

PROPOSED BUDGET

Fiscal Years 2018-19 and 2019-20

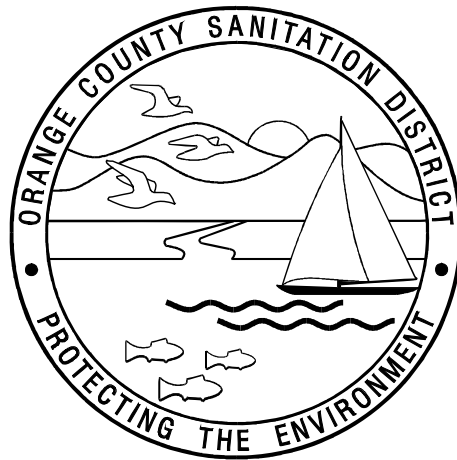
**ADOPTED
JUNE 27, 2018**



Orange County Sanitation District, California

BACK OF FRONT COVER

Orange County Sanitation District, California FY 2018-19 & FY 2019-20 Proposed Budget



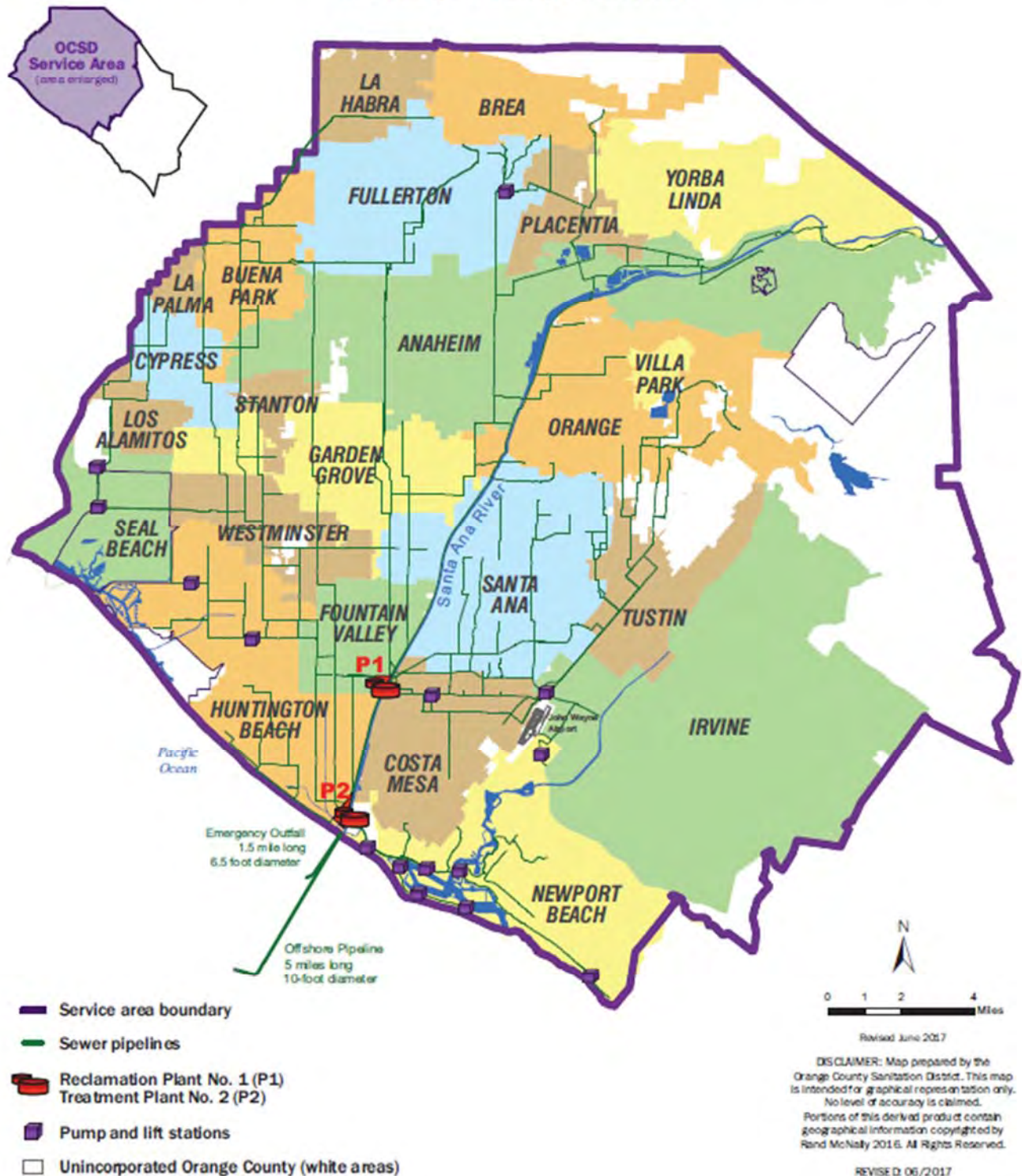
MISSION STATEMENT

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

*For Fiscal Years
July 1, 2018 through June 30, 2019 and
July 1, 2019 through June 30, 2020*

2018-19 & 2019-20 Budget

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



GFOA Budget Presentation Award



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Orange County Sanitation District
California**

For the Biennium Beginning

July 1, 2016

A handwritten signature in black ink, reading "Jeffrey R. Erwin".

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, 2016.

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.

The award is valid for a period of two years only. We believe our current budget continues to conform to the program requirements, and we are submitting it to GFOA to determine its eligibility for another award.

2018-19 & 2019-20 Budget

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Reader's Guide to the Budget

Reader's Guide to the Budget

This guide is intended to help the reader understand what information is available in the budget and how it is organized. This budget document is broken down into ten sections including a Budget Glossary and Index. The Administrative Services Department invites your suggestions on ways to make the budget document more understandable.

The General Manager's Budget Message and a summary of the District's Core Values follow this guide. The General Manager's budget message introduces the budget to the reader.

Following is an explanation of the major sections of this budget:

Section 1 – Executive Summary

The Executive Summary highlights critical issues and financial information regarding the District's FY 2018-19 & FY 2019-20 Budget.

Section 2 – Introduction

- **Financial Overview and Budget Issues** - This section highlights the issues impacting the FY 2018-19 & FY 2019-20 Budget.

Section 3 – Policies and Practices

- **Fiscal Policies** describe the District's financial goals along with policies addressing the operating budget; revenues and expenses; service fees; capital improvement program; long- and short-term debt; reserves; investments; and accounting, auditing and financial reporting.
- **GFOA Recommended Practices** lists all of the Accounting, Auditing, and Financial Reporting; Cash Management; Governmental Budgeting and Fiscal Policy; Debt Management; and Retirement and Benefits Administration practices that are recommended by the Government Finance Officers Association of the United States and Canada. Included within this list of best financial practices for states and local governments is the District's status as to whether we are in compliance, in progress towards compliance, or whether the practice is applicable to this agency.

- **The Budget Process** provides an overview of the budget development process and budget calendar.
- **Budget Assumptions** are decided on as a foundation for developing the budget, and they guide the District in determining the level of wastewater treatment services that will be provided to the community.
- **Accounting Systems and Budgetary Control** provides an overview of the District's accounting systems and the level at which budgetary control is maintained.

Section 4 - District Summary

This summary section is a comprehensive overview of the FY 2018-19 & FY 2019-20 Budget with a focus on all consolidated District funds. Included are tables and graphs for both revenues and expenses.

Section 5 – Operations Overview

This section is a comprehensive overview of the District's operating costs and related revenues for FY 2018-19 and FY 2019-20. The District's operations include collection, treatment, and disposal activities. Tables are included for revenues and expenses to assist the reader in interpreting the data.

Section 6 – Operating Divisions

This section includes operating programs for the District's basic organizational units which provide collection and essential wastewater treatment services to the community. Divisional budgets are presented in the following format:

- **Organization Chart** - An organization chart by position is provided for each division.
- **Authorized FTE Positions**- The total number of full-time equivalent positions assigned to each division is included in this table.
- **Staffing Trends** - A multi-year staffing trend chart is provided to show the changes that have occurred in each division over time.
- **Service Description** - A description of the services or functions provided by each division.
- **2017-18 Performance Objectives** - This section represents the objectives defined by the division for the previous fiscal year.

2018-19 & 2019-20 Budget

- **2017-18 Performance Results** - A summary of major accomplishments and objectives that were actually met during the previous fiscal year.
- **2018-19 & 2019-20 Performance Objectives** - A list of projected goals to be accomplished during the 2018-19 and 2019-20 fiscal years.
- **Performance Measures** - A listing of the measures that will be used to evaluate the success of the budgeted fiscal years.
- **Budget Overview** - This section provides an overview of changes from the FY 2017-18 Budget to the FY 2018-19 & FY 2019-20 Budget. Additionally, the significant impacts of budgetary changes are outlined along with dollar amounts.
- **Expenses by Category** - A chart comparing the FY 2016-17 actual expenses and the FY 2017-18 budgeted and projected expenses against the proposed budget for FY 2018-19 & FY 2019-20. The percent change from the FY 2017-18 Budget compared to the FY 2018-19 Budget is also included.
- **Expenditure Trends** - This graph provides a multi-year historical trend of divisional expenses.

Section 7 - Self-Insurance Program

This section presents an overview of the self-insurance program, including program descriptions and revenue and expense detail.

Section 8 - Capital Improvements

This section of the budget gives an overview of the District's Capital Improvement Program (CIP), CIP project summaries, and detailed CIP project sheets. The project sheets outline project descriptions, project location, project type, projected costs, and funding sources.

Section 9 - Debt Financing Program

This section describes the District's Debt Financing Program including a listing of the outstanding debt issues, a description of the purpose of each issue, a debt service retirement schedule, and Debt Service Requirements, including principal and interest, over the life of the outstanding debt issues.

Section 10 – Appendix

- **Staffing** - Includes charts of staffing by department and category, charts of the historical staffing by department, a historical summary and detail schedules of authorized positions and full-time equivalent employees by department and by division.
- **Appropriations Limit** - The calculation of the District's California Constitutional appropriation limit.
- **Budget Glossary**
- **Miscellaneous Statistics**
- **Service Area Population Information**
- **Index**

OCSD Board of Directors

Orange County Sanitation District Board of Directors

AGENCY / CITIES

ACTIVE DIRECTOR

Anaheim	Denise Barnes
Brea	Glenn Parker
Buena Park	Fred Smith
Cypress	Mariellen Yarc
Fountain Valley	Steve Nagel
Fullerton	Greg Sebourn
Garden Grove	Steve Jones
Huntington Beach	Erik Peterson
Irvine	Donald P. Wagner
La Habra	Tim Shaw
La Palma	Peter Kim
Los Alamitos	Richard Murphy
Newport Beach	Scott Peotter
Orange	Teresa Smith
Placentia	Chad Wanke
Santa Ana	Sal Tinajero
Seal Beach	Ellery Deaton
Stanton	David Shawver
Tustin	Allan Bernstein
Villa Park	Robert Collacott

Sanitary Water Districts

Costa Mesa Sanitary District (CMSD)	James Ferryman
Midway City Sanitary District (MCSD)	Charlie Nguyen
Irvine Ranch Water District (IRWD)	John Withers
Yorba Linda Water District (YLWD)	Phil Hawkins

County Areas

Member of the Board of Supervisors

Michelle Steel

2018-19 & 2019-20 Budget

Board Committees

STEERING COMMITTEE

Greg Sebourn, Board Chair
David Shawver, Board Vice-Chair
Chad Wanke, Chair, Administration Committee
John Withers, Chair, Operations Committee
Ellery Deaton, Member-At-Large
Tim Shaw, Member-At-Large
Donald P. Wagner, Member-At-Large

ADMINISTRATION COMMITTEE

Chad Wanke, Chair
Donald P. Wagner, Vice-Chair
James Ferryman
Peter Kim
Richard Murphy
Steve Nagel
Charlie Nguyen
Glenn Parker
Erik Peterson
Teresa Smith
Sal Tinajero
Greg Sebourn, Board Chair
David Shawver, Board Vice-Chair

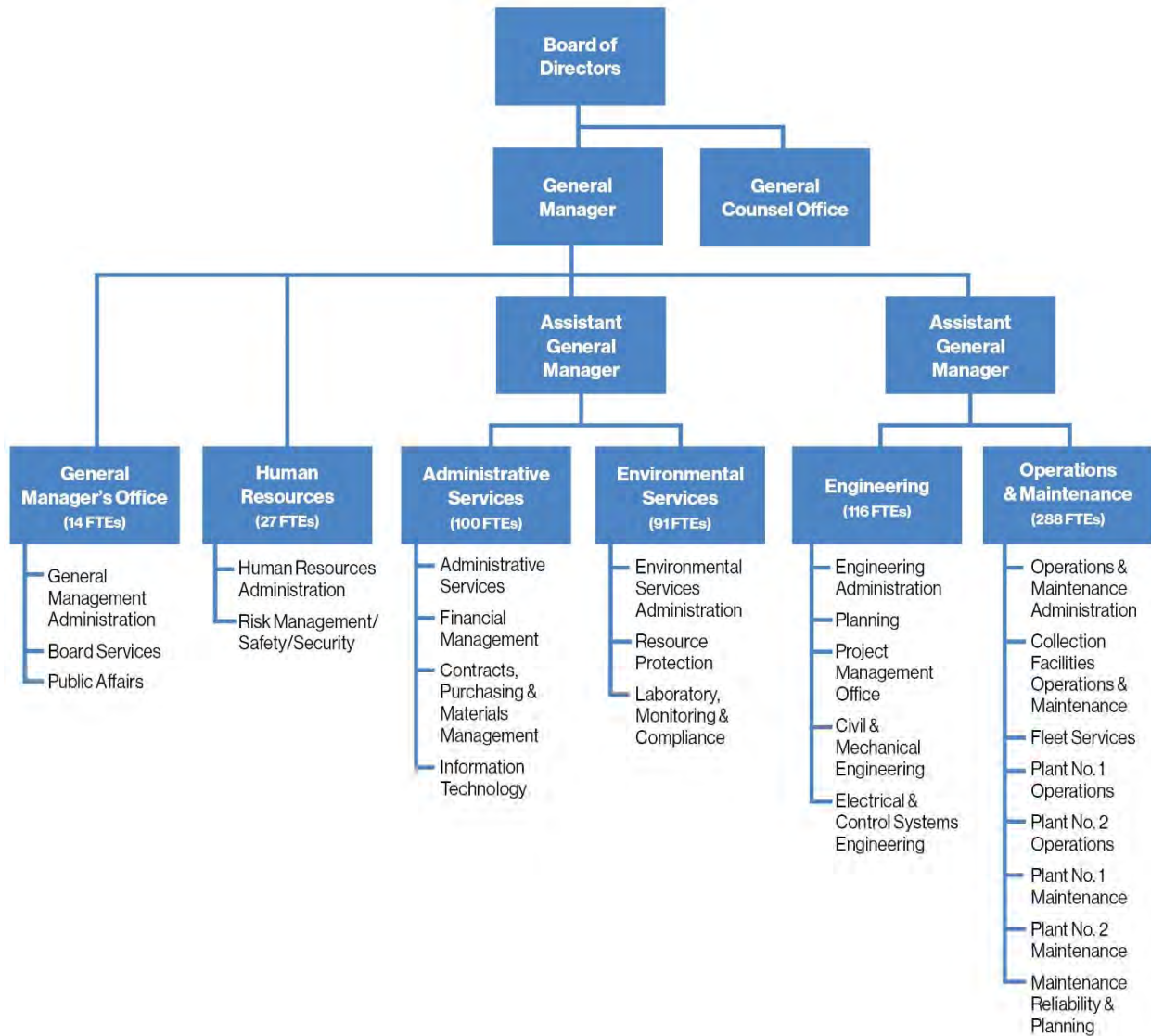
OPERATIONS COMMITTEE

John Withers, Chair
Ellery Deaton, Vice-Chair
Denise Barnes
Allan Bernstein
Robert Collacott
Phil Hawkins
Steve Jones
Scott Peotter
Tim Shaw
Fred Smith
Michelle Steel
Mariellen Yarc
Greg Sebourn, Board Chair
David Shawver, Board Vice-Chair

LEGISLATIVE AND PUBLIC AFFAIRS COMMITTEE

Greg Sebourn, Board Chair
David Shawver, Board Vice-Chair
Allan Bernstein, Member-At-Large
Peter Kim, Member-At-Large
Donald P. Wagner, Member-At-Large
Chad Wanke, Member-At-Large
John Withers, Member-At-Large

District's Organizational Chart



2018-19 & 2019-20 Budget

Administrative Officials

Departments

General Manager	James Herberg
Assistant General Manager	Robert Ghirelli
Assistant General Manager and Director of Engineering	Robert Thompson
Director of Environmental Services	James Colston
Director of Finance and Administrative Services	Lorenzo Tyner
Director of Human Resources	Celia Chandler
Director of Operations and Maintenance	Edward Torres
General Counsel	Bradley Hogin

Orange County Sanitation District

10844 Ellis Avenue, Fountain Valley, CA 92708

714.962.2411 | www.ocsd.com

Serving:

Anaheim

Brea

Buena Park

Cypress

Fountain Valley

Fullerton

Garden Grove

Huntington Beach

Irvine

La Habra

La Palma

Los Alamitos

Newport Beach

Orange

Placentia

Santa Ana

Seal Beach

Stanton

Tustin

Villa Park

County of Orange

Costa Mesa
Sanitary District

Midway City
Sanitary District

Irvine Ranch
Water District

Yorba Linda
Water District



June 1, 2018

Honorable Chair and Board Directors:

I am pleased to submit the Orange County Sanitation District's (OCSD) Proposed Budget Update for fiscal years 2018-2019 and 2019-2020. This document lays out the framework of OCSD's activities during the next two years, and serves as a source of information for OCSD's Board of Directors, our ratepayers, and our employees. This budget includes the operational, capital and debt service expenditures necessary to cost-effectively support our mission and execute the Strategic Plan adopted by our Board of Directors. Our work plan for the next two years focuses on:

- **Succession Planning/Restructuring** – In anticipation of the retirement of our Assistant General Manager we have reevaluated our organization to improve and streamline the management structure to best position ourselves for the future. A second Assistant General Manager position was established with responsibility for the Operations and Maintenance (O&M) and Engineering Departments. Upon the retirement of the existing Assistant General Manager in August 2018, his replacement will begin overseeing the Finance & Administrative Services and Environmental Services departments. With this restructuring in place we expect better coordination between departments and the overall Executive Management Team will be streamlined with one less filled position.
- **Infrastructure Reliability and Asset Management** – OCSD's infrastructure must operate continuously day and night. Reliability must be built into all that we do and that includes managing the condition of our \$10 billion in assets to ensure they are running effectively. The O&M and Engineering Departments will work together planning and coordinating near term maintenance activities, major refurbishments and replacements. These maintenance efforts reflect a \$6 million dollar increase in Repairs and Maintenance in this Operating Budget. In addition to all of the maintenance and repair work, we will review our preventative maintenance plans and schedules for accuracy and effectiveness. Improved maintenance plans will provide a more accurate picture of the resources required to complete all preventive maintenance for OCSD assets and will enable us to optimize our staffing resources.
- **Operational Optimization** – OCSD continues to find innovative and efficient ways to do our work. A new administrative headquarters facility is being designed to bring together employees who are currently located in various trailers and offices. To reduce the need for storage space for paper records, a trusted digital system is being implemented to maintain electronic records and speed up locating and processing of documents. Also, the cost of biosolids hauling will be reduced by using centrifuges to dewater our biosolids and produce a drier product.

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



Hon. Chair and Board Directors
June 1, 2018
Page 2

- 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. Having completed a joint feasibility study with OCWD for the ultimate expansion of the Groundwater Replenishment System (GWRS), the two agencies will now embark on construction 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.
- Energy Resource Recovery - The State of California mandates that local jurisdictions reduce the amount of organic material entering landfills by 75 percent by 2025. With anaerobic digestion facilities already in place, OCSD can help the state meet its goals by receiving food waste to be co-digested with our solids to increase biogas and energy production. OCSD has plans to construct interim and permanent food waste receiving facilities at Plant No. 2 in Huntington Beach.
- Safety and Security – Capital projects, maintenance activities, drafting of an implementation plan for a Voluntary Protection Program Certification, and training to address safety in our workplace are included in this budget, as are enhancements to our physical, electronic, and cyber security infrastructure.

