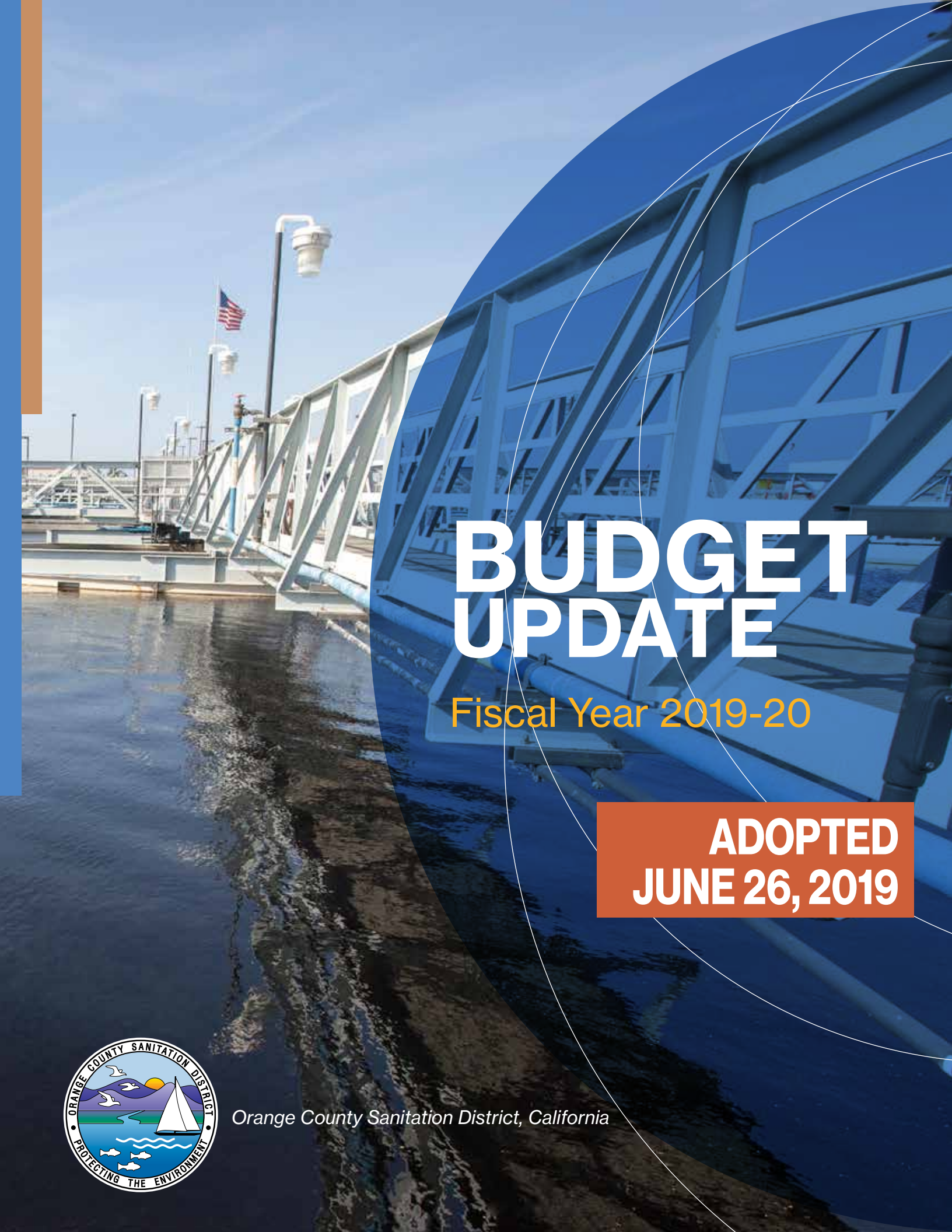

BUDGET UPDATE

Fiscal Year 2019-20

ADOPTED JUNE 26, 2019

Orange County Sanitation District, California

Orange County Sanitation District, California

BUDGET UPDATE

Fiscal Year 2019-20

OUR MISSION

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

GFOA BUDGET PRESENTATION AWARD

GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

PRESENTED TO

Orange County Sanitation District

California

For the Fiscal Year Beginning

July 1, 2018

Christopher P. Morrill

Executive Director

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

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

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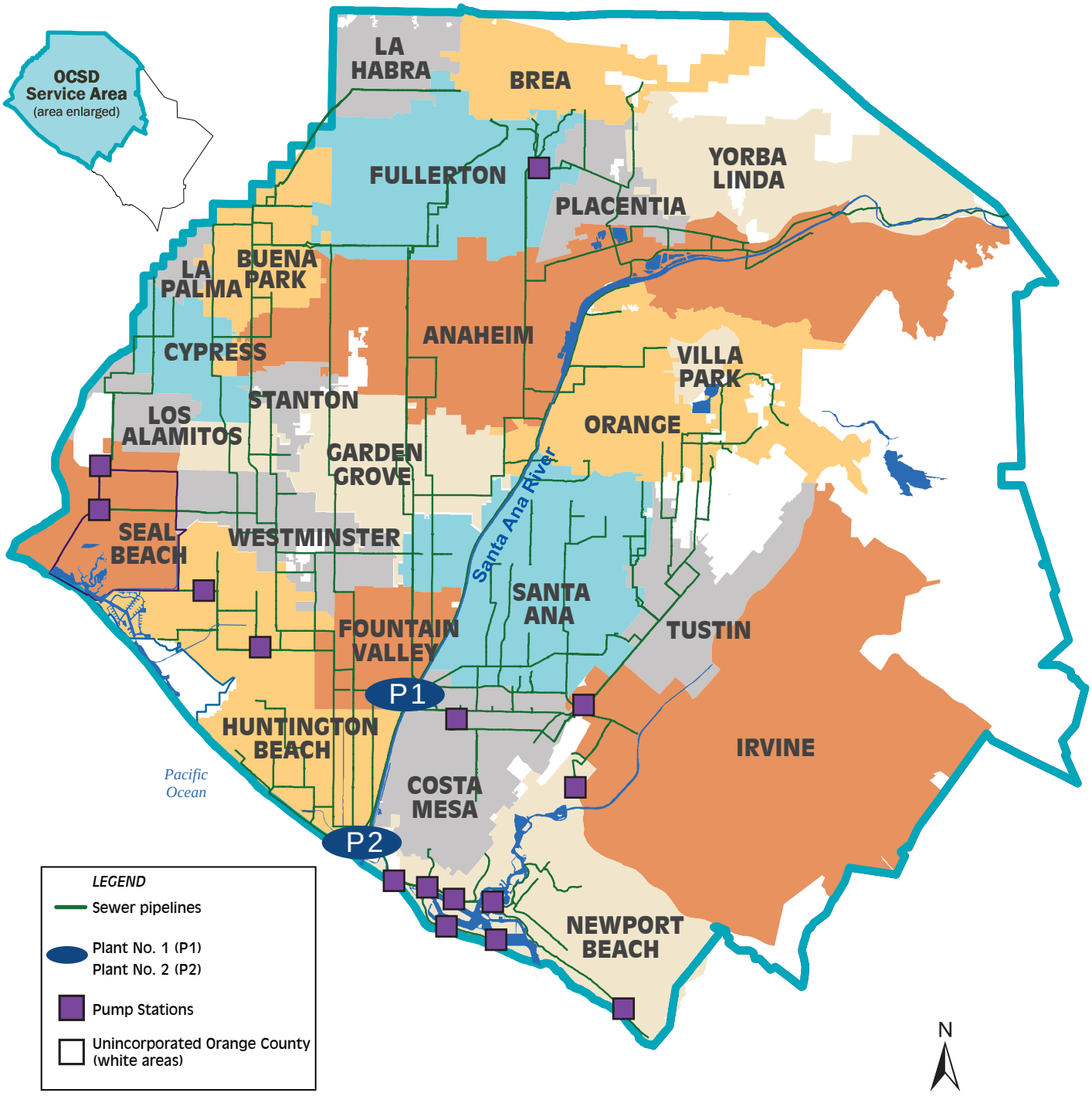


DISCLAIMER: Map prepared by the Orange County Sanitation District. This map is intended for graphical representation only. No level of accuracy is claimed. Portions of this derived product contain geographical information copyrighted by Rand McNally 2013. All Rights Reserved. REVISED: 2018

BOARD OF DIRECTORS

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

BOARD COMMITTEES

Steering Committee

David Shawver, Board Chair
John Withers, Board Vice-Chair
Robert Collacott, Chair, Operations Committee
Peter Kim, Chair, LaPA Committee
Chad Wanke, Chair, Administration Committee
Glenn Parker, Member-At-Large
Tim Shaw, Member-At-Large

Administration Committee

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

Operations Committee

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

Legislative and Public Affairs Committee

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

GWRS Joint Cooperative Steering Committee

David Shawver (Stanton)
James Ferryman (CMSD)
Tim Shaw (La Habra)
Jesus J. Silva (Fullerton — Alternate)
Phil Hawkins (YLWD — Alternate)
Erik Peterson (Huntington Beach — Alternate)

Audit Ad Hoc Committee

Peter Kim (La Palma)
Richard Murphy (Los Alamitos)
Steve Nagel (Fountain Valley)
Glenn Parker (Brea)

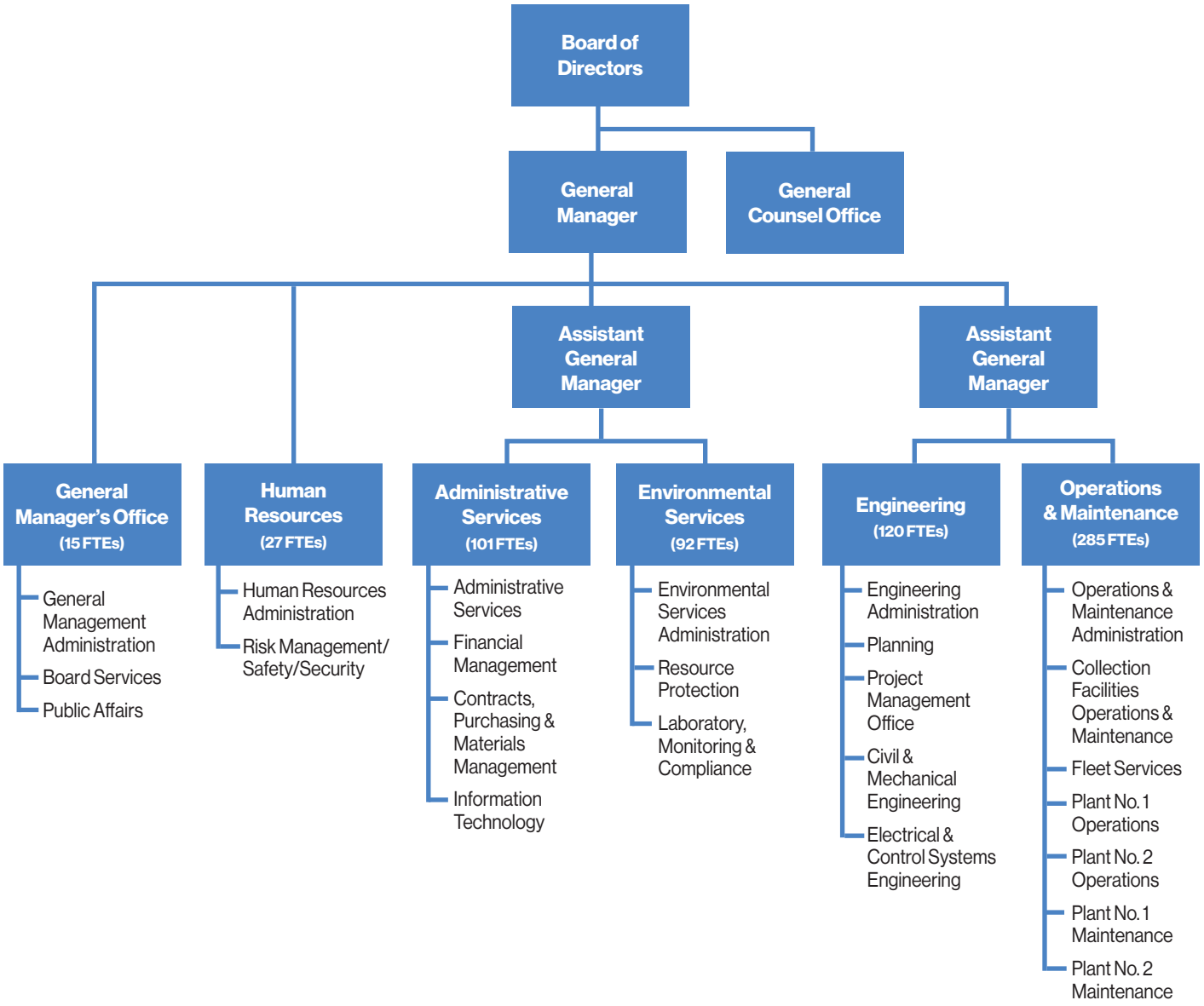
Headquarters Complex Ad Hoc Committee

Lucille Kring, Chair (Anaheim)
Erik Peterson, Vice-Chair (Huntington Beach)
David Shawver (Stanton)
Robert Collacott (Villa Park)
Sandra Massa-Lavitt (Seal Beach)
Steve Nagel (Fountain Valley)
Fred Smith (Buena Park)
John Withers (IRWD)

SAWPA Joint Policy Committee

David Shawver (Stanton)
John Withers (IRWD)
Richard Murphy (Los Alamitos — Alternate)

ORGANIZATION CHART



FTEs = Full-Time Equivalent Positions

ADMINISTRATIVE OFFICIALS

Management Team

General Manager ..... James D. Herberg

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

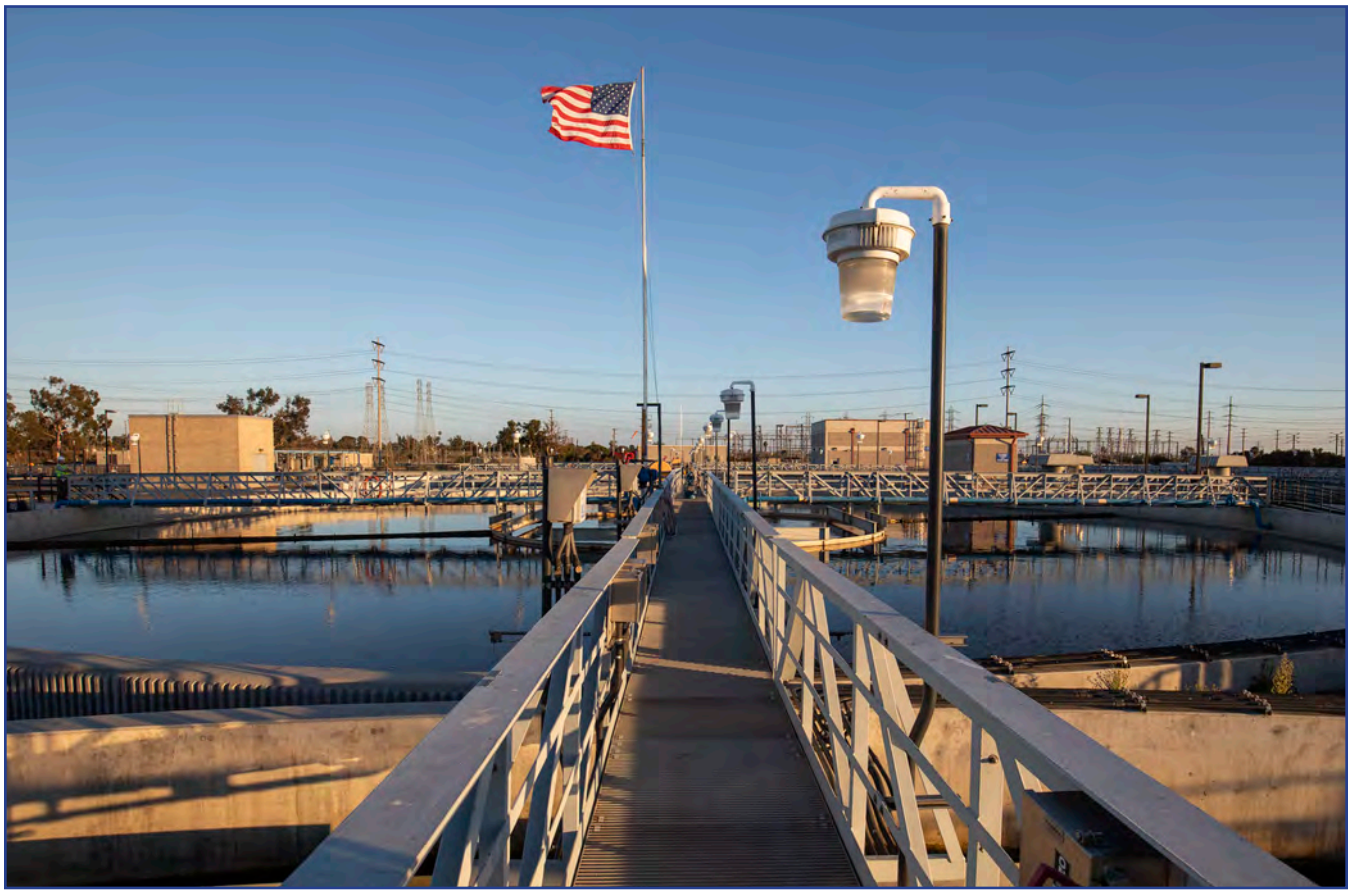
Assistant General Manager and Director of Operations and Maintenance.....Robert Thompson

Director of Engineering..... Kathy Millea

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

Director of Human Resources..... Celia Chandler

General Counsel ..... Bradley R. Hogin



MESSAGE FROM THE GENERAL MANAGER

June 1, 2019

I am pleased to submit the Orange County Sanitation District's (OCSD) Proposed Budget Update for the 2019-20 Fiscal Year (FY). This document lays out the framework of OCSD's activities for the upcoming year and serves as a source of information for OCSD's Board of Directors, our ratepayers and our employees. This budget includes the operational, capital and debt service expenditures necessary to cost-effectively support our mission. As this is an update to our previously approved two-year budget, relatively minor changes are recommended. While the proposed budget includes operational cost increases of five percent, the total expenditures from FY 2018-19 through FY 2019-20 will decrease slightly. There are also a few key areas that I would like to highlight:

- Expanded Water Recycling – In partnership with the Orange County Water District (OCWD), our agency recycles enough water to supply the needs of 850,000 people. Our Board of Directors has set a goal of recycling 100 percent of our reclaimable flows to provide a reliable, affordable, and high-quality water source. Having completed the joint feasibility study with OCWD for the ultimate expansion of the Groundwater Replenishment System (GWRS), the two agencies now embark on design projects that will increase water recycling for an additional 250,000 people. This expansion will ensure that a potential resource once lost to the ocean will now supply water for over one million people in north and central Orange County.

- Infrastructure Reliability and Operational Sustainability – We will continue to improve our planned maintenance program to assess and manage assets while lowering lifecycle costs. Recognizing the importance of resiliency in the event of a disaster, we will design systems and operations to withstand or adapt to abnormal or catastrophic events that can reasonably be expected.

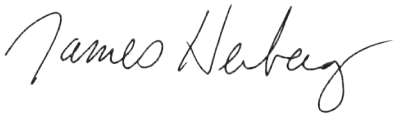
- Safety and Security – Capital projects, maintenance activities, safety training and additional efforts to address safety in our workplace are included in this budget, including implementation of improvements required to receive Voluntary Protection Program (VPP) status from Cal-OSHA.

- Operating Expense Cost Containment – Despite inflationary increases on many external costs such as chemicals and utilities, we will minimize the impact on ratepayers by aggressively negotiating our contracts, ensuring a competitive bidding environment, and striving to be energy efficient while maximizing renewable power generation using sound engineering principals.

- Biosolids Management – The State of California has issued a mandate requiring local jurisdictions to reduce the amount of organic material entering landfills by 75 percent by 2025. OCSD is in a position to serve a vital role in helping cities in our service area meet this goal using our anaerobic digestion facilities that are already in place and the completion of the food waste receiving facilities at Plant No. 2. By receiving food waste to be co-digested with solids, we will further be increasing biogas production and taking an important step towards energy self-sufficiency.

- Staffing Cost Containment - While addressing rising treatment and chemical costs, aging infrastructure, and increased regulatory requirements, this budget displays our commitment to efficiency as it includes only a minimal staffing increase of less than one percent.

OCSD will continue to provide wastewater treatment, recycling, sewer and facilities maintenance, ocean monitoring and many other services while maintaining rates of less than $1 per day for the average residential user. I believe this budget fully supports the goals included in the Orange County Sanitation District's Strategic Plan and positions us well to address challenges in the coming years.



James D. Herberg
General Manager
Orange County Sanitation District

FINANCE
SUMMARY

FINANCIAL SUMMARY/OVERVIEW & BUDGETARY ISSUES

Budget Overview

The Sanitation District's proposed Fiscal Year (FY) 2019-20 operating and capital improvement budget totals $321.5 million, or $24.3 million (8.1 percent) above what was approved last year as the second year of the adopted two-year budget. The increase in the FY 2019-20 budget is primarily attributable to $16.3 million of delays in construction start dates where spending has been deferred and an increase of $8.0 million in operating budget.

The budget continues to reflect the agency's ongoing efforts to streamline operations. Staffing levels are proposed to increase by four full time equivalent (FTE) positions in FY 2019-20.

The Sanitation District's Capital Improvement Program (CIP) budget for FY 2019-20 is $153.3 million. This CIP budget finances the collections system, joint works treatment and disposal system improvement projects. The $16.3 million increase from the originally proposed budget is attributable to project delays that result in deferred spending.

Financing

The Sanitation District 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 $972.8 million. No new money debt financings are currently forecasted to assist in the funding of the $2.8 billion in capital improvements required over the next ten years.

Staffing

Reflecting the organization's commitment to providing service at the lowest costs, the budget includes an increase of four staff positions in authorized full time positions for FY 2019-20. Total filled positions will not exceed 640 FTE staff positions. This staffing level continues to reflect a significant reduction from the Fiscal Year 1995-96 approved staffing level of 678 positions.

Overall personnel costs for FY 2019-20 will approximate the original adopted budget due to reductions in retirement premiums following the pay down of the Orange County Employees' Retirement System (OCERS) unfunded accrued liability.

Costs are projected to increase for medical insurance premiums and workers compensation benefit costs are expected to slightly decrease. The Sanitation District will continue to effectively manage these expenses with approximately 24 percent of the budget allocated to employee costs, much less than most other government agencies.

Cost of Treatment

The agency's two treatment plants, located in Fountain Valley and Huntington Beach, process about 188 million gallons of wastewater each day generated by approximately 2.6 million 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 2019-20 is $168.2 million.

The cost per million gallons of wastewater treated, (an industry-wide performance measurement), is expected to increase in FY 2019-20 to $2,451, a $53, or 2.2 percent increase from the previous 2019-20 projection of $2,398. The increase in the cost per million gallons is due to an $8.0 million increase in total operating costs.

Sewer Service Fees

The 2019-20 single family residential rate, the underlying basis for all sewer rates, is scheduled at $339 a year. This represents an increase of $4 or 1.2 percent per the rate structure approved by the Board of Directors in June 2018.

Groundwater Replenishment System (GWRS)

The OCSD Strategic Plan includes a goal of recycling 100 percent of reclaimable wastewater. Partnering with the Orange County Water District (OCWD), the initial phase of GWRS was completed in January 2008. GWRS is the world's largest water reuse project of its kind.

The initial GWRS facility recycled 70 million gallons of water a day (mgd). OCSD and OCWD equally shared the expenses of this project.

Initial expansion of the GWRS increased the production of reclaimed water to 100 mgd. The project, which was funded entirely by the OCWD, was completed in 2015. OCSD is directing all reclaimable flows from Plant No. 1 to OCWD in support of providing maximum amounts of treated wastewater for reclamation.

