODOR CONTROL

SLUDGE DEWATERING AND ODOR CONTROL

SLUDGE DEWATERING AND ODOR CONTROL

Plant 2 Projects



Project Start Year

- Recently Completed
- Current
- 2022 - 2026
- 2027 - 2031
- 2032 - 2037

OCWD GWRS Expansion

SCE FEED RELIABILITY

TF/SC REHAB

WAREHOUSE RELOCATION
P2-126

OPERATIONS CENTER

HEADWORKS REHABILITATION
P2-122

CITY WATER PUMP STATION

TRUCK LOADING

P2-92
SLUDGE DEWATERING AND ODOR CONTROL

FOODWASTE RECEIVING FACILITY

CLASS A BATCH TANKS

P2-128 TPAD DIGESTERS

NEW PWPS LOW FLOW PS J-117

OOBS

P2-119
CENGEN PWPS DEMO

RELOCATE BISULFATE BLEACH DEMO

P2-110
CONSOLIDATED DEMOLITION AND UTILITY IMPROVEMENTS

AS/O2 RAS/WAS/PEPS

TO 'A' SIDE CLARIFIERS

P2-98

ODOR CTRL

J-124

PB E

FLARE

FOOD WASTE

FERRIC CHLORIDE

AS/O2 AERATION

AS/O2 CLARIFIER

DIG. I, J, K REPLACEMENT

DIG. P, Q, R, S REPLACEMENT

Digester Demolition

F

E

D

J

H

O

N

M

P

Q

K

I

L

M

S

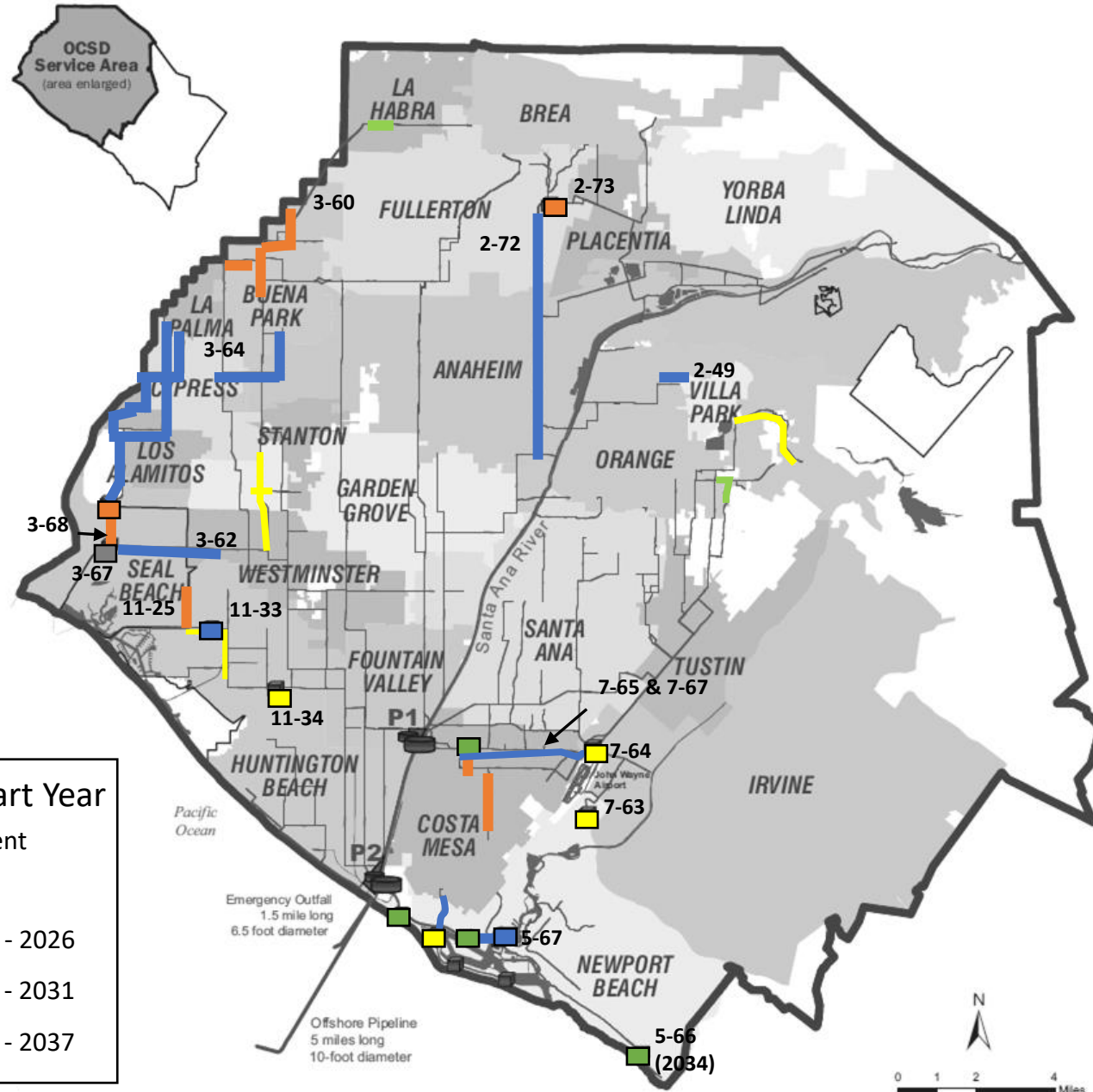
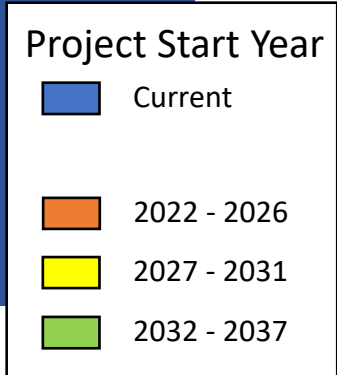
R