While addressing rising treatment and chemical costs, aging infrastructure, and increased regulatory requirements, this budget displays our commitment to efficiency as it includes only minimal staff cost increases; and rate increases averaging only about 1 percent per year.

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

A handwritten signature in black ink that reads 'James Herberg'.

James D. Herberg
General Manager
Orange County Sanitation District

Mission, Vision and Core Values

ORANGE COUNTY SANITATION DISTRICT CORE VALUES

MISSION STATEMENT

The Mission Statement is the basic foundation that defines why the Orange County Sanitation District exists.

“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

The 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 interactions 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 interests 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.

2018-19 & 2019-20 Budget

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EXECUTIVE SUMMARY
SECTION 1

BACK OF SECTION 1 DIVIDER

Executive Summary

This FY 2018-19 and FY 2019-20 budget represents a consolidation of two one-year proposed operating and capital budgets. The District's FY 2018-19 operating and capital improvement budget is proposed at \$422.3 million, a 9.5 percent increase over the prior year budget of \$385.6 million. This overall increase is primarily attributable to an increase of \$26.4 million in net CIP Outlay, and \$9.3 million in operating costs.

The District's FY 2019-20 operating and capital improvement budget is proposed at \$383.2 million, an 9.3 percent decrease from the FY 2018-19 proposed budget. This overall decrease is mostly comprised of a \$37.5 million, or 21.5 percent net decrease in cash outlays for construction projects. The fluctuation in capital outlay requirements over the next two years is attributable to the timing of the construction schedule on the implementation of the overall combined ten-year, \$2.7 billion CIP.

The table below summarizes the District's funding requirements:

Category	2016-17 Actual	2017-18 Budget	2018-19 Proposed	2019-20 Proposed
Capital Improvement Program	\$139.7	\$148.1	\$174.5	\$137.0
Operating Expenses	143.4	154.3	163.6	162.7
Debt Service*	180.4	82.0	80.5	80.0
Intradistrict Transfers	21.7	1.2	3.7	3.5
Total Outlays	485.2	385.6	422.3	383.2
Ending Reserves	531.5	589.1	678.6	773.3
Total Funding Uses	\$1,016.7	\$974.7	\$1,100.9	\$1,156.5

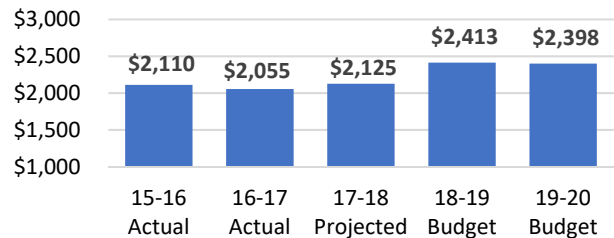
*The fiscal year 2016-17 debt service amount includes a payment of \$39.1 million against the District's unfunded pension liability and a payment of \$41.5 million to the East Orange County Water District as part of an agreement to transfer responsibility for local sewer maintenance.

This FY 2018-19 and 2019-20 budget continues to reflect the agency's ongoing efforts to streamline operations. Staffing levels are being proposed at 636.0 full time equivalent (FTE) positions, an increase of 1.0 FTE position, or 0.2 percent over the 635.0 FTE staffing level that was approved for FY 2017-18.

Additionally, service level increases in ocean monitoring, discharge and treatment, water reclamation and conservation, urban runoff diversions, biosolids management, CIP expansion, and aging infrastructure costs have resulted in a corresponding increase in cash flow requirements. Considering the CIP alone, the \$174.5 million approved CIP outlay for FY 2018-19 is part of the

\$3.1 billion for active and future projects identified within the recently completed Annual CIP Validation Process.

Cost to Collect, Treat and Recycle One Million Gallons



The District has a variety of revenue sources available to fund its operating and capital outlay requirements. As shown in the table below, the District's major funding resources come from sewer service fees and property taxes:

Category	2016-17 Actual	2017-18 Budget	2018-19 Proposed	2019-20 Proposed
Beginning Reserves	\$569.5	\$531.5	\$630.0	\$678.6
Service Fees	300.0	310.2	318.0	320.5
Property Taxes	85.7	93.7	99.6	104.5
Permit User Fees	14.2	12.9	18.3	18.5
Capital Capacity Charges	15.6	9.9	14.0	14.5
Interest	4.2	8.4	6.5	7.2
Intradistrict Transfers	21.7	1.2	3.7	3.5
Debt Proceeds	0.0	0.0	0.0	0.0
Other Revenue	5.8	6.9	10.8	9.2
Total Funding Sources	\$1,016.7	\$974.7	\$1,100.9	\$1,156.5

Budget Overview

The agency's two treatment plants, located in Fountain Valley and Huntington Beach, process a combined 185 million gallons of wastewater each day generated by approximately 2.6 million people in central and northwest Orange County.

The FY 2018-19 proposed budget to operate, maintain and manage our sewage collection, treatment and disposal system is \$161.2 million, a decrease of 6.1 percent, or \$9.3 million, from the prior year budget.

Property and liability insurance premiums are proposed to decrease \$0.8 million, or 38.4 percent, due to the drawdown of excess reserves accumulated in prior years.

2018-19 & 2019-20 Budget

Overhead cost allocation out to the CIP has been increased by \$0.7 million, or 3.5 percent based on an updated District-wide full cost allocation plan.

Combined utilities costs for natural gas, electricity, and water are proposed to decrease \$0.5 million, or 5.8 percent, due to increased operational efficiencies.

Somewhat offsetting these positive impacts on operating costs, repairs and maintenance costs are proposed to increase \$5.8 million or 36.2 percent. This increase is mostly attributable to increases in basic repairs and maintenance costs including the scheduling of digester cleanings at an estimated cost of \$1.1 million each and central generation engine overhauls at an estimated cost of \$1.3 million each.

Personnel costs are budgeted to increase \$2.6 million, or 2.8 percent, primarily due to the increase in budgeted salaries and wages in accordance with previously approved labor agreements.

Lastly, the District will recognize a \$1.5 million loss on the disposal of obsolete inventory as part of its effort to improve warehouse efficiency.

The FY 2019-20 proposed operating budget is \$160.2 million, a decrease of \$1.0 million, or 0.6 percent over the FY 2018-19 proposed budget.

Personnel costs are proposed to increase \$2.2 million, or 2.3 percent increase due primarily to a \$1.2 million, or 1.6 percent increase in salaries. Group medical cost is increasing \$736,100, or 6.8 percent. Staffing is being proposed to remain unchanged from the 636.0 FTE positions proposed for FY 2018-19.

Repairs and maintenance costs are being proposed to decrease \$2.4 million or 11.0 percent, primarily due

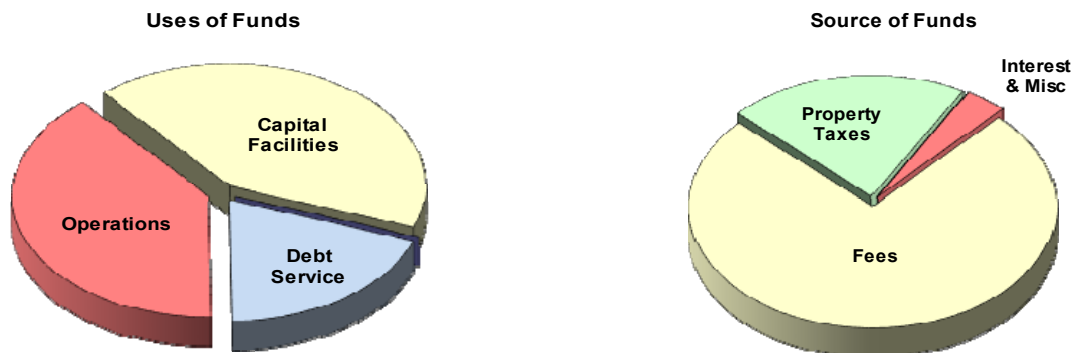
to the scheduled overhaul of only one central generation engine at Plant No. 2.

Utilities are proposed to increase \$1.6 million, or 27.1 percent in FY 2019-20. This increase is primarily due to expected increases in electricity power usage associated with the sludge dewatering and odor control facilities anticipated to be operational in the spring of 2019.

The cost per million gallons of wastewater treated, an industry-wide performance measurement is expected to increase in fiscal year 2018-19 to \$2,413, a \$288, or 13.6 percent increase over the prior year budget of \$2,125, and then decrease in fiscal year 2019-20 to \$2,398, a \$15, or 0.6 percent decrease from the FY 2018-19 proposed budget. The 13.6 percent increase in FY 2018-19 is primarily due to the budget increase and the projected decrease in wastewater flows through the treatment system from the FY 2017-18 budget of 185 million gallons per day (MGD) to 183 MGD projected for FY 2018-19, or a decrease of 1.1 percent. Wastewater flows have an inverse relationship to the cost per million gallons; the lower the flows, the higher the cost. Wastewater flows are expected to remain flat at 183 MGD in fiscal year 2019-20.

The District's Capital Improvement Program (CIP) net cash flow budget for FY 2018-19 is \$174.5 million, an increase of \$50.2 million from the prior year estimated total. The CIP cash flow budget for FY 2019-20 is \$137.0 million, a decrease of \$37.5 million from the FY 2018-19 proposed CIP cash flow. This CIP two-year cash flow budget finances collection system, joint treatment works and disposal system improvement projects. These CIP cash flows are attributable to the additional infrastructure needs identified in the 2017 Facilities Master Plan and in the 2018 validation of the CIP.

FY 2018-19



Executive Summary

How Resources Are Used

District resources are used to fund the cost of providing wastewater collection, treatment and recycling service, including employees' salaries and benefits, debt service, capital improvements and the cost of self-insurance.

Summary of Operating & Maintenance Expenses

Collections, Treatment & Recycling Operations

	2016-17 Actual	2017-18 Budget	2018-19 Proposed	2019-20 Proposed
Salaries, Wages & Benefits	\$91,604,774	\$93,361,330	\$95,992,800	\$98,189,100
Administrative Expenses	1,842,155	2,026,550	2,007,530	1,906,030
Printing & Publication	266,648	403,900	316,890	317,410
Training & Meetings	943,824	1,252,320	1,097,080	988,400
Operating Materials & Supplies	14,863,560	15,724,300	15,762,740	18,877,840
Contractual Services	23,711,308	24,489,090	25,206,520	22,055,550
Professional Services	3,528,669	5,125,990	5,393,480	4,602,370
Research & Monitoring	892,313	889,400	1,061,200	1,099,600
Repairs and Maintenance	14,797,760	15,945,110	21,715,360	19,321,260
Utilities	6,118,857	7,898,590	7,439,800	9,028,600
Other Materials, Supplies & Services	2,369,297	4,181,660	5,250,190	4,196,820
Cost Allocation - CIP	<u>(20,137,574)</u>	<u>(19,394,560)</u>	<u>(20,070,430)</u>	<u>(20,378,610)</u>
Net Operating & Maintenance Expenses	<u>\$140,801,591</u>	<u>\$151,903,680</u>	<u>\$161,173,160</u>	<u>\$160,204,370</u>

Facilities Planning

In December 2017, the 2017 Facilities Master Plan was adopted by the Board of Directors to define the District's goals, responsibilities, and requirements over the next twenty years. It includes projections through the assumed "build-out" of the District's service area to beyond the year 2037. This update to the October 1999 Facilities Strategic Plan was necessary because many of the assumptions used then have now changed. Critical factors such as population growth, new construction, the volume of wastewater delivered to the plants and viable water conservation and reclamation programs have been reevaluated.

The FY 2018-19 proposed cash flow budget of \$174.5 million is part of the overall CIP budget of \$3.1 billion for active and future projects identified within the recently completed Annual CIP Validation Process.

Wastewater Recycling

In partnership with the Orange County Water District (OCWD), our agency recycles enough water to supply the needs of 850,000 people. Recognizing the need for a reliable, affordable and high quality water supply, the District's Board of Directors set a goal of recycling 100 percent of all wastewater flows. The District has committed 168,000 acre-feet per year of secondary effluent to the OCWD's Groundwater Replenishment System (GWRS) for replenishment of the Orange County Groundwater Basin. The District will be working with OCWD on the planning and design of the final expansion of the Groundwater Replenishment System over the next two years.

Sewer Service Fee Increases

In March of 2018, the Board approved rate increases for each year over the next five years. These increases are necessary for compliance with the District's debt fiscal policy of balancing the funding of new capital improvements with current revenues and

2018-19 & 2019-20 Budget

existing debt, and to minimize the increase in rates over an extended period of time.

The impact of this five-year sewer fee schedule has increased the single family residence user fee rate, on average, 1.2 percent a year from \$335 in FY 2018-19 to \$351 in FY 2022-23. These rate increases by the District are still well below the average annual sewer rate of \$529 being charged throughout the State according to the 2016-17 California Wastewater Charge Survey by the State Water Resources Control Board.

Staffing

Authorized staffing levels are being proposed at 636 FTE positions over the next two-fiscal years, one FTE position higher than the approved staffing level for FY 2017-18. However, staffing is still 42 FTE positions below the agency's all time high of 678 positions approved in FY 1995-96.

The District budgets staffing levels by FTE positions to provide a realistic estimate of actual staffing levels since not all employees are full-time employees. The part-time positions are funded at 1,040 hours. Part-time employees receive a prorated share of personnel benefits. The reductions from fiscal year 1995-96 are a result of this agency's effort in striving to provide wastewater treatment as efficiently and effectively as possible while reducing operational and maintenance costs to more closely match those agencies that are "best in class" for wastewater treatment facilities.

Strategic Planning

In December 2015, the Strategic Plan was updated to cover a new five-year horizon. Following a similar process used in the prior year updates, the General Manager's Office initiated the planning effort with the Executive Management Team, then solicited input and ideas from managers and supervisors. In December 2015, the staff-generated ideas were presented to the Board of Directors during a workshop, where Board Members discussed and deliberated changes and additions to the plan.

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

Since implementation of the first strategic plan in 2007, 40 strategic goals have been established and completed. In December 2015, the District updated

the Five-Year Strategic Plan and, as part of the strategic planning process, reaffirmed the following goals:

- **Odor Control Master Plan** – Future process systems will produce the benefits intended.
- **Future Biosolids Management Options** – Develop biosolid disposal options, including third-party contracts and onsite capital facilities, for mid and long-term strategies.
- **Energy Efficiency** – Research new energy efficiency and conversion technologies to maximize energy efficiency, reduce operating costs, and minimize environmental impact.
- **Ownership Transfer of Local Sewers** – Complete the transfer of 174 miles of local sewers to a local sewer agency.
- **Future Water Recycling** – Determine partnerships, needs, strategies, and the cost vs. benefit of recycling of Plant No. 2 effluent water.
- **Workforce Planning and Development** – An ongoing workforce planning and development initiative to ensure that the District has the right people with right skills and abilities, in the right place.

This Strategic Plan continues to chart a focused roadmap of success for the future of the District. It addresses critical operations and construction issues, financial and budgeting challenges, and gives a clear and concise direction to staff, ratepayers, regulatory agencies, and the general public.

INTRODUCTION
SECTION 2

BACK OF SECTION 2 DIVIDER

Financial Overview & Budgetary Issues

Financial Overview and Budgetary Issues

This section of the budget is a financial overview and an outline of issues affecting the development of the budget, as listed below:

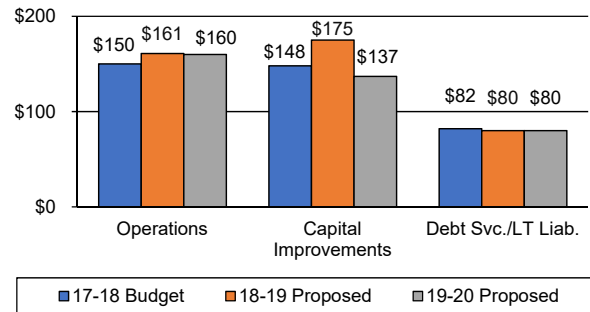
- Proposed Consolidated Cash Flow Budget
- Proposed Operating Budget
- Proposed Net Capital Improvement Outlay
- Debt Service Requirements
- Sewer Service Fees & Property Tax Revenues
- Budget Highlights
- Individual Collection System
- Reserves
- Staffing Levels
- Business Plan
- OCSD Long-Term Planning Process
- OCSD Fiscal Policies
- GFOA Best Practices and Advisories

Proposed Consolidated Cash Flow Budget

The total proposed cash flow budget for FY 2018-19 is \$422.3 million, a 19.1 percent increase over the prior year total cash flow budget of \$354.7 million. The total proposed cash flow budget for FY 2019-20 is \$383.2 million, a 9.3 percent decrease from the total proposed cash flow budget for FY 2018-19. The increase in FY 2018-19 in comparison to the prior year is primarily due to an increase of \$51.7 million in Capital Improvement Program and Future Rehabilitation and Replacement Capital Outlay resulting from an increase in construction activity on projects such as Newhope-Placentia Trunk Replacement (2-72), as well as an unusually high level of design expenditures associated with projects that will be in construction starting in 2020 such as Headworks Rehabilitation and Expansion (P1-105), Primary Treatment Rehabilitation at Plant 2 (P2-98), Rehabilitation of Western Regional Sewers (3-64), and the Headquarters Complex (P1-128).

The following table shows the comparisons of the FY 2017-18 Budget, and the FY 2018-19 and FY 2019-20 Proposed Budgets by major budget category:

Budget Comparison
(in millions)

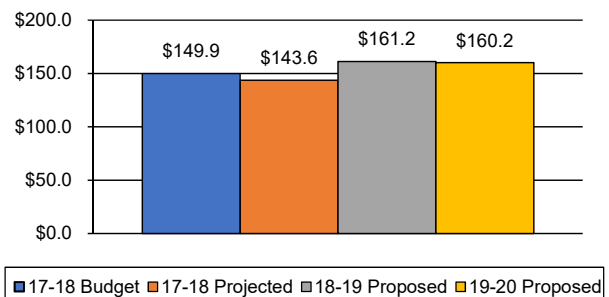


Proposed Operating Budget

The Operating program accounts for the costs to operate, maintain, and manage the District's two treatment plants, with a secondary treatment design capacity of 332 million gallons a day, and the 396 miles of collection systems. All the personnel costs for the District are initially recorded as an Operating cost. Costs chargeable to the capital improvement program are allocated for the work done through a job cost system. These charges are shown as reductions in the line item Operating program budget. Costs remaining in the Operating program are ultimately allocated to the two individual revenue areas that make up the District, the Consolidated Revenue Area and Revenue Area 14, based on flows.

Operational cost, comprised of collections, treatment plant, recycling operations and maintenance, and administration are projected to come in under budget for FY 2017-18 Budget by \$8.3 million, or 5.4 percent. The FY 2018-19 Budget is being proposed with an increase of \$9.3 million or 6.1 percent from the prior year budget, and the FY 2019-20 Budget is being proposed with a decrease of \$1.0 million, or 0.6 percent over the FY 2018-19 Proposed Budget.

Operations Budget Comparison
(in millions)



2018-19 & 2019-20 Budget

Analysis on the year-to-year change is provided from three perspectives. First, the FY 2017-18 Budget is compared to the FY 2017-18 year-end projections. Secondly, the FY 2017-18 year-end projections are compared to the FY 2018-19 Proposed Budget, and lastly, the FY 2018-19 Proposed Budget is compared to the FY 2019-20 Proposed Budget.

FY 2017-18 Operations – Budget vs. Projected

As depicted by the chart above, operating expenses are projected to come in under the FY 2017-18 Budget by \$6.3 million, or 4.2 percent. The major categories that comprised most of the underage include utilities, operating materials and supplies, and other operating costs; as well as the overage in the costs being allocated out of the operating budget to CIP. Somewhat offsetting these shortfalls includes an overage in contractual expense.