2019-20 BUDGET UPDATE

The plan to achieve the final expansion of the GWRS was approved by both OCSD and OCWD Board of Directors in 2016. The final expansion of GWRS will bring the total production of reclaimed water to 130 mgd. Since OCSD has maximized the available reclaimable wastewater treated at Plant No. 1, secondary effluent from Plant No. 2 will be sent to the GWRS for reclamation. Modification of existing Plant No. 2 Headworks, a new Plant Water pump station and construction of new pumping, equalization and conveyance facilities will be funded by the OCWD. As the Headworks Modification and Plant Water project is impacting OCSD's critical infrastructure, OCSD will manage the design and construction of these projects and will be reimbursed by OCWD up to $50 million. Construction of GWRS final expansion is scheduled to be complete in 2023.

Capital Improvement Program (CIP)

The total CIP budget for FY 2019-20 is being proposed at $153.3 million, up $16.3 million from the previously approved 2019-20 budget primarily due to delays in construction start dates where spending has been deferred.

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

- Rehabilitate the headworks, primary treatment, utility systems and perform security improvements at Plant No. 1.
- Replace a third of the primary treatment facilities, rehabilitate the outfall pumping and perform power reliability improvements at Plant No. 2.
- Rehabilitate all of the digester gas compressor systems.
- Construct a new food waste receiving facility and rehabilitate and replace digesters at Plant No. 2.
- Construct a new Headquarters Complex.
- Replace or rehabilitate OCSD's aging pump stations and trunk sewers in the collections system. This includes the West Side sewers and Seal Beach Pump Station. Newhope Placentia Trunk Improvements (in Anaheim) will continue construction through 2022.

Operating Budget Increase – $15.9M

The operations budget for the collection, treatment, and disposal of wastewater is proposed at $168.2 million, a $15.9 million (10.4 percent) increase above 2018-19 projected expenditures. The increase is mostly attributed to delayed repairs and maintenance activities, and also increases to chemical costs and salaries and benefit costs. However, the two-year total operating budget of projected and proposed FY 2018-19 and FY 2019-20 is $320.5 million, $0.9 million less than two-year adopted budget.

Although some expenses will increase or decrease slightly, the overall increase to the operating budget in 2019-20 over the 2018-19 projected is described in the following specific areas:

FINANCIAL SUMMARY/OVERVIEW & BUDGETARY ISSUES

Repairs and Maintenance – $5.7M Increase

This expense category includes parts and services for repairing aging treatment plant and collection facilities, and reflects base budgets for equipment maintenance as well as out-sourced annual service contracts and maintenance agreements. The FY 2019-20 budget increase of 32.0 percent over the 2018-19 projected expenditures is mostly attributable to delayed rehabilitation projects for primary and secondary clarifiers, increases in basic repairs and maintenance costs and Central Generation (CenGen) engine overhaul.

Operating Materials & Supplies – $4.4M Increase

The majority of the increase in operating materials and supplies above the 2018-19 projected expenditures is due to a $3.5 million increase in chemical costs used in the treatment process.

Salaries and Benefits – $4.4M Increase

Salaries and benefits will increase $4.4 million above the 2018-19 projected expenditures primarily due to the impacts of the collective bargaining agreements, the addition of four FTE positions, and increases in medical insurance premiums. The increases are partially offset by a decrease in workers' compensation costs and lower retirement premiums resulting from OCSD's decision to use available cash reserves to reduce the unfunded pension liability by $39 million in 2016-17.

These changes reflect the impacts from collective bargaining agreements and revised actuarial assumptions on retirement premiums.

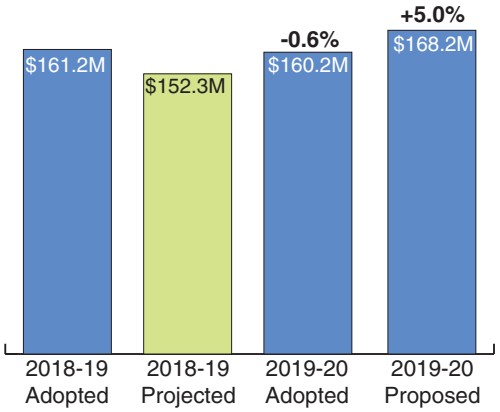
Professional Services – $1.0M Increase

The increase is primarily due to increases in anticipated engineering costs and technical consulting fees for the Sanitation District.

Utilities – $1.0M Increase

The proposed budgets for electricity and water reflect increases of $969,000 and $63,000, respectively, over the 2018-19 projected expenditures due to anticipated consumption and unit cost increases. These increases are partially offset by a reduction in the natural gas budget of $109,000 due to lower usage.

Operating Expenses

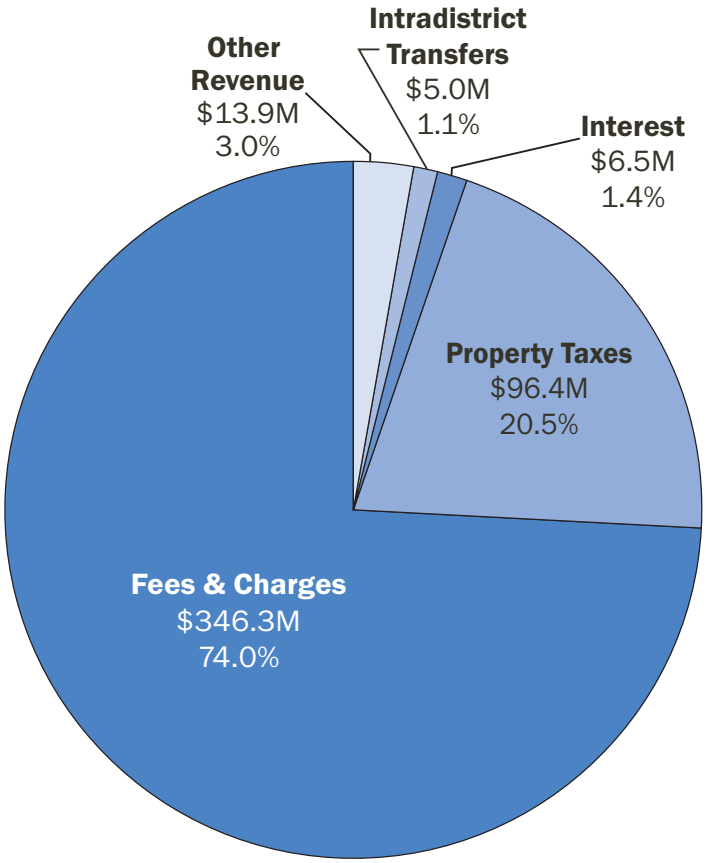


Budget-over-budget percentage changes are shown above.

2019-20 BUDGET UPDATE

FINANCIAL SUMMARY/FUNDING SOURCES BY CATEGORY

WHERE THE MONEY COMES FROM



Funding Sources by Category (in millions)

Category	2018-19 Adopted	2019-20 Adopted	2019-20 Proposed
Service Fees	$318.0	$320.5	$318.4
Property Taxes	99.6	104.5	96.4
Permit User Fees	18.3	18.5	9.9
Capital Facilities Capacity Charges	14.0	14.5	18.0
Interest	6.5	7.2	6.5
Intradistrict Transfers	3.7	3.5	5.0
Debt Proceeds	0.0	0.0	0.0
Other Revenue	10.8	9.2	13.9
Total Funding Sources	$470.9	$477.9	$468.1

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

General Service Fees – $318.4M

User fees are ongoing fees for service paid by customers connected to the sewer system, and are the primary source of OCSD's revenue. A property owner, or user, does not pay user fees until connected to the sewer system and are 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 include both Single Family Residences (SFR), Multiple Family Residences (MFR), and commercial users.

Property Taxes – $96.4M

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

Permit User Fees – $9.9M

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

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

Capital Facilities Capacity Charges (CFCC) – $18.0M

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

Interest Earnings – $6.5M

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 – $5.0M

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

Debt Proceeds – $0.0M

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

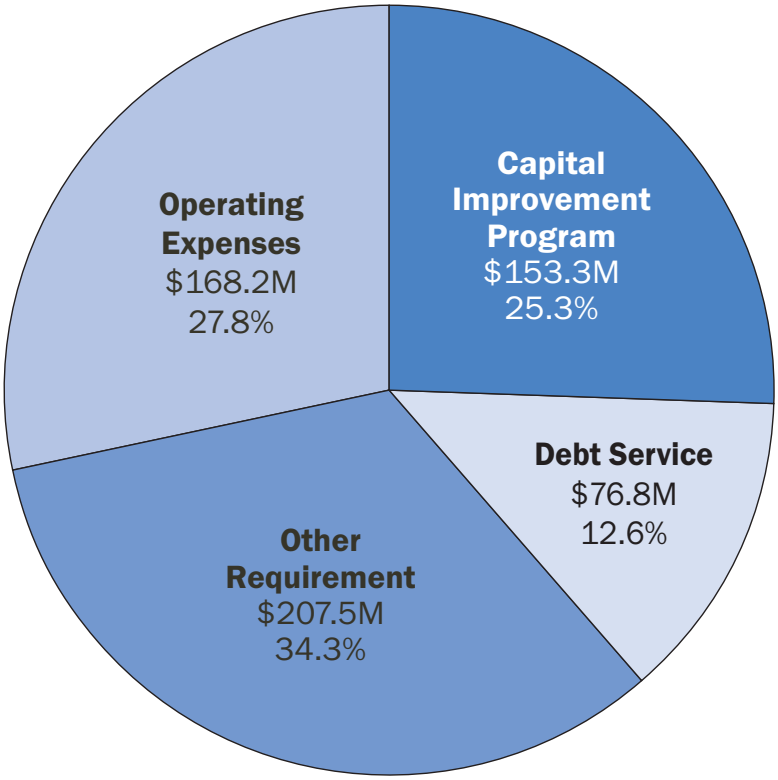
No new money debt issuances are being proposed as the $2.8 billion in future replacement, rehabilitation, and refurbishment projects anticipated over the next ten years will be adequately funded through current sewer service fee charges and other revenues.

Other Revenue – $13.9M

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

FINANCIAL SUMMARY/FUNDING USES BY CATEGORY

WHERE THE MONEY GOES



Funding Uses by Category (in millions)

Category	2018-19 Adopted	2019-20 Adopted	2019-20 Proposed
Operating Expenses	$161.2	$160.2	$168.2
Capital Improvement Program	174.5	137.0	153.3
Debt Service	80.5	80.0	76.8
Other Requirements*	6.1	6.0	207.5
Total Funding Uses	$422.3	$383.2	$605.8

**Other Requirements total includes Intradistrict Transfers, Self - Insurance, and Allocation for Future Replacement, Rehabilitation & Refurbishment*

2019-20 BUDGET UPDATE

OCSD budgets its funds in four distinct areas:

Operating Expenses – $168.2M

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.

Capital Improvement Program (CIP) – $153.3M

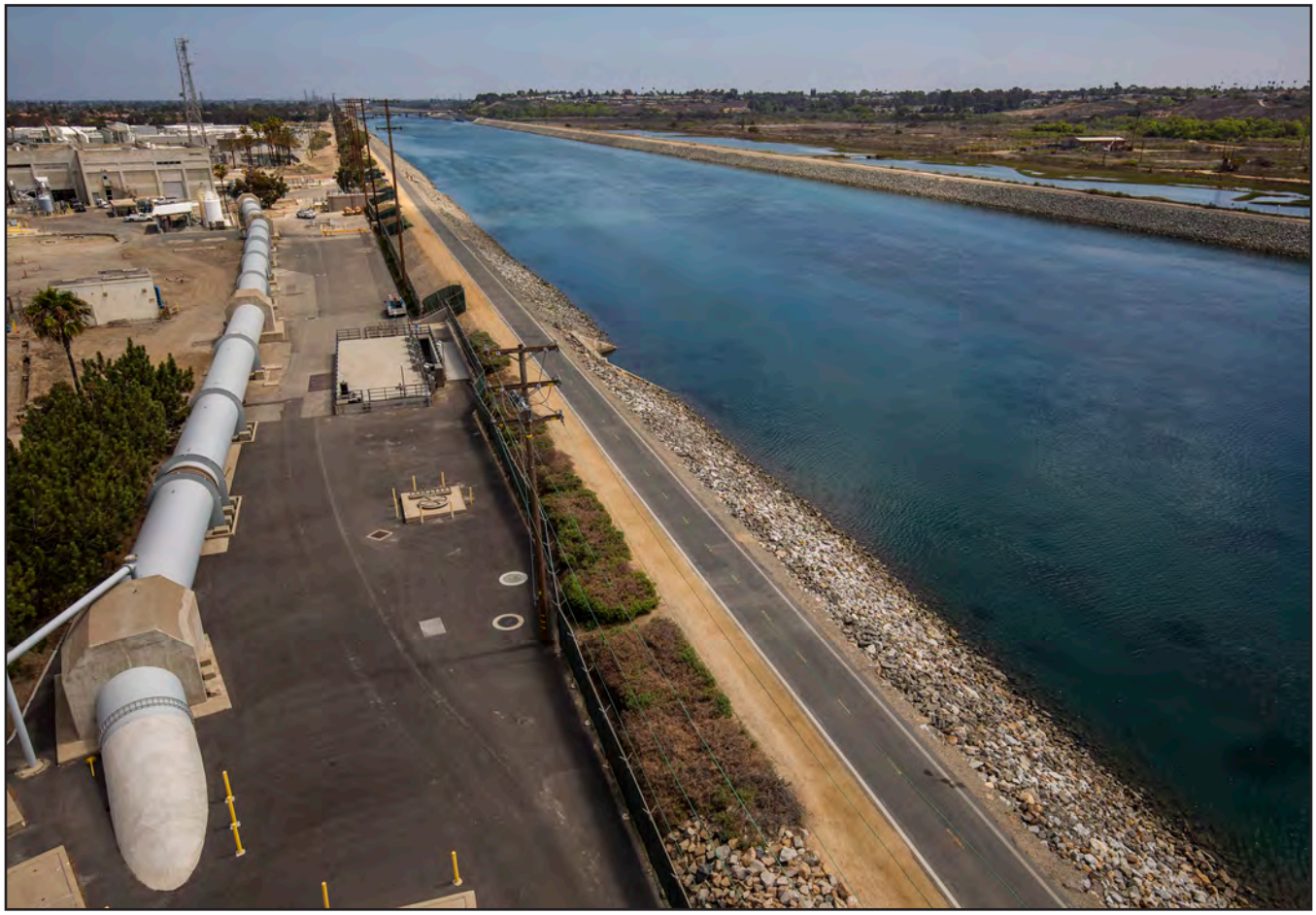
To provide an appropriate level of service to OCSD's ratepayers, large capital improvements are required. The CIP provides for the management and implementation of these improvements. The CIP budget includes specific projects, cost estimates, and timelines. The gross CIP project budgets for 2019-20 total $176.3 million; however, the CIP cash outlays, net of savings and deferrals, is $153.3 million.

Debt Service – $76.8M

This is the cost of repaying debt. Long-term debt financing allows OCSD to complete large multi-year capital projects by providing funds not always immediately available. Currently, OCSD is on track to pay off its $972.8 million outstanding debt by 2042.

Other Requirements – $207.5M

This item includes an allocation for future replacement, rehabilitation, and refurbishment projects where detailed job plans have not yet been prepared. Also included, in accordance with Amendment No. 2 to the Agreement for Purchase and Sale of Capacity Rights in Treatment, Disposal and Sewer Facilities between IRWD and OCSD dated November 15, 1995, ownership is adjusted annually to reflect the current equity percentage ownership based on sewage flows.



COLLECTION, TREATMENT & RECYCLING PROCESS OVERVIEW

OCSD collects wastewater from 479 square miles and approximately 2.6 million residents and a 1.8-million-person-employment in central and northwest Orange County. The wastewater is conveyed through 15 pump stations and gravity sewers to either Reclamation Plant No. 1 in Fountain Valley or Treatment Plant No. 2 in Huntington Beach. After the wastewater reaches one of the two treatment facilities, it undergoes preliminary treatment where large solids, rags, non-dispersible materials and plastics are removed when the wastewater passes through bar screens. Then it flows through aerating grit chambers that remove coffee grounds, sand, seeds, and gravel. All matter collected in the preliminary treatment is taken by a contractor to a landfill.

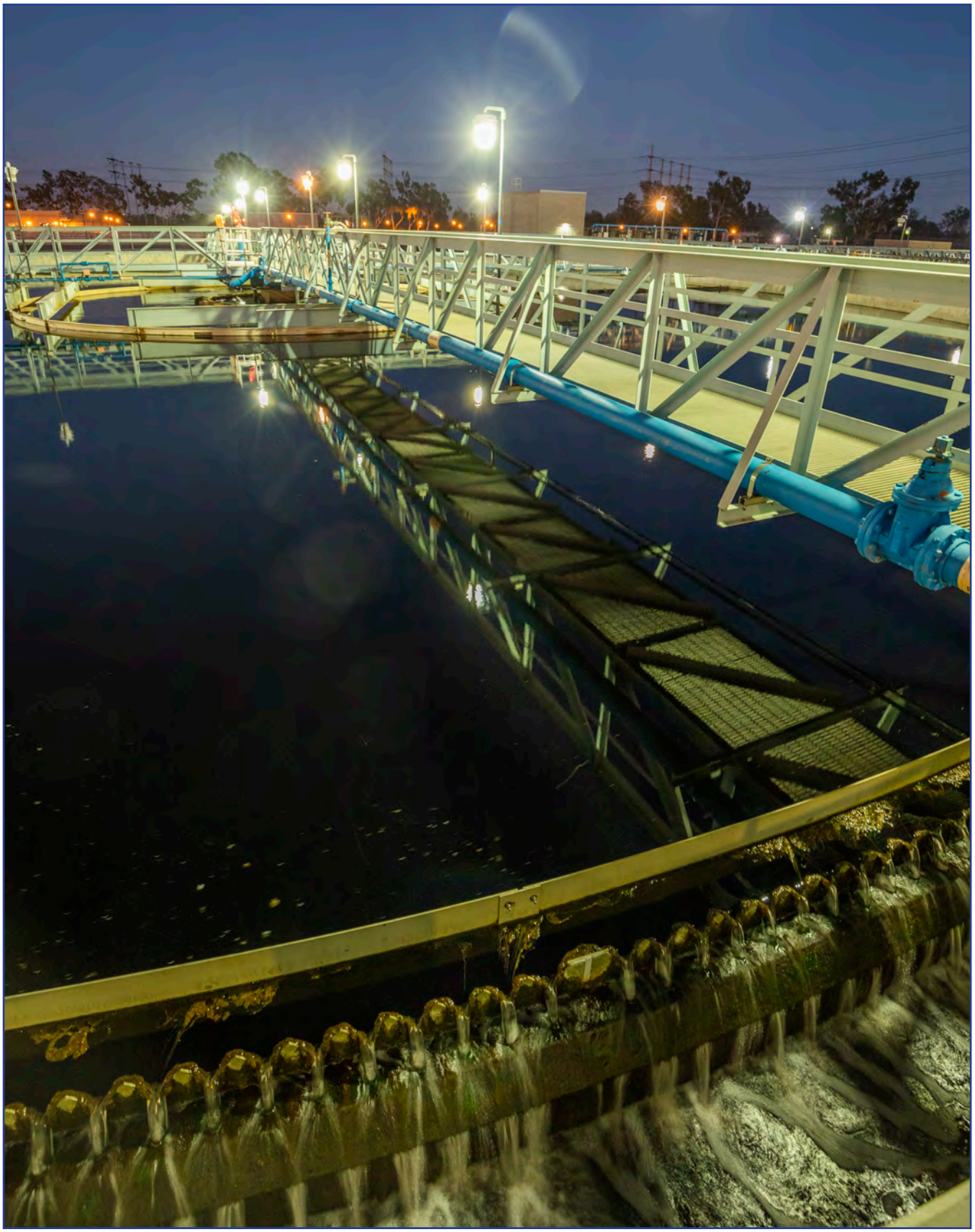
Primary treatment consists of wastewater settling in large clarifying basins; chemicals enhance the solids settling. The solids are scraped from the bottom and skimmed from the top of the clarifiers and then sent to digestion. Primary treated wastewater is then pumped to secondary treatment where it is processed using activated sludge and trickling filters. The secondary solids collection process is similar to the primary treatment solids collection process. All the resulting water from the secondary treatment processes at Plant No. 1 is sent to the OCWD for recycling/reuse after purification by the GWRS. Plant No. 2 secondary effluent is discharged into the ocean. With the final expansion of the GWRS in 2023, Plant No. 2 secondary effluent will be conveyed to the GWRS as another source of water for recycling.

All of the solids collected during primary and secondary treatment are sent to digesters for solids processing. Primary solids and secondary solids remain for an average of 18 days at 98 degrees Fahrenheit in the digesters and are decomposed by anaerobic bacteria into two main products, biosolids and methane. The methane gas generated during the natural decomposition of the solids in the digesters is used to fuel the Central Power Generation Systems and produce electricity used to operate both treatment plants. The solids, with settling enhanced by the addition of chemical coagulants, are treated and then dewatered to a cake. The caked biosolids are then hauled from the treatment plants and recycled by composting, by use as a land application, or by use at a local landfill that produces methane.

Approximately 130 million gallons per day of secondary effluent from Reclamation Plant No. 1 is sent to the OCWD for reclamation in its two treatment and distribution systems. OCWD uses the secondary effluent in two ways: The first is GWRS. The GWRS is the largest water purification project of its kind in the world; its construction was funded jointly by OCWD and OCSD. At 100 million gallons per day, the GWRS generates enough pure water to meet the needs of 850,000 people. The second is OCWD's Green Acres Project, 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. Multiple projects in design and construction will contribute to the final expansion program that will increase the conveyance of secondary effluent from Plant No. 2 to GWRS and increase production to 130 million gallons per day of recycled water.

Since the 1970's, OCSD, as an environmental agency, has always recycled and reused by-products of its treatment processes for the benefit of the health and the environment of the people in its service area.

2019-20 BUDGET UPDATE



STRATEGIC PLANNING

Introduction

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

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 guides our daily actions. They help form the framework of our organization and reinforce our professional work ethic.

Honesty, Trust, and Respect

We aspire to the highest degree of integrity, honesty, trust, and respect in our interaction with each other, our suppliers, our customers, and our community.

Teamwork and Problem Solving

We strive to reach OCSD 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.

Leadership and Commitment

We lead by example, acknowledging the value of our resources and using them wisely and safely to achieve our objectives and goals. We are committed to act in the best interest of our employees, our organization, and our community.

Learning/Teaching – Talents, Skills and Abilities

We continuously develop ourselves, enhancing our talents, skills, and abilities, knowing that only through personal growth and development will we continue to progress as an agency and as individuals.

Recognition/Rewards

We seek to recognize, acknowledge and reward contributions to OCSD by our many talented employees.

2019-20 BUDGET UPDATE

STRATEGIC PLANNING

Strategic Goals & Levels of Service

On the following pages are the updates to OCSD's strategic goals and levels of service. The six strategic goals are noted and include a status update. The levels of service standards are measures of service that are seen by our customers as high priorities. Goals and levels of service are divided into five areas:

- *Providing Exceptional Customer Service* — providing reliable, responsive and affordable services in line with customer needs and expectations.
- *Protecting Public Health and the Environment* — protecting public health and the environment utilizing all practical and effective means for wastewater, energy, and solids resource recovery.
- *Managing and Protecting the Public's Funds*— continually seeking efficiencies to ensure that the public's money is wisely spent.
- *Stakeholder Understanding and Support* — communicating our mission and strategies with those we serve and all other stakeholders.
- *Organizational Effectiveness* — creating the best possible workforce in terms of safety, productivity, customer service and training.