Q

P

Regional Sewer Projects

La Habra
 Buena Park
 La Palma
 Westminster
 Seal Beach
 Fountain Valley
 Costa Mesa
 Santa Ana
 Tustin
 Orange
 Villa Park
 Anaheim
 Placentia
 Fullerton



Current List of Bids & RFPs

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ORANGE COUNTY SANITATION DISTRICT

OC San - New Name and Look, Same Great Service

Read all about how we will continue our journey with a new name and logo.



MOST REQUESTED



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**DESIGN
RFP
SCHEDULE**

CIP Design Contracts

[Design Services Request for Task Order Proposal - January 2021](#) (For existing Master Professional Design Agreements)

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**PLANNING STUDIES
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View [Current Bids and RFPs on PlanetBids Vendor Portal](#) for a current list of procurements.

[PlanetBids Vendor Registration](#) is required.

View [Upcoming Construction Bid Opportunities](#) to view a list of construction projects that are currently in design and which may bid within the next two years.

Current List of Bids & RFPs



Design Services Request For Proposal Activity
January 14, 2021

7 Contracts – Approx. \$18 Million

Project Name	Mail PSA RFP	Project Manager	Scope	Construction Estimate
7-68 MacArthur Force Main Improvements	Dec 2020	Hardat Khublall	The MacArthur Pump Station is located west of MacArthur Boulevard and north of Jamboree Road in the City of Newport Beach. This project includes construction of approximately 2,100 feet of new forcemain and rehabilitation of the existing forcemain.	\$1,300,000
11-33 Edinger Pump Station Replacement	Jul 2021	Hardat Khublall	This project will replace the existing Edinger Pump Station to meet current building, electrical, and safety codes and to provide safer access to the pump station. The new pump station will be located at a new location near the existing pump station. The existing pump station will be demolished when the new one is complete.	\$5,300,000
P2-137 Digesters Rehabilitation at Plant No. 2	Jul 2021	Rich Leon	The project will rehabilitate all existing Plant No. 2 digesters to extend their useful lives by 10-15 years. Work includes repairing the digester domes, walls and bridges, rehabilitating the hot water piping system, improving miscellaneous safety related items and replacing electrical motor control centers that are obsolete.	\$21,800,000
P1-137 Supports Buildings Seismic Improvements at Plant No. 1	Sep 2021	Damon Braden	Staff occupied buildings at Plant No. 1 will receive structural and geotechnical (soil) improvements to reduce the risk of failure during a significant seismic event. These buildings include the Control Center, Maintenance Buildings, Warehouse, and Fleet Services.	\$12,800,000
P1-126 Primary Sedimentation Basins No. 3-5 Replacement at Plant No. 1	Sep 2021	Andrew Brown	This project will replace Primary Sedimentation Basins (PSB) 3-5 and all associated facilities including distribution boxes, junction boxes, primary influent and effluent lines, structural, mechanical, and electrical systems. PSB 3-5 will be raised to allow gravity flow to secondary treatment. This project will demolish PSB 1 and 2. The existing 12-kV load interrupter switches, double ended motor control centers, and standby engine generator will be replaced with new load interruptible switches, 480-volt switchgear, and motor control centers. Replace Eastside Basins Distribution Box and rehabilitate the 10, 16, and 24-inch force mains between Waste Sidestream Pump Station 1 and Eastside Basins Distribution Box.	\$69,800,000
P1-138 Network, Telecom and Server Relocation at Plant No. 1	Nov 2021	Adnan Rahman	This project will relocate the existing data network and telecommunications room that is located in the Administration Building at Plant No. 1 to Power Building 3.	\$1,500,000
1-23 Santa Ana Trunk Sewer Rehabilitation	Jan 2022	Charles Falzone	This project will rehabilitate a portion of the Santa Ana Trunk sewer. This will include rehabilitation of pipelines (lining) and manholes. The project includes rehabilitation of 14,525 feet along Alton Avenue and easements crossing MacArthur Boulevard, Harbor Boulevard, Scenic Avenue, Hyland Avenue, Sunflower Avenue and Interstate 405 in the Cities of Santa Ana and Costa Mesa.	\$31,900,000
11-34 Slater Pump Station Rehabilitation	Jan 2022	Wendy Smith	This project will rehabilitate the existing Slater Avenue Pump Station to meet current building, electrical and safety codes, and OCSD design standards, and to extend the useful life of the pump station. In addition to the improvements to the pump station, both force mains currently serving this pump station will be rehabilitated.	\$14,500,000