Utilities costs are expected to come in under budget by \$3.2 million, or 31.3 percent primarily due to a new operating strategy implemented to reduce utility-provided electricity; and electricity and natural gas commodity costs lower than projected in the budget.

Operating materials and supplies are expected to come in under budget by \$2.5 million, or 14.3 percent primarily due to a decrease in price per unit of peroxide and decreased usage from optimization and new bio scrubbers at Plant No.1 Headworks (Project P1-123) that capture and treat larger volumes of foul air.

Other operating costs are expected to come in under budget by \$1.9 million, or 6.7 percent due primarily to decreased waste discharge requirements / sewer system management plan audit that is done every two years for OCSD's collection systems, and the unneeded and unspent budgeted contingency and prior year re-appropriation funds totaling \$0.4 million.

Increased cost allocation out to CIP is expected to enhance these operating savings by \$0.9 million, or 4.6 percent due to the overall increase in CIP outlays.

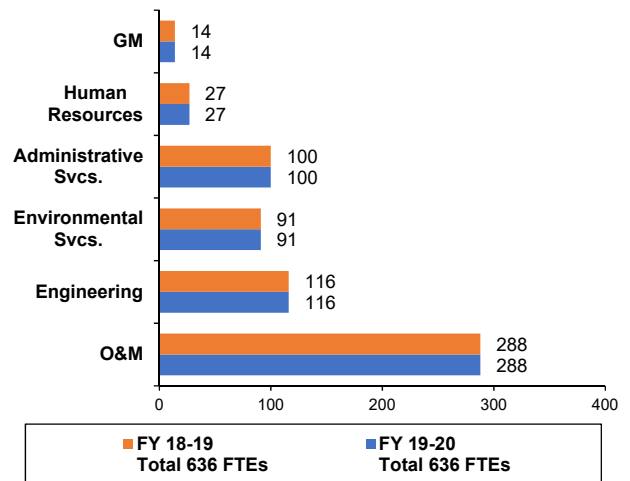
Contractual expenses are expected to exceed the FY 2017-18 Budget by \$1.7 million, or 7.5 percent primarily due to manhole repairs and rehabilitation, industrial cleaning services and CCTV inspections, assessment services related to the Comprehensive Assets Management Program (CAMP), and odor control and emergency line repair services.

FY 2017-18 Projected Operating Expense vs. FY 18-19 Proposed Operating Budget

The FY 2018-19 Operating Budget is a \$17.6 million, or 12.2 percent increase over the FY 2017-18 projected operating requirements. Increases in the proposed operating requirements are primarily attributable to increases in salaries, wages and benefits, repairs and maintenance, contractual and professional services.

Personnel costs are being proposed at \$5.6 million, or 6.2 percent increase over the prior year projection mainly due to cost of living adjustments included in the current Memorandums of Understanding for all employee bargaining units. Group insurances premiums are proposed to increase \$0.9 million, or 4.0 percent over the prior year projection primarily due to an increase of medical insurance premiums. Adding to the salaries increase is the addition of one new full time equivalent (FTE) staff position bringing the proposed total FTE count in FY 2018-19 and 2019-20 to 636.0 FTEs.

Full Time Equivalent (FTE) Staff



Contractual services and professional services are proposed to increase \$0.9 million, or 3.7 percent; and \$1.5 million, or 38.4 percent; respectively due primarily to increasing support for the Civil Assets Maintenance Program, new coating program, preventive maintenance optimization services, and engineering professional and design services.

Repairs and maintenance costs are proposed to increase \$6.0 million or 38.2 percent over the prior year projection. Major changes from year-to-year are basically from the timing of when large facilities are scheduled for maintenance. During FY 2018-19, two central generation engines are scheduled for overhaul at an estimated cost of \$3.8 million and

Financial Overview & Budgetary Issues

major rehabilitation of primary and secondary clarifiers and both plants is planned for \$1.6 million. In addition, new, increased scope for electrical services in the process areas and rehabilitation of generators is planned as well as specialized lighting and HVAC services.

FY 2019-20 Proposed Operations Budget vs. FY 2018-19 Proposed Operations Budget

In FY 2019-20, the second year of this two-year operating budget, staff is proposing a 0.6 percent, or \$1.0 million increase over the FY 2018-19 proposed operating requirements. Increases in the proposed operating requirements are primarily attributable to increases in personnel costs, operating materials and supplies, and utilities.

Personnel costs are being proposed at a 2.2 percent, or \$2.2 million increase in FY 2019-20 over the FY 2018-19 Proposed Budget. This increase is mostly attributable to the cost of living adjustments in salaries based on existing bargaining unit agreements, and an increase of group medical insurance premiums. Staffing position is proposed to remain at 636.0 FTEs.

Operating materials and supplies are being proposed to increase \$3.1 million or 19.6 percent, primarily due to Sludge Dewatering and Odor Control (P1-101) centrifuges that will start up at the beginning of the fiscal year, the additional cationic polymer usage for the dewatering centrifuges is required. In addition, the price per unit cost of chemical coagulants is projected to increase 3.0%.

Contractual service costs are being proposed to decrease \$3.2 million or 12.6 percent, primarily due to Sludge Dewatering and Odor Control (P1-101) centrifuges is projected to be in operation and solid cake will increase from 20% to 27% to reduce wet tons produced, solids removal costs.

Repairs and maintenance costs are being proposed to decrease \$2.4 million or 11.0 percent, primarily due to reduction in preventive maintenance services and engine overhaul costs.

Utilities are proposed to increase \$1.6 million, or 21.6 percent in FY 2019-20. This increase is due to increased requirement for imported electricity resulting from the start-up of dewatering centrifuges. FY 2019-20.

Proposed Net Capital Improvement Outlay

Proposed capital improvement outlays approximate one-third of the overall proposed budget and provide for the rehabilitation, replacement, expansion and upgrades of facilities at the two treatment plants, including the utility systems, administrative facilities, and the ocean disposal system, and the rehabilitation, replacement and expansion of the 396 miles of the collection system and off-site pump stations.

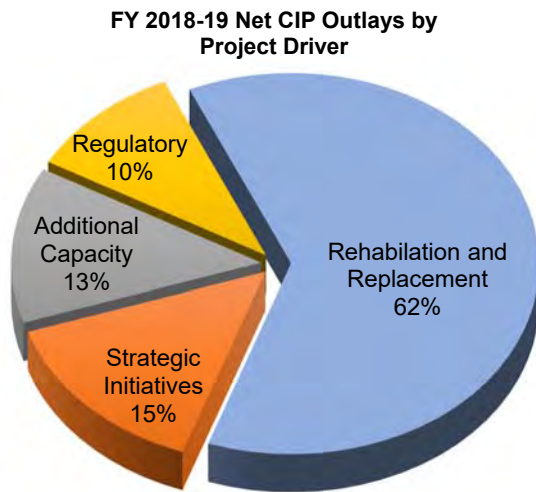
The net CIP outlay has been prepared under assumptions included in the Facilities Master Plan adopted by the Board of Directors in December 2017 and in accordance with the Board approved 2015 Five-Year Strategic Plan Update.

The projected outlay for the CIP is expected to reach 83.0 percent of FY 2017-18 budget, or \$124.3 million. The proposed net CIP outlays for FY 2018-19 and FY 2019-20 are \$174.5 million and \$137.0 million, respectively, and are part of an overall 20-year CIP outlay of \$5.5 billion for all planned active and future projects, as well as outlays allotted for future rehabilitation and replacement of the District's aging assets and systems.

There are four key drivers that lead to CIP projects: (1) Rehabilitation and Replacement; (2) Additional Capacity; (3) Regulatory; and (4) Strategic Initiatives. In December 2017, the Board of Directors adopted a new Facilities Master Plan to define the District's goals, responsibilities, and requirements over the next twenty years. The Master Plan provides a comprehensive analysis of the condition and capacity of the District's wastewater infrastructure. It also evaluated the potential impacts due to anticipated regulatory changes, and incorporated recommendations from other recent master planning efforts, such as the Effluent Reuse Study, Biosolids Master Plan, and Odor Control Master Plan, to create a Capital Improvement Program which supports the District's mission over the next 20 years.

As demonstrated by the chart below, the most prevalent CIP project driver is to rehabilitate and replace aging assets. The District is now facing a time when dry weather influent flows have decreased and discharged regulations have stabilized. Much of the capital improvement costs will be focused on asset management, rehabilitation, and replacement of aging infrastructure.

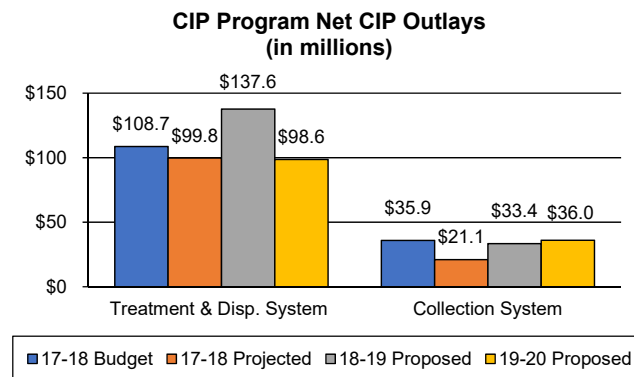
2018-19 & 2019-20 Budget



The proposed CIP includes 68 active and future capital projects, five programs, such as the Planning Studies Program (M-Studies) and Small Construction Program (M-FE), and budget for capital equipment purchases with a 10-year outlay of \$2.67 billion.

The proposed 2018-19 CIP budget is organized by treatment process. The funds requested for the current cash flow budget total \$191.8 million, an increase of 14.9 percent over last year's cash flow budget of \$167.0 million.

The projected outlay for FY 2017-18 for Treatment and Disposal Improvement projects is expected to reach 92.0 percent of the annual net CIP outlay of \$108.7 million. The FY 2018-19 and FY 2019-20 proposed net CIP outlays for Treatment and Disposal Improvement projects are \$137.6 million and \$98.6 million, respectively.



Large treatment system projects include Sludge Dewatering and Odor Control at Plant No. 1 (Project No. P1-101) and Plant No. 2 (Project No. P2-92) with

proposed project budgets of \$199.5 million and \$90.5 million, respectively. Proposed cash outlays for these two projects in FY 2018-19 and FY 2019-20 are \$12.2 million and \$4.6 million and \$13.4 million and \$6.8 million, respectively. Other treatment plant projects with significant cash outlays over the next two years include Headworks Rehabilitation and Expansion at Plant No. 1 (Project No. P1-105) (\$12.4 million and \$7.5 million), Headquarters Complex and Site Security at Plant No. 1 (Project No. P1-128) (\$10.5 million and \$9.6 million), and Ocean Outfall System Rehabilitation (Project No. J-117) (\$7.4 million and \$18.1 million).

The Collection System Capital Program projected outlay for FY 2017-18 is expected to reach 59.0 percent of the annual net CIP outlay of \$35.9 million. The FY 2018-19 and FY 2019-20 proposed CIP budget authorities for Collection System Improvement Projects are \$33.4 million and \$36.0 million, respectively. These proposed improvements are needed to keep the 396 miles of collection systems free from failure.

Three large projects in the Collection System include the Rehabilitation of Western Regional Sewers (Project No. 3-64), the Newhope-Placentia Trunk Replacement (Project No. 2-72), and the Bay Beach Pump Station Replacement (Project No. 5-67) with total project budgets of \$202 million, \$112 million, and \$64 million; and FY 2018-19 and FY 2019-20 proposed cash outlays of \$6.5 million and \$6.6 million, \$13.5 million and \$9.3 million, and \$13.0 million and \$3.6 million, respectively. The Capital Improvement Program is described in more detail in Section 8 of this document.

Debt Service Requirements

The District's long-term debt fiscal policy restricts long-term borrowing to capital improvements that cannot be financed from current revenue. Before any new debt is issued, the impact of debt service payments on total annual fixed costs will be analyzed.

The District issued the \$80.0 million Wastewater Revenue Obligation, Series 2010A in May 2010 and the \$157.0 million Wastewater Revenue Obligation, Series 2010C in December 2010, both as "Build America Bonds" (BABs) fixed rate debt and the last of the "new" money debt issuances. The American Recovery and Reinvestment Act of 2009 created this new financing product, BABs, for the municipal issuer. BABs are issued as higher interest taxable bonds; however, the U.S. Treasury provides a

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35.0 percent subsidy on interest payments. The net cost, after accounting for the 35.0 percent subsidy payment, frequently results in lower net costs to the issuer, specifically in the maturity years beyond ten years. Based on the market conditions at the time of these issuances in comparing the back-loaded BABs new money borrowing to a back-loaded tax-exempt structure, Series 2010A resulted in present value savings to the District of \$15.2 million, as the debt was issued at an all-in true interest cost of 3.7 percent; and Series 2010C resulted in present value savings to the District of \$20.0 million, as the debt was issued at an all-in true interest cost of 4.1 percent.

On March 1, 2013, the federal government implemented certain automatic spending cuts known as “the sequester”. As a result of the sequester, federal subsidy payments on BABs have been reduced annually from a high of 8.7 percent for the federal fiscal year ended September 30, 2013 to a low of 6.6 percent for the federal fiscal year ended September 30, 2018.

In January 2017, the District issued \$66.4 million of Wastewater Refunding Revenue Obligations, Series 2017A to refund \$91.6 million of Certificates of Participation, Series 2007A at a net present value savings of \$14.5 million. As a result of having an adequately funded reserves policy, experienced management, and prudent planning, the District was again able to secure a “AAA” credit rating from Fitch Ratings, Moody’s, and Standard and Poor’s on this latest debt issuance.

This two-year budget proposes no additional new money debt issuances as the \$2.7 billion in future replacement, rehabilitation, and refurbishment projects anticipated over the next ten years will be adequately funded through current sewer service fee charges and existing reserves. The FY 2018-19 debt service requirements are proposed at \$80.5 million, a decrease of \$1.5 million, or 1.8 percent from FY 2017-18 projected. Total Debt Service requirements for the second year of this two-year budget will fall to \$80.0 million, a \$0.5 million or 0.6 percent decrease.

The District’s Debt Financing Program is described in more detail in Section 9 of this budget.

Sewer Service Fees

The Consolidated Revenue Area has an adopted Sanitary Sewer Service Fee to provide funding for operating the sewer systems in accordance with the Clean Water Act and the District’s Revenue

Program. Revenue Area No. 14 is funded through user fee charges to the IRWD. Sewer service fees are set annually by the District after a review of projected needs.

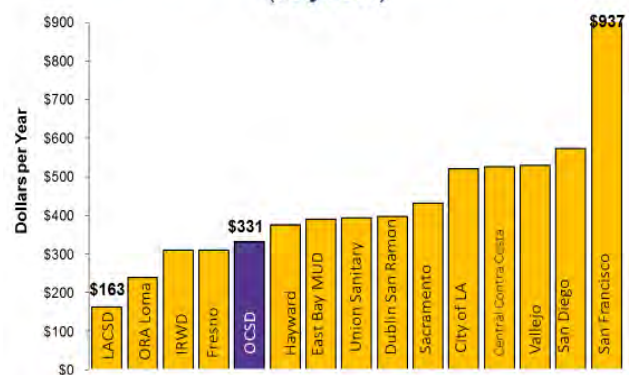
In the fall of 2007, District staff conducted strategic planning workshops with the Board of Directors to lay out a capital program to deliver the levels of service desired by the Board of Directors. These levels of service and resulting capital projects are included in the District’s Five-Year Strategic Plan. This effort was reinforced through the adoption of a new Master Plan in December 2017, a planning effort to define the District’s goals, responsibilities, and requirements over the next twenty years. The 2017 Facilities Master Plan defined a CIP consisting of over 80 future infrastructure projects. Collectively, these projects along with current active projects total over \$5 billion of CIP spending over the next 20 years.

The 2017 Facilities Master Plan also included a Wastewater Revenue Program Rate Study which determined the appropriate rates going forward to support the proposed 20-year CIP.

In March 2018, following a Proposition 218 notice process, the Board approved sewer rate increases for each year over the next five years averaging approximately 1.2 percent a year. These increases are necessary to provide needed capital improvements, to meet additional treatment and disinfection requirements, and to minimize future rate increases.

The impact of this five-year sewer fee schedule has increased the single-family residence user fee rate, the underlying rate for all sewer service user fees, an average of 1.2 percent a year from \$335 in FY 2018-19 to \$351 in FY 2022-23.

Comparison of Single Family Residential Rates (July 2017)



2018-19 & 2019-20 Budget

Even with these increases, the OCSD rates are still well below the average annual sewer rate of \$529 being charged throughout the State according to the 2017 California Wastewater User Charge Survey conducted by the State Water Resources Control Board.

In FY 1997-98, the District's Rate Advisory Committee, made up of elected city officials, community, business and industry leaders, and District staff analyzed the District's rate structure to determine whether user fees were equitable among residences and industry. In May of 1998, the Board approved the proposed revisions to the Sewer Service User Fee rate structure that more equitably charged consumers based on actual usage while remaining revenue neutral. Significant changes in the rate structure included:

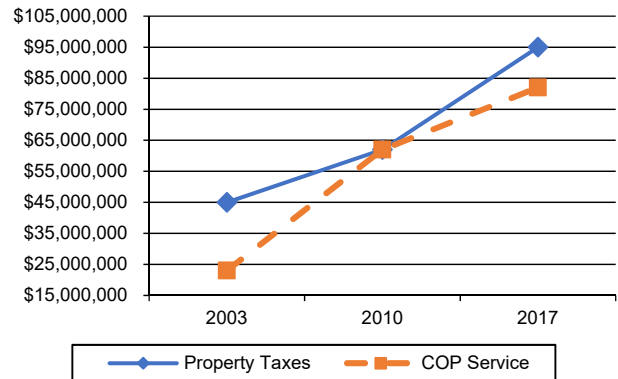
- Non-residential user charge will be based upon typical quantity and strength of discharge per 1,000 square feet.
- Fees for users who discharge high quantities or high-strength waste, including former Class III permittees such as restaurants and laundromats, will be based on the assumed flow and strength per 1,000 square feet.
- Discontinuation of the Class III permit process because of the implementation of the expanded and more accurate rate structure. This resulted in simplification of the billing and collection process for these two hundred users.
- The revised rate structure resulted in a greater number of decreases in charges (22,000) for non-residential users than increases (13,000).

Overall, the total fees collected remained essentially the same as those generated by the old structure.

Property Taxes

The District's share of the one percent ad valorem property tax is dedicated for the payment of COP debt service. The apportionment of the ad valorem tax is 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.

COP Funding Requirements vs. Property Tax Funding Source



Historically, the District's property tax revenues were at a higher level than necessary to support the District's debt service obligations. However, capital improvement needs averaging \$200.0 million a year over the last ten years has required new COP debt issuances that have increased future debt service payments that more closely matches property tax revenues.

Property tax revenues have increased from \$85.7 million in FY 2016-17 to a projected \$104.5 million in FY 2019-20, primarily due to the rebound from the economic decline and the collapse in the housing and commercial property markets beginning in 2008. Property tax revenues are now being projected to increase 5.0 percent a year through FY 2019-20.

Any property tax revenue shortfalls in meeting debt service obligations may require adjustments to user fees, as making debt service payments are legally mandated.

Budget Highlights

This section briefly outlines the proposed major changes in all departments and Revenue Areas over the next two years. All Joint Works Operations, or plant operating costs and collection system costs are consolidated into the individual department budgets for better accountability and control. However, separate accounting is maintained between Joint Works Operation activities (treatment and recycling operational costs) and collection operational activities since each Revenue Area is directly responsible for their own collection operating costs. The Joint Works Operation activities are allocated to the Revenue Areas based on their individual contributions to the annual sewage flow. Likewise, the Joint Works Capital Improvements are allocated

Financial Overview & Budgetary Issues

to the Revenue Areas on a three-year average of sewage flows called the "joint works equity percentage", and each Revenue Area is responsible for their own collection system capital improvements. Details for each department can be found in "Section 6 – Operations" of this document. Complete staffing schedules are located in the Appendix.