Status of Strategic Initiatives since Adoption of the 2016 Five-Year Plan

Providing Exceptional Customer Service

1. *Odor Control* – Completion of the Odor Control Master Plan to make sure OCSD's investment is current and, if needed, identification of future process systems necessary to maintain exceptional customer service. **COMPLETE**

2019-20 BUDGET UPDATE

Managing and Protecting the Public's Funds

2. *Local Sewer Transfers* — Complete transfer of 174 miles of local sewers serving parts of Tustin and unincorporated areas of north of Tustin. The transfer of these local sewers has been completed. **COMPLETE**

Protecting Public Health and the Environment

3. *Future Biosolids Management Options* — Completion of the Biosolids Master Plan. This Plan will identify OCSD's future biosolids management options, evaluate OCSD's existing solids handling facilities and alternative solids treatment technologies, and make recommendations for future capital facilities improvements. **COMPLETE**

4. *Energy Efficiency* — Completion of a research study for new energy efficiency and conversion technologies to maximize energy efficiency, reduce operating costs, minimize environmental impact, and replace assets that are at the end of their useful lives. **COMPLETE**

Stakeholder Understanding and Support

5. *Future Water Recycling Options* — Determine partnerships, needs, strategies, benefits and costs associated with recycling of Plant No. 2 effluent water. **ONGOING**

Organizational Effectiveness

6. *Workforce Planning and Workforce Development* — This initiative is an ongoing part of a comprehensive effort to ensure we have the right people, with the right skills and abilities, in the right place, at the right time. **ONGOING**

Every two years the Board of Directors revisits the Strategic Plan to assure that it captures the will of the Board of Directors and sets a proper planning basis for the two-year budgeting effort. The Board of Directors is scheduled to consider and adopt a finalized strategic plan in November 2019 to support the start of a new two-year budget in January 2020.

INFRASTRUCTURE ASSET MANAGEMENT

Asset Management

In December 2002, the Orange County Sanitation District (OCSD) Board adopted their "Asset Management Strategic Plan and Framework Analysis" (Asset Management Plan). The plan defined Asset Management for OCSD as: "to create and acquire, maintain, rehabilitate, replace and augment these valuable wastewater assets in the most cost effective (lowest life cycle cost) sustainable manner at the level of service required by present and future generations of regulators and customers at an acceptable level of risk."

OCSD is committed to providing services for its ratepayers 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. OCSD installs, operates, maintains, refurbishes and disposes of assets with lifecycles measured from years to decades, so an approach which balances long, medium and short-term needs is necessary.

Asset management has evolved into a comprehensive decision-making framework that encompasses engineering planning, design and construction of quality facilities, optimized operation, proper maintenance, and planned refurbishment and disposal that will meet OCSD's changing needs. This coordinated decision making process will allow OCSD to consistently meet mandated levels of service to the ratepayers at the lowest lifecycle cost.

OCSD's Asset Management Plan focuses on the long-term modeling of systems to ensure the proper rate structure is in place to support sustainable operations and to prioritize condition assessment studies based on service life and service conditions. These are important starting points and have yielded tangible benefits in reduced risk levels and an improved capital planning approach. The results of the long-term modeling are completely dependent on the data quality of the databases supplying information to the TeamPlan Software. Staff continues to improve the data quality of the source systems to improve the accuracy of the long-term model. The Maximo Computer Maintenance Management System (CMMS) is an example of an effort to improve OCSD's Asset Register. Technicians and the Asset Engineers continue to work to update the database information including installation date, asset cost, condition and criticality in the new system.

While the TeamPlan Software projects future renewal cash flow requirements in the long-term, OCSD has been striving to more accurately identify medium to short-term capital cash flow requirements. Specifically, the Engineering Planning Division has been working on developing a medium to long-term (up to 20 years) Capital Improvement Program (CIP) by creating specific project plans for the refurbishment, rehabilitation or replacement for each asset area.

This medium-term management is important for several reasons. By moving away from narrowly focused projects to solve individual problems, to more comprehensive projects refurbishing entire processes, OCSD benefits by having less operational disruption and more efficient project delivery, better cash flow estimation, and better operations and maintenance decision-making framework. This is a huge undertaking based on the number of assets and facilities, but over the twenty-years, the unknown amount of capital assets that are in need of rehabilitation is expected to be drastically reduced and replaced by more specific estimated capital needs.

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

2019-20 BUDGET UPDATE

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

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

INFRASTRUCTURE ASSET MANAGEMENT

Asset Valuation

The replacement valuation for all of OCSD's assets has been updated in 2018. The table below presents the current replacement and depreciated values of OCSD's assets. The depreciated value is the book value of the assets based on their age, which is a prediction of their current condition.

Valuation	Plants	Collection	Total
Replacement Value (in billions)	$7.3	$3.5	$10.8
Depreciated Value (in billions)	$2.1	$0.5	$2.6

The 2018 replacement value is estimated to be $10.8 billion. In 2012, the valuation estimate was $6.2 billion. The major reason for the valuation increase is the 2018 valuation was significantly detailed and thorough compared to the past. It is projected that the replacement value will increase as the Capital Improvement Program continues and OCSD tracks its assets in a progressive manner.

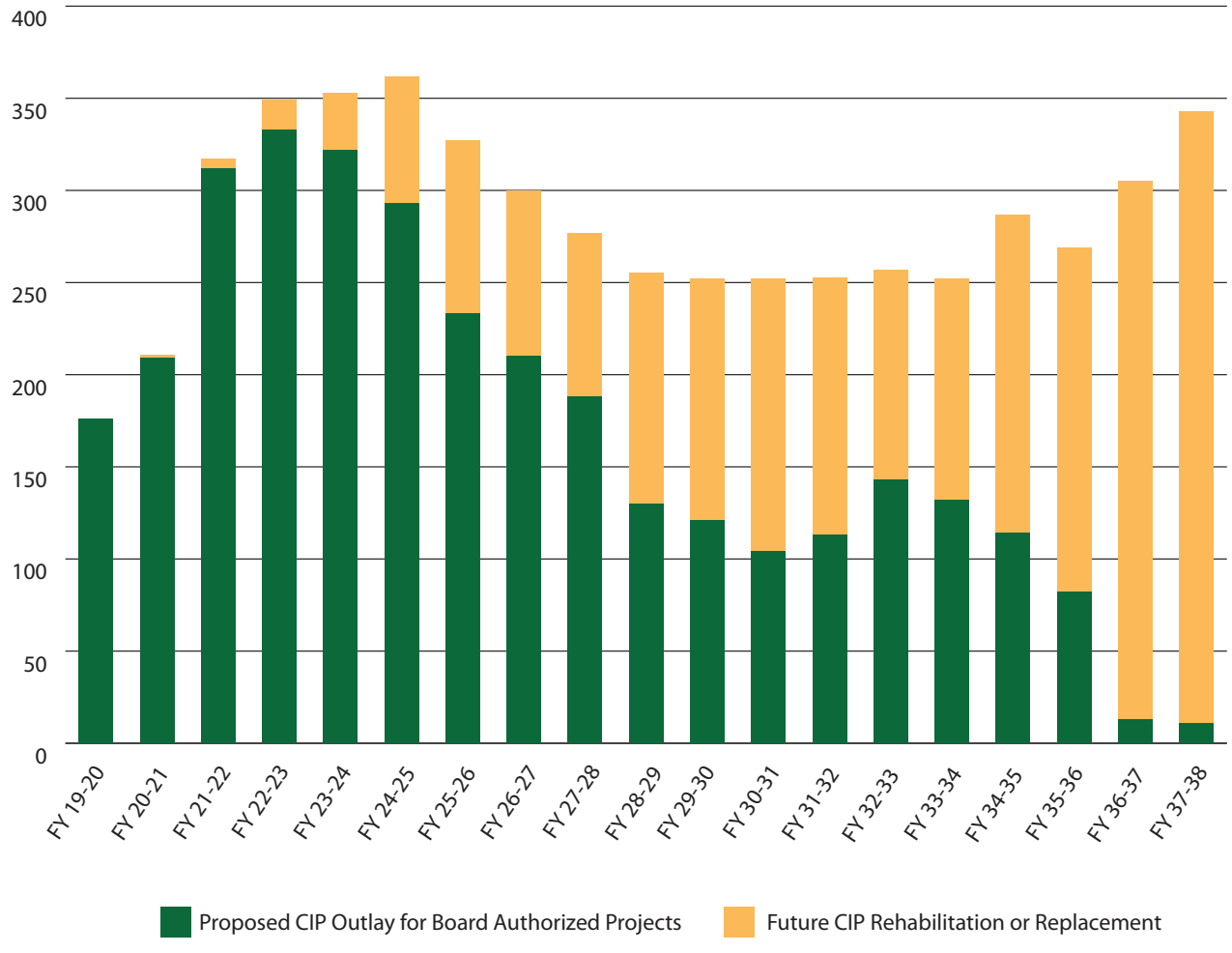
Planned CIP Outlays

The following chart shows the 20-year CIP outlay which includes current and predicted future Capital Improvement Program projects.

OCSD's capital improvement and maintenance programs are focused on maintaining our infrastructure to ensure that our mission is delivered reliably and that our facilities are managed in a way that minimizes overall life cycle costs

Below is a status of the FY 2019-20 infrastructure maintenance activities and planned activities for the next 20 years.

20 YEAR CIP OUTLAY



Collections System:

OCSD's collections system consists of 389 miles of sewers. This length is down from 396 due to the recent sewer transfers with the City of Santa Ana. The maintenance of all regional sewers is actively managed with 230 miles of regional sewers requiring scheduled cleaning. The largest sewers are typically self-cleaning due to higher flows and locations closer to the treatment plants. The regional collections system also includes 15 pump stations and two metering locations. Typical collections system maintenance activities consist of televising, inspecting, and cleaning sewer lines; operating, maintaining and cleaning pump stations with associated facilities; and chemical conditioning of the sewage to reduce corrosion and control odors. Maintenance activities are based on established levels of service to ensure compliance with our Sewer System Management Plan, reducing spills, increasing reliability and safety, and ensuring that our facilities are managed, operated and maintained to minimize overall life cycle costs and need for repairs. The cleaning frequencies are based on data from pipe inspections, closed-circuit television (CCTV) work, historical records, and industry best practices. The planned activities help extend the useful life of the assets and minimize nuisance odors.

During FY 2018-19 the following maintenance activities are projected to be completed:

- Cleaning of 65 miles of regional sewer lines.
- CCTV video inspection of 650 regional system manholes.
- CCTV video inspection of 80 miles of regional sewer pipeline.
- 90 percent of scheduled pump station preventative maintenance work.
- Cleaning of 90 percent of trouble spot and scheduled inverted siphon work.
- Manage odor control chemical expenses to 95 percent of budget.

The following emergency preparedness efforts were completed:

- Purchased larger generator to support pump stations on high flow during loss of utility power based on analysis completed in the previous year.
- Began purchase of emergency preparedness bypass pumping hardware.

Total costs: $9,503,432

The following activities and goals are planned for FY 2019-20:

- Clean 65 miles of regional sewer lines.
- CCTV video inspection of 650 regional system manholes.
- CCTV video inspection of 70 miles of regional sewer pipeline.
- Complete at least 85 percent of scheduled preventative maintenance work.
- Manage odors in the collections system while limiting odor control chemical expenditures to between 95-100 percent of budget.
- Complete year one of a two-year effort to reduce potential arc flash by adjusting and testing protective relays and breakers.
- Continue to implement emergency preparedness bypass pumping plan for pump stations.

Estimated total costs: $10,437,832

Collections System Capital Improvement Projects:

Our collections projects go through the 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, upgrade facilities to meet current codes and standards, and in some instances to increase flow capacity due to observed increases in stormwater infiltration and/or growth in localized portions of our service area.

We are currently planning and executing a comprehensive program to renew our collections system. One of the larger projects is the Newhope-Placentia Trunk Replacement (Project No. 2-72) which is taking place in the cities of Fullerton and Anaheim. Seven miles of sewer along State College Boulevard, from Yorba Linda Boulevard to Orangewood Avenue, will be upsized to accommodate the flow necessary to allow the abandonment of the Yorba Linda Pump Station which has reached the end of its useful life.

The project will also include modifications to existing diversion structures to add flexibility to the collections system and divert additional reclaimable flows. Construction efforts started in May 2016 and the first phase of the project is complete. The next phase, (in Anaheim) is currently under construction and will be complete in 2021. The project has a current budget of $111 million.

Another large-scale project is the Rehabilitation of the Western Regional Sewers (Project No. 3-64) which covers approximately 17 miles of sewers in the cities of Anaheim, Buena Park, Cypress, La Palma, Los Alamitos, Seal Beach and unincorporated areas of the County of Orange referred to as Rossmoor. This large project is required to rehabilitate or replace pipes that were installed 45 to 55 years ago. The sewers have multiple deficiencies which have allowed the intrusion of ground water primarily at the joints, but also sporadically along the pipe segments. In some cases, hard calcium deposits have developed, making the pipe difficult to clean, and over time may impede the wastewater flow. Most of the project's pipes will be rehabilitated with a fiberglass liner and a few others will be replaced with larger diameter pipelines. Also, over 150 manholes will be replaced. The project budget is $202 million.

At the southern edge of the previously mentioned project, the Seal Beach Pump Station (Project No. 3-62 & 3-67) also requires attention to properly support the western region of our service area. Not only are the electrical and safety codes significantly different from when the station was first constructed in the early 1970s, but many of the electrical, mechanical, and control system components are becoming obsolete, so long-term maintenance is no longer an option. One of the sewer force main pipes is out of service and the other force main is near the end of its useful life. The two-sewer force main pipes (2.5 miles long) and the pump station will be replaced. Odor control facilities will be added to reduce system corrosion and minimize public impacts. These projects are currently in the design phase with construction anticipated for 2019 and 2022. The budget for these projects is $133 million.

In the cities of Santa Ana, Irvine and Costa Mesa (Project No. 7-66) the Sunflower and Red Hill Interceptor Repairs project will repair plastic liner failures within a 6,000-foot section of the Sunflower and Red Hill Interceptors. This will require live entry and temporary diversions and bypass pumping to perform the work. The project has a current budget of $5.5 million and will begin construction in 2021.

In Newport Beach, the Bay Bridge Pump Station Replacement Project (Project No. 5-67) will replace the existing Bay Bridge pump station to meet current building, electrical, and safety codes, and to meet projected capacity needs. The existing force mains will also be replaced and will extend from the new pump station location, across the Back Bay channel, to connect with the existing pipes near the Dover Avenue and Pacific Coast Highway intersection. The project is currently in the design phase. Construction is anticipated to begin in 2021. The budget for this project is $64 million.

Reclamation Plant No. 1:

The maintenance organization continues to implement industry best practices for safety, effectiveness and reliability. During FY 2018-19, several major initiatives were completed to enhance maintenance staff efficiency, including the addition of a comprehensive lighting maintenance and replacement services contract allowing Electrical Staff to focus on more complex work. Throughout the Plant, more than 4,700 preventative maintenance activities were performed. Efforts continue to set up formal coatings and lubrications programs, as well as creating enhanced job plans for Motor Control Centers and switchgear to comply with National Fire Protection 70E safety standards. In addition to these activities, the following maintenance and repair activities are projected to be completed in FY 2018-19:

- Major service of one blower that services the Activated Sludge secondary treatment facility.
- Major maintenance service of 10 primary sedimentation basins for increased reliability.
- Cleaning and valve replacement for one digester.
- Overhaul of one digester gas compressor.
- First year of comprehensive testing of Protective Relays and Circuit Breakers.
- Meet stricter National Fire Protection A110 standards for servicing standby and mobile generators.

Total costs: $6,669,503

During FY 2019-20, there are more than 5,200 preventative maintenance activities that are scheduled to be completed at Plant No.1. This includes typical time or cycle-based maintenance tasks such as adjustments and mechanical alignments, cleaning and tightening of electrical equipment, calibration of sensors and meters, changing of lubricants and filters, exercising equipment, rebuilds and regulatory testing. While completing these activities, we will continue to conduct an optimization study began in the previous year of all preventative maintenance tasks to ensure assets are effectively maintained at proper intervals and lower cost.

In addition, staff will be utilizing predictive technologies such as vibration analysis to measure imbalance in rotating equipment, thermography to measure excessive heat, oil analysis to predict failure of lubricants, and ultrasonic to detect leaks as well as deterioration and short-circuiting in electrical equipment. Other major planned activities for FY 2019-20 at Reclamation Plant No. 1 include:

- Major overhaul of one CenGen Engine.
- Install last of four close coupled pumps for the Steve Anderson Lift Station (SALS).
- Rehabilitate and return to service three Circular Primary Clarifiers.
- Meet stricter standards for servicing and load testing standby and mobile generators.
- Complete year two of a two-year effort to reduce potential arc flash by adjusting and testing protective relays and breakers.
- Assess underground cable condition to ensure reliability of the electrical distribution network.
- Major service on one blower that services the Activated Sludge secondary treatment facility.
- Major maintenance service of 34 remaining primary sedimentation basins for increased reliability.
- Cleaning and valve replacement of three digesters.

Estimated total costs: $11,445,101

Reclamation Plant No. 1 Capital Improvement Projects:

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

One of the largest projects currently being designed is the Headwork Rehabilitation at Plant No. 1 (Project No. P1-105). The facility is almost 30 years old, so a comprehensive refurbishment is required in order to extend the life of the facility. Facilities to be rehabilitated include the metering and diversion structure, the bar screen building, the bin loading building, the main sewage pump station, the grit basins, the primary influent channels, the Headworks odor control scrubbers, and the electrical power distribution and control systems. The project will also include demolition of the original Headworks No. 1 facilities and the unused Chlorine Building pumps. Construction is scheduled to begin in late 2020. The total budgeted cost for this project is $406 million.

Primary Clarifiers Reliability Improvements at Plant No. 1 (Project No. P1-133) will increase the operating reliability of the rectangular primary clarifiers along with the replacement of equipment that is beyond its useful life. The Project is scheduled to begin construction in 2021 and the total budget is $21.5 million.

Treatment Plant No. 2:

All flows entering Treatment Plant No. 2 are treated to full secondary standards and then discharged four miles offshore through our ocean discharge outfall. Plant No. 2 has also implemented the same maintenance best practices implemented at Plant No. 1 to ensure consistency across OCSD in the areas of safety and asset reliability. Plant No. 2 will also benefit from the lubrication and coatings programs in development and the enhanced job plans for Motor Control Centers and switch gear to comply with National Fire Protection Association 70E safety standards. In addition to more than 5,000 preventative maintenance activities completed during FY 2018-19, the following major activities are projected to be completed:

- Cleaning and valve replacement of three digesters.
- Rehabilitation of one CenGen electrical generator.

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- Complete 18-month program of comprehensive testing of Protective Relays and Circuit Breakers.
- Complete rebuild of four dewatering belt filter presses.

Total costs: $8,665,129

During FY 2019-20, there are more than 5,400 preventative maintenance activities that are scheduled to be completed at Treatment Plant No. 2. This includes typical time or cycle based maintenance tasks such as adjustments and mechanical alignments, cleaning and tightening of electrical equipment, calibration of sensors and meters, changing of lubricants and filters, exercising equipment, rebuilds and regulatory testing. While completing these activities, we will continue to conduct an optimization study of preventative maintenance tasks began in the previous year to ensure assets are effectively maintained at proper intervals and lower cost. In addition, staff will be utilizing predictive technologies such as vibration analysis to measure imbalance in rotating equipment, thermography to measure excessive heat, and oil analysis to predict failure of lubricants and bearings. Other major planned activities at Treatment Plant No. 2 for FY 2019-20 include:

- Overhaul of one CenGen Engine.
- Cleaning and valve replacement of four digesters.
- Major repair of six secondary clarifiers for increased reliability.
- Meet stricter standards for servicing standby and mobile generators.
- Complete year two of a two-year effort to reduce potential arc flash by adjusting and testing protective relays and breakers.
- Conduct medium voltage cable assessment.
- Replace boiler dual heat exchanger.
- Complete repair of secondary clarifier inlet gates.
- Assess and overhaul the steam turbine and condenser in the Central Generator facility.
- Overhaul 2 of 3 digester gas compressors.
- Incorporate National Fire Protective Association 70E Electrical maintenance practices for staff and equipment safety.

Estimated total costs: $12,812,474

Treatment Plant No. 2 Capital Improvement Projects:

Plant No. 2 will be the site of many construction projects over the coming decade. A few of these projects include:

The Primary Treatment Rehabilitation Project (Project No. P2-98) will rehabilitate the primary clarifiers, influent pipes, construct new primary effluent pipes, and rehabilitate and upgrade the odor control systems. These facilities date back to the late 1950s and are in need of seismic and condition-based upgrades This is anticipated to be a very long duration project because the need to maintain treatment operations during the project. Construction of the first phase is underway and future phases will be completed by 2026. The total project budget is $245 million.

As we make improvements throughout the Plant, it is imperative we pay attention to our ocean outfall systems. Many components of the system such as the pipeline assets have already been addressed, so now we turn our attention to the pumping systems. Along with the pumping systems, Ocean Outfall System Rehabilitation (Project No. J-117), will rehabilitate the supporting electrical and informational systems. The pump station work includes rehabilitation of the mechanical, electrical, and civil systems which will extend the life of the facility and increase the efficiency of the system. In addition, a new Low Flow Pump Station will be added due to our increased water recycling rates which reduce our outfall flows below the capacity of the current very large pumps. This project will also relocate the existing Plant Water Pump Station to prevent water not reclaimable by the GWRS from entering the reclaimable portion of the treatment plant, as well as replace existing electrical switchgear at the Central Generation Building. The Ocean Outfall Booster Station and the interplant effluent lines work is completed. Remaining construction work is underway and will be completed in 2026. The budget for this project is $166 million.

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Headworks Modifications at Plant No. 2 for GWRS Final Expansion, (Project No. P2-122), will separate reclaimable and non-reclaimable flows to supply water for the GWRS Final Expansion. Construction is scheduled to begin in Spring of 2020 and the Project budget is $54 million.

Digester Gas Facilities Rehabilitation, (Project No. J-124) will rehabilitate digester gas facilities at Plants 1 and 2 to meet current and future OCSD needs such as Air Quality Management District and National Fire Protection Association regulations, and future projected gas production. Construction is scheduled to begin in Winter of 2020 and the Project budget is $156.5 million.

Eighteen existing anaerobic solids digesters will be replaced under a series of projects identified in the Biosolids Master Plan, (Project No. PS15-01). The largest of these projects, the TPAD Digester Facility at Plant No. 2, Project No. P2-128 will construct six new 110-ft diameter digesters. Design is scheduled to start Summer of 2019 and the total Project budget is $405 million.

Support Facilities Projects:

Another project currently in design is the Headquarters Complex and Site Security at Plant No. 1 (Project No. P1-128). The current Administration Building does not have sufficient office space to accommodate employees, resulting in personnel being spread throughout the plant in temporary trailers. Furthermore, the Administration Building is approaching 60 years old and requires extensive rehabilitation and upgrades to meet current building code and permit requirements. Some of the temporary trailers have been in use since the 1990s. A new building, which will be located north of Ellis Avenue across from Plant No. 1, will consolidate employees and business functions, and will also preserve valuable land at Plant No. 1 for future process needs, as identified by the 2017 Facilities Master Plan. This project is currently in design, with construction anticipated for 2021. The total project budget is $166 million.

Planning Studies:

As part of the long-term CIP planning efforts, several studies are currently underway evaluating various areas of the plants and the collections system to determine their condition, and identify deficiencies or improvements needed and to support CIP Projects. These studies include the 2017 Facilities Master Plan, Programmatic Environmental Impact Report, which will provide clearance through California environmental law for CIP Projects planned for the next 20 years.

We also have additional studies such as: Collections Capacity Evaluation Study, which will update OCSD's collections hydraulic model and identify future capacity projects; the Long Ocean Outfall condition assessment, which will identify areas of that require repair or replacement; and the Active Fault Location Study at Plant No. 2, it will identify active faults crossing the site and establish pre-determined setback buffer zones. As these studies evolve, projects will be supported, refined or created to improve our systems. Planning Studies Program Budget: $28.7 million.

2019-20 BUDGET UPDATE

CAPITAL IMPROVEMENT PROGRAM

CIP Budget Request Summary

This is an update to the FY 2018-20 two-year budget. In preparation for the 2019-20 update, the Sanitation District's Board of Directors reviewed the proposed changes to the CIP to gain an understanding of the impact of the CIP to the current rate structure program.

With $10.8 billion (replacement value) of aging assets requiring constant investment and attention, the Sanitation District is focusing its efforts on the continued refinement of its asset management based engineering planning process. This process has been used to propose project modifications to more efficiently package projects for execution. The Sanitation District staff is working to carefully identify all the necessary scope of work items in the planning phase of projects to assist with successful CIP execution that will also reduce future change orders and other project risks.

The Project Management Controls System staff works with project managers and management throughout the year to manage the scope, schedule, budget, risk and other key project indicators for each project. The information is collected monthly and compiled in the Project Management Office Sharepoint website. This information is then readily available during the budgeting process to minimize the time and effort needed to prepare and update the CIP portion of the overall budget.

Annually, as part of the CIP budget validation and prioritization process, the Sanitation District staff reviews each ongoing CIP project to ensure that the scope of the project is appropriate, and that the cost estimates are up to date. All projects in the CIP program have been prioritized based on risk exposure. Projects that would present a higher risk if they were delayed are given a higher priority. The CIP budget process is continually improved and further refined as the Sanitation District improves the CIP Project Management Controls System.

The validated CIP includes 77 large capital projects with a total 10-year estimated cashflow expenditure of $2.8 billion, not including reimbursables. This represents a net $20 million decrease from the 2018-20 CIP estimate. For a listing of capital projects and their budgets, see "Summary of Capital Requirements" in the appendix.

During this budget validation process, projects budgets are modified to account for newly discovered issues. In some cases, more accurate construction cost estimates were developed at the preliminary design level when more project details have been defined. For example, a detailed hydraulic model revealed a $130 million sewer capacity project could be reduced to $19 million.

Seven projects have been created totaling $92 million. Most notably are five projects related to the replacement of the digesters at Plant No. 2 as recommended by the Biosolids Master Plan. These projects are:

- P2-134: Substation Replacement at Plant No. 2
- 7-67: Main Street Pump Replacement and Force Main Rehabilitation
- J-133: Laboratory Rehabilitation at Plant No 1
- P1-134: South Perimeter Security and Utility Improvements at Plant No.1
- 7-68: MacArthur Force Main Improvements
- P1-135: Digester Ferric Chloride Piping Replacement at Plant No. 1

Additionally, the following project was not included in the FY 2018-20 budget book, but has since been approved by the Sanitation District's Board of Directors:

- 7-66: Sunflower and Red Hill Interceptor Repairs

As part of the budget update process, the following projects were cancelled or closed:

Cancelled: None

Closed:

- P1-123: Trunk Line Odor Control Improvements
- SP-178: Bay Bridge Pump station and Force Mains Rehabilitation Study
- 2-76: Tustin Rose OCTA Grade Separation

Following within the appendix are descriptions and justifications for the capital improvement projects which are new projects proposed for this FY 2019-20 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 Fiscal Years 2018-19 and 2019-20 Budget.

2019-20 BUDGET UPDATE

DEBT FINANCING PROGRAM

Debt Financing

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

Certificates of Participation (COP)

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

As of July 1, 2019, the total outstanding COP indebtedness will be $972.8 million.

Build America Bonds Financings

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

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

On March 1, 2013, the federal government implemented certain automatic spending cuts known as the sequester. As a result of the sequester, federal subsidy payments on BABs were reduced by 8.7 percent, 7.2 percent, 7.3 percent, 6.8 percent, 6.9 percent, 6.6 percent and 6.2 percent for the federal Fiscal Years ended 2013, 2014, 2015, 2016, 2017, 2018 and 2019 respectively.

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.

OCSD Maintains AAA Bond Rating

OCSD's bond rating is "AAA" from Moody's and Fitch Ratings. An "AAA" rating is the highest for a government agency. In order to maintain this rating, OCSD 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

OCSD has contractual covenants within the existing COP agreements which require minimum coverage ratios of 1.25. The minimum coverage ratio is the ratio of net annual revenues available for debt service requirements to total annual debt service requirements for all senior lien COP debt. The coverage ratio for senior lien COP debt is being proposed at 3.67 for FY 2019-20.

Future Financings

No new money debt issuances are being proposed over the next Fiscal Year as the $2.8 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.

2019-20 BUDGET UPDATE

OPERATING EXPENSES

Summary of Operating and Maintenance Expenses (in millions)

Category	2018-19 Adopted	2019-20 Adopted	2019-20 Proposed
Salaries and Benefits	$96.0	$98.2	$98.4
Contractual Expenses	25.2	22.1	22.0
Repairs and Maintenance	21.7	19.3	23.5
Operating Materials & Supplies	15.7	18.9	21.0
Utilities	7.5	9.0	9.3
Professional Services	5.4	4.6	5.6
Other Materials, Supplies, Services	5.3	4.2	4.3
Administrative Expenses	2.0	1.9	2.0
Training and Meetings	1.1	1.0	1.1
Research and Monitoring	1.1	1.1	1.1
Printing and Publications	0.3	0.3	0.3
Cost Allocation	(20.1)	(20.4)	(20.4)
Total Operating Expenses	$161.2	$160.2	$168.2

Salaries, Wages, and Benefits – $98.4M

Salaries and Wages – The proposed budget for Full Time Equivalent (FTE) positions for 2019-20 reflects an increase of four FTEs (0.6 percent) from the 2018-19 approved staffing level of 636.0 FTEs to 640.0 FTEs. Provisions have been made in these salary projections to comply with the terms of the most recently adopted Memorandum's of Understanding.

Retirement – OCSD employees are members of the Orange County Employees' Retirement System (OCERS). Information from OCERS indicates that the employer's required contribution rates will be increased in FY 2019-20 from 12.3 percent to 12.4 percent. As a result of OCSD's additional payment in 2016-17 to reduce the unfunded actuarial accrued liability, OCSD's contribution rate is among the lowest in the county.

Group Insurance – These expenses include OCSD's share (approximately $16,780 per employee) of employee medical plan benefits for the indemnity plan, prepaid HMO plans, dental insurance plan, and life and disability insurance premiums. The proposed budget includes a seven percent increase for medical plans starting January 2020.

Contractual Services – $22.0M

The treatment plants currently produce about 800 wet tons per day of biosolids which are recycled in California and Arizona. About half of the biosolids are currently allocated to create compost and the other half is used on farms to grow feed and seed crops. The 2019-20 biosolids budget is $13.4 million, approximately 61 percent of the Contractual Services budget. Other residuals solids and waste services includes disposal costs for grit and screening waste, digester cleaning waste, and hazardous materials.

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

Repairs and Maintenance – $23.5M

This item, which is for parts and services for repair of plant and collection facilities and annual service contracts, is expected to increase $5.7 million, or 32 percent above the 2018-19 projected costs of $17.8 million.

Planned repairs include: secondary clarifier overhaul ($2.2M); CenGen engine overhaul ($1.8M); primary clarifier maintenance ($525K); secondary gate repairs ($325K); and Effluent Pump Station Annex and Variable Frequency Drive repairs ($292K).

Operating Materials and Supplies – $21.0M

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 $10.4 million, an increase of $3.5 million from the 2018-19 projected costs due to price increases.

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

The 2019-20 budget for these chemicals is $7.4 million, approximately $900,000 more than the 2018-19 projected costs.

Utilities – $9.3M

During FY 2019-20, the overall cost for utilities, a significant component of the operating budget, is anticipated to increase by $1.0 million, or 11.9 percent due to increases of price and usage 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. The FY 2019-20 natural gas budget is $722,000, 13.1 percent lower than the projected 2018-19 costs. With the new emission control systems installed on all CenGen engines, 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 OCSD. Purchased electricity is used in running the plant processes as a supplement to power produced in the central generation facilities.

The 2019-20 proposed budget is 15.4 percent higher than the 2018-19 projected costs due to price increases and the use of centrifuges. In 2019-20, natural gas costs are expected to rise, resulting in a greater projected expense for imported electricity.

With the completion of the emission controls system installation, staff has 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 Cities of Fountain Valley and 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 5 percent of the potable water at Plant No. 1 is used for domestic uses and less than 1 percent is used for irrigation. The majority of the irrigation at both plants uses reclaimed water. Less than 1 percent of the potable water used at Plant No. 2 is for domestic uses due to the relatively small number of employees at Plant No. 2. The proposed total potable water cost for 2019-20 is $772,000, a 9 percent increase from the projected 2018-19 costs.

OPERATING EXPENSES

Professional Services – $5.6M

Professional Services includes General Counsel, special labor counsel, audit and miscellaneous accounting services, legislative advocacy, engineering, and other technical consulting services. The 2019-20 proposed budget is 22.0 percent higher than the 2018-19 projected cost mainly due to increases of engineering services, safety assessments, and consulting services.

Other Material, Supplies, Services – $4.3M

This category of costs includes an appropriation for 2019-20 of $1.7 million for in-lieu premium contribution charged to operations is recommended for the Property and General Liability Program. This will serve to maintain the reserves balance for the property and general liability self-insurance programs.

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

OCSD's property insurance coverage is $1 billion for perils of fire and $300 million for perils of flood, subject to a self-insurance retention of $250,000. OCSD is partially self-insured for earthquake, but does carry $25 million in coverage on fifteen (15) key structures with a $5 million deductible. OCSD also has a $50 million sublimit for builder's risk under the property insurance program to ensure upcoming construction projects are adequately covered.

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 in this category.

Administrative Expenses – $2.0M

These accounts include supplies, postage, technical journals and publications, forms, small office equipment, and small computer items that cost less than $5,000 per item and exclude items that are capitalized.

Training and Meetings – $1.1M

Board member and staff travel has been significantly reduced in recent years. This category also includes meetings of professional societies; ongoing technical training and materials for staff; training for computerized plant monitoring and control systems, MAXIMO (a computerized maintenance management system), Enterprise Resource Planning (ERP), and other "high tech" equipment, processes and systems; and training to allow for an adaptive and flexible work force. While OCSD continues to place an emphasis on effective safety training, as well as technical, leadership and management training, the training budget has been reduced from previous highs of 2.0 percent to approximately 1.8 percent of budgeted regular salaries due to savings achieved in part through the use of online courses.

Research and Monitoring – $1.1M

The budget for research and monitoring expenditures is maintained at approximately $1.0 million each year. It consists of contract services to carry out the extensive ocean monitoring program required by the EPA under provisions of OCSD's National Pollutant Discharge Elimination System (NPDES) permit; air quality monitoring costs; OCSD's contribution to the Southern California Coastal Water Research Project (SCCWRP) being conducted under a joint powers agreement with other Southern California municipal dischargers; and also provide for increased operational and ocean research and evaluation to develop optimum operating parameters in treatment plants.

Printing and Publication – $0.3M

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

Cost Allocation – ($20.4M)

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

2019-20 BUDGET UPDATE

DEPARTMENTS SUMMARY

Expenses by Department (in millions)

Department	2018-19 Budget	2019-20 Originally Proposed	Percent Change	2019-20 Updated Proposed	Percent Change
Administration Units:					
General Manager's Office	$4.6	$4.5	(2.2%)	$5.0	10.3%
Human Resources	8.3	9.0	8.4%	9.4	3.9%
Administrative Services	21.1	19.5	(7.6%)	19.7	0.8%
Sub-Total	$34.0	$33.0	(2.9%)	$34.1	3.3%
Operating Units:					
Environmental Services	18.0	18.4	2.2%	17.8	(3.1%)
Engineering	3.8	3.8	0.0%	6.6	71.3%
Operations & Maintenance	105.4	105.0	(0.4%)	109.7	4.6%
Sub-Total	$127.2	$127.2	0.0%	$134.1	5.4%
Total	$161.2	$160.2	(0.6%)	$168.2	5.0%

Staffing by Department (FTEs)

Department	2018-19 Budget	2019-20 Originally Proposed	Percent Change	2019-20 Updated Proposed	Percent Change
Administration Units:					
General Manager's Office	14.00	14.00	0.0%	15.00	7.1%
Human Resources	27.00	27.00	0.0%	27.00	0.0%
Administrative Services	100.00	100.00	0.0%	101.00	1.0%
Sub-Total	141.00	141.00	0.0%	143.00	1.4%
Operating Units:					
Environmental Services	91.00	91.00	0.0%	92.00	1.1%
Engineering	116.00	116.00	0.0%	121.00	3.4%
Operations & Maintenance	288.00	288.00	0.0%	284.00	(1.0%)
Sub-Total	495.00	495.00	0.0%	497.00	0.4%
Total FTEs*	636.00	636.00	0.0%	640.00	0.6%

**FTE totals above include four new proposed positions and eight upgrades of current positions. A total of 28 positions from Division 875 have been reallocated to Divisions 740, 750, 770, and 870. Total filled positions will not exceed 640 FTEs at any point in time.*

2019-20 BUDGET UPDATE

Administration Units

General Manager's Office
Budget $5.0M – Staffing 15 FTEs

The General Manager's Office provides general oversight of all OCSD operations and incorporates functions in the areas of Public Affairs and Board Services.

Human Resources
Budget $9.4M – Staffing 27 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 $19.7M – Staffing 101 FTEs

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

Operating Units

Environmental Services
Budget $17.8M – Staffing 92 FTEs

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

Engineering
Budget $6.6M – Staffing 121 FTEs

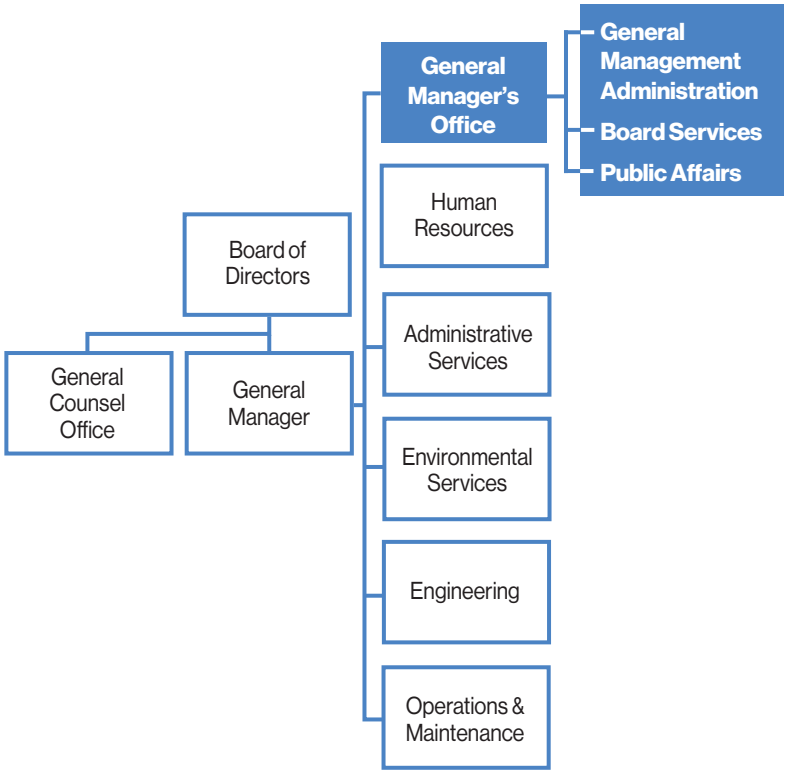
The Engineering Department is responsible for the planning and execution of the OCSD's capital improvement program and asset management program.

Operations and Maintenance
Budget $109.7M – Staffing 284 FTEs

The Operations and Maintenance Department is responsible for the operation and maintenance of the OCSD's two wastewater treatment plants as well as the sanitary sewer system pipeline and pumping facilities. The department also provides fleet management services for OCSD. The budget reflects the addition of eight new positions to support an increasing maintenance workload.

FTEs = Full-Time Equivalent Positions

GENERAL MANAGER'S OFFICE



Service Description

General Management Administration is responsible for working with the Board of Directors to establish standards, policies and procedures, and the overall goals and Strategic Plan of the Sanitation District. 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 the Sanitation District; and providing exceptional customer service and support to the Board of Directors, the Sanitation District staff and the general public in a courteous, timely and efficient manner.

Public Affairs communicates information about OCSD in a timely, accurate and accessible way to employees, the Board of Directors, the general public, the wastewater industry and the news media.

2019-20 BUDGET UPDATE

Operating Expense

Category	2018-19 Budget	2019-20 Adopted	2019-20 Proposed
Personnel	$2,175,400	$2,164,400	$2,314,240
Supplies	$500,340	$460,900	$480,640
Professional / Contractual Services	$700,000	$700,000	$889,400
Research & Monitoring	$0	$0	$0
Repairs & Maintenance	$0	$0	$0
Utilities	$110,000	$110,000	$110,000
Other	$1,225,780	$1,191,680	$1,295,180
Cost Allocation	($116,520)	($116,520)	($116,520)
Total	$4,595,000	$4,510,460	$4,972,940

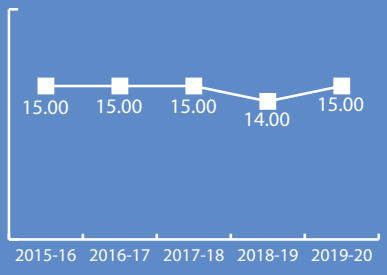
Budget Overview

The FY 2019-20 budget for the General Manager's Office reflects an increase of 10.3 percent over the originally adopted budget. The increase is primarily due to increases in costs for salaries and benefits, training and meetings, and legal services. The increase in training and meetings is attributable to the addition of leadership training for Board members and staff, in addition to the centralization of budgets for large annual conferences.

Authorized FTE Positions

Managers	3.00
Supervisors /Professionals	7.00
Administrative /Clerical	5.00
Total	15.00

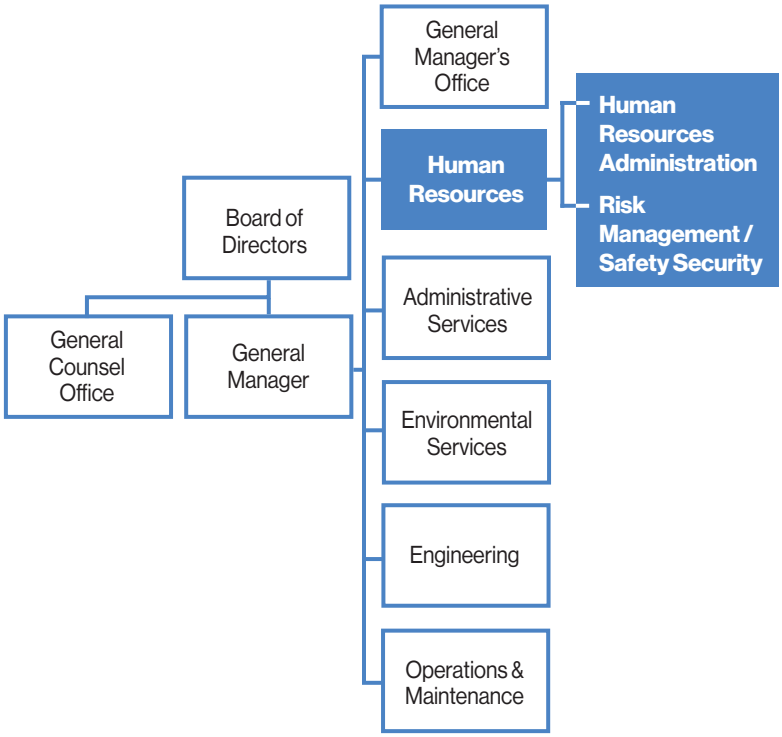
Staffing Trends



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 seven business days.
- Provide information to the Board of Directors through the General Manager's monthly report and the new Board member orientation.
- Provide services and implement programs that meet the communication needs of OCSD's external audience by reaching a minimum of 3,000 people per year.

HUMAN RESOURCES DEPARTMENT



Service Description

Human Resources is a full-service department responsible for all aspects of Human Resources and Risk Management administration that ensures a productive and safe workplace and maintains programs that support 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 the in-house advisor to the General Manager, executive staff, OCSD departments, and all staff by delivering high quality 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 Development/ Performance Management, and Recruitment and Selection. Benefits Administration administers and maintains employee benefits and the reasonable accommodation program. Classification and Compensation is a vital function that ensures a competitive and fair compensation system and an equitable classification structure. Employee and Labor Relations works to enhance the employment relationship by providing professional assistance and guidance on labor agreements, policies, laws and work-related issues. Workers Compensation provides medical care and benefits to employees who become ill or injured in the course of employment. Employee Development/Performance Management manages and coordinates District-wide legally mandated training programs; and oversees the employee performance program. Through the Recruitment and Selection program, OCSD seeks to attract, hire, and retain the best qualified employees in a manner that is fair, equitable and merit-based.

Risk Management/Safety/Security protects the finances and human resources of OCSD. It identifies and addresses potential risk to the organization and provides solutions for mitigating or reducing the risk. The major areas of responsibility include insurances, occupational safety and health, security, and emergency preparedness. The division manages OCSD's numerous insurance programs that include excess liability, property, boiler and machinery, earthquake and excess workers' compensation. Safety is a priority for OCSD and this area includes comprehensive safety training programs, safe working practices, and quarterly facility inspections. Security and emergency preparedness programs include the oversight of OCSD's contracted security services, planning emergency drills, and ensuring OCSD has the necessary programs, supplies and training in preparation for an emergency. These programs ensure OCSD provides a secure, safe and healthy work environment for OCSD staff, contractors, and visitors.

2019-20 BUDGET UPDATE

Operating Expense

Category	2018-19 Budget	2019-20 Adopted	2019-20 Proposed
Personnel	$4,779,200	$4,920,700	$5,042,260
Supplies	$690,660	$657,060	$765,710
Professional / Contractual Services	$2,717,500	$2,957,500	$3,067,500
Research & Monitoring	$0	$0	$0
Repairs & Maintenance	$3,050	$3,050	$3,050
Utilities	$0	$0	$0
Other	$1,408,160	$1,828,860	$1,843,640
Cost Allocation	($1,334,180)	($1,334,180)	($1,334,180)
Total	$8,264,390	$9,032,990	$9,387,980

Budget Overview

The FY 2019-20 budget for the Human Resources Department reflects a 3.9 percent increase from the previously adopted budget. The increase is primarily due to increases in costs for salaries and wages, security and other professional services.

Performance Objectives / Measures

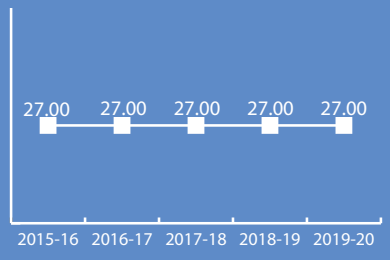
- Maintain a systematic succession management program that incorporates leadership training and employee development.
- Meet or exceed recruitment timelines with all dates and times being adhered to and communicated.
- Work with upper management to resolve issues at the lowest level through conflict resolution training and techniques.
- Reduce injury rates through monitoring and partnering with departments to implement effective safety and health systems and processes.
- Complete 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

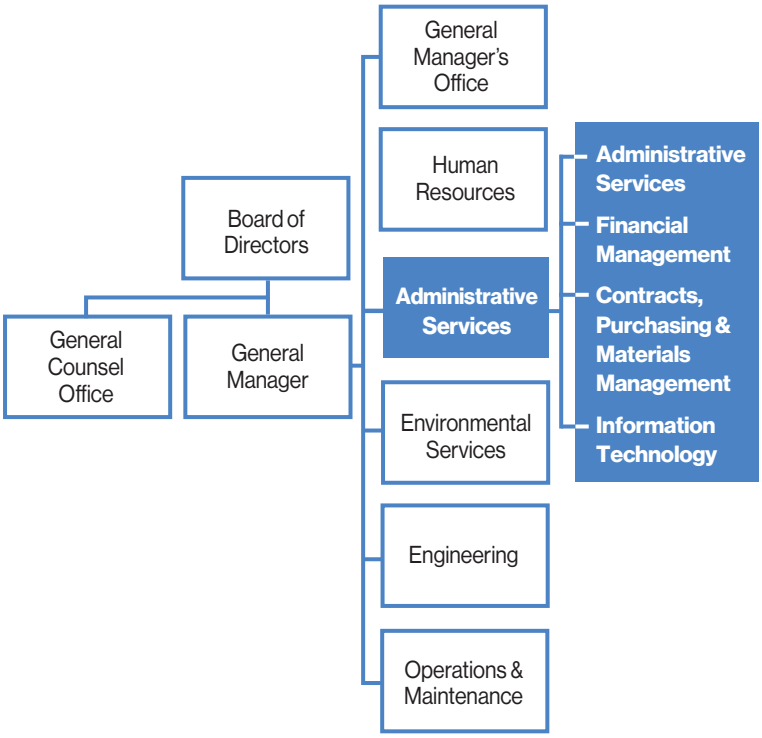
Managers..... 2.00
Supervisors /Professionals ... 22.00
Administrative /Clerical..... 3.00

Total 27.00

Staffing Trends



ADMINISTRATIVE SERVICES DEPARTMENT



Service Description

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

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

Financial Management oversees and administers all OCSD's funds and accounts. Programs include treasury and debt management, accounts receivable and payable, user fees, payroll, fixed assets accounting, financial reporting 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 OCSD's warehouses, receives and maintains inventory, and distributes supplies, materials, and equipment.

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

2019-20 BUDGET UPDATE

Operating Expense

Category	2018-19 Budget	2019-20 Adopted	2019-20 Proposed
Personnel	$14,610,000	$14,942,300	$14,073,460
Supplies	$1,326,980	$1,327,160	$1,340,720
Professional / Contractual Services	$1,736,890	$1,163,120	$1,962,670
Research & Monitoring	$0	$0	$0
Repairs & Maintenance	$2,300,000	$2,500,000	$2,700,000
Utilities	$500,000	$500,000	$500,000
Other	$1,663,070	$163,070	$172,430
Cost Allocation	($1,056,440)	($1,056,440)	($1,056,440)
Total	$21,080,500	$19,539,210	$19,692,840

Budget Overview

The FY 2019-20 budget for the Administrative Services Department reflects a 0.8 percent increase from the previously adopted budget. Increases in costs for professional services were largely offset by decreased costs for postage, county service fees, and personnel.

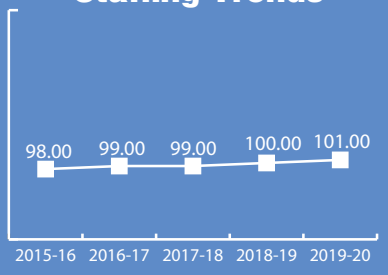
Performance Objectives / Measures

- Manage operating expenditures to within 96 to 100 percent of the approved budget.
- Comply with the California State Government Code 100 percent of the time with all treasury investments.
- Submit the annual sewer service fee property parcel database to the County in time for placement on annual secured property tax bills.
- Process all approved sewer service fee refund requests within 90 days, 90 percent of the time.
- All debt service payments processed 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 to 6 years.
- Continue Cyber Security Awareness Protection – report on the overall effectiveness of the phishing campaign.

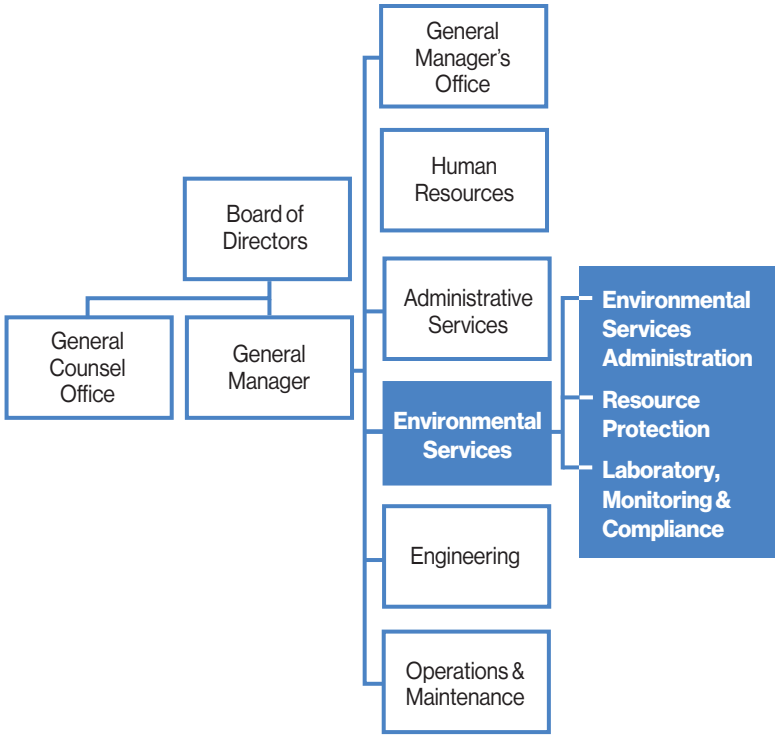
Authorized FTE Positions

Managers	3.00
Supervisors /Professionals	60.00
Administrative /Clerical	25.00
Technical	13.00
Total	101.00

Staffing Trends



ENVIRONMENTAL SERVICES DEPARTMENT



Service Description

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

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

Resource Protection fulfills regulatory requirements with proper biosolids management, air quality controls, federal pretreatment regulations, non-industrial source control, and water reclamation and reuse. This is done in the most cost effective, practical, and beneficial manner that meets regulatory requirements, protects OCSD's assets, employees, and ocean discharge.

Laboratory, Monitoring and **Compliance** performs sampling, monitoring, analysis, evaluation and recommendations for collections system, treatment processes, air samples, coastal water quality, marine sediments and the fish populations within the influence of OCSD's wastewater discharge. The division also assures compliance with environmental permits and regulations, and the team works proactively on developing regulations of interest to OCSD.

2019-20 BUDGET UPDATE

Operating Expense

Category	2018-19 Budget	2019-20 Adopted	2019-20 Proposed
Personnel	$13,764,000	$14,082,100	$13,570,410
Supplies	$921,220	$903,630	$901,630
Professional / Contractual Services	$786,660	$701,660	$653,660
Research & Monitoring	$1,061,200	$1,099,600	$1,099,600
Repairs & Maintenance	$297,330	$314,970	$314,970
Utilities	$369,400	$380,500	$380,500
Other	$824,820	$851,820	$846,820
Cost Allocation	$23,250	$23,030	$23,030
Total	$18,047,880	$18,357,310	$17,790,620

Budget Overview

The FY 2019-20 budget for the Environmental Services Department reflects a decrease of 3.1 percent from the originally adopted budget. The decrease is primarily attributable to decreases in costs for salaries and benefits, legal services, audit and accounting services, and other professional services.

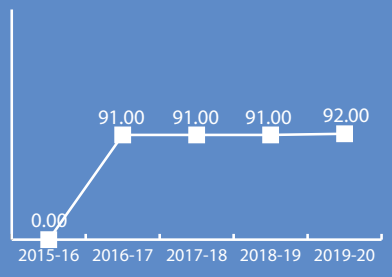
Performance Objectives / Measures

- Manage operating expenditures to within 96 to 100 percent of the approved budget.
- Ensure that reporting divisions achieve 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.

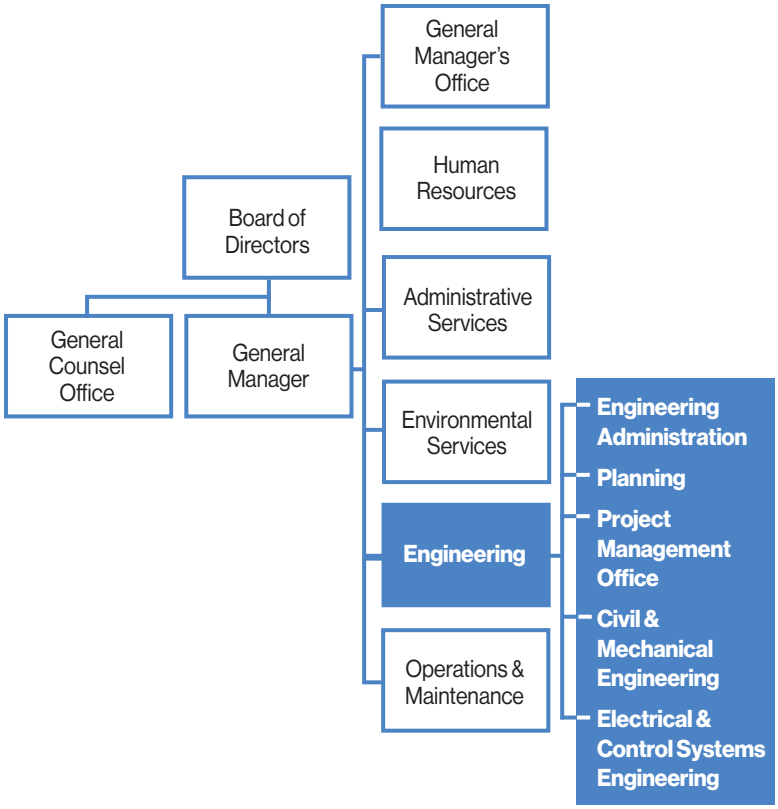
Authorized FTE Positions

Managers	3.00
Supervisors / Professionals	64.00
Administrative /Clerical	9.00
Technical	16.00
Total	92.00

Staffing Trends



ENGINEERING DEPARTMENT



Service Description

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

Engineering Administration provides management to all Engineering Divisions.

Planning provides a comprehensive Capital Improvement Program for the Sanitation District considering project capacity requirements, condition of current assets, projected regulatory and level of service changes, and business opportunities. The Planning Division coordinates the Asset Management Program at the Sanitation District to deliver the required level of service at the lowest lifecycle cost with an acceptable level of risk. The Division is also responsible for water resources management, California Environmental Quality Act preparation and review, annexations, connection permitting, easements, and interagency coordination.

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

Civil and **Mechanical Engineering** provides civil and mechanical design and construction engineering, quality control inspection, and other technical support for design and construction projects.

Electrical and **Control Systems Engineering** provides electrical and control system designs, quality control inspections, control system programming, commissioning, training, and industrial control system network design and support for collections and treatment plant facilities.

Operating Expense

Category	2018-19 Budget	2019-20 Adopted	2019-20 Proposed
Personnel	$19,798,600	$20,215,700	$21,404,310
Supplies	$451,800	$437,520	$521,790
Professional / Contractual Services	$689,700	$695,000	$2,238,615
Research & Monitoring	$0	$0	$0
Repairs & Maintenance	$117,500	$117,500	$108,000
Utilities	$178,100	$183,500	$133,500
Other	$7,700	$8,000	$9,020
Cost Allocation	($17,483,180)	($17,789,760)	($17,789,760)
Total	$3,760,220	$3,867,460	$6,625,475

Budget Overview

The FY 2019-20 budget for the Engineering Department reflects a 71.3 percent increase from the previously adopted budget primarily due to the inclusion of the maintenance reliability and planning functions, formerly in the Operations and Maintenance Department.

Performance Objectives / Measures

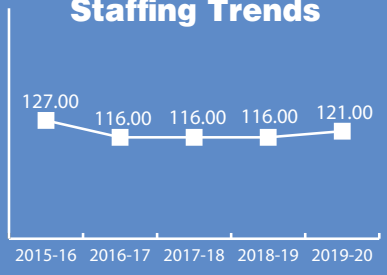
- Expend minimum 90 percent of project annual Capital Improvement Program cash flows for FY 2019-20.
- Manage operating expenditures to within 90 to 100 percent of the approved budget.
- Ensure that reporting divisions achieve 90 percent of individual performance objectives.
- Prepare and maintain a 20-year agency-wide capital plan coordinating research, condition assessment, regulatory requirements, changing levels of science, and projected capacity requirements.

Authorized FTE Positions

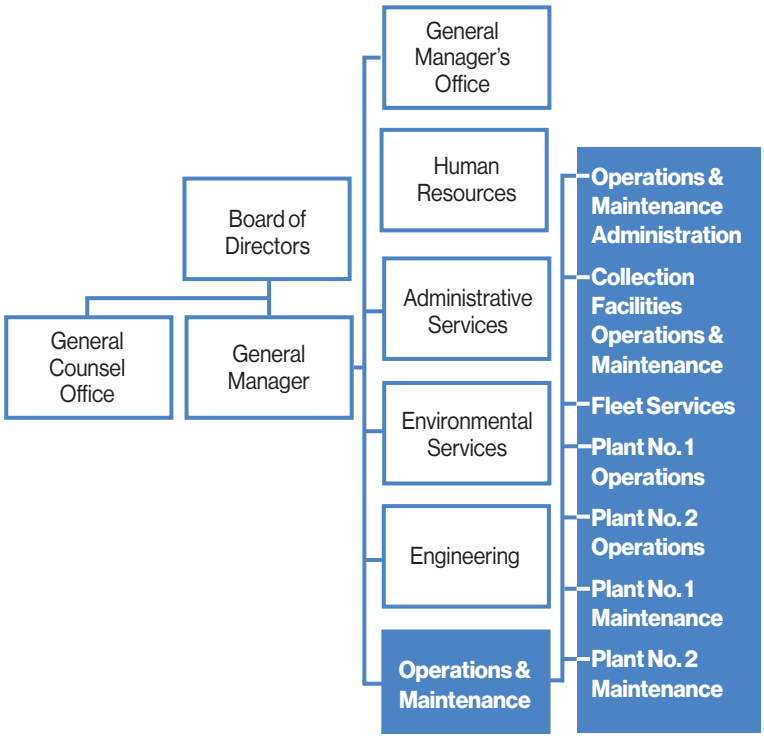
Managers..... 7.00
Supervisors / Professionals .. 85.00
Administrative / Clerical..... 29.00

Total 121.00

Staffing Trends



OPERATIONS AND MAINTENANCE DEPARTMENT



Service Description

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

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

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

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

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

Plant No. 1 and **Plant No. 2 Maintenance** are responsible for civil, electrical, facilities, instrumentation and mechanical maintenance of the two treatment plants and pump stations. Plant No. 1 Maintenance also includes planning for all maintenance activities as well as reliability engineering for both Plants and the Collections System, and oversees the Civil Assets Maintenance Program (CAMP).

2019-20 BUDGET UPDATE

Operating Expense

Category	2018-19 Budget	2019-20 Adopted	2019-20 Proposed
Personnel	$40,865,600	$41,863,900	$42,029,560
Supplies	$15,293,240	$18,303,410	$20,432,731
Professional / Contractual Services	$23,924,250	$20,440,640	$18,774,299
Research & Monitoring	$0	$0	$0
Repairs & Maintenance	$18,997,480	$16,385,740	$20,343,622
Utilities	$6,282,300	$7,854,600	$8,126,310
Other	$120,660	$153,390	$144,850
Cost Allocation	($103,360)	($104,740)	($104,740)
Total	$105,380,170	$104,896,940	$109,746,632

Budget Overview

The FY 2019-20 budget for the Operations and Maintenance Department reflects a 4.6 percent increase from the previously adopted budget. The increase is primarily due to increases in costs for deferred maintenance, treatment and odor control chemicals, and for salaries and benefits, partially offset by decreases in costs for solids removal, other contractual services, and engineering services.

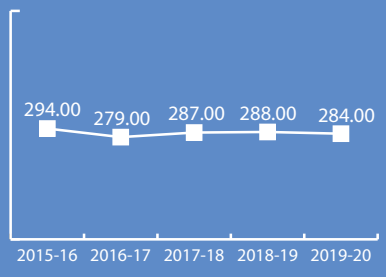
Performance Objectives / Measures

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

Authorized FTE Positions

Managers	4.00
Supervisors /Professionals	60.00
Administrative /Clerical	6.00
Technical	1.00
Operations & Maintenance	213.00
Total	284.00

Staffing Trends




LOW PRESSURE
DIGESTER GAS

Appendix

Cash Flow Projection

Orange County Sanitation District

Consolidated Cash Flow Projections

Ref	Description	Preliminary 19-20	Preliminary 20-21	Preliminary 21-22	Preliminary 22-23	Preliminary 23-24	Preliminary 24-25
	Revenues:						
1	General User Fees	298,144,000	302,790,000	307,461,000	312,156,000	320,617,000	329,125,000
2	Permitted User Fees	9,917,000	10,034,000	10,151,000	10,268,000	10,502,000	10,736,000
3	IRWD Assessments	17,658,560	21,891,050	19,349,190	19,181,450	19,495,280	20,386,140
4	SAWPA Assessments	2,654,000	2,760,000	2,870,000	2,985,000	3,104,000	3,228,000
5	Property Taxes	96,354,000	99,967,000	103,716,000	107,605,000	111,371,000	115,269,000
6	New COP Issues	-	-	-	-	-	-
7	Interest Revenues	6,747,000	6,666,000	6,828,000	6,413,000	5,823,000	7,957,000
8	Capital Facilities Capacity Charges	18,000,000	18,612,000	18,673,000	19,441,000	19,517,000	19,597,000
9	Other Revenues	18,880,498	26,866,640	28,019,005	36,652,981	18,505,375	15,795,381
10	**Revenues**	**468,355,058**	**489,586,690**	**497,067,195**	**514,702,431**	**508,934,655**	**522,093,521**
	Requirements:						
11	Oper & Mtce Exp (4.0% yr)	168,216,487	164,816,541	171,409,000	178,265,000	185,396,000	192,812,000
12	Capital Improvement Program (CIP)	176,325,000	209,328,000	313,739,000	346,067,000	335,302,000	306,508,000
13	Less: CIP Savings & Deferrals	(22,997,569)	(24,759,882)	(34,039,257)	(29,748,929)	(22,387,544)	(14,548,981)
14	Allocation for Future Rehabilitation	140,000,000	-	-	-	-	-
15	COP Service (5.0%, 30 yrs)	76,775,000	72,838,000	72,211,000	72,206,000	72,212,000	72,206,000
16	Reduction of Long-Term Liabilites	-	-	-	-	-	-
17	Other Requirements	7,530,000	6,030,000	2,530,000	2,530,000	2,530,000	2,530,000
18	**Requirements**	**545,848,918**	**428,252,659**	**525,849,743**	**569,319,071**	**573,052,456**	**559,507,019**
19	**Revenues-Requirements**	**(77,493,860)**	**61,334,031**	**(28,782,548)**	**(54,616,640)**	**(64,117,801)**	**(37,413,498)**
	Accumulated Funds:						
20	Beginning of Year	716,802,309	639,308,449	700,642,480	671,859,932	617,243,292	553,125,491
21	**End of Year**	639,308,449	700,642,480	671,859,932	617,243,292	553,125,491	515,711,993
22	**Consolidated Reserve Policy**	529,777,000	522,032,000	523,366,000	525,208,000	527,105,000	515,025,000
23	**Over (Under) Reserve Policy***	**109,531,449**	**178,610,480**	**148,493,932**	**92,035,292**	**26,020,491**	**686,993**
	Sewer Service User Fees:						
24	Avg SFR Annual User Fee	$339	$343	$347	$351	$359	$367
25	Percentage Change	1.19%	1.18%	1.17%	1.15%	2.28%	2.23%
26	Equivalent Dwelling Units	923,730	926,501	929,281	932,069	934,865	937,670
27	SFR Connection Fee	$4,601	$4,973	$5,346	$5,719	$5,736	$5,753
28	Outstanding COPs	$940,050,000	$909,620,000	$876,655,000	$840,715,000	$803,320,000	$764,285,000
	Reserve Policy						
29	50% Next Year Operating	84,108,000	82,408,000	85,705,000	89,133,000	92,698,000	96,406,000
30	10% Next Year Operating	16,822,000	16,482,000	17,141,000	17,827,000	18,540,000	19,281,000
31	100% Next Year AUG COP Svc.	76,775,000	72,838,000	72,211,000	72,206,000	72,212,000	72,206,000
32	50% average ten-year CIP Bal.	137,302,000	137,302,000	137,302,000	137,302,000	137,302,000	137,302,000
33	DSR @ 10% Outstanding COPs	94,005,000	90,962,000	87,666,000	84,072,000	80,332,000	76,429,000
34	SFI @ $57mm	57,000,000	57,000,000	57,000,000	57,000,000	57,000,000	57,000,000
35	Repl & Refurb @ 2%/yr	63,765,000	65,040,000	66,341,000	67,668,000	69,021,000	70,401,000
36	*Reserve Reduction (in accordance with Board action allowing a $40M reduction to total res				-	-	(14,000,000)
37	Total	529,777,000	522,032,000	523,366,000	525,208,000	527,105,000	515,025,000
	COP Ratios						
38	Sr Lien Coverge, Min 1.25	3.67	4.20	4.25	4.39	4.21	4.29

Orange County Sanitation District

Consolidated Cash Flow Projections

Ref	Description	Preliminary 25-26	Preliminary 26-27	Preliminary 27-28	Preliminary 28-29	10-Year Total
	Revenues:					
1	General User Fees	337,681,000	346,285,000	354,938,000	363,640,000	3,272,837,000
2	Permitted User Fees	10,970,000	11,204,000	11,438,000	11,672,000	106,892,000
3	IRWD Assessments	19,727,490	19,108,870	18,531,800	18,420,770	193,750,600
4	SAWPA Assessments	3,357,000	3,491,000	3,630,000	3,776,000	31,855,000
5	Property Taxes	118,727,000	122,289,000	125,958,000	129,737,000	1,130,993,000
6	New COP Issues	-	-	-	-	-
7	Interest Revenues	7,827,000	8,366,000	9,374,000	8,837,000	74,838,000
8	Capital Facilities Capacity Charges	19,673,000	19,749,000	19,830,000	19,906,000	192,998,000
9	Other Revenues	16,124,000	16,464,000	16,813,000	17,169,000	211,289,880
10	**Revenues**	**534,086,490**	**546,956,870**	**560,512,800**	**573,157,770**	**5,215,453,480**
	Requirements:					
11	Oper & Mtce Exp (4.0% yr)	200,524,000	208,545,000	216,887,000	225,562,000	1,912,433,028
12	Capital Improvement Program (CIP)	245,664,830	219,403,850	188,966,888	130,544,028	2,471,848,596
13	Less: CIP Savings & Deferrals	(6,904,105)	(4,155,277)	(3,719,338)	(2,550,881)	(165,811,763)
14	Allocation for Future Rehabilitation	-	-	-	300,000,000	440,000,000
15	COP Service	72,210,000	68,414,000	72,563,000	72,557,000	724,192,000
16	Reduction of Long-Term Liabilites	-	-	-	-	-
17	Other Requirements	2,530,000	2,530,000	2,530,000	2,530,000	33,800,000
18	**Requirements**	**514,024,725**	**494,737,573**	**477,227,550**	**728,642,147**	**5,416,461,861**
19	**Revenues-Requirements**	**20,061,765**	**52,219,297**	**83,285,250**	**(155,484,377)**	**(201,008,381)**
	Accumulated Funds:					
20	Beginning of Year	515,711,993	535,773,758	587,993,055	671,278,305	716,802,309
21	End of Year	535,773,758	587,993,055	671,278,305	515,793,928	515,793,928
22	Consolidated Reserve Policy	513,250,000	510,138,000	514,617,000	513,681,001	513,681,001
23	**Over (Under) Reserve Policy***	**22,523,758**	**77,855,055**	**156,661,305**	**2,112,927**	**2,112,927**
	Sewer Service User Fees:					
24	Avg SFR Annual User Fee	$375	$383	$391	$399	
25	Percentage Change	2.18%	2.13%	2.09%	2.05%	
26	Equivalent Dwelling Units	940,483	943,304	946,134	948,972	
27	SFR Connection Fee	$5,770	$5,787	$5,804	$5,821	
28	Outstanding COPs	$546,150,000	$490,485,000	$429,090,000	$352,805,000	
	Reserve Policy					
29	50% Next Year Operating	100,262,000	104,273,000	108,444,000	112,781,000	
30	10% Next Year Operating	20,052,000	20,855,000	21,689,000	22,556,000	
31	100% Next Year AUG COP Svc.	72,210,000	68,414,000	72,563,000	72,557,000	
32	50% average ten-year CIP Bal.	137,302,000	137,302,000	137,302,000	137,302,000	
33	DSR @ 10% Outstanding COPs	54,615,000	49,049,000	42,909,000	35,281,000	
34	SFI @ $57mm	57,000,000	57,000,000	57,000,000	57,000,001	
35	Repl & Refurb @ 2%/yr	71,809,000	73,245,000	74,710,000	76,204,000	
36	*Reserve Reduction	-	-	-	-	
37	Total	513,250,000	510,138,000	514,617,000	513,681,001	
	COP Ratios					
38	Sr Lien Coverge, Min 1.25	4.35	4.66	4.46	4.52	

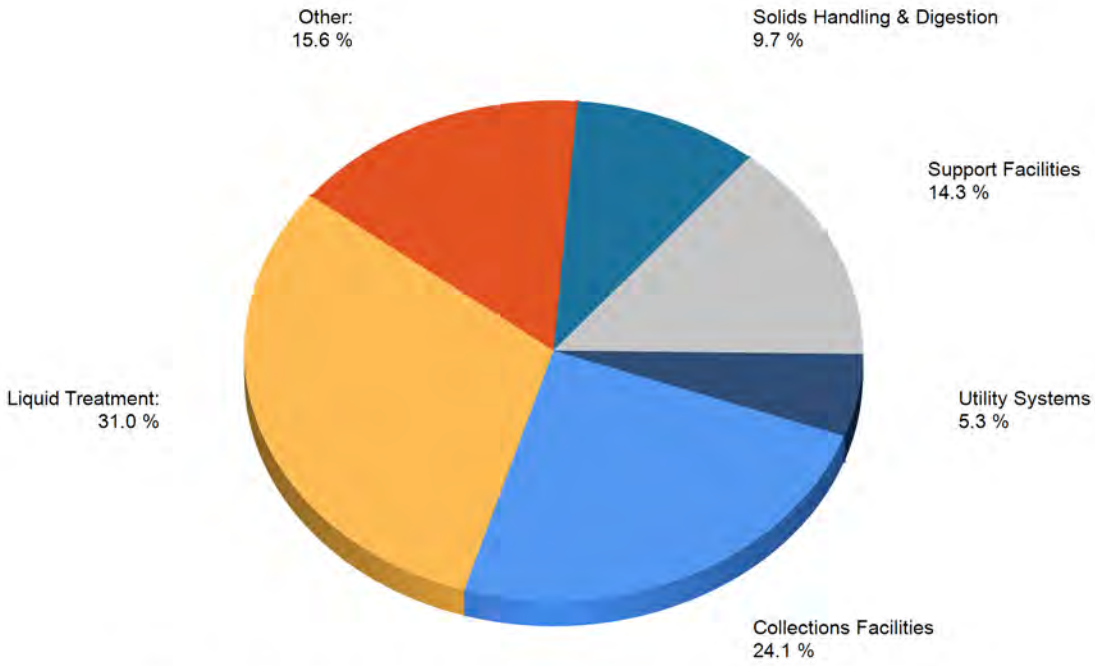
Capital Improvement Program Summary

			% Change
Approved Outlay for FY 2019-20	$	148,997,415	
New Projects		2,240,522	1.5%
Projects Budget Increases		36,735,937	24.6%
Projects Budget Decreases		(11,853,793)	(8.0%)
Projects Cancellation/Closures		(242,828)	(0.1%)
Changes to Capital Equipment		448,700	0.3%
Proposed Outlay for FY 2019-20		176,325,953	18.3%
Less: CIP Savings & Deferrals		($23,000,000)	(15.4%)
Proposed Net CIP Outlay	$	$153,325,953	2.9%
FY 2018-19 Approved Total CIP Budget Authority	$	4,010,422,700	
New Projects		92,166,000	2.3%
Projects Budget Increases		53,238,000	1.3%
Projects Budget Decreases		(172,414,000)	(4.3%)
Projects Cancellation/Closures		(17,579,000)	(0.4%)
Changes to Capital Equipment		133,453	0.0%
FY 2019-20 Proposed Total CIP Budget Authority	$	3,965,967,153	(1.1%)

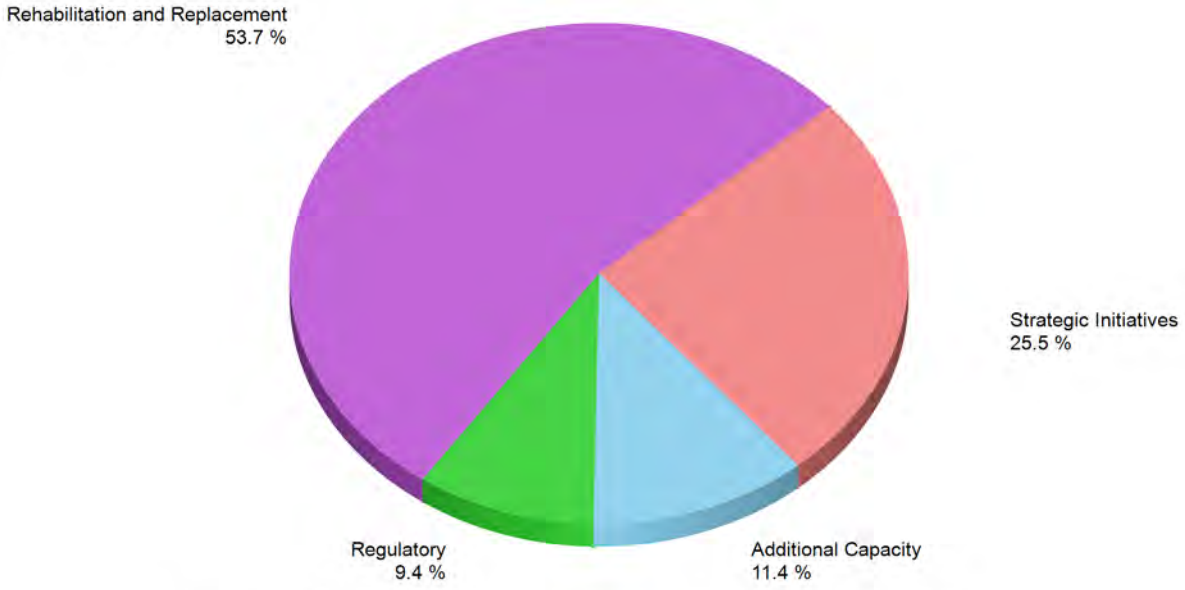
Project Summary FY 2019-20

Item	Rehabilitation and Replacement	Strategic Initiatives	Additional Capacity	Regulatory	Total Budget
Collections Facilities	$ 18,130,021	$ 5,737,433	$ 14,315,609	$ 4,245,218	$ 42,428,281
Solids Handling & Digestion	13,102,823	641,684	3,390,597	-	17,135,104
Support Facilities	16,394,937	6,061,355	828,201	1,903,660	25,188,153
Utility Systems	9,414,145	-	-	-	9,414,145
Liquid Treatment:					
Ocean Outfall Systems	6,715,680	20,147,040	-	-	26,862,720
Headworks	7,870,442	4,159,614	-	-	12,030,056
Primary Treatment	9,426,905	-	240,168	-	9,667,073
Secondary Treatment	6,052,933	-	-	-	6,052,933
Liquid Treatment Subtotal	30,065,960	24,306,654	240,168	-	54,612,782
Other:					
Information Management Systems	4,713,469	3,234,941	-	493,346	8,441,756
Process Related Special Projects	-	-	-	7,701,072	7,701,072
Strategic & Master Planning	2,224,848	1,613,131	556,212	1,390,531	5,784,722
Equipment	730,825	730,825	730,825	730,825	2,923,300
Research	-	2,351,548	-	-	2,351,548
Water Management Projects	-	182,157	-	-	182,157
Others	44,087	118,846	-	-	162,933
Other Subtotal	7,713,229	8,231,448	1,287,037	10,315,774	27,547,488
Grand Total	**$ 94,821,115**	**$ 44,978,574**	**$ 20,061,612**	**$ 16,464,652**	**$ 176,325,953**
Less: CIP Savings & Deferrals					**($23,000,000)**
Proposed Net CIP Outlay					**$ 153,325,953**

Capital Improvement Expenditure Graphs



FY 2019-20 Capital Improvement Program Outlay by Process - $176.3 Million
Net CIP Outlay - $153.3 Million



FY 2019-20 Capital Improvement Program Outlay by Driver - $176.3 Million
Net CIP Outlay - $153.3 Million

Summary of Capital Requirement - Collection System Improvement Projects

	Project Number	Original Total Project Budget	Revised Total Project Budget	Approved 2019-20 Outlay	Proposed 2019-20 Outlay	Project Status
Collections Facilities						
Raitt & Bristol Street Sewer Extension	1-101	$ 7,100,000		$ 242,828		Cancelled
Edinger Bolsa Chica Trunk Impr.	11-25	5,159,000	5,159,000			Not Started
Edinger Pump Station Repl.	11-33	14,100,000	14,100,000			Not Started
Slater Avenue Pump Station Rehab	11-34	25,300,000	25,300,000			Not Started
SARI Rock Stabilizers Removal	2-41-8	6,860,000	6,860,000	4,687,312	4,065,703	Started
Taft Branch Impr.	2-49	2,130,000	8,130,000		105,676	Not Started
Newhope - Placentia Trunk Grade Separation Repl.	2-65	4,300,000	4,300,000		71,875	Started
Newhope-Placentia Trunk Repl.	2-72	112,000,000	112,000,000	19,302,417	22,653,359	Started
Yorba Linda Pump Station Abandonment	2-73	10,800,000	10,800,000			Not Started
Tustin Rose OCTA Grade Separation	2-76	455,000				Closed
Beach Trunk/Knott Interceptor Sewer Relief	3-60	136,000,000	21,000,000			Not Started
Westminster Blvd Force Main Repl.	3-62	54,000,000	54,000,000	3,002,218	2,534,429	Started
Rehab of Western Regional Sewers	3-64	202,000,000	202,000,000	6,656,821	9,563,225	Started
Interstate 405 Widening Project Impacts on OCSD Sewers	3-66	528,000	528,000	60,468	107,640	Started
Seal Beach Pump Station Repl.	3-67	78,900,000	78,900,000	1,214,803	578,588	Started
Los Alamitos Sub-Trunk Extension	3-68	66,000,000	66,000,000			Not Started
Newport Force Main Rehab	5-60	59,668,000	59,668,000			Started
Crystal Cove Pump Station Upgrade & Rehab	5-66	17,900,000	17,900,000			Not Started
Bay Bridge Pump Station Repl.	5-67	64,000,000	64,000,000	3,622,954	1,039,692	Started
Newport Beach Pump Stations Pressurization Impr.	5-68	4,066,000	4,066,000	160,202	148,187	Started
District 6 Trunk Sewer Relief	6-17	7,965,000	7,965,000	22,862	465,049	Started
Gisler - Red Hill Trunk Impr. - Reach B	7-37	25,213,000	25,213,000			Started
MacArthur Pump Station Rehab	7-63	13,100,000	9,151,000			Not Started
Main Street Pump Station Rehab	7-64	60,400,000	40,660,000			Not Started
Gisler - Red Hill Interceptor Rehab	7-65	14,800,000	14,800,000	211,211	211,211	Not Started
Sunflower & Red Hill Interceptor Repairs	7-66		5,500,000		390,189	New
Main Street Pump Repl. & Force Main Rehab	7-67		17,160,000		493,458	New
MacArthur Force Main Impr.	7-68		2,385,000			New
Bay Bridge Pumpstation & Force Mains Rehab Study	SP-178	725,000				Closed
Collections Facilities Total Budget		**993,469,000**	**877,545,000**	**39,184,096**	**42,428,281**	

Summary of Capital Requirements

Summary of Capital Requirement - Treatment System Improvement Projects

	Project Number	Original Total Project Budget	Revised Total Project Budget	Approved 2019-20 Outlay	Proposed 2019-20 Outlay	Project Status
Ocean Outfall Systems						
Ocean Outfall System Rehab	J-117	166,000,000	166,000,000	18,129,112	26,862,720	Started
Ocean Outfall Systems Total		**166,000,000**	**166,000,000**	**18,129,112**	**26,862,720**	
Information Management Systems						
Process Control Systems Upgrades	J-120	46,000,000	46,000,000	239,864	578,902	Not started
Project Mgmt. Information System	J-128	4,000,000	4,000,000	1,454,647	1,860,070	Started
Information Technology Capital Program	M-MC-IT	10,000,000	10,000,000	707,833	2,749,741	Started
SCADA System & Network Upgrades	P2-107	5,000,000	5,000,000	32,497		Started
EAM Software & Process Implementation	SP-100	7,500,000	7,500,000	1,178,517	976,100	Started
Geographic Information System	SP-15	4,568,000	4,568,000	631,223	493,346	Started
Process Control Systems Upgrades Study	SP-196	3,554,000	3,554,000	1,169,992	1,783,597	Started
Information Management Systems Total		**80,622,000**	**80,622,000**	**5,414,573**	**8,441,756**	
Utility Systems						
UPS System Upgrades	J-121	4,700,000	4,700,000			Not started
Digester Gas Facilities Rehab	J-124	96,500,000	156,500,000	3,627,156	3,957,325	Started
Natural Gas Pipelines Repl. at P1 & P2	J-127	1,310,000	1,310,000	359,943	283,122	Started
Electrical Power Distribution System Impr.	J-98	34,608,000	30,000,000	1,393,714	851,397	Started
Central Generation Rehab at P1	P1-127	87,000,000	87,000,000			Not started
Uninterruptable Power Supply Impr. at P1	P1-132	4,800,000	7,000,000	375,534	270,355	Started
Consolidated Demolition & Utility Impr. at P2	P2-110	31,000,000	31,000,000	3,060,742	3,545,396	Started
Central Generation Rehab at P2	P2-119	114,000,000	114,000,000			Not started
Substation Repl. at P2	P2-134		40,261,000		506,550	Not started
Utility Systems Total		**373,918,000**	**471,771,000**	**8,817,089**	**9,414,145**	
Process Related Special Projects						
Safety Impr. Program	J-126	19,000,000	19,000,000	4,431,775	7,701,072	Started
Process Related Special Projects Total		**19,000,000**	**19,000,000**	**4,431,775**	**7,701,072**	
Support Facilities						
18350 Mt. Langley St. Building Purchase & Improvement	J-131	11,000,000	10,200,000	435,786	155,080	Started
Laboratory Rehab at Plant No 1	J-133		15,000,000			New
Small Construction Projects Program	M-FE	55,000,000	53,250,000	7,945,406	8,282,010	Started
Operations & Maintenance Capital Program	M-SM-CAP	15,622,000	15,622,000	2,033,358	5,061,149	Started
Title 24 Access Compliance & Building Rehab Project	P1-115	18,400,000	18,400,000	188,569	1,075,459	Started
Headquarters Complex	P1-128	179,067,000	167,500,000	9,653,508	9,765,435	Started
South Perimeter Security & Utility Impr. at P1	P1-134		10,500,000		781,427	New
P2 Warehouse Relocation	P2-126	9,800,000	9,800,000	195,424	67,593	Not started

Summary of Capital Requirement - Treatment System Improvement Projects

	Project Number	Original Total Project Budget	Revised Total Project Budget	Approved 2019-20 Outlay	Proposed 2019-20 Outlay	Project Status
Support Facilities						
P2 Collections Yard Relocation	P2-127	1,840,000	1,840,000			Not started
Support Facilities Total		**290,729,000**	**302,112,000**	**20,452,051**	**25,188,153**	
Water Management Projects						
GWRS Final Expansion Coordination	J-36-2	1,132,000	1,132,000	139,973	182,157	Started
Water Management Projects Total		**1,132,000**	**1,132,000**	**139,973**	**182,157**	
Research						
Research Program	M-RESEARCH	8,500,000	8,500,000	1,315,161	2,351,548	Started
Research Total		**8,500,000**	**8,500,000**	**1,315,161**	**2,351,548**	
Strategic & Master Planning						
Planning Studies Program	M-STUDIES	28,652,000	28,652,000	2,353,667	5,562,122	Started
Climate Resiliency Study	SP-152	590,000	878,000	349,222	222,600	Started
Strategic & Master Planning Total		**29,242,000**	**29,530,000**	**2,702,889**	**5,784,722**	
Solids Handling & Digestion						
Digester Rehab at P1	P1-100	66,000,000	66,000,000			Started
Sludge Dewatering & Odor Control at P1	P1-101	199,500,000	199,500,000	4,595,954	6,781,194	Started
Digester Ferric Chloride Piping Repl. at P1	P1-135		1,360,000		68,898	New
Interim Food Waste Receiving Facility	P2-124	6,300,000	6,300,000	412,370	641,684	Started
TPAD Digester Facility at P2	P2-128	405,100,000	405,100,000	906,058	874,204	Not started
Digester P, Q, R, & S Repl.	P2-129	166,000,000	166,000,000			Not started
P2 Digester Facilities Rehab	P2-91-1	20,000,000	15,500,000	2,843,022	2,770,904	Started
Sludge Dewatering & Odor Control at P2	P2-92	90,477,000	90,477,000	6,793,505	5,998,220	Started
Solids Handling & Digestion Total		**953,377,000**	**950,237,000**	**15,550,909**	**17,135,104**	
Headworks						
Headworks Rehab at P1	P1-105	370,000,000	406,000,000	7,505,074	7,870,442	Started
Trunk Line Odor Control Impr.	P1-123	9,299,000				Closed
Headworks Modifications at P2 for GWRS Final Expansion	P2-122	54,000,000	54,000,000	2,300,703	4,159,614	Started
Headworks Total		**433,299,000**	**460,000,000**	**9,805,777**	**12,030,056**	
Primary Treatment						
Primary Clarifiers Repl.s & Impr. at P1	P1-126	106,000,000	106,000,000			Started
Primary Sedimentation Basins No. 6-31 Reliability Impr. at P1	P1-133	21,500,000	12,000,000	902,815	480,336	Started
B/C-Side Primary Clarifiers Rehab at P2	P2-133	249,560,000	249,560,000			Not started
Primary Treatment Rehab at P2	P2-98	245,000,000	245,000,000	9,000,675	9,186,737	Started
Primary Treatment Total		**622,060,000**	**612,560,000**	**9,903,490**	**9,667,073**	

Summary of Capital Requirements

Summary of Capital Requirement - Treatment System Improvement Projects

	Project Number	Original Total Project Budget	Revised Total Project Budget	Approved 2019-20 Outlay	Proposed 2019-20 Outlay	Project Status
Secondary Treatment						
Return Activated Sludge Piping Repl. at Activated Sludge P1	P1-129	7,900,000	9,000,000	5,970,017	2,803,867	Started
Activated Sludge Aeration Basin Deck Repair at P2	P2-118	2,800,000	1,800,000	105,925	14,671	Started
Return Activated Sludge Piping Repl. at P2	P2-123	12,750,000	20,000,000	4,373,239	3,234,395	Started
Secondary Treatment Total		**23,450,000**	**30,800,000**	**10,449,181**	**6,052,933**	
Others						
Banning Gate Relocation & Grading at P2	P2-120	2,931,000	2,931,000	7,241		Not started
Perimeter Screening at P2	P2-125	2,800,000	2,800,000	219,498	44,087	Started
Capital Improvement Program Mgmt. Services	SP-195	300,000	700,000		118,846	Started
Others Total		**6,031,000**	**6,431,000**	**226,739**	**162,933**	
Total Treatment and Disposal Projects		**3,007,360,000**	**3,138,695,000**	**107,338,719**	**130,974,372**	
Total Collections Facilities		**993,469,000**	**877,545,000**	**39,184,096**	**42,428,281**	
Capital Equipment Purchases		**9,593,700**	**9,727,153**	**2,474,600**	**2,923,300**	
Total		**$ 4,010,422,700**	**$4,025,967,153**	**$148,997,415**	**$176,325,953**	
Less: CIP Savings & Deferrals					**($23,000,000)**	
Proposed Net CIP Outlay					**$153,325,953**	

CIP New Project Descriptions

Project Name & Number	Sunflower and Red Hill Interceptor Repairs - 7-66		
Project Category	Collections Facilities	Project Budget:	$5,500,000

Description

The project will repair PVC liner failures within a 6,000 foot section of the Sunflower and Red Hill Interceptors. This will require live entry and temporary diversions and bypass pumping. Also, hydraulic adjustments will be made to artificially keep the low flows above the area of exposed concrete at the lower section of the pipe.

Justification

An assessment of the plastic lining was performed on the upper reaches of the Sunflower and Red Hill Interceptors. The liner has failed in many locations allowing corrosion of the concrete substrate which could lead to structural failure. There is also additional concrete corrosion below the 270 degree plastic lining due to the flow depth being lower than the liner.

The project's construction cost is $3,280,000. This project will not have an impact on operational budgets.

Project Name & Number	Main Street Pump Replacement and Force Main Rehabilitation - 7-67		
Project Category	Collections Facilities	Project Budget:	$17,160,000

Description

The Main Street Pump Station is located on Main Street north of the John Wayne Airport, in the City of Irvine. The flow from the pumps on the west side of the pump station is conveyed through approximately 800 feet of 30-inch vitrified clay pipe (Sunflower) forcemain which was constructed in 1985. The flow from the pumps on the east side of the pump station is conveyed through dual 42-inch Baker forcemains that are approximately 6,000 feet in length. This project includes rehabilitation of the dual 42-inch forcemains and supporting structures. The project will also replace five the original pumps and supporting piping.

Justification

The pumps that serve the west side of the pump station were installed in 1985 and are approaching the end of their useful life. The rehabilitation of the dual Baker forcemains is necessary due to corrosive gas migration into the forcemain structures through drain lines from the wet wells. The accumulation of gas in the piping has caused extensive corrosion to the metal components.

The project's construction cost is $10,030,000. This project will not have an impact on operational budgets.

CIP New Project Descriptions

Project Name & Number	MacArthur Force Main Improvements - 7-68		
Project Category	Collections Facilities	Project Budget:	$2,385,000

Description

The MacArthur Pump Station is located west of MacArthur Boulevard and north of Jamboree Road in the City of Newport Beach. This project includes construction of approximately 2,100 feet of new forcemain and rehabilitation of the existing forcemain.

Justification

The existing forcemain was constructed in 1960 and is nearing the end of its useful life. The pump station is served by a single forcemain which makes condition assessment and maintenance difficult. The construction of a parallel forcemain will increase reliability and lessen the impact on the surrounding community during routine maintenance and assessment efforts.

The project's construction cost is $1,390,000. This project will not have an impact on operational budgets.

Project Name & Number	Laboratory Rehabilitation at Plant No 1 - J-133		
Project Category	Support Facilities	Project Budget:	$15,000,000

Description

This project will rehabilitate the Laboratory Building to be in compliance with current building codes and allow the building to be permitted by the City of Fountain Valley. The rehabilitation will also include modifications to improve lab testing abilities, operation functionality and meet changing business needs.

Justification

The building was originally constructed without receiving an occupancy permit from the City of Fountain Valley. At the time, non-treatment process facilities at Plant No.1 were not subject to building code and permitting requirements. In 1992, an agreement was executed between the City of Fountain Valley and OCSD that delineated the responsibilities of the City and OCSD as to which non-treatment process facilities would require permits. The Laboratory's roof and ventilation systems are in constant need of repair and are not meeting the requirements to support the testing equipment.

The project's construction cost is $11,480,000. This project will not have an impact on operational budgets.

Project Name & Number	South Perimeter Security and Utility Improvements at Plant No.1 - P1-134		
Project Category	Support Facilities	Project Budget:	$10,500,000

Description

This project will replace the perimeter chain link fence at Plant No. 1 along Ward Street from Garfield Avenue to approximately Falcon Avenue, the southerly terminus of the OCWD security wall with an 8-foot tall split-face concrete masonry wall. Two motorized vehicle gates (Employee and Contractor) on Garfield Avenue will be replaced and a permanent Guard House will be constructed. Interior perimeter lighting, video surveillance, and electronic security systems along the Southerly and Westerly boundary of Plant 1 will also be constructed. The project will disconnect two water lines to the City's main in Garfield Avenue and provide two new connections to existing water lines within Plant 1. Tree removal, landscaping and minor site improvements are also part of the project.

Justification

Security improvements along Garfield Avenue and Ward Street will provide improved security monitoring capability for OCSD security staff. New concrete masonry unit wall on Ward street will provide enhanced protection against intruders cutting through the chain link fence. The water line work is required in order to sever the direct connection from Plant No. 1 to the City of Fountain Valley water main, alleviating any cross-connection concerns.

The project's construction cost is $5,990,000. This project will not have an impact on operational budgets.

Project Name & Number	Digester Ferric Chloride Piping Replacement at Plant No. 1 - P1-135		
Project Category	Solids Handling & Digestion	Project Budget:	$1,360,000

Description

This project will replace the digester ferric chloride piping, valves and appurtenances from the Headworks Rehabilitation at Plant 1 Project boundary to its point of connection with the digesters. This project will also include demolition of the existing piping being replaced. Both ferric chloride facilities, digester and Chemically Enhanced Primary Treatment (CEPT), will be relocated within the boundary of the headworks area under the project Headworks Rehabilitation at Plant 1. This project will be closely coordinated with the Headworks Rehabilitation Project.

Justification

The purpose of this project is to replace the aging digester ferric chloride piping, comply with the South Coast Air Quality permit conditions, and mitigate the struvite formation in the digesters and associated process equipment. The existing digester ferric chloride pipe runs have failed and required temporary repairs in numerous locations due to age and partial blockage, warranting replacement of the piping.

The project's construction cost is $670,000. This project will not have an impact on operational budgets.

CIP New Project Descriptions

Project Name & Number	**Substation Replacement at Plant No. 2 - P2-134**		
Project Category	**Utility Systems**	**Project Budget:**	**$40,261,000**

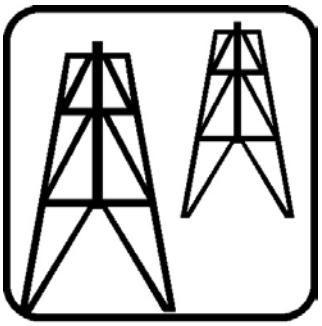
Description

This project will add a second 66-kV incoming distribution line to OCSD Plant No. 2 and construct a new 66-kv to 12.47-kv substation. The new substation will include two incoming 66-kv lines and two 66-kV to 12.47-kV transformer.

Justification

OCSD's existing substation at Plant No. 2 currently relies on a single incoming 66-kV line and a single 66-kV to 12.47-kV transformer. A failure in the existing incoming 66-kV line or in the transformer, could result in an extended outage to utility power.

The project's construction cost is $24,170,000. The impacts to operational budgets have not yet been determined.



Utility Systems

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Capital Equipment Budget Summary

Capital Equipment Budget
2019-20

Department	Trucks & Vehicles 09410000	Other Mobile Eq 09410001	Machine Eq & Tools 09410002	Comm Equipment 09410003
Information Technology	$ -	$ -	$ -	$ -
Laboratory, Monitoring and Compliance	-	-	-	-
Electrical & Control Systems Engineering	-	-	-	-
Collection Facilities O&M	-	-	-	-
Fleet Services	909,400	755,100	-	-
Plant No. 1 Operations	-	-	-	-
Plant No. 1 Maintenance	-	-	65,400	-
Plant No. 2 Maintenance	-	-	7,800	-
Total Proposed Capital Equipment	$ 909,400	$ 755,100	$ 73,200	$ -

Capital Equipment Budget
2019-20

Department	Instr / Test Equipment 09410004	Safety & Traffic Eq 09410005	Office Fix & Eq 09410006	Computer Equipment 09410007	2019-20 Proposed Budget
Information Technology	$ -	$ -	$ -	$ 165,500	$ 165,500
Laboratory, Monitoring and Compliance	639,200	-	-	-	639,200
Electrical & Control Systems Engineering	43,200	-	-	-	43,200
Collection Facilities O&M	50,900	-	-	-	50,900
Fleet Services	-	-	-	-	1,664,500
Plant No. 1 Operations	23,200	-	-	-	23,200
Plant No. 1 Maintenance	158,000	-	-	-	223,400
Plant No. 2 Maintenance	105,600	-	-	-	113,400
Total Proposed Capital Equipment	$1,020,100	$ -	$ -	$ 165,500	$2,923,300

Capital Equipment Budget Detail

Capital Equipment Budget Detail

Division	Equipment Type	Proposed Equip. Budget
250 - Information Technology		
	Skysite 65" Smart Screen	50,000
	Nimble Storage Array	105,500
	Spectro Scientific - Support Agreement	10,000
	Total	$ 165,500
630 - Laboratory, Monitoring, and Compliance		
	Two (2) Acoustic Doppler Current Profiler	81,200
	Six (6) Ocean Acidification and Hypoxia Sensor Packages	134,000
	Triple Quadrupole Gas Chromatography Mass Spectrometry Systems	385,000
	Two (2) Precision BOD Refrigerated Incubator	24,000
	Two (2) HACH Refrigerated Auto-Sampler	15,000
	Total	$ 639,200
770 - Electrical & Control Systems Engineering		
	Two (2) PLC Test Units	43,200
	Total	$ 43,200
820 - Collection Facilities O&M		
	Two (2) Trimble R2 GNSS Receiver	50,900
	Total	$ 50,900
822 - Fleet Services		
	Sedan	28,100
	Nine (9) Light Trucks	380,800
	Five (5) Heavy Trucks	500,500
	21 Electric Carts	270,500
	500 KW Trailer-Mounted Generator	325,000
	Trailer Mounted, Tier-4, Sound Enclosed Pumps (2)	100,600
	Whisperwatt 25kW Generator	33,000
	Utility Carts (2) (Pending New Program Approval)	26,000
	Total	$ 1,664,500
830 - Plant No. 1 Operations		
	Two (2) Hydrogen Sulfide Analyzers	23,200
	Total	$ 23,200

Division	Equipment Type	Proposed Equip. Budget
870 - Plant No. 1 Maintenance		
	Schenck Balancer CAB820 Control Upgrade	44,300
	Cold Saw	13,000
	Gooseneck Dies for Cincinnati Press Brake	8,100
	Portable Vibration Sensor Calibrator	23,000
	Beamex Multi-Calibrator	27,300
	Beamex FB Field Temperature Block (2)	15,300
	Megger Microohm Tester MOM2	32,500
	Megger Primary Injector Tester SPI225	22,500
	CBS Arcsafe Remote Racking Device	37,400
	Total	$ 223,400
880 - Plant No. 2 Maintenance		
	DB500 Dustless Blaster	7,800
	Two (2) Fluke 729 Automatic Pressure Calibrator	18,900
	Megger Trax 220	86,700
	Total	$ 113,400
	Total Proposed 2019-20 Capital Equipment Budget	**$ 2,923,300**

Levels of Service

Providing Exceptional Customer Service Levels of Service

OCSD will provide reliable, responsive and affordable services in line with customer needs and expectations.	**FY 18-19 Mid-Year Results**	**Level of Service Target**
Treatment plants odor complaint response within 1 hour	100%	100%
Collection System odor complaint response within 1 working day	100%	100%
Number of odor incidents/events: Reclamation Plant No. 1 under normal operating conditions	0	Zero (0)
Number of odor incidents/events: Treatment Plant No. 2 under normal operating conditions	0	Zero (0)
Number of odor incidents/events: Collections System	6	<=12 per year
Respond to public complaints or inquiries regarding construction projects within 1 working day	100%	100%
Respond to all biosolids contractor violations within a week of violation notice	100%	100%

Managing and Protecting the Public's Funds Levels of Service

OCSD will continually seek efficiencies to ensure that the public's money is wisely spent.	**FY 18-19 Mid-Year Results**	**Level of Service Target**
Annual user fees sufficient to cover all O&M requirements	100%	100%
Actual collection, treatment, and disposal costs per million gallons	4%	<=10% of budget
Maintain AAA Bond Rating	100%	100%

Protecting Public Health & the Environment Levels of Service

OCSD will protect public health and the environment utilizing all practical and effective means for wastewater, energy, and solids resource recovery.	FY 18-19 Mid-Year Results	Level of Service Target
Accept dry weather runoff diversion flows without imposing fees	1.03 mgd	Up to 10 mgd
Air emissions health risk to community and employees, per one million people (for each treatment plant)	3	<10
No Notices of Violation (NOVs) with air, land, and water permits	0	0
Respond to collection system spills within 1 hour	100%	100%
Sanitary sewer spills per 100 miles	0.0	<2.1 per industry average
Contain sanitary sewer spills within 5 hours	100%	100%
Meet secondary treatment standards BOD-C (mg/L)	4.0	<=25
Meet secondary treatment standards TSS (mg/L)	6.0	<=30
Frequency of unplanned use of emergency one mile (78-inch diameter) outfall (per dry weather)	0	0
Tons of biosolids to landfill through 2019 peak production period	0	< 100 tons per day
Thirty-day geometric mean of total coliform bacteria in effluent after initial dilution of 250:1 (mpn)	570	< 1,000 mpn
Compliance with core industrial pretreatment requirements	99%	100%

Stakeholder Understanding and Support Levels of Service

OCSD will communicate our mission and strategies with those we serve and all other stakeholders.	FY 18-19 Mid-Year Results	Level of Service Target
Meet GWRS specification requirements for Plant 1 secondary effluent	3.3	<5 NTU
Provide all specification effluent available to the Groundwater Replenishment System to full production of purified water.	100%	100%

Levels of Service

Organizational Effectiveness Levels of Service

OCSD will create the best possible workforce in terms of safety, productivity, customer service, and training.	**FY 18-19 Mid-Year Results**	**Level of Service Target**
Training hours per employee	52	>=45 per year
Employee injury incident rate – accidents per 100 employees	1.1	<=4.4 Industry Avg.
Meet mandatory OSHA training requirements	100%	>=95%
Achieve annual agency target of days away from work, days of restricted work activity, or job transferred as a result of a work-related injury or illness	0.9	<=2.5

Self-Funded Insurance Plans

SELF-FUNDED INSURANCE PLANS

The General Liability and Property program and the Workers' Compensation program provide for OCSD 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 $57 million.

General Liability and Property

- OCSD's current excess general liability insurance coverage is $40 million per occurrence with an annual aggregate limit and with a self-insured retention of $500,000.
- OCSD's current property insurance coverage is $1 billion for perils of fire and $300 million for perils of flood, subject to a self-insured retention of $250,000. OCSD is partially self-insured for earthquake, but does carry $25 million in coverage on 15 key structures with a $5 million deductible. OCSD also has a $50 million sublimit for builder's risk under the property insurance program to ensure upcoming construction projects are adequately covered.
- In order to maintain the reserve balance of $55 million for the General Liability and Property program, appropriations for in-lieu premiums charged to operating divisions are recommended at $1,720,000 for FY 2019-20.

Workers' Compensation

- OCSD'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 $780,000 for FY 2019-20.

	FY 2019-20 Self-Insurance Program Budget		
DESCRIPTION OR ACCOUNT TITLE	General Liability & Property Program	Workers' Compensation Program	Total Self-Insurance Program
Beginning Reserves	$55,000,000	$2,000,000	$57,000,000
Revenues			
In-Lieu Premiums	1,720,000	780,000	2,500,000
Miscellaneous Other Revenue	10,000	-	10,000
Service Department Allocation	20,000	-	20,000
Total Revenues	1,750,000	780,000	2,530,000
Expenses			
Benefits/Claims	360,000	430,000	790,000
Contractual Services	-	-	-
Legal Services	40,000	80,000	120,000
Professional Services	10,000	60,000	70,000
Policy Premium Expense	1,340,000	210,000	1,550,000
Total Expenses	1,750,000	780,000	2,530,000
Excess Revenue (Expenses)	-	-	-
Ending Reserves	$55,000,000	$2,000,000	$57,000,000

Historical Staffing Summary

Department and Division Name	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Authorized FTEs 2018-19	Proposed FTEs 2019-20
General Manager's Office					
General Management Administration	6.00	5.00	5.00	4.00	4.00
Board Services	4.00	5.00	5.00	5.00	5.00
Public Affairs	5.00	5.00	5.00	5.00	6.00
Department Subtotal*	**15.00**	**15.00**	**15.00**	**14.00**	**15.00**
Human Resources Department					
Human Resources Administration	16.00	16.00	16.00	16.00	16.00
Risk Management/Safety/Security	11.00	11.00	11.00	11.00	11.00
Department Subtotal	**27.00**	**27.00**	**27.00**	**27.00**	**27.00**
Administrative Services Department					
Administrative Services Administration	3.00	3.00	3.00	3.00	3.00
Financial Management	19.00	19.00	19.00	19.00	19.00
Contracts, Purchasing and Materials Management	32.00	32.00	32.00	32.00	32.00
Information Technology	44.00	45.00	45.00	46.00	47.00
Department Subtotal	**98.00**	**99.00**	**99.00**	**100.00**	**101.00**
Facilities Support Services Department					
Facilities Support Services Administration	4.00	-	-	-	-
Fleet Services	9.00	-	-	-	-
Facilities Engineering and Repair Services	5.00	-	-	-	-
NPDES Source Inspection	16.00	-	-	-	-
Odor and Corrosion Control	6.00	-	-	-	-
Collection Facilities Operations and Maintenance	23.00	-	-	-	-
Department Subtotal	**63.00**	**-**	**-**	**-**	**-**
Envrionmental Services Department					
Environmental Services Administration	-	2.00	2.00	2.00	2.00
Resource Protection	-	47.00	37.00	37.00	37.00
Laboratory, Monitoring and Compliance	-	42.00	52.00	52.00	53.00
Department Subtotal	**-**	**91.00**	**91.00**	**91.00**	**92.00**
Engineering Department					
Engineering Administration	2.00	2.00	2.00	2.00	3.00
Planning	15.00	15.00	15.00	14.00	18.00
Project Management Office	20.00	17.00	17.00	16.00	17.00
Civil and Mechanical Engineering	59.00	53.00	53.00	54.00	52.00
Electrical and Control Systems Engineering	-	29.00	29.00	30.00	31.00
Environmental Compliance	31.00	-	-	-	-
Department Subtotal	**127.00**	**116.00**	**116.00**	**116.00**	**121.00**
Operations and Maintenance Department					
Operations and Maintenance Administration	2.00	3.00	3.00	3.00	2.00
Collection Facilities Operations and Maintenance	-	26.00	26.00	26.00	26.00
Fleet Services	-	8.00	8.00	8.00	8.00
Plant No. 1 Operations	69.00	62.00	61.00	62.00	62.00
Plant No. 2 Operations	54.00	50.00	51.00	50.00	50.00
Plant No. 1 Maintenance	82.00	85.00	62.00	61.00	86.00
Maintenance Reliability and Planning	-	-	28.00	28.00	-
Plant No. 2 Maintenance	46.00	45.00	48.00	50.00	50.00
Environmental Laboratory and Ocean Monitoring	41.00	-	-	-	-
Department Subtotal	**294.00**	**279.00**	**287.00**	**288.00**	**284.00**
Grand Total - All Departments*	**624.00**	**627.00**	**635.00**	**636.00**	**640.00**

Historical Staffing Detail

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Authorized FTEs 2018-19	Proposed FTEs 2019-20
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	1.00	1.00	1.00	1.00
Public Affairs Manager	1.00	-	-	-	-
Principal Staff Analyst	-	1.00	1.00	1.00	1.00
Records Management Specialist	1.00	1.00	1.00	-	-
Senior Staff Analyst	1.00	-	-	-	-
Secretary to the General Manager	1.00	1.00	1.00	1.00	1.00
Total General Management Administration*	6.00	5.00	5.00	4.00	4.00
120 Board Services					
Clerk of the Board	1.00	1.00	1.00	1.00	1.00
Deputy Clerk of the Board	1.00	1.00	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
Total Board Services	4.00	5.00	5.00	5.00	5.00
140 Public Affairs					
Administrative Manager	-	-	-	-	1.00
Public Affairs Supervisor	-	1.00	1.00	1.00	-
Principal Public Affairs Specialist	1.00	-	-	-	1.00
Senior Public Affairs Specialist	1.00	1.00	1.00	1.00	1.00
Public Affairs Specialist	1.00	1.00	1.00	1.00	1.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Graphics Designer	-	-	-	1.00	1.00
Graphics Coordinator	1.00	1.00	1.00	-	-
Total Public Affairs	5.00	5.00	5.00	5.00	6.00
Total General Manager's Office	**15.00**	**15.00**	**15.00**	**14.00**	**15.00**
Human Resources Department					
160 Human Resources Administration					
Director of Human Resources	1.00	1.00	1.00	1.00	1.00
HR and Risk Manager	-	-	1.00	1.00	1.00
Human Resources Manager	1.00	1.00	-	-	-
Human Resources Supervisor	1.00	1.00	1.00	2.00	2.00
Principal Human Resources Analyst	3.00	3.00	3.00	2.00	2.00
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 Assistant	1.00	1.00	1.00	2.00	2.00
Program Assistant	1.00	1.00	1.00	-	-
Total Human Resources Administration	16.00	16.00	16.00	16.00	16.00
161 Risk Management/Safety/Security					
Safety & Health Supervisor	1.00	1.00	1.00	1.00	1.00
Principal Financial Analyst	1.00	1.00	1.00	1.00	1.00
Safety & Health Specialist	1.00	1.00	1.00	1.00	2.00
Security & Emergency Planning Specialist	1.00	1.00	1.00	1.00	1.00
Occupational Health Nurse	1.00	1.00	1.00	1.00	1.00
Senior Safety & Health Representative	2.00	2.00	2.00	2.00	1.00
Safety & Health Representative	3.00	3.00	3.00	3.00	3.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Total Risk Management/Safety/Security	11.00	11.00	11.00	11.00	11.00
Total Human Resources Department	**27.00**	**27.00**	**27.00**	**27.00**	**27.00**

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Authorized FTEs 2018-19	Proposed FTEs 2019-20
Administrative Services Department					
210 Administrative Services Administration					
Director of Finance & Administrative Services / Treasurer	1.00	1.00	1.00	1.00	1.00
Principal Financial Analyst	1.00	1.00	1.00	-	-
Principal Staff Analyst	-	-	-	1.00	1.00
Executive Assistant	1.00	1.00	1.00	1.00	1.00
Total Administrative Services Administration	3.00	3.00	3.00	3.00	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 Accountant	3.00	2.00	2.00	2.00	2.00
Senior Accountant	1.00	2.00	2.00	2.00	2.00
Senior Staff Analyst	1.00	1.00	1.00	1.00	1.00
Accountant	2.00	2.00	2.00	2.00	2.00
Staff Analyst	1.00	1.00	1.00	-	-
Payroll Technician	2.00	2.00	2.00	2.00	2.00
Accounting Assistant II	5.00	5.00	5.00	6.00	6.00
Total Financial Management	19.00	19.00	19.00	19.00	19.00
230 Contracts, Purchasing and Materials Management					
Contracts & Purchasing Manager	1.00	1.00	1.00	1.00	1.00
Contracts Supervisor	1.00	1.00	1.00	1.00	1.00
Principal Contracts Administrator	2.00	2.00	2.00	2.00	2.00
Purchasing Supervisor	1.00	1.00	1.00	1.00	1.00
Materials Control Supervisor	1.00	1.00	1.00	1.00	1.00
Senior Contracts Administrator	3.00	3.00	3.00	3.00	3.00
Principal Buyer	1.00	1.00	1.00	-	1.00
Contracts Administrator	3.00	3.00	3.00	3.00	3.00
Senior Buyer	1.00	1.00	1.00	3.00	2.00
Buyer	3.00	3.00	3.00	2.00	2.00
Contracts/Purchasing Assistant	5.00	5.00	5.00	5.00	5.00
Lead Storekeeper	2.00	2.00	2.00	2.00	2.00
Senior Storekeeper	3.00	3.00	3.00	3.00	3.00
Storekeeper	5.00	5.00	5.00	5.00	5.00
Total Contracts, Purchasing and Materials Management	32.00	32.00	32.00	32.00	32.00
250 Information Technology					
Information Technology Systems and Operations Manager	1.00	1.00	1.00	1.00	1.00
Information Technology Manager	1.00	1.00	-	-	-
Information Technology Supervisor	2.00	2.00	3.00	3.00	3.00
Principal Information Technology Analyst	6.00	6.00	6.00	7.00	7.00
Senior Information Technology Analyst	9.00	10.00	10.00	10.00	10.00
Information Technology Analyst III	6.00	6.00	6.00	6.00	7.00
Records Management Specialist	-	-	-	1.00	1.00
Data Management Technician II	7.00	7.00	7.00	7.00	7.00
Information Technology Analyst II	3.00	3.00	3.00	3.00	3.00
Data Management Technician I	4.00	4.00	4.00	4.00	4.00
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 II	1.00	1.00	1.00	1.00	1.00
Information Technology Technician I	1.00	1.00	1.00	1.00	1.00
Program Assistant	1.00	1.00	1.00	-	-
Total Information Technology	44.00	45.00	45.00	46.00	47.00
Total Administrative Services Department	**98.00**	**99.00**	**99.00**	**100.00**	**101.00**

Historical Staffing Detail

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Authorized FTEs 2018-19	Proposed FTEs 2019-20
Envrionmental Services Department					
610 Environmental Services Administration					
Director of Environmental Services	-	1.00	1.00	1.00	1.00
Executive Assistant	-	1.00	1.00	1.00	1.00
Total Environmental Services Administration	-	2.00	2.00	2.00	2.00
620 Resource Protection					
Engineering Manager	-	-	1.00	1.00	1.00
Environmental Compl & Reg Affairs Manager	-	1.00	-	-	-
Engineering Supervisor	-	2.00	2.00	2.00	2.00
Environmental Supervisor	-	1.00	-	-	-
Senior Engineer	-	1.00	1.00	2.00	2.00
Senior Regulatory Specialist	-	1.00	-	-	-
Engineer	-	5.00	5.00	4.00	4.00
Source Control Supervisor	-	1.00	1.00	1.00	1.00
Regulatory Specialist	-	3.00	-	-	-
Associate Engineer	-	4.00	3.00	3.00	3.00
Principal Environmental Specialist	-	3.50	3.00	3.00	3.00
Lead Source Control Inspector	-	1.00	1.00	1.00	1.00
Senior Environmental Specialist	-	4.50	1.00	1.00	1.00
Source Control Inspector II	-	7.00	7.00	7.00	7.00
Source Control Inspector I	-	2.00	2.00	2.00	2.00
Administrative Assistant	-	2.00	2.00	2.00	2.00
Environmental Technician	-	3.00	3.00	3.00	3.00
Program Assistant	-	4.00	4.00	4.00	4.00
Office Assistant	-	1.00	1.00	1.00	1.00
Total Resource Protection	-	47.00	37.00	37.00	37.00
630 Laboratory, Monitoring and Compliance					
Environmental Lab & Ocean Monitoring Manager	-	1.00	1.00	1.00	1.00
Environmental Supervisor	-	1.00	4.00	4.00	4.00
Laboratory Supervisor	-	2.00	-	-	-
Senior Regulatory Specialist	-	-	1.00	1.00	2.00
Senior Scientist	-	3.00	3.00	3.00	3.00
Regulatory Specialist	-	-	2.00	3.00	3.00
Scientist	-	1.00	1.00	1.00	1.00
Associate Engineer	-	-	1.00	1.00	1.00
Principal Environmental Specialist	-	2.00	8.50	8.00	8.00
Principal Laboratory Analyst	-	6.00	-	-	-
Senior Environmental Specialist	-	6.00	18.50	18.00	18.00
Boat Captain	-	1.00	1.00	1.00	1.00
Senior Laboratory Analyst	-	10.00	-	-	-
Environmental Specialist	-	2.00	7.00	7.00	7.00
Laboratory Analyst	-	3.00	-	-	-
Administrative Assistant	-	1.00	1.00	1.00	1.00
Environmental Technician	-	-	3.00	3.00	3.00
Laboratory Assistant	-	3.00	-	-	-
Total Laboratory, Monitoring and Compliance	-	42.00	52.00	52.00	53.00
Total Environmental Services Department	**-**	**91.00**	**91.00**	**91.00**	**92.00**

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Authorized FTEs 2018-19	Proposed FTEs 2019-20
Engineering Department					
710 Engineering Administration					
Assistant General Manager	-	-	-	1.00	1.00
Director of Engineering	1.00	1.00	1.00	-	1.00
Executive Assistant	1.00	1.00	1.00	1.00	1.00
Total Engineering Administration	2.00	2.00	2.00	2.00	3.00
740 Planning					
Engineering Manager	1.00	1.00	1.00	1.00	1.00
Engineering Supervisor	1.00	2.00	2.00	2.00	2.00
Senior Engineer	3.00	3.00	3.00	3.00	3.00
Engineer	4.00	3.00	3.00	3.00	6.00
Principal Financial Analyst	-	1.00	1.00	-	-
Principal Staff Analyst	1.00	1.00	1.00	2.00	2.00
Associate Engineer	2.00	2.00	2.00	1.00	2.00
Engineering Associate	1.00	1.00	1.00	1.00	1.00
Senior Staff Analyst	1.00	-	-	-	-
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Total Planning	15.00	15.00	15.00	14.00	18.00
750 Project Management Office					
Engineering Manager	1.00	1.00	1.00	1.00	1.00
Engineering Supervisor	1.00	-	-	1.00	1.00
Capital Improvement Program Project Manager	7.00	8.00	9.00	9.00	9.00
Senior Engineer	1.00	2.00	1.00	1.00	2.00
Principal Project Controls Analyst	1.00	1.00	1.00	1.00	1.00
Engineer	1.00	-	-	-	-
Principal Staff Analyst	2.00	2.00	2.00	2.00	2.00
Cost Estimator	1.00	-	-	-	-
Planner/Scheduler	1.00	-	-	-	-
Senior Staff Analyst	1.00	-	-	-	-
Engineering Assistant II	1.00	1.00	1.00	-	-
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Office Assistant	1.00	1.00	1.00	-	-
Total Project Management Office	20.00	17.00	17.00	16.00	17.00
760 Civil and Mechanical Engineering					
Engineering Manager	1.00	1.00	1.00	1.00	1.00
Engineering Supervisor	4.00	5.00	5.00	4.00	4.00
Senior Construction Inspection Supervisor	1.00	-	-	-	-
Senior Engineer	9.00	7.00	7.00	7.00	7.00
Construction Inspection Supervisor	1.00	2.00	2.00	2.00	2.00
Engineer	13.00	13.00	13.00	13.00	13.00
Senior Cost Estimator	-	-	-	1.00	1.00
Senior Planner/Scheduler	-	-	-	1.00	1.00
Associate Engineer	3.00	3.00	3.00	4.00	4.00
Cost Estimator	-	1.00	1.00	-	-
Planner/Scheduler	-	1.00	1.00	-	-
Senior Construction Inspector	7.00	5.00	5.00	5.00	5.00
Assistant Engineer	2.00	1.00	1.00	-	-
Engineering Associate	1.00	1.00	1.00	1.00	1.00
Senior Staff Analyst	1.00	2.00	2.00	2.00	1.00
Construction Inspector	9.00	5.00	5.00	6.00	6.00
Engineering Assistant II	3.00	3.00	3.00	4.00	4.00
Staff Analyst	1.00	-	-	-	-
Administrative Assistant	2.00	2.00	2.00	2.00	2.00
Engineering Assistant I	1.00	1.00	1.00	1.00	-
Total Civil and Mechanical Engineering	59.00	53.00	53.00	54.00	52.00

Historical Staffing Detail

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Authorized FTEs 2018-19	Proposed FTEs 2019-20
770 Electrical and Control Systems Engineering					
Engineering Manager	-	1.00	1.00	1.00	1.00
Engineering Supervisor	-	2.00	2.00	2.00	2.00
Senior Construction Insp Supv	-	1.00	1.00	1.00	1.00
Senior Engineer	-	6.00	6.00	6.00	7.00
Principal Info Tech Analyst	-	4.00	4.00	4.00	4.00
Engineer	-	4.00	4.00	4.00	4.00
Senior Info Tech Analyst	-	3.00	3.00	3.00	3.00
Information Tech Analyst III	-	1.00	1.00	1.00	1.00
Senior Construction Inspector	-	2.00	2.00	3.00	3.00
Information Tech Analyst II	-	1.00	1.00	1.00	1.00
Construction Inspector	-	4.00	4.00	3.00	3.00
Administrative Assistant	-	-	-	1.00	1.00
Total Electrical and Control Systems Engineering	-	29.00	29.00	30.00	31.00
790 Environmental Compliance					
Environmental Compl & Reg Affairs Manager	1.00	-	-	-	-
Engineering Supervisor	2.00	-	-	-	-
Environmental Supervisor	1.00	-	-	-	-
Senior Scientist	1.00	-	-	-	-
Engineer	6.00	-	-	-	-
Regulatory Specialist	3.00	-	-	-	-
Associate Engineer	4.00	-	-	-	-
Principal Environmental Specialist	2.50	-	-	-	-
Senior Environmental Specialist	4.50	-	-	-	-
Administrative Assistant	1.00	-	-	-	-
Program Assistant	4.00	-	-	-	-
Office Assistant	1.00	-	-	-	-
Total Environmental Compliance	31.00	-	-	-	-
Total Engineering Department	**127.00**	**116.00**	**116.00**	**116.00**	**121.00**
Operations and Maintenance Department					
810 Operations and Maintenance Administration					
Director of Operations & Maintenance	1.00	1.00	1.00	1.00	0.00
Senior Staff Analyst	1.00	2.00	1.00	1.00	1.00
Staff Analyst	-	-	1.00	1.00	1.00
Total Operations and Maintenance Administration	2.00	3.00	3.00	3.00	2.00
820 Collection Facilities Operations and Maintenance					
Engineering Manager	-	1.00	1.00	1.00	1.00
Maintenance Supervisor	-	2.00	2.00	2.00	2.00
Lead Mechanic	-	5.00	5.00	5.00	5.00
Administrative Assistant	-	1.00	1.00	1.00	1.00
Senior Mechanic	-	8.00	8.00	8.00	8.00
Mechanic	-	8.00	8.00	8.00	8.00
Office Assistant	-	1.00	1.00	1.00	1.00
Total Collection Facilities Operations and Maintenance	-	26.00	26.00	26.00	26.00
822 Fleet Services					
Maintenance Supervisor	-	1.00	1.00	1.00	1.00
Lead Mechanic	-	1.00	1.00	1.00	1.00
Automotive/ Heavy Equipment Technician	-	3.00	3.00	3.00	3.00
Mobile Crane Operator	-	2.00	2.00	2.00	2.00
Automotive/ Heavy Equipment Assistant	-	1.00	1.00	1.00	1.00
Total Fleet Services	-	8.00	8.00	8.00	8.00

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Authorized FTEs 2018-19	Proposed FTEs 2019-20
830 Plant No. 1 Operations					
Operations Manager	1.00	1.00	1.00	1.00	1.00
Engineering Supervisor	2.00	1.00	1.00	1.00	1.00
Chief Plant Operator	1.00	1.00	1.00	1.00	1.00
Senior Engineer	4.00	1.00	1.00	1.00	1.00
Principal Information Technology Analyst	3.00	-	-	-	-
Engineer	3.00	2.00	2.00	1.00	1.00
Operations Supervisor	6.00	6.00	6.00	7.00	7.00
Principal Staff Analyst	-	-	-	1.00	1.00
Senior Information Technology Analyst	3.00	-	-	-	-
Maintenance Supervisor	1.00	-	-	-	-
Scientist	1.00	1.00	1.00	1.00	1.00
Associate Engineer	1.00	2.00	2.00	2.00	2.00
Principal Environmental Specialist	-	-	1.00	1.00	1.00
Information Technology Analyst III	1.00	-	-	-	-
Assistant Engineer	1.00	1.00	1.00	1.00	1.00
Senior Environmental Specialist	1.00	2.00	1.00	1.00	1.00
Information Technology Analyst II	1.00	-	-	-	-
Lead Plant Operator	3.00	4.00	4.00	4.00	4.00
Lead Power Plant Operator	1.00	1.00	1.00	1.00	1.00
Power Plant Operator II	4.00	4.00	4.00	4.00	4.00
Senior Plant Operator	14.00	15.00	15.00	14.00	14.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Plant Operator	14.00	16.00	15.00	16.00	16.00
Environmental Technician	-	1.00	1.00	1.00	1.00
Control Center Technician	2.00	2.00	2.00	2.00	2.00
Total Plant No. 1 Operations	69.00	62.00	61.00	62.00	62.00
840 Plant No. 2 Operations					
Chief Plant Operator	1.00	1.00	1.00	1.00	1.00
Operations Supervisor	6.00	6.00	7.00	7.00	7.00
Lead Plant Operator	6.00	5.00	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	4.00	4.00
Senior Plant Operator	15.00	14.00	14.00	14.00	14.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Plant Operator	20.00	18.00	19.00	18.00	18.00
Program Assistant	1.00	1.00	-	-	-
Total Plant No. 2 Operations	54.00	50.00	51.00	50.00	50.00

Historical Staffing Detail

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Authorized FTEs 2018-19	Proposed FTEs 2019-20
870 Plant No. 1 Maintenance					
Engineering Manager	1.00	-	-	-	1.00
Maintenance Manager	-	1.00	1.00	1.00	1.00
Engineering Supervisor	1.00	1.00	-	-	1.00
Maintenance Superintendent	1.00	1.00	1.00	1.00	1.00
Senior Engineer	2.00	3.00	-	-	1.00
Engineer	3.00	4.00	-	-	1.00
Maintenance Supervisor	6.00	7.00	6.00	6.00	7.00
Associate Engineer	1.00	2.00	-	-	1.00
Maintenance Specialist	5.00	5.00	-	-	11.00
Lead Electrical Technician	3.00	3.00	3.00	3.00	3.00
Lead Heavy Equip Mechanic	1.00	1.00	1.00	1.00	1.00
Lead Instrumentation Technician					1.00
Maintenance Planner/Scheduler	3.00	4.00	-	-	-
Reliability Maintenance Technician	4.00	6.00	-	-	5.00
Electrical Technician II	7.00	7.00	8.00	8.00	8.00
Instrumentation Technician II	6.00	5.00	6.00	6.00	7.00
Lead Mechanic	2.00	2.00	2.00	2.00	2.00
Machinist	1.00	1.00	1.00	1.00	1.00
Administrative Assistant	1.00	1.00	1.00	1.00	1.00
Senior Mechanic	17.00	17.00	18.00	17.00	18.00
Senior Heavy Equip 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	1.00	1.00	1.00	1.00	2.00
Instrumentation Technician I	3.00	3.00	3.00	3.00	2.00
Facilities Worker/Builder	3.00	2.00	2.00	2.00	2.00
Facilities Worker/Painter	2.00	1.00	1.00	1.00	1.00
Mechanic	1.00	1.00	1.00	1.00	1.00
Maintenance Worker	3.00	2.00	2.00	2.00	-
Total Plant No. 1 Maintenance	82.00	85.00	62.00	61.00	86.00
875 Maintenance Reliability and Planning					
Engineering Manager	-	-	1.00	1.00	-
Engineering Supervisor	-	-	1.00	1.00	-
Senior Engineer	-	-	3.00	3.00	-
Engineer	-	-	4.00	4.00	-
Maintenance Supervisor	-	-	1.00	1.00	-
Associate Engineer	-	-	2.00	2.00	-
Maintenance Specialist	-	-	11.00	11.00	-
Reliability Maintenance Technician	-	-	5.00	5.00	-
Total Maintenance Reliability and Planning	-	-	28.00	28.00	-

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Authorized FTEs 2018-19	Proposed FTEs 2019-20
880 Plant No. 2 Maintenance					
Maintenance Superintendent	1.00	1.00	1.00	1.00	1.00
Maintenance Supervisor	5.00	5.00	5.00	5.00	5.00
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
Electrical Technician II	6.00	6.00	7.00	7.00	7.00
Instrumentation Technician II	7.00	6.00	8.00	8.00	7.00
Lead Mechanic	2.00	2.00	2.00	2.00	2.00
Administrative Assistant	1.00	-	-	1.00	1.00
Senior Mechanic	15.00	14.00	14.00	15.00	14.00
Lead Facilities Worker	-	1.00	1.00	1.00	1.00
Electrical Technician I	1.00	1.00	1.00	1.00	2.00
Instrumentation Technician I	1.00	-	-	-	1.00
Facilities Worker/Builder	-	1.00	1.00	1.00	1.00
Facilities Worker/Painter	-	1.00	1.00	1.00	1.00
Mechanic	1.00	1.00	1.00	1.00	1.00
Maintenance Worker	2.00	2.00	2.00	2.00	2.00
Total Plant No. 2 Maintenance	46.00	45.00	48.00	50.00	50.00
890 Environmental Laboratory and Ocean Monitoring					
Environmental Lab & Ocean Monitoring Manager	1.00	-	-	-	-
Environmental Supervisor	1.00	-	-	-	-
Laboratory Supervisor	2.00	-	-	-	-
Senior Scientist	3.00	-	-	-	-
Scientist	1.00	-	-	-	-
Principal Environmental Specialist	2.00	-	-	-	-
Principal Laboratory Analyst	6.00	-	-	-	-
Senior Environmental Specialist	6.00	-	-	-	-
Boat Captain	1.00	-	-	-	-
Senior Laboratory Analyst	10.00	-	-	-	-
Environmental Specialist	1.00	-	-	-	-
Laboratory Analyst	3.00	-	-	-	-
Administrative Assistant	1.00	-	-	-	-
Laboratory Assistant	3.00	-	-	-	-
Total Environmental Laboratory and Ocean Monitoring	41.00	-	-	-	-
Total Operations and Maintenance Department	**294.00**	**279.00**	**287.00**	**288.00**	**284.00**
Grand Total, All Departments*	**624.00**	**627.00**	**635.00**	**636.00**	**640.00**

**FTE totals above include four new positions and eight upgrade of current existing positions. A total of 28 postions from Division 875 has been reallocated to divisions 740, 750, 770, and 870. Total filled positions will not exceed 640 FTEs at any point in time.*

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Appropriations Limit

Article XIIIB of the California State Constitution, more commonly referred to as the Gann Initiative or Gann Limit, was adopted by California voters in 1980. 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 fiscal year 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 district. 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 1986-87 limit for most agencies and each year in between in order to calculate the 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 2019-20 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 years and the appropriations limit and the appropriations, or proceeds from taxes, for 2019-20. The increase in the limit is based upon population changes ranging from negative 0.50 percent to positive 1.17 percent for major cities within the District as provided by the State Department of Finance and a per capita personal income change of 3.85 percent as provided by the State Department of Finance.

Annual Appropriation Limits:

2017-18	$105,998,787
2018-19	$110,229,598
2019-20	$114,427,648

Proceeds of Taxes (Appropriations)

2019-20	$7,353,119

As a result of the July 1998 consolidation of the 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 OCSD's service area. This method results in a lower limit than using the County-wide change.

Miscellaneous Statistics

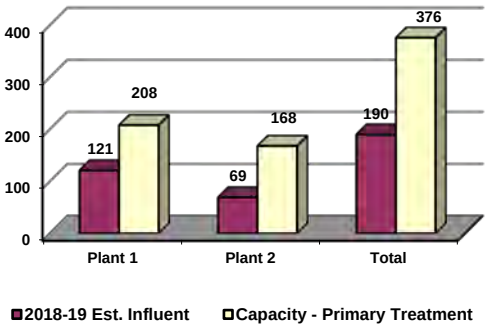
General Information

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
2019-20 Assessed Value.....$443.1 billion

Miles of Sewers..... 389 miles
On-Plant Pump Station……. ..... ……..2
Off-Plant Pump Stations.....15
Operating Authority ..... RWQCB/NPDES Permit No.
…….....……CA0110604
…….....…..Statewide WDR Order No. 2006-0003
2019-20 Authorized Staff (Full-Time Equivalent) 640.00

Treatment Information

Daily Influent Flow to Total Primary Capacity Comparison (in mgd)



2017-18 Influent BOD:
Plant No. 1 .....324 milligrams per liter
Plant No. 2 .....339 milligrams per liter

2017-18 Influent Suspended Solids:
Plant No. 1 .....373 milligrams per liter
Plant No. 2 .....418 milligrams per liter

2017-18 Effluent BOD.....12 milligrams per liter

2017-18 Effluent Suspended Solids .....5 milligrams per liter

2017-18 Biosolids Produced & Reused ..... 284,039 wet tons

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

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

2018-19 Estimated Average Daily Influent:
Plant No. 1..... 120 mgd
Plant No. 2..... 65 mgd
TOTAL..... 185 mgd

2018-19 Estimated Electricity Generated:
Plant No. 1.....46,946,000 kwh
Plant No. 2.....50,704,000 kwh
TOTAL.....97,650,000 kwh

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

Financial Information

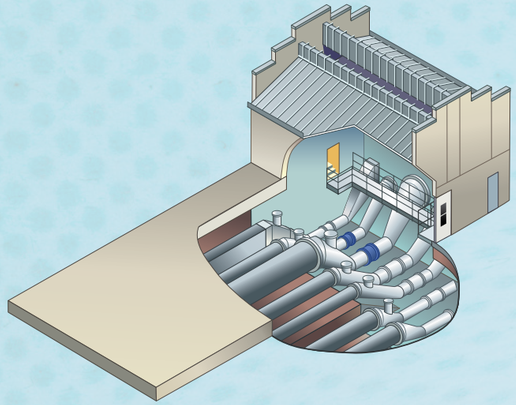
	2017-18 Actual	2018-19 Projected	2019-20 Originally Scheduled	2019-20 Updated Proposed
Fees and Charges:				
One-Time 3-Bedroom Residence Connection	$3,855.00	$4,228.00	$4,601.00	$4,601.00
Average Annual Single-Family Residence Fee	$331	$335	$339	$339
Local SRF Fee	$108	$108	$108	$108
District's Avg. Share of Ad Valorem Property Tax	1.59%	1.60%	1.60%	1.60%
Cost to Collect, Treat, & Dispose of One Million Gallons	$ 2,069.30	$ 2,175.07	$2,398.45	$2,451.42

Summary of COP Issues:

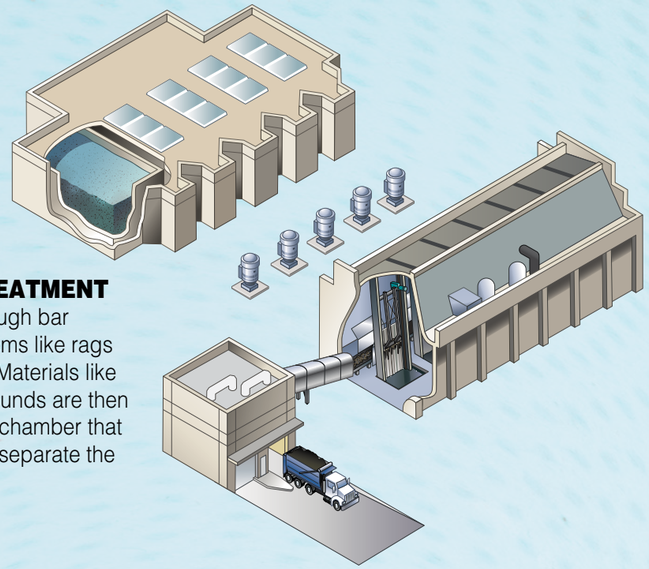
May 2010A New Money	$ 80,000,000	August 2014A Refunding	71,330,000
November 2010C New Money	157,000,000	February 2015A Refunding	127,510,000
September 2011A Refunding	75,370,000	March 2016A Refunding	145,880,000
February 2012A Refunding	100,645,000	February 2017A Refunding	66,370,000
August 2012B Refunding	46,475,000	November 2018A Refunding	102,200,000
		Total Outstanding COP Balance 7/1/19	$ 972,780,000

Orange County Sanitation District

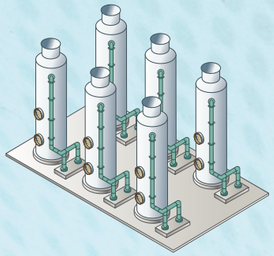
Wastewater Treatment Process



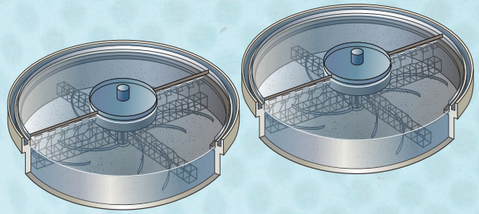
1. METERING AND DIVERSION
Wastewater enters our plant at 2.5 - 5 mph through pipes up to 10 feet in diameter. High tech equipment monitors the temperature, pH, conductivity, and flow of the incoming wastewater.



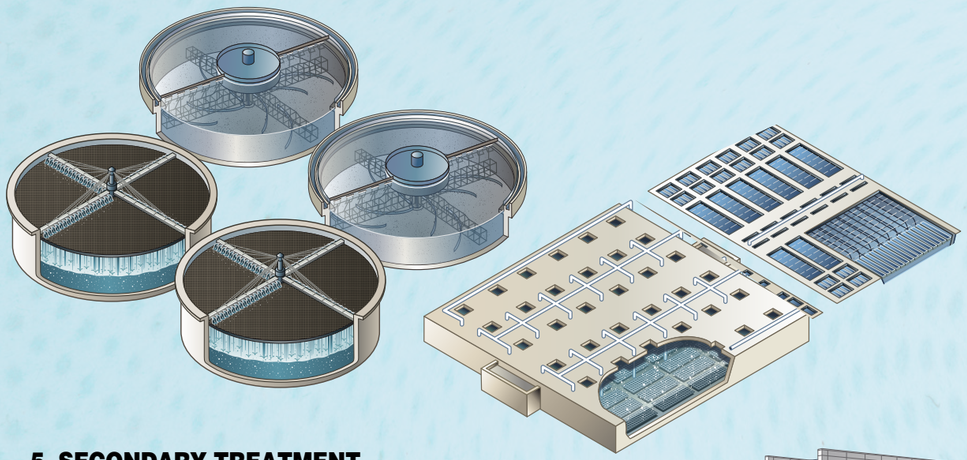
2. PRELIMINARY TREATMENT
Raw sewage passes through bar screens that trap large items like rags that cannot be recycled. Materials like egg shells and coffee grounds are then removed through the grit chamber that uses high pressure air to separate the gritty material.



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.

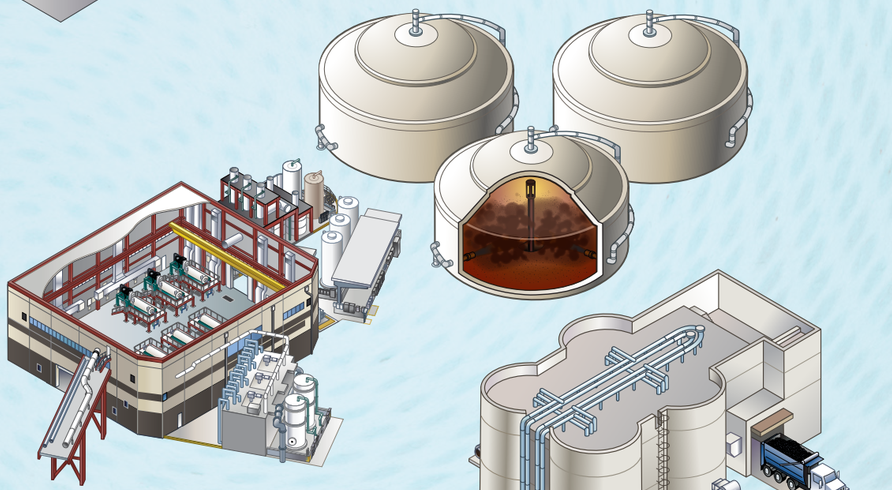


4. PRIMARY TREATMENT
Primary clarifiers or settling basins, slow the water down to allow the solids in the wastewater that readily settle or float to be separated from the water being treated. Collector arms that move along the top and the bottom remove over 80 percent of the influent wastewater solids.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

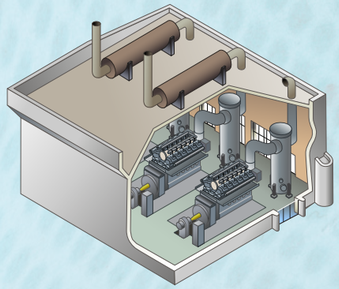


5. SECONDARY TREATMENT
Trickling filters and aeration basins are used to further clean the water. In trickling filters the water is sprayed over a honeycomb type material upon which aerobic bacteria grow. As the water trickles down, the microorganisms consume the solids that were not removed through 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 OCSD several million dollars per year in truck hauling costs. The nutrient-rich biosolids are trucked off to farms where they are recycled for direct land application and composting.



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

PA 03/2019

Our Mission:

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

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

Follow the Flow:

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

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

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

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

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

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

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

Biosolids

Our Policy

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

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

Our Program

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

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

Learn More

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

G | W | R | S

GROUNDWATER REPLENISHMENT SYSTEM

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

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

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

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

WHAT 2 FLUSH®.com

Know what should go down the drain that is sewer safe

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

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

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

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

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

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

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

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

Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley
Calilfornia, 92708-7018
714.962.2411
www.ocsd.com

06/2019