EXECUTIVE SUMMARY

FISCAL YEARS 2020-2021 and 2021-2022

Orange County Sanitation District, California

Orange County Sanitation District, California

BUDGET EXECUTIVE SUMMARY

Fiscal Years 2020-21 and 2021-22

OUR MISSION

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

GFOA BUDGET PRESENTATION AWARD

GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

PRESENTED TO

Orange County Sanitation District

California

For the Fiscal Year Beginning

July 1, 2018

Christopher P. Morrill

Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to the Orange County Sanitation District, California, for its biennial budget for the biennium beginning July 1, 2018.

In order to receive this award, a government unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communication device.

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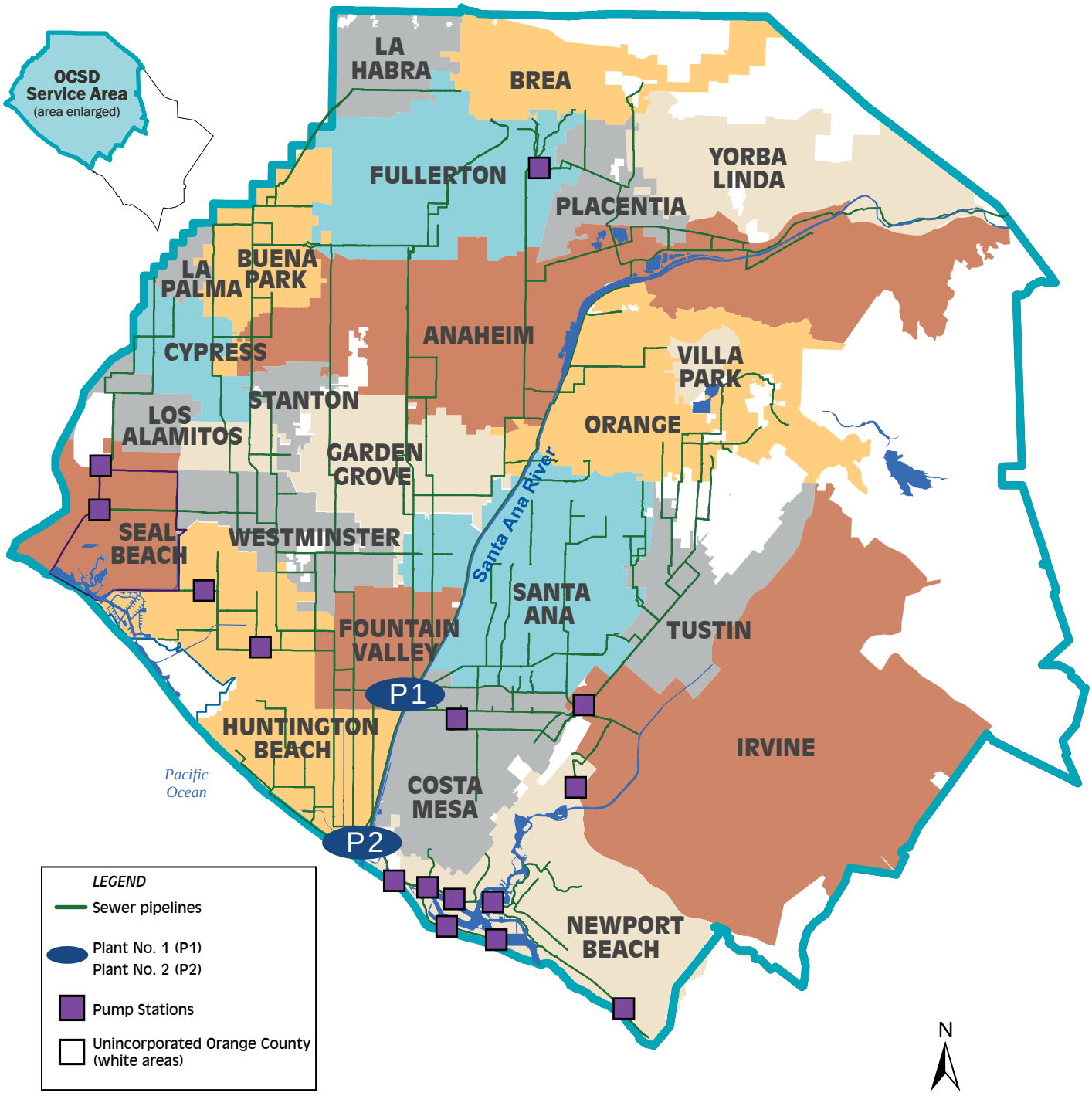
OCSD SERVICE AREA

Orange County Sanitation District
Service Area and Treatment Plant Locations
in Orange County, California



BOARD OF DIRECTORS

Agency/City	Active Director	Alternate Director
Anaheim	Lucille Kring	Denise Barnes
Brea	Glenn Parker	Cecilia Hupp
Buena Park	Fred Smith	Connor Traut
Cypress	Mariellen Yarc	Stacy Berry
Fountain Valley	Steve Nagel	Patrick Harper
Fullerton	Jesus J. Silva	Jan Flory
Garden Grove	Steve Jones	John O'Neill
Huntington Beach	Erik Peterson	Lyn Semeta
Irvine	Christina Shea	Anthony Kuo
La Habra	Tim Shaw	Rose Espinoza
La Palma	Peter Kim	Nitesh Patel
Los Alamitos	Richard Murphy	Dean Grose
Newport Beach	Brad Avery	Joy Brenner
Orange	Mark Murphy	Kim Nichols
Placentia	Chad Wanke	Ward Smith
Santa Ana	Cecilia Iglesias	David Penaloza
Seal Beach	Sandra Massa-Lavitt	Schelly Sustarsic
Stanton	David Shawver	Carol Warren
Tustin	Allan Bernstein	Chuck Puckett
Villa Park	Robert Collacott	Chad Zimmerman
Sanitary/Water Districts		
Costa Mesa Sanitary District (CMSD)	James M. Ferryman	Robert Ooten
Midway City Sanitary District (MCSD)	Andrew Nguyen	Margie L. Rice
Irvine Ranch Water District (IRWD)	John Withers	Douglas Reinhart
Yorba Linda Water District (YLWD)	Brooke Jones	Phil Hawkins
County Areas		
Member of the Board of Supervisors	Doug Chaffee	Donald P. Wagner

BOARD COMMITTEES

Steering Committee

David Shawver, Board Chair (Stanton)
John Withers, Board Vice-Chair (IRWD)
Chad Wanke, Chair, Administration Committee (Placentia)
Robert Collacot, Chair, Operations Committee (Villa Park)
Peter Kim, LaPA Committee (La Palma)
Glen Parker, Member-At-Large (Brea)
Tim Shaw, Member-At-Large (La Habra)

Administration Committee

Chad Wanke, Chair (Placentia)
Richard Murphy, Vice-Chair (Los Alamitos)
James Ferryman (CSMD)
Cecilia Iglesias (Santa Ana)
Peter Kim (La Palma)
Mark Murphy (Orange)
Steve Nagel (Fountain Valley)
Andrew Nguyen (MCSD)
Glenn Parker (Brea)
Erik Peterson (Huntington Beach)
Christina Shea (Irvine)
David Shawver, Board Chair (Stanton)
John Withers, Board Vice-Chair (IRWD)

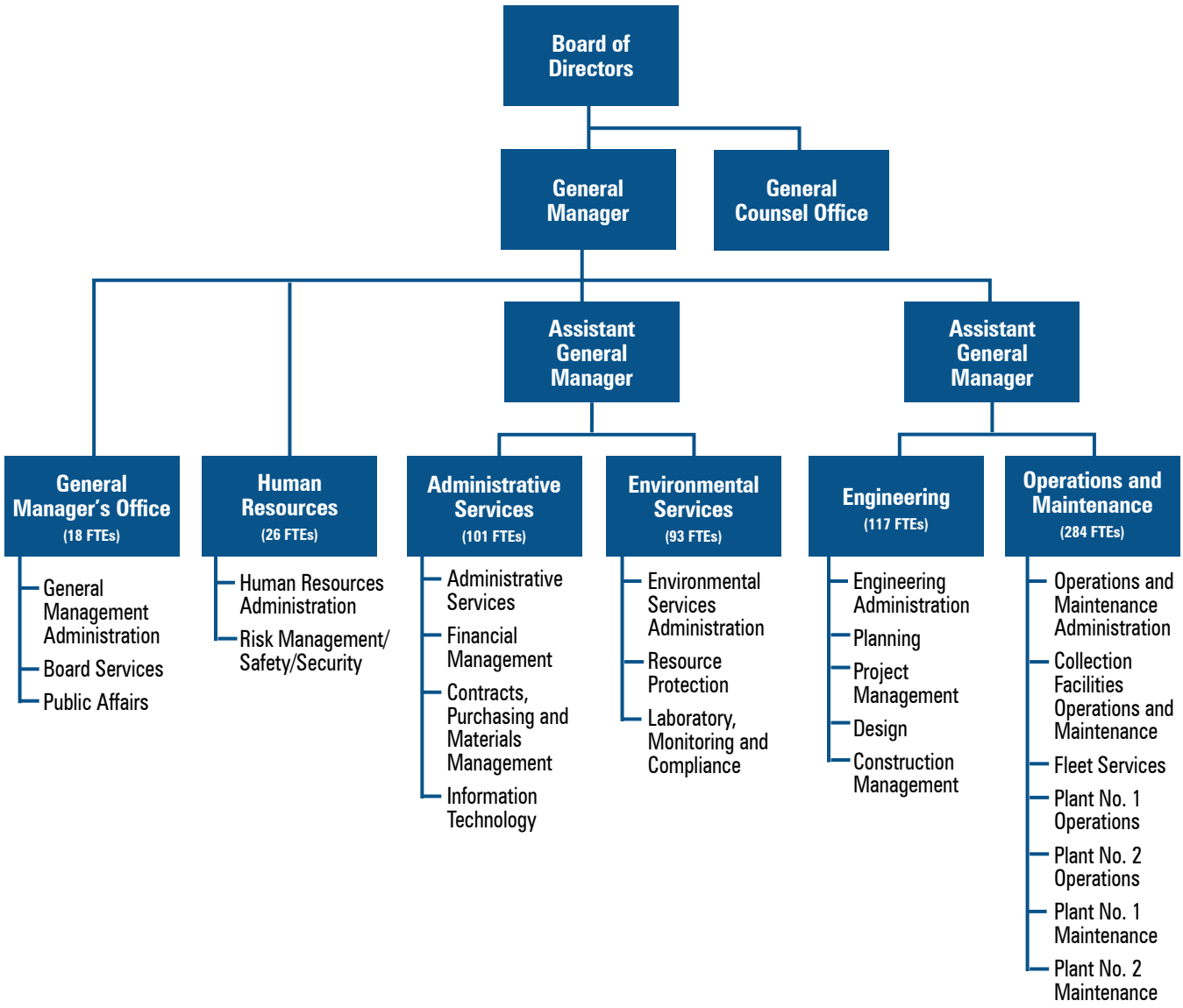
Operations Committee

Robert Collacott, Chair (Villa Park)
Mariellen Yarc, Vice-Chair (Cypress)
Brad Avery (Newport Beach)
Allan Bernstein (Tustin)
Doug Chaffee (Board of Supervisors)
Brooke Jones (YLWD)
Steve Jones (Garden Grove)
Lucille Kring (Anaheim)
Sandra Massa-Lavitt (Seal Beach)
Tim Shaw (La Habra)
Jesus J. Silva (Fullerton)
Fred Smith (Buena Park)
David Shawver, Board Chair (Stanton)
John Withers, Board Vice-Chair (IRWD)

Legislative and Public Affairs Committee

Peter Kim, Board Chair (La Palma)
Allan Bernstein, Board Vice-Chair (Tustin)
Lucille Kring, Member-At-Large (Anaheim)
Erik Peterson, Member-At-Large (Huntington Beach)
Christina Shea, Member-At-Large (Irvine)
David Shawver, Board Chair (Stanton)
John Withers, Board Vice-Chair (IRWD)

ORGANIZATION CHART



ADMINISTRATIVE OFFICIALS

Management Team

General Manager ..... **James D. Herberg**

Assistant General Manager and Director of Finance and Administrative Services ..... **Lorenzo Tyner**

Assistant General Manager and Director of Operations and Maintenance ..... **Robert Thompson**

Director of Engineering ..... **Kathy Millea**

Director of Environmental Services ..... **Lan C. Wiborg**

Director of Human Resources ..... **Celia Chandler**

General Counsel ..... **Bradley R. Hogin**

MESSAGE FROM THE GENERAL MANAGER

June 1, 2020

Honorable Chair and Board of Directors:

I am pleased to submit the Orange County Sanitation District's (OCSD) Proposed Budget for fiscal years 2020-2021 and 2021-2022. This document lays out the framework of OCSD's activities during the next two years and serves as a source of information for OCSD's Board of Directors, our ratepayers, and our employees. This budget includes the operational, capital and debt service expenditures necessary to cost-effectively support our mission and execute the Strategic Plan adopted by our Board of Directors in November 2019.

This budget is being submitted at a challenging time for our community, the state, and our nation amid the COVID-19 pandemic. There are unknowns and uncertainties regarding the duration, the immediate and long-term impacts, and what the new "normal" will look like. During the budget preparation and presentation, our staff has been aware of, and has considered this extraordinary situation. Fortunately, under the guidance and policies set by the Board of Directors, the proposed budget reflects a financially sound and stable organization capable of weathering this storm.

I would like to highlight some of the areas of focus for the coming years:

- Operational Readiness – OCSD has always been a forward-looking agency, whether it is for operational reliability, future infrastructure needs, emergency events such as spills and storms, or unknown situations such as pandemics. We have Business Continuity Plans in place, and we conduct regular tabletop exercises for various scenarios to allow us to respond quickly and effectively without compromising our mission or levels of service. As we move forward, our efforts will continue to focus on planning, preparation and integration so that regardless of what future situations we face, OCSD will be ready.

- Expanded Recycling Efforts
  - Groundwater Replenishment System Final Expansion – In partnership with the Orange County Water District (OCWD), our agency recycles enough water to supply the needs of 850,000 people through the Groundwater Replenishment System (GWRS). Earlier this year, construction began on the Final Expansion phase of this internationally recognized project. Changes and additions to infrastructure will allow for the treated water from Plant No. 2 that is currently underutilized, to be processed at the GWRS facility in Fountain Valley. With this final phase, the GWRS will provide a reliable water source for over one million people in central and northern Orange County.
  - Food Waste Treatment Facility – A project created for cities in our service area to satisfy the requirements of California State Assembly Bill 1826 and Senate Bill 1383 which require that organic wastes be diverted away from landfills. This regulatory shift has created an opportunity in the wastewater sector to provide a cost effective and environmentally friendly service to help manage organics using OCSD's existing anaerobic digesters, which in turn will produce renewable energy to power our treatment plants.

- Headquarters Complex – In our ongoing effort to streamline our operations and planning, we have acquired 7.5 acres across Ellis Avenue from Reclamation Plant No. 1 in Fountain Valley. The buildings on those properties will be demolished to make room for a consolidated headquarters building to house the staff that are currently located in various buildings and trailers spread out on the existing 100-acre wastewater treatment facility. Adding a headquarters complex will free up needed space for future wastewater treatment infrastructure and will centralize our administrative functions. Today, we are 95 percent complete in design and expect to enter construction in 2021 and be move-in ready by the end of 2023.

- Capital Improvement Program – OCSD's Capital Improvement Program (CIP) has evolved over time. It began by focusing on creating the initial infrastructure of the collections and treatment system, shifted to expanding capacity, and now our focus is on aging infrastructure, incorporating climate resiliency, seismic risk, and maximizing resource recovery. During the evolution of this program, one thing has remained; OCSD facilities must operate reliably with sound financial management. While the COVID-19 pandemic has resulted

in operational modifications, our CIP has not been significantly impacted. OCSD will continue to construct essential wastewater infrastructure, investing $500 million in wastewater infrastructure in the next year and a half, issuing construction contracts for 37 projects and helping keep the economic engine running in Orange County.

- Infrastructure Reliability and Asset Management – OCSD's infrastructure must operate continuously day and night. Reliability must be built into all that we do and that includes managing the condition of our $11 billion in assets to ensure they are running effectively. Over the past two years, we made a concerted effort to establish an updated and more robust understanding of the condition and performance of all critical and major assets and our ability to meet established levels of service. As we embark on another year of this renewed asset management program, we have updated our Asset Management Plan to develop a tactical approach for addressing asset condition and performance issues. The plan lays out how we will operate and maintain those assets to deliver the required level of service at the lowest lifecycle cost with an acceptable level of risk. OCSD will be investing an additional $4 million in repairs and maintenance this next year.
- Safety and Security – Capital projects, maintenance activities, drafting of an implementation plan for a Voluntary Protection Program Certification, and training to address safety in our workplace are all included in this budget, as are enhancements to our physical, electronic, and cyber security infrastructure.
- Staffing Cost Containment – While continuing to implement programs to enhance our resiliency, reliability and resource recovery, this budget displays our commitment to efficiency as it includes a small reduction in staffing.

OCSD has worked very hard to create an integrated planning environment which begins with the strategic and policy expectations of the Board of Directors and flows down to the work product of each employee. We have worked to ensure communication and transparency among our staff members so that they are aligned and working together in support of the plan.

OCSD will continue to provide wastewater collection, treatment, recycling, facilities maintenance, ocean monitoring, and many other services while keeping rates among the lowest in California. This budget fully supports the goals and levels of service included in the Orange County Sanitation District's Strategic Plan and positions us well to proactively manage in the coming years.

James D. Herberg
General Manager
Orange County Sanitation District

FINANCE SUMMARY

FINANCIAL SUMMARY/OVERVIEW AND BUDGETARY ISSUES

Budget Overview

Orange County Sanitation District's (OCSD) proposed FY 2020-21 and 2021-22 operating and capital improvement budgets total $400 million and $662 million, respectively. There is consideration of paying down maturing and callable debt in the amount of $174 million, which is included in the FY 2021-22 budget. The increase in the FY 2020-21 budget over the FY 2019-20 projected spending of $394 million is primarily due to the timing of construction cash outlays, in addition to increases in salaries and benefits and repairs and maintenance. The increase in the FY 2021-22 budget is primarily due to the timing of construction cash outlays as we meet our infrastructure needs. The budget continues to reflect the agency's ongoing efforts to streamline operations.

OCSD's proposed Capital Improvement Program (CIP) budgets for FY 2020-21 and FY 2021-22 are $148 million and $241 million, respectively, net of savings and deferrals. This CIP budget supports collection system, joint works treatment and disposal system improvement projects.

Financing

OCSD uses long-term Certificates of Participation (COP) for financing capital improvements that cannot be completely funded from current revenue. Before any new debt is issued, the impact of debt service payments on total annual fixed costs is analyzed. Total COP indebtedness is currently at $940 million. No new money debt financings are currently forecasted to assist in the funding of the $2.7 billion in capital improvements required over the next 10 years.

Staffing

Reflecting the organization's commitment to providing service at the lowest costs, the budget reflects a decrease of one authorized full time equivalent (FTE) position for FY 2020-21 and FY 2021-22 as staffing is proposed at 639 FTE positions in both years.

Personnel costs will increase primarily due to approved increases in salaries and wages for all employee bargaining units based on the existing Memorandums of Understanding.

OCSD will continue to effectively manage these expenses with approximately 25.5 percent of the budget allocated to employee costs, much less than most other government agencies.

Cost of Treatment

The agency's two treatment plants, located in Fountain Valley and Huntington Beach, process about 188 million gallons of wastewater each day generated by approximately 2.6 million people residing within central and northwest Orange County and the businesses that operate within this service area. The proposed budget to operate, maintain and manage our sewage collection, treatment, and disposal system, including self-insurance requirements, for the next two years is $176 million per year.

The cost per million gallons of wastewater treated (an industry-wide performance measurement) is expected to increase $96, or 4.0 percent, in FY 2020-21 to $2,534. The increase in the cost per million gallons is due to the increase in the operating budget.

Sewer Service Fees

The FY 2020-21 and FY 2021-22 single family residential rates are scheduled to increase by approximately one percent each year to $343 and $347, respectively. OCSD's rates are well below the statewide average sewer rate of $529 as reported in a 2016-2017 survey of 963 agencies in California.

Groundwater Replenishment System (GWRS)

The OCSD Strategic Plan includes water reclamation. With the Orange County Water District (OCWD), OCSD completed the GWRS, the nation's largest water reclamation project, in January 2008.

The original GWRS facility reclaimed 70 million gallons of water a day (MDG), eliminating the need to build a second outfall which could cost more than $200 million. OCSD and OCWD equally shared the expenses of this project and approximately $44 million in Federal and State grants that were received to offset part of the total costs.

Initial expansion of GWRS increased the production of reclaimed water to 100 million gallons a day. This expansion, which was funded entirely by the OCWD, was completed in early 2015. OCSD is directing all reclaimable flows from Plant No. 1 to OCWD in support of providing maximum amounts of specification water for reclamation.

The GWRS Final Expansion will be funded solely by the OCWD. OCSD currently has two active projects supporting the GWRS Final Expansion. The costs of these projects will be reimbursed by the OCWD. The Final Expansion of the GWRS is expected to be online in 2023, bringing the total GWRS capacity to 130 MGD of drinking water.

Capital Improvement Program (CIP)

The proposed CIP budget for FY 2020-21, net of savings and deferrals, is $147.6 million.

Over the next 10 years, OCSD's Capital Improvement Program will:

- Rehabilitate the headworks, primary treatment, solids handling facilities, and utility systems at Plant No. 1.
- Replace a third of the primary treatment facilities and rehabilitate the outfall pumping system at Plant No. 2.
- Construct a new Headquarters Complex.
- Modify existing headworks at Plant No. 2 and construct a new plant water pump station to enable the final expansion of the Groundwater Replenishment System (GWRS).
- Replace or rehabilitate OCSD's aging pump stations and trunk sewers in the collections system.

Projects Driving the CIP

Over the next 24 months, the largest capital cash outlays are:

- Newhope-Placentia Trunk Replacement - $28.7 million ($112 million total budget).
- Headworks Rehabilitation & Expansion at Plant No. 1 - $59.2 million ($406 million total budget).
- Westminster Blvd Force Main Replacement - $23.1 million ($44 million total budget).
- Primary Treatment Rehabilitation at Plant No. 2 - $34.3 million ($237 million total budget).
- Ocean Outfall System Rehabilitation - $49.5 million ($166 million total budget).
- Headquarters Complex at Plant No. 1 - $48.5 million ($167.5 million total budget).

FINANCIAL SUMMARY/OVERVIEW AND BUDGETARY ISSUES

Operating Budget Increase – $12.6M

The operations budget for the collection, treatment, and disposal of wastewater is proposed at $176.3 million, a $12.6 million (7.7 percent) increase above FY 2019-20 projected expenditures. In FY 2021-22, it is projected to increase by $0.2 million (0.1 percent).

Although some expenses will increase or decrease slightly, the overall increase to the operating budget in FY 2020-21 over the FY 2019-20 projected is primarily attributable to five specific areas:

Salaries and Benefits – $6.3M Increase

Personnel costs are being proposed at $6.3 million, or 6.5 percent increase over the prior year projection mainly due to cost of living adjustments included in the current Memorandums of Understanding for all employee bargaining units and increased insurance premiums and retirement contributions. There is a proposed decrease of one full time equivalent (FTE) staff position bringing the proposed total FTE count in FY 2020-21 and FY 2021-22 to 639.0 FTEs.

Other Materials, Supplies, and Services – $1.5M Increase

The increase is primarily due to the General Manager's contingency and the contingency for prior year reappropriations, an increase in the property and general liability insurance premiums, and additional research and monitoring costs.

Professional Services – $1.3M Increase

The increase in professional services in FY 2020-21 is for legal fees and technical consulting fees on projects and studies.

Repairs and Maintenance – $4.1M Increase

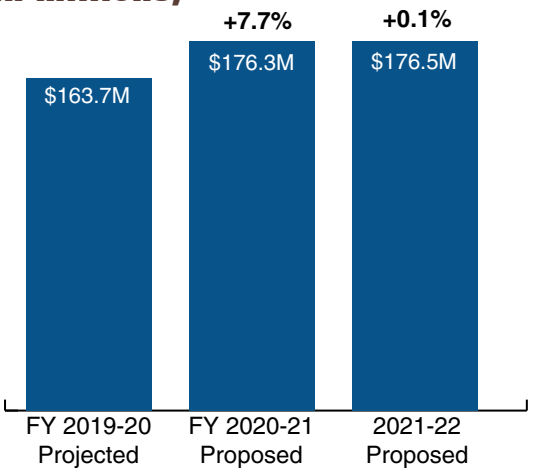
This expense category includes parts and services for repairing aging treatment plant and collection facilities and reflects base budgets for equipment maintenance as well as out-sourced annual service contracts and maintenance agreements.

Repairs and maintenance costs are proposed to increase $4.1 million or 16.9 percent over the prior year projection. During FY 2020-21 major projects that contribute to the increase are the Bushard Diversion Structure Repair planned for $1.1 million, major rehabilitation of primary basins, secondary clarifiers and overhaul of new centrifuges at both plants planned for $6.5 million.

Operating Materials and Supplies – $1.5M Increase

OCSD uses chemical coagulants improve solids removal efficiencies in the primary clarifiers, add to digested sludge prior to dewatering to aid in coagulation, improving the sludge and water separation process, and add to the waste activated sludge dissolved air flotation thickeners (DAFTs) to improve solids coagulation. Odor control chemicals are used in both the treatment plants and the collection system. Both costs and usage are expected to increase in FY 2020-21.

Operating Expenses (in millions)

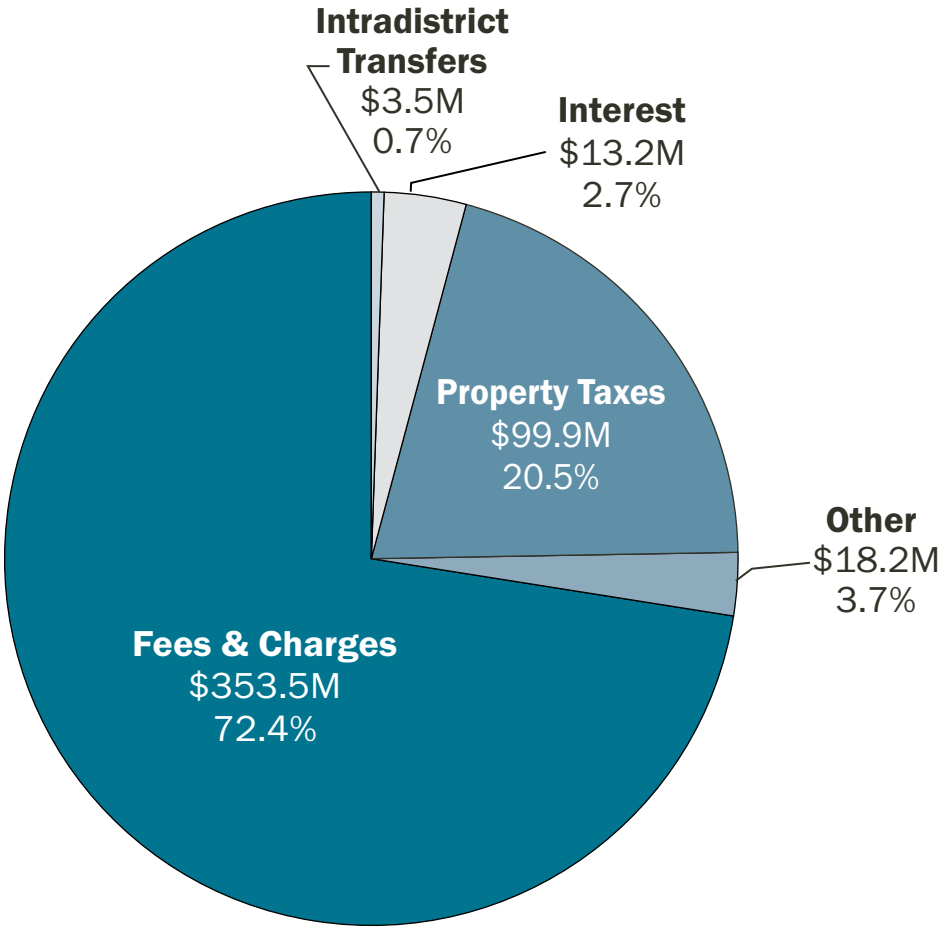


Operating expenses increase $12.6 million (7.7%) in FY 2020-21 and increase $0.2 million 0.1% in FY 2021-22.

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

FINANCIAL SUMMARY/FUNDING SOURCES BY CATEGORY

Where The Money Comes From



Funding Sources by Category (in millions)

Category	2018-19 Actual	2019-20 Projected	2020-21 Proposed	2021-22 Proposed
Service Fees	$311.8	$318.6	$320.4	$329.4
Property Taxes	98.3	98.0	99.9	102.0
Permit User Fees	9.9	12.9	13.0	13.1
Capital Facilities Capacity Charges	21.0	19.3	20.1	20.7
Interest	28.7	17.5	13.2	12.7
Intradistrict Transfers	19.7	0.0	3.5	3.5
Debt Proceeds	0.0	0.0	0.0	0.0
Other Revenue	8.7	10.6	18.2	16.2
Total Funding Sources	$498.1	$476.9	$488.3	$497.3

OCSD has a variety of revenue sources available for operating and capital expenses. The major revenue sources are:

General Service Fees – $320.4M

User fees are ongoing fees for service paid by customers connected to the sewer system. A property owner, or user, does not pay user fees until connected to the sewer system and receiving services. Once connected, users are responsible for their share of the system's costs, both fixed and variable, in proportion to their demand on the system. These fees are for both Single Family Residences (SFR) and Multiple Family Residences (MFR).

Property Taxes – $99.9M

The County of Orange is permitted by State law (Proposition 13) to levy taxes at one percent of full market value (at time of purchase) and can increase the assessed value no more than two percent per year. OCSD receives a share of the basic levy proportionate to what was received in the 1976 to 1978 period, less $3.5 million, the amount that represents the State's permanent annual diversion from special districts to school districts that began in 1992-93. OCSD's share of this revenue is first dedicated for the payment of debt service.

Permit User Fees – $13.0M

Permit user fees are paid by large industrial and commercial properties owners connected to the sewer system. These fees are for the owner's share of the system's costs, both fixed and variable, in proportion to the user's demand on the system.

Since the inception of the Permit User Fee Program in 1970, users of OCSD's system that discharge high volumes or high strength wastewater have been required to obtain a discharge permit and pay extra fees for the costs of service.

Capital Facilities Capacity Charges (CFCC) – $20.1M

The Capital Facilities Capacity Charge is a one-time charge imposed at the time a building or structure is newly connected to OCSD's system, directly or indirectly, or an existing structure or category of use is expanded or increased. This charge pays for OCSD facilities that exist at the time the charge is imposed, or to pay for new facilities to be constructed in the future that will benefit the property being charged.

Interest Earnings – $13.2M

Interest earnings are generated from the investment of accumulated reserves consisting of a cash flow/ contingency, a capital improvement, a renewal/ replacement, and a self-insurance reserve.

Intradistrict Transfers – $3.5M

In accordance with Amendment No. 2 to the Agreement for Purchase and Sale of Capacity Rights in Treatment, Disposal and Sewer Facilities between Irvine Ranch Water District (IRWD) and OCSD dated November 15, 1995, ownership is adjusted annually to reflect the current equity percentage ownership based on sewage flows.

Debt Proceeds – $0M

Certificates of Participation (COPs) are OCSD's primary mechanism for financing capital projects. COPs are repayment obligations based on a lease or installment sale agreement. COPs are not viewed as "debt" by the State of California, but rather a share in an installment arrangement where OCSD serves as the purchaser.

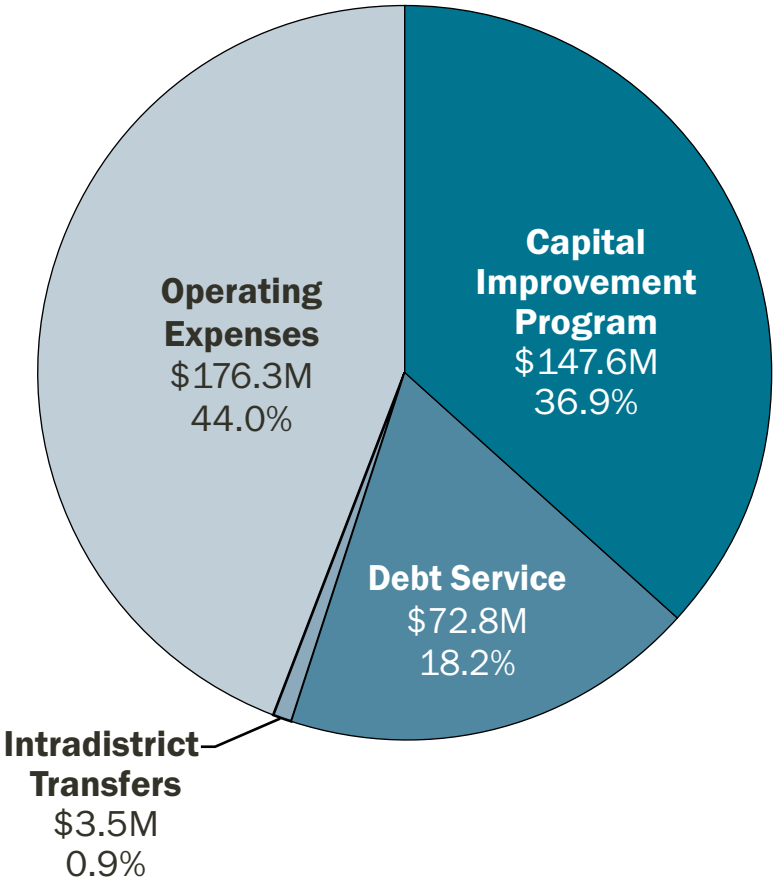
No new money debt issuances are being proposed over the next two fiscal years as the $2.7 billion in future replacement, rehabilitation, and refurbishment projects anticipated over the next ten years will be adequately funded through current sewer service fee charges and existing reserves.

Other Revenue – $18.2M

Other revenue includes self-insurance assessments for workers' compensation and general liability coverage as well as miscellaneous revenue such as rents and leases.

FINANCIAL SUMMARY/FUNDING SOURCES BY CATEGORY

Where The Money Goes



Funding Uses by Category (in millions)

Category	2018-19 Actual	2019-20 Projected	2020-21 Proposed	2021-22 Proposed
Capital Improvement Program, Net	$166.6	$119.7	$147.6	$240.8
Operating Expenses**	163.1	163.7	176.3	176.5
Debt Service*	74.5	110.9	72.8	240.6
Intradistrict Transfers	21.7	0.0	3.5	3.5
Total Funding Uses	$425.9	$394.3	$400.2	$661.5

**The fiscal year 2019-20 debt service amount includes a payment of $29.0 million against the Sanitation District's unfunded pension liability and in FY 2021-22 a payment of $173.9 million to pay off maturing and callable debt.*

***Includes $2.4 million for the self insurance fund, for proposed fiscal year 2020-21.*

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

OCSD budgets its funds in four distinct areas:

Capital Improvement Program (CIP) - $147.6M

To provide an appropriate level of service to OCSD's rate payers, large capital improvements are required. The CIP provides for the management and implementation of these improvements. The CIP budget includes specific projects as well as an allocation for anticipated replacement, rehabilitation, or refurbishment (RRR) projects where detailed job plans have not yet been prepared. The budgets for specific CIP projects for FY 2020-21 and FY 2021-22 total $164.8 million and $261.9 million, respectively. However, the net CIP cash outlays, which includes future rehabilitation and replacement less savings and deferrals, are budgeted at $147.6 million and $240.8 million for each year, respectively.

Operating Expenses - $176.3M

The proposed budget allocates resources to operate, maintain and manage our sewage collection, treatment, and disposal system, and for any associated administrative or technical requirements.

Debt Service - $72.8M

This is the cost of repaying debt. Long-term debt financing allows OCSD to complete large multi-year capital projects by providing funds not always immediately available.

Intradistrict Transfers - $3.5M

In accordance with Amendment No. 2 to the Agreement for Purchase and Sale of Capacity Rights in Treatment, Disposal and Sewer Facilities between IRWD and OCSD dated November 15, 1995, ownership is adjusted annually to reflect the current equity percentage ownership based on sewage flows.

COLLECTION, TREATMENT AND RECYCLING PROCESS OVERVIEW

OCSD's system includes approximately 388 miles of sewers that convey wastewater generated within OCSD's service area to its two treatment facilities, Reclamation Plant No. 1 located in the City of Fountain Valley, and Treatment Plant No. 2 located in the City of Huntington Beach.

Influent wastewater undergoes Preliminary Treatment upon entry to the treatment plants where it is filtered through bar screens, and grit and debris are removed. It then flows to Primary Treatment, which consists of large settling basins where solids are settled out, enhanced by the addition of chemicals, and sent to Solids Processing. Wastewater then flows to Secondary Treatment, which is a biological process using either the trickling filter or activated sludge process. Solids removed in Secondary Treatment are also sent to digestion.

Methane gas generated during the natural decomposition of the solids in the digesters fuels the Central Power Generation System producing enough electricity to meet two-thirds of the power needed to run both treatment plants.

Solids are then dewatered to a 20 percent solids consistency, called biosolids, and recycled via direct land application or composting.

Approximately 130 million gallons per day of secondary effluent from Reclamation Plant No. 1 is sent to the Orange County Water District (OCWD) for recycling in its two treatment processes.

The first is OCWD's Groundwater Replenishment System (GWRS). The GWRS is the largest water purification project of its kind in the world and its construction was funded jointly by OCWD and OCSD. At 100 million gallons per day, the GWRS generates enough pure water to meet the needs of 850,000 people.

The second is OCWD's Green Acres Project (GAP) which is a water recycling effort that provides reclaimed water for landscape irrigation at parks, schools and golf courses as well as for industrial uses, such as carpet dying. The total annual demand for GAP water is about four million gallons per day.

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

STRATEGIC PLANNING

OCSD Planning Environment

OCSD has developed an integrated planning system that allows for intentional, thoughtful decision making to maintain current operations while adding resilience and meeting new challenges. This integrated planning system includes Strategic Planning, Asset Management, Budgeting (Capital and Operating), a General Manager's work plan, and focused engineering study efforts. While these plans are important, equally important is an organizational structure and relationships between employees that work together toward these common goals.

Strategic Planning is the first step. OCSD has developed a strategic planning model that creates a long-term level-of-service agreement between its Board of Directors and staff. The Board of Directors use this document to lay out a vision of what the agency will deliver over the next 10 to 20 years. This is an alignment document to define long-term levels of service. The Strategic Plan also serves as a continuity bridge as members of the 25-member Board of Directors come onto and leave the governing body. It is initially important as an education tool for what and why OCSD does what it does, but also allows for new Board members to adjust the vision as it is revised every two years. The Strategic Plan is timed to be adopted by the Board of Directors in the November prior to the bi-annual budget development.

Strategic Plan

In November 2019, the Board of Directors adopted a new comprehensive strategic plan to steer OCSD's efforts. The Strategic Plan developed by the Board of Directors and staff defines the strategic initiatives to be pursued by OCSD and provides a basis for long-term financial, capital, and operational planning. In addition, it provides for long-term continuity of vision as Board and staff members change over the many years it takes to deliver public works infrastructure.

Driven by our Mission, Vision and Core Values, this Strategic Plan continues OCSD's aggressive efforts to meet the sanitation, health, and safety needs of the more than 2.6 million people we serve while protecting the environment where we live.

The Strategic Plan is broken down into four broad categories with fourteen topic areas that define our responsibilities and the services we provide. These areas are:

- Business Principles
  - o Budget Control and Fiscal Discipline
  - o Asset Management
  - o Cybersecurity
  - o Property Management
- Environmental Stewardship
  - o Energy Independence
  - o Climate and Catastrophic Event Resiliency
  - o Food Waste Treatment
  - o Water Reuse
  - o Environmental Water Quality, Stormwater Management and Urban Runoff
- Wastewater Management
  - o Chemical Sustainability
  - o Biosolids Management
  - o Constituents of Emerging Concern
- Workplace Environment
  - o Resilient Staffing
  - o Safety and Physical Security

The Strategic Plan is not a departure from the current direction, but rather the well-defined iterative update to the direction of OCSD. With the adoption of the Strategic Plan, staff will be updating the Asset Management Plan, Capital Improvement Program, and Financial Plan that are the basis of a two-year budget that will be adopted by the Board of Directors. The Budget goals and the General Manager's work plan are the accountability steps that measure achievable progress toward the strategic initiatives listed in the Strategic Plan.

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

Asset Management

OCSD is committed to providing services for its rate payers to reliably meet our regulatory mandates and levels of service approved by the Board of Directors and will provide these services using sustainable engineering principles that result in the lowest responsible lifecycle cost with an acceptable level of risk. OCSD installs, operates, maintains, refurbishes and disposes of assets with lifecycles measured from years to decades, so an approach which balances long, medium and short-term needs is necessary. OCSD's Asset Management Program has evolved into a comprehensive decision-making framework that encompasses engineering planning, design and construction of quality facilities, optimized operation, proper maintenance, and planned rehabilitation, replacement and refurbishment of assets that will meet OCSD's changing needs. This coordinated decision-making process will allow OCSD to consistently meet mandated levels of service to the rate payers at the lowest lifecycle cost.

OCSD's Asset Management Plan focuses on the long-term planning of maintenance and capital improvement projects to ensure the proper rate structure is in place to support sustainable operations. These are important starting points and have yielded tangible benefits in reduced risk levels and an improved capital planning approach. The implementation of the Maximo Computer Maintenance Management System (CMMS) is an example of an effort to improve OCSD's Asset Register. CMMS Technicians and the Asset Engineers continue to work to update the database information including installation date, asset cost, condition and criticality in the new system.

OCSD has been striving to accurately identify medium to long-term capital cash flow requirements. Specifically, the Engineering Department Planning Division has developed a 20-year CIP by creating specific project plans for the rehabilitation, replacement, improvements and expansion for each treatment plant or collections area.

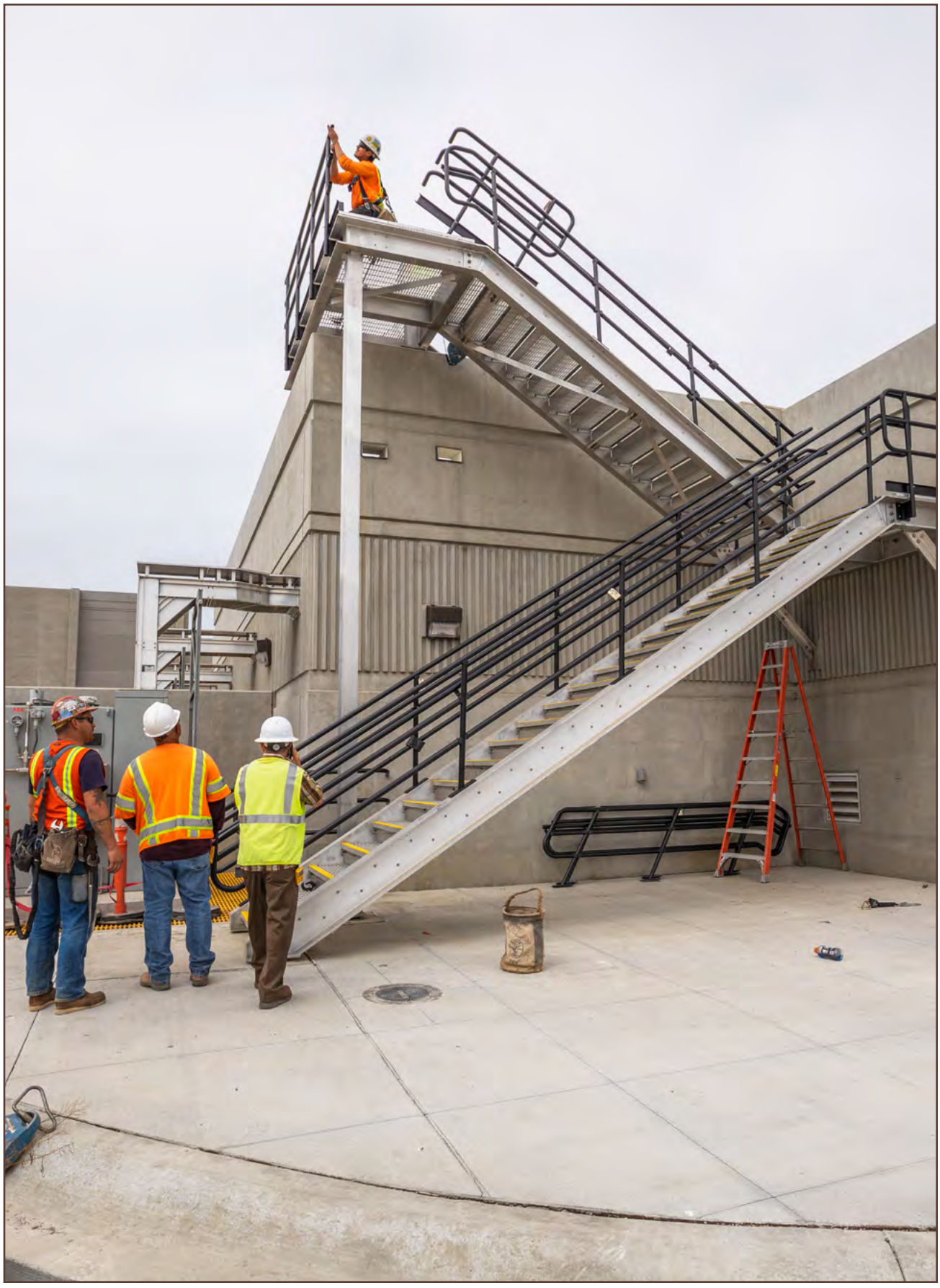
This medium to long-term planning is important for several reasons. By moving away from narrowly focused projects to solve individual problems, to more comprehensive projects refurbishing entire processes, OCSD benefits by having less operational disruption and more efficient project delivery, better cash flow estimation, and better operations and maintenance decision-making framework. This is a huge undertaking based on the number of asset and facilities, but over time the undefined future rehabilitation capital estimates within the 20-year window are expected to be drastically reduced and replaced by more specific estimated capital needs.

Complementing the medium to long-term planning are the short-term efforts to coordinate maintenance actions that can reduce risks, actively defer the larger refurbishment projects, and reduce asset consumption rates to minimize the need for replacement of structures and conveyance systems when projects are executed. The Planning Division asset engineers conduct condition assessment, and continuously work with operations and maintenance staff to keep track of the condition of all critical assets, to identify opportunities for operational adjustments or maintenance activities that cost effectively extend the life of key assets which may allow for deferral of the larger overall project. This may be a targeted equipment replacement or pipeline repair that is more urgent than the need of the overall facility. These engineers may also identify opportunities to reduce asset consumption through coating systems, atmosphere improvements or small structure repairs before major damage is done. These actions can drastically reduce the cost of future projects by preventing the need to demolish and replace entire structures.

OCSD is committed to continuous improvement of the process by which it manages the assets and facilities that are required to reliably deliver its level of service commitments. The additional resources and individual accountability for specific areas has improved, and will continue to improve our capital planning, project packaging, project execution and delivery, plant operability and maintenance planning.

The average age and value of the assets OCSD owns is increasing steadily over time, the latent asset replacement obligation is rising, and as a consequence, OCSD needs to plan for decreased capital projects for expansion and increased renewal expenditures in the future relative to past expenditure levels. Additional focus will need to be given to ensure that appropriate operation and maintenance strategies are being applied that consider the different ages of assets being maintained.

FISCAL YEARS 2020-21 AND 2021-22 BUDGET



INFRASTRUCTURE ASSET MANAGEMENT

Asset Valuation

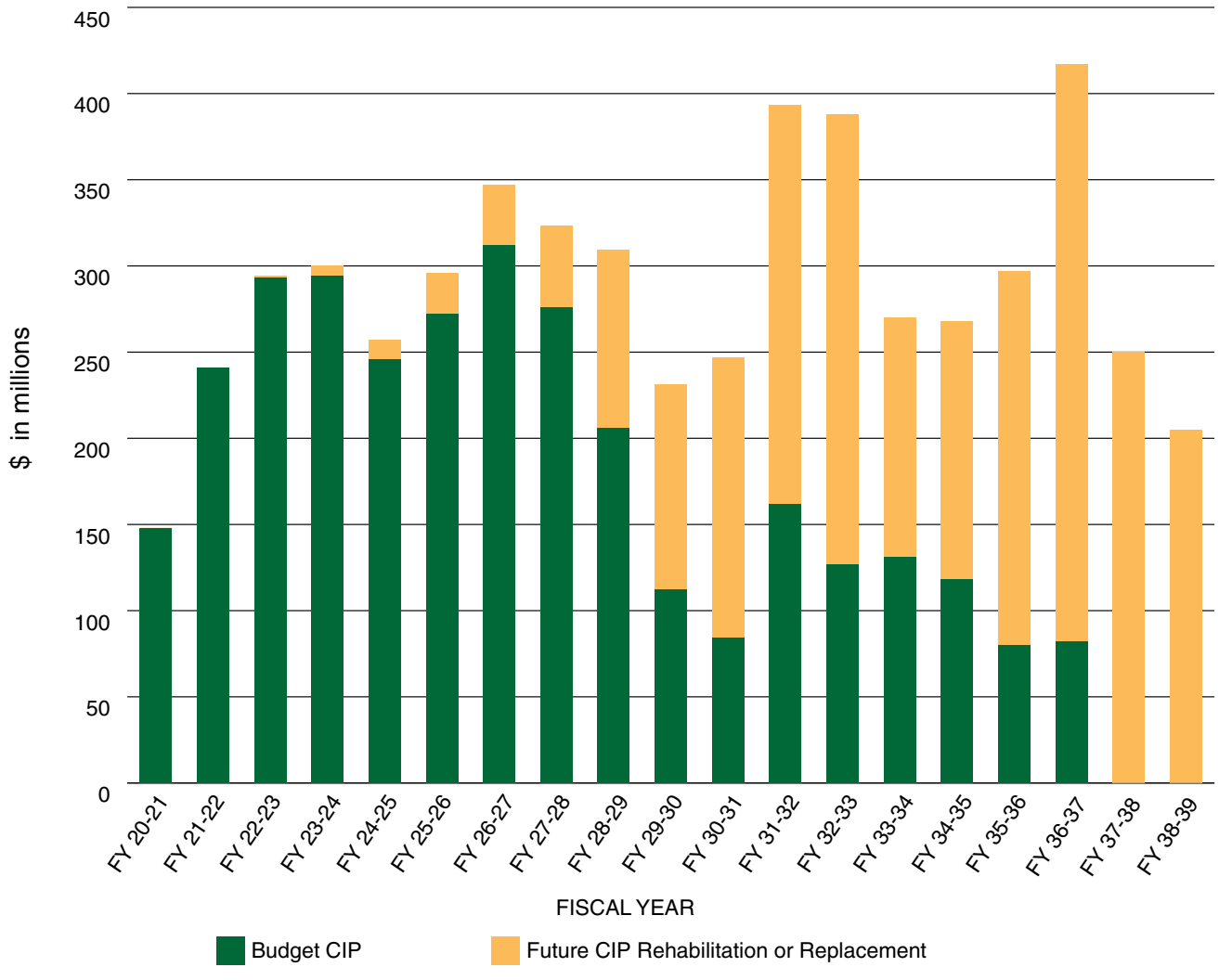
The replacement valuation for all of OCSD's assets has been updated in 2018 as part of the 2017 Facilities Master Plan project. The table below presents the current replacement and depreciated values of OCSD's assets. The replacement value represents the cost in 2018 dollars to completely rebuild all the assets to a new condition. The depreciated value is the book value of the assets based on their age, which is a prediction of their current condition.

Planned CIP Outlays

Valuation	Plants	Collection	Total
Replacement Value (in billions)	$7.18	$3.56	$10.74
Depreciated Value (in billions)	$2.88	$0.76	$3.64

The chart below shows the 20-year net CIP outlay which includes current and projected future Capital Improvement Program projects.

20 Year CIP Outlay



FISCAL YEARS 2020-21 AND 2021-22 BUDGET

OCSD manages and assesses the collection system and treatment plants' assets to improve resilience and reliability while lowering lifecycle costs. This is accomplished through adaptive operation, coordination of maintenance and condition assessment, and planned capital investment. Staff will balance maintenance, refurbishment, and replacement strategies to maximize useful life, system availability and efficiency.