General Manager's Office

- An amount equaling 0.5 percent of the Operating materials and services budget is included within the General Manager's Re-appropriation line item for each of the next two fiscal years. Since the current year's budget lapses each year, re-appropriation of funds is needed to pay for goods or services ordered at the end of one budget year but not provided until the following year. The General Manager reviews and approves all departmental re-appropriation requests to ensure that prior year funding was available and has not been spent.
- An amount equal to 0.85 percent of the Operating materials and services budget is included within the General Manager's contingency account for each of the next two fiscal years.

Human Resources

- A decrease of \$812,000 in property and general liability insurance premiums are anticipated in FY 2018-19 and an increase of \$421,000 in FY 2019-20.
- No net change in FTE over the next two years.

Administrative Services

- An increase in salaries, wages, and benefits costs of \$726,000 in FY 2018-19 is attributable to cost of living adjustments included in the current Memorandums of Understanding for all employee bargaining units and group insurances premiums.
- An increase of \$537,000 in contractual service costs mainly due to the California Association of Sanitation Agencies (CASA) wastewater flow and loading study.
- An increase of \$200,000 in service maintenance agreements costs mainly due to additional software purchased and increased license costs.
- An increase in materials, supplies and service costs of \$1.9 million primarily due to a one-time inventory write-off of \$1.5 million in FY 2018-19.
- No net change in FTE over the next two years.

Environmental Services

- An increase in research and monitoring costs of \$172,000.
- An increase of \$700,000 in operating costs will cover the following expenses: 1) once per 5-year permit cycle special studies; 2) once per 5-year regional monitoring activities; and 3) an inter-agency third party audit.
- No net change in FTE over the next two years.

Engineering

- An increase in salaries, wages and benefits of \$445,000 in FY 2018-19 is primarily due to cost of living adjustments included in the current Memorandums of Understanding for all employee bargaining units and group medical insurance premiums.
- FY 2018-19 proposed CIP outlays of \$177.6 million, an increase of \$53.3 million, or 42.8 percent, over last year's cash flow budget of \$124.3 million.
- FY 2019-20 proposed CIP outlays of \$149.0 million is a decrease of \$28.6 million, or 16.1 percent, from FY 2018-19 proposed budgeted CIP cash outlays.
- No net change in FTE over the next two years.

Operations & Maintenance

FY 2018-19 increases over FY 2017-18 budget:

- An increase in personnel and benefits costs of \$1.2 million primarily due to cost of living adjustments included in the current Memorandums of Understanding for all employee bargaining units and group medical insurance premiums.
- An increase in contractual services of \$343,000, or 1.6%, due to increasing support for the Civil Assets Maintenance Program.
- An increase in repair and maintenance of \$5.5 million mainly due to two central generation engines are scheduled for overhaul at an estimated cost of \$3.8 million and major rehabilitation of primary and secondary clarifiers at both plants is planned for \$1.6 million.
- A decrease in utilities costs of \$576,000.
- A net increase of 1.0 FTE beginning in FY 2018-19.

2018-19 & 2019-20 Budget

FY 2019-20 increases over FY 2018-19 budget:

- An increase in personnel and benefits costs of \$1.0 million.
- An increase in operating materials and supplies costs of \$3.1 million mainly due to the additional cationic polymer usage for the thickening and dewatering centrifuges at an estimated cost of \$2.6 million.
- A decrease in contractual services of \$2.7 million due primarily to a decrease of \$3.7 million in solid removal. The sludge dewatering and odor control (P1-101) centrifuges is projected to be in operation and solid cake will increase from 20% to 27% to reduce wet tons produced.
- A decrease in professional service costs of \$926,000 for on-site supplemental reliability engineering support services.
- A decrease in repair and maintenance of \$2.6 million mainly due to reduction in preventive maintenance services and engine overhaul costs.
- No net change in FTE.

Individual Collection System

Operating – reflects costs of operating and maintaining each Revenue Area's collection system, utilities, and Directors' fees. Industrial/commercial monitoring costs reflecting the expense of enforcing the Uniform Use Ordinance and EPA's pre-treatment standards are also included. The largest operating cost is the Revenue Area's flow-based share of the Joint Works Operating expenses.

Capital Facilities – accounts for each Revenue Area's share of the Joint Works Capital Improvement projects and for individual Revenue Area trunksewer or pump station projects. The entire collection system has a sewer construction program Master Plan in progress as a result of the 1999 Strategic Plan. Other line items in these funds are accumulated reserves for future capital improvements in accordance with Master Plans a federal and state requirements and annual purchase or sale of equity in the jointly-owned treatment works as provided for in the Joint Ownership, Operation, and Construction Agreement.

Debt Service/COP- accounts for the proceeds from and service of the Capital Improvement Program Certificates of Participation (COPs). The District's share of the one percent basic levy ad valorem property tax is dedicated to provide for COP principal and interest payments. See Section 9 for additional information on the District's debt financing program.

Reserves

In 1998, the District conducted an in-depth review of the agency's reserve policies. This review included a survey of the reserve policies of 23 other public agencies as a tool to assist in the evaluation of the underlying economic reasons supporting the District's reserve policies. Based on this review, the Directors approved the following reserve policy:

- Cash Flow Criterion has been established at a level to fund operation, maintenance and certificates of participation debt service expenses for the first half of the fiscal year. The first installment of property tax revenues and sewer service user fees that is collected by the County through the property tax bill is not available until late December each year.
- Operating Contingency Criterion has been established to provide for non-recurring expenditures that were not anticipated when the annual budget and sewer service fees were considered and adopted. The level of this criterion will be established at an amount equal to ten percent of the annual operating budget.
- Capital Improvement Criterion has been maintained to fund annual increments of the capital improvement program. The long-term goal is to fund one half of the capital improvement program from borrowing and the other half from current revenues and reserves. With this program in mind, the target level of this criterion has been established at one half of the average annual cash outlay of the capital improvement program through the year 2020. Levels higher and lower than the target can be expected while the long-term financing and capital improvement programs are being finalized. Proceeds from any debt issuance targeted for construction are also included in this criterion until spent.
- Catastrophic Loss, or Self-Insurance Criterion has been maintained for property damage including fire, flood and earthquake, for general liability and for workers' compensation. This reserve criterion is intended to work with purchased insurance policies, FEMA and State disaster reimbursements. Based on the plant infrastructure replacement value, the level of this criterion has been set to fund the District's non-reimbursed costs, estimated to be \$57 million.
- Capital Replacement/Refurbishment Criterion will be established to provide thirty percent of the funding to replace or refurbish the current collection, treatment and recycling facilities at the end of their useful economic lives. The current replacement value of these facilities is estimated

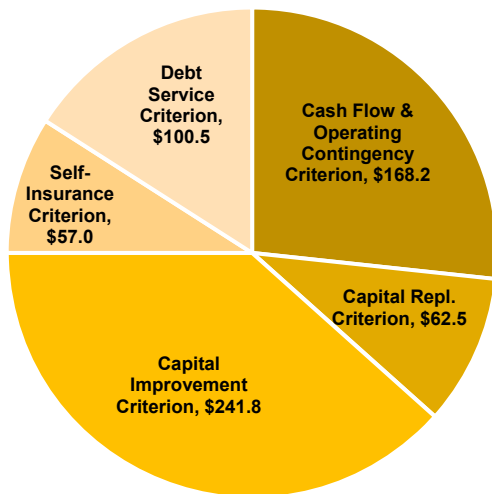
Financial Overview & Budgetary Issues

to be \$10.8 billion. The initial reserve criterion level had been established at \$50 million, and is augmented by interest earnings and a small portion of the annual sewer user fee, in order to meet projected needs through the year 2030.

Debt Service Criterion is required to be under the control of a Trustee by the provisions of the certificate of participation (COP) issues. These funds are not available for the general needs of the District and must be maintained at specified levels.

- Rate Stabilization Criterion will be used to accumulate all available funds exceeding the targets for all other reserves. These funds will be applied to future years' needs to maintain rates or to moderate annual fluctuations. There is no established target for this criterion.

Projected Reserve at 6/30/18
(in millions)



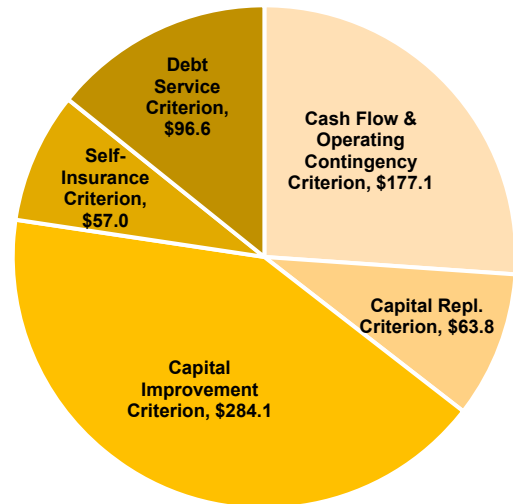
The FY 2017-18 total projected year-end reserve is \$630.0 million, \$98.5 million greater than the FY 2016-17 reserve requirement of \$531.5 million.

The excess reserve buildup is due to the timing of the actual CIP outlays. As previously noted, the projected CIP outlay for FY 2017-18 is only \$124.3 million, or 78.1 percent of the total capital outlay cash flow budget of \$159.1 million. In addition, \$200 million of the previous overall projected outlays through fiscal year 2019-20 have now been pushed out into future years.

As a result of the CIP program being rescheduled out into future years, the proposed budget for FY 2018-19 includes the funding of \$80.5 million of long-term obligations.

Following the funding of the FY 2018-19 spending plan, total year end reserves are projected to fall to \$678.6 million at June 30, 2019, within \$150.6 million of the consolidated reserve policy of \$528.0 million.

Proposed Reserve at 6/30/19
(in millions)



Collectively, these individual criterion requirements average \$600 million a year over the current ten-year cash flow forecast, approximately nine percent of OCSD's total \$6.2 billion in assets.

Staffing Levels

Authorized staffing levels are being proposed at 636 FTE positions over the next two-fiscal years, one FTE position higher than the approved staffing level for FY 2017-18. However, staffing is still 42 FTE positions below the agency's all time high of 678 positions approved in FY 1995-96.

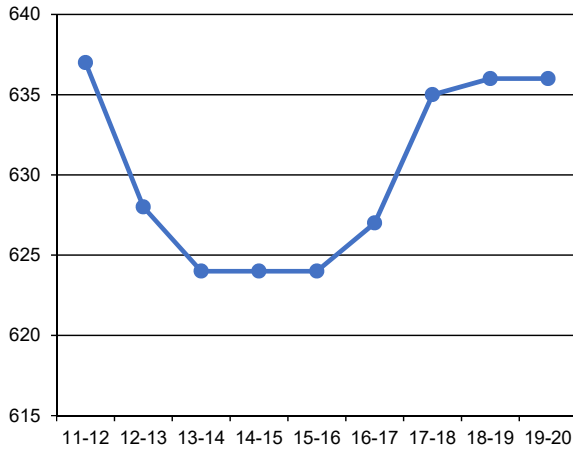
The District budgets staffing levels by FTE to provide a realistic estimate of actual staffing levels since not all employees are full-time employees. The part-time positions are funded at 1,040 hours per year. Part-time employees receive a prorated share of personnel benefits.

The staffing reductions from 1995-96 are a result of this agency's effort in striving to provide wastewater treatment as efficiently and effectively as possible while lowering operational and maintenance costs to more closely match those agencies that are "best in class" for wastewater treatment facilities. However, as the result of new initiatives in the areas of water reclamation and conservation, and the expansion of the Capital Improvement Program (CIP), the existing

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staffing plan was no longer sufficient to meet the District's needs.

Authorized FTE Staffing



The Appendices within Section 10 provide a Staffing History Summary (by Department and Division) and Detail (by position title within each Department and Division).

Business Plan

The District began development of a comprehensive annual Business Plan that was first included within the FY 2005-06 Budget document, and has been updated in every biennium budget since, including this update following the Board acceptance of the Five-Year Strategic Plan in December 2015. This Business Plan includes the funding resources necessary to support the Board approved strategic goals including providing exceptional customer service, protecting public health, stakeholder understanding and support and organizational effectiveness. Also included in this updated business plan, is the business planning process and the current and projected key performance indicators (levels of service). The following topics are included within the FY 2016-18 Business Plan:

- Strategic Goals
- Levels of Service
- Performance Indicators and Results
- Two-Year Staffing Plan
- Updated Financial Model
- Risk Assessment & Mitigation Analysis
- Updated Asset Management Plan

A more detailed description of the FY 2018-19 Business Plan is provided within Section 2 – Page 14 through Page 27.

OCSD Long-Term Planning Process

The District's current efforts in regard to long-term planning include the 2017 Facilities Master Plan, which identified a phased 20-year program of capital improvement projects that maintain reliability and accommodate future growth, as well as meet future regulatory requirements, level of service goals, and strategic initiatives. With this plan, the District can identify the capital investments needed to achieve its goals and adjust rate structures to produce the necessary cashflow to support this 20-year CIP program.

CIP Master Planning

In October 1999, the District completed its CIP Strategic Plan, an update of the 1989 30-year "2020 Vision" Master Plan. Many of the assumptions used to develop the original plan, such as inflation, the projected service population, the level of building activity, and the volume of wastewater treated, were quite different from what was assumed nearly ten years earlier. If the assumptions of the Master Plan were not updated, the District could be constructing unnecessary facilities and charging higher fees than would be needed.

In addition to updating the population and flow assumptions, the Strategic Plan provides for an operations and financial plan and includes a review of the collection, treatment and recycling facilities, and ocean outfalls.

In June 2002, a new, or interim, CIP Strategic Plan Update was completed that revised many of the assumptions used to develop our previous planning documents, including population and land-use projections, the level of building activity in our service area and the volume of wastewater to be treated. This information was needed for the Board's consideration of secondary treatment the following month.

The Interim Strategic Plan Update also provides an operations and financial plan including a review of our collection, treatment and recycling facilities, and a study of our ocean outfall system.

In December 2009, the District adopted a new Facilities Master Plan to define the capital projects needed to meet the agency's level of service requirements over the next twenty years. It includes projections through the assumed "build-out" of the District's service area to the year 2050. Critical factors such as population growth, new construction, the volume of wastewater delivered to the plants and viable water conservation and reclamation programs were reevaluated.

Financial Overview & Budgetary Issues

The 2009 Facilities Master Plan was replaced with the 2017 Facilities Master Plan in December 2017. Like previous versions, this latest master plan updated planning assumptions, provided a comprehensive analysis of the condition and capacity of our wastewater infrastructure, assessed new technology opportunities, anticipated regulatory changes, and resource recovery options to create a roadmap of facility evaluation improvements which supports the District's mission over the next 20 years.

The 2017 Facilities Master Plan defined a Capital Improvement Program comprised of over 80 CIP projects. However, the budget allotted for each project must be approved by the District Board of Directors during the annual budget review. To prepare for this annual budget review, District employees go through a budget validation process. District employees review each CIP project to ensure that the scope of the project is appropriate, and that the cost estimates are accurate. In addition, through the Asset Management Program, the Planning Division continually reviews and updates the ongoing and future CIP to appropriately manage the risks associated with asset or system failure. Future projects may be accelerated, delayed, consolidated, canceled or rescope to help ensure that the CIP is delivered in the most efficient way possible.

Five-Year Strategic Plan

In November 2007, the Board of Directors adopted a new comprehensive strategic plan to steer the District's efforts and engage the organization to envision service levels and operational needs for the next five years. This strategic plan has been reviewed and updated each year since.

In December 2015, the Strategic Plan was updated to cover a new five-year horizon. Following a similar process used in the prior year updates, the General Manager's Office initiated the planning effort with the Executive Management Team, then solicited input and ideas from managers and supervisors. The resulting staff-generated ideas were presented to the Board of Directors during a workshop, where Board Members discussed and deliberated changes and additions to the plan.

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

Since implementation of the first comprehensive strategic plan in 2007, 40 strategic goals have been established and completed. In December 2015, the District updated the Five-Year Strategic Plan and, as part of the strategic planning process, reaffirmed the following goals:

- Completion of the Odor Control Master Plan;
- Development of Future Biosolids Management Options;
- Research new energy efficiency and conversion technologies;
- Complete the transfer of 174 miles of local sewers to a local agency;
- Determine partnerships, needs, strategies, benefits and costs associated with recycling of Plant No. 2 effluent water; and
- Workforce planning and development to ensure that the right people with the right skills and abilities, are in the right place, at the right time.

This Strategic Plan continues to chart a focused roadmap of success for the future of the District. It addresses critical operations and construction issues; financial and budgets challenges; and gives a clear and concise direction to staff, ratepayers, regulatory agencies, and the general public.

Biosolids Management

As a resource recovered through the wastewater treatment process, the District treats nutrient-rich, organic matter (solids) to produce biosolids. Biosolids can be recycled through composting or fertilizing farm fields (non-food crops via land application). The District's goal is to ensure that biosolids management strategies align with best beneficial use of biosolids, existing market conditions and continue a sustainable, reliable, and economical biosolids management program that provides environmentally sound practices and meets the stringent federal, state, and local regulatory requirements.

In FY 2016-17, the District produced an average of about 791 tons per day ("tpd") of biosolids at a cost of \$16,668,162, which averaged \$57.72 per ton for hauling and recycling at offsite locations, as described in the table on the following page.

The FY 2018-19 budget for biosolids management is \$16.2 million, with a decrease of 23 percent anticipated in FY 2019-20 to \$12.5 million due to the completion of the \$188 million Plant No. 1 and the \$90.5 million Plant No. 2 Sludge Dewatering and Odor Control facilities that are projected to come

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online in 2019. These facilities will reduce the water content of the solids which will result in fewer trucks and lower hauling costs. The District's biosolids production will begin trending down as new solids management facilities are commissioned. Also noteworthy is that IRWD is constructing solids processing facilities and plans to stop sending their solids to the District in 2019.

<u>Contractor</u>	<u>Location</u>	<u>Product</u>	<u>Appx. Tons Per Day & Avg. Cost Per Ton (April 2018)</u>
Synagro, Nursery Products	San Bernardino County, CA	Compost	285 tpd – \$50.81
Tule Ranch, AgTech	Yuma County, AZ	Land application	321 tpd – \$58.86
Liberty Compost	Kern County, CA	Compost	142 tpd – \$57.65
Inland Empire Regional Composting Facility (hauled by Denali Water Solutions)	Rancho Cucamonga, CA	Compost	36 tpd - \$73.55

The District's contractors provide fail-safe, back-up biosolids management capacity in California and Arizona that include composting, land application, and landfill. Together, these options have the additional available capacity to manage ten times the District's daily biosolids production to ensure sustainable, consistent, and reliable operations.

The District staff are working to implement the recommendations of the recently-completed Biosolids Master Plan. The plan evaluated the biosolids markets and technology options for digestion facility replacement at our Plant No. 2 in Huntington Beach, keeping in mind OCSD's goal to accommodate Orange County's food waste diversion needs. This plan will serve as the road map for sustainable and cost-effective Biosolids management options over a 20-year period and will diversify our biosolids portfolio by adding a Class "A" option under federal rules for biosolids management.

Urban Runoff

Recognizing that County beaches were being affected by pollution carried by urban runoff, the Board of Directors adopted a number of resolutions agreeing to accept dry weather urban runoff into the sewer system. In June 2002, Assembly Bill 1892 amended the District's charter to formally allow the diversion and management of dry weather urban runoff flows. Resolution No. 01-07, adopted March 28, 2001, declared that the District will initially waive fees and charges associated with authorized discharges of dry weather urban runoff to the sewer system until the total volume of all runoff discharges exceeds four million gallons per day (MGD)

calculated on a monthly average. For the first 12 years of the Urban Runoff Program, the average monthly flow averages remained less than the four MGD threshold thus avoiding user fee costs being assessed to the diversion permittees.