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CIP Construction Bids

Current List of Bids & RFPs

36 Construction Bids in 2021 – Approx. \$590 Million



Construction Advertising Schedule January 14, 2021

Project No.	Project Name	Advertise	Construction Estimate	City	Brief Scope
FE18-15	Plant Boiler System Relief at Plant No. 2	Jan-2021	\$100,000	Huntington Beach	This project will install a pipe and associated valving and enclosure to release steam near the Plant Boilers at Plant No. 2. The pipe will be routed to the roof of the building with an partial enclosure for noise containment at the point of release.
3-64B	Los Alamitos Trunk Sewer Rehabilitation	Jan-2021	\$16,100,000	Los Alamitos, Seach Beach	This project will rehabilitate portions of the Los Alamitos Sub-Trunk; (13,660 feet) and the Westside Relief Interceptor; (17,770 feet) that are within a section of Katella Avenue, Los Alamitos/Seal Beach Boulevard and Old Ranch Parkway. The work also includes replacement of 3 manholes and rehabilitation of 68 manholes. These sewers are located in the Cities of Seal Beach, Los Alamitos and Cypress in public rights of way with a segment within a sanitation District easement.
P2-98A	A-Side Primary Clarifiers Replacement at Plant 2	Jan-2021	\$131,500,000	Huntington Beach	This project will demolish and replace four existing A-Side Primary Clarifiers, replace the South Scrubber Complex with a dual stage chemical scrubbing odor control treatment system, replace existing utilities, demolish power buildings, and install a new power building.
FR1-0007	Control Center Offices and Day Training Room Remodeling at Plant No. 1	Jan-2021	\$428,000	Fountain Valley	This project will renovate existing office spaces in the Plant 1 Control Center Building. The renovation includes interior demolition of non-load bearing interior partitions and workstations, creation of new partitions, installation of new workstations, HVAC, floor tiles, acoustical ceiling tiles, lighting, receptacles and data outlets, wall paint, and office furniture.
7-66	Sunflower and Red Hill Interceptor Repairs	Jan-2021	\$3,300,000	Santa Ana, Costa Mesa	The project will repair PVC liner failures within a 6,000 foot section of the Sunflower and Red Hill Interceptors. This will require live entry, temporary diversions, and bypass pumping. Also, hydraulic adjustments will be made to artificially keep the low flows above the area of exposed concrete at the lower section of the pipe.
P1-134	South Perimeter Security and Utility Improvements at Plant No.1	Jan-2021	\$5,200,000	Fountain Valley	This security project will replace the perimeter chain link fence at Plant No. 1 along Ward Street with an 8-foot tall block wall. Interior security lighting, cameras, and intrusion detection systems will be installed along the south and west boundary of Plant No. 1 along with a permanent guard house at the Garfield Avenue Gate. Tree removal and landscaping along Ward Street is also part of the project. The utility improvements will disconnect a City of Fountain Valley potable water service from Garfield Avenue and provide two new connections to existing potable water lines within Plant No. 1.
FE10-21	Area 02 Craig Regional Park Manhole Improvements	Jan-2021	\$500,000	Fullerton	The purpose of this project is to install access improvements where current conditions present a danger to Sanitation District maintenance vehicles. The project will remove existing trees and turf and install turf block allowing access for Sanitation district maintenance vehicles. Some trees will be relocated and when this is not possible replacement trees will be planted.
P1-128A	Headquarters Complex at Plant No. 1	Jan-2021	\$103,100,000	Fountain Valley	This project will construct the new Headquarters Building on the north side of Ellis Avenue to house administrative, engineering, resource protection and environmental compliance staff. Surface parking and a Pedestrian Bridge over Ellis Avenue to Plant 1 will also be constructed. The project includes the demolition of the Risk Trailer and one building on the Bandliier property.
FE19-08	Secondary Treatment VFD Replacements at Plant No. 2	Feb-2021	\$1,800,000	Huntington Beach	This project will replace six (6) 125hp Return Activated Sludge VFD's, four (4) 50hp Waste Activated Sludge VFD's, four (4) 300hp Primary Effluent Pump Station VFD's, and associated cables and conductors at Plant No. 2
FE18-16	Truck Loading Basement Drain Modifications at Plant No. 1	Feb-2021	\$200,000	Fountain Valley	The original P1-34-2 Truckloading Design incorporated several large floor and equipment drains which worked well for nearly 20 years for our O&M staff. Now with the new P1-101 design and construction there are numerous floor and equipment drainage issues. For example, when our O&M staff is just washing down the area with hoses or when our O&M staff are performing mechanical maintenance on one of the new Schwing Cake Pumps. There are not enough floor drains or equipment drainage to properly drain off the water and sludge during daily washdowns and during pump mechanical maintenance field activities.

Questions



For more information

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