Below is a summary of the FY 2019-20 infrastructure maintenance activities and FY 2020-21 planned activities.

Collection System:

OCSD's collection system consists of 388 miles of sewers, 15 pump stations, and three metering stations. The maintenance of all regional sewers is actively managed but only 230 miles of regional sewers are on a cleaning schedule. The largest sewers and force mains are design to be self-cleaning using higher flows and natural scouring action. Typical gravity sewer maintenance activities consist of: closed circuit television (CCTV) inspection, physical inspection, and cleaning operations. The cleaning frequencies are based on data from pipe inspections, CCTV work, process conditions, historical records, and industry best practices. Pump station and metering station maintenance activities include operating the stations, maintaining electrical, mechanical and civil components, and cleaning activities. The collection system odors and corrosive gases are actively managed for nuisance odor mitigation and asset preservation.

Maintenance activities are based on established levels of service to ensure compliance with our permit required Sewer System Management Plan, which is designed to reduce spills, and increase reliability and safety. The planned activities help extend the useful life of the assets and minimize nuisance odors.

During FY 2019-20 the following maintenance activities are projected to be completed:

- Cleaned 30 miles of regional sewer lines on a cleaning schedule.
- CCTV video inspection of 350 regional system manholes.
- CCTV video inspection of 50 miles of regional sewer pipeline.
- Completed 88 percent of scheduled pump station preventative maintenance work.
- Cleaned 90 percent of hot spot and scheduled inverted siphon work.
- Managed odor control chemical expenses to 75 percent of budget.
- Continued an electrical safety initiative to reduce potential arc flash by validating protective relay settings, replacing obsolete circuit breakers, and installing arc flash rating labels.
- In addition, OCSD has improved its emergency preparedness by procuring and preplacing bypass piping and fittings for three pump stations. This will allow for more swift response at these locations in the event of a catastrophic failure or other emergency.

Total costs for the collections system maintenance is greater than $9 million.

The following activities and goals are planned for FY 2020-21:

- Clean 49 miles of regional sewer lines on a cleaning schedule.
- CCTV video inspection of 750 regional system manholes.
- CCTV video inspection of 73 miles of regional sewer pipeline.
- Complete at least 85% of scheduled preventative maintenance work.
- Manage odor control chemical expenditures to between 95-102 percent of budget.
- Continue to implement emergency preparedness bypass pumping plan for six pump stations.

The total cost for these proposed collections system activities is greater than $11.5 million.

Collection System Capital Improvement Projects:

OCSD's collections projects go through a planning and design process to ensure all elements of the project are thoroughly assessed. These projects typically renew or replace aging pipelines and pump stations, address odor issues, upgrade facilities to meet current codes, and standards, and in some instances, increase flow capacity due to growth in localized portion of our service area.

Currently in construction is the Newhope-Placentia Trunk Replacement (Project No. 2-72) taking place in the cities of Fullerton and Anaheim. Seven miles of sewer along State College Boulevard, from Yorba Linda Boulevard to Orangewood Avenue, will be upsized to allow abandonment of the Yorba Linda Pump Station which has reached the end of its useful life. The pump station diverts reclaimable wastewater to the Santa Ana River Interceptor instead of the Newhope-Placentia line due to inefficient capacity, preventing flows to be reclaimed at the Orange County Water District's Groundwater Replenishment System (GWRS). The completion of the project will allow OCSD to recycle an additional 8 million gallons of wastewater by routing flows to Plant No. 1 to be reclaimed for GWRS. The project will also include modifications to existing diversion structures and add flexibility to divert other reclaimable flow. This project also provides adequate capacity for future development, minimizing the risk of sewer spills in the future. Construction of the first phase of the project was completed in fall 2017. The second phase of the project commenced construction in summer 2018 and scheduled for completion in Summer 2021. The project has a budget of $112 million.

The Rehabilitation of the Western Regional Sewers (Project No. 3-64) covers approximately 15 miles of sewers in the northwestern service area in the cities of Anaheim, Buena Park, Cypress, La Palma, Los Alamitos, Seal Beach and unincorporated areas of the County of Orange referred to as Rossmoor. This large project is required to rehabilitate or replace portions of the sewers and manholes that were installed in the late 1950s and early 1960s. The sewers have multiple deficiencies which have allowed the intrusion of ground water. In some cases, hard calcium deposits have developed, making the pipe difficult to clean, and may, over time, impede the wastewater flow. Portions of the pipeline and over 150 manholes will be rehabilitated or replaced. The project will be completed under three construction contracts. This project is currently in the design phase with the first phase of construction anticipated for 2020. The project budget is $70 million. This is a decrease of from the previous budget of $202 million as a result of changes in the project elements.

The Westminster Blvd. Force Mains Replacement (Project No. 3-62) will replace two existing force mains that run three miles along Westminster Blvd. from Seal Beach Boulevard in the City of Seal Beach to Rancho Road in the City of Westminster. The project commenced construction in spring 2020. The budget for this project is $44 million.

The Seal Beach Pump Station is the starting point of the Westminster Blvd. Force Mains. The Seal Beach Pump Station Replacement (Project No. 3-67) will replace the existing pump station on the existing site and demolish the old pump station when the new one is complete. Not only are the electrical and safety codes significantly different from when the station was first construction in the early 1970s, but many of the electrical, mechanical, and control system components are becoming obsolete, and long-term maintenance is no longer an option. The project will also include odor control improvements at the pump station to minimize both upstream and downstream odors and corrosion. The pump station will connect to the newly constructed Westminster Blvd. Force Mains. The project is currently in the preliminary design phase with construction anticipated to begin in 2023. The budget for this project is $79 million.

In Newport Beach, the Bay Bridge Pump Station Replacement (Project No. 5-67) will replace the existing pump station to meet current building, electrical, and safety codes, and to meet projected capacity needs. The existing force mains will also be replaced and upsized, and will extend from the new pump station location, across the Back-Bay channel, to connect with the existing pipes near the Dover Avenue and Pacific Coast Highway intersection. The project is currently in the preliminary design phase with construction of both the force mains and pump station anticipated to begin in 2023. The budget for this project is $74 million.

Reclamation Plant No. 1 and Treatment Plant No. 2 Maintenance:

The maintenance organization continues to implement industry best practices for safety, effectiveness and reliability. During FY 2019-20, several major initiatives were completed to improve resilience, reliability and lower lifecycle costs. The first initiative was the formation of a heavy equipment maintenance team to conduct in-house maintenance of Central Generation and gas compression assets. The second initiative was creation of an on-call electrical preventive maintenance services contract allowing electrical staff to focus on predictive maintenance work. The third initiative was formation of a preventive/predictive maintenance optimization team to ensure all new projects are fully ready to be maintained when placed in service. It is critical to provide maintenance immediately when projects with complex equipment worth tens of millions of dollars are commissioned for service,

as well as to maintain the equipment data in our computer-based maintenance management system over their lifetime.

Throughout both plants, more than 12,200 preventative maintenance activities were performed. In addition, the following significant maintenance and repair activities are projected to be completed in FY 2019-20:

- Installed a new close-coupled pump motor for the Steve Anderson Lift Station (SALS).
- Rehabilitated two of three Circular Primary Clarifiers at Plant No. 1.
- Met NFPA 110 requirements for load testing emergency standby and mobile generators.
- Continued an electrical safety initiative to reduce potential arc flash by validating protective relay settings, replacing obsolete circuit breakers, and installing arc flash rating labels at both Plants.
- Began condition assessment of low and medium voltage cables to ensure reliability of the electrical distribution feed at both Plants.
- Completed major service on one aeration blower at the Plant No. 1 Activated Sludge secondary treatment process.
- Completed overhaul of 24 primary sedimentation basin collector mechanisms at Plant No 1.
- Completed overhaul of one gas compressor at Plant No. 1.
- Cleaned three digesters and replaced their mixing valves at Plant No. 2.
- Began the rehabilitation of the steam turbine and condenser in the Central Generation Facility at Plant No. 2.
- Refurbished an auxiliary boiler at Plant No. 2.
- Completed major upgrades to Effluent Pump Station Annex Motor driver electronics at Plant No. 2.
- Refurbished a main sewage pump and motor at Plant No. 2 Headworks.

Total costs for the treatment plant maintenance is greater than $23 million.

Looking forward to FY 2020-21, there are more than 12,400 preventative/predictive maintenance activities scheduled to be completed at Plant Nos.1 and 2. This includes typical time or cycle based maintenance tasks such as adjustments and mechanical alignments, cleaning and tightening of electrical equipment,

INFRASTRUCTURE ASSET MANAGEMENT

calibration of sensors and meters, changing of lubricants and filters, exercising equipment, rebuilds and regulatory testing. In addition, staff will be utilizing predictive technologies such as vibration analysis to measure imbalance in rotating equipment, thermography to measure excessive heat, oil analysis to predict failure of lubricants, and ultrasonic leak detection to prevent deterioration and short-circuiting in electrical equipment. These predictive technologies will not only improve how maintenance is done but will also provide decision making information to support OCSD's CIP.

In addition to normal maintenance activities, OCSD is planning the following major activities for FY 2020-21:

- Major maintenance service of 16 remaining primary sedimentation basins for increased reliability at Plant No. 1.
- Major overhaul of one gas compressor at each Plant.
- Overhaul of three thickening and dewatering Centrifuges at Plant No. 1.
- Clean four digesters at Plant No. 1 and three at Plant No. 2.
- Overhaul three Main Service Pump motors at the Plant No. 2 Headworks.
- Complete an assessment and repair of failed low voltage cables at the Plant No. 2 Headworks.
- Overhaul five secondary clarifiers at Plant No. 2.
- Replace secondary clarifier inlet gates at Plant No. 2.
- Overhaul three dewatering Centrifuges at Plant No. 2.
- Replacement of the truck loading augers, valves and sliding frame systems at Plant No. 2.

The total cost for these proposed plant maintenance activities is greater than $24 million.

Reclamation Plant No. 1 Capital Improvement Projects:

These projects are intended to rehabilitate or reconstruct major components of our treatment process to ensure compliance with regulatory permits, enhance water recycling and safety.

One of the largest projects is the Headwork Rehabilitation at Plant No. 1 (Project No. P1-105). The facility is over 30 years old, and a comprehensive refurbishment is required in order to extend the life of the facility. The project will rehabilitate systems including the metering and diversion structure, the bar screen building, the bin loading building, the main sewage pump station, the grit basins, the primary influent channels, the headworks odor control scrubbers, and electrical power distribution and control systems. This project will also replace the emergency pumping capacity that has been provided by the original headworks pumping system dating back to the 1950s. Construction is anticipated to begin in 2021. The total budgeted cost for this project is $406 million.

To ensure Plant No. 1 has allocated space for future treatment processes, the Headworks Complex (Project No. P1-128) will build new support facilities across from Plant No. 1 on the north side of Ellis Avenue. Currently, administrative and engineering functions are located primarily at Plant No. 1, and the buildings that house the staff are aging and need replacement. The new Headquarters will be a three-story building for administrative, engineering, resource protection and environmental compliance staff. The project includes the demolition of the Risk Management trailer and five buildings at the site of the new Headquarters. Construction is anticipated to begin in 2021. The total budgeted cost for this project is $167.5 million.

Treatment Plant No. 2 Capital Improvement Projects:

These projects are intended to rehabilitate or reconstruct major components of our treatment process to ensure compliance with regulatory permits, enhance water recycling and safety.

The Primary Treatment Rehabilitation Project (Project No. P2-98) will replace or rehabilitate the 14 primary clarifiers at Plant No. 2 with associated influent pipes, construct new primary effluent pipes, and rehabilitate and upgrade the odor control systems. These facilities date back to the late 1950s and need seismic and condition-based upgrades. The project will replace the four oldest primary clarifiers. The project has a second construction contract to provide interim repairs to the other ten clarifiers. The project as a whole will improve the resiliency of our infrastructure and thus improve our ability to provide service. This is anticipated to be a very long duration project because the need to maintain treatment operations during the project. Construction to replace the four primary clarifiers is anticipated to begin in 2021. The total project budget is $237 million.

The Headworks Modifications at Plant No. 2 (Project No. P2-122) will support the GWRS Final Expansion by separating non-reclaimable flows from those that

can be transferred to OCWD for reclamation. The project will include the installation of new gates, replacement of three existing influent pumps at the existing Headworks, and modification of waste side stream pumping and piping. Costs associated with this project will be reimbursed by OCWD.

As we make improvements throughout the plant, it is imperative we pay attention to our ocean outfall system. Many components of the system such as the pipeline assets have already been addressed, so now we turn our attention to the pumping systems with the Ocean Outfall System Rehabilitation (Project No. J-117). Work to the Ocean Outfall Booster Station includes rehabilitation of the mechanical, electrical, and civil systems which will extend the life of the facility and increase the efficiency of the system. In addition, a new Low Flow Pump Station will be added due to our increased water recycling rates, which will reduce our outfall flows below the minimum capacity of the existing effluent pumps. This project will also relocate the existing Plant Water Pump Station to prevent water that is not reclaimable by the GWRS from flowing into the reclaimable portion of the treatment plant. The project will also replace existing electrical switchgear at the Central Generation Building. Rehabilitation of the 84-inch and 120-inch interplant effluent lines between Plant No. 1 and Plant No. 2 completed in 2018. The budget for this project is $166 million. Costs associated with the Plant Water Pump Station will be reimbursed by the OCWD.

Planning Studies:

As part of the long-term CIP planning efforts, several studies are currently underway evaluating various areas of the plants and the collection system to determine their condition, and identify deficiencies or improvements needed. These studies include the Ocean Outfall Condition Assessment and Scoping Study, ETAP Model (electrical simulation software tool) Updates for Plant Nos. 1 and 2, Digester 6 Pipe Stress Analysis at Plant No. 1, Circular Primary Clarifier Replacement Phasing Study at Plant No. 1, The Facilities Master Plan Program Environmental Impact Report, and the Laboratory Rehabilitation Feasibility Study. The results of these studies will help support, define and refine future CIP projects to improve our facilities and systems.

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

CAPITAL IMPROVEMENT PROGRAM

CIP Budget Request Summary

Each year, the Board of Directors, through their committee process, reviews and approves the Capital Improvement Program (CIP) prepared by staff for both sewage collection system projects (collections) and the joint works treatment and disposal system projects.

CIP projects take several years to complete the planning, design, and construction cycle. The proposed budget for each project covers the life of the project. This budget is reevaluated each year for the purpose of managing annual cash flows. Thus, many of the projects in the CIP Budget for FY 2020-21 and 2021-22 are continuing projects that were approved in prior years.

In December 2017, the 20 17 Facilities Master Plan was adopted by the Board of Directors. The Master Plan identified a phased 20-year program of capital improvement projects that will allow the District to maintain reliability and accommodate future growth, as well as meet future regulatory requirements, level of service goals, and strategic initiatives.

With this phased 20-year program as a starting point, the Asset Management Program within the Planning Division continues assessing the condition of the District's existing assets and systems to ensure these assets and systems can provide the necessary level of service. The Planning Division continues reviewing and updating the ongoing and future CIP to appropriately manage the risks associated with asset or system failure. Projects can be delayed, consolidated or rescoped to help ensure that the CIP is delivered in the most efficient way possible. The Asset Management Program will continue these efforts and will continue to define the future CIP project requirements not currently included on the CIP list but are anticipated within the long-term financial plan to ensure effective and efficient operations.

This year, eight new projects are proposed for addition to the 2020-21 budget. These are:

- Project No. 7-68: MacArthur Pump Station Force Main Improvements
- Project No. J-135: Central Generation Engine Overhauls at Plant No. 1 and 2
- Project No. 11-33: Edinger Pump Station Replacement
- Project No. J-120: Process Control Systems Upgrades
- Project No. P1-137: Support Buildings Seismic Improvements at Plant No. 1
- Project No. P2-135: Sodium Bisulfite Station Rehabilitation at Plant No. 2
- Project No. P2-137: Digesters Rehabilitation at Plant No. 2
- Project No. P1-126: Primary Sedimentation Basins No. 3-5 Replacement at Plant No. 1

District staff has also validated all active and future CIP projects to ensure the project scopes of work, schedule and cost estimates are up to date. Through the budget validation process, each project's schedule, staff resources, total project cost, cash flow and risks are assessed to confirm the budgetary requirements. The validated CIP includes 70 active and future capital projects, five programs, such as the Planning Studies Program (M-Studies) and Small Construction Program (M-FE), and budget for capital equipment purchases with a total CIP budget authority of $4.18 billion. The total CIP budget authority has increased by $153 million as compared to FY 2019-20 approved budget of $4.03 billion. The changes are summarized below:

FY2019-20 Approved Total CIP Budget Authority	$4.03 B
Project Net Changes:	
Midyear Approvals	$1.3 M
New	$392.0 M
Budget Increases	$265.0 M
Budget Decreases	($247.0 M)
Cancellation/Closures	($257.0 M)
Capital Equipment Purch.	($0.7 M)
Total:	$153.0 M
FY2020-21 Proposed Total CIP Budget Authority	$4.1 B

Following is a table of the FY 2020-21 proposed CIP budget:

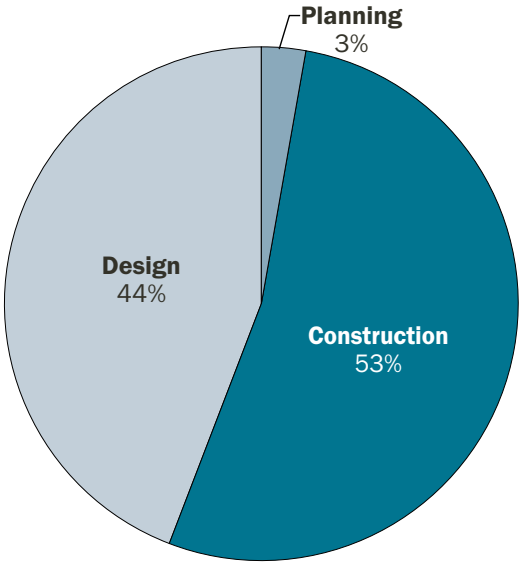
Description	FY 2020-21 CIP Budget
Capital Improvement Program (CIP)	$164.8 M
Less: Savings and Deferrals	($17.3 M)
Net CIP Outlay	$147.6 M

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

The proposed FY 2020-21 net CIP outlays can be categorized by the location of the projects in terms of wastewater treatment process, or by the reasons why the projects are needed, i.e. project drivers. charts showing the distribution of the funds by CIP driver and location are shown on the following page.

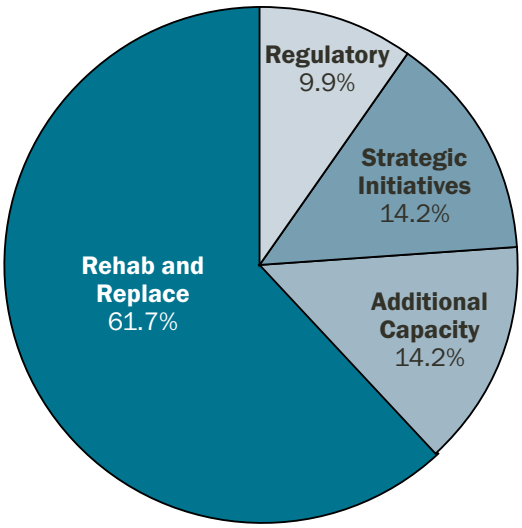
The proposed net CIP outlays can also be categorized by project phase or status. The following chart shows the net CIP outlays of projects in the Planning, Design and Construction phases for FY 2020-21.

Projected FY20-21 Net CIP Outlay by Project Status

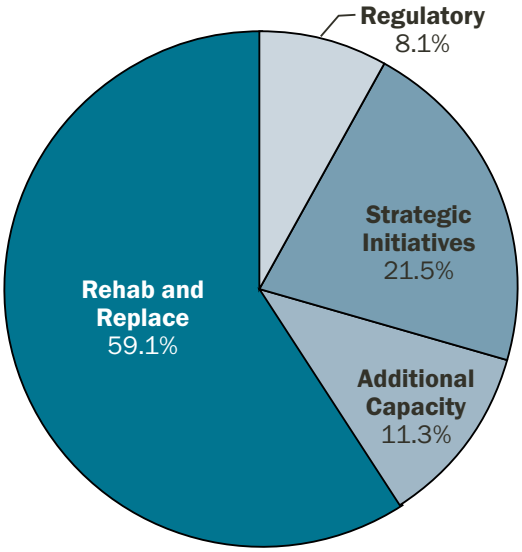


CAPITAL IMPROVEMENT PROGRAM

Fiscal Year 2020-21 Capital Improvement Authority by CIP Driver Total = $164.8 Million



Fiscal Year 21-22 Capital Improvement Authority by CIP Driver Total = $261.9 Million



Projects that are in the Planning phase make up about 3 percent of the FY 2020-21 net CIP outlay. Projects in the Planning phase are planning or research studies that are primarily managed under the Planning Studies Program, or M-Studies.

44 percent of the FY 2020-21 net CIP outlay will be for projects that are in the Design phase. The three largest projects in the Design phase are Headquarters Complex Plant No. 1 (Project No. P1-128), Headworks Rehabilitation at Plant No. 1 (Project No. P1-105), and Primary Treatment Rehabilitation at Plant No. 2 (Project No. P2-98) with projected expenditures of $5.9 million and $8.9 million, $8.1M respectively in FY 2020-21. Note these Projects are heading into construction towards the latter half of FY 2020-21 and portions of these expenditures include this.

53 percent of the FY 2020-21 net CIP outlay will be spent in construction. The four most significant construction projects are the Ocean Outfall System Rehabilitation (Project No. J-117), Westminster Blvd. Force Main Replacement (Project No. 3-62), Return Activated Sludge Piping Replacement at Plant No. 2 (Project No. P2-123), and Newhope-Placentia Trunk Replacement (Project No. 2-72) with projected FY 2020-21 expenditures of $26.1 million, $11.6 million, $6.1 million, and $18.4 million, respectively.

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

DEBT FINANCING PROGRAM

Debt Financing

Due to the potential magnitude of the capital improvement program, it may be necessary that OCSD utilize debt financing to meet its total obligations. Debt financing allows OCSD to meet projected construction schedules while achieving the lowest possible user fees, as well as long-term stability in future sewer service fee rates.

Certificates of Participation (COP)

The primary debt financing mechanism used is Certificates of Participation (COP). COPs are repayment obligations based on a lease or installment sale agreement. The COP structure was selected over other structures because COPs are not viewed as debt by the State of California, as the purchaser does not actually receive a "bond," but rather a share in an installment sale arrangement where OCSD serves as the purchaser. COPs can be issued with fixed or variable interest rates.

As of July 1, 2020, the total outstanding COP indebtedness will be $940.1 million.

Build America Bonds Financings

OCSD issued the $80.0 million Wastewater Revenue Obligations, Series 2010A in May 2010 and the $157.0 million Wastewater Revenue Obligations, Series 2010C in November 2010 as "Build America Bonds" (BABs) fixed rate debt.

The American Recovery and Reinvestment Act of 2009 created a new financing product, BABs, for the municipal issuer. BABs are issued as higher interest taxable bonds; however, the U.S. Treasury provides a 35 percent subsidy on interest payments. The net cost, after accounting for the 35 percent subsidy payment, frequently results in lower net costs to the issuer, specifically in the maturity years beyond ten years.

On March 1, 2013, the federal government implemented certain automatic spending cuts known as the sequester. As a result of the sequester, federal subsidy payments on BABs have been reduced annually from a high of 8.7 percent for the federal fiscal year ended September 30, 2013 to a low of 5.9 percent for the federal fiscal year ended September 30, 2020.

Dedicated Funding Source

In 1992 and 2004 the Board of Directors formalized the dedication of certain funding sources. To assure the continuation of favorable credit ratings, revenues were dedicated to debt service in the following order:

1. Ad valorem property taxes
2. Sanitary sewer service charges
3. Other revenues

This apportionment of the ad valorem tax was consistent with and pursuant to the Revenue Program adopted in April 1979 to comply with regulations of the Environmental Protection Agency and the State Water Resources Control Board and in accordance with COP documents and Board policy.

OCSD Maintains AAA Bond Rating

OCSD's bond rating is "AAA" from both Fitch Ratings and Moody's. An "AAA" Rating is the highest for a government agency. In order to maintain this rating, OCSD adheres to its debt policy and coverage ratio requirements. This Board-adopted policy serves as the agency's guide in the management of existing debt and in the issuance of future debt.

Debt Ratios

OCSD has contractual covenants within the existing COP agreements which require minimum coverage ratios of 1.25. The minimum coverage ratio is the ratio of net annual revenues available for debt service requirements to total annual debt service requirements for all senior lien COP debt. The coverage ratio for senior lien COP debt is being proposed to remain above 4.00 for fiscal years 2020-21 and 2021-22.

Future Financings

No new money debt issuances are being proposed over the next two fiscal years as the $2.7 billion in future replacement, rehabilitation, and refurbishment projects anticipated over the next ten years will be adequately funded through current sewer service fee charges and existing reserves.

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

OPERATING EXPENSES

Summary of Operating and Maintenance Expenses (in millions)

Category	2018-19 Actual	2019-20 Projected	2020-21 Proposed	2021-22 Proposed
Salaries and Benefits	$102.9	$95.8	$102.1	$107.3
Contractual Services	20.5	21.2	19.2	19.4
Repairs and Maintenance	18.8	24.3	28.4	24.2
Operating Materials & Supplies	16.9	20.0	21.5	21.3
Utilities	7.8	8.5	8.4	8.4
Professional Services	4.6	4.4	5.7	5.8
Other Materials, Supplies, Services	3.5	3.2	4.7	4.7
Self-Insurance Requirements	2.0	2.3	2.4	2.5
Administrative Expenses	1.4	1.9	2.0	1.9
Training and Meetings	0.7	0.8	1.1	1.0
Research and Monitoring	0.9	1.1	1.3	1.4
Printing and Publications	0.3	0.3	0.4	0.4
Cost Allocation	(19.7)	(20.1)	(20.8)	(21.7)
Total Operating Expenses	$160.7	$163.7	$176.3	$176.5

Salaries, Wages, and Benefits – $102.1M

Salaries and Wages – The proposed budget for Full Time Equivalent (FTE) positions for FY 2020-21 reflects a decrease of one FTE (0.2 percent) from the FY 2019-20 approved staffing level of 640.0 FTEs to 639.0 FTEs. Provision has been made in these salary projections to comply with the terms of the most recently adopted Memorandum's of Understanding.

Retirement – OCSD employees are members of the Orange County Employees' Retirement System (OCERS). Information from OCERS indicates that the employer's required contribution rates will be increased in FY 2020-21 from 13.3 percent to 14.1 percent. In addition, OCSD pays 3.5 percent of the employee required contribution.

Group Insurance – These expenses include OCSD's share (approximately $15,200 per employee) of employee medical plan benefits for the indemnity plan, prepaid HMO plans, dental insurance plan, and life and disability insurance premiums. The proposed budget includes a seven percent increase for medical plans starting January 2020.

Contractual Services – $19.2M

The treatment plants currently produce about 800 wet tons per day of biosolids which are recycled in California and Arizona. About half of the biosolids are currently allocated to create compost and the other half is used on farms to grow feed and seed crops. The FY 2020-21 biosolids budget is $12.4 million, approximately 65 percent of the Contractual Services budget. Other residuals solids and waste includes disposal costs for grit and screening waste, digester cleaning waste, and hazardous materials.

This category also includes appropriations for grounds keeping, janitorial, security, toxic waste removal, outside laboratory, trash pickup, plant site sweeping, closed circuit television pipeline inspections, line cleaning, and temporary services.

Repairs and Maintenance – $28.4M

This item, which is for parts and services for repair of plant and collection facilities and annual service contracts, is expected to increase $4.1 million, or 17.0 percent above the FY 2019-20 projected costs of $24.3 million.

Planned repairs that contribute to the increase include: Bushard diversion structure repair $1.1M; Plant No. 1 secondary clarifier collector $2.0M; and Plant No. 1 collections variable frequency drives $1.3M.

Operating Materials and Supplies – $21.5M

Chemical Coagulants – Anionic polymer is added to the influent wastewater along with ferric chloride to improve solids removal efficiencies in the primary clarifiers. Ferric chloride is also added to the digesters for solids odor control. Cationic polymer is added to digested sludge prior to dewatering to aid in coagulation, improving the sludge and water separation process. Cationic polymer is also added to the waste activated sludge dissolved air flotation thickeners (DAFTs) to improve solids coagulation.

The costs for this group of chemicals are expected to slightly increase by $1,600 or 0.0 percent above the FY 2019-20 projected costs of $10.5 million.

Odor Control Chemicals – OCSD uses hydrogen peroxide, sodium hydroxide (caustic soda), sodium hypochlorite (bleach) and muriatic acid as the primary odor control chemicals in the treatment plants. Ferrous chloride, magnesium hydroxide, calcium nitrate, and caustic soda are the primary odor control chemicals used in the collection system.

The FY 2020-21 budget for these chemicals is $6.9million, 11.5 percent higher than the FY 2019-20 projected costs of $6.2 million.

Utilities – $8.4M

During FY 2020-21, the overall cost for utilities, a significant component of the operating budget, is anticipated to decrease by $119,000, or 1.4 percent.

Natural Gas – Natural gas is purchased from two providers for different purposes. Purchases from a gas marketer are used to supplement the digester gas that is used to run the CenGen facilities. The FY 2020-21 natural gas budget is $710,000, 0.1 percent higher than the projected FY 2019-20 costs.

Electricity – Electricity is the largest utility cost incurred by OCSD. Purchased electricity is used in running the plant processes as a supplement to power produced in the central generation facilities.

The FY 2020-21 proposed budget is $6.1 million, 2.6 percent lower than the FY 2019-20 projected.

Water – Water is used throughout the treatment plants. Potable (drinking) water is supplied by the Cities of Fountain Valley and Huntington Beach; reclaimed water is supplied by the GAP; and plant water is disinfected secondary effluent.

- GAP water is secondary treated effluent from OCSD that is further treated by the Orange County Water District. GAP water is significantly less expensive than potable water and is used in the process wherever possible. The major uses of GAP water include cooling water, solids handling, and landscaping. By agreement, OCSD receives up to 1,120 acre feet per year of GAP water at no charge, $10,000 is proposed for GAP water in FY 2020-21 budget.
- Potable Water – The potable water budget includes water supplied by the City of Fountain Valley for Plant No. 1 and the City of Huntington Beach for Plant No. 2. Approximately 5 percent of the potable water at Plant No. 1 is used for domestic uses and less than 1 percent is used for irrigation. The majority of the irrigation at both plants uses reclaimed water. Less than 1 percent of the potable water used at Plant No. 2 is for domestic uses due to the relatively small number of employees at Plant No. 2. The proposed total potable water cost for FY 2020-21 is $995,000, a 1.0 percent increase from the projected FY 2019-20 costs.

Professional Services – $5.7M

Professional Services includes General Counsel, special labor counsel, audit and miscellaneous accounting services, legislative advocacy, engineering, and other technical consulting services.

Other Operating Material, Supplies, Services – $4.7M

This category of costs includes the in-lieu insurance premium used to maintain the level of accumulated reserves for the property and general liability self-insurance programs. This in-lieu cost for FY 2020-21 is proposed at $1.8 million.

Expenses not chargeable to other categories, such as freight and miscellaneous items, and annual regulatory fees assessed by the South Coast Air Quality Management District, are recorded with this category.

Insurance – $2.4M

OCSD's outside excess general liability insurance coverage is $40 million per occurrence with self-insurance retention of $500,000.

OCSD's property insurance coverage is $1 billion for perils of fire and $300 million for perils of flood, subject to a self-insurance retention of $250,000. OCSD is partially self-insured for earthquake,

but does carry $25 million in coverage on 15 key structures with a $5 million deductible. OCSD also has a $50 million sublimit for builder's risk under the property insurance program to ensure upcoming construction projects are adequately covered.

An appropriation of $1.5 million for in-lieu premium contribution charged to operations is recommended for the Property and General Liability Program. This will serve to maintain the reserves balance.

Administrative Expenses – $2.0M

These accounts include supplies, postage, technical journals and publications, forms, small office equipment, and small computer items that cost less than $10,000 per item and exclude items that are capitalized.

Training and Meetings – $1.1M

Board member and staff travel has been significantly reduced in recent years. This category also includes meetings of professional societies; ongoing technical training and materials for staff; training for computerized plant monitoring and control systems, MAXIMO (a computerized maintenance management system), Enterprise Resource Planning (ERP), and other "high tech" equipment, processes and systems; and training to allow for an adaptive and flexible work force. While OCSD continues to place an emphasis on effective safety training, as well as technical, leadership and management training, the training budget is at approximately 1.1 percent of budgeted regular salaries due to savings achieved in part through the use of online courses.

Research and Monitoring – $1.3M

Research and monitoring expenditures consist of contract services to carry out the extensive ocean monitoring program required by the EPA under provisions of OCSD's NPDES permit; air quality monitoring costs; OCSD's contribution to the Southern California Coastal Water Research Project (SCCWRP) being conducted under a joint powers agreement with other Southern California municipal dischargers; and also provide for increased operational and ocean research and evaluation to develop optimum operating parameters in treatment plants.

Printing and Publication – $0.4M

The budget provides for in-house and outside reproduction costs and reflects an expanded management information system and administrative requirements, as well as a continuing demand by the public and regulatory agencies for information. The continuing effort of the Public Affairs Office to improve public education programs about OCSD's activities is also reflected in the budget for this line item. This group of accounts also includes costs for photo processing, advertisements, and notices.

Cost Allocation – ($20.8M)

This represents direct labor and benefit charge outs and materials, supplies and services cost allocation to the capital projects where the related work was performed.

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

DEPARTMENTS SUMMARY

Expenses by Department (in millions)

Department	Budget 2019-20	Proposed 2020-21	Percent Change	Proposed 2021-22	Percent Change
Administration Units:					
General Manager's Office	$4.9	$4.3	(12.2%)	$4.4	2.3%
Human Resources	9.4	6.6	(29.8%)	7.0	6.1%
Administrative Services	19.7	27.3	38.6%	28.1	2.9%
Sub-Total	*$34.0*	*$38.2*	*12.4%*	*$39.5*	*3.4%*
Operating Units:					
Environmental Services	17.8	19.3	8.4%	20.3	5.2%
Engineering	6.7	5.6	(16.4%)	5.6	0.0%
Operations & Maintenance	109.7	110.8	1.0%	108.7	(1.9%)
Sub-Total	*$134.2*	*$135.7*	*1.1%*	*$134.6*	*(0.8%)*
Total	$168.2	$173.9	3.4%	$174.1	0.1%

Staffing by Department (FTEs)

Department	Authorized 2019-20	Proposed 2020-21	Percent Change	Proposed 2021-22	Percent Change
Administration Units					
General Manager's Office	15.00	18.00	20.0%	18.00	0.0%
Human Resources	27.00	26.00	(3.7%)	26.00	0.0%
Administrative Services	101.00	101.00	0.0%	101.00	0.0%
Sub-Total	*143.00*	*145.00*	*1.4%*	*145.00*	*0.0%*
Operating Units					
Environmental Services	92.00	93.00	1.1%	93.00	0.0%
Engineering	121.00	117.00	(3.3%)	117.00	0.0%
Operations & Maintenance	284.00	284.00	0.0%	284.00	0.0%
Sub-Total	*497.00*	*494.00*	*(0.6%)*	*494.00*	*0.0%*
Total FTEs	640.00	639.00	(0.2%)	639.00	0.0%

**FTE totals exclude Management Discretion positions that are authorized but used only on a temporary basis to facilitate the replacement of key positions. A total of three Management Discretion positions are included in the proposed budget for FY 2020-21; however, total filled positions will not exceed 639 FTEs at any point in time.*

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

ADMINISTRATION UNITS

General Manager's Office
Budget $4.3M – Staffing 18 FTEs

The General Manager's Office provides general oversight of all OCSD operations and incorporates functions in the areas of Public Affairs and Board Services. The budget reflects the transfer out of one position to another department.

Human Resources
Budget $6.6M – Staffing 26 FTEs

The Human Resources Department works with management and employees to ensure an effective and productive employment relationship. The department also provides risk management services to the organization to create a safe, healthy and secure environment for staff, contractors, and visitors.

Administrative Services
Budget $27.3M – Staffing 101 FTEs

The Administrative Services Department maintains financial oversight and administration of all OCSD funds and accounts and is responsible for contract administration and procurement, and oversees all OCSD computer, networking and customer support issues. The budget reflects the addition of one position to provide computer system support for OCSD's pretreatment program.

OPERATING UNITS

Environmental Services
Budget $19.3M – Staffing 93 FTEs

The Environmental Services Department manages all environmental monitoring, regulatory, compliance and reporting elements to ensure that OCSD meets the requirements of federal, state and local regulations for treated sewage discharge into the ocean, water recycling, air emissions, industrial waste, sewer system operations, land use controls and biosolids and stormwater management.

Engineering
Budget $5.6M – Staffing 117 FTEs

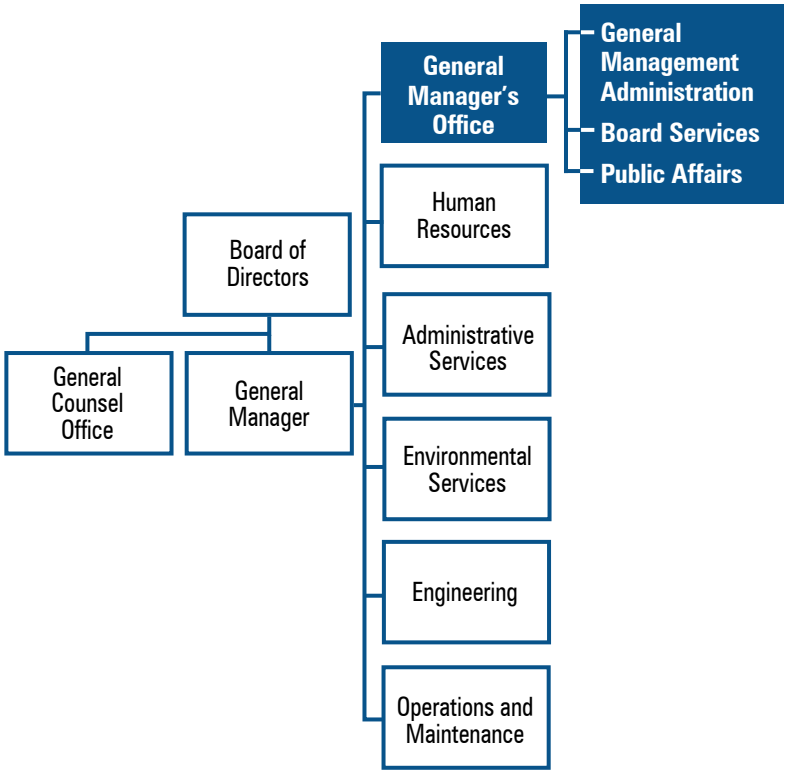
The Engineering Department is responsible for the planning and execution of the OCSD's capital improvement program and asset management program.

Operations and Maintenance
Budget $110.8M – Staffing 284 FTEs

The Operations and Maintenance Department is responsible for the operation and maintenance of the OCSD's two wastewater treatment plants as well as the sanitary sewer system pipeline and pumping facilities. The department also provides fleet management services for OCSD. The budget reflects the transfer in of one position from another department.

FTEs = Full-Time Equivalent Positions

GENERAL MANAGER'S OFFICE



Service Description

General Management Administration is responsible for working with the Board of Directors to establish standards, policies and procedures, and the overall goals and Strategic Plan of the agency. The General Manager reports directly to the Board of Directors and provides general oversight to all Sanitation District operations, interagency relations, legislative activities, communications, and the Strategic Plan. The General Manager oversees the Public Affairs and Board Services Divisions.

Board Services provides a high level of customer service through the Clerk of the Board's office. The Clerk of the Board's office supports the Board of Directors and the public by preparing and publishing agendas in accordance with legal requirements for meetings of the Board of Directors; recording the actions taken by the Board; publishing notices as required by law; receiving and processing requests for public records; acting as filing officer for Statement of Economic Interests filings; receiving and processing summons and complaints filed against the Sanitation District; and maintaining rosters of the Board of Directors and appointed committee assignments. Board Services is also responsible for the administrative management of the Administration Building receptionist, mailroom and conference room coordination.

Public Affairs provides services and implements programs to meet the communications needs of the Sanitation District's internal and external audiences. The division is responsible for OCSD's media relations, internal and external communications, community relations, public education and outreach, social media, website, special events, agency branding, collateral materials, graphic design, and crisis communications. The division's goal is to develop and manage a total communications program in accordance to OCSD's Core Values and OCSD's Strategic Plan.

Operating Expense

Category	2018-19 Actual	2019-20 Budget	2019-20 Projected	2020-21 Proposed	2021-22 Proposed
Personnel	$2,262,323	$2,314,240	$2,269,700	$2,670,000	$2,790,200
Supplies	434,327	480,640	460,980	579,710	536,470
Professional / Contractual Services	832,941	889,400	1,085,506	1,017,400	1,017,400
Research and Monitoring	-	-	-	-	-
Repairs and Maintenance	-	-	-	-	-
Utilities	104,536	110,000	106,900	-	-
Other	88,920	1,227,980	93,350	139,860	125,460
Cost Allocation	(123,881)	(116,520)	(125,160)	(117,360)	(117,360)
Total	$3,599,166	$4,905,740	$3,891,276	$4,289,610	$4,352,170

Budget Overview

The fiscal year 2020-21 budget for the General Manager's Office reflects a decrease of 12.6 percent over the current budget. The decrease is primarily due to decreases in costs for utilities and reallocation of the General Manager's contingency to Administrative Services department. These decreases were essentially offset by increases in personnel costs, training and meeting expenses, document archival consulting services, and other operating supplies.

Performance Objectives / Measures

- Ensure that the Board approved Strategic Plan is implemented.
- Provide services and implement programs that meet the communications needs of OCSD's internal audiences by producing a minimum of 70 internal communication pieces
- Maintain the Special District Leadership Foundation (SLDF) District Transparency Certificate of Excellence.
- Respond to 90 percent of public records requests within seven business days.
- Provide information to Board of Directors through the General Manager's monthly report and the new Board member orientation.
- Provide services and implement programs that meet communication needs of OCSD's external audience by reaching a minimum of 3,000 people.

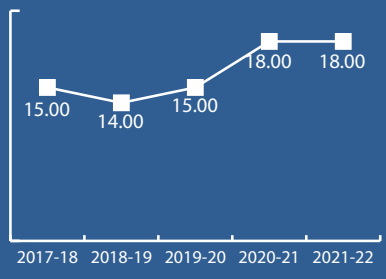
Authorized FTE Positions

Managers..... 4.00
Supervisors /Professionals 7.00
Administrative /Clerical..... 7.00

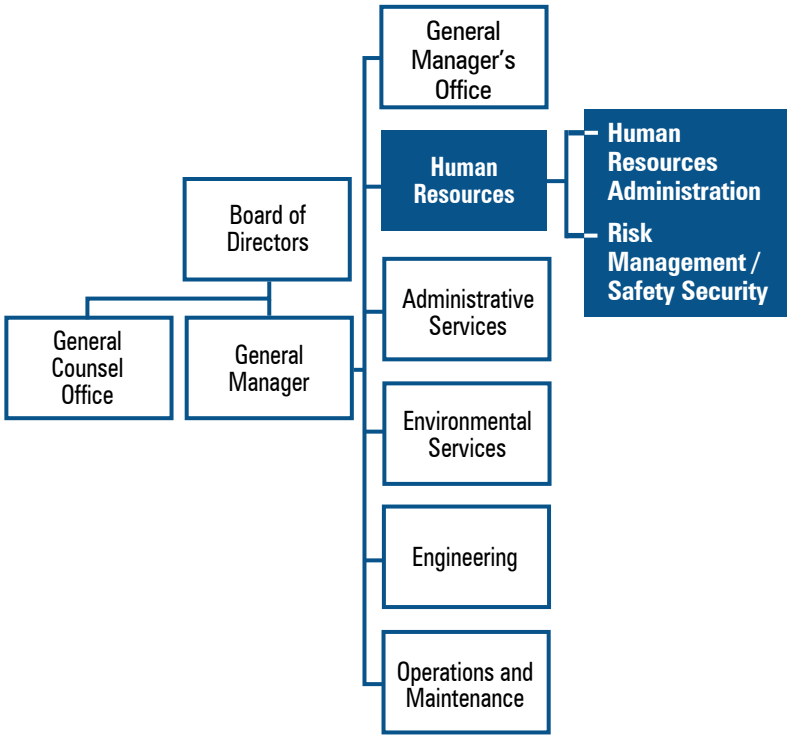
Total 18.00

**FTE totals exclude four Management Discretion positions which are authorized to be used only on a temporary basis to facilitate the replacement of key positions.*

Staffing Trends



HUMAN RESOURCES DEPARTMENT



Service Description

Human Resources is a full service department responsible for all aspects of Human Resources administration and risk management to ensure a safe, effective and productive workplace and employment relationship. The Human Resources Department is committed to a workplace grounded in fair and equitable employment decisions and practices. This department serves as the in-house advisor to the General Manager, executive staff, OCSD departments, and all staff. Delivering services with a high-level of customer satisfaction is a key objective.

Human Resources Administration oversees all human resources functions, including Benefits Administration, Classification and Compensation, Employee/Labor Relations, Employee Development/Performance Management, and Recruitment and Selection. Benefits Administration manages, maintains, and administers benefits for employees, including medical, dental, vision, and life insurance plans, Employee Assistance Program, retirement, voluntary benefits, and reasonable accommodations. Classification and Compensation is a vital function that establishes new classifications and salaries, while also reviewing existing classifications to determine appropriate placement within OCSD departments, including salary surveys and studies. Employee and Labor Relations offers professional assistance in various areas of the employee and labor relations field. Human Resources manages, interprets, and administers District policies and collective bargaining agreements while ensuring compliance with local, state, and federal regulations. Employee Development/Performance Management manages and coordinates District-wide legally mandated and development training programs; and manages employee performance through consulting management regarding performance appraisals and performance improvement plans. Through the Recruitment and Selection program, the District seeks to attract, hire, and retain the best qualified employees in a manner that is fair, equitable and merit-based.

Risk Management/Safety/Security protects the finances and human resources of the District. It identifies and manages potential risk to the organization and provides solutions for mitigating or reducing the risk; and manages the District's Workers' Compensation Program and provides a secure, safe and healthy work environment for OCSD staff, contractors, and visitors. The division also provides training to identify and control risk, and cost-effectively address safety, health and security issues.

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

Operating Expense

Category	2018-19 Actual	2019-20 Budget	2019-20 Projected	2020-21 Proposed	2021-22 Proposed
Personnel	$5,514,091	$5,042,260	$4,586,980	$4,003,400	$4,244,200
Supplies	423,409	772,110	698,615	810,722	747,980
Professional / Contractual Services	2,854,647	3,111,500	2,756,740	3,125,625	3,325,625
Research & Monitoring	-	-	-	-	-
Repairs & Maintenance	3,820	3,050	4,550	4,550	4,550
Utilities	-	-	-	-	-
Other	1,399,154	1,843,640	1,847,320	141,040	141,040
Cost Allocation	(1,334,048)	(1,334,180)	(1,333,770)	(1,486,070)	(1,486,070)
Total	$8,861,073	$9,438,380	$8,560,435	$6,599,267	$6,977,325

Budget Overview

The fiscal year 2020-21 budget for the Human Resources Department reflects a 30.1 percent decrease from the current budget. The decrease is primarily due to reductions in personnel costs, staffing study, labor negotiation, training expense, general liability insurance in-lieu premium expense reallocation, and adjustments to the district-wide cost allocation plan. The overall decrease is partially offset by an increase in legal and recruitment costs.

Performance Objectives / Measures

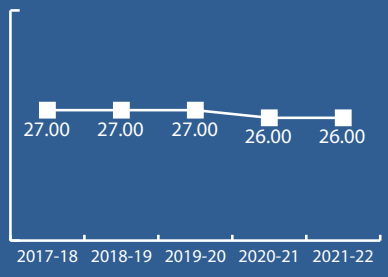
- Continue with development and implementation of effective workforce planning/development and succession planning strategies.
- Continue with a recruitment plan that reduces vacancies and time-to-fill.
- Review all training requirements and support departments in meeting the training level of service requirements of 45 hours per employee.
- Ensure 100% of Safety Compliance Training is completed.
- Implement Leading Safety Indicators to reduce injuries to employees.
- Manage operating expenditures to within 96 to 100 percent of the approved budget.

Authorized FTE Positions

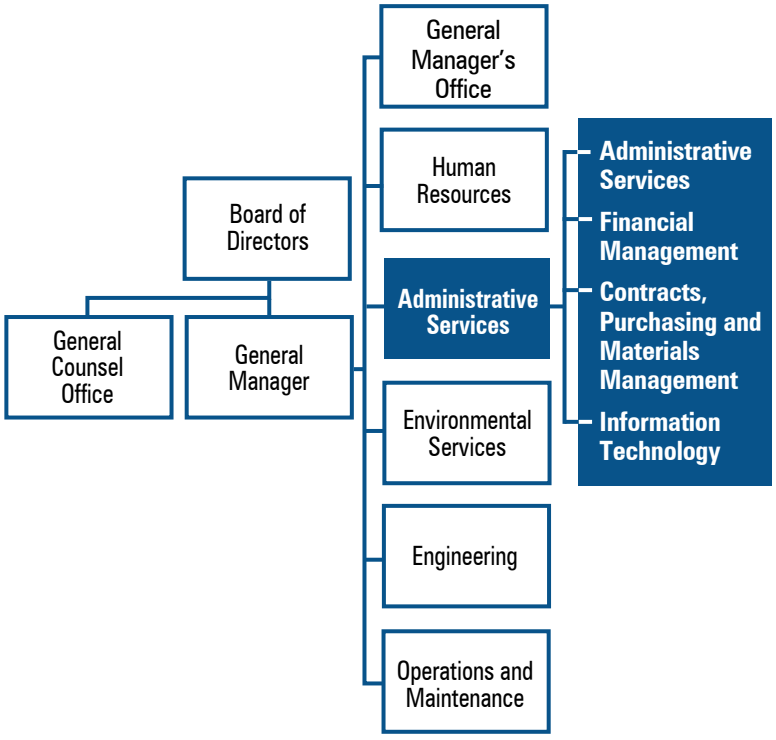
Managers..... 2.00
Supervisors /Professionals ... 21.00
Administrative /Clerical..... 3.00

Total 26.00

Staffing Trends



ADMINISTRATIVE SERVICES DEPARTMENT



Service Description

The Administrative Services Department oversees all of OCSD's finance, contracts/purchasing, and information technology activities, including both day-to-day operations and strategic planning. The department serves as a liaison to Executive Management, the Board of Directors, and other departments of OCSD. The department includes four divisions:

Administrative Services provides leadership and oversight to all Administrative Services divisions.

Financial Management oversees and administers all OCSD's funds and accounts. Programs include treasury and debt management, accounts receivable and payable, user fees, payroll, fixed assets accounting, and coordinating the capital and operating budget process.

C**ontracts, Purchasing,** and **Materials Management** is responsible for contract administration and procurement for all departments. Additionally, this division manages OCSD's warehouses, receives and maintains inventory, and distributes supplies, materials, and equipment.

Information Technology is responsible for customer support related information technology assets and services, networking and infrastructure, telecommunications service operation and maintenance, network and programming, solutions and application support.

Operating Expense

Category	2018-19 Actual	2019-20 Budget	2019-20 Projected	2020-21 Proposed	2021-22 Proposed
Personnel	$15,022,612	$14,073,460	$14,385,200	$16,818,400	$17,856,800
Supplies	929,423	1,340,720	1,375,874	1,534,041	1,533,812
Professional / Contractual Services	1,177,614	1,962,670	1,648,131	2,557,738	2,216,472
Research & Monitoring	-	-	-	-	-
Repairs & Maintenance	2,193,895	2,700,000	2,648,860	2,922,078	3,048,921
Utilities	452,722	500,000	500,000	1,284,732	1,286,915
Other	1,037,692	172,430	156,240	3,211,985	3,172,761
Cost Allocation	(1,057,789)	(1,056,440)	(1,057,470)	(984,770)	(984,770)
Total	$19,756,169	$19,692,840	$19,656,835	$27,344,204	$28,130,911

Budget Overview

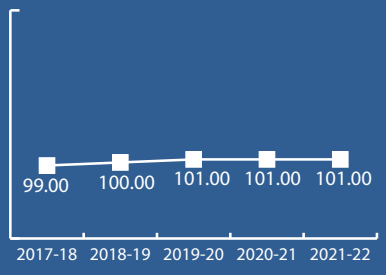
The fiscal year 2020-21 budget for the Administrative Services Department reflects a 38.9 percent increase from the current budget. The increase is primarily due centralizing OCSD wide expenses in Administrative Services and increases in personnel costs, small computer items, property tax fees, groundskeeping and janitorial services, software program consultant, service maintenance agreements, utilities costs, property management fees, record storage, property & general liability insurance, reallocation of contingency & reappropriation adjustments, and adjustments to the district-wide cost allocation plan. The increase is partially offset by decreases in costs for temporary services, legal fees, county service fees, equipment rental, and flow & loading study.

Authorized FTE Positions

Managers..... 3.00
Supervisors /Professionals ... 64.00
Administrative /Clerical..... 34.00

Total 101.00

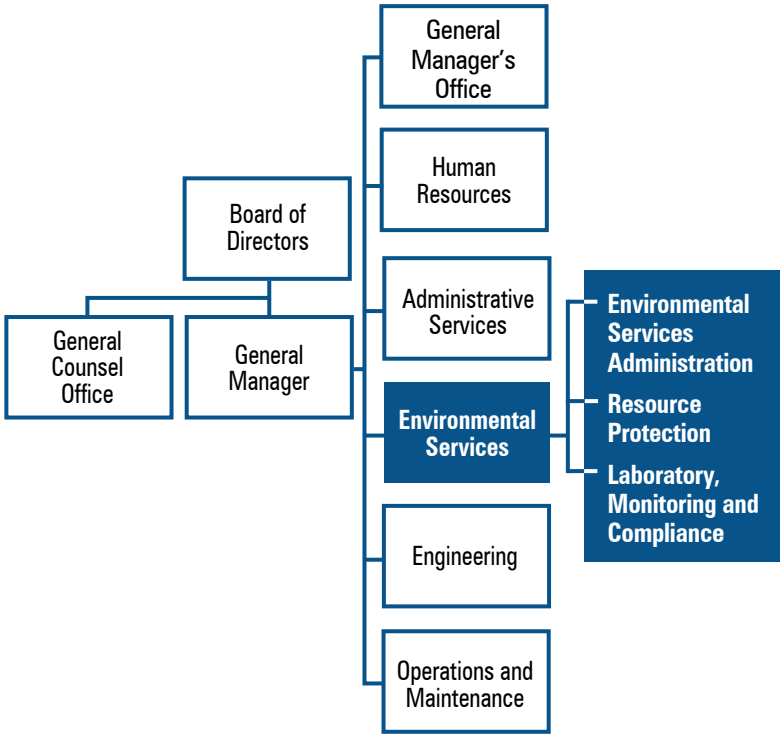
Staffing Trends



Performance Objectives / Measures

- Manage operating expenditures to within 96 to 100 percent of the approved budget.
- Comply with the California State Government Code 100 percent of the time with all treasury investments.,
- Submit the annual sewer service fee property parcel database to the County in time for placement on annual secured property tax bills.
- Process all approved sewer service fee refund requests within 90 days, 90 percent of the time.
- All debt service payments will be paid electronically, on the actual due dates, and error free 100 percent of the time.
- Continue the cycle count program and maintain a 97 percent accuracy rate or better.
- Ensure the measurement of the Information Technology Strategic Plan target based on the completion of goals supporting the Levels of Service (LOS).
- Maintain an average uptime of 90 percent for critical applications.

ENVIRONMENTAL SERVICES DEPARTMENT



Service Description

The Environmental Services Department manages OCSD's environmental monitoring, laboratory, source control, and regulatory compliance and reporting programs to ensure that OCSD meets all federal, state and local regulations for potable water reuse, ocean discharge, water reclamation, air emissions, industrial waste, regional sewer system operations, urban runoff reuse, and biosolids management. The department proactively monitors and engages in the development of and updates to environmental regulations of interest to OCSD. The Environmental Services Department consists of three divisions:

Environmental Services Administration provides leadership, support, and management oversight for the Department in order to accomplish OCSD's Strategic Plan and departmental annual goals.

Resource Protection fulfills federal, state, and local pretreatment requirements by conducting sampling, inspection, permitting, and enforcement at industrial sources and performs comprehensive surveillance of non-industrial discharges, urban runoff diversions, and constituents of emerging concern. This division provides oversight of interagency source control agreements and is responsible for the enhanced source control program that enables responsible ocean discharge and beneficial reuse of treated wastewater and biosolids.

Laboratory, Monitoring and Compliance collects beach, ocean, air, biosolids and treatment process samples, performs laboratory analysis, and provides data to evaluate inflows from the collection system, evaluate and optimize treatment processes, determine adherence with air quality standards, coastal water quality, marine sediments, fish communities and the ecological health within and near OCSD's wastewater discharge. This division also prepares reports as mandated by environmental permits and regulations.

Operating Expense

Category	2018-19 Actual	2019-20 Budget	2019-20 Projected	2020-21 Proposed	2021-22 Proposed
Personnel	$14,932,882	$13,570,410	$14,023,900	$14,577,300	$15,274,800
Supplies	854,493	901,630	900,270	1,087,135	922,501
Professional / Contractual Services	505,911	653,660	490,510	921,635	1,153,683
Research & Monitoring	935,801	1,099,600	1,149,600	1,304,700	1,428,700
Repairs & Maintenance	303,566	314,970	336,060	370,747	380,910
Utilities	364,201	380,500	455,610	-	-
Other	819,522	846,820	972,110	1,049,180	1,122,104
Cost Allocation	18,599	23,030	(19,900)	(20,790)	(22,800)
Total	$18,734,975	$17,790,620	$18,308,160	$19,289,907	$20,259,898

Budget Overview

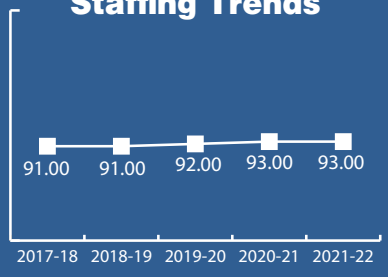
The fiscal year 2020-21 budget for the Environmental Services Department reflects an increase of 8.4 percent from the current budget. The increase is primarily attributable to increases in personnel costs, operating materials and supplies, temporary services, environmental strategic process studies, environmental scientific consulting services, NPDES renewal, regulatory operating fees, and adjustments to the district-wide cost allocation plan. The overall increase was partially offset by decreases in utilities costs.

Authorized FTE Positions

Managers..... 3.00
Supervisors /Professionals ... 65.00
Administrative /Clerical..... 9.00
Technical..... 16.00

Total..... 93.00

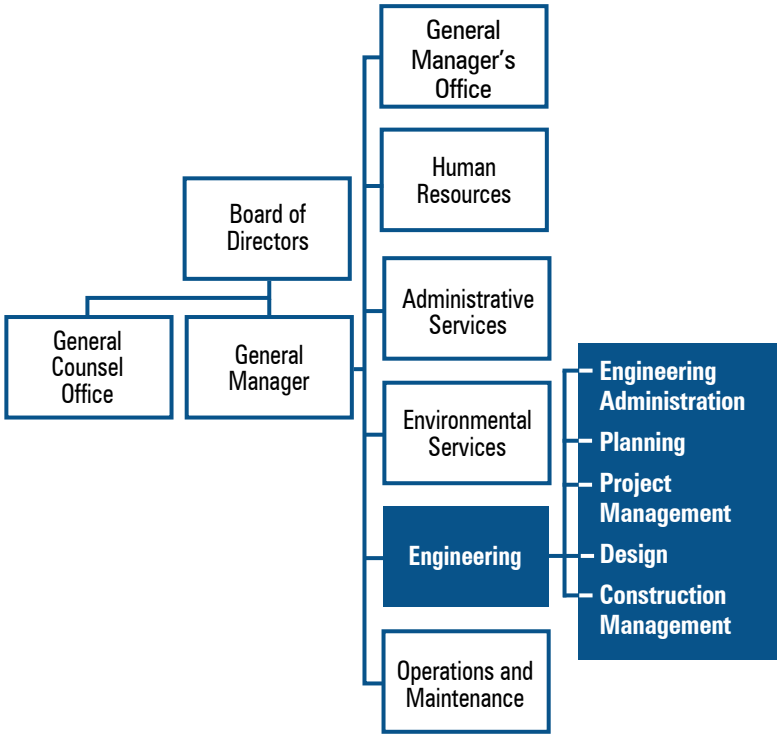
Staffing Trends



Performance Objectives / Measures

- Manage operating expenditures to within 96 to 100 percent of the approved budget.
- Ensure that reporting divisions achieve no less than 90 percent of individual performance objectives.
- Ensure that all environmental compliance reporting requirements are met on or before required submission dates.
- Implement federal, state, and local environmental regulation including OCSD Ordinance terms and conditions.
- Conduct audits of all major environmental permits at least once every three years.
- Complete 100 percent of Safety Scorecard requirements each quarter.

ENGINEERING DEPARTMENT



Service Description

The Engineering Department is responsible for the planning and execution of OCSD's Capital Improvement Program, the Asset Management Program, and interagency coordination. The Engineering Department is comprised of five divisions:

Engineering Administration provides management to all Engineering Divisions.

Planning is responsible for developing and maintaining a comprehensive Capital Improvement Program for OCSD considering projected capacity requirements, condition of assets, anticipated regulatory and level of service changes, and technological opportunities. Planning is responsible for OCSD's Asset Management program to ensure that required levels of service are met by performing planned repair, rehabilitation and replacement of facilities at optimal lifecycle costs. In addition, this division is responsible for California Environmental Quality Act preparation and review, and performs services for annexations, connection permitting, and interagency agreements.

Project Management is responsible for the delivery of capital projects from the preliminary design stage through project closeout.

Design provides technical leadership, engineering design and quality assurance, design standards development and management, control systems design and programming, and commissioning oversight.

Construction Management provides construction engineering, quality control inspection, commissioning execution, and other technical support for construction projects.

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

Operating Expense

Category	2018-19 Actual	2019-20 Budget	2019-20 Projected	2020-21 Proposed	2021-22 Proposed
Personnel	$21,316,006	$21,404,310	$20,748,500	$21,638,300	$22,640,100
Supplies	321,469	548,590	423,510	411,350	335,765
Professional / Contractual Services	617,053	2,238,615	1,313,583	1,590,615	1,595,615
Research & Monitoring	-	-	-	-	-
Repairs & Maintenance	337,039	108,000	97,630	3,900	3,900
Utilities	115,570	133,500	112,780	0	0
Other	3,020	9,020	5,528	5,930	5,930
Cost Allocation	(16,882,739)	(17,789,760)	(17,355,420)	(18,076,310)	(18,954,190)
Total	$5,827,418	$6,652,275	$5,346,111	$5,573,785	$5,627,120

Budget Overview

The fiscal year 2020-21 budget for the Engineering Department reflects a 16.2 percent decrease from the current budget primarily due to decreases in operating materials & supplies, groundskeeping & janitorial services, legal, engineering, and other professional services, repairs and maintenance, electricity costs, and adjustments to the district-wide cost allocation plan. The overall increase was partially offset by personnel costs.

Performance Objectives / Measures

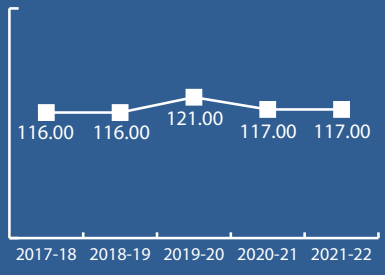
- Expend 90 to 105 percent of project annual Capital Improvement Program cash flows.
- Manage operating expenditures to within 90 to 100 percent of the approved budget.
- Ensure that reporting divisions achieve 90 percent of individual performance objectives.
- Prepare and maintain a 20-year District-wide capital plan coordinating condition assessment, regulatory requirements, changing levels of science, and projected capacity requirements.

Authorized FTE Positions

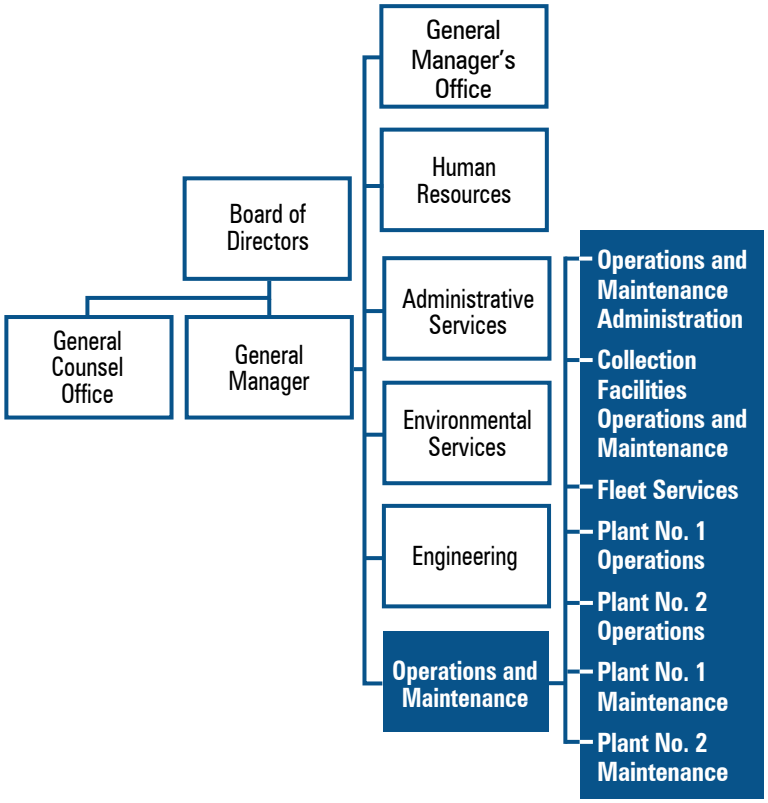
Managers..... 5.00
Supervisors /Professionals ... 81.00
Administrative /Clerical..... 31.00

Total 117.00

Staffing Trends



OPERATIONS AND MAINTENANCE DEPARTMENT



Service Description

The Operations and Maintenance (O&M) Department is responsible for treating wastewater, reusing or disposing of the treated wastewater and all residuals, providing maintenance support to all treatment facilities, operating and maintaining the sanitary sewer system pipeline and pumping facilities, and for providing fleet management services. The Department consists of seven divisions:

Operations and Maintenance Administration provides leadership and oversight to all O&M divisions.

Collection Facilities Operations and Maintenance operates and maintains the regional facilities which include gravity sewers and pumping facilities.

Fleet Services provides fleet and heavy equipment services and motor pool management to all OCSD staff.

Plant No. 1 and Plant No. 2 Operations are responsible for the daily management of the wastewater treatment processes, sludge and biosolids treatment and loading processes, power generation, and odor and air quality control processes. Activities also include ensuring compliance with all regulatory permits, support of the Capital Improvement Program, and coordination of construction and maintenance work. Plant No. 1 Operations also ensures the delivery of specification water to the Groundwater Replenishment System.

Plant No. 1 and Plant No. 2 Maintenance are responsible for civil, electrical, facilities, instrumentation and mechanical maintenance of the two treatment plants and pump stations.

FISCAL YEARS 2020-21 AND 2021-22 BUDGET

Operating Expense

Category	2018-19 Actual	2019-20 Budget	2019-20 Projected	2020-21 Proposed	2021-22 Proposed
Personnel	$43,880,461	$42,029,560	$39,807,200	$42,374,400	$44,448,200
Supplies	16,354,632	20,432,731	19,126,248	20,562,236	20,508,710
Professional / Contractual Services	19,130,081	18,764,299	18,226,793	15,731,988	15,936,619
Research & Monitoring	-	-	-	-	-
Repairs & Maintenance	15,968,730	20,343,622	21,163,430	25,071,370	20,740,526
Utilities	6,758,397	8,126,310	7,308,808	7,080,222	7,091,923
Other	114,006	144,850	174,040	133,937	137,647
Cost Allocation	(329,205)	(104,740)	(165,000)	(140,410)	(145,890)
Total	$101,877,102	$109,736,632	$105,641,519	$110,813,743	$108,717,735

Budget Overview

The fiscal year 2020-21 budget for the Operations and Maintenance Department reflects a 1.0 percent increase from the current budget. The increase is primarily due to increases in personnel costs, and repairs and maintenance costs, partially offset by a decrease in solids removal, contractual services, and utilities costs.

Performance Objectives / Measures

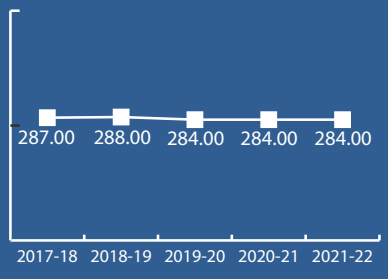
- Achieve 100 percent compliance with water, solids, air, and energy permits.
- Achieve a compliance level of 90 to 100 percent of the O&M performance measurement targets.
- Manage operating expenditures to within 96 to 100 percent of the approved budget.

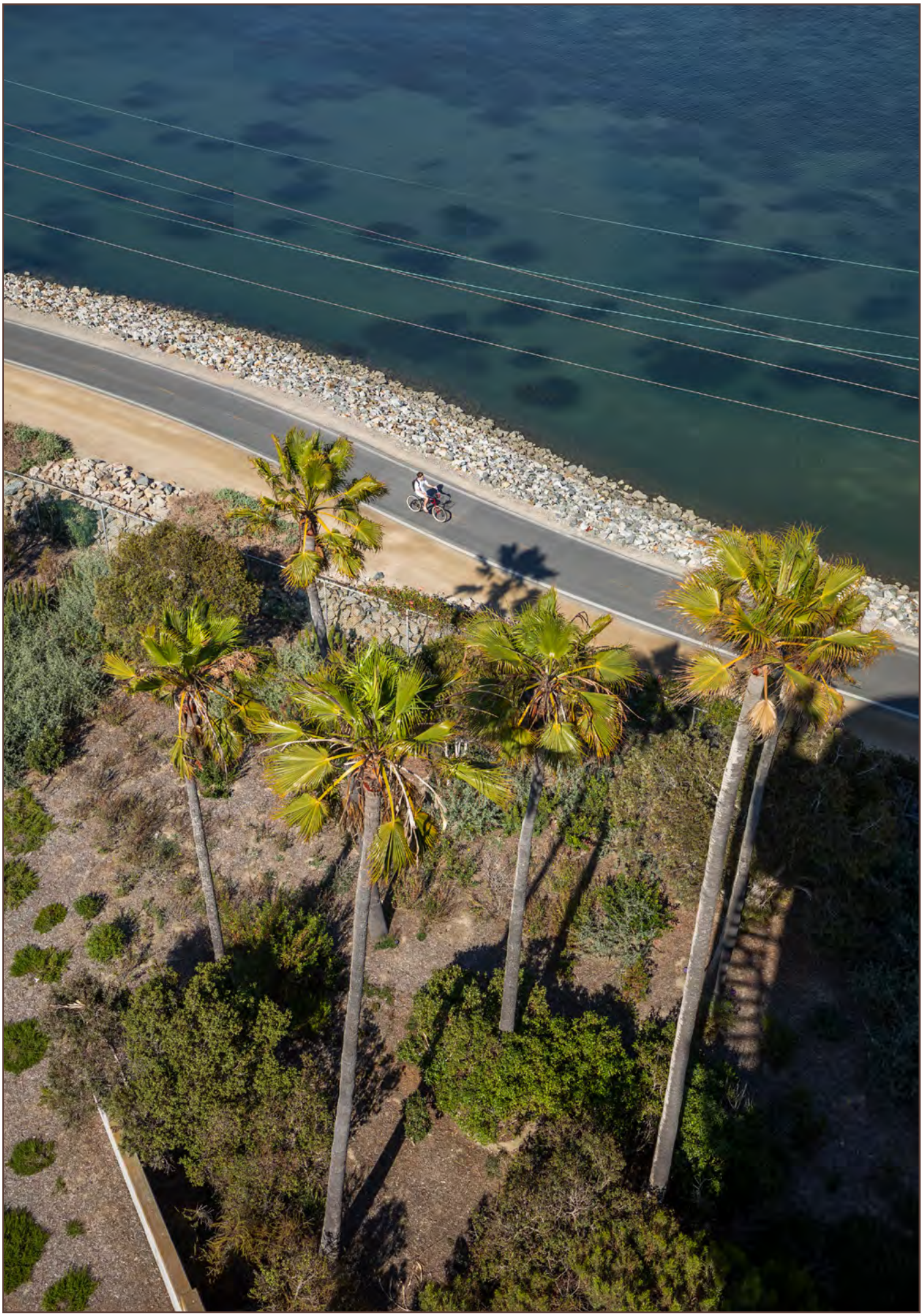
Authorized FTE Positions

Managers..... 5.00
Supervisors /Professionals ... 63.00
Administrative /Clerical..... 5.00
Technical..... 1.00
Operations & Maintenance .. 210.00

Total..... 284.00

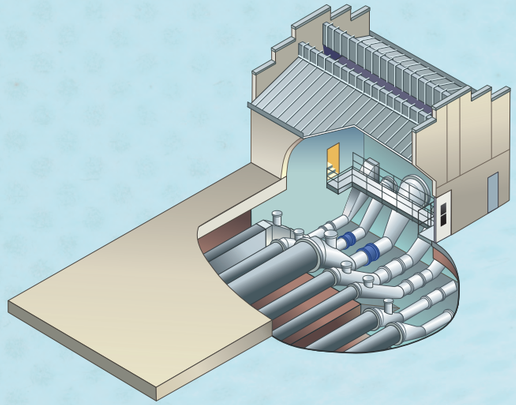
Staffing Trends



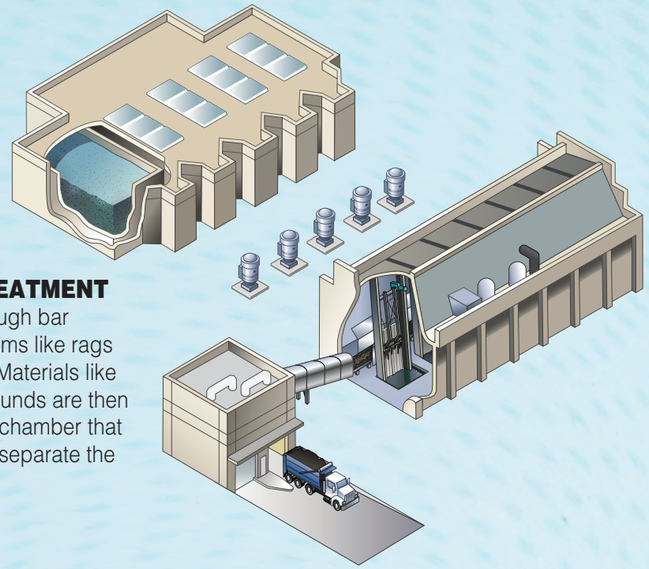


Orange County Sanitation District

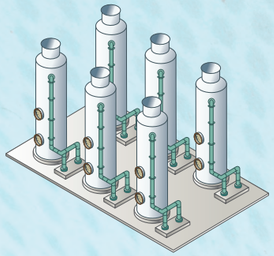
Wastewater Treatment Process



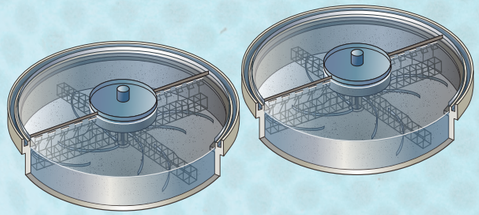
1. METERING AND DIVERSION
Wastewater enters our plant at 2.5 - 5 mph through pipes up to 10 feet in diameter. High tech equipment monitors the temperature, pH, conductivity, and flow of the incoming wastewater.



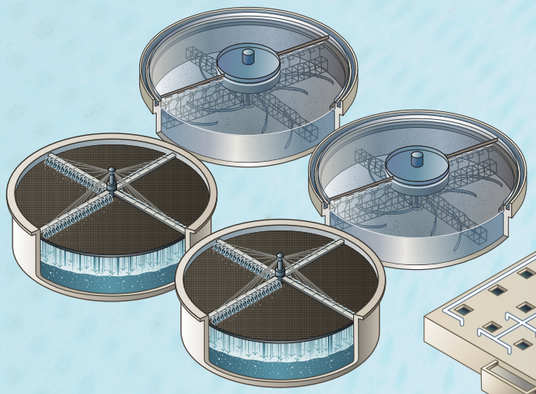
2. PRELIMINARY TREATMENT
Raw sewage passes through bar screens that trap large items like rags that cannot be recycled. Materials like egg shells and coffee grounds are then removed through the grit chamber that uses high pressure air to separate the gritty material.

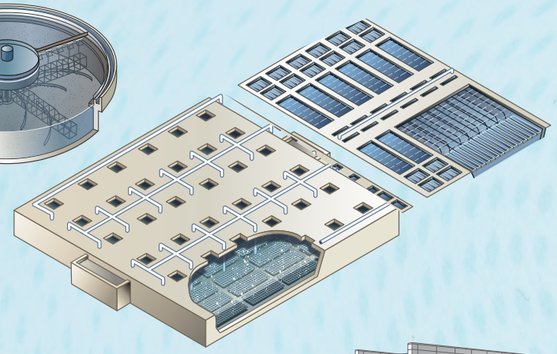


3. AIR SCRUBBER
Hydrogen sulfide (foul air) is captured throughout the process and funneled into large silos. It passes through a plastic medium and mixes with caustic soda and bleach. Causing the odorous compounds to be neutralized.



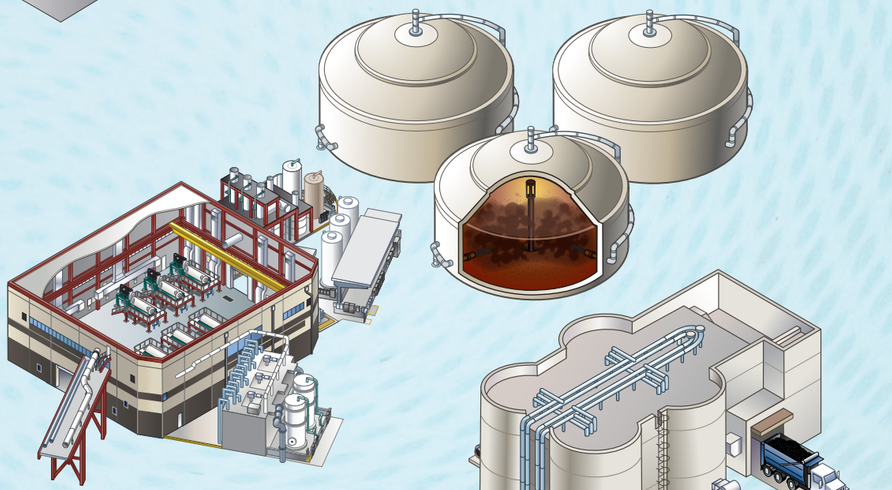
4. PRIMARY TREATMENT
Primary clarifiers or settling basins, slow the water down to allow the solids in the wastewater that readily settle or float to be separated from the water being treated. Collector arms that move along the top and the bottom remove over 80 percent of the influent wastewater solids. Solids are then sent to the digesters for processing.



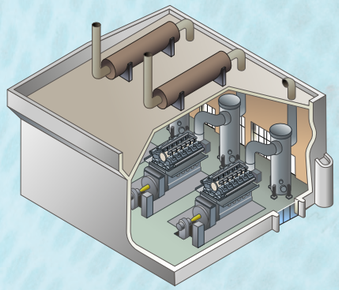


5. SECONDARY TREATMENT
Trickling filters and aeration basins are used to further clean the water. In trickling filters the water is sprayed over a honeycomb type material upon which aerobic bacteria grow. As the water trickles down, the microorganisms consume the solids that were not removed through primary treatment. Aeration tanks use a combination of oxygen and microorganisms, (activated sludge) that consume the remaining organic solids. Treated water is then sent to the Orange County Water District for recycling, or discharged into the ocean.

6. GROUNDWATER REPLENSMENT SYSTEM
A joint project between Orange County Sanitation District and Orange County Water District. This system reduces the amount of wastewater discharged to the Pacific Ocean and creates a reliable supply of high-quality water that is drought-resilient.



7. SOLIDS PROCESSING
Solids captured from primary and secondary treatment are batch loaded into anaerobic digesters where they are heated to about 98 degrees and treated for 18-21 days. The digestion process produces methane gas and a material called biosolids. Biosolids are sent to the dewatering facility where they are run through dewatering centrifuges. The centrifuges spin the biosolids separating water from the solids. This process saves OCSD several million dollars per year in truck hauling costs. The nutrient-rich biosolids are trucked off to farms where they are recycled for direct land application and composting.



8. CENTRAL GENERATION
Methane gas that is captured from digesters is compressed and used to fuel engine generators that produce electricity, supplying more than 60% of our energy needs.

ORANGE COUNTY SANITATION DISTRICT • PROTECTING THE ENVIRONMENT •

PA 03/2019

Our Mission:

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

The Orange County Sanitation District (OCSD) is a public agency that provides wastewater collection, treatment, recycling, and disposal services for approximately 2.6 million people in our service area of central and northern Orange County. OCSD is a special district that is governed by a Board of Directors consisting of 25 board members. OCSD has two operating facilities in Fountain Valley and Huntington Beach that treat wastewater from residential, commercial, and industrial sources.

Follow the Flow:

Pretreatment: All the cities' sewers connect to OCSD's collections system that transports the wastewater to our treatment plants. Before the sewage enters our facilities, our Source Control Program permits and inspects business and industry that discharge waste into the sewers. Maintaining and protecting our trunklines from corrosion and odor issues is also an important part of what we do.

1. **Metering and Diversion:** Wastewater enters our treatment plants through trunklines up to 10-feet in diameter at a speed of 2.5-5 mph. Automated equipment measures the pH, conductivity, flow, and temperature. Data is monitored by operators around the clock.

2. **Preliminary Treatment:** Consists of two parts – bar screens and grit chambers. First, sewage passes through metal bars that catch large items (rags, trash, wood, etc.). Next, grit chambers use air bubbles to suspend lighter material while heavier grit (egg shells, coffee grounds, gravel, sand, etc.) sinks to the bottom and is removed. Screenings and grit are sent to a landfill.

3. **Air Scrubber:** Most processes that produce odors are covered and the foul air is drawn off for cleaning (deodorizing) by air scrubbers. OCSD uses both chemical and biofilter systems. Hydrogen sulfides (sewer gas smell) are neutralized by using caustic soda, bleach, or live microorganisms.

4. **Advanced Primary Treatment:** Chemicals (ferric chloride and anionic polymer) are added to the preliminary treated sewage to improve settling. Heavier suspended solids clump together and sink to the bottom (sludge). Lighter waste (grease and oil) float to the surface (scum). This process takes about 2 hours and up to 80% of the suspended solids are continuously removed by scraper arms that revolve along the top and bottom of the basin. These solids are sent to digesters for further processing.

5. **Secondary Treatment:** Advanced primary treated sewage is sent to either trickling filters or activated sludge processes were aerobic microorganisms eat the remaining dissolved waste from the water. The secondary treated wastewater is then settled in clarifiers allowing the remaining sludge (either live or dead microorganisms) to be removed. Activated sludge process uses aeration basins to mix oxygen and microorganisms to enhance the waste removal rate. Some of the sludge is pumped back into the aeration basin as return activated sludge to regenerate the basin. The remaining sludge is thickened and sent to digesters.

Final Effluent: The secondary treated wastewater from Plant No. 1 is sent to the Orange County Water District for advanced treatment through the Groundwater Replenishment System (GWRS). This water is used to replenish Orange County's groundwater aquifers and protect against seawater intrusion. The secondary treated wastewater from Plant No. 2 is safely released though our ocean pipeline five miles out to sea at a depth of 200 feet below the ocean surface.

Biosolids

Our Policy

OCSD strives to recycle our biosolids using sustainable options while protecting public health and the environment.

Some of our biosolids are recycled and used like fertilizer on farm fields to create and maintain healthy soils and improve crop yields.
Some of OCSD's biosolids are further processed through composting to create a consumer-grade soil amendment that is distributed to agricultural, commercial and residential users.

Our Program

Orange County's biosolids are safe, highly-regulated, and meet the most restrictive standards. In order to maintain these high-quality standards for recycling our biosolids, OCSD maintains a comprehensive and award-winning Source Control Program that has significantly reduced the amount of pollutants entering our facilities and biosolids.

Fertilizing farmland with biosolids is a win-win for the environment because we are recycling a renewable resource and creating productive farmland. It's a win for farmers because research has demonstrated using biosolids increases crop yields. And this biosolids management option is a win for local sewer rate payers since it is a low-tech, low-cost, reliable option that helps keep sewer rates low.

Learn More

Visit our website at **www.ocsd.com/biosolids** for more information and to sign up for periodic biosolids program newsletters.

G | W | R | S

GROUNDWATER REPLENISHMENT SYSTEM

The Groundwater Replenishment System (GWRS) is the world's largest advanced water purification system for potable reuse. It takes treated wastewater that otherwise would be sent to the Pacific Ocean and purifies it using a three-step advanced process.

The design and construction of the GWRS was jointly funded by the Orange County Sanitation District (OCSD) and the Orange County Water District (OCWD). Together OCSD and OCWD constructed one of the most celebrated civil engineering and water reuse projects in the world.

The GWRS provides a reliable supply of highly purified, near-distilled quality water. Even during drought years, the GWRS offers a more cost-effective and energy-efficient way of producing water.

GWRS provides the county with new water it can count on. The project serves as a model for other regions throughout the United States and the world.

WHAT 2 FLUSH®.com

Know what should go down the drain that is sewer safe

It's simple, the toilet is only meant to flush the **three Ps—pee, poop and paper.**

Unfortunately, over the years, people have turned the toilet into a trash can. From medications and sanitary products to deceased pet fish and cigarette butts. If it fits, people flush it. Flushing these types of items down the toilet causes home pipes to clog, wastes water (up to five gallons of water every time you flush) and most importantly can have a huge impact on our sewers, not to mention our ocean.

Besides the three Ps **the only other thing going down the drain should be soap and water.** The toilet is not the only drain that people are using to get rid of unwanted waste; people are also known to use the kitchen sink as a trash can. Letting trash flow and go down the kitchen sink (or any other drain in the house) may cause pipes to clog and can eventually lead to sewage spills that harm the environment.

Visit **www.What2Flush.com** to learn how to properly dispose of common items that people flush or dump down the drain. Let's keep our wastewater flowing and our oceans clean. Educate yourself and others.

Know **What 2 Flush** and what to put down the drain. Protect our sewers and environment!

Reclamation Plant No. 1 and Administration Offices
10844 Ellis Avenue, Fountain Valley, California 92708

Treatment Plant No. 2
22212 Brookhurst Street, Huntington Beach, California 92646

Phone: 714.962.2411
Email: forinformation@ocsd.com
Website: ocsd.com

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