In 2012, OCSD received a number of diversion proposals to deal with bacteria and selenium loading to the upper Newport Bay. The discharge from the additional proposed diversions combined with the existing diversion flows would eventually exceed the four MGD fee threshold. On June 12, 2013, the Board adopted Resolution No. 13-09 expanding the waiver of fees or charges on the treatment of dry weather urban runoff from four MGD to ten MGD. According to the Board, the change was necessary not only to protect the County's coastal resources, but also to provide an economic benefit to the local economy by helping to keep our beaches open.

The Dry Weather Urban Runoff Program is administered by the District's Resource Protection Division, which issues a discharge permit for each of the diversion structures. The permit functions as a control mechanism that specifically prohibits storm runoff and authorizes discharge only during periods of dry weather. The permit also establishes specific discharge limits, constituent monitoring, and flow metering requirements. In addition, the District conducts quarterly sampling and analysis of the urban runoff discharges to ensure discharge limit compliance with the various regulated constituents.

There are currently 21 active urban runoff diversion structures, three owned and operated by the County of Orange, 11 owned and operated by the City of Huntington Beach, three owned and operated by the City of Newport Beach, three owned and operated by the IRWD, and one owned and operated by PH Finance (present owner of the Pelican Hill Resort). The City of Newport Beach added their second diversion on Big Canyon Creek, an upper Newport Bay tributary in 2015, followed by a third diversion in the Mid Big Canyon Nature Park in 2017. IRWD completed the Peters Canyon Diversion, the biggest contributor of selenium in the San Diego Creek watershed in dry weather, in 2016. The City of Santa Ana is currently constructing an urban runoff diversion to deal with bacteria and selenium loading to the Newport Back Bay Watershed. The Delhi Channel Diversion, expected to go on line in September of 2018, is estimated to add an addition 2.0 to 2.6 MGD to Plant 1 influent.

Financial Overview & Budgetary Issues

Financial Overview & Budgetary Issues:

Since 1999, the District has treated a total of 8.9 billion gallons of dry-weather urban runoff that would otherwise have been discharged into the ocean with no treatment. During fiscal year 2016-17, the daily average urban runoff flow ranged between 0.18 and 1.72 MGD with a cumulative total diversion of 378 million gallons (MG). The diversion flows experienced a 71 MG increase over 2015-16, primarily due to a 91 MG contribution from the Peters Canyon Diversion which went on-line in August 2016. At the current operations and maintenance cost per million gallons (CMG) of \$1,756 (assuming BOD at 20 mg/L and TSS at 50 mg/L), the cost for treating the 2016-17 combined urban runoff flows is estimated at \$663,367.

At current flow projections, the District's cost for the 2017-18 urban runoff treatment increases to \$909,930 based on \$1,777 CMG. The addition of the Delhi Channel Diversion flows could boost the overall cost to \$1,283,931 in 2018-19 based on \$1,842 CMG, and \$1,910,770 in 2019-20 based on \$1,907 CMG assuming the diversion reaches its full discharge potential.

Groundwater Replenishment System

The District has taken a multi-jurisdictional approach to planning for capital facilities because many of the methods for reducing or managing flows involve other jurisdictions. One such project is the Groundwater Replenishment System (the "GWRS").

In March 2001, the District entered into an agreement with the Orange County Water District (OCWD) to design and construct Phase I of the GWRS. The capital cost of this Phase was shared equally (50% shares) by each agency. The GWRS is a joint effort by the two agencies to provide reclaimed water for replenishment of the Orange County Groundwater Basin and to augment the seawater intrusion barrier. The GWRS became operational in January of 2008 with a production target of 70,000 acre-feet per year of potablewater.

The GWRS Initial Expansion, funded solely by OCWD, broke ground in January 2012 to increase potable water production to approximately 103,000 acre-feet per year. The GWRS Initial Expansion was completed in June 2015, resulting in purifying 100 percent of the treated wastewater from the District's Fountain Valley Plant No. 1.

In 2016, the District and the OCWD completed a \$2 million joint study to explore the possibility of using flows from the District's Plant No. 2. The study identified an implementation plan to convey

secondary effluent from the District's Plant No. 2 in Huntington Beach using new and existing infrastructure to support the GWRS Final Expansion. The GWRS Final Expansion will be funded solely by the OCWD. The District currently has two active projects supporting the GWRS Final Expansion. The costs of these projects will be reimbursed by the OCWD. The Final Expansion of the GWRS is expected to be online in 2023.

Fiscal Policies

Included within Section 3 – Pages 1 through 8 is a listing of the District's Board Adopted Fiscal Policies.

These fiscal policies were established purpose of:

- sustaining a financially viable Sanitation District;
- having the flexibility to adapt to local and regional economic changes; and
- maintaining and enhancing sound fiscal condition of the District.

Included within the District's fiscal policies are specific polices for Budgeting, Revenues, Expenses, Capital Improvements, Vehicles, Short-term Debt, Long-term Debt, Reserves, Investment, and Accounting, Auditing and Financial Reporting.

GFOA Best Practices and Advisories

Included in the budget within Section 3 – Pages 9 through 17 is a listing of accounting, auditing, financial reporting, cash management, budgetary and fiscal policy, debt management, retirement and benefit administration, and economic development and compliance planning practices recommended by the Government Finance Officers Association of the United States and Canada. Included within this list of best financial practices for state and local governments is the District's status as to whether we are in compliance or in progress towards compliance, or whether the practice is applicable to this agency. Out of the 154 practices identified, the District is in compliance with 103, another 43 are not considered applicable to the District, and we are in the process of complying with the remaining eight.

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Business Plan

The District's Business Plan is intended to be an overarching plan based on sound decision making that provides direction on the work that the District will take on during the next two-year budget cycle and what will be deferred. This Business Plan is the underlying foundation for the development of the District's Budget.

During the process of developing the Business Plan, the District's Executive Management Team reviewed the proposed work for the upcoming year, balanced it with the staffing and funding resources needed and either approved the plan or made reductions. Reductions in work or resource commitment for the coming year will be considered in light of the Level of Service that the agency is committed to and appropriate levels of risk.

Updates to the Business Plan are performed on an on-going basis, to be developed ahead of the bi-annual budgeting process, and has a five-year horizon.

Each year, it is staff's intent to build upon the foundation of the previous Business Plan and to make each succeeding one more detailed and comprehensive. Elements included in the Business Plan for this two-year budget includes: (1) the Business Planning Process; (2) Strategic Goals, including the timeframe, milestones, and resources required for the completion of each step; (3) performance results pertaining to the Current and Projected Key Performance Indicators (Level of Services); (4) business accountability performance objectives and measures, that are aligned with the updated Five-Year Strategic Plan (these are detailed for each division within the departments in Section 6 of this document); (5) Two-Year Staffing Plan; (6) Financial Model Update; (7) Risk Assessment & Mitigation Analysis; and (8) 2015-17 Asset Management Plan Update.

Business Plan Process

The framework for the Business Plan is developed as part of the process of updating the Five-Year Strategic Plan. The process for updating the Strategic Plan requires the assistance from all levels of the organization, and includes updating the Mission Statement, Vision Statement and Core Values; and addresses the major objectives and critical challenges facing the District now, in the next five-years, and further into the future. This Strategic Plan also lays down the foundation for the development of the Business Plan as it addresses critical operations and construction issues, financial and budgeting challenges, and gives a clear and concise direction

from the Board of Directors to staff, ratepayers, regulatory agencies, and the general public.

The Business Plan development process started with the goals and direction identified within the Strategic Plan. Staff from across the agency further defined these goals in terms of level of service, business risk exposure, capital and operational costs, staffing, and long-term financial impacts. The Business Plan identifies the required resources and prioritizes projects and goals, with recommendations for which goals should go forward for inclusion in the District budget, and which should be deferred or dropped from consideration.

Strategic Goals

Over the next two years, the District will begin and complete many activities central to the goals of the organization. In December 2017, the District updated the Five-Year Strategic Plan and, as part of the strategic planning process, reaffirmed the following goals:

- Completion of the Odor Control Master Plan;
- Development of Future Biosolids Management Options;
- Research new energy efficiency and conversion technologies;
- Complete the transfer of 174 miles of local sewers to a local agency;
- Determine partnerships, needs, strategies, benefits and costs associated with recycling of Plant No. 2 effluent water; and
- Workforce planning and development to ensure that the right people with the right skills and abilities, are in the right place, at the right time.

Five of these goals were completed and one is ongoing. The District is in the midst of updating the Five-Year Strategic Plan. The new plan will be adopted by the Board of Directors in November 2018.

Level of Service

In 2005, the Orange County Sanitation District first developed a summary of the District's present and future Levels of Service requirements as part of its Asset Management Program. These Levels of Services were further developed with the Business Plan along with measurable outcomes, or key performance indicators, that the District is committed to meeting. This Business Plan documents that the Levels of Service provided by the District will increase significantly, requiring \$2.4 billion in

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identifiable capital improvements and millions in increased maintenance and operations costs over the next ten years.

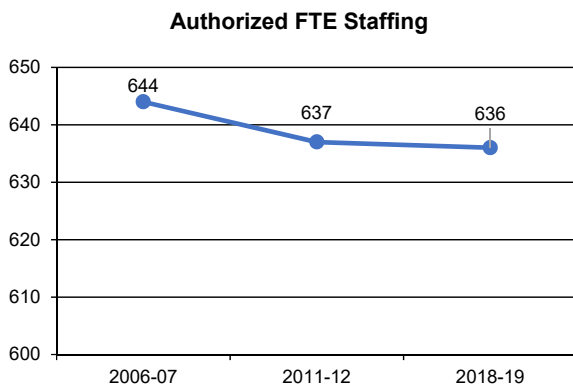
No modifications were made to the District's Level of Service as a result of the December 2017 Five- Year Strategic Plan update. Levels of service have been identified for the following goals:

- Providing Exceptional Customer Service.
- Protecting the Public Health and the Environment.
- Managing and Protecting the Public's Funds.
- Stakeholder Understanding and Support.
- Organizational Effectiveness.

These existing Levels of Service targets are currently under review.

Staffing Plan

A comprehensive review was completed on the District's staffing levels for the next two fiscal years. This undertaking began with a review of the District's vision, mission, goals and objectives as part of the development of the Five-Year Strategic Plan.



This analysis included identification and development of over 100 business units in the District with discreet duties and responsibilities.

Based on the needs of the agency over time, the total FTE requirement has declined steadily from 644 authorized FTEs in FY 2006-07 to the proposed staffing of 636 FTEs over the next two fiscal years. Staffing levels are proposed at minimum levels that are necessary to support the operation and maintenance of newly constructed secondary treatment facilities in an efficient manner to meet all compliance requirements.

Staff has focused on the reallocation of existing resources in order to balance the needs within the business units of this agency to ensure that core business operations are met, levels of service are maintained, and that strategic initiative elements are accomplished.

The proposed two-year staffing plan contains a significant level of analysis on how existing resources can be utilized in consideration of the increased demands placed on this agency by secondary treatment standards and in support of the \$2.7 billion capital improvement program over the next ten years without increasing staffing levels. A detailed breakdown on the proposed reallocation of FTEs can be found within the Appendix section of this budget.

Financial Model Update

The District's most recent regional rate study was completed in December 2017 by Carollo Engineers. The purpose of the study was to update sewer service rates and to equitably distribute costs among utility customers and to support the District's regional rate structure over a five-year period from FY 2018-19 through FY 2022-23. Previously, the District had completed regional rate studies in 2013, 2008, 2006, 2002 and 1999. The following three drivers necessitated that a rate study be completed in 2017, and be incorporated into the Business Plan:

- 1. The Necessity of Updating the Regional Sewer Service Fee and the Net Cost of Service Methodology for Industrial Rates** - The District provides regional sewage collection, treatment, and disposal services to approximately 550,000 customers located in central and northwest Orange County and collects fees for these services through a special assessment on the Orange County property tax bill. In addition, the District also maintains, repairs, and replaces the local sewers for approximately 17,000 of the above 550,000. High strength dischargers, or industrial customers, pay sewer fees based upon a net cost of service. A rate study was required to determine the equitable rates for these three types of users.
- 2. Five-Year Proposition 218 Notice** - The District's last California Proposition 218 Notice notifying rate payers of potential sewer rate increases over the past five-years had expired and a new 5-year Proposition 218 Notice approved by the Board and the justification of the new sewer service fee rates over the next

Business Plan

five years needed to be supported by an updated sewer rate study.

Capacity Charge Update - With the adoption of a new Master Plan in 2017, the District needed to update the methodology for Capacity Charges.

In their Financial Model Update Report for the District issued in December of 2017, Carollo Engineers recommended that the District:

- Based on current operational and capital project assumptions, implement annual increases of 1.2%, respectively, over a five-year period ending in FY 2022-23.
- Increase to the unit costs to high strength discharges for FY 2018-19 and FY 2019-20, as follows:

Industrial Discharge Sewer Rates

	\$/ 1,000 Gallons	\$/ lbs B.O.D.	\$/ lbs. T.S.S.
Unit Cost - FY 2018-19	\$1.43349	\$0.65809	\$0.71660
Unit Cost - FY 2019-20	\$1.48342	\$0.66139	\$0.73673
18-19 % Increase	4.1%	0.5%	2.9%
19-20 % Increase	3.9%	0.5%	2.8%

All recommendations from the December 2017 Financial Model Update Report were approved by the Board to ensure that the funding required for the additional capacity projects required for new users would be available at the time of construction.

Local sewer service fees are based on the Financial Model Update Report from April 2008 and remain at \$108 per single family residence.

In December of 2017, the 2017 Master Plan was adopted, and because the CFCC fees are based upon the most recently completed capital strategic plan, staff was directed to include capacity charges in the 2017 rate study. A prior rate study was completed in 2010.

It was determined, as a result of the new Master Plan, that future build-out is now projected to be less than what was anticipated in the previous master plan. The District's system currently has unused capacity that is available to serve future users. In addition, the District will continue to maintain, improve, and expand the system with future capital improvements. Based upon this information, a hybrid approach (buy-in and future cost) to capacity charges was recommended.

Based on the CFCC portion of the rate study in 2017, CFCC and Supplemental CFCC fees are as follows for FY 2018-19:

CFCC Rates

	Residential CFCC	Commercial/ Industrial CFCC
Unit Cost - FY 2017-18	\$3,855	\$2,000
Unit Cost - FY 2018-19	\$4,228	\$2,066
% Increase	9.7%	3.3%

Supplemental CFCC Rates

	\$/ 1,000 Gallons	/ lbs B.O.D.	\$/ lbs S.S.
Unit Cost - FY 2017-18	\$1.936	\$0.41510	\$0.22261
Unit Cost - FY 2018-19	\$1.948	\$0.42755	\$0.23151
% Increase	0.6%	3.0%	4.0%

Risk Assessment Analysis

Many leading organizations are formally applying risk management processes to identify and manage risks across many aspects of their business. The formalization of risk management processes is a logical step towards increased accountability and transparency placed on the Board and District management.

Risk assessment and mitigation includes the following steps:

- Identify and assess strategic and organization-wide risks facing the District and develop a high-level risk register;
- Identify mitigation measures that the District currently has in place;
- Propose additional mitigation measures that the District considers appropriate to manage; and
- Develop an action plan of responsibilities and timeframes for follow-up.

The Risk Register is a compilation of the various risks facing the Orange County Sanitation District, as seen and described annually by District managers and senior management. Business Risk is defined as a threat that an event (action or inaction) will adversely affect the District's ability to achieve its business objectives and execute its strategies successfully. The District first created the Risk Register in 2006 and subsequently has updated it at least bi-annually through 2017.

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The Risk Register Update in 2017 identified the following as top risks:

- 1) Earthquake and liquefaction impact facilities and operations; and
- 2) Poor maintenance of assets leads to safety and reliability issues.

Managers and executive management continue to review risks identified in the Risk Register and implement various ways to address those that might impact OCSD. Each Risk Register Update contains solutions proposed by participants for the top risks, and each Risk Register Update also contains a section recording how OCSD dealt with the risks that were spotted in the previous Risk Register Update.

Asset Management

The District is committed to providing services for its rate payers to reliably meet our regulatory mandates and levels of service approved by the Board of Directors, and will provide these services using sustainable engineering principles that result in the lowest responsible lifecycle cost. The District 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. The District's asset management program has evolved into a comprehensive decision-making framework that encompasses engineering planning, design and construction of quality facilities, optimized operation, proper maintenance, and planned refurbishment and disposal that will meet the District's changing needs. This coordinated decision-making process will allow the District to consistently meet mandated levels of service to the rate payers at the lowest lifecycle cost.

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

OCSD has been striving to more accurately identify medium to long-term capital cash flow requirements. Specifically, the Engineering Planning Division has been working on developing a 20-year Capital Improvement Program (CIP) by creating specific project plans for the rehabilitation, replacement, improvements and expansion for each treatment plant or collections area.

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

Complementing the medium- to long-term planning are the short-term efforts to coordinate maintenance actions that can reduce risks, actively defer the larger refurbishment projects, and reduce asset consumption rates to minimize the need for replacement of structures and conveyance systems when projects are executed. The Planning Division asset engineers 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.

The District 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.

Business Plan

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

Asset Valuation

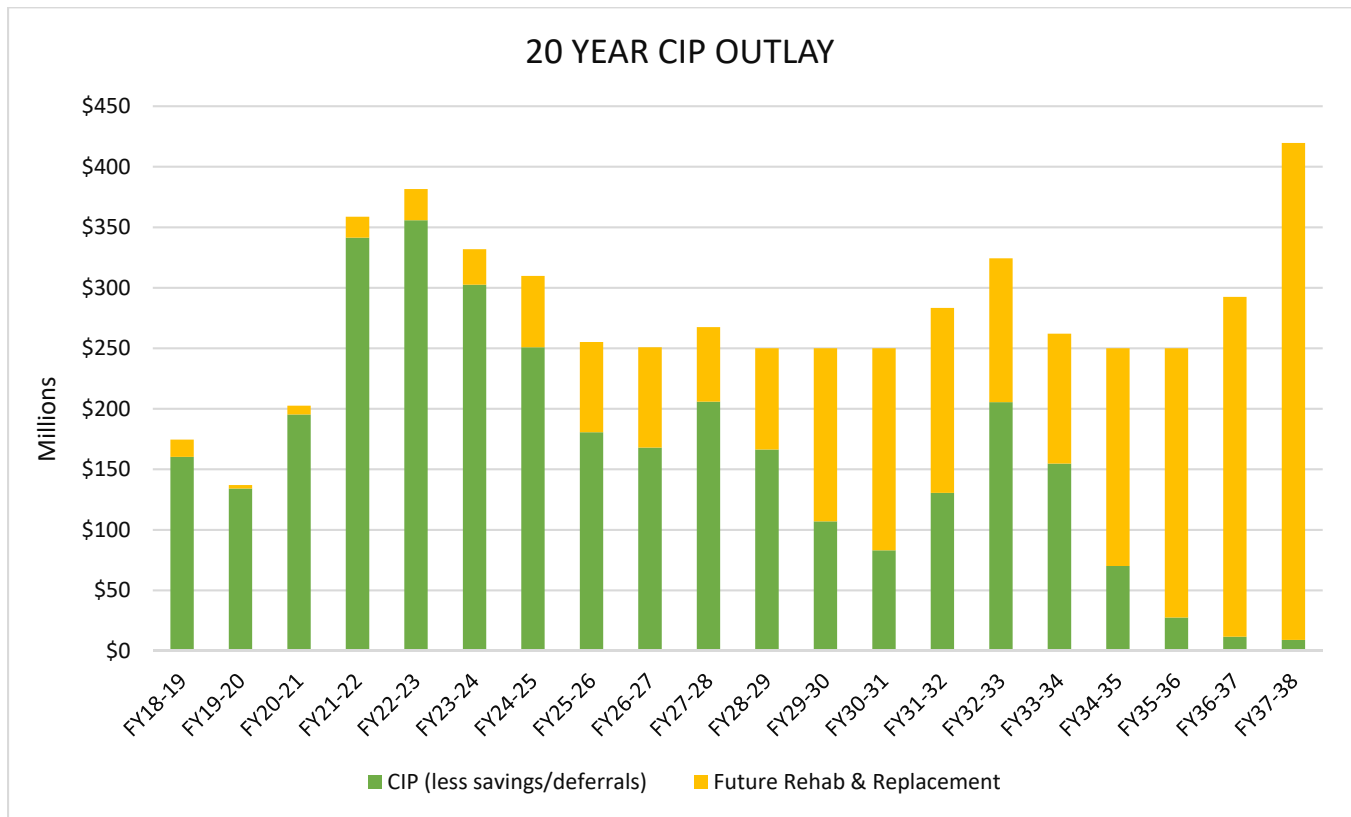
The replacement valuation for all of the District's assets has been updated in 2018 as part of the 2017 Facilities Master Plan project. The table below presents the current replacement and depreciated values of the District's assets. The replacement

value represents the cost in 2018 dollars to completely rebuild all the assets to a new condition. The depreciated value is the book value of the assets based on their age, which is a prediction of their current condition.

Valuation	Plants	Collections	Total
Replacement Value (in billions)	\$7.28	\$3.56	\$10.84
Depreciated Value (in billions)	\$2.88	\$0.76	\$3.64

Planned CIP Outlays

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



2018-19 & 2019-20 Budget

Infrastructure Asset Management

Through asset management, the District's capital improvement and maintenance programs work collaboratively 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 fiscal year 2017-18 infrastructure maintenance activities and planned activities for fiscal year 2018-19.

Collection System:

OCSD's collection system consists of 396 miles of sewers. The maintenance of all regional sewers is actively managed but only 230 miles of regional sewers are on a cleaning schedule. 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 three metering locations. Typical collection 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 fiscal year 2017-18 the following maintenance activities are projected to be completed:

- Cleaning of 93 miles of regional sewer lines on a cleaning schedule.
- CCTV video inspection of 170 regional system manholes.
- CCTV video inspection of 75 miles of regional sewer pipeline.
- 91 percent of scheduled pump station preventative maintenance work.

- Cleaning of 99 percent of trouble spot and scheduled inverted siphon work.
- Managed odor control chemical expenses to 103 percent of budget.

The following emergency preparedness efforts were also completed:

- Developed bypass pumping plans for all pump stations.
- Purchased 12" hose and trailer to use with large pumps.
- Completed analysis and update of back-up generator requirements for pump stations.

Total costs: \$10,032,760

The following activities and goals are planned for fiscal year 2018-19:

- Clean 65 miles of regional sewer lines on a cleaning schedule.
- CCTV video inspection of 500 regional system manholes.
- CCTV video inspection of 80 miles of regional sewer pipeline.
- Complete at least 90 percent of scheduled pump station preventative maintenance work.
- Clean 90 percent of trouble spot and scheduled inverted siphon work.
- Manage 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
- Purchase of larger generators for pump stations for emergency preparedness, based on analysis completed in the previous year
- Purchase of emergency preparedness bypass pumping hardware with installation of in-place storage, set up documentation and staff training

Estimated total costs: \$11,243,960

Business Plan

Collection System Capital Improvement Projects

The District's collections projects go through an intensive 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, increase flow capacity due to growth in localized portion of our service area. We are currently planning and executing a comprehensive program to renew our collection 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 allow abandonment of the Yorba Linda Pump Station which diverts reclaimable wastewater to the Santa Ana River Interceptor, which cannot be reclaimed at the Orange County Water District's (OCWD's) Groundwater Replenishment System (GWRS). The project will also include modifications to existing diversion structures to add flexibility to divert other reclaimable flow. This project also provides adequate capacity for future development, minimizing the risk of sewer spills in the future. Construction of the first phase of the project was completed in fall 2017. The second phase of the project is scheduled to begin in summer 2018. The project has a budget of \$112 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. In some cases, hard calcium deposits have developed, making the pipe difficult to clean, and may, over time, impede the wastewater flow. Portions of the project will be relined and others will be replaced with larger diameter pipelines. Over 150 manholes will be replaced. This project is currently in the design phase with construction anticipated for 2020. This project budget is \$202 million.

The Westminster Boulevard Force Mains Replacement (Project No. 3-62) will replace two existing force mains that run three miles along Westminster Boulevard from the Seal Beach Boulevard to Rancho Road in the City of Westminster. The project is in design, with

construction anticipated for 2020. The budget for this project is \$54 million.

In Newport Beach, Bay Bridge Pump Station Replacement (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 upsized, and will extend from the new pump station location, across the Back-Bay channel, to connect with the existing pipes near the Dover Ave and Pacific Coast Highway intersection. The project is currently in the design phase. The construction of both the force mains and pump station is anticipated to begin in 2020. The budget for this project is \$64 million.

Reclamation Plant No. 1:

Flow from Reclamation Plant No. 1 is delivered to the Orange County Water District (OCWD) for recycling via the Ground Water Replenishment System (GWRS). During 2015 the expanded plant came on line, with capacity to deliver an additional 30 MGD for a total of 130 MGD.

The maintenance organization continues to implement industry best practices for safety, effectiveness and reliability. During fiscal year 2017-18, several major initiatives were completed to enhance plant safety and reliability. These included a comprehensive lubrication assessment and preparation of enhanced Job Plans for low voltage Motor Control Centers (MCCs) and switch gear to comply with NFPA70 standards. An analysis of our current pumping system at the Steve Anderson Lift Station (SALS) was also conducted, resulting in an improvement over current technology by converting to close-coupled pump motors. Throughout the Plant, more than 4,600 preventative maintenance activities were performed. In addition to these routine activities, the following maintenance and repair activities are projected to be completed in fiscal year 2017-18:

- Replacement of all check valve and jet cell ignitors for three CenGen engines.
- Installation of automatic balancing equipment on one engine to improve efficiency and reliability
- Overhaul of one cake conveyor and one belt press for biosolids dewatering.
- Major service on two blowers that service the Activated Sludge secondary treatment facility.

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- Major maintenance service of ten primary clarifiers for increased reliability.
- Replacement of the vane bushings on three of the Activated Sludge blowers.
- Cleaning and valve replacement of three digesters.
- Overhaul of one digester gas compressor

Total costs: \$8,586,560

During fiscal year 2018-19, there are more than 5,000 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 simultaneously conduct an optimization study 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. We will also develop and initiate implementation of the lubrication program based on the assessment completed in the previous year. Other major planned activities for fiscal year 2018-19 at Reclamation Plant No. 1 include:

- Major overhaul of one CenGen Engine.
- Meet stricter NFPA110 standards for servicing standby and mobile generators.
- Complete year one 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 ten primary clarifiers for increased reliability.
- Cleaning and valve replacement of two digesters.

Total estimated costs: \$10,186,050

Reclamation Plant No. 1 CIP 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. The project will rehabilitate systems including the metering and diversion structure, the bar screen building, the bin loading building, the main sewage pump station, the grit basins, the primary influent channels, the headworks odor control scrubbers, and electrical power distribution and control systems. This project will also replace the emergency pumping capacity that has been provided by the original headworks pumping system dating back to the 1950s. The total budgeted cost for this project is \$370 million.

While the Sanitation District generally has adequate hydraulic treatment capacity, additional solids handling capacity is needed. The Sludge Dewatering and Odor Control Project (No. P1-101) is necessary to support the need for more capacity to thicken and dewater sludge due to the conversion to full secondary treatment as well as increased flow to support the expansion of the GWRS. The 40-year old system has reached the end of its useful life and as such will be replaced with a new and improved facility that will increase cake dryness which will reduce biosolids management cost. This will in turn improve sludge thickening to optimize the use of existing digesters thus eliminating the need to construct new digesters. The project will also help us meet our level of service goal by reducing odors. The project budget is \$199.5 million.

A project closely tied to the solids dewatering facility is the Digester Rehabilitation (Project No. P1-100) which is rehabilitating 12 digesters. The project will refurbish aged storage tanks, as well as handle the increased volume of solids more efficiently and with greater reliability. The sludge pumping, heating, structural, mechanical, and electrical and control

systems will all be rehabilitated which will increase the quality of the sludge production. By rehabilitating our existing digesters, we reduce the risk of failure and extend the life of the assets, minimizing future expenditures. The total project budget is \$66 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 assessment conducted during fiscal year 2017-18 as well as the enhanced job plans for MCCs and switch gear to comply with NFPA70 standards. In addition to more than 4,700 preventative maintenance activities completed during fiscal year 2017-18, the following major activities are projected to be completed:

- Cleaning and valve replacement of three digesters.
- Replacement of all check valve and jet cell ignitors for one CenGen engine.
- Rehabilitation of one CenGen electrical generator.
- Installation of automatic balancing equipment on one engine to improve efficiency and reliability

Total costs: \$5,898,080

During fiscal year 2018-19, there are more than 5,000 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 simultaneously conduct an optimization study of 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, and oil analysis to predict failure of lubricants. We will also develop and initiate

implementation of the lubrication program based on the assessment completed in the previous year. Other major planned activities at Treatment Plant No. 2 for fiscal year 2018-19 include:

- Overhaul of one CenGen Engine.
- Cleaning and valve replacement of four digesters.
- Major repair of two primary clarifiers and six secondary clarifiers for increased reliability.
- Meet stricter NFPA110 standards for servicing standby and mobile generators.
- Complete year one of a two-year effort to reduce potential arc flash by adjusting and testing protective relays and breakers.
- Conduct medium voltage cable assessment.
- Replace one boiler heat exchanger.
- Complete repair of secondary clarifier inlet gates.
- Replace all check valve and jet cell ignitors for four CenGen engines.

Total estimated costs: \$9,766,350

Treatment Plant No. 2 CIP Projects:

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 need seismic and condition based upgrades. By replacing old structures and installing new systems, we will improve the resiliency of our infrastructure and thus improve our ability to provide service. This is anticipated to be a very long duration project because the need to maintain treatment operations during the project. The total project budget is \$245 million.

Treating 100 percent of our influent to full secondary treatment standards means there are more solids to manage. The Sludge Dewatering and Odor Control project (Project No. P2-92) is replacing the current belt press dewatering system with a centrifuge dewatering facility that will remove a greater amount of water from the sludge resulting in reduced

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disposal costs for the Sanitation District. This \$90 million project will be in construction through 2020.

The Headworks Modifications at Plant No. 2 for GWRS Final Expansion (Project No. P2-122) will support the GWRS Final Expansion by separating non-reclaimable flows from those that can be transferred to OCWD for reclamation. The project will include the installation of new gates, replacement of three existing influent pumps at the existing Headworks, and modification of waste sidestream pumping and piping. Costs associated with this project will be reimbursed by OCWD.

As we make improvements throughout the plant, it is imperative we pay attention to our ocean outfall 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. Project No. J-117, the Ocean Outfall System Rehabilitation, will rehabilitate the Ocean Outfall Booster Station and the 84-inch and 120-inch interplant effluent lines between Plant No. 1 and Plant No. 2. 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 will reduce our outfall flows below the minimum capacity of the existing effluent pumps. This project will also relocate the existing Plant Water Pump Station to prevent water that is not reclaimable by the GWRS from flowing into the reclaimable portion of the treatment plant. The project will also replace existing electrical switchgear at the Central Generation Building. The budget for this project is \$166 million. Costs associated with the Plant Water Pump Station will be reimbursed by the OCWD.

As part of the long-term CIP planning efforts, several studies are currently underway evaluating various areas of the plants and the collection system to determine their condition, and identify deficiencies or improvements needed. These studies include the Seismic Evaluation of Structures at Plant No. 1 and Plant No. 2, Collections Capacity Evaluation Study, Stormwater Master Plan, Edinger Pump Station Rehabilitation Study, and Rectangular Primary Clarifier Reliability Study at Plant No. 1. The results of these studies will help define and refine future CIP projects to improve our facilities and systems.

Civil Assets Maintenance Program:

The Civil Assets Maintenance Program (CAMP) covers proactive and corrective maintenance tasks for all OCSD civil assets at all its facilities located at Plants No. 1 and No.2, as well as all OCSD pump stations and the collections system. CAMP works to ensure that OCSD civil assets meet design life expectancy and will complement the existing maintenance programs for mechanical, electrical and instrumentation maintenance. In addition, the program ensures the assessment of nearly all structures to achieve OCSD's primary mission of protecting the public health and environment. This includes a valve and gate- exercising program comprised of more than 264 preventive maintenance tasks for more than 1,650 valves and gates in both plants and the collections system. Besides developing in-house capabilities to better monitor and maintain these assets, the program entails utilizing consultants and contractors for program development and implementation. Repairs of the assets are planned and scheduled based on condition and criticality, and performed by staff or contracted services. CAMP will also implement an equipment rotation program to ensure that equipment wear is predictable.

For fiscal year 2018-19, 45 planned entries and inspections of civil structures are planned, which will include minor repairs of identified deficiencies.

Estimated total costs: \$3,228,800

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2018-19 & 2019-20 Budget

	FY 16-17 Results	Level of Service Target
Protecting Public Health		
Protecting public health and the environment utilizing all practical and effective means for wastewater, energy, and solids resource recovery.		
Accept dry weather runoff diversion flows without imposing fees.	0.72 MGD	Up to 10 MGD
Air emissions health risk to community and employees, per one million people (for each treatment plant).	9	<10
Notices of violation (NOV) with air, land, and water permits	0	0
Respond to collection system spills within 1 hour	100%	100%
Sanitary sewer spills per 100 miles	2.5	< 2.1
Contain sanitary sewer spills within 5 hours	100%	100%
Meet secondary treatment standards	BOD 4.8 mg/L TSS 5.3 mg/L	BOD 25 mg/L TSS 30 mg/L
Frequency of unplanned use of emergency one-mile (78-inch diameter) outfall (per year during dry weather).	0	0
Tons of biosolids to landfill through 2017 Peak Production period.	97.2	100
Compliance with core industrial pretreatment requirements	99%	100%
Stakeholder Understanding and Support		
Communicating the District's mission and strategies with those we serve and all other stakeholders.		
Meet GWRS specification requirements for Plant No. 1 secondary effluent	2.5 NTU	5 NTU
Provide specification effluent available to the Groundwater Replenishment System to maximize production of purified water.	100%	100%
Managing and Protecting the Public Funds		
Continually seeking efficiencies to ensure that the public's money is wisely spent.		
Annual user fees sufficient to cover all O&M Requirements	100%	100%
Actual collection, treatment, and disposal costs per million gallons	9.4% under	≤ 10% of budget
Maintain AAA Bond Rating	100%	100%

Business Plan

	FY 16-17 Results	Level of Service Target
Providing Exceptional Customer Service		
Providing reliable, responsive and affordable services in line with customer needs and expectations.		
Treatment plants odor complaint response within 1 hour.	100%	100%
Collection system odor complaint response within 1 working day.	100%	100%
Number of odor complaints:		
• Reclamation Plant No. 1	10	0
• Treatment Plant No. 2	11	0
• Collection System	25	12
*Under normal operating conditions		
Respond to public complaints or inquiries regarding construction projects within 1 day.	100%	100%
New construction permits processed within 1 working day.	100%	100%
Respond to all biosolids contractor violations within a week of violation notice.	100%	100%
Organizational Effectiveness		
Creating the best possible workforce in terms of safety, productivity, customer service, and training.		
Employee injury incident rate – per 100 employees	4.0	<4.4 Industry Average
Meet mandatory OSHA training requirements	100%	>95%
Hours worked since last lost work day	53,504	>1,000,000
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	2.9	<2.5
Training hours per employee	47.5	45 per year

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Strategic Goals for FY 2018-19 & FY 2019-20			
Goals	Strategic Importance	Desired Outcome	Status
1. Develop Biosolids Management Options	Contract to dispose of one-half of total Biosolids expires in 2016.	Develop a mid and long-term strategy for biosolids disposal prior to the expiration of current contracts.	The Biosolids Master Plan was completed in May.
2. Update Odor Master Plan	Results of process performance and new odor measurement technologies compel the review of current standards.	Limiting offsite odor impacts in an efficient and cost-effective manner.	The Odor Master Plan was completed in May 2017.
3. Review the Utilization of Renewable Energy in Waste-water Management	The District is a significant consumer of energy and seeks to minimize energy usage and maximize the conversion of sludge to energy.	Maximize energy efficiency and conversion from organic sludge to electricity, gas, and useful heat.	Staff researched and studied opportunities and presented recommendations to the Board of Directors in April 2017.
4. Development Future Water Recycling Options	Water demand in service area is projected to increase 16 percent by 2035. About one-half of District treated wastewater is lost to ocean disposal.	Develop a plan for the best utilization of Plant No. 2 effluent water currently discharged out to the ocean.	A plan to optimize Plant No. 2 effluent water was developed and is in the design stage.
5. Transfer of Local Sewers to Member Cities and Sewer Agencies	District's core business is wastewater treatment and disposal, and maintaining sewer pipes of the regional collection system.	Obtain Board support for transferring the ownership of all local sewers to the member cities and sewer agencies.	OCSD completed the transfer of the local sewers in Service Area 7 to the East Orange County Water District in August 2016.
6. Workforce Planning & Development (WFPD)	Ensure that the right people with the right skills and abilities, are in the right place, at the right time.	Integrate WFPD efforts to ensure workforce capabilities match work required to meet the mission and levels of service.	Ongoing.

Long-Term Planning

OCSD Long-Term Planning

	Type of Planning Process	Description of Process	Budget Impacts
Update of the Five-Year Strategic Plan	Maintaining a rolling 5- year comprehensive strategic plan that addresses the sanitation health and safety needs of the 2.6 million people we serve.	In November 2007, the District's Board approved a 5-Year Strategic Plan that updated the District's Mission, Vision, Levels of Services, and Business Plan. An update to this plan is currently in development and will be adopted by the Board of Directors in November 2018.	The levels of service identified within the 2015 Strategic Plan Update were the foundation for the development of this two-year budget.
Capital Master Planning	Develop a 20-year capital improvement projects (CIP) Program to meet the regulatory, environmental, health, and safety needs of a growing population.	In December 2017, the Board approved a new Facilities Master Plan that lays out a capital program to deliver and maintain the levels of service desired by the Board of Directors.	The 2018 CIP Validation, based on the 2017 Master Plan, includes an overall CIP budget of over \$5.5 billion for active and future.
Biosolids Management	Aggressively pursue biosolid disposal alternatives following the expiration of the 2016-17 disposal contract.	The study of biosolids options will include offsite an onsite facility, and new and established technologies.	Biosolids production will decrease by one-third when IRWD discontinues sending us biosolids and centrifuges come online.
Groundwater Replenishment System (GWRS)	Continue partnership with the Orange County Water District (OCWD) in support of the GWRS.	Maximize the use of treated effluent for water recycling by sending secondary effluent from Plant No. 2 to the GWRS.	The District will continue executing CIP projects to support the Final Expansion of the GWRS.

2018-19 & 2019-20 Budget

Background Information and Description of Services:

The Orange County Sanitation District (the "District") is a public agency that operates one of the largest wastewater facilities in the United States of America. Originally formed in 1954 pursuant to the joint powers provision under the County Sanitation District Act of the California Health and Safety Code, the District then consisted of independent special districts responsible for wastewater collection within their own geographical boundaries. These districts were co-participants in a Joint Agreement to provide for the joint construction, ownership, and operation of the District's Joint Facilities for the treatment and recycling of wastewater.

On July 1, 1998, the nine individual existing districts requested to be consolidated into one district by resolution of the Board of Supervisors of the County of Orange and special legislation.

The District is governed by a Board of Directors made up of mayors or members of city councils, directors of independent special districts, and one member from the County Board of Supervisors. A variety of board committees, made up of members of the Board of Directors, consider topics for action by the Board and make recommendations to the Board.

The District is responsible for collecting, treating, and safely disposing of approximately 185 million gallons of wastewater each day for an area covering 479 square miles in metropolitan (central and northwestern) Orange County. The District's service area includes approximately 2.6 million residents and businesses, or approximately 81 percent of the County's total population.

Professional staff of 627 full-time equivalent employees supports the District's around-the-clock operation. Staff is organized into six departments, including the General Manager's Office, Human Resources, Administration, Environmental Services, Engineering, and Operations and Maintenance.

As working environmentalists, the District's staff is regulated by many agencies, including the United States Environmental Protection Agency (USEPA), the California Regional Water Quality Control Board (CRWQCB), the CalRecycle, the California Air Resource Board, and the South Coast Air Quality Management District (SCAQMD).

The District operates under an ocean discharge permit issued by the USEPA and the Santa Ana Regional Water Quality Control Board. This permit was last issued in July 2012 and has been administratively extended during the renewal process. To maintain the District's National Pollutant Discharge Elimination System (NPDES) operating permit, the District's plants must meet strict conditions set jointly by the regulators.

The District operates under an ocean discharge permit issued by the USEPA and the Santa Ana Regional Water Quality Control Board. This permit was last issued in July 2012 and is noticed for re-adoption on December 15, 2017. To maintain the District's National Pollutant Discharge Elimination System (NPDES) operating permit, the District's plants must meet strict conditions set jointly by the USEPA and the CRWQCB.

The District maintains and operates a large system of trunk sewers and pumping stations in addition to the two modern treatment plants. The plants use chemical, physical and biological processes to produce a high-quality effluent. Chemicals used are either environmentally neutral or biodegradable.

The treated effluent from the Huntington Beach plant is pumped through a five-mile, 10-foot diameter ocean outfall pipe. The outfall has a one-mile long diffuser section that discharges treated water through more than 500 portholes four miles off shore.

In January 2008, the Orange County Water District (OCWD) and the District completed Phase I of the Groundwater Replenishment System, a joint project by the two agencies to provide reclaimed water for percolation into the groundwater basin from most of the secondary effluent pumped from the Fountain Valley plant, or approximately 92,300 acre-feet per year.

In January 2012, the OCWD completed Phase II of the Groundwater Replenishment System (GWRS) that provided an additional 33,000 acre-feet per year of reclaimed water; resulting in the purification of 100 percent of the treated wastewater produced at the Fountain Valley plant.

Orange County at a Glance

Community Profile of the County of Orange

The County of Orange is bordered on the north by Los Angeles and San Bernardino counties, on the east by Riverside County, on the southeast by San Diego County, and on the west and southwest by the Pacific Ocean. Approximately 42 miles of ocean shoreline provide many beaches, marinas and other recreational areas for use by residents and visitors.

The climate in the County is mild, with an average rainfall of 13 inches. The mean temperature ranges from a minimum of 48 degrees to a maximum of 76 degrees.

The County has become a tourist center in Southern California by offering a broad spectrum of recreational opportunities that is enhanced by the mild climate. Along the shoreline are five state beaches and parks, five municipal beaches and five county beaches. There are two small-craft docking facilities in Newport Harbor, one located in Sunset Beach and another in Dana Point.

Other major recreational and tourist facilities include Disneyland, California Adventure, Knott's Berry Farm and Soak City, Mission San Juan Capistrano, the Anaheim Convention Center, and the Art Colony at Laguna Beach with its annual art festival. Also located within the County is Anaheim Stadium, home of the Los Angeles Angels of Anaheim of Major League Baseball, and the Honda Center, home of the Anaheim Ducks of the National Hockey League.

Economic Outlook

According to the California Employment Development Department (EDD), Orange County generated an increase of approximately 0.9 percent in payroll jobs from March 2017 to March 2018. During this same time period, unemployment in Orange County decreased to 2.8 percent from 3.7 percent while the unemployment in California as a whole decreased to 4.2 percent from 5.2 percent.

According to Chapman University's December 2017 Economic Forecast, after experiencing sharper job losses than the U.S. during the Great Recession, California caught up by the end of 2013 and has since outpaced the national economy. Payroll jobs in California are 8.6 percent higher at the end of 2017 than at the end of 2007, when the recession started. After recovering from a deeper trough during the Great Recession, Orange County mirrored California's job growth trajectory. That is, until 2017, when job growth in the county of 0.6 percent dropped sharply below California's 1.7 percent rate of growth. Closer examination of Orange County's nosedive in job growth shows that in 2017 it fell well off the pace

of job growth in the U.S. as well as in California. This is all the more noteworthy considering the fact that Orange County's job growth was higher than the state and nation in 2015. By 2016, the county fell below California but still outpaced the U.S. by a considerable margin. Examination of the job data generated using the household rather than payroll survey shows an even steeper drop-off, actually falling into negative terrain with a decrease of 0.4 percent. The relatively sharp drop in Orange County's job growth is broad-based and not a result of any major downward shifts in particular job sectors

Chapman notes that area job growth does not seem to be related to unemployment and that the other metro areas in California exhibited significantly faster job growth than Orange County. In September 2017, Orange County had the lowest job growth rate among the five largest metropolitan areas in the state at 0.4 percent and the third lowest unemployment rate at 3.6 percent. Chapman's 2018 forecast for Orange County's job growth shows continued weakness. On the positive side, the forecast calls for an end to the downward slide with job growth picking up from 0.6 percent in 2017 to 0.8 percent in 2018.

With no recessionary signals in sight, Chapman is confident that the current economic expansion will continue through 2018. Increases, however, in private debt and continuing Fed tightening will restrain consumer and investment spending. And while the global economy is probably in its best overall shape since the recovery began, China's growth will be constrained as a result of its rapidly increasing private debt. Chapman's forecast calls for a continuation of relatively strong production levels of 1.2 million housing starts nation-wide in 2018. This roughly matches the cyclical highs reached in 2017.

The drop in Orange County residential permits from 12,134 in 2016 to 10,455 in 2017 masks the fact that single-family permits increased 13.8 percent while multi-family dropped sharply with a decline of 26.4 percent. In 2018, forecasted permit activity increases 10.8 percent to 11,585 units. In contrast to 2017, multi-family permits will show more strength than single-family.

Housing appreciation is forecasted to decline from 6.4 percent in 2017 to 5.2 percent in 2018. Higher mortgage rates in 2018 will reduce housing affordability. But offsetting that is a tight supply of unsold housing that is keeping upward pressure on prices. On a more positive outlook, Chapman forecasts personnel income in Orange County to grow 3.4 percent in 2018.

2018-19 & 2019-20 Budget

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POLICIES & PRACTICES
SECTION 3

BACK OF SECTION 3 DIVIDER

Fiscal Policy

<i>Fiscal Policy Statement</i>	<i>Completed</i>	<i>In Progress</i>	<i>Comments</i>
General Financial Goals			
To maintain a financially viable Sanitation District that can maintain an appropriate level of wastewater treatment services.	✓		
To maintain financial flexibility by adapting to local and regional economic changes.	✓		
To maintain and enhance the sound fiscal condition of the District.	✓		
To ensure that the value added by every program and activity within the District is proportional to its cost; and to eliminate those programs and activities that do not contribute to the District's mission.	✓		
To provide training opportunities to the greatest extent possible for available jobs within the organization for those employees working in programs or activities that have been reduced or eliminated.	✓		
To provide employees with cross-training opportunities in order to achieve multi-tasking capabilities.	✓		
Operating Budget Policies			
The District will adopt a balanced budget by June 30 of each year.	✓		
The budget will be used as a fiscal control device as well as a financial plan.	✓		
Budget preparation and monitoring will be performed by each division within the District, the organizational level of accountability and control.	✓		
The Director of Finance & Administrative Service will prepare a budget calendar no later than January of each year.	✓		
An annual operating budget will be developed by conservatively projecting revenues and expenditures for the current and forthcoming fiscal years.	✓		
During the annual budget development process, the existing programs will be thoroughly examined to assure removal or reduction of any services or programs that could be eliminated or reduced in cost.	✓		
Current operating revenues will be sufficient to support current operating expenditures.	✓		

2018-19 & 2019-20 Budget

<i>Fiscal Policy Statement</i>	<i>Completed</i>	<i>In Progress</i>	<i>Comments</i>
Annual budgets including reserves will provide for adequate design, construction, maintenance and replacement of District capital facilities and equipment.	✓		
The District will maintain all physical assets at a level adequate to protect the District's capital investment and to minimize future maintenance and replacement costs.	✓		
The District will project equipment replacement and maintenance needs for the next five years and will update this projection each year. From this projection a maintenance and replacement schedule will be developed and followed.	✓		
The District will avoid budgetary and accounting procedures that balance the current budget at the expense of future budgets.	✓		
The District will forecast its expenditures and revenues for each of the next five years and will update this forecast at least annually.	✓		
Revenue Policies			
Because revenues are sensitive to both local and regional economic conditions, revenue estimates adopted by the Board of Directors must be conservative.	✓		
Staff will estimate annual revenues by an objective, analytical process that utilizes trend, judgmental, and statistical analysis as appropriate.	✓		
Ad valorem property tax revenues of the District will be dedicated to debt service.	✓		
Sewer Service User Fees will be projected for each of the next ten years and this projection will be updated annually.	✓		
Expenditure Policies			
The District will maintain a level of expenditures that provides for the health, safety and welfare of the residents of the community.	✓		
The District will set fees and user charges at a level that fully supports the total direct and indirect costs of operations, capital improvements, and debt service requirements not covered by reserves.	✓		

Fiscal Policy

<i>Fiscal Policy Statement</i>	<i>Completed</i>	<i>In Progress</i>	<i>Comments</i>
Capital Improvement Budget Policies			
The District will make all capital improvements in accordance with an adopted and funded capital improvement program. The adopted capital improvement program will be based on need.	✓		
The District will develop an annual five-year plan for capital improvements, including design, development, implementation, and operating and maintenance costs.	✓		Master Plan projects needs through 2050.
All capital improvement projects approved in the annual operating budget are approved at the budgeted amounts through the completion of the project. The Board of Directors approves both the individual project total budget and the projected cash outlays for all capital improvement projects for the current fiscal year.	✓		
Staff will identify the estimated costs, potential funding sources and project schedule for each capital project proposal before it is submitted to the Board of Directors for approval.	✓		
Staff will identify the estimated on-going future Operating and Maintenance costs, as well as staffing requirements upon completion for each capital project proposal before it is submitted to the Board of Directors for approval.	✓		Included in Asset Management.
The District will use intergovernmental assistance and other outside resources whenever possible to fund capital improvements providing that these improvements are consistent with the Capital Improvement Plan and the District's priorities, and that the future operating and maintenance costs of these improvements have been included in the budget.	✓		
Staff will coordinate development of the capital improvement budget with the development of the operating budget. All operations and maintenance resources required to implement the CIP have been considered and appropriately reflected in the operating budget for the year the CIP is to be implemented.	✓		
Cost tracking for components of the capital improvement program will be updated quarterly to ensure project completion against budget and established time lines.	✓		

2018-19 & 2019-20 Budget

<i>Fiscal Policy Statement</i>	<i>Completed</i>	<i>In Progress</i>	<i>Comments</i>
Asset Management Policy			
In order to provide for the systematic planning, acquisition, deployment, utilization control, and decommissioning of capital assets, the following policies have been established:			
<ul style="list-style-type: none"> The condition, performance, utilization, and cost of assets will be recorded down to the maintenance managed item component level. 	✓		
<ul style="list-style-type: none"> A detailed, planned maintenance program is in place to ensure that the assets, facilities and systems perform to their design criteria and meet their design lives. 	✓		
<ul style="list-style-type: none"> A system is in place to blend planned and unplanned activity to optimize the cost against the asset performance requirements. 	✓		
<ul style="list-style-type: none"> Reliability Centered Maintenance techniques will be used to optimize the maintenance plans and to identify any design alterations that are economically justified. 	✓		
<ul style="list-style-type: none"> Current levels of asset management service in terms of quantity and quality of service including condition, function/size/type, regulatory requirements, reliability, and repair response times have been determined and documented. 	✓		Completed for critical and high value assets.
<ul style="list-style-type: none"> The full economic cost is charged on all asset management activities. 	✓		
<ul style="list-style-type: none"> Asset Management maintains appropriate pricing and funding strategies that match the needs of the business to ensure sustainability. 	✓		
<ul style="list-style-type: none"> Asset Management considers the real growth of the District's service area and the way in which demands for service will change in the future, including population, unit demand, demographics, changing customer expectations, and changing regulatory requirements. 	✓		
<ul style="list-style-type: none"> Monitoring and reporting is performed on the condition, performance and functionality of the District's assets against prescribed service levels and regulatory requirements. 	✓		Service levels are reported quarterly through the Strategic Plan reporting.
<ul style="list-style-type: none"> A condition/function index is linked with customer expectations at a cost that customers are willing to pay. 	✓		Completed through the budget process.
<ul style="list-style-type: none"> Future level of service options available and their associated costs are constantly analyzed. 	✓		

Fiscal Policy

<i>Fiscal Policy Statement</i>	<i>Completed</i>	<i>In Progress</i>	<i>Comments</i>
<ul style="list-style-type: none"> • An assessment of the relative risks, costs and benefits is derived for all investments in capital works, maintenance, and operations. 	✓		
<ul style="list-style-type: none"> • Individual asset management decisions are made only when the cost of all programs has been analyzed and the funding needs of the whole organization is known together with the knowledge of its impact on rates. 	✓		
<ul style="list-style-type: none"> • Necessary renewal programs to sustain the existing levels of service and condition of assets, as identified through the best appropriate process, is approved ahead of new capital works and services. 	✓		
<ul style="list-style-type: none"> • New capital assets for new works and services are approved only with the commitment of the recurrent (operations and maintenance) funding necessary to sustain the new works and services. 	✓		
<ul style="list-style-type: none"> • The financial, social, and environmental aspects of asset management will be reported on bi-annually. 	✓		

Vehicle Replacement Policy

In order to provide safe, reliable transportation appropriate to the work to be performed, the following policies have been established:

<ul style="list-style-type: none"> • The newest vehicles will be used for those purposes requiring the highest annual mileage. 	✓		
<ul style="list-style-type: none"> • Vehicles may be replaced when they are 12 years old or have accumulated 120,000 miles. 	✓		
<ul style="list-style-type: none"> • A vehicle may be replaced in advance of the above criteria if it can be reallocated to a low mileage use between the plants. 	✓		
<ul style="list-style-type: none"> • Electric carts are to be utilized for in-plant use only. 	✓		
<ul style="list-style-type: none"> • When available, CNG vehicles or bi-fuel vehicles are to be utilized within the County (pump station runs, source control inspections, etc). 	✓		
<ul style="list-style-type: none"> • When available, CNG vehicles or bi-fuel vehicles are to be utilized to travel outside of Orange County (e.g., Environmental Compliance Monitoring of biosolids application sites, etc). 	✓		

2018-19 & 2019-20 Budget

<i>Fiscal Policy Statement</i>	<i>Completed</i>	<i>In Progress</i>	<i>Comments</i>
Short-Term Debt Policies			
The District may use short-term debt to cover temporary or emergency cash flow shortages. All short-term borrowing will be subject to Board approval by resolution.	✓		
The District may utilize Board approved intra-agency loans rather than outside debt instruments to meet short-term cash needs. Intra-agency loans will be permitted only if an analysis of the affected Revenue Areas indicates funds are available and the use of these funds will not impact current operations. The principal, along with interest at the prevailing rate as established by the District's Treasurer, will be paid to the lending Revenue Area.	✓		
Long-Term Debt Policies			
Proceeds from long-term debt will <u>not</u> be used for current on-going operations.	✓		
Before any new debt is issued, the impact of debt service payments on total annual fixed costs will be analyzed.	✓		
Develop and maintain a board adopted debt policy.	✓		
Accumulated Funds & Reserve Policies			
A cash flow reserve will be established to fund operations, maintenance, and certificates of participation expenses for the first half of the fiscal year, prior to the receipt of the first installment of the property tax allocation and the sewer service user fees which are collected as a separate line item on the property tax bill. The level of this reserve will be established as the sum of an amount equal to six months operations and maintenance expenses and the total of the annual debt (COP) service payments due in August each year.	✓		
An operating contingency reserve will be established to provide for non-recurring expenditures that were not anticipated when the annual budget and sewer service fees were considered and adopted. The level of this reserve will be established at an amount equal to ten percent of the annual operating budget.	✓		

Fiscal Policy

<i>Fiscal Policy Statement</i>	<i>Completed</i>	<i>In Progress</i>	<i>Comments</i>
<p>A capital improvement reserve will be maintained to fund annual increments of the capital improvement program. The long-term target is for one half of the capital improvement program to be funded from borrowing and for one half to be funded from current revenues and reserves. With this program in mind, the target level of this reserve has been established at one half of the average annual capital improvement program through the year 2020. Levels higher and lower than the target can be expected while the long-term financing and capital improvement programs are being finalized.</p>	✓		
<p>A renewal/replacement reserve will be maintained to fund the District's renewal, rehabilitation and replacement requirement costs associated with the District's existing capital plant and collection system over the next twenty years. The reserve was initially set at \$50 million in 1998-99 and is annually augmented by interest earnings and a small portion of the annual sewer user fees in order to meet projected needs through the year 2030.</p>	✓		
<p>Catastrophic loss, or self-insurance, reserves will be maintained for property damage including fire, flood, and earthquake; for general liability; and for workers' compensation. These reserves are intended to work with purchased insurance policies, FEMA disaster reimbursements, and State disaster reimbursements. Based on the current infrastructure value of \$1.3 billion, the reserve level has been set to fund the District's non-reimbursed costs, estimated to be \$57 million.</p>	✓		
Investment Policies			
<p>The District's Treasurer will annually submit an investment policy to the Board of Directors for review and adoption.</p>	✓		
<p>The investment policy will emphasize safety and liquidity before yield.</p>	✓		
Accounting, Auditing, and Financial Reporting			
<p>The District's accounting and financial reporting systems will be maintained in conformance with generally accepted accounting principles and standards promulgated by the Governmental Accounting Standards Board.</p>	✓		
<p>A capital asset system will be maintained to identify all District assets, their condition, historical cost, replacement value, and useful life.</p>	✓		

2018-19 & 2019-20 Budget

<i>Fiscal Policy Statement</i>	<i>Completed</i>	<i>In Progress</i>	<i>Comments</i>
Quarterly financial reports will be submitted to the Board of Directors and will be made available to the public.	✓		
Full disclosure will be provided in the general financial statements and bond representations.	✓		
The District will maintain a good credit rating in the financial community.	✓		The District's AAA rating was reaffirmed with the \$66.4 million 2017A Revenue Refunding debt issuance.
An annual audit will be performed by an independent public accounting firm with the subsequent issue of an official Comprehensive Annual Financial Report, including an audit opinion and a management letter.	✓		

GFOA Best Practices and Advisories

<i>GFOA Recommended Practice</i>	<i>Compliance Met</i>	<i>Not Applicable</i>	<i>In Progress</i>	<i>Comments</i>
<u>Accounting, Auditing, and Financial Reporting Recommended Practices</u>				
Governmental Accounting, Auditing, and Financial Reporting Practice	✓			
Prepare Popular Reports		✓		Not being considered at this time due to other communication efforts.
Appropriate Levels of Working Capital in Enterprise Funds	✓			Working Capital of the District shall be greater than 45 days worth of annual operating expenses
Audit Procurement	✓			
Use the Comprehensive Annual Financial Report to Meet SEC Requirements for Periodic Disclosure	✓			
Establish Appropriate Capitalization Thresholds for Tangible Capital Assets	✓			
Internal Audit Function Established	✓			Administrative Committee directs Internal Audits
Audit Committees	✓			Administrative Committee serves as an audit committee.
The Need for Periodic Inventories of Capitalized Tangible Assets			✓	
Application of Full-Cost Accounting to Municipal Solid Waste Management Activities		✓		OCSD does not provide solid waste services.
Present Securities Lending Transactions in Financial Statements		✓		OCSD does not have Securities Lending Activities
Technology Disaster Recovery Planning			✓	Managed by Information Technology Division
Present Budget to Actual Comparisons Within the Basic Financial Statements		✓		Not required for audited financial statement reports of Enterprise Funds. Budget/actual comparisons are included within unaudited quarterly financial reports.
Use Websites to Improve Access to Budget Documents and Financial Reports	✓			
Use of Trend Data and Comparative Data for Financial Analysis	✓			

2018-19 & 2019-20 Budget

<i>GFOA Recommended Practice</i>	<i>Compliance Met</i>	<i>Not Applicable</i>	<i>In Progress</i>	<i>Comments</i>
Appropriate Level of Unrestricted Fund Balance in the General Fund	✓			OCSD only has Proprietary Fund Types - established a formal policy on the level of unrestricted net assets
Document Accounting Policies and Procedures	✓			
Establish the Estimated Useful Lives of Capital Assets	✓			
Improve the Effectiveness of Fund Accounting	✓			
Enhance Management Involvement with Internal Control	✓			
Including Management's Discussion and Analysis in Departmental Reports	✓			
Auditor Association with Financial Statements Included in Offering Statements or Posted on Websites	✓			
Ensuring Control over Noncapitalized Items	✓			
Considerations on Using the Modified Approach to Account for Infrastructure Assets		✓		OCSD depreciates all capital assets; OCSD has no governmental fund types
Mitigating the negative effects of Statement on Auditing Standards No.112	✓			
Encouraging and facilitating the reporting of fraud and questionable accounting and auditing practices	✓			
Ensuring adequate documentation of costs to support claims for disaster recovery assistance			✓	
Improving the timeliness of financial reports	✓			
Web Site Presentation of Official Financial Documents	✓			Managed by Information Technology Division
<u>Treasury and Investment Management Recommended Practices</u>				
Collateralization of Public Deposits	✓			
Government Relationships with Securities Dealers	✓			
Using Mutual Funds for Cash Management Purposes	✓			

GFOA Best Practices and Advisories

<i>GFOA Recommended Practice</i>	<i>Compliance Met</i>	<i>Not Applicable</i>	<i>In Progress</i>	<i>Comments</i>
Debt Service Payment Settlement Procedures	✓			
Adopt a comprehensive written Investment Policy and review and update policies, if necessary on an annual basis	✓			
Use of Derivatives and Structured Investment by State and Local Governments for Non-Pension Fund Investment Portfolios		✓		Investment Policy does not allow Derivative Investments
Use of Derivatives and Structured Investment by State and Local Governments for Cash Operating and Reverse Portfolios		✓		Investment Policy does not allow Derivative Investments
Security Lending Programs for Non-Pension Fund Portfolios	✓			
Diversification of Investments in a Portfolio	✓			
Managing Market Risk in Investment Portfolios	✓			Managed by Chandler Asset Management
Electronic Payment Systems	✓			
Procurement of Banking Services	✓			
Purchasing Card Programs	✓			
Acceptance of Payment Cards and Selection of Payment Card Service Providers	✓			
Frequency of Purchased Securities Valuation in Repurchase Agreements	✓			
Selection of Investment Advisors for Non-Pension Fund Investment Portfolios	✓			
Utilize independent Third-Party Custodians to safeguard District investments and protect against safekeeping/custodial risks.	✓			
Mark-to-Market Reporting Practices	✓			
Establish Policy for Repurchase Agreements and Reverse Repurchase Agreements	✓			

2018-19 & 2019-20 Budget

<i>GFOA Recommended Practice</i>	<i>Compliance Met</i>	<i>Not Applicable</i>	<i>In Progress</i>	<i>Comments</i>
Use of Lockbox Services		✓		OCSD does not have sufficient cash related transactions to use Lockbox services. The majority of revenues are collected on the property tax roll.
Commercial Paper	✓			
Use of Cash Flow Forecasts in Operations	✓			
Bank Account Fraud Prevention	✓			
Use of Local Government Investment Pools	✓			
Revenue Control and Management Policy	✓			
Payment Consolidation Services		✓		
Using Electronic Signatures			✓	
Using Remote Deposit Capture	✓			
<i>Budgeting and Fiscal Policy Recommended Practices</i>				
Economic Development Incentives	✓			
Use of Performance Measurement for Decision Making	✓			
Providing a Concise Summary of the Budget	✓			
Establishing of Government Charges and Fees	✓			
Recommended Budget Practices of the National Advisory Council on State and Local Budgeting (NACSLB)	✓			
Financial Forecasting in the Budget Preparation Process	✓			
Relationships Between Budgetary and Financial Statement Information	✓			
Use of Financial Status in the Budgeting Process	✓			
Adoption of Financial Policies	✓			
Appropriate Level of Unreserved Fund Balance in the General Fund	✓			OCSD only has Proprietary Fund Types - established a formal policy on the level of unrestricted net assets

GFOA Best Practices and Advisories

<i>GFOA Recommended Practice</i>	<i>Compliance Met</i>	<i>Not Applicable</i>	<i>In Progress</i>	<i>Comments</i>
Include Sustainability in Public Finance Practices	✓			
Establish Strategic Plans	✓			
Measuring the Cost of Government Services	✓			
Using Websites to Improve Access to Budget Documents and Financial Reports	✓			
Business Preparedness and Continuity Guidelines	✓			
Statistical/Supplemental Section of the Budget Document	✓			
Budgeting for Results and Outcomes	✓			
Present Capital Budget in Operating Budget Document	✓			
Present Departmental Section in the Operating Budget Document	✓			
Alternative Service Delivery: Shared Services	✓			
Long-Term Financial Planning	✓			
Comprehensive Risk Management Program	✓			
Public Participation in Planning, Budgeting, and Performance Management	✓			
Inflationary Indices in Budgeting	✓			
Key Issues in Succession Planning			✓	Expand and align ongoing succession planning as part of OCSD's workforce planning and development efforts to ensure continuity and consistency of service delivery.
Managing the Salary and Wage Budgeting Process	✓			
Managed Competition as a Service Delivery Option			✓	
<u>Debt Management Recommended Practices</u>				
Select and Manage the Method of Sale of State and Local Government Bonds	✓			

2018-19 & 2019-20 Budget

<i>GFOA Recommended Practice</i>	<i>Compliance Met</i>	<i>Not Applicable</i>	<i>In Progress</i>	<i>Comments</i>
Analyzing and Issuing Refunding Bonds	✓			At the outset of evaluating the issuance of bonds, solicit the advice of bond counsel and financial advisor in order to outline key legal and financial issues.
Debt Management Policy	✓			Board approved Debt Policy completed in 2001-02.
Investment of Bond Proceeds	✓			Included in Trustee Documents
Use of Debt-Related Derivatives Products and Development of Derivatives Policy		✓		No Derivative Products
Maintain an Investor Relations Program	✓			
Payment of the Expense Component of Underwriters' Discount	✓			Establish at the beginning of the bond negotiation process what expenses will be directly paid by the issuer or as part of the underwriter spread.
Issuer's role in Secondary Market Securitization of Tax-Exempt Obligations	✓			Meet qualifications of arbitrage
Evaluate the Use of Pension Obligation Bonds			✓	OCSD does not manage pension fund
Evaluating the Sale and Securitization of Property Tax Liens			✓	
Use Variable Rate Debt Instruments	✓			
Issuer's Role in Selection of Underwriter's Counsel			✓	
Issuing Taxable Debt by U.S. State and Local Governments	✓			OCSD does not plan to issue taxable debt outside of the Build America Bonds program
Select Bond Counsel	✓			
Price Bonds in a Negotiated Sale	✓			
Underwriter Disclaimers in Official Statements	✓			
Use a Web Site for Disclosure	✓			
Tax Increment Financing as a Fiscal Tool			✓	

GFOA Best Practices and Advisories

<i>GFOA Recommended Practice</i>	<i>Compliance Met</i>	<i>Not Applicable</i>	<i>In Progress</i>	<i>Comments</i>
Caution in Regard to OPEB Bonds		✓		Pay-As-You-Go funding, no plan on issuing bond
Public-Private Partnerships for Economic Development		✓		
Role of the Finance Officer in Privatization		✓		
Selecting Financial Advisors	✓			
Selecting Underwriters for Negotiated Bond Sales	✓			
Understanding Your Continuing Disclosure Responsibilities	✓			
Managing Build America and Other Subsidy Bonds	✓			Develop procedures for managing post-sale considerations and responsibilities while the bonds remain outstanding.
<u>Retirement and Benefits Administration Recommended Practices</u>				
Public Employee Retirement System Investments		✓		Managed by OCERS
Preparing an Effective Summary Plan Description		✓		Managed by OCERS
Retirement and Financial Planning Services		✓		Managed by OCERS
Directed Brokerage Programs		✓		OCERS manages all "soft dollar" transactions
A Policy for Retirement Plan Design Option	✓			
Asset Allocation – Guidance for Defined Benefit Plans		✓		Managed by OCERS
Asset Allocation - Guidance for Defined Contribution Plans		✓		OCERS is a defined benefit plan.
Alternative Investment Policy for Public Employee Retirement Systems (PERS)		✓		Managed by OCERS
Pension Investment Policy		✓		Managed by OCERS
Selection of Investment Advisors for Pension Fund Assets		✓		Managed by OCERS

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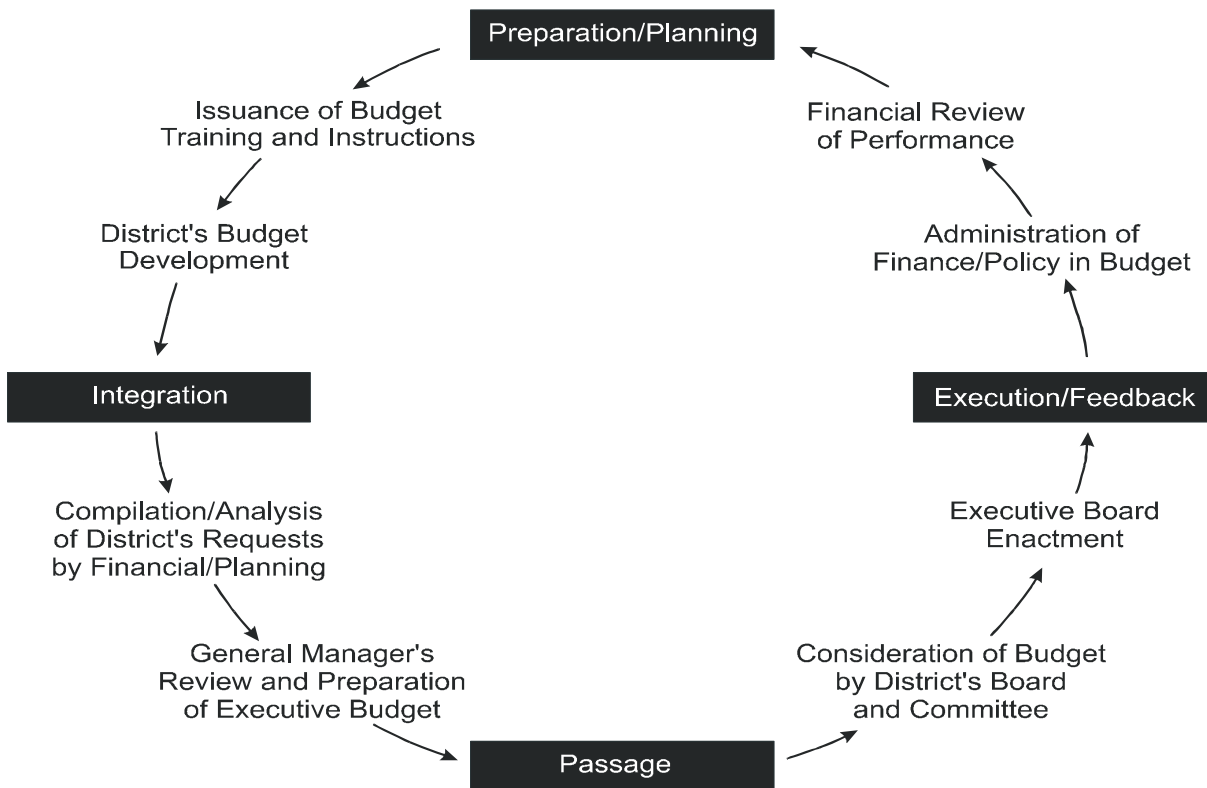
<i>GFOA Recommended Practice</i>	<i>Compliance Met</i>	<i>Not Applicable</i>	<i>In Progress</i>	<i>Comments</i>
Brokerage Window Options for Defined Contribution Retirement Plans		✓		Managed by OCERS
Framework for Understanding Pension Fund Risk		✓		Managed by OCERS
Investment Policies Governing Assets in a Deferred Compensation Plan			✓	Managed by the plan sponsors
Health Care Cost Containment	✓			
Evaluating Use of Early Retirement Incentives	✓			
Deferred Retirement Option Plans (DROPs)		✓		
A Policy to Participate in Securities Litigation Class Actions		✓		Managed by OCERS
Ensuring the Sustainability of Other Postemployment Benefits	✓			Pay-As-You-Go funding
Design Elements of Defined Benefit Retirement Plans		✓		Managed by OCERS
Design Elements of Defined Contribution Plans as the Primary Retirement Plan		✓		
Design Elements of Hybrid Retirement Plans		✓		
Monitoring and Disclosure of Fees for Defined Contribution Plans		✓		
Prefunding OPEB Obligation		✓		Pay-As-You-Go funding
Establishing and Administering an OPEB trust		✓		Pay-As-You-Go funding
Commission Recapture Program		✓		
Communicating Health-Care Benefits to Employees and Retirees	✓			
Participant Education-Guidance for Defined Contribution Plans		✓		
Strategic Health-Care Plan Design			✓	
Governance of Public Employee Retirement System		✓		Managed by OCERS
Sustainable Funding Practices of Defined Benefit Pension Plans	✓			

GFOA Best Practices and Advisories

<i>GFOA Recommended Practice</i>	<i>Compliance Met</i>	<i>Not Applicable</i>	<i>In Progress</i>	<i>Comments</i>
Responsible Management and Design Practices for Defined Benefit Pension Plans	✓			
Design and Implement Sustainable Pension Benefit Tiers			✓	
Develop a Review Process for Implementing National Health-Care Reform (COBRA)	✓			
<u>Economic Development and Capital Planning</u>				
Multi-Year Capital Planning	✓			
The Role of the Finance Officer in Economic Development	✓			
Capital Project Monitoring and Reporting	✓			
Capital Asset Assessment, Maintenance, and Replacement Policy	✓			Establish a system for assessing District assets and plan and budget for any capital maintenance and replacement needs.
The Role of Master Plans in Capital Improvement Planning	✓			
Analyzing the Cost of Economic Development Projects			✓	
Building Resiliency into Capital Planning	✓			Establish resiliency into the capital planning process to produce a sustainable community and mitigate the effects of disasters.
Incorporating a Capital Project Budget in the Budget Process	✓			
Developing an Economic Development Incentive Policy			✓	No Incentive Policy established
Monitoring Economic Development Performance			✓	
Balancing the Costs and Benefits of Economic Development Projects	✓			
Incorporating Environmentally Responsible Practices in the Capital Improvement Program	✓			

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Overview of the Budget Process



Budget Process:

Ten years ago, the District prepared its first complete budget document covering two years instead of one. The next year a smaller budget update document was prepared to summarize revisions to the second year of the previously adopted two-year budget period. This two-year cycle approach to budget preparation is expected to continue for the indefinite future.

This change has not caused any modification to the previously established stages of the annual budget process except with regard to the level of detail which is provided. The timing of all stages of the budget process remains consistent from year to year. In the second year of a two-year cycle, however, the focus is on any changes that need to be made to the upcoming year's budget relative to what was previously submitted, reviewed, and approved for that budget during the prior year.

The District's annual budget preparation process begins in January of each year and concludes in June upon its adoption. However, the entire budget process extends beyond one year and overlaps with the preceding budget and the subsequent budget. As shown in the chart above, the budget process consists of four major parts. These parts occur at various stages throughout the year as follows:

- Preparation/Planning - takes place from January through March.
- Integration - runs from March through May.
- Passage - adoption of the budget usually occurs in June of each year.
- Execution - starts from the first day of the budget year, July 1, through the entire budget year and beyond into November with the presentation of the annual audit report.

Key dates in this 2018 budget cycle are:

Budget Kick-off Meeting	- January 18
Department Budget Submissions	- February 23
Preliminary Budget Review	- March 5-8
General Manager Budget Review	- March 19-23
Presentation to Board Committees	- June 6 & 13
Public Hearing & Board Adoption	- June 27

Team Approach

As identified by one of the fiscal policies, the budget preparation process originates at the division level, the organizational level of accountability and control. Budget coordinators are established to represent each operating division. A comprehensive budget manual is prepared and used as the training manual during a training session with the budget coordinators.

2018-19 & 2019-20 Budget

After the initial divisional budgets are prepared, budget review sessions are scheduled for each division with the General Manager. It is during these sessions that all proposed staffing levels, programs, and line item expenses are justified. Next senior management representatives from each department analyze opportunities for consolidating programs and eliminating unnecessary requests. Guidance is also sought and utilized from District's committees on various issues that affect budget development.

The Process

The budget preparation process begins in January with the distribution of the budget manual, budget preparation training, and issuance of personnel budget and justification forms, and equipment budget forms to all of the Divisions.

In March, the Administrative Services Department develops divisional level budgets based on the request forms received from the various divisions. These divisional budgets are then reviewed in mid-March by the General Manager along with the Department and Divisional managers for each program request and for new, additional, or reduced services, positions, and capital outlay.

The Capital Improvement Program requests are prepared from October through March and are reviewed by Engineering and Department and Divisional managers prior to being submitted to the General Manager for review and evaluation as part of the budget process.

In determining recommended allocation levels, the General Manager takes into consideration the projected amount of available resources, direction provided by the Directors, the District's fiscal policies, and how to best provide the most cost-effective and efficient service levels to the public. After a final review of the operating budgets by the General Manager, the proposed annual budgets are finalized in late May and then distributed to the Directors for consideration.

The General Manager presents the proposed budget to the various Directors' Committees for deliberations throughout the month of June. The proposed budget is scheduled for adoption, along with any revisions by the Board, at the Board of Directors meeting in June.

Level of Control and Amendments to the Budget

Budgetary control, the level at which expenses cannot legally exceed the appropriated amount, is exercised at the individual Department level.

Administrative policies provide guidelines on budget transfers and the authorization necessary to implement transfers. Generally, there are two types of budget transfers:

1. Budget Adjustment

This is a transfer which does not change the total appropriated amount and does not require Board action. Depending on the budget category affected by the transfer, approval may be granted at the General Manager or Department Head level as follows:

Department Heads have discretion to reapportion funds between certain line items within a division but may not exceed total appropriated amounts for each department. They also may transfer staff across divisional lines within their department. The General Manager and Board of Directors must approve additional capital outlay items. Funds appropriated for salaries and benefits may not be expended for any other purpose unless approved by the Board. The General Manager may transfer operating funds within and between divisions and departments. The General Manager may also transfer staff positions between departments.

2. Budget Amendment:

This is an adjustment to the total appropriated amount, which was not included in the original budget. These supplemental appropriations require formal action by the Board of Directors. Types of modifications can be categorized as follows:

Prior year reserves or fund balances may be appropriated to fund items not previously included in the adopted budget.

Reserves/fund balances exceeding minimum amounts required by fiscal policy may be appropriated if it is determined to be in the best interest of the District. Directors may also appropriate reserves in case of emergencies or unusual circumstances.

Transfers between Revenue Areas require formal action by the Board of Directors.

Unexpended appropriations automatically lapse at the end of the fiscal year and are included in the ending fund balances.

Budget Assumptions

2018-20 Proposed Budget Assumptions

Economic Assumptions

- Inflation for Orange County in FY 2018-19 is projected to be 2.4 percent based on the 2018 projected percentage change in consumer price index obtained from Chapman University.

A 2.4 percent inflation factor will also be used for FY 2019-20.

Revenue Assumptions

- Based upon the proposed Sewer Service Fee Rate Schedule to be approