Budget UPDATE

Fiscal Year 2023-24

Orange County Sanitation District, California

OC SAN
ORANGE COUNTY SANITATION DISTRICT

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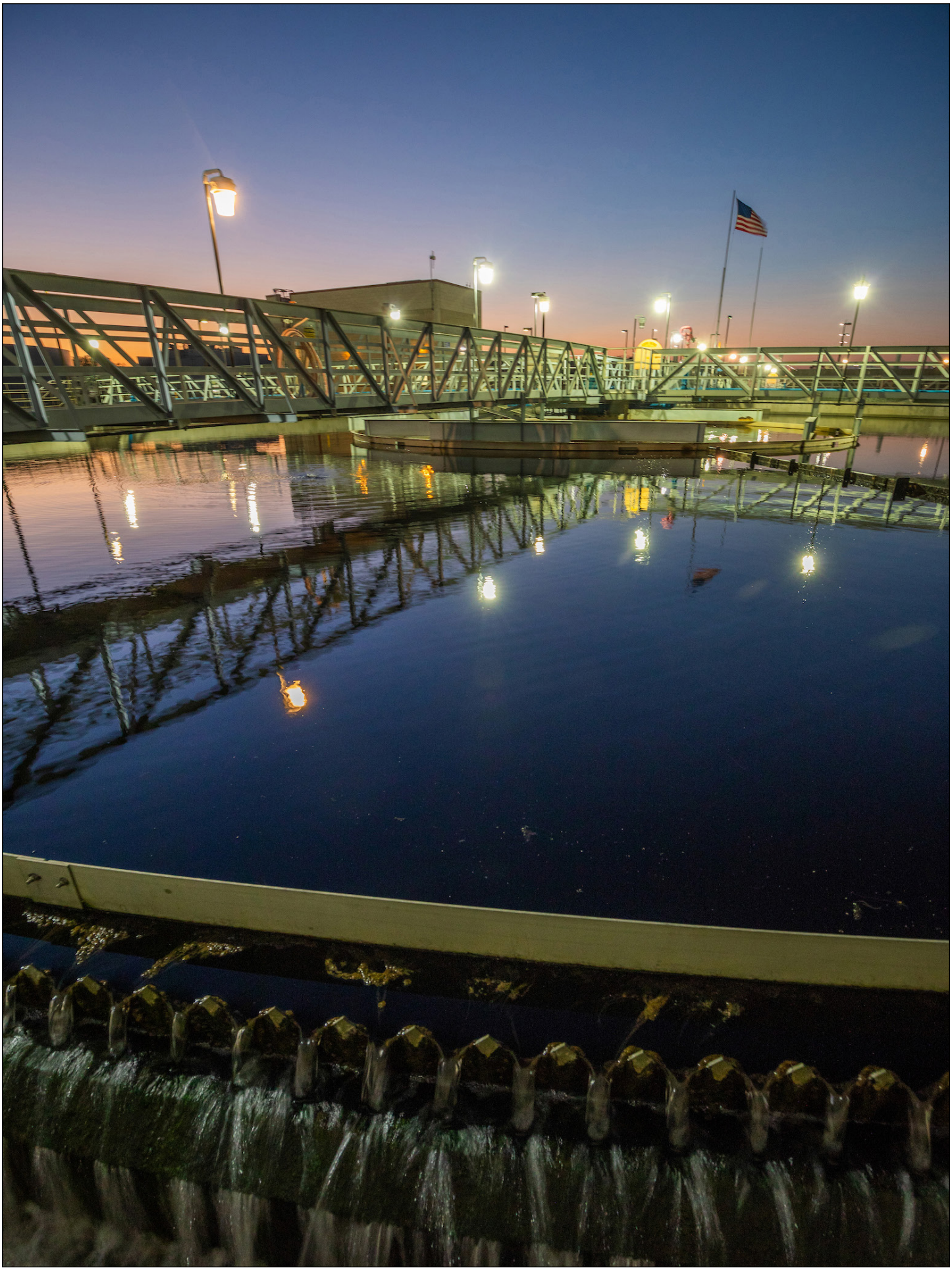
BUDGET UPDATE

Fiscal Year 2023-24

ORANGE COUNTY SANITATION DISTRICT

OUR MISSION

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



Secondary clarifier at Plant No. 1 in Fountain Valley.

GFOA BUDGET PRESENTATION AWARD

GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

PRESENTED TO

Orange County Sanitation District
California

For the Biennium Beginning

July 01, 2022

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, 2022.

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.

TABLE OF CONTENTS

OC San Service Area i
Board of Directors ii
Board Committees iii
Organization Chart iv
Administrative Officials v
Message from the General Manager vi

Finance Summary 1
Financial Summary/Overview and Budgetary Issues 2
Where the Money Comes From 6
Funding Sources by Category 6
Where the Money Goes 8
Funding Uses by Category 8

Collection, Treatment & Recycling Process Overview 10

Strategic Planning 12

Infrastructure Asset Management 14

Capital Improvement Program 18

Debt Financing Program 20

Operating Expenses 22

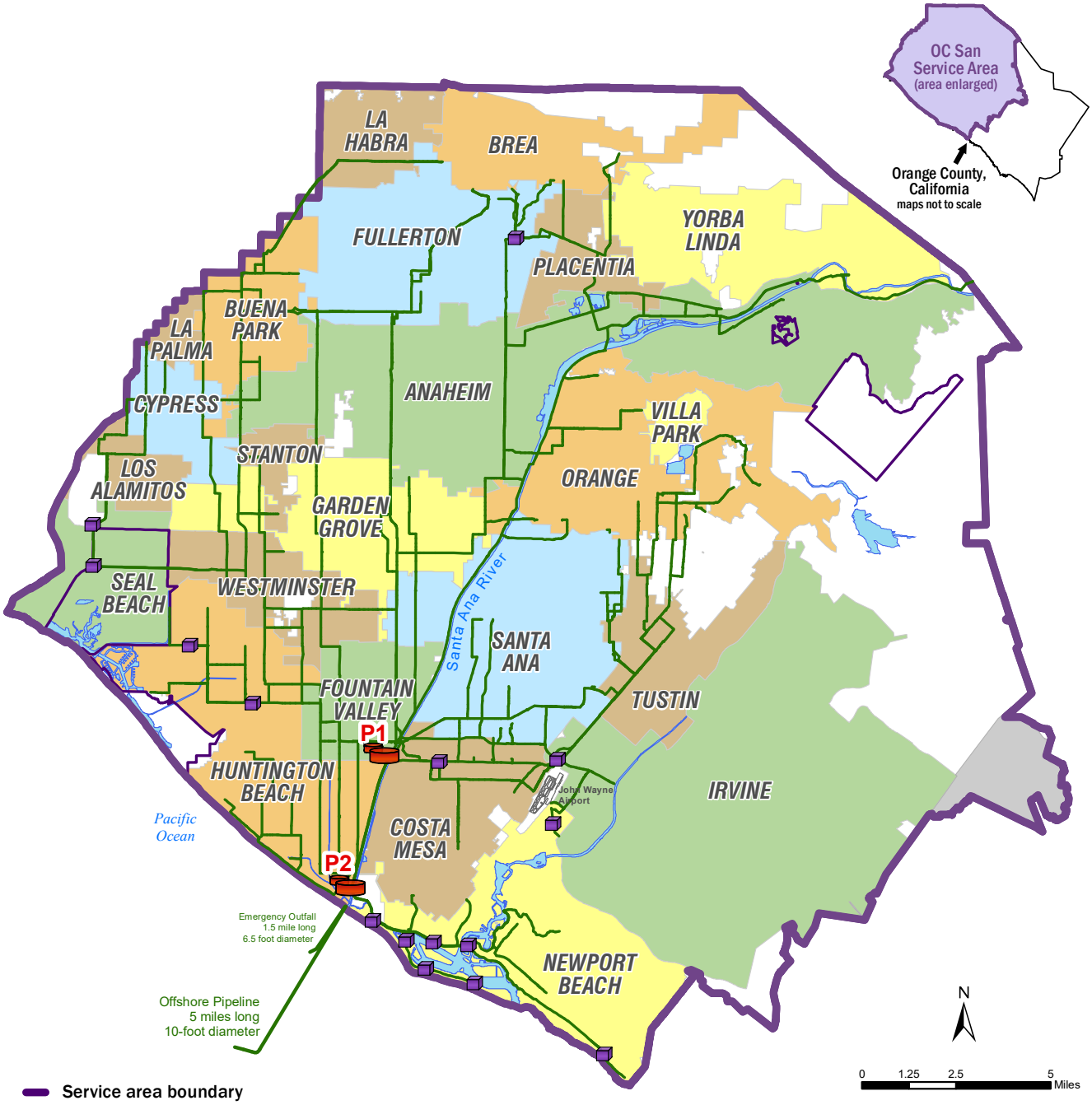
Departments 26
Summary 26
General Manager's Office 28
Human Resources 30
Administrative Services 32
Environmental Services 34
Engineering 36
Operations and Maintenance 38

Appendix A-1
Cash Flow Projection A-2
Capital Improvement Program Summary A-4
Project Summary A-5
Capital Improvement Expenditure Graphs A-6
Summary of Capital Requirements A-7
CIP New Project Descriptions A-11
Capital Equipment Budget Summary A-14
Capital Equipment Budget Detail A-16
Levels of Service A-18
Self-Funded Insurance Plans A-20
Historical Staffing Summary A-21
Historical Staffing Detail A-22
Appropriations Limit A-29
Miscellaneous Statistics A-30

Wastewater Treatment Process Diagram

OC SAN SERVICE AREA

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



- Service area boundary
- Sewer pipelines
- Reclamation Plant No. 1 (P1)
  Treatment Plant No. 2 (P2)
- Pump stations
- Unincorporated Orange County (white areas)

Approximately – Map Not to Scale

DISCLAIMER: Map prepared by the Orange County Sanitation District. This map is intended for graphical representation only. No level of accuracy is claimed. Portions of this derived product contain geographical information copyrighted by Rand McNally
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Revised December 2019

BOARD OF DIRECTORS

Agency/City	Active Director	Alternate Director
Anaheim	Stephen Faessel	Natalie Meeks
Brea	Christine Marick	Cecilia Hupp
Buena Park	Susan Sonne	Art Brown
Cypress	Scott Minikus	Bonnie Peat
Fountain Valley	Glenn Grandis	Ted Bui
Fullerton	Bruce Whitaker	Nick Dunlap
Garden Grove	Steve Jones	John O'Neill
Huntington Beach	Pat Burns	Gracey Van Der Mark
Irvine	Farrah N. Khan	Tammy Kim
La Habra	Rose Espinoza	Jose Medrano
La Palma	Marshall Goodman	Debbie Baker
Los Alamitos	Jordan Nefulda	Emily Hibard
Newport Beach	Brad Avery	Erik Weigand
Orange	Jon Dumitru	John Gyllenhammer
Placentia	Chad Wanke	Ward Smith
Santa Ana	Johnathan Ryan Hernandez	Benjamin Vazquez
Seal Beach	Schelly Sustarsic	Nathan Steele
Stanton	David Shawver	Carol Warren
Tustin	Ryan Gallagher	Austin Lumbard
Villa Park	Robbie Pitts	Jordan Wu

Sanitary/Water Districts

Costa Mesa Sanitary District (CMSD)	Robert Ooten	Art Perry
Midway City Sanitary District (MCSD)	Andrew Nguyen	Mark Nguyen
Irvine Ranch Water District (IRWD)	John Withers	Douglas Reinhart
Yorba Linda Water District (YLWD)	Phil Hawkins	Tom Lindsey

County Areas

Member of the Board of Supervisors	Doug Chaffee	Donald P. Wagner

BOARD COMMITTEES

Steering Committee

Chad Wanke, Board Chair

Ryan Gallagher, Board Vice Chair

Marshall Goodman, Chair, Operations Committee

Christine Marick, Chair, Administration Committee

Pat Burns, Member-At-Large

Jon Dumitru, Member-At-Large

John Withers, Member-At-Large

Administration Committee

Christine Marick, Chair (Brea)

Glenn Grandis, Vice Chair (Fountain Valley)

Pat Burns (Huntington Beach)

Rose Espinoza (La Habra)

Farrah N. Khan (Irvine)

Jordan Nefulda (Los Alamitos)

Andrew Nguyen (MCSD)

Robbie Pitts (Villa Park)

David Shawver (Stanton)

Susan Sonne (Buena Park)

John Withers (IRWD)

Chad Wanke, Board Chair (Placentia)

Ryan Gallagher, Board Vice Chair (Tustin)

Operations Committee

Marshall Goodman, Chair (La Palma)

Robert Ooten, Vice Chair (CMSD)

Brad Avery (Newport Beach)

Doug Chaffee (Board of Supervisors)

Jon Dumitru (Orange)

Stephen Faessel (Anaheim)

Phil Hawkins (YLWD)

Johnathan Ryan Hernandez (Santa Ana)

Steve Jones (Garden Grove)

Scott Minikus (Cypress)

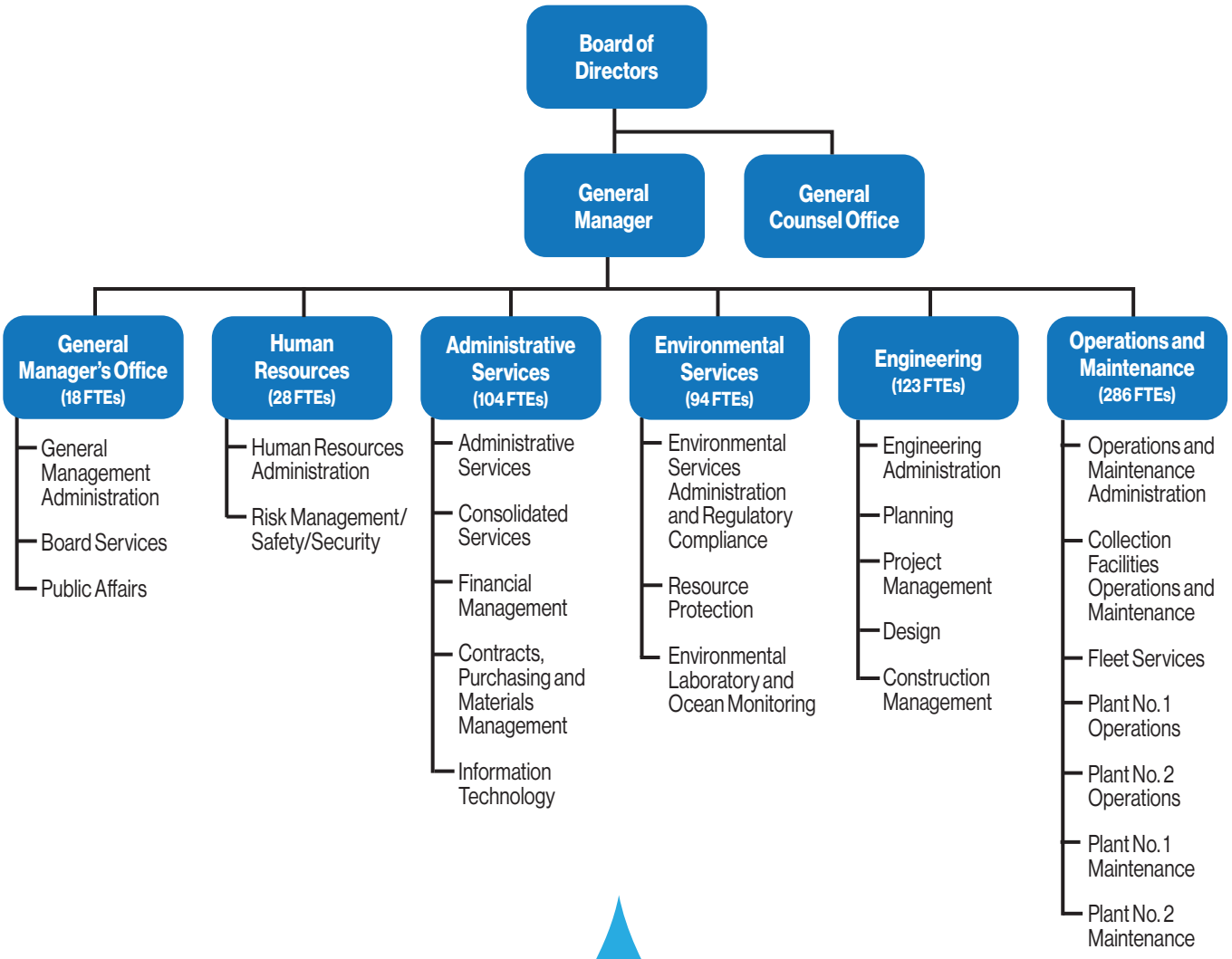
Schelly Sustarsic (Seal Beach)

Bruce Whitaker (Fullerton)

Chad Wanke, Board Chair (Placentia)

Ryan Gallagher, Board Vice Chair (Tustin)

ORGANIZATION CHART



ADMINISTRATIVE OFFICIALS

Management Team

General Manager ..... **Robert Thompson**

Assistant General Manager ..... **Lorenzo Tyner**

Director of Finance ..... **Wally Ritchie**

Director of Engineering ..... **Michael Dorman**

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

Director of Human Resources ..... **Laura Maravilla**

Director of Operations & Maintenance ..... **Riaz Moinuddin**

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

Reclamation Plant No. 1 in Fountain Valley.

MESSAGE FROM THE GENERAL MANAGER

June 7, 2023

Honorable Chair and Board of Directors:

I am pleased to submit the Orange County Sanitation District's (OC San) Proposed Budget Update for Fiscal Year (FY) 2023-24, the second year of the two-year budget adopted in June 2022.

This document lays out the framework of OC San's activities during the upcoming fiscal year and serves as a source of information for the 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 2021.

OC San's proposed FY 2023-24 operating and capital improvement program budget totals $487.4 million, or $37.8 million (7.2 percent) below what was approved last year as the second year of the adopted two-year budget. The proposed FY 2023-24 Capital Improvement Program (CIP) budget includes an overall decrease of $43.3 million from the budget approved a year ago, while the Operating Budget includes an increase of $5.5 million.

The Operating Budget increase is primarily driven by additional chemical, utility, and infrastructure maintenance/repair costs. While the effects of the COVID-19 pandemic, including inflation and supply chain issues, still linger, this proposed budget reflects a financially sound and stable organization that has weathered the storm and continues to move forward.

During the budget preparation process, I met with each of the departments to ensure their budget proposals were prudent and cost-effective. This process helped to develop a comprehensive budget for OC San that meets the needs of the organization and is fiscally responsible.

I would like to highlight some areas of focus for FY 2023-24:

- **Operational Readiness** — OC San continues to look ahead, preparing for our future infrastructure needs and for emergency events such as line breaks, earthquakes, extreme weather events associated with climate change, and potential cybersecurity breaches. We are continually updating our Business Continuity Plans and conducting tabletop exercises for emergency scenarios to allow us to respond quickly and effectively without compromising our mission or levels of service.

- **Capital Improvement Program** — OC San's 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 in every project we execute. OC San has continued moving our CIP forward, with 95 active projects. There are 36 projects in construction that have a budget of $1.1 billion, helping keep the economic engine running in Orange County.

- **Infrastructure Reliability and Asset Management** — OC San's infrastructure must operate continuously day and night, requiring that we proactively manage the condition of more than $12.6 billion in assets to ensure reliable operation. 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. Our recently updated Asset Management Plan includes 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. OC San will be investing an additional $35.5 million in repairs and maintenance this next year.

- **Safety and Security** — OC San will work to complete its plan to achieve a Voluntary Protection Program (VPP) Certification. The VPP certification recognizes employers and workers who have implemented effective safety and health management systems and maintain injury and illness rates below national Bureau of Labor Statistics averages for their respective industries.

2023-24 BUDGET UPDATE

- **Expanded Recycling Efforts**
  - o Groundwater Replenishment System (GWRS) Final Expansion — This budget includes funds to support the recently completed GWRS Expansion. GWRS now recycles up to 130 million gallons of water per day, enough water to supply the needs of 1 million people. GWRS, the world's largest advanced water purification system for potable reuse, now recycles 100 percent of OC San's reclaimable wastewater flow. This system provides many benefits to our communities and to our state including reduced reliance on imported water from northern California and the Colorado River, affordable water, enhanced water quality, and reusing local wastewater that would otherwise be discharged to the ocean and is a critical tool in creating a resilient water supply.
  - o Food Waste Treatment Facility — OC San is committed to working with Orange County Waste and Recycling to assist the cities in our service area to satisfy the requirements of California State Assembly Bill 1826 and Senate Bill 1383 which requires 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 OC San's existing anaerobic digesters, which in turn will produce renewable energy to power our treatment plants.

- **Headquarters Complex** — The new OC San Headquarters building is scheduled for completion in early 2024. In our ongoing effort to streamline our operation and plan for the future, we have acquired 7.5 acres across from our current location in Fountain Valley. A consolidated headquarters building will house more than 300 staff that are currently located in various buildings and trailers spread throughout the 100-acre wastewater treatment facility. Demolition of the existing administrative buildings and trailer complexes on the Plant No. 1 site will allow space for future wastewater treatment infrastructure and will centralize our administrative functions.

- **Research and Innovation** — This budget update continues the support for operational research of innovative improvements in wastewater collection and treatment. Technology demonstrations like Supercritical Water Oxidation which show promise in cost effectively destroying microplastics, pharmaceuticals, and forever chemicals are examples of OC San's commitment to making prudent investments in new technology to solve problems facing our industry.

- **Resilient Staffing** — OC San continues to deal with the "silver tsunami" that is common in the wastewater sector. This budget update supports the creation of depth in the technical, supervision, management, and executive management teams. Staff have identified areas of risk where the loss of specialized technologist, regulatory specialist, or management team members will jeopardize service levels in the short to medium term. Positions are dynamically shifted to create and fill vacancies to build organizational depth prior to retirements or other separations to keep the agency moving forward. This budget update includes five new key positions to implement programs to enhance our resiliency, reliability, and resource recovery.

- **Energy Contracts** — The energy markets; electricity and natural gas specifically, have been very dynamic in California over the last few years. This budget update supports staff efforts to lock in long-term pricing for electricity and natural gas. This pricing certainty will help to stabilize the operation of the treatment plants and reduce financial risk exposure.

OC San will continue to provide wastewater collection, treatment, recycling, infrastructure 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 OC San's Strategic Plan and positions us well to proactively manage the unknown challenges that will face this agency in the coming years.

Robert Thompson
General Manager
Orange County Sanitation District

Secondary Clarifier Plant No. 1 in Fountain Valley.

Finance SUMMARY

FINANCIAL SUMMARY/OVERVIEW AND BUDGETARY ISSUES

Budget Overview

OC San's proposed Fiscal Year (FY) 2023-24 operating and capital improvement program budget totals $487.4 million, or $37.8 million (7.2 percent) below what was approved last year as the second year of the adopted two-year budget. The decrease in the FY 2023-24 budget is primarily attributable to a $43.3 million reduction in capital spending for changes in project estimates and scheduling and an increase of $5.5 million in operating budget.

The budget continues to reflect the agency's ongoing efforts to streamline operations. Staffing levels are proposed at 653 FTEs in FY 2023-24.

OC San's Capital Improvement Program (CIP) budget for FY 2023-24 is $272.0 million. This CIP budget finances collection system, joint works treatment and disposal system improvement projects. The $43.3 million decrease from the originally proposed budget is attributable to changes in project schedules and estimates that result in deferred spending.

Financing

OC San 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 $789.8 million. There may be opportunities to refinance maturing and callable debt during FY 2023-24 that will produce savings over the life of the debt. No new money debt financings are currently forecasted to assist in the funding of the $3.1 billion in capital improvements required over the next ten years.

Staffing

Reflecting the organization's commitment to efficiency and providing the expected high level of service, the budget includes an increase of 5 authorized full time positions for FY 2023-24. Total filled positions will not exceed 653 full time equivalent (FTE) staff positions. This staffing level continues to reflect a significant reduction from the FY 1995-96 approved staffing level of 678 positions.

Overall personnel costs for FY 2023-24 will approximate the original adopted budget due to reductions in labor and retirement premiums to Orange County Employees' Retirement System (OCERS) following the retirement of approximately seventy employees in the last two years.

Costs for medical insurance and workers compensation benefits are also expected to remain the same as the level originally approved. OC San will continue to effectively manage these expenses with approximately 26 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 approximately 185 million gallons of wastewater each day generated by approximately 2.6 million residents and a 1.8-million-person employment in central and northwest Orange County. The proposed budget to operate, maintain and manage our sewage collection, treatment and disposal system in FY 2023-24 is $215.4 million.

The cost per million gallons of wastewater treated, (an industry-wide performance measurement), is expected to increase in FY 2023-24 to $3,190, a $295, or 10.2 percent increase from the FY 2022-23 projection of $2,895. The increase in the cost per million gallons is due to a $14.3 million increase in total operating costs.

Sewer Service Fees

The FY 2023-24 single family residential rate, the underlying basis for all sewer rates, is proposed at $358 a year. This represents an increase of $11 or 3.2 percent per the rate structure approved by the Board of Directors.

Groundwater Replenishment System (GWRS)

The OC San Strategic Plan includes water reclamation. In partnership with Orange County Water District (OCWD), the GWRS, the nation's largest water reclamation project was completed in January 2008.

The original GWRS facility reclaimed 70 million gallons of water per day. OC San and OCWD equally shared the expenses of this project.

Initial expansion of the GWRS increased the production of reclaimed water to 100 million gallons per day (mgd). This expansion, which was funded entirely by the OCWD, was completed in 2015. OC San directed all reclaimable flows from Plant No. 1 to OCWD in support of providing maximum amounts of treated wastewater for reclamation.

The plan to achieve the final expansion of the GWRS was approved by both OC San and OCWD Board of Directors in 2016. The final expansion of GWRS brings the total production of reclaimed water to 130 mgd. Since OC San has maximized the available reclaimable wastewater treated at Plant No. 1, secondary effluent from Plant No. 2 is sent to the GWRS for reclamation. Modification of existing Plant No. 2 Headworks, a new plant water pump

2023-24 BUDGET UPDATE

Secondary clarifier at Plant No. 1 in Fountain Valley.

station and construction of new pumping, equalization and conveyance facilities was funded by OCWD. As the Headworks Modification and Plant Water project is impacting OC San's critical infrastructure, OC San managed the design and construction of these projects and will be reimbursed by OCWD up to $50 million. GWRS final expansion was completed in 2023.

Capital Improvement Program (CIP)

The total net CIP budget for FY 2023-24 is being proposed at $272.0 million, a decrease of $43.3 million from the previously approved FY 2023-24 budget primarily due to changes in project schedules and estimates that result in deferred spending over the next 10 years. OC San's Capital Improvement Program will:

- Rehabilitate the headworks, primary treatment, utility systems and perform security improvements at Plant No. 1.
- Replace one third of the primary treatment facilities, rehabilitate the outfall pumping system and perform power reliability improvements at Plant No. 2.
- Rehabilitate all of the digester gas compressor systems.
- Rehabilitate and replace digesters at Plant No. 2.
- Construct a new Headquarters Complex.
- Replace or rehabilitate OC San's aging pump stations and trunk sewers in the collection system. This includes the West Side sewers and Seal Beach Pump Station.

Operating Budget Increase — $19.9M

The operations budget for the collection, treatment, and disposal of wastewater is proposed at $215.4 million, a $19.9 million (10.2 percent) increase above FY 2022-23 projected expenditures.

Although some expenses will increase or decrease slightly, the overall increase to the operating budget in FY 2023-24 over the FY 2022-23 projected is primarily attributable to the following specific areas:

FINANCIAL SUMMARY/OVERVIEW AND BUDGETARY ISSUES

Salaries and Benefits — $11.0M Increase

Salaries and benefits will increase $11.0 million above the FY 2022-23 projected expenditures primarily due to the impacts of the collective bargaining agreements, adding new employees, and increases in medical insurance premiums. The increases are partially offset by a decrease in workers' compensation costs and lower retirement premiums resulting from OC San's previous decision to use available cash reserves to reduce the unfunded pension liability.

Professional Services — $1.6M Increase

The increase is primarily due to increases in anticipated engineering costs and technical consulting for operationally funded projects and software program consultants for OC San systems.

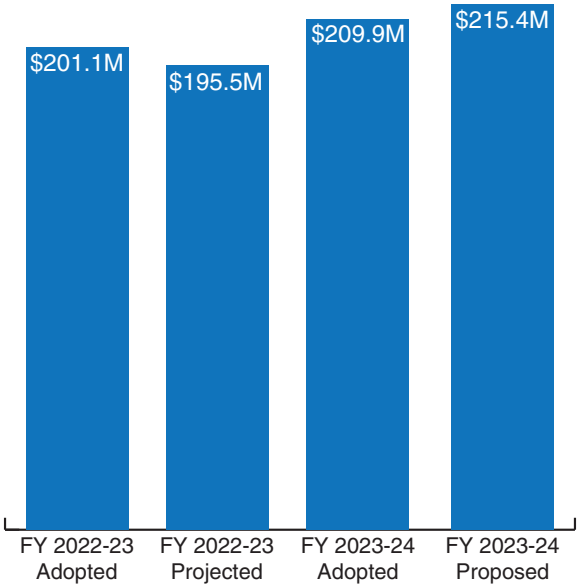
Repairs and Maintenance — $5.3M Increase

This expense category includes parts and services for repairing aging treatment plant and collection facilities. It also reflects base budgets for equipment maintenance as well as outsourced annual service contracts and maintenance agreements. The FY 2023-24 budget increase over the FY 2022-23 projected expenditures is mostly attributable to delayed rehabilitation projects for primary and secondary clarifiers, increases in basic repairs and maintenance costs and repairs to major trunklines in the collection system.

Operating Materials, Supplies and Services — $3.0M Increase

The proposed budget increase over the FY 2022-23 projected expenditures is due to increased chemical and biosolids hauling costs.

Operating Expenses (in millions)



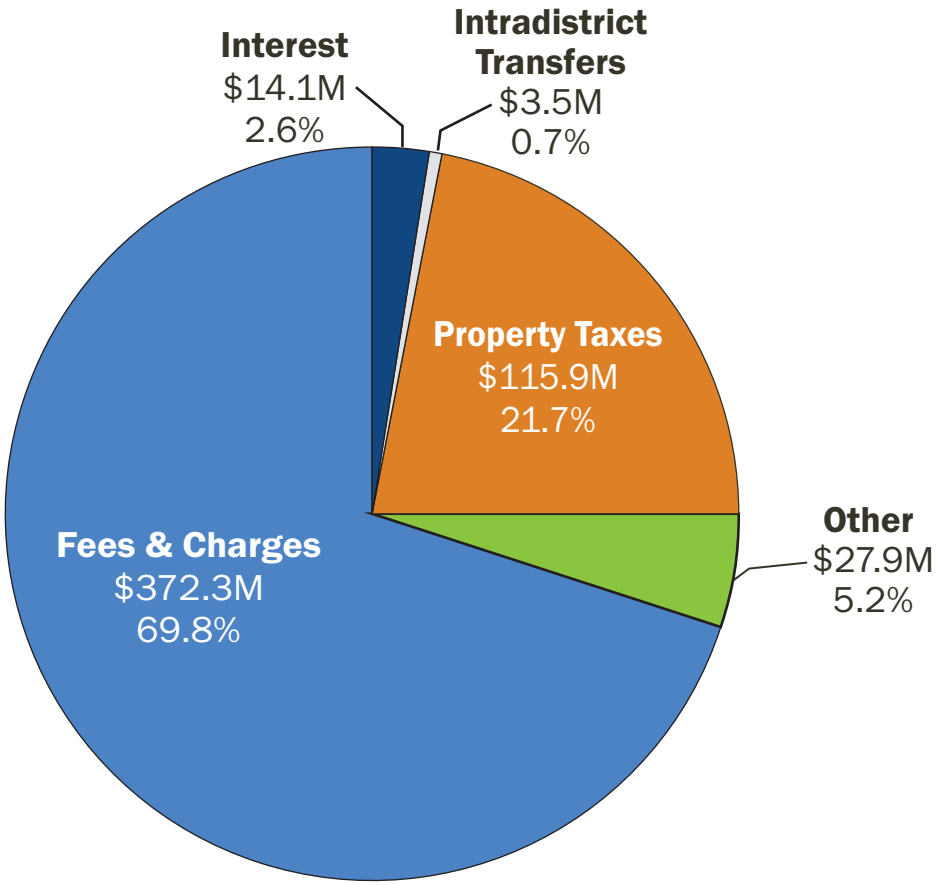
Operating expenses increase $5.5 million (2.6%) in FY 2023-24 over the previously adopted budget.

2023-24 BUDGET UPDATE

Secondary clarifier at Plant No. 1 in Fountain Valley.

FINANCIAL SUMMARY/FUNDING SOURCES BY CATEGORY

Where The Money Comes From



Funding Sources by Category (in millions)

Category	2022-23 Adopted	2023-24 Adopted	2023-24 Proposed
Service Fees	$326.0	$339.2	$337.7
Property Taxes	109.8	112.1	115.9
Permit User Fees	12.5	12.9	16.1
Capital Facilities Capacity Charges	17.9	18.5	18.5
Interest	14.5	13.7	14.1
Intradistrict Transfers	3.5	3.5	3.5
Debt Proceeds	0.0	0.0	0.0
Other Revenue	31.2	26.1	27.9
Total Funding Sources	$515.4	$526.0	$533.7

2023-24 BUDGET UPDATE

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

General Service Fees — $337.7M

User fees are ongoing fees for service paid by customers connected to the sewer system and are the primary source of OC San's revenue. 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). Proposed FY 2023-24 general service fees reflect a decrease over the prior adopted fiscal year amount due to decreases in the Irvine Ranch Water District's (IRWD) capital assessment.

Property Taxes — $115.9M

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. OC San 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 FY 1992-93. OC San's share of this revenue is dedicated for the payment of debt service before other operational expenses.

Permit User Fees — $16.1M

Permit user fees are paid by large industrial and commercial property 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. The increase in permit fees is due to the results of the rate study that was completed and approved by the Board of Directors in FY 2022-23.

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

Capital Facilities Capacity Charges (CFCC) — $18.5M

The Capital Facilities Capacity Charge is a one-time charge imposed at the time a building or structure is newly connected to OC San's system, directly or indirectly, or an existing structure or category of use is expanded or increased. This charge pays for OC San 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 — $14.1M

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 IRWD and OC San dated November 15, 1995, ownership is adjusted annually to reflect the current equity percentage ownership based on sewage flows.

Debt Proceeds — $0.0M

Certificates of Participation (COP) are OC San'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 OC San serves as the purchaser.

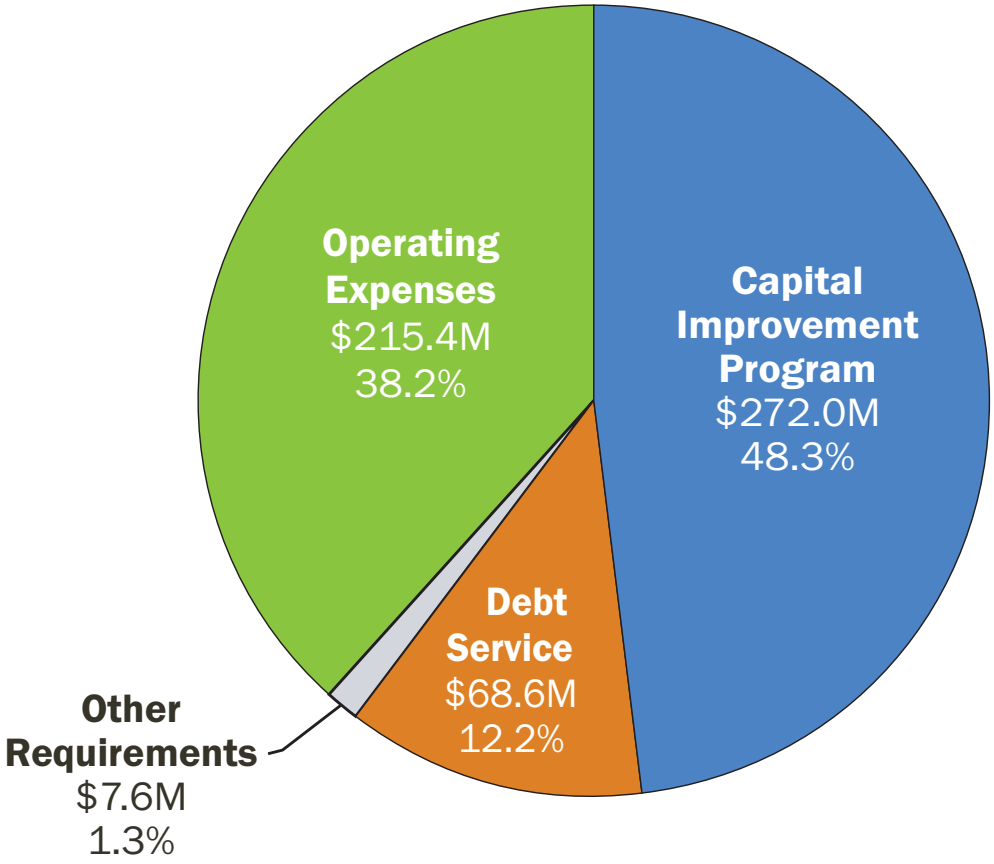
Refinancing COPs can be beneficial to OC San when there is maturing or callable issues. No new money debt issuances are being proposed as the $3.1 billion in future replacement, rehabilitation, and refurbishment projects anticipated over the next ten years will be adequately funded through current sewer service fee charges and existing reserves.

Other Revenue — $27.9M

Other revenue includes self-insurance assessments for workers' compensation and general liability coverage, reimbursements from other agencies for shared CIP and operating costs, and miscellaneous revenue such as rents and leases.

FINANCIAL SUMMARY/FUNDING SOURCES BY CATEGORY

Where The Money Goes



Funding Uses by Category (in millions)

Category	2022-23 Adopted	2023-24 Adopted	2023-24 Proposed
Capital Improvement Program, Net	$268.2	$315.3	$272.0
Operating Expenses	201.1	209.9	215.4
Debt Service	68.6	68.6	68.6
Other Requirements	7.2	7.4	7.6
Total Funding Uses	$545.1	$601.2	$563.6

2023-24 BUDGET UPDATE

OC San budgets its funds in four distinct areas:

Capital Improvement Program (CIP) — $272.0M

To provide an appropriate level of service to OC San's ratepayers, large capital improvements are required. The CIP provides for the management and implementation of these improvements. The CIP budget includes specific projects, cost estimates, and timelines. The gross CIP project budgets for FY 2023-24 total $288.6 million; however, the CIP cash outlays, net of savings and deferrals, is $272.0 million.

Operating Expenses — $215.4M

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

Debt Service — $68.6M

This is the cost of repaying debt. Long-term debt financing allows OC San to complete large multi-year capital projects by providing funds not always immediately available. Currently, OC San is on track to pay off its $789.8 million outstanding debt by 2044.

Other Requirements — $7.6M

This item includes self insurance costs and an amount 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 OC San dated November 15, 1995, where ownership is adjusted annually to reflect the current equity percentage ownership based on sewage flows.

Final steel beam installation at Headquarter Complex.

COLLECTION, TREATMENT AND RECYCLING PROCESS OVERVIEW

OC San's system includes approximately 388 miles of sewers that convey wastewater generated within OC San'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 25-30 percent solids consistency, called biosolids, and recycled via direct land application or composting.

Reclaimable effluent from Plant No. 1 and Plant No. 2 are sent to OCWD for recycling in its two treatment processes.

The first is OCWD's GWRS. The GWRS can produce up to 130 mgd of high quality water. That is enough to meet the needs of nearly one million residents in north and central Orange County.

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 demand for GAP water is about 4 mgd.

GWRS water tanks at Reclamation Plant No. 1 in Fountain Valley.

2023-24 BUDGET UPDATE

Reclamation Plant No. 1 in Fountain Valley.

STRATEGIC PLANNING

Introduction

Driven by the mission, vision, core values, and the Strategic Plan, OC San continues proactive 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.

Mission Statement

The Mission Statement is the basic foundation that defines why we exist.

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

Vision Statement

The Vision Statement supports the Mission Statement by expressing a broad philosophy of what the Orange County Sanitation District strives to achieve now and in the future in the delivery of services to our customers, vendors, other agencies, the general public and each other.

Orange County Sanitation District will be a leader in:

- Providing reliable, responsive, and affordable services in line with customer needs and expectations.
- Protecting public health and the environment utilizing all practical and effective means for wastewater, energy, and solids resource recovery.
- Continually seeking efficiencies to ensure that the public's money is wisely spent.
- Communicating our mission and strategies with those we serve and all other stakeholders.
- Partnering with others to benefit our customers, this region, and our industry.
- Creating the best possible workforce in terms of safety, productivity, customer service, and training.

Core Values

Our Core Values support the Mission and Vision Statements by expressing the values, beliefs, and philosophy that guide our daily actions. They help form the framework of our organization and reinforce our professional work ethic.

Integrity, Inclusion, Honesty, and Respect
We aspire to the highest degree of integrity, inclusion, honesty, and respect in our interaction with each other, our suppliers, our customers, and our community. We strive to demonstrate these values in our actions, commitments, and service.

Leadership, Teamwork, and Problem Solving
We lead by example, acknowledging the value of our resources and using them wisely to achieve our mission. We strive to reach OC San goals through cooperative efforts and collaboration with each other and our constituencies. We work to solve problems in a creative, cost-effective, and safe manner, and we acknowledge team and individual efforts.

Customer Service, Transparency, and Accountability
We are committed to acting in a timely, accurate, accessible, and transparent manner through excellent customer service. We are committed to act in the best interest of our internal and external stakeholders.

Resiliency, Innovation, and Learning
We continuously develop ourselves, enhancing our talents, skills, and abilities. We recognize that only through personal growth and development will we progress as an agency and as individuals.

Safety
We are committed to providing a safe work environment. We will demonstrate leadership, promote individual accountability, and participate actively in the advancement of our health and safety practices.

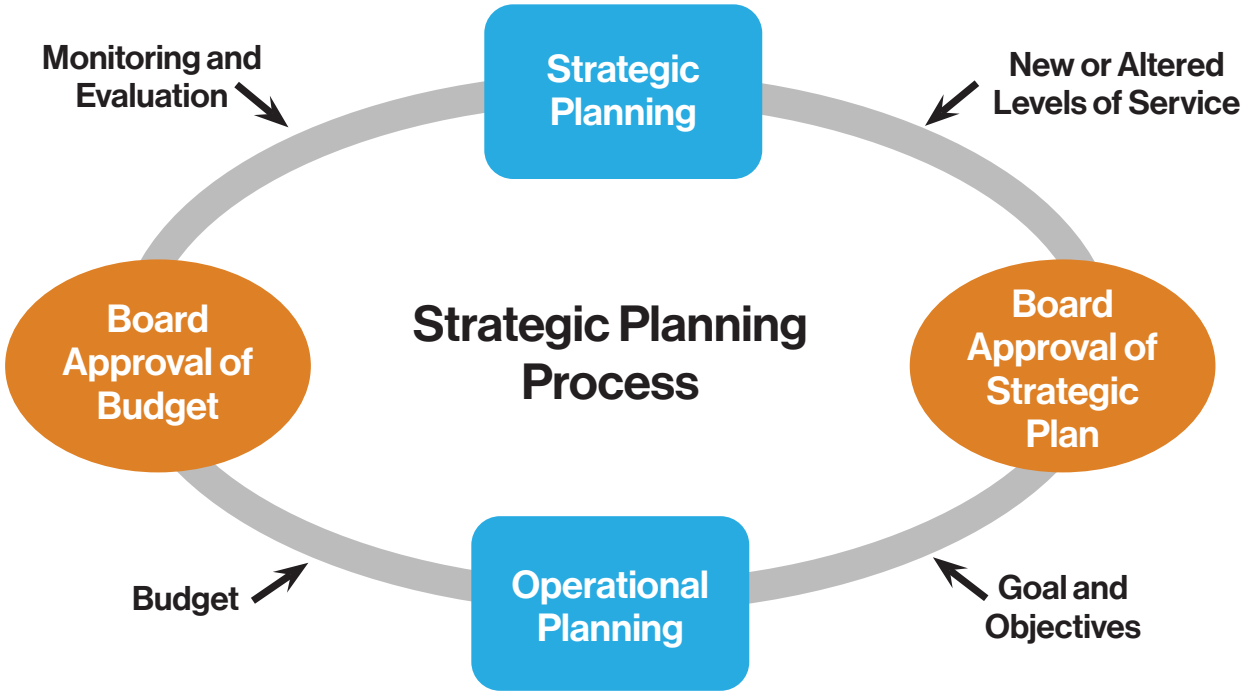
Planning Environment

OC San is a resource recovery agency focused on providing reliable and cost-effective public services. OC San uses a two-year, four-step management process that creates and maintains vision alignment between the Board of Directors, staff, and the public we serve. It all begins with a Strategic Plan developed by the Board and staff that provides guidance and direction for long-term financial, capital, and operational efforts.

Strategic Plan

Strategic planning is the first step to define OC San's ability to have people and assets in place to meet its agreed upon mission. The second step is budget development. The budget document lays out the tactical planning and resource allocation based on the adopted Strategic Plan. The third step is budget execution which is the day in and day out delivery of services to the public we serve. The final step is reporting on our level of service delivery and goal attainment.

These four steps are repeated every two years to maintain alignment and adjust based on Board Member input, legal and regulatory changes, and the needs of the communities we serve. This management system is intended to carry on over the course of transitioning Board Members and staff to deliver resilient daily



services and morph our facilities and systems over time to meet new challenges facing Orange County. The Strategic Plan is timed to be adopted by the Board of Directors in the November prior to the bi-annual budget development.

The Strategic Plan is broken down into four broad categories with fifteen policy 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
  - o Organizational Outreach and Advocacy
- **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 radical departure from the current direction, but rather the well-defined iterative update to the direction of OC San. With the updating of the Strategic Plan in November 2023, 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.

INFRASTRUCTURE ASSET MANAGEMENT

Asset Management

OC San 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. OC San 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.

OC San'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 OC San's changing needs. This coordinated decision-making process will allow OC San to consistently meet mandated levels of service to the rate payers at the lowest lifecycle cost.

The ongoing improvement and maturation of the Asset Management Program has resulted in the annual publication of an Asset Management Plan which provides details on the program, asset condition summaries, and budgetary considerations. The plan evaluates the remaining useful life of assets by discipline within each of the major areas (Collection System, Reclamation Plant No. 1, and Treatment Plant No. 2). An overarching trend identified by the Asset Management Program is an increasing need to focus on renewal expenditures as the average age of OC San's assets continues to increase.

The Asset Management Plan is not only useful for documenting the current condition of OC San's assets, but it also allows for the development of a more thoughtful 20-year CIP plan which considers which projects are necessary, when they are needed, and how best to accomplish them.

The value of OC San's assets and the 20-year CIP plan to sustain them are summarized in the following sections and described in more detail in the CIP Budget Request Summary section of this report.

Digesters at Plant No. 2 in Huntington Beach.

2023-24 BUDGET UPDATE

Asset Valuation

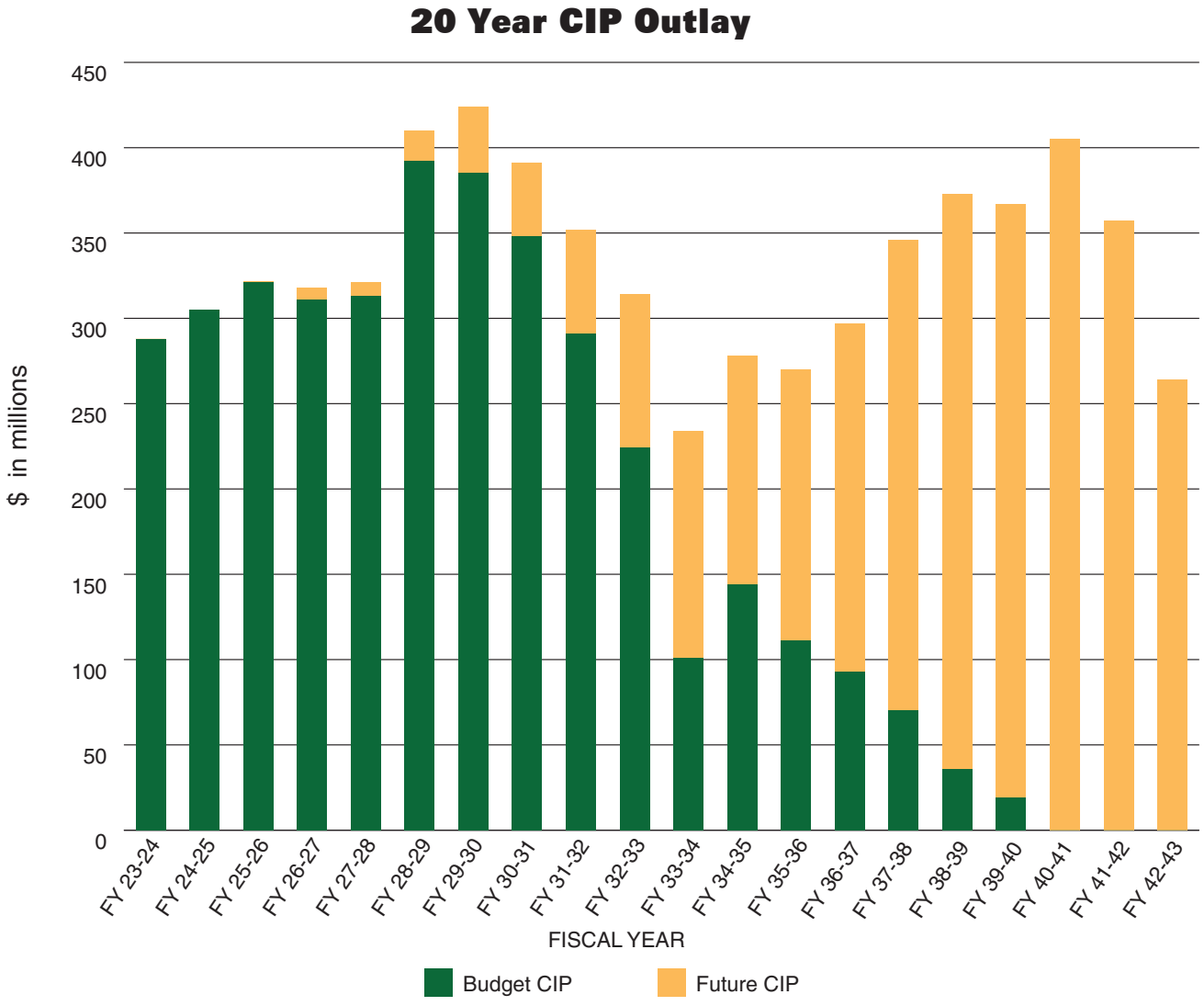
The replacement valuation for all of OC San's assets was updated in 2018 as part of the 2017 Facilities Master Plan. The table below presents the current valuations of OC San's assets. The replacement value represents the cost in 2023 dollars to construct similar facilities.

Valuation	Plants	Collections	Total
Replacement Value (in billions)	$8.5	$4.1	$12.6

The estimated replacement value in FY 2022-23 is $12.6 billion based on the Engineering News-Record Construction Cost Index (CCI) increase since the 2017 Facilities Master Plan.

Planned CIP Outlays

The following chart shows the 20-year CIP outlay which includes both current and projected future CIP projects. Additional information on the proposed CIP outlay for Board Authorized Projects is provided in the CIP Budget Request Summary section of this report. The second half of the 20-year CIP outlay is primarily comprised of future projects which are reevaluated and adjusted annually to reflect any new information available.



INFRASTRUCTURE ASSET MANAGEMENT

Infrastructure Asset Management

OC San manages and assesses collection system and treatment plant 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 infrastructure maintenance activities and associated capital projects for FY 2023-24.

Collection System

OC San's collection system consists of 388 miles of sewers, 15 pump stations and 3 metering stations. The maintenance of all regional sewers is actively managed but only 230 miles of regional sewers are on a cleaning schedule as the largest sewers and force mains are designed to be self-cleaning based upon 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.

The projected cost for collection system maintenance in FY 2022-23 is over $15 million. The proposed cost for FY 2023-24 is $15 million.

Collection System Capital Improvement Projects

OC San'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 portions of our service area.

In FY 2023-24 a focus will be on replacing three of OC San's important pump stations. Project No. 3-67 and Project No. 5-67 are both anticipated to begin construction within the fiscal year to replace Seal Beach Pump Station and Bay Bridge Pump Station, respectively. Project No. 11-33, Edinger Pump Station Replacement, is anticipated to complete its preliminary design and move into the design phase. The reliability of all of OC San's pump stations are critical for preventing sanitary sewer overflows; however, these three pump stations are a priority for replacement with an average age of 56 years since original installation. These projects are projected to spend a combined $8 million in FY 2023-24.

Additionally, there will be a widespread effort to address mostly age-related condition issues throughout the collection system. Project No. 1-23, Santa Ana Trunk Sewer Rehabilitation; Project No. 3-60, Knott — Miller Holder Artesia Branch Rehabilitation; and Project No. 7-68, MacArthur Force Main Improvements, are three good examples of this typical ongoing rehabilitation effort. Project No. 1-23 and Project No. 3-60 will both be in the design phase in FY 2023-24 while Project No. 7-68 will begin construction. These projects are projected to spend a combined $6 million in FY 2023-24.

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

The maintenance program is continually being optimized with a focus on predictive and preventative maintenance which identifies and addresses issues when they initially develop. This approach not only allows for a more planned and less disruptive maintenance program but is also more cost effective. Each year the maintenance divisions complete tens of thousands of these predictive and preventative maintenance tasks.

The projected cost for treatment plant maintenance in FY 2022-23 is $20 million. The proposed cost for FY 2023-24 is $24 million.

Reclamation Plant No. 1 Capital Improvement Projects

These projects are intended to rehabilitate or reconstruct major components of our treatment process and support facilities to ensure reliable operations.

One of the largest projects at Plant No. 1 continues to be the Headworks Rehabilitation at Plant No. 1 (Project

No. P1-105). The facility is over 30 years old, and a comprehensive refurbishment is required to ensure the continued reliable operation of the facility into the future. 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, electrical power distribution systems, and control elements. This project is in construction and is projecting to spend $63 million in FY 2023-24, with final completion scheduled in 2028.

Another significant project at Plant No. 1 is Project No. P1-128, the Headquarters Complex, which is constructing new support facilities. Currently, administrative and engineering functions are located primarily at Plant No. 1 and the buildings that house OC San 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 also includes a pedestrian bridge across Ellis Avenue that will directly link the complex to Plant No. 1. The project is in construction and is projecting to spend $35 million in FY 2023-24, with occupancy planned for early 2024.

Though early in design, Reclamation Plant No. 1 will be undergoing major overhauls of its primary and secondary treatment processes via Project No. P1-126, Primary Sedimentation Basins No. 3-5 Replacement at Plant No. 1, and Project No. P1-140, Activated Sludge-1 and Secondary Clarifier Rehabilitation.

Treatment Plant No. 2 and Outfall 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 and longest duration active projects at Plant No. 2 is Project No. P2-98 (Primary Treatment Rehabilitation at Plant No. 2). This project is in construction and will renew the useful life of the 14 primary clarifiers and associated support facilities at Plant No. 2 via rehabilitation and replacement. These facilities date back to the late 1950's and need seismic and condition-based upgrades. The final phase of this project is now under construction and is projecting to spend $24 million in FY 2023-24, with completion scheduled in 2027.

Another important project in the upcoming year is the Outfall Low Flow Pump Station (J-117B) which is adding a new low flow pump station to the Ocean Outfall Booster Station. This improvement is necessary to better accommodate the reduction of flow being discharged to the ocean outfall with the reclamation of Plant No. 2 flows via the operation of GWRS final expansion facilities. The project will result in improved pumping efficiency, power savings, and better system reliability. This project is in construction and is projecting to spend $16 million in FY 2023-24.

While considering the outfall, Project No. J-137 is starting during FY 2023-24 and is projected to extend through FY 2032-33. This project will rehabilitate the existing long outfall, one of our most critical assets, and will also assess and make needed repairs to our short outfall so that both pipelines remain reliable.

Solids treatment and gas processing facility projects at Treatment Plant No. 2 also continue to move forward. Project No. P2-128, Temperature-Phased Anaerobic Digester (TPAD) Facility at Plant No. 2, and Project No. J-124, Digester Gas Facility Replacement, will provide new facilities for improved treatment, production, and reliability.

Ariel view of future Headquarters Complex.

CAPITAL IMPROVEMENT PROGRAM

CIP Budget Request Summary

OC San utilizes an asset management focused approach to effectively manage $12.6 billion of aging assets which require ongoing investment and attention. This approach includes both the consistent evaluation of the condition of existing assets and the consideration of what future facilities will be needed to address changing regulations, demographics, and strategic initiatives. OC San also performs annual reviews of active and future projects through our Capital Improvement Program (CIP) validation process.

The Project Management Office manages the scope, schedule, budget, risks, and other key project indicators of active projects. Updates are recorded monthly so that individual project and programmatic information can be monitored. During validation, OC San staff review each ongoing capital improvement project to ensure that the scopes of the projects remain appropriate, that cost estimates are current, and that prioritization and schedule fit within the program.

For future projects, the Planning Division reviews how to best package and schedule those work items identified via the asset management program. These work items are combined into projects that will maximize efficient execution and maintain operational reliability. During validation, OC San staff carefully review all future projects to ensure timing needs are accurate and no further scope changes are required.

The result of this asset management focused approach and validation process is an updated 20-year CIP budget each year.

The following information summarizes the outcome of the 2023 budget validation process which results in the proposed update to the FY 2022-23 and FY 2023-24 two-year budget.

The validated CIP includes 68 large capital projects with a total 10-year estimated cashflow expenditure of $3.1 billion. This represents a net $12 million increase from the FY 2022-23 and FY 2023-24 CIP estimate. For a listing of capital projects and their budgets, see "Summary of Capital Requirements" in the appendix.

The CIP also includes a variety of individually smaller efforts that are grouped together within the CIP – Facility Engineering Projects, Planning Studies, Research Projects, Information Technology Support, and Small Capital. These efforts are consolidated under their own project budgets that are listed as M-FE, M-STUDIES, M-RESEARCH, M-MC-IT, and M-MC-CAP respectively.

One of the more significant drivers of project budget changes during the 2023 budget validation process was ongoing impacts of the COVID-19 pandemic which has resulted in procurement delays, cost escalation, and bidding environment volatility. OC San staff utilized two consultants to review and forecast cost escalation projections for future CIP work. The result of this analysis was the decision to continue the use of our historical escalation rate moving forward.

Four new projects were created during the 2023 validation totaling $105 million. These projects are:

- 11-35 – Bolsa Chica / Edinger / Springdale Trunk Sewer Rehabilitation
- 7-70 – Chapman – El Modena – Panorama Heights Trunk Sewer Rehabilitation
- J-138 – Central Generation Facilities and OOBS Seismic Upgrades
- P1-142 – Trickling Filter Rehabilitation at Plant No. 1

All these projects were planned and have been tracked within the 20-year Capital Improvement Program.

As part of the budget update process, the following project was cancelled:

- J-136 – Power Building Structural Seismic Improvements at Plant No. 1 and 2

J-136 was cancelled as this project's scope of work items were able to be incorporated into other existing projects in the adjacent areas. This decision will allow for the more efficient execution of these improvements.

Within the appendix are descriptions and justifications for the capital improvement projects which are new projects proposed for this FY 2023-24 budget update. They give the reader a brief overview of each project, the budget for the total project, and any potential changes in the operating budget resulting from the implementation of the project. For a description of ongoing projects, see Section 8 of the FY 2022-23 and FY 2023-24 Budget (last year's book).

2023-24 BUDGET UPDATE

Final Mass Timber floor installation at future Headquarters Complex.

DEBT FINANCING PROGRAM

Debt Financing

Due to the potential magnitude of the capital improvement program, it is necessary that OC San utilize debt financing to meet its total obligations. Debt financing allows OC San 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 OC San serves as the purchaser. COPs can be issued with fixed or variable interest rates. As of July 1, 2023, the total outstanding COP indebtedness will be $789.8 million.

Build America Bonds Financings

OC San 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 5.7 percent for the federal fiscal year ended September 30, 2023.

Dedicated Funding Source

In 1992 and 2004 the Board of Directors formalized the dedication of certain funding sources. To ensure 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.

OC San Maintains AAA Bond Rating

OC San's bond rating is "AAA" from Fitch Ratings, Moody's Investors Service and S&P Global Ratings. An "AAA" Rating is the highest for a government agency. In order to maintain this rating, OC San adheres to its debt policy and coverage ratios 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

OC San 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 at 4.37 for FY 2023-24.

Future Financings

No new money debt issuances are being proposed over the next fiscal year as the $3.1 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. All COP debt is expected to be paid by 2044.

2023-24 BUDGET UPDATE

Internal combustion engine at the Central Generation Facility at Plant No. 1 in Fountain Valley.

OPERATING EXPENSES

Summary of Operating and Maintenance Expenses (in millions)

Category	2022-23 Adopted	2022-23 Projected	2023-24 Adopted	2023-24 Proposed
Salaries and Benefits	$112.8	$105.6	$118.4	$116.6
Contractual Services	20.1	20.3	21.2	21.8
Repairs and Maintenance	32.1	30.2	33.8	35.5
Operating Materials & Supplies	24.5	27.5	26.0	30.5
Utilities	12.8	16.2	12.6	12.2
Professional Services	7.9	6.0	7.6	7.6
Other Materials, Supplies, Services	3.4	2.1	3.7	3.9
Self-Insurance Requirements	2.4	2.4	2.7	3.2
Administrative Expenses	2.2	2.1	2.2	2.3
Training and Meetings	1.2	0.6	1.1	1.2
Research and Monitoring	1.7	1.4	1.8	1.8
Printing and Publications	0.8	0.6	0.4	0.4
Cost Allocation	(20.8)	(19.5)	(21.6)	(21.6)
Total Operating Expenses	$201.1	$195.5	$209.9	$215.4

Salaries, Wages, and Benefits — $116.6M

Salaries and Wages — The proposed budget for Full Time Equivalent (FTE) positions for FY 2023-24 reflects an increase of five FTEs to 653.0 from the FY 2023-24 approved staffing level of 648.0 FTEs. Provisions have been made in these salary projections to comply with the terms of the most recently adopted Memorandum's of Understanding.

Retirement — OC San employees are members of OCERS. Information from OCERS indicates that the employer's required contribution rates will be relatively unchanged in FY 2023-24 at 13.5 percent for Plan H, 13.1 percent for Plan B, and 9.8 percent for Plan U. As a result of OC San's Board of Director's actions to reduce the unfunded actuarial accrued liability, OC San's contribution rate is among the lowest in the county.

Group Insurance — These expenses include OC San's share (approximately $16,808 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 five percent increase for medical plans starting January 2024.

Contractual Services — $21.8M

The treatment plants currently produce about 550 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 2023-24 biosolids budget is $14.2 million, approximately 65 percent of the Contractual Services budget. Other residual 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, CCTV pipeline inspections, line cleaning, and temporary services.

Repairs and Maintenance — $35.5M

This item, which is for parts and services for repair of plant and collection facilities and annual service contracts, is expected to increase $5.3 million, or 17.6 percent above the FY 2022-23 projected costs of $30.2 million.

Planned repairs include: Manhole Frame & Cover Replacement and Structure Rehab ($1.8M), Plant No. 2 Trickling Filter Mast Replacement ($1.3M), digester cleaning ($1.5M), headworks cable replacements ($1.1M),

Plant No. 1 Thickening and Dewatering cake (solids that remain after the water has been removed from the sludge) transfer pump maintenance ($2.0M), and centrifuge replacement parts ($1.1M).

Operating Materials and Supplies — $30.5M

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 be $15.6 million, an increase of $1.3 million from the FY 2022-23 projected costs due to price increases.

Odor Control Chemicals — OC San 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 2023-24 budget for these chemicals is $10.1 million, approximately $1.8 million more than the FY 2022-23 projected costs.

Utilities — $12.2M

During FY 2023-24, the overall cost for utilities, a significant component of the operating budget, is anticipated to decrease by $3.9 million as follows:

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. A long term contract will reduce costs by not purchasing in the spot market. The FY 2023-24 natural gas budget is $1.6M, 38.8 percent lower than the projected FY 2022-23 costs. CenGen engine natural gas usage is expected to increase during the summer months in order to reduce peak electricity demand.

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

The FY 2023-24 proposed budget of $9.1 million is 24.1 percent lower than the FY 2022-23 projected costs due to long term contracts and the use of CenGen.

Staff have the opportunity to optimize power usage by either purchasing supplemental natural gas or electricity, whichever costs less.

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

- **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 five 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 one 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 2023-24 is $1.0 million, approximating the projected FY 2022-23 costs.

Professional Services — $7.6M

Professional Services includes General Counsel, special labor counsel, audit and miscellaneous accounting services, legislative advocacy, engineering, and other technical consulting services. The FY 2023-24 proposed budget is 26.4 percent higher than the FY 2022-23 projected cost mainly due to project delays caused by the COVID-19 pandemic, increases of engineering services, safety assessments, lab certification and audit, PFAS monitoring and studies, and consulting services.

Other Material, Supplies, Services — $3.9M

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.

Self Insurance Requirements — $3.2M

This category of costs includes an appropriation for FY 2023-24 of in-lieu premium contribution charged to operations is recommended for the Property and General Liability Program. This will serve to maintain the reserves balance for the property and general liability self-insurance programs.

OPERATING EXPENSES

OC San's outside excess general liability insurance coverage is $40 million per occurrence with self-insurance retention of $750,000.

OC San's property insurance coverage is $1 billion for perils of fire and $25 million for perils of flood, subject to a self-insurance retention of $1 million. OC San is partially self-insured for earthquake but does carry $25 million in coverage on fifteen key structures with a $5 million deductible. OC San also has a $50 million sublimit for builder's risk under the property insurance program to ensure upcoming construction projects are adequately covered.

Administrative Expenses — $2.3M

The budget for administrative expenditures 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 — $1.2M

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 OC San continues to place an emphasis on effective safety training, as well as technical, leadership and management training, the training budget has been reduced from previous highs of two percent to approximately one percent of budgeted regular salaries due to savings achieved in part through the use of online courses.

Research and Monitoring — $1.8M

The budget for research and monitoring expenditures is maintained at approximately $1.8 million each year. It consists of contract services to carry out the extensive ocean monitoring program required by the EPA under provisions of OC San's National Pollutant Discharge Elimination System (NPDES) permit; air quality monitoring costs; OC San'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 OC San's activities is also reflected in the budget for this line item. This group of accounts also includes costs for legal advertisements and notices.

Cost Allocation — ($21.6M)

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.

Ocean Monitoring Research Vessel the Nerissa

2023-24 BUDGET UPDATE

Headworks construction at Plant No. 1 in Fountain Valley.

DEPARTMENTS SUMMARY

Expenses by Department (in millions)

Department	2022-23 Budget	2023-24 Originally Proposed	Percent Change	2023-24 Updated Proposed	Percent Change
Administration Units:					
General Manager's Office	$4.4	$4.3	(2.3%)	$5.1	17.8%
Human Resources	7.9	8.0	1.3%	8.9	11.6%
Administrative Services	32.0	33.4	4.4%	34.0	1.4%
Sub-Total	*$44.3*	*$45.7*	*3.2%*	*$48.0*	*5.0%*
Operating Units:					
Environmental Services	22.7	23.8	4.8%	24.1	1.3%
Engineering	8.9	9.0	1.1%	8.1	(10.2%)
Operations & Maintenance	125.2	131.4	4.9%	135.2	2.9%
Sub-Total	*$156.8*	*$164.2*	*4.7%*	*$167.4*	*1.9%*
Total	$201.1	$209.9	4.4%	$215.4	2.6%

Staffing by Department (FTEs)

Department	2022-23 Budget	2023-24 Originally Proposed	Percent Change	2023-24 Updated Proposed	Percent Change
Administration Units					
General Manager's Office	16.00	17.00	6.3%	18.00	5.9%
Human Resources	26.00	26.00	0.0%	28.00	7.7%
Administrative Services	103.00	103.00	0.0%	104.00	1.0%
Sub-Total	*145.00*	*146.00*	*0.7%*	*150.00*	*2.7%*
Operating Units:					
Environmental Services	93.00	93.00	0.0%	94.00	1.1%
Engineering	123.00	123.00	0.0%	123.00	0.0%
Operations & Maintenance	286.00	286.00	0.0%	286.00	0.0%
Sub-Total	*502.00*	*502.00*	*0.0%*	*503.00*	*0.2%*
Total FTEs	647.00	648.00	0.2%	653.00	0.8%

2023-24 BUDGET UPDATE

ADMINISTRATION UNITS

General Manager's Office
Budget $5.1M — Staffing 18 FTEs

The General Manager's Office provides general oversight of all OC San operations and incorporates functions in the areas of Strategic Planning, Public Affairs and Board Services.

Human Resources
Budget $8.9M — Staffing 28 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 $34.0M — Staffing 104 FTEs

The Administrative Services Department maintains financial oversight and administration of all OC San funds and accounts and is responsible for contract administration and procurement, and oversees all OC San computer, networking and customer support issues.

OPERATING UNITS

Environmental Services
Budget $24.1M — Staffing 94 FTEs

The Environmental Services Department manages all environmental monitoring, regulatory, compliance and reporting elements to ensure that OC San 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 $8.1M — Staffing 123 FTEs

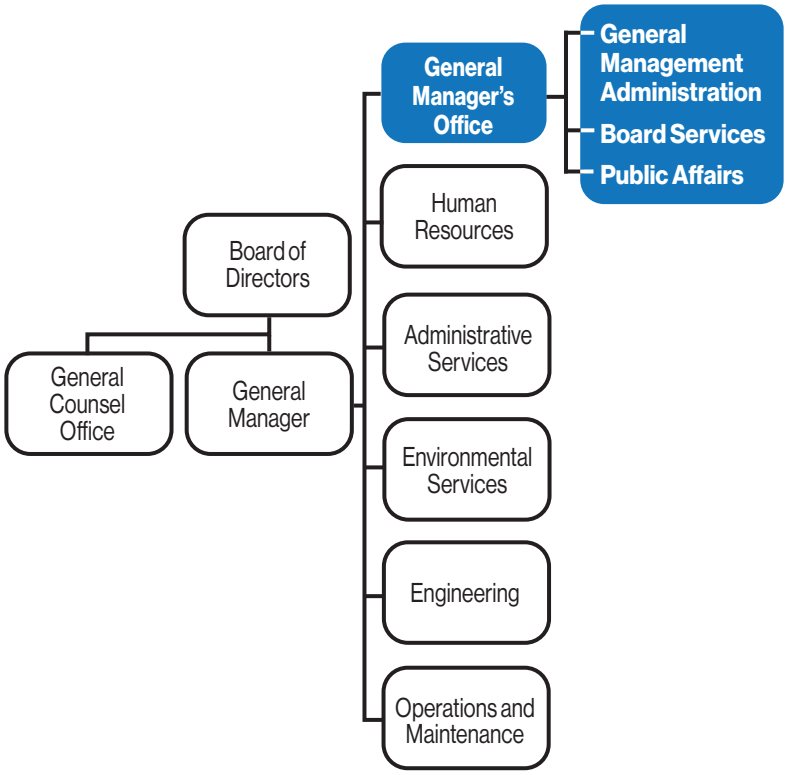
The Engineering Department is responsible for the planning and execution of OC San's capital improvement program and asset management program.

Operations and Maintenance
Budget $135.2M — Staffing 286 FTEs

The Operations and Maintenance Department is responsible for the operation and maintenance of OC San's two wastewater treatment plants as well as the sanitary sewer system pipeline and pumping facilities. The department also provides fleet management services for OC San.

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 OC San. The General Manager reports directly to the Board of Directors and provides general oversight to all agency operations, interagency relations, legislative activities, and communications. The General Manager directly oversees Human Resources, Board Services, and Public Affairs.

Board Services promotes public trust and ensures transparency by preparing and publishing agendas and notices in accordance with legal requirements; accurately recording and preserving the legislative actions; safeguarding vital, historic, and permanent records of OC San; and providing exceptional customer service and support to the Board of Directors, OC San staff, and the general public in a courteous, timely and efficient manner.

Public Affairs (PAO) is responsible for creating, organizing, and disseminating all internal and external communications. The primary objective of the PAO is to deliver messages that are accurate, transparent, and designed to foster public trust and confidence.

2023-24 BUDGET UPDATE

Operating Expense

Category	2022-23 Budget	2022-23 Projected	2023-24 Adopted	2023-24 Proposed
Personnel	$2,816,200	$3,313,900	$2,928,700	$3,612,022
Supplies	864,560	761,160	511,303	576,380
Professional / Contractual Services	774,204	516,500	830,204	792,500
Research & Monitoring	-	-	-	-
Repairs & Maintenance	-	-	-	-
Utilities	-	-	-	-
Other	152,710	180,744	163,410	222,054
Cost Allocation	(120,500)	(120,290)	(120,500)	(120,500)
Total	$4,487,174	$4,652,014	$4,313,117	$5,082,456

Budget Overview

The FY 2023-24 budget for the General Manager's Office reflects an increase of 17.8 percent over the originally adopted budget. The increase is primarily due to costs for personnel, training, and the video library project.

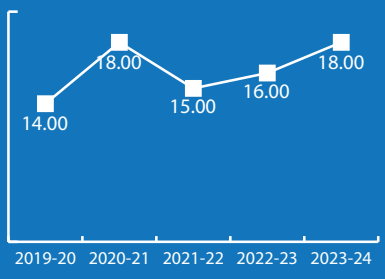
Performance Objectives / Measures

- Ensure that the Board approved Strategic Plan is implemented.
- Provide leadership development opportunities reaching at least 70 percent of staff.
- Maintain the Special District Leadership Foundation (SLDF) District Transparency Certificate of Excellence.
- Respond to 100 percent of public records requests within 10 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 OC San's external audience by reaching a minimum of 6,000 people per year.
- Ensure proactive engagement in legislative advocacy efforts that could impact OC San and the wastewater industry through the implementation of a Legislative and Regulatory Affairs Plan.
- Manage operating expenditures to within 96 to 100 percent of the approved budget.

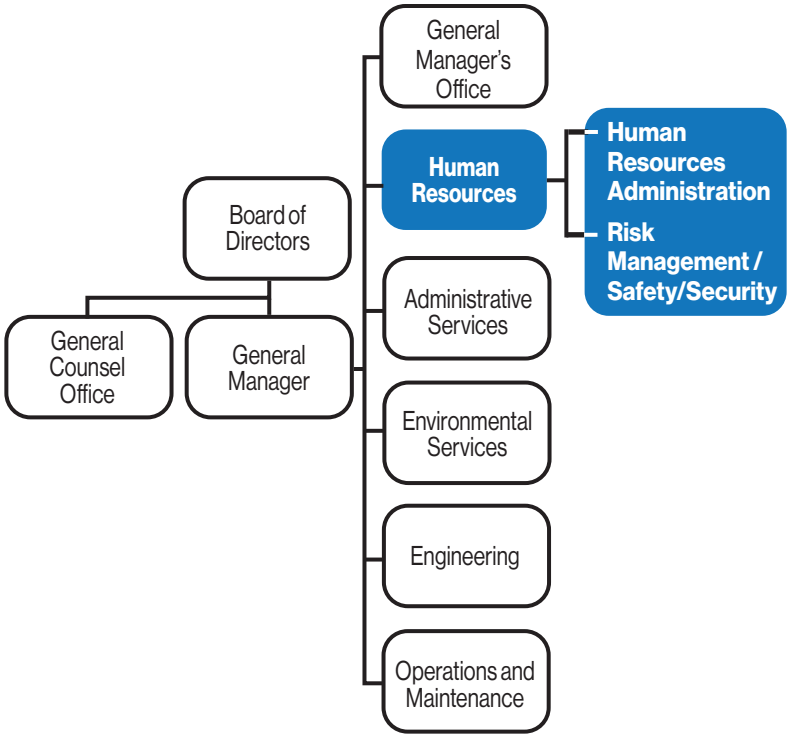
Authorized FTE Positions

Managers	4.00
Supervisors /Professionals	8.00
Administrative /Clerical	6.00
Total	18.00

Staffing Trends



HUMAN RESOURCES DEPARTMENT



Service Description

Human Resources is a full-service centralized department responsible for all aspects of Human Resources and Risk Management administration, including managing OC San's human capital, developing and administering programs that are legally compliant and ensure a productive and safe workplace that attracts and retains top talent, and supports a positive employment relationship. The Human Resources Department is committed to a workplace grounded in fair and equitable employment decisions and practices. This department serves as a strategic partner and in-house advisor to the General Manager, executive staff, OC San departments, and all staff by delivering high quality programs and services with an emphasis on customer satisfaction as a key objective.

Human Resources Administration oversees all human resources functions, including Benefits Administration, Classification and Compensation, Employee and Labor Relations, Workers Compensation, Employee Training and Development, Performance Management, and Recruitment and Selection. Benefits Administration includes managing a suite of offerings that supports OC San's workforce, coordinating an annual health fair and open enrollment. Classification and Compensation ensures we have accurate classifications, and compensation systems that are competitive, which is critical to ensure successful and equitable Human Resources programs. Employee and Labor Relations works to manage the employment relationship by providing expert advice and direction on labor agreements, policies, laws and work-related issues; administers the labor negotiations process, employment investigations, disciplinary actions and performance management. Workers Compensation supports employees who may become ill or injured in the course of employment by providing responsive medical care and claims handling, as well as facilitating employees' return to work. Employee Training and Development develops, implements and evaluates all legally mandated and professional development training programs. Through the Recruitment and Selection program, OC San seeks to attract, hire, and retain the best qualified employees in a manner that is fair, equitable and merit-based.

Risk Management/Safety/Security focuses primarily on maintaining a safe work environment for employees, contractors and visitors, and protecting employees in the workplace from accidents, illnesses and injuries. The safety team is responsible for identifying and mitigating all job hazards and risks to the organization, and ensuring employees receive the necessary training, personal protective equipment, and other resources to perform their job safely and effectively. Safety is a priority for OC San, and this area includes comprehensive safety training programs, safe working practices, regulatory compliance, contractor oversight, and facility inspections and audits. Other responsibilities include physical security and emergency preparedness activities such as the oversight of OC San's contracted security services, planning emergency drills, and ensuring OC San staff is properly trained and have adequate supplies to respond to an emergency. OC San's comprehensive safety and health management systems are effective at reducing risk, workplace accidents and injuries, increasing productivity and efficiency, and promoting employee retention and job satisfaction.

2023-24 BUDGET UPDATE

Operating Expense

Category	2022-23 Budget	2022-23 Projected	2023-24 Adopted	2023-24 Proposed
Personnel	$4,581,300	$4,412,000	$4,781,700	$4,994,340
Supplies	858,520	805,110	767,170	757,810
Professional / Contractual Services	3,659,328	3,440,882	3,584,328	4,305,110
Research & Monitoring	-	-	-	-
Repairs & Maintenance	15,550	11,000	15,550	15,550
Utilities	-	-	-	-
Other	164,210	152,210	164,210	166,210
Cost Allocation	(1,335,830)	(1,335,930)	(1,335,830)	(1,335,830)
Total	$7,943,078	$7,485,272	$7,977,128	$8,903,190

Budget Overview

The FY 2023-24 budget for the Human Resources Department reflects a 11.6 percent increase from the originally adopted budget. The increase is primarily due to increases in personnel costs, medical insurance, employee benefits, security services, and compliance with the Voluntary Protection Program.

Performance Objectives / Measures

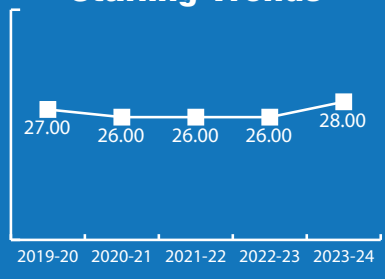
- Implementation of a centralized training program.
- Review all training requirements and support departments in meeting the training level of service target of 45 hours per employee.
- Work with upper management to resolve issues at the lowest level through conflict resolution training and techniques.
- Reduction in injury rates through monitoring and partnering with departments to implement effective safety and health systems and processes.
- Completion of quarterly safety training, near miss and building inspection status reports.
- 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

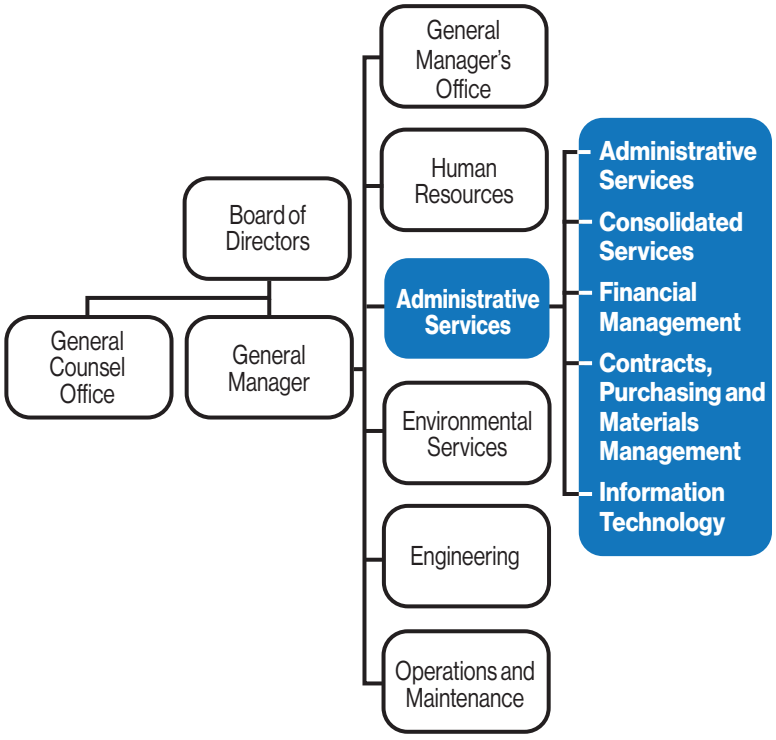
Managers 3.00
Supervisors /Professionals .. 21.00
Administrative /Clerical 4.00

Total 28.00

Staffing Trends



ADMINISTRATIVE SERVICES DEPARTMENT



Service Description

The Administrative Services Department oversees all of OC San'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 OC San. The Administrative Services Department consists of five divisions:

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

Consolidated Services accounts for various OC San expenses that are not attributed to one division.

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

Contracts, Purchasing, and Materials Management is responsible for contract administration and procurement for all departments. Additionally, this division manages OC San's warehouse, 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, databases and programming, solutions and application support, and cybersecurity.

2023-24 BUDGET UPDATE

Operating Expense

Category	2022-23 Budget	2022-23 Projected	2023-24 Adopted	2023-24 Proposed
Personnel	$18,815,793	$17,715,810	$19,915,625	$19,441,400
Supplies	1,787,748	1,533,891	1,814,389	1,936,794
Professional / Contractual Services	3,315,995	3,002,443	2,982,118	3,169,550
Research & Monitoring	-	-	-	-
Repairs & Maintenance	4,402,633	4,378,370	4,608,665	4,678,665
Utilities	1,376,267	2,301,540	1,431,905	1,521,905
Other	4,129,211	2,626,360	4,430,425	4,995,375
Cost Allocation	(1,825,200)	(1,825,690)	(1,825,200)	(1,825,200)
Total	$32,002,447	$29,732,724	$33,357,927	$33,918,489

Budget Overview

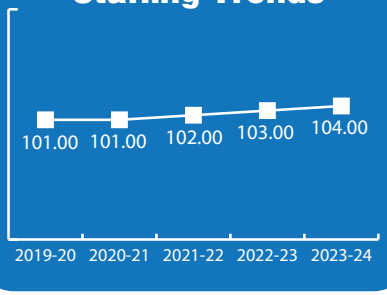
The FY 2023-24 budget for the Administrative Services Department reflects a 1.4 percent increase from the originally adopted budget. The increase is primarily due to property and general liability insurance costs. This is partially offset by a decrease in personnel costs.

Authorized FTE Positions

Managers 4.00
Supervisors /Professionals .. 66.00
Technical Services..... 12.00
Administrative /Clerical..... 22.00

Total 104.00

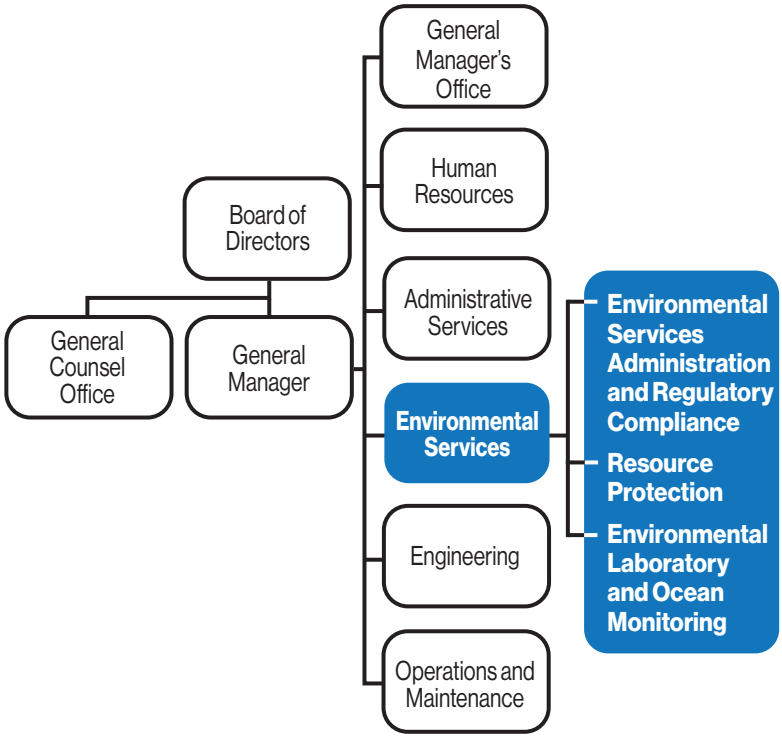
Staffing Trends



Performance Objectives / Measures

- Validate project schedules and costs for the CIP in conjunction with the budget process.
- 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.
- Replace obsolete desktop, mobile, and server computers. Rotate desktop computers every 5 years, mobile computers every 3 years, and servers every 5-6 years.
- Cybersecurity Awareness Protection – report on the overall effectiveness of phishing campaign.
- Manage operating expenditures to within 96 to 100 percent of the approved budget.

ENVIRONMENTAL SERVICES DEPARTMENT



Service Description

The Environmental Services Department manages OC San's environmental monitoring, regulatory compliance and reporting elements to ensure that OC San 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, dry weather urban runoff diversion, biosolids, and on-site stormwater management. The Environmental Services Department consists of three divisions:

Environmental Services Administration and Regulatory Compliance provides leadership, support, and management oversight for the Department to accomplish OC San's Strategic Plan and departmental annual goals. The Regulatory Compliance group is tasked with ensuring adherence to environmental regulations and permit conditions for ocean discharge, air emissions, potable reuse, and biosolids management. The team actively advocates for responsible and pragmatic environmental regulations relevant to wastewater treatment and resource recovery.

Resource Protection provides local enforcement of federal pretreatment regulations and ensures continuous improvement in OC San's enhanced source control program to sustain water reclamation and beneficial biosolids reuse. The division conducts its industrial and non-industrial source control activities in a cost effective and legally defensible manner to protect OC San's assets, employees, public health, and the environment.

Environmental Laboratory and Ocean Monitoring provides sampling, ocean and treatment process monitoring, laboratory analysis, and oceanographic research services to OC San's operations and to protect receiving water quality. The division is responsible for collaborating with OC San's coastal monitoring partners and advancing analytical innovation in key regulatory areas such as compounds of emerging concern and toxic air contaminants.

2023-24 BUDGET UPDATE

Operating Expense

Category	2022-23 Budget	2022-23 Projected	2023-24 Adopted	2023-24 Proposed
Personnel	$16,016,900	$15,508,160	$16,904,000	$16,815,888
Supplies	1,243,255	1,167,310	1,231,615	1,310,130
Professional / Contractual Services	1,882,621	1,036,776	2,008,400	2,191,970
Research & Monitoring	1,675,450	1,369,817	1,751,363	1,776,363
Repairs & Maintenance	432,000	432,000	432,000	432,000
Utilities	-	-	-	-
Other	1,429,340	1,429,594	1,531,140	1,638,340
Cost Allocation	(14,750)	40,130	(16,990)	(16,990)
Total	$22,664,816	$20,983,787	$23,841,528	$24,147,701

Budget Overview

The FY 2023-24 budget for the Environmental Services Department reflects an increase of 1.3 percent from the originally adopted budget. The increase is primarily attributable to increases in meetings and training, tools, outside lab services, legal costs, air quality audit, environmental scientific consulting, advocacy efforts, and regulatory operating fees.

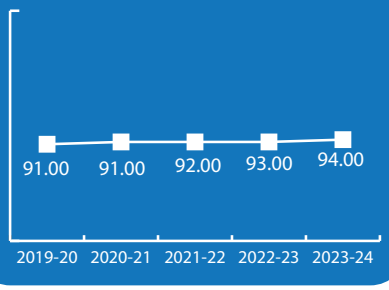
Performance Objectives / Measures

- 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.
- Conduct audits of all major environmental permits at least once every three years.
- Complete 100 percent of Safety Scorecard requirements each quarter.
- Manage operating expenditures to within 96 to 100 percent of the approved budget.

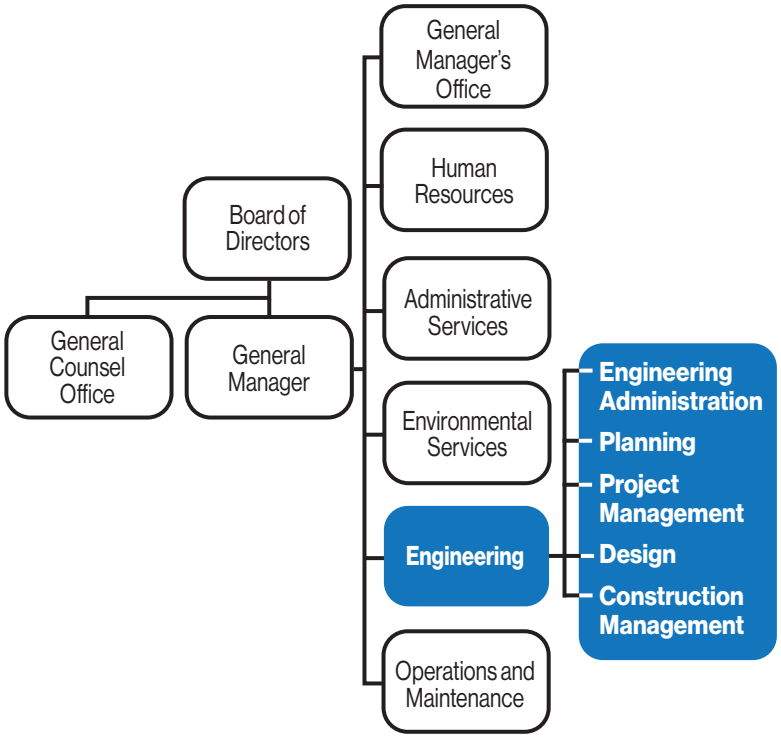
Authorized FTE Positions

Managers	4.00
Supervisors /Professionals	64.00
Administrative /Clerical	8.00
Technical	18.00
Total	94.00

Staffing Trends



ENGINEERING DEPARTMENT



Service Description

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

Engineering Administration provides management to all Engineering divisions.

Planning is responsible for developing and maintaining a comprehensive Capital Improvement Program for OC San considering projected capacity requirements, condition of assets, anticipated regulatory and level of service changes, and technological opportunities. Planning is responsible for OC San'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 and facilities repair 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.

2023-24 BUDGET UPDATE

Operating Expense

Category	2022-23 Budget	2022-23 Projected	2023-24 Adopted	2023-24 Proposed
Personnel	$24,241,135	$21,351,160	$25,276,435	$24,415,090
Supplies	331,260	278,537	300,690	260,950
Professional / Contractual Services	1,404,000	1,199,000	1,410,000	1,395,000
Research & Monitoring	-	-	-	-
Repairs & Maintenance	1,400	1,120	1,400	1,400
Utilities	-	-	-	-
Other	5,330	12,450	5,350	3,090
Cost Allocation	(17,094,070)	(15,104,630)	(17,953,930)	(17,953,930
Total	$8,889,055	$7,737,637	$9,039,945	$8,121,600

Budget Overview

The FY 2023-24 budget for the Engineering Department reflects a 10.2 percent decrease from the originally adopted budget primarily due to decreases in personnel & retirement costs, membership, operating materials & supplies, and legal costs. The overall decrease was partially offset by increases for meetings and trainings.

Performance Objectives / Measures

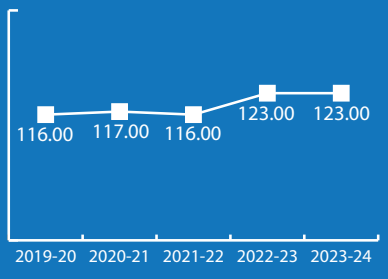
- Expend 90 to 105 percent of project annual Capital Improvement Program cash flows.
- Ensure that reporting divisions achieve 90 percent of individual performance objectives.
- Prepare and maintain a 20-year agency-wide capital plan coordinating condition assessment, regulatory requirements, changing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

Authorized FTE Positions

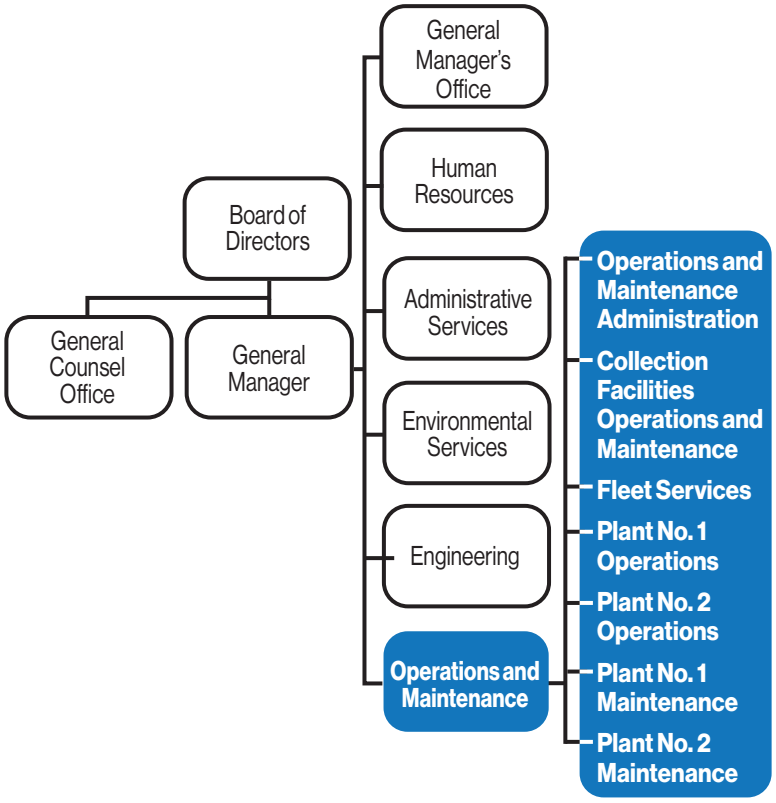
Managers 5.00
Supervisors /Professionals .. 91.00
Administrative /Clerical 27.00

Total 123.00

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 O&M 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, pumping facilities, and the Regional Odor and Corrosion Control System (ROCCS). Coordinates with Resource Protection to ensure compliance with all regulatory permits.

Fleet Services provides vehicles, equipment, logistics support, crane services, and motor pool management to all OC San staff. Coordinates with Environmental Compliance to ensure compliance with all regulatory permits pertaining to mobile equipment.

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, odor and air quality control processes, and digester gas transmission. Activities also include ensuring compliance with all Federal and State regulatory permits, support of the Capital Improvement Program, Asset Management, and coordination of construction and maintenance work. Plant No. 1 and Plant No. 2 Operations also ensures the delivery of specification water to the GWRS for recycling.

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 facilities. Plant No. 1 Maintenance also includes planning for all maintenance activities as well as reliability engineering for both Plants and the Collection System.

2023-24 BUDGET UPDATE

Operating Expense

Category	2022-23 Budget	2022-23 Projected	2023-24 Adopted	2023-24 Proposed
Personnel	$46,300,254	$43,266,100	$48,568,554	$47,308,836
Supplies	23,448,321	26,273,341	25,102,752	29,521,858
Professional / Contractual Services	16,931,025	17,036,465	18,089,025	17,525,600
Research & Monitoring	-	240	-	-
Repairs & Maintenance	27,283,791	25,371,765	28,727,324	30,372,798
Utilities	11,427,001	13,884,519	11,127,061	10,737,661
Other	139,620	138,480	141,336	143,316
Cost Allocation	(371,880)	(1,109,990)	(393,920)	(393,920)
Total	$125,158,132	$124,860,920	$131,362,132	$135,216,149

Budget Overview

The FY 2023-24 budget for the O&M Department reflects a 2.9 percent increase from the originally adopted budget. The increase is primarily due to increases for chemical costs (ferric chloride, cationic polymer, bleach, ferrous chloride, and other miscellaneous chemicals) and repairs & maintenance costs. The overall increase was partially offset by a decrease in salaries, wages, and benefits due to retirements.

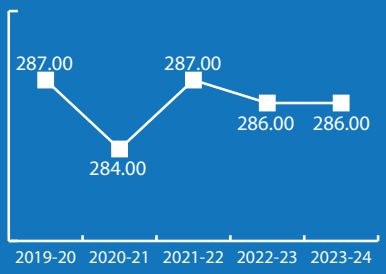
Performance Objectives / Measures

- Achieve 100 percent compliance with water, solids, air, and energy permits and regulatory requirements.
- Achieve 100 percent compliance level of 90 to 100 percent of the Level of Service targets.
- Manage operating expenditures to within 96 to 100 percent of the approved budget.

Authorized FTE Positions

Managers	4.00
Supervisors /Professionals	64.00
Administrative /Clerical	6.00
Technical	1.00
Operations & Maintenance	211.00
Total	286.00

Staffing Trends



Surge tower at Plant No. 2 in Huntington Beach.

Appendix

Cash Flow Projection

Orange County Sanitation District

Consolidated Cash Flow Projections

Ref	Description	Preliminary 23-24	Preliminary 24-25	Preliminary 25-26	Preliminary 26-27	Preliminary 27-28	Preliminary 28-29
	Revenues:						
1	General User Fees	322,149,324	335,322,038	348,571,008	361,896,188	376,242,519	397,304,016
2	Permitted User Fees	16,147,299	16,733,446	17,319,000	17,906,000	18,538,000	19,485,000
3	IRWD Assessments	12,563,605	13,094,346	13,292,000	13,078,000	13,213,000	15,148,000
4	SAWPA Assessments	2,945,000	3,062,000	3,154,000	3,248,000	3,345,000	3,445,000
5	Property Taxes	115,850,120	118,282,973	121,831,000	125,486,000	129,251,000	133,129,000
6	New COP Issues	-	-	-	-	-	-
7	Interest Revenues	14,109,000	13,537,000	12,866,000	12,410,000	12,212,000	11,740,000
8	Capital Facilities Capacity Charges	18,533,000	19,163,000	19,760,000	19,917,000	20,076,000	20,244,000
9	Other Revenues	31,391,805	18,864,671	11,444,000	11,634,000	11,829,000	12,028,000
10	**Revenues**	**533,689,153**	**538,059,474**	**548,237,008**	**565,575,188**	**584,706,519**	**612,523,016**
	Requirements:						
11	Oper & Mtce Exp (3.0% yr)	215,389,585	220,793,956	227,418,000	234,241,000	241,268,000	248,506,000
12	Capital Improvement Program (CIP)	288,648,000	305,323,000	321,103,000	311,903,000	313,786,000	392,622,000
13	Less: CIP Savings & Deferrals	(16,670,000)	(17,610,000)	(30,670,000)	(38,960,000)	(46,770,000)	(69,620,000)
14	Allocation for Future Rehabilitation	-	-	677,000	3,613,000	8,037,000	18,816,000
15	COP Debt Service	68,611,384	68,572,384	68,626,000	68,500,000	72,653,000	72,652,000
16	Reduction of Long-Term Liabilites	-	-	-	-	-	-
17	Other Requirements	7,668,500	7,823,000	4,323,000	4,323,000	4,323,000	4,323,000
18	**Requirements**	**563,647,469**	**584,902,340**	**591,477,000**	**583,620,000**	**593,297,000**	**667,299,000**
19	**Revenues-Requirements**	**(29,958,316)**	**(46,842,866)**	**(43,239,992)**	**(18,044,812)**	**(8,590,481)**	**(54,775,984)**
	Accumulated Funds:						
20	Beginning of Year	962,616,702	932,658,386	885,815,520	842,575,528	824,530,716	815,940,235
21	**End of Year**	932,658,386	885,815,520	842,575,528	824,530,716	815,940,235	761,164,251
22	**Consolidated Reserve Policy**	551,988,692	557,482,000	563,493,000	569,435,000	575,349,000	584,445,000
23	**Over (Under) Reserve Policy***	**380,669,694**	**328,333,520**	**279,082,528**	**255,095,716**	**240,591,235**	**176,719,251**
	Sewer Service User Fees:						
24	Avg SFR Annual User Fee	$358	$371	$384	$397	$411	$432
25	Percentage Change	3.17%	3.63%	3.50%	3.39%	3.53%	5.11%
26	Equivalent Dwelling Units	933,378	936,178	938,987	941,804	944,629	947,463
27	SFR Connection Fee	$5,719	$5,776	$5,834	$5,892	$5,951	$6,011
28	Outstanding COPs	$758,170,000	$725,050,000	$690,220,000	$653,775,000	$611,355,000	$566,815,000
	Reserve Policy						
29	50% Next Year Operating Expense	107,695,000	110,397,000	113,709,000	117,121,000	120,634,000	124,253,000
30	10% Next Year Operating Expense	21,539,000	22,079,000	22,742,000	23,424,000	24,127,000	24,851,000
31	100% Next Year AUG COP Svc.	18,515,692	17,726,192	16,898,192	16,027,442	15,116,317	14,055,817
32	50% average ten-year CIP Balance	153,422,000	153,422,000	153,422,000	153,422,000	153,422,000	153,422,000
33	Debt Svc @ 10% Outstanding COP	75,817,000	72,505,000	69,022,000	65,378,000	61,136,000	56,682,000
34	Self Funded Insurance @ $100M	100,000,000	103,630,000	107,257,000	110,893,000	114,808,000	120,675,000
35	Repl & Refurb	75,000,000	77,723,000	80,443,000	83,170,000	86,106,000	90,506,000
36	*Reserve Reduction (in accordance with Board action allowing a $40M reduction to total reserves)					-	-
37	Total	551,988,692	557,482,192	563,493,192	569,435,442	575,349,317	584,444,817
	COP Ratios						
38	Sr Lien Coverge, Min 1.25	4.37	4.35	4.39	4.55	4.45	4.73

Orange County Sanitation District

Consolidated Cash Flow Projections

Ref	Description	Preliminary 29-30	Preliminary 30-31	Preliminary 31-32	Preliminary 32-33	10-Year Total
	Revenues:					
1	General User Fees	419,438,000	442,655,000	466,964,000	492,372,000	3,962,914,093
2	Permitted User Fees	20,477,000	21,515,000	22,597,000	23,725,000	194,442,745
3	IRWD Assessments	16,942,000	16,616,000	14,602,000	13,205,000	141,753,951
4	SAWPA Assessments	3,548,000	3,654,000	3,763,000	3,875,000	34,039,000
5	Property Taxes	137,123,000	141,237,000	145,474,000	149,838,000	1,317,502,093
6	New COP Issues	-	-	-	-	-
7	Interest Revenues	10,624,000	9,512,000	9,453,000	10,674,000	117,137,000
8	Capital Facilities Capacity Charges	20,407,000	20,578,000	20,744,000	20,919,000	200,341,000
9	Other Revenues	12,233,000	12,442,000	12,656,000	12,875,000	147,397,476
10	**Revenues**	**640,792,000**	**668,209,000**	**696,253,000**	**727,483,000**	**6,115,527,358**
	Requirements:					
11	Oper & Mtce Exp (3.0% yr)	255,961,000	263,640,000	271,549,000	279,695,000	2,458,461,541
12	Capital Improvement Program (CIP)	385,038,000	348,365,000	291,750,000	224,045,000	3,182,583,000
13	Less: CIP Savings & Deferrals	(21,930,000)	(8,110,000)	(53,440,000)	(76,480,000)	(380,260,000)
14	Allocation for Future Rehabilitation	39,867,000	43,110,000	61,014,000	90,982,000	266,116,000
15	COP Debt Service	72,650,000	71,141,000	74,731,000	87,215,000	725,351,768
16	Reduction of Long-Term Liabilites	-	-	-	-	-
17	Other Requirements	4,323,000	4,323,000	4,323,000	4,323,000	50,075,500
18	**Requirements**	**735,909,000**	**722,469,000**	**649,927,000**	**609,780,000**	**6,302,327,809**
19	**Revenues-Requirements**	**(95,117,000)**	**(54,260,000)**	**46,326,000**	**117,703,000**	**(186,800,451)**
	Accumulated Funds:					
20	Beginning of Year	761,164,251	666,047,251	611,787,251	658,113,251	962,616,702
21	End of Year	666,047,251	611,787,251	658,113,251	775,816,251	775,816,251
22	**Consolidated Reserve Policy**	593,876,000	603,807,000	613,742,000	622,699,000	622,699,000
23	**Over (Under) Reserve Policy***	**72,171,251**	**7,980,251**	**44,371,251**	**153,117,251**	**153,117,251**
	Sewer Service User Fees:					
24	Avg SFR Annual User Fee	$454	$477	$501	$526	
25	Percentage Change	5.09%	5.07%	5.03%	4.99%	
26	Equivalent Dwelling Units	950,305	953,156	956,015	958,883	
27	SFR Connection Fee	$6,071	$6,132	$6,193	$6,255	
28	Outstanding COPs	$520,050,000	$472,455,000	$418,740,000	$350,005,000	
	Reserve Policy					
29	50% Next Year Operating Expense	127,981,000	131,820,000	135,775,000	139,848,000	
30	10% Next Year Operating Expense	25,596,000	26,364,000	27,155,000	27,970,000	
31	100% Next Year AUG COP Svc.	12,942,317	11,773,192	10,604,703	9,325,577	
32	50% average ten-year CIP Balance	153,422,000	153,422,000	153,422,000	153,422,000	
33	Debt Svc @ 10% Outstanding COP	52,005,000	47,246,000	41,874,000	35,001,000	
34	Self Funded Insurance @ $100M	126,817,000	133,247,000	139,949,000	146,932,000	
35	Repl & Refurb	95,113,000	99,935,000	104,962,000	110,200,000	
36	*Reserve Reduction	-	-	-	-	
37	Total	593,876,317	603,807,192	613,741,703	622,698,577	
	COP Ratios					
38	Sr Lien Coverge, Min 1.25	5.02	5.40	5.41	4.89	

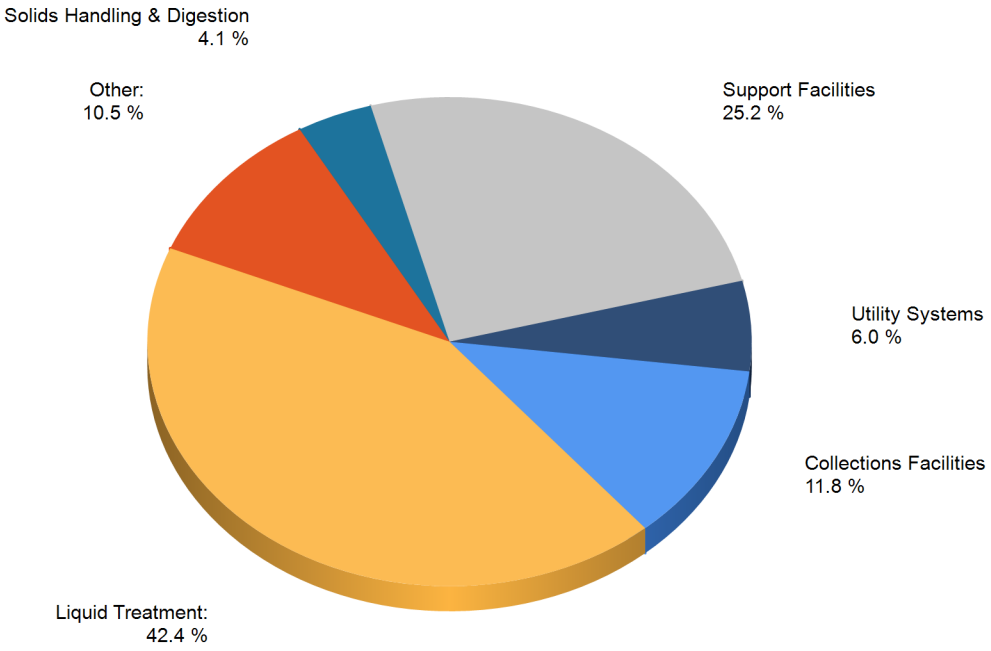
Capital Improvement Program Summary

			% Change
Approved FY 2023-24 Outlay	$	329,320,427	
Projects Completed or Cancelled		(523,480)	(0.2%)
New Projects		1,595,604	0.5%
Additions to Existing Projects		33,635,961	10.2%
Deductions from Existing Projects		(79,642,314)	(24.2%)
Changes to Capital Equipment		4,262,000	1.3%
Proposed Outlay for FY 2023-24		288,648,199	(12.4%)
Less: CIP Savings & Deferrals		($16,673,368)	(5.1%)
Proposed Net CIP Outlay	$	$271,974,831	(17.5%)
Approved FY 2023-24 Total CIP Budget Authority	$	4,289,940,250	
Projects Completed or Cancelled		(5,370,166)	(0.1%)
New Projects		105,433,000	2.5%
Additions to Existing Projects		269,614,718	6.3%
Deductions from Existing Projects		(44,608,250)	(1.0%)
FY 2023-24 Proposed Total CIP Budget Authority	$	4,615,009,552	7.7%

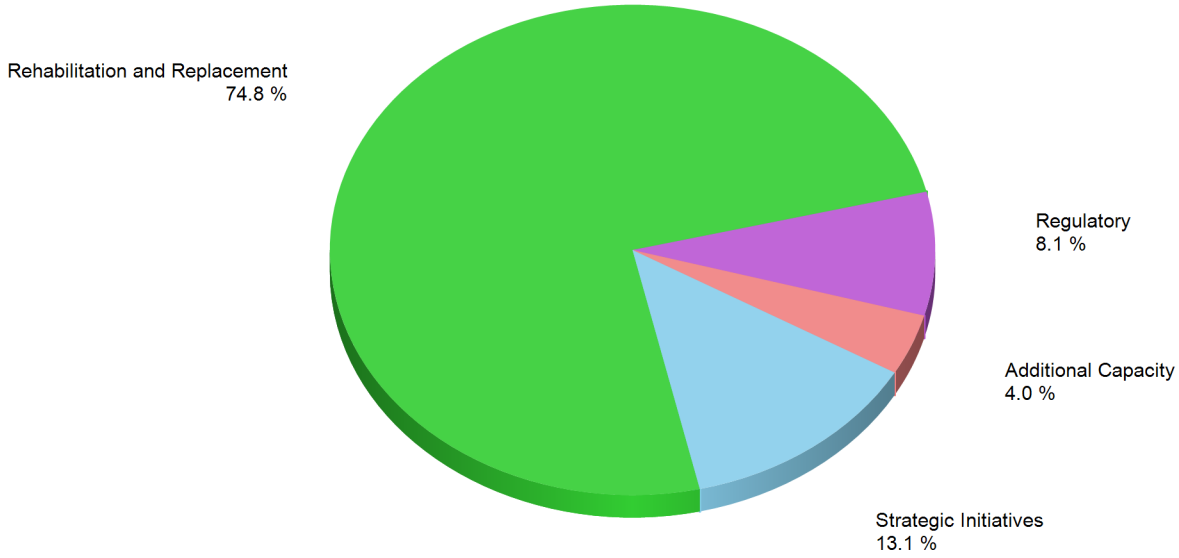
Project Summary FY 2023-24

Item	Rehabilitation and Replacement	Strategic Initiatives	Additional Capacity	Regulatory	Total Budget
Collections Facilities	$ 24,799,606	$ 3,802,797	$ 5,618,483	$ 8,270	$ 34,229,156
Solids Handling & Digestion	9,017,735	2,675,049	-	-	11,692,784
Support Facilities	44,099,041	5,721,719	2,677,257	20,221,358	72,719,375
Utility Systems	16,239,787	963,144	-	-	17,202,931
Liquid Treatment:					
Headworks	62,666,216	1,191,660	-	-	63,857,876
Primary Treatment	30,629,279	2,627,589	-	-	33,256,868
Ocean Outfall Systems	4,886,198	12,728,104	-	-	17,614,302
Secondary Treatment	7,805,335	-	-	-	7,805,335
Liquid Treatment Subtotal	105,987,028	16,547,353	-	-	122,534,381
Other:					
Capital Equipment	3,028,250	3,028,250	3,028,250	3,028,250	12,113,000
Information Management Systems	9,896,197	553,022	-	-	10,449,219
Strategic & Master Planning	2,716,469	1,358,234	226,372	226,372	4,527,447
Research	-	2,844,280	-	-	2,844,280
Others	-	325,656	-	-	325,656
Water Management Projects	-	9,970	-	-	9,970
Other Subtotal	15,640,916	8,119,412	3,254,622	3,254,622	30,269,572
Grand Total	**$ 215,784,113**	**$ 37,829,474**	**$ 11,550,362**	**$ 23,484,250**	**$ 288,648,199**
Less: CIP Savings & Deferrals					**($16,673,368)**
Proposed Net CIP Outlay					**$ 271,974,831**

Capital Improvement Expenditure Graphs



FY 2023-24 Capital Improvement Program Outlay by Process - $288.6 Million
Net CIP Outlay - $272.0 Million



FY 2023-24 Capital Improvement Program Outlay by Driver - $288.6 Million
Net CIP Outlay - $272.0 Million

Summary of Capital Requirement - Collection System Improvement Projects

	Project Number	Original Total Project Budget	Revised Total Project Budget	Approved 2023-24 Outlay	Proposed 2023-24 Outlay	Project Status
Collections Facilities						
Santa Ana Trunk Sewer Rehab	1-23	$ 54,620,000	$ 54,620,000	$ 1,545,729	$ 1,461,636	Started
Greenville Trunk Impr.	1-24	48,600,000	48,600,000	2,425,601	2,694,404	Started
Edinger Pump Station Repl.	11-33	17,300,000	17,300,000	1,215,193	1,649,919	Started
Slater Pump Station Rehab	11-34	28,511,000	28,511,000			Not Started
Bolsa Chica / Edinger / Springdale Trunk Sewer Rehab	11-35		17,500,000			New
Taft Branch Impr.	2-49	24,300,000	27,300,000	1,630,432	1,024,536	Started
Newhope-Placentia Trunk Repl.	2-72	112,000,000	112,000,000		282,746	Started
Yorba Linda Pump Station Removal & Dosing Station Installation	2-73	11,266,000	10,385,000	65,408	60,336	Not Started
Santa Ana Canyon South River Trunk Rehab	2-78	16,276,000	9,974,000	99,337		Not Started
Knott - Miller Holder Artesia Branch Rehab	3-60	28,317,000	16,500,000	697,296	578,377	Started
Westminster Blvd Force Main Repl.	3-62	43,000,000	43,900,000	2,043,590	2,443,226	Started
Rehab of Western Regional Sewers	3-64	101,000,000	94,000,000	16,715,892	6,263,898	Started
Interstate 405 Widening Project Impacts on OCSD Sewers	3-66	500,000	500,000		8,270	Started
Seal Beach Pump Station Repl.	3-67	87,000,000	114,600,000	11,577,544	3,331,561	Started
Los Alamitos Sub-Trunk Extension & Westside Pump Station Abandonment	3-68	116,799,000	119,522,000			Not Started
Crystal Cove Pump Station Rehab	5-66	13,903,000	14,431,000			Not Started
Bay Bridge Pump Station Repl.	5-67	106,000,000	128,000,000	5,275,140	3,344,146	Started
Newport Beach Pump Station Pressurization Impr.	5-68	3,200,000	2,700,000	1,101,915	1,540,628	Started
Fairview Trunk Rehab	6-20	19,300,000	19,300,000	859,273	700,344	Started
MacArthur Pump Station Rehab	7-63	9,329,000	9,858,000	203,387		Not Started
Main Street Pump Station Rehab	7-64	37,663,000	37,663,000			Not Started
Gisler-Red Hill Interceptor & Baker Force Main Rehab	7-65	44,400,000	55,500,000	18,268,938	3,935,030	Started
Sunflower & Red Hill Interceptor Repairs	7-66	7,000,000	6,600,000	307,066	455,611	Started
MacArthur Force Main Impr.	7-68	7,150,000	8,150,000	5,024,553	4,262,293	Started
North Trunk - Yorba Linda Sub-Trunk Impr.	7-69	10,854,000	13,997,000	101,207	192,195	Not Started
Chapman - El Modena - Panorama Heights Trunk Sewer Rehab	7-70		12,776,000			New
Collections Facilities Total Budget		**948,288,000**	**1,024,187,000**	**69,157,502**	**34,229,156**	

Summary of Capital Requirements

Summary of Capital Requirement - Treatment System Improvement Projects

	Project Number	Original Total Project Budget	Revised Total Project Budget	Approved 2023-24 Outlay	Proposed 2023-24 Outlay	Project Status
Ocean Outfall Systems						
Ocean Outfall System Rehab	J-117	166,000,000	169,000,000	15,084,374	16,398,771	Started
Ocean Outfalls Rehab	J-137	64,968,000	82,000,000	686,862	236,862	Started
Chemical Systems Rehab at P2	P2-135	5,000,000	8,000,000	431,386	858,051	Started
Emergency Overflow Wingwalls Rehab at P2	P2-139	4,370,000	4,370,000	224,545	120,618	Started
Ocean Outfall Systems Total		**240,338,000**	**263,370,000**	**16,427,168**	**17,614,302**	
Information Management Systems						
Process Control Systems Upgrades	J-120	37,000,000	35,500,000	7,240,318	9,094,534	Started
Project Mgmt. Information System	J-128	2,280,000	2,280,000		63,915	Started
Information Technology Capital Program	M-MC-IT	10,000,000	10,000,000	418,281	978,213	Started
EAM Software & Process Implementation	SP-100	9,200,000	9,200,000	383,372	312,557	Started
Information Management Systems Total		**58,480,000**	**56,980,000**	**8,041,971**	**10,449,219**	
Utility Systems						
Digester Gas Facilities Repl.	J-124	173,000,000	190,000,000	902,218	1,499,858	Started
Natural Gas Pipelines Repl. at P1 & P2	J-127	2,150,000	2,173,718			Started
Central Generation Engine Overhauls at P1 & 2	J-135	44,000,000	44,000,000	8,352,621	6,970,564	Started
Power Building Structural Seismic Impr. at P1 & 2	J-136	5,400,000	29,834	523,480		Cancelled
Central Generation Facilities & OOBS Seismic Upgrades	J-138		17,489,000			New
Electrical Power Distribution System Impr.	J-98	27,700,000	27,700,000	5,283,711	3,527,372	Started
Central Generation Rehab at P1	P1-127	33,302,000	39,784,000			Not started
Uninterruptible Power Supply Impr. at P1	P1-132	7,000,000	9,600,000	3,016,195	4,934,135	Started
12.47 kV Switchgear Repl. at Central Generation at P1	P1-136	15,388,000	15,960,000			Not started
Industrial Control System & IT Data Center Relocation at P1	P1-138	5,700,000	11,399,000	348,263	271,002	Not started
Central Generation Rehab at P2	P2-119	53,108,000	45,989,000			Not started
Utility Systems Total		**366,748,000**	**404,124,552**	**18,426,488**	**17,202,931**	
Support Facilities						
Laboratory Repl. at P1	J-133	100,000,000	100,000,000	923,219	912,699	Not started
Small Construction Projects Program	M-FE	90,000,000	90,000,000	24,676,658	25,859,874	Started
Operations & Maintenance Capital Program	M-SM-CAP	15,622,000	15,622,000	1,689,009	1,407,031	Started
Headquarters Complex	P1-128	167,500,000	169,500,000	20,767,264	35,088,202	Started
South Perimeter Security & Utility Impr. at P1	P1-134	8,150,000	8,150,000	395,278	449,665	Started
Support Buildings Seismic Impr. at P1	P1-137	23,730,000	23,730,000	1,604,316	1,158,413	Started
Administrative Facilities Demolition	P1-141	8,910,000	4,286,000	202,542		Not started
Collections Yard Relocation & Warehouse Demolition at P2	P2-127	1,900,000	6,700,000	1,296,029	4,970,723	Started

Summary of Capital Requirement - Treatment System Improvement Projects

	Project Number	Original Total Project Budget	Revised Total Project Budget	Approved 2023-24 Outlay	Proposed 2023-24 Outlay	Project Status
Support Facilities						
Operations & Maintenance Facility Impr. at P2	P2-138	84,000,000	84,000,000	2,370,340	2,872,768	Started
Support Facilities Total		**499,812,000**	**501,988,000**	**53,924,655**	**72,719,375**	
Water Management Projects						
GWRS Final Expansion Coordination	J-36-2	1,400,000	1,400,000		9,970	Started
Water Management Projects Total		**1,400,000**	**1,400,000**		**9,970**	
Research						
Research Program	M-RESEARCH	10,000,000	10,000,000	1,451,428	2,844,280	Started
Research Total		**10,000,000**	**10,000,000**	**1,451,428**	**2,844,280**	
Strategic & Master Planning						
Planning Studies Program	M-STUDIES	28,652,000	28,652,000	3,719,409	4,527,447	Started
Strategic & Master Planning Total		**28,652,000**	**28,652,000**	**3,719,409**	**4,527,447**	
Headworks						
Headworks Rehab at P1	P1-105	340,000,000	340,000,000	77,053,946	62,666,216	Started
Headworks Modifications at P2 for GWRS Final Expansion	P2-122	30,400,000	30,400,000	965,602	1,191,660	Started
Headworks Total		**370,400,000**	**370,400,000**	**78,019,548**	**63,857,876**	
Primary Treatment						
Primary Sedimentation Basins No. 3-5 Repl. at P1	P1-126	183,000,000	183,000,000	3,209,282	4,151,660	Started
Primary Sedimentation Basins No. 6-31 Reliability Impr. at P1	P1-133	14,000,000	12,700,000	5,359,565	5,255,177	Started
B/C-Side Primary Sedimentation Basins Rehab at P2	P2-133	306,093,000	306,093,000			Not started
Primary Treatment Rehab at P2	P2-98	188,000,000	188,000,000	35,935,487	23,850,031	Started
Primary Treatment Total		**691,093,000**	**689,793,000**	**44,504,334**	**33,256,868**	
Solids Handling & Digestion						
Digester Ferric Chloride Piping Repl. at P1	P1-135	1,260,000	1,260,000	125,953	254,161	Started
Interim Food Waste Receiving Facility	P2-124	6,300,000	6,300,000	16,899	134,359	Started
TPAD Digester Facility at P2	P2-128	475,000,000	588,000,000	20,101,486	9,776,359	Started
Digester P, Q, R, & S Repl.	P2-129	171,359,000	187,318,000			Not started
Digesters Rehab at P2	P2-137	40,632,000	45,000,000	1,486,783	1,420,571	Started
Truck Loading Bay Odor Control Impr. at P2	P2-140	7,600,000	8,356,000	95,012	107,334	Not started
Solids Handling & Digestion Total		**702,151,000**	**836,234,000**	**21,826,133**	**11,692,784**	
Secondary Treatment						
Activated Sludge-1 & Secondary Clarifier Rehab	P1-140	280,000,000	280,000,000	3,480,928	4,163,277	Started
Trickling Filter Rehab at P1	P1-142		57,668,000		1,595,604	New
Return Activated Sludge Piping Repl. at P2	P2-123	10,000,000	10,000,000	97,580	545,456	Started
Activated Sludge Aeration Basin Rehab at P2	P2-136	65,600,000	65,600,000	2,392,285	1,500,998	Started

Summary of Capital Requirements

Summary of Capital Requirement - Treatment System Improvement Projects

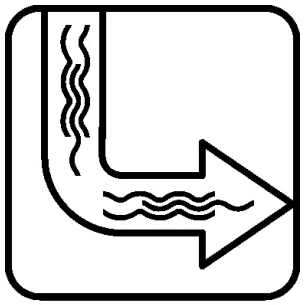
	Project Number	Original Total Project Budget	Revised Total Project Budget	Approved 2023-24 Outlay	Proposed 2023-24 Outlay	Project Status
Secondary Treatment Total		**355,600,000**	**413,268,000**	**5,970,792**	**7,805,335**	
Others						
Capital Improvement Program Mgmt. Services	SP-195	700,000	1,500,000		325,656	Started
Others Total		**700,000**	**1,500,000**		**325,656**	
Total Treatment and Disposal Projects		**3,325,374,000**	**3,577,709,552**	**252,311,925**	**242,306,043**	
Total Collections Facilities		**948,288,000**	**1,024,187,000**	**69,157,502**	**34,229,156**	
Capital Equipment Purchases		**16,278,250**	**13,113,000**	**7,851,000**	**12,113,000**	
Total		**$ 4,289,940,250**	**$4,615,009,552**	**$329,320,427**	**$288,648,199**	
Less: CIP Savings & Deferrals					**($16,673,368)**	
Proposed Net CIP Outlay					**$271,974,831**	

CIP New Project Descriptions

Project Name & Number	Bolsa Chica / Edinger / Springdale Trunk Sewer Rehabilitation - 11-35		
Project Category	Collections Facilities	Project Budget:	$17,500,000

Description

This project will rehabilitate portions of the Edinger - Bolsa Chica, Slater-Springdale, Goldenwest, and Warner Ave Trunks in the City of Huntington Beach. The project includes replacement of 1,082 feet of 24-inch to 27-inch sewer and 18 manholes with 60-inch to 72-inch manholes, the rehabilitation of 4,918 feet of 12-inch to 27-inch sewer and 34 manholes 48-inch to 72-inch in diameter, the installation of 4 new manholes, and 6 spot repairs.



Collections Facilities

Justification

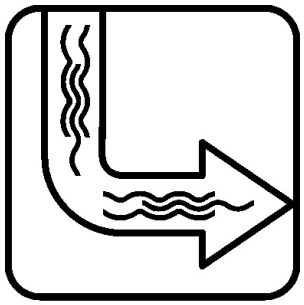
Rehabilitation of existing trunk sewer main and manholes is necessary to address identified structural deficenices.

The project's estimated construction contract cost is $10,190,000. The impacts to operational budgets have not yet been determined.

Project Name & Number	Chapman - El Modena - Panorama Heights Trunk Sewer Rehabilitation - 7-70		
Project Category	Collections Facilities	Project Budget:	$12,776,000

Description

This project will replace and rehabiliate portions of the North Trunk, Panorama Heights Sub-Trunk, and Tustin-Orange Trunk within the City of Orange and Unincorporated Orange County. The project includes the replacement of 1,785 feet of 8-inch to 12-inch sewer, replacement of 26 manholes with 60-inch manholes, and the rehabilitation of 2,178 feet of 8-inch to 27-inch sewer and fifty 48-inch to 60-inch manholes.



Collections Facilities

Justification

Replacement and rehabilitation of existing trunk sewer mains are required to address indentified structural deficencies.

The project's estimated construction contract cost is $7,440,000. The impacts to operational budgets have not yet been determined.

CIP New Project Descriptions

Project Name & Number	Central Generation Facilities and OOBS Seismic Upgrades - J-138		
Project Category	**Utility Systems**	**Project Budget:**	**$17,489,000**

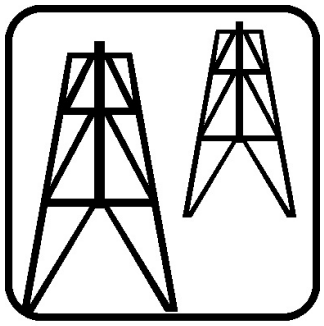
Description

Some process area buildings at Plant No. 1 and No. 2 need structural improvements to reduce the risk of failure during a significant seismic event. The Plant No. 1 buildings include the Central Generation and Solids Storage Facilities. Plant No. 2 includes the Central Generation and the Ocean Outfall Booster Station.

Justification

These older facilities do not meet current Building Codes for seismic stability. Planning Study PS15-06, Seismic Evaluations at Structures at Plant No. 1 and No. 2 identified Cen Gen and OOBS as having a high risk and consequence of failure during a significant seismic event.

The project's estimated construction contract cost is $10,670,000. The impacts to operational budgets have not yet been determined.



Project Name & Number	Trickling Filter Rehabilitation at Plant No. 1 - P1-142		
Project Category	**Secondary Treatment**	**Project Budget:**	**$57,668,000**

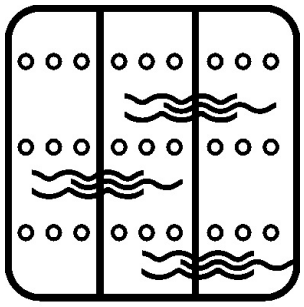
Description

This project will replace aging media in the trickling filters at Plant No. 1 and will perform coating repairs on the structure holding the media. The project also will replace the center assembly and rotatary distributor mechanism to extend the overall reliability and useful life of the trickling filters.

Justification

The trickling filter media is approaching end of useful life. The trickling filters were constructed in 2006 and media life expectancy is between 20-25 years.

The project's estimated construction contract cost is $31,700,000.



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Capital Equipment Budget Summary

Capital Equipment Budget
2023-24

Department	Trucks & Vehicles 09410000	Other Mobile Eq 09410001	Machine Eq & Tools 09410002	Comm Equipment 09410003
Contracts, Purchasing, & Materials Management	$ -	$ -	$ -	$ -
Information Technology	-	-	-	-
Resource Protection	-	-	-	-
Environmental Laboratory & Ocean Monitoring	5,818,500	-	-	330,000
Design	-	-	-	-
Construction Management	-	-	-	-
Collection Facilities O&M	-	-	-	-
Fleet Services	1,900,100	445,000	-	483,700
Plant No. 1 Operations	-	-	-	-
Plant No. 2 Operations	-	-	-	-
Plant No. 1 Maintenance	-	-	124,900	79,200
Plant No. 2 Maintenance	-	-	-	239,300
Total Proposed Capital Equipment	$ 7,718,600	$ 445,000	$ 124,900	$ 1,132,200

Capital Equipment Budget
2023-24

Department	Instr / Test Equipment 09410004	Safety & Traffic Eq 09410005	Office Fix & Eq 09410006	Computer Equipment 09410007	2023-24 Proposed Budget
Contracts, Purchasing, & Materials Management	$ -	$ -	$ 91,700	$ -	$ 91,700
Information Technology	-	-	-	2,600,600	2,600,600
Resource Protection	-	-	-	-	-
Environmental Laboratory & Ocean Monitoring	-	-	-	-	6,148,500
Design	-	-	-	-	-
Construction Management	-	-	-	-	-
Collection Facilities O&M	-	-	-	-	-
Fleet Services	-	-	-	-	2,828,800
Plant No. 1 Operations	-	-	-	-	-
Plant No. 2 Operations	-	-	-	-	-
Plant No. 1 Maintenance	-	-	-	-	204,100
Plant No. 2 Maintenance	-	-	-	-	239,300
Total Proposed Capital Equipment	$ -	$ -	$ 91,700	$ 2,600,600	$ 12,113,000

Capital Equipment Budget Detail

Capital Equipment Budget

Division	Equipment Type	Proposed Equipment Budget
230 - Contracts, Purchasing, & Materials Management		
	Automated Locker Systems (2)	91,700
	Total	$ 91,700
250 - Information Technology		
	* Budget Software	150,000
	Data Warehouse	450,000
	Endpoint Detection and Response Endpoint Protection (Security)	60,000
	Microsoft Teams Direct Routing for Voice	565,000
	* Nutanix Clusters (Hyper Converged Infrastructure)	75,600
	Plant 1 ICS Network Refresh	1,300,000
	Total	$ 2,600,600
630 - Environmental Laboratory & Ocean Monitoring		
	Ocean Monitoring Program Research Vessel	5,818,500
	Triple Quadrupole GC/MS	330,000
	Total	$ 6,148,500
822 - Fleet Services		
	11 New Mid-Size SUV - PHEV (Div770)	205,000
	2 Light Duty Trucks	90,500
	4 Fleet Trucks, 2 Vans, 8 SUV's (14 total for carry over)	775,700
	Combination Sewer Cleaning Truck	750,000
	Truck, Light Duty, Utility Body	78,900
	16 Electric Carts (O&M)	325,000
	2 Electronic Forklifts, (1) 4,000 LB & (1) 8,000 LB	100,000
	E-Cart, 4 Passenger	20,000
	Loadtec 2000KW (2500KVA) Resistive/Inductive Load Bank	483,700
	Total	$ 2,828,800
870 - Plant No. 1 Maintenance		
	SDT 270	17,000
	Windock Engine Analyzer (2)	107,900
	Calibration Work Station	79,200
	Total	$ 204,100
880 - Plant No. 2 Maintenance		
	Beamex MC6EX (7)	209,300
	Modal Shop 9200D Field Vibration Test Unit (2)	30,000
	Total	$ 239,300
	Total Proposed 2023-24 Capital Equipment Budget	**$ 12,113,000**

* Addition to the Previous FY 2022-23.

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Levels of Service

	FY 2021-22 Results	Level of Service Target
Environmental Stewardship		
OC San will protect public health and the environment.		
Compliance with Ocean Discharge Permit	100%	100%
Dry weather urban runoff collected and treated	6.5 MGD Subscribed 1.5 MGD Received	Up to 10 MGD
Major non-conformance audit findings	0	< 5 per permit per audit
Respond to corrective actions within regulatory timeline for air, solids, and water compliance audits	100%	100%
Comply with Fleet Air Emission Regulations	100%	100%
Number of odor complaints under normal operations	Plant 1: 5 Plant 2: 3 Collection System: 4	< 5 events per treatment plant < 12 events for collection system
Sanitary Sewer Spills per 100 miles	1	< 2.1
Compliance with core industrial pretreatment requirements	100%	100%
OC San's effluent, solids and biogas will be recycled.		
Provide specification effluent to Groundwater Replenishment System	100%	100%
Beneficially reuse biosolids during normal operations	99.8%	100%
Wastewater Management		
OC San will be a good neighbor and will be responsive to its customers.		
Respond to collection system spills within one hour of notification	100%	100%
Respond to odor complaints	100%	Within 1 hour in plants Within 24 hours in collection system
Respond to public complaints or inquiries regarding construction within 24 hours	100%	100%
Respond to biosolids contractor violations within one week of violation notice	100%	100%
Respond to Public Records Act requests within the statutory requirements within 10 days	100%	Within 10 days
Dig alert response within 48 hours	94.3%	100%

	FY 2021-22 Results	Level of Service Target
OC San will manage its assets to ensure reliability and security.		
Cybersecurity event monitoring and incident handling, percent successful	95%	> 87%
Annual real property assessments/inspections	Achieved 25%	25% of properties
Annual Inspection, documentation, and evaluation of collection system	71.2 miles of regional sewer pipeline / 813 manholes	70 miles of sewers 880 manholes
Business Principles		
OC San will exercise sound financial management.		
Annual user fees sufficient to cover 100% of O&M Budget	100%	100%
Collection, treatment, and disposal costs per million gallons	15.9% below budget *	Within 10% of budget
Maintain Credit Rating (Moody's, Fitch, S&P)	AAA	AAA
Workplace Environment		
OC San will provide a safe, productive workplace.		
Employee injury incident rate per 100 employees	3.6	< 4.4
Annual days away from work, restricted activity, or job transfer resulting from a work-related injury	3.06	< 2.5
Annual training hours per employee	40 hours	45 hours

* Level of Service is not within 10% of budget due to lower than anticipated increase in total operating costs. Expected increase in total operating costs for FY 2021-22 was $9.4 million. However, actual total operating costs decreased $11.9 million. The decrease is primarily due to a reduction in salaries and benefits over prior year. In addition, retirement expenses decreased as a result of the change in projected and actual earnings on pension plan investments and changes of assumptions.

Self-Funded Insurance Plans

The General Liability and Property program and the Workers' Compensation program provide for OC San to be partially self-insured for general liability and workers' compensation. The in-lieu premiums charged to the operating divisions are the revenue source for these programs. Expenses primarily consist of settlement claims, legal fees and excess loss insurance premiums. Ending Reserve Balances are projected at $100 million.

General Liability and Property

- OC San's current excess general liability insurance coverage is $40 million per occurrence and aggregate, with a self-insured retention of $750,000.
- OC San's current property insurance coverage is $1 billion for perils of fire and $25 million for perils of flood, subject to a self-insured retention of $1 million. OC San is partially self-insured for earthquake but does carry $25 million in coverage on 15 key structures with a $5 million deductible. OC San also has a $50 million sublimit for builder's risk under the property insurance program to ensure upcoming construction projects are adequately covered.
- In order to maintain the reserve balance of $98 million for the General Liability and Property program, appropriations for in-lieu premiums charged to operating divisions are recommended at $3,243,000 for FY 2023-24.

Workers' Compensation

- OC San's current excess workers' compensation coverage has unlimited statutory coverage per occurrence and $4 million employer's liability per employee with a self-insured retention of $1 million per person per occurrence.
- In order to maintain the reserve balance of $2 million for the Workers' Compensation program, appropriations for in-lieu premiums charged to operating divisions are recommended at $850,000 for FY 2023-24.

	FY 2023-24 Self-Insurance Program Budget		
DESCRIPTION OR ACCOUNT TITLE	General Liability & Property Program	Workers' Compensation Program	Total Self-Insurance Program
Beginning Reserves	$ 98,000,000	$ 2,000,000	$ 100,000,000
Revenues			
In-Lieu Premiums	3,243,000	850,500	4,093,500
Miscellaneous Other Revenue	-	-	-
Service Department Allocation	75,000	-	75,000
Total Revenues	3,318,000	850,500	4,168,500
Expenses			
Benefits/Claims	25,000	400,000	425,000
Contractual Services	-	-	-
Legal Services	30,000	70,000	100,000
Professional Services	20,000	70,000	90,000
Policy Premium Expense	3,243,000	310,500	3,553,500
Total Expenses	3,318,000	850,500	4,168,500
Excess Revenue (Expenses)	-	-	-
Ending Reserves	$ 98,000,000	$ 2,000,000	$ 100,000,000

Historical Staffing Summary

Department and Division Name	Authorized FTEs 2019-20	Authorized FTEs 2020-21	Authorized FTEs 2021-22	Authorized FTEs 2022-23	Proposed FTEs 2023-24
General Manager's Office					
General Management Administration	4.00	5.00	3.00	4.00	5.00
Board Services	5.00	7.00	6.00	6.00	7.00
Public Affairs	6.00	6.00	6.00	6.00	6.00
Department Subtotal	**15.00**	**18.00**	**15.00**	**16.00**	**18.00**
Human Resources Department					
Human Resources	16.00	16.00	16.00	16.00	18.00
Risk Management/Safety/Security	11.00	10.00	10.00	10.00	10.00
Department Subtotal	**27.00**	**26.00**	**26.00**	**26.00**	**28.00**
Administrative Services Department					
Administrative Services Administration	3.00	1.00	2.00	2.00	3.00
Financial Management	19.00	24.00	24.00	23.00	23.00
Contracts, Purchasing and Materials Management	32.00	31.00	31.00	31.00	31.00
Information Technology	47.00	45.00	45.00	47.00	47.00
Department Subtotal	**101.00**	**101.00**	**102.00**	**103.00**	**104.00**
Envrionmental Services Department					
Environmental Services Administration	2.00	2.00	11.00	12.50	12.50
Resource Protection	37.00	37.00	37.00	37.00	37.00
Laboratory, Monitoring and Compliance	53.00	54.00	45.00	43.50	44.50
Department Subtotal	**92.00**	**93.00**	**93.00**	**93.00**	**94.00**
Engineering Department					
Engineering Administration	3.00	5.00	5.00	4.00	4.00
Planning	18.00	15.00	15.00	15.00	15.00
Project Management Office	17.00	21.00	21.00	21.00	22.00
Design	52.00	36.00	34.00	34.00	33.00
Construction Management	31.00	40.00	41.00	49.00	49.00
Department Subtotal	**121.00**	**117.00**	**116.00**	**123.00**	**123.00**
Operations and Maintenance Department					
Operations and Maintenance Administration	2.00	3.00	4.00	2.00	2.00
Collection Facilities Operations & Maintenance	26.00	29.00	28.00	30.00	29.00
Fleet Services	8.00	8.00	9.00	9.00	9.00
Plant No. 1 Operations	62.00	54.00	55.00	52.00	52.00
Plant No. 2 Operations	50.00	52.00	53.00	45.00	45.00
Plant No. 1 Maintenance	86.00	85.00	85.00	94.00	97.00
Plant No. 2 Maintenance	50.00	53.00	53.00	54.00	52.00
Department Subtotal	**284.00**	**284.00**	**287.00**	**286.00**	**286.00**
Grand Total - All Departments	**640.00**	**639.00**	**639.00**	**647.00**	**653.00**

Historical Staffing Detail

Division & Position	Authorized FTEs 2019-20	Authorized FTEs 2020-21	Authorized FTEs 2021-22	Authorized FTEs 2022-23	Proposed FTEs 2023-24
General Manager's Office					
110 General Management Administration					
General Manager	1.00	1.00	1.00	1.00	1.00
Assistant General Manager	1.00	2.00	-	1.00	2.00
Administration Manager	-	1.00	1.00	1.00	1.00
Principal Staff Analyst	1.00	-	-	-	-
Secretary to the General Manager	1.00	1.00	1.00	1.00	1.00
Total General Management Administration	4.00	5.00	3.00	4.00	5.00
120 Board Services					
Clerk of the Board	1.00	1.00	1.00	1.00	1.00
Records Management Specialist	-	1.00	-	-	1.00
Assistant Clerk of the Board	-	1.00	1.00	1.00	1.00
Records Management Technician	-	-	-	-	1.00
Deputy Clerk of the Board	1.00	-	-	-	-
Data Management Technician I	-	1.00	1.00	1.00	-
Program Assistant	2.00	2.00	2.00	2.00	2.00
Office Assistant	1.00	1.00	1.00	1.00	1.00
Total Board Services	5.00	7.00	6.00	6.00	7.00
140 Public Affairs					
Administrative Manager	1.00	-	-	-	-
Principal Public Affairs Specialist	1.00	1.00	1.00	1.00	1.00
Senior Public Affairs Specialist	1.00	1.00	1.00	1.00	1.00
Public Affairs Specialist	1.00	2.00	2.00	2.00	2.00
Graphics Designer	1.00	1.00	1.00	1.00	1.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Total Public Affairs	6.00	6.00	6.00	6.00	6.00
Total General Manager's Office	**15.00**	**18.00**	**15.00**	**16.00**	**18.00**
Human Resources Department					
160 Human Resources					
Director of Human Resources	1.00	1.00	1.00	1.00	1.00
Human Resources Manager	-	-	-	-	1.00
Human Resources and Risk Manager	1.00	1.00	1.00	1.00	-
Human Resources Supervisor	2.00	2.00	2.00	2.00	2.00
Principal Human Resources Analyst	2.00	2.00	2.00	2.00	3.00
Principal Staff Analyst	-	-	-	-	1.00
Senior Human Resources Analyst	4.00	4.00	4.00	4.00	4.00
Human Resources Analyst	4.00	4.00	4.00	4.00	4.00
Human Resources Technician II	-	-	-	-	1.00
Human Resources Technician I	-	-	-	-	1.00
Human Resources Assistant	2.00	2.00	2.00	2.00	-
Total Human Resources Administration	16.00	16.00	16.00	16.00	18.00
161 Risk Management/Safety/Security					
Safety & Health Manager	-	-	-	-	1.00
Safety & Health Supervisor	1.00	1.00	1.00	1.00	-
Principal Financial Analyst	1.00	-	-	-	-
Principal Safety & Health Specialist	-	-	-	-	2.00
Security & Emergency Planning Specialist	1.00	1.00	1.00	1.00	1.00
Senior Construction Inspector	-	1.00	1.00	1.00	-
Safety Inspector	-	-	-	-	1.00
Senior Safety & Health Representative	1.00	2.00	2.00	2.00	2.00
Safety & Health Specialist	2.00	2.00	2.00	2.00	2.00
Safety & Health Representative	3.00	2.00	2.00	2.00	-
Occupational Health Nurse	1.00	-	-	-	-
Human Resources Technician II	-	-	-	-	1.00
Administrative Assistant	1.00	1.00	1.00	1.00	-
Total Risk Management/Safety/Security	11.00	10.00	10.00	10.00	10.00
Total Human Resources Department	**27.00**	**26.00**	**26.00**	**26.00**	**28.00**

Division & Position	Authorized FTEs 2019-20	Authorized FTEs 2020-21	Authorized FTEs 2021-22	Authorized FTEs 2022-23	Proposed FTEs 2023-24
Administrative Services Department					
210 Administrative Services Administration					
Assistant General Manager	-	-	1.00	1.00	-
Director of Finance / Treasurer	1.00	-	-	-	1.00
Principal Staff Analyst	1.00	-	-	-	1.00
Executive Assistant	1.00	-	-	-	-
Administrative Assistant	-	1.00	1.00	1.00	1.00
Total Administrative Services	3.00	1.00	2.00	2.00	3.00
220 Financial Management					
Controller	1.00	1.00	1.00	1.00	1.00
Accounting Supervisor	3.00	3.00	3.00	3.00	3.00
Principal Project Controls Analyst	-	1.00	1.00	1.00	-
Principal Accountant	2.00	2.00	2.00	1.00	1.00
Principal Staff Analyst	-	4.00	4.00	3.00	4.00
Senior Accountant	2.00	2.00	2.00	3.00	3.00
Senior Staff Analyst	1.00	1.00	2.00	2.00	2.00
Accountant	2.00	2.00	1.00	2.00	2.00
Payroll Technician	2.00	2.00	2.00	2.00	2.00
Accounting Technician	-	-	-	-	5.00
Accounting Assistant II	6.00	6.00	6.00	5.00	-
Total Financial Management	19.00	24.00	24.00	23.00	23.00
230 Contracts, Purchasing and Materials Management					
Purchasing & Contracts Manager	1.00	1.00	1.00	1.00	1.00
Contracts Supervisor	1.00	1.00	1.00	1.00	1.00
Purchasing Supervisor	1.00	1.00	1.00	1.00	1.00
Materials Control Supervisor	1.00	1.00	-	-	1.00
Principal Contracts Administrator	2.00	2.00	2.00	2.00	2.00
Senior Contracts Administrator	3.00	3.00	3.00	3.00	3.00
Principal Buyer	1.00	1.00	1.00	1.00	-
Senior Staff Analyst	-	1.00	1.00	1.00	1.00
Contracts Administrator	3.00	3.00	3.00	3.00	3.00
Senior Buyer	2.00	2.00	3.00	3.00	3.00
Buyer	2.00	2.00	2.00	2.00	2.00
Contract/Purchasing Technician	-	-	-	-	4.00
Contracts/Purchasing Assistant	5.00	4.00	4.00	4.00	-
Materials Management Technician	-	-	-	-	1.00
Lead Materials Management Clerk	-	-	-	-	1.00
Materials Management Clerk	-	-	-	-	6.00
Lead Storekeeper	2.00	2.00	2.00	2.00	-
Senior Storekeeper	3.00	3.00	3.00	3.00	-
Storekeeper	5.00	4.00	4.00	3.00	-
Office Assistant	-	-	-	1.00	1.00
Total Contracts, Purchasing and Materials Management	32.00	31.00	31.00	31.00	31.00
250 Information Technology					
Information Technology Manager	1.00	1.00	1.00	1.00	1.00
Information Technology Supervisor	3.00	3.00	3.00	3.00	3.00
Principal Information Technology Analyst	7.00	7.00	7.00	7.00	7.00
Senior Information Technology Analyst	10.00	10.00	10.00	12.00	12.00
Information Technology Analyst III	7.00	8.00	7.00	7.00	7.00
Records Management Specialist	1.00	-	-	-	-
Information Technology Analyst II	3.00	3.00	3.00	3.00	3.00
Data Management Technician II	7.00	6.00	7.00	7.00	7.00
Data Management Technician I	4.00	3.00	3.00	3.00	3.00
Staff Analyst	1.00	1.00	1.00	1.00	1.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Information Technology Technician	-	-	-	-	2.00
Information Technology Technician II	1.00	2.00	2.00	2.00	-
Information Technology Technician I	1.00	-	-	-	-
Total Information Technology	47.00	45.00	45.00	47.00	47.00
Total Administrative Services Department	**101.00**	**101.00**	**102.00**	**103.00**	**104.00**

Historical Staffing Detail

Division & Position	Authorized FTEs 2019-20	Authorized FTEs 2020-21	Authorized FTEs 2021-22	Authorized FTEs 2022-23	Proposed FTEs 2023-24
Envrionmental Services Department					
610 Environmental Services Administration					
Director of Environmental Services	1.00	1.00	1.00	1.00	1.00
Environmental Protection Manager	-	-	-	-	1.00
Environmental Supervisor	-	-	-	1.00	-
Senior Regulatory Specialist	-	-	2.00	2.00	2.00
Regulatory Specialist	-	-	3.00	3.00	3.00
Principal Environmental Specialist	-	-	1.00	1.50	1.50
Senior Environmental Specialist	-	-	3.00	3.00	3.00
Executive Assistant	1.00	1.00	1.00	1.00	-
Administrative Assistant	-	-	-	-	1.00
Total Environmental Services Admin. & Regulatory Compliance	2.00	2.00	11.00	12.50	12.50
620 Resource Protection					
Engineering Manager	1.00	1.00	1.00	-	-
Environmental Protection Manager	-	-	-	1.00	1.00
Engineering Supervisor	2.00	2.00	2.00	2.00	2.00
Environmental Supervisor	-	-	-	1.00	1.00
Source Control Supervisor	1.00	1.00	1.00	-	-
Senior Engineer	2.00	2.00	2.00	2.00	2.00
Engineer	4.00	5.00	5.00	5.00	5.00
Associate Engineer	3.00	2.00	2.00	2.00	2.00
Principal Environmental Specialist	3.00	3.00	3.00	3.00	3.00
Lead Source Control Inspector	1.00	1.00	1.00	1.00	1.00
Senior Environmental Specialist	1.00	1.00	1.00	1.00	1.00
Source Control Inspector II	7.00	6.00	6.00	6.00	6.00
Source Control Inspector I	2.00	3.00	3.00	3.00	3.00
Administrative Assistant	2.00	2.00	1.00	1.00	1.00
Environmental Technician	3.00	3.00	4.00	4.00	4.00
Program Assistant	4.00	4.00	4.00	4.00	4.00
Office Assistant	1.00	1.00	1.00	1.00	1.00
Total Resource Protection	37.00	37.00	37.00	37.00	37.00
630 Laboratory, Monitoring and Compliance					
Environmental Protection Manager	-	-	-	-	1.00
Environmental Lab & Ocean Monitoring Manager	1.00	1.00	1.00	1.00	
Environmental Supervisor	4.00	4.00	4.00	3.00	3.00
Senior Regulatory Specialist	2.00	2.00	-	-	-
Senior Scientist	3.00	3.00	-	3.00	3.00
Regulatory Specialist	3.00	3.00	3.00	-	-
Scientist	1.00	2.00	2.00	2.00	2.00
Associate Engineer	1.00	-	-	-	-
Principal Environmental Specialist	8.00	9.00	8.00	8.50	8.50
Senior Environmental Specialist	18.00	18.00	15.00	14.00	14.00
Boat Captain	1.00	1.00	1.00	1.00	1.00
Assistant Boat Captain	-	-	-	-	1.00
Environmental Specialist	7.00	7.00	7.00	7.00	6.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Environmental Technician	3.00	3.00	3.00	3.00	4.00
Total Environmental Laboratory & Ocean Monitoring	53.00	54.00	45.00	43.50	44.50
Total Environmental Services Department	**92.00**	**93.00**	**93.00**	**93.00**	**94.00**

Division & Position	Authorized FTEs 2019-20	Authorized FTEs 2020-21	Authorized FTEs 2021-22	Authorized FTEs 2022-23	Proposed FTEs 2023-24
Engineering Department					
710 Engineering Administration					
Assistant General Manager	1.00	-	-	-	-
Director of Engineering	1.00	1.00	1.00	1.00	1.00
Principal Staff Analyst	-	1.00	1.00	1.00	1.00
Staff Analyst	-	1.00	1.00	1.00	1.00
Assistant Engineer	-	-	-	-	1.00
Executive Assistant	1.00	1.00	1.00	-	-
Administrative Assistant	-	1.00	1.00	1.00	-
Total Engineering Administration	3.00	5.00	5.00	4.00	4.00
740 Planning					
Engineering Manager	1.00	1.00	1.00	1.00	1.00
Engineering Supervisor	2.00	2.00	2.00	2.00	2.00
Senior Engineer	3.00	2.00	2.00	2.00	2.00
Engineer	6.00	7.00	7.00	7.00	7.00
Principal Staff Analyst	2.00	1.00	1.00	1.00	1.00
Associate Engineer	2.00	1.00	1.00	1.00	1.00
Engineering Associate	1.00	1.00	1.00	1.00	-
Assistant Engineer	-	-	-	-	1.00
Administrative Assistant	1.00	-	-	-	-
Total Planning	18.00	15.00	15.00	15.00	15.00
750 Project Management Office					
Engineering Manager	1.00	1.00	1.00	1.00	1.00
Engineering Supervisor	1.00	2.00	2.00	2.00	2.00
CIP Project Manager	9.00	1.00	1.00	1.00	1.00
Senior Engineer	2.00	11.00	11.00	11.00	11.00
Principal Project Controls Analyst	1.00	-	-	-	-
Engineer	-	3.00	3.00	3.00	3.00
Principal Staff Analyst	2.00	-	-	-	-
Associate Engineer	-	1.00	1.00	1.00	2.00
Engineering Associate	-	1.00	1.00	1.00	1.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Total Project Management	17.00	21.00	21.00	21.00	22.00
760 Design					
Engineering Manager	1.00	1.00	1.00	1.00	1.00
Engineering Supervisor	4.00	4.00	4.00	4.00	3.00
Information Technology Supervisor	-	-	-	-	1.00
Construction Inspection Supervisor	2.00	-	-	-	-
Senior Engineer	7.00	12.00	11.00	11.00	10.00
Principal Information Technology Analyst	-	3.00	3.00	3.00	4.00
Engineer	13.00	8.00	7.00	7.00	7.00
Senior Cost Estimator	1.00	-	-	-	-
Senior Planner/Scheduler	1.00	-	-	-	-
Senior Information Technology Analyst	-	3.00	3.00	3.00	3.00
Associate Engineer	4.00	2.00	2.00	2.00	1.00
Senior Construction Inspector	5.00	-	-	-	-
Information Tech Analyst III	-	1.00	1.00	1.00	1.00
Engineering Associate	1.00	-	-	-	-
Senior Staff Analyst	1.00	-	-	-	-
Construction Inspector	6.00	-	-	-	-
Information Technology Analyst II	-	1.00	1.00	1.00	1.00
Engineering Assistant II	4.00	-	-	-	-
Administrative Assistant	2.00	1.00	1.00	1.00	1.00
Total Design	52.00	36.00	34.00	34.00	33.00

Historical Staffing Detail

Division & Position	Authorized FTEs 2019-20	Authorized FTEs 2020-21	Authorized FTEs 2021-22	Authorized FTEs 2022-23	Proposed FTEs 2023-24
770 Construction Management					
Engineering Manager	1.00	1.00	1.00	1.00	1.00
Engineering Supervisor	2.00	2.00	2.00	3.00	3.00
Construction Inspection Supervisor	-	3.00	3.00	3.00	3.00
Senior Engineer	7.00	2.00	2.00	4.00	4.00
Engineer	4.00	5.00	6.00	8.00	8.00
Senior Construction Inspection Supervisor	1.00	-	-	-	-
Principal Information Technology Analyst	4.00	-	-	-	-
Senior Cost Estimator	-	1.00	1.00	1.00	1.00
Senior Planner/Scheduler	-	1.00	1.00	1.00	1.00
Senior Information Technology Analyst	3.00	-	-	-	-
Associate Engineer	-	2.00	2.00	2.00	2.00
Planner/Scheduler	-	1.00	1.00	1.00	1.00
Cost Estimator	-	-	-	-	1.00
Senior Construction Inspector	3.00	7.00	7.00	8.00	8.00
Information Technology Analyst III	1.00	-	-	-	-
Construction Inspector	3.00	9.00	9.00	13.00	12.00
Information Technology Analyst II	1.00	-	-	-	-
Engineering Technician	-	-	-	-	3.00
Engineering Assistant II	-	4.00	4.00	3.00	-
Administrative Assistant	1.00	2.00	2.00	1.00	1.00
Total Construction Management	31.00	40.00	41.00	49.00	49.00
Total Engineering Department	**121.00**	**117.00**	**116.00**	**123.00**	**123.00**
Operations and Maintenance Department					
810 Operations and Maintenance Administration					
Assistant General Manager	-	-	1.00	-	-
Director of Operations & Maintenance	-	1.00	1.00	1.00	1.00
Senior Staff Analyst	1.00	1.00	1.00	1.00	1.00
Staff Analyst	1.00	1.00	1.00	-	-
Total Operations and Maintenance Administration	2.00	3.00	4.00	2.00	2.00
820 Collection Facilities Operations & Maintenance					
Engineering Manager	1.00	-	-	-	-
Maintenance Manager	-	1.00	1.00	1.00	1.00
Engineering Supervisor	-	-	1.00	1.00	-
Maintenance Supervisor	2.00	2.00	1.00	2.00	2.00
Senior Engineer	-	1.00	1.00	-	-
Principal Staff Analyst	-	-	-	1.00	-
Associate Engineer	-	-	1.00	1.00	1.00
Maintenance Specialist	-	-	-	1.00	2.00
Principal Environmental Specialist	-	1.00	1.00	1.00	1.00
Senior Environmental Specialist	-	1.00	1.00	1.00	1.00
Lead Mechanic	5.00	5.00	5.00	5.00	5.00
Senior Mechanic	8.00	7.00	7.00	7.00	7.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Mechanic	8.00	8.00	7.00	7.00	7.00
Environmental Technician	-	1.00	1.00	1.00	1.00
Office Assistant	1.00	1.00	-	-	-
Total Collection Facilities Operations and Maintenance	26.00	29.00	28.00	30.00	29.00

Division & Position	Authorized FTEs 2019-20	Authorized FTEs 2020-21	Authorized FTEs 2021-22	Authorized FTEs 2022-23	Proposed FTEs 2023-24
822 Fleet Services					
Maintenance Supervisor	1.00	1.00	1.00	1.00	1.00
Lead Mechanic	1.00	1.00	1.00	1.00	1.00
Automotive/ Heavy Equipment Technician	3.00	4.00	4.00	4.00	4.00
Mobile Crane Operator	2.00	2.00	2.00	2.00	2.00
Program Assistant	-	-	1.00	1.00	1.00
Automotive/ Heavy Equipment Assistant	1.00	-	-	-	-
Total Fleet Services	8.00	8.00	9.00	9.00	9.00
830 Plant No. 1 Operations					
Operations Manager	1.00	1.00	1.00	1.00	1.00
Engineering Supervisor	1.00	-	-	-	-
Chief Plant Operator	1.00	1.00	1.00	1.00	1.00
Operations Supervisor	7.00	7.00	7.00	7.00	7.00
Senior Engineer	1.00	1.00	2.00	2.00	2.00
Engineer	1.00	1.00	1.00	1.00	1.00
Principal Staff Analyst	1.00	1.00	1.00	-	-
Scientist	1.00	-	-	-	-
Associate Engineer	2.00	2.00	2.00	2.00	2.00
Principal Environmental Specialist	1.00	-	-	-	-
Lead Plant Operator	4.00	4.00	4.00	4.00	4.00
Lead Power Plant Operator	1.00	1.00	1.00	-	-
Assistant Engineer	1.00	-	-	-	-
Senior Environmental Specialist	1.00	-	-	-	-
Power Plant Operator II	4.00	4.00	4.00	-	-
Senior Plant Operator	14.00	15.00	12.00	14.00	14.00
Staff Analyst	-	-	1.00	1.00	1.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Plant Operator	16.00	13.00	17.00	18.00	18.00
Environmental Technician	1.00	-	-	-	-
Control Center Operator	-	2.00	-	-	-
Control Center Technician	2.00	-	-	-	-
Total Plant No. 1 Operations	62.00	54.00	55.00	52.00	52.00
840 Plant No. 2 Operations					
Chief Plant Operator	1.00	1.00	1.00	1.00	1.00
Operations Supervisor	7.00	7.00	7.00	7.00	7.00
Lead Plant Operator	4.00	4.00	4.00	4.00	4.00
Lead Power Plant Operator	1.00	1.00	1.00	-	-
Power Plant Operator II	4.00	4.00	4.00	-	-
Senior Plant Operator	14.00	13.00	16.00	14.00	14.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Plant Operator	18.00	21.00	19.00	18.00	18.00
Total Plant No. 2 Operations	50.00	52.00	53.00	45.00	45.00

Historical Staffing Detail

Division & Position	Authorized FTEs 2019-20	Authorized FTEs 2020-21	Authorized FTEs 2021-22	Authorized FTEs 2022-23	Proposed FTEs 2023-24
870 Plant No. 1 Maintenance					
Engineering Manager	1.00	1.00	1.00	-	-
Maintenance Manager	1.00	-	-	1.00	1.00
Maintenance Superintendent	1.00	1.00	1.00	1.00	1.00
Engineering Supervisor	1.00	-	-	-	-
Maintenance Supervisor	7.00	8.00	8.00	9.00	9.00
Senior Engineer	1.00	-	-	-	-
Engineer	1.00	1.00	1.00	1.00	1.00
Associate Engineer	1.00	1.00	1.00	1.00	1.00
Maintenance Specialist	11.00	14.00	13.00	14.00	14.00
Lead Electrical Technician	3.00	3.00	4.00	4.00	4.00
Lead Heavy Equipment Mechanic	1.00	-	-	-	-
Lead Instrumentation Technician	1.00	1.00	1.00	2.00	3.00
Lead Power Plant Operator	-	-	-	2.00	2.00
Reliability Maintenance Technician	5.00	5.00	5.00	4.00	4.00
Lead Mechanic	2.00	2.00	2.00	2.00	4.00
Electrical Technician II	8.00	8.00	8.00	8.00	8.00
Instrumentation Technician II	7.00	9.00	9.00	8.00	9.00
Power Plant Operator II	-	-	-	8.00	8.00
Machinist	1.00	1.00	1.00	1.00	1.00
Senior Mechanic	18.00	18.00	18.00	17.00	16.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Senior Heavy Equipment Mechanic	2.00	-	-	-	-
Welder/Fabricator	3.00	3.00	3.00	3.00	3.00
Lead Facilities Worker	1.00	1.00	1.00	1.00	1.00
Electrical Technician I	2.00	2.00	2.00	2.00	3.00
Instrumentation Technician I	2.00	1.00	1.00	1.00	-
Mechanic	1.00	1.00	1.00	1.00	1.00
Facilities Worker	-	-	-	-	2.00
Facilities Worker/Builder	2.00	2.00	2.00	1.00	-
Facilities Worker/Painter	1.00	1.00	1.00	1.00	-
Total Plant No. 1 Maintenance	86.00	85.00	85.00	94.00	97.00
880 Plant No. 2 Maintenance					
Maintenance Superintendent	1.00	1.00	1.00	1.00	1.00
Maintenance Supervisor	5.00	6.00	6.00	6.00	6.00
Lead Electrical Technician	2.00	2.00	2.00	2.00	2.00
Lead Instrumentation Technician	2.00	2.00	2.00	2.00	2.00
Lead Mechanic	2.00	3.00	3.00	3.00	2.00
Electrical Technician II	7.00	7.00	7.00	7.00	8.00
Instrumentation Technician II	7.00	6.00	6.00	7.00	7.00
Senior Mechanic	14.00	16.00	16.00	16.00	16.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Lead Facilities Worker	1.00	1.00	1.00	1.00	1.00
Electrical Technician I	2.00	2.00	2.00	2.00	-
Instrumentation Technician I	1.00	2.00	2.00	2.00	2.00
Mechanic	1.00	1.00	1.00	1.00	1.00
Facilities Worker	-	-	-	-	3.00
Facilities Worker/Builder	1.00	1.00	1.00	2.00	-
Facilities Worker/Painter	1.00	1.00	1.00	1.00	-
Maintenance Worker	2.00	1.00	1.00	-	-
Total Plant No. 2 Maintenance	50.00	53.00	53.00	54.00	52.00
Total Operations and Maintenance Department	**284.00**	**284.00**	**287.00**	**286.00**	**286.00**
Grand Total, All Departments	**640.00**	**639.00**	**639.00**	**647.00**	**653.00**

Appropriations Limit

Article XIIIB of the California State Constitution, more commonly referred to as the Gann Initiative or Gann Limit, was approved by California voters in 1979. The Gann Limit placed limits on the amount of proceeds of taxes that state and local governmental agencies can receive and appropriate (authorize to spend) each year.

The limit is different for each agency and the limit changes each year. The annual limit is based on the amount of tax proceeds that were authorized to be spent in FY 1978-79 in each agency, modified for changes in inflation and population in each subsequent year.

Proposition 111 was passed by the State's voters in June 1990. This legislation made changes to the manner in which the Appropriations Limit is to be calculated:

The annual adjustment factors for inflation and population have been changed. Instead of using the lesser of California per capita income, or U.S. CPI, each agency may choose either the growth in the California per capita income, or the growth in assessed valuation due to new non-residential construction within the agency. For population, instead of using only the population growth of an agency, each agency may choose to use the population growth within its county. These are both annual elections.

The revised annual adjustment factors will be applied to the FY 1986-87 limit for most agencies and each year in between in order to calculate the FY 1990-91 limit. The actual limits for the intervening years, however, are not affected.

Expenditures for "qualified capital outlay", which are capital assets with a value of more than $100,000 and an expected life of 10 years or more, are excluded from the limit.

An agency which exceeds the limit in any one year may choose to not give a tax refund if they fall below the limit in the next fiscal year. They then have two more years to refund any remaining excess or to obtain a successful override vote.

In certain situations, proceeds of taxes may be spent on emergencies without having to reduce the limit in future years.

Each agency also conducts a review of its Appropriations Limit during its annual financial audit.

The law requires a governing body to annually adopt, by resolution, an appropriations limit for the following year, along with a recorded vote regarding which of the annual adjustment factors have been selected. The Orange County Sanitation District's appropriations limit and annual adjustment factors are adopted at the same meeting as the budget. The adjustment factors used for FY 2023-24 are the weighted average change in city population and the change in state per capita personal income.

The following table shows the annual appropriations limit for each of the last two fiscal years and for FY 2023-24. The increase in the limit is based upon population changes ranging from negative 2.19 percent to negative 0.10 percent for representative cities within the Orange County Sanitation District's service area and a per capita personal income change of 4.44 percent, as provided by the State Department of Finance.

Annual Appropriation Limits:

FY 2021-22	$124,166,799
FY 2022-23	$132,833,623
FY 2023-24	$137,371,868

As a result of the July 1998 consolidation of the Orange County Sanitation District, a single limit is presented in contrast to individual limits shown in years prior to 1998. Population changes for representative cities have continued to be used in order to ensure consistency and to eliminate significant population growth in parts of the county outside of Orange County Sanitation District's service area. This method results in a lower limit than using the county-wide change.

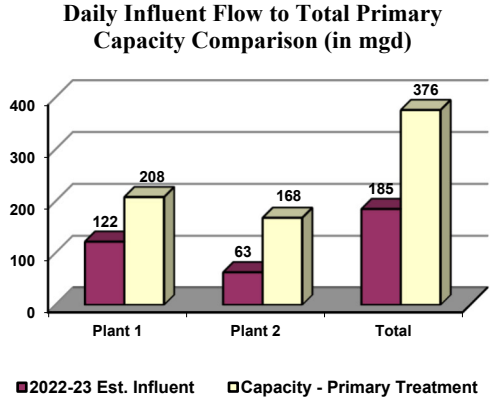
Miscellaneous Statistics

General Information

Year of Formation 1948
Form of Government ..... County Sanitation District
Authority ..... Section 4700 et. seq.
..... California Health & Safety Code
Service Area ..... 479 sq. miles
Service Population ..... Approximately 2.6 million
2022-23 Assessed Value ..... $547.9 billion

Miles of Sewers ..... 388 miles
On-Plant Pump Station 2
Off-Plant Pump Stations 15
Operating Authority. RWQCB/NPDES Permit No. .....
..... CA0110604
..... Statewide WDR Order No. 2006-0003
2023-24 Authorized Staff (Full-Time Equivalent) 653

Treatment Information



2021-22 Influent BOD:
Plant No. 1 ..... 300 milligrams per liter
Plant No. 2 ..... 216 milligrams per liter

2021-22 Influent Suspended Solids:
Plant No. 1 ..... 310 milligrams per liter
Plant No. 2 ..... 355 milligrams per liter

2021-22 Effluent BOD ..... 14 milligrams per liter

2021-22 Effluent Suspended Solids ..... 6 milligrams per liter

2021-22 Biosolids Produced & Reused ..... 186,000 wet tons

Primary Treatment Capacity (includes standby):
Plant No. 1 ..... 208 mgd
Plant No. 2 ..... 168 mgd
TOTAL ..... 376 mgd

2022-23 Estimated Average Daily Influent:
Plant No. 1 ..... 122 mgd
Plant No. 2 ..... 63 mgd
TOTAL ..... 185 mgd

Secondary Treatment Capacity:
Plant No. 1 ..... 182 mgd
Plant No. 2 ..... 150 mgd
TOTAL ..... 332 mgd

2022-23 Estimated Electricity Generated:
Plant No. 1 ..... 42,597,000 kWh
Plant No. 2 ..... 54,133,000 kWh
TOTAL ..... 96,730,000 kWh

Legend:
mgd – million gallons per day
kWh – kilowatts per hour

Financial Information

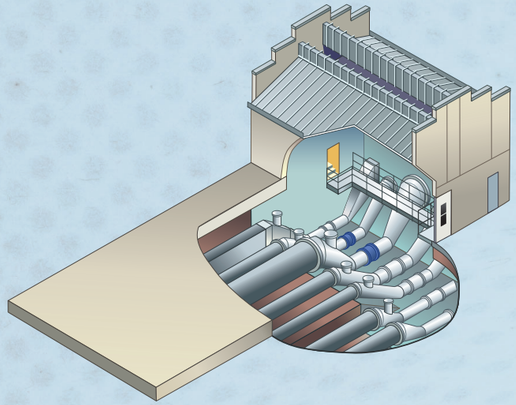
	2021-22 Actual	2022-23 Projected	2023-24 Originally Proposed	2023-24 Updated Proposed
Fees and Charges:				
One-Time 3-Bedroom Residence Connection Charge	$5,346.00	$5,719.00	$5,719.00	$5,719.00
Single Family Residential Regional Sewer Service User Fee	$343	$347	$358	$358
Single Family Residential Local Sewer Service User Fee	$108	$108	$108	$108
District's Avg. Share of Ad Valorem Property Tax	1.61%	1.60%	1.60%	1.60%
Cost to Collect, Treat, & Dispose of One Million Gallons	$ 2,254.66	$ 2,894.52	$3,108.36	$3,189.78

Summary of COP Issues:

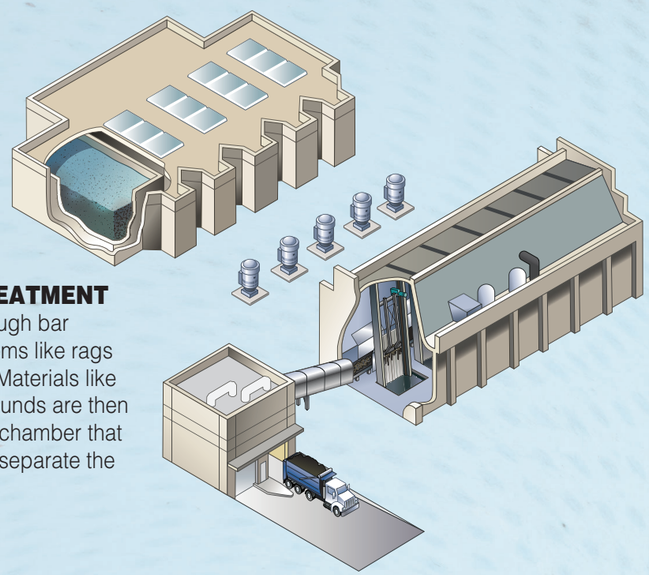
May 2010A New Money	$ 80,000,000	March 2016A Refunding	126,855,000
November 2010C New Money	157,000,000	February 2017A Refunding	65,815,000
August 2014A Refunding	39,180,000	July 2021A Refunding	111,770,000
February 2015A Refunding	127,510,000	February 2022A Refunding	81,620,000
		Total Outstanding COP Balance 7/1/23	$ 789,750,000

Orange County Sanitation District

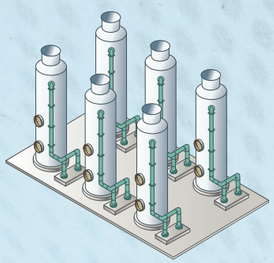
Wastewater Treatment Process



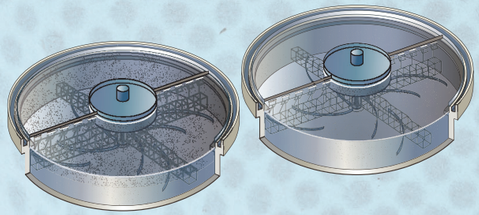
1. METERING AND DIVERSION
Wastewater enters our plant at 2.5 - 5 mph through pipes up to 10 feet in diameter. High tech equipment monitors the temperature, pH, conductivity, and flow of the incoming wastewater.



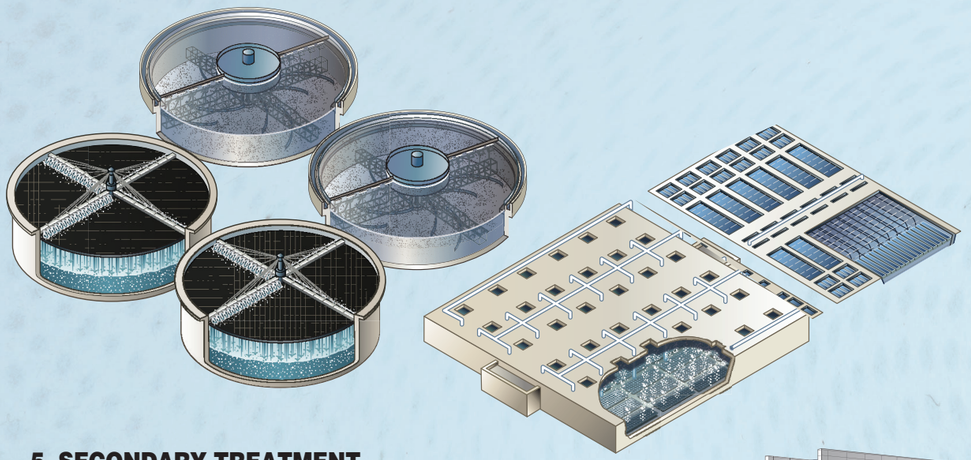
2. PRELIMINARY TREATMENT
Raw sewage passes through bar screens that trap large items like rags that cannot be recycled. Materials like egg shells and coffee grounds are then removed through the grit chamber that uses high pressure air to separate the gritty material.



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.

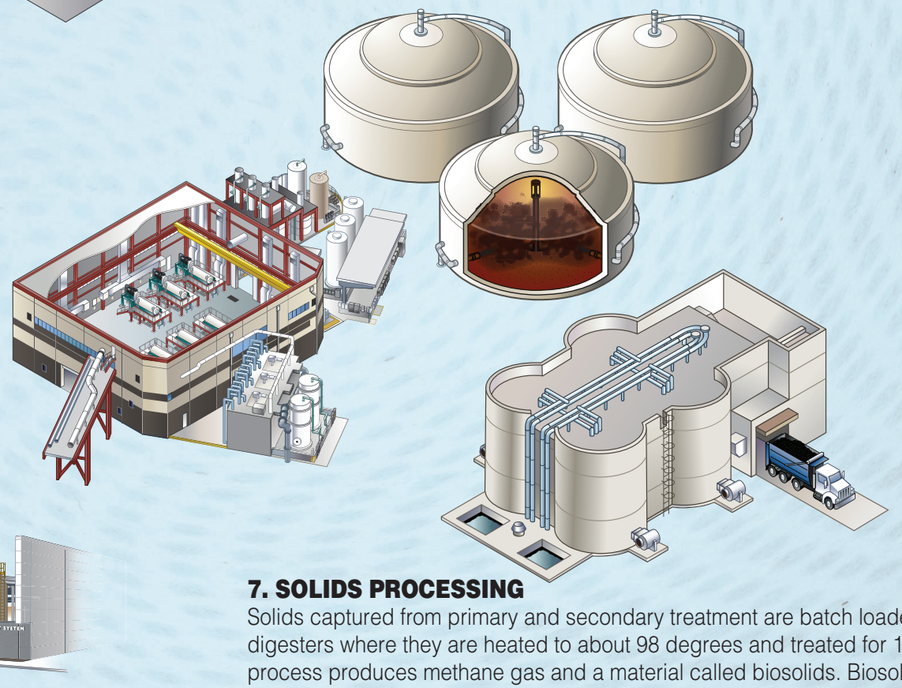


4. PRIMARY TREATMENT
Primary clarifiers or settling basins, slow the water down to allow the solids in the wastewater that readily settle or float to be separated from the water being treated. Collector arms that move along the top and the bottom remove over 80 percent of the influent wastewater solids.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

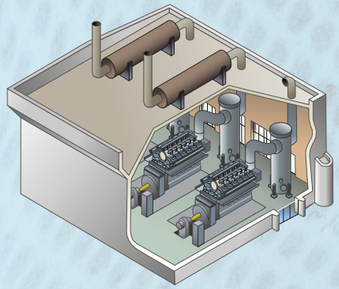


5. SECONDARY TREATMENT
Trickling filters and aeration basins are used to further clean the water. In trickling filters the water is sprayed over a honeycomb type material upon which aerobic bacteria grow. As the water trickles down, the microorganisms consume the solids that were not removed through 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 OC San 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 percent of our energy needs.

OC SAN
ORANGE COUNTY SANITATION DISTRICT

PA 05/2023

Our Mission:

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

The Orange County Sanitation District (OC San) 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. OC San is a special district that is governed by a Board of Directors consisting of 25 board members. OC San 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 OC San'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. OC San 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

OC San 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 OC San'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, OC San 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.ocsan.gov/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 (OC San) and the Orange County Water District (OCWD). Together OC San 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@ocsan.gov
Website: www.ocsan.gov

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05/2023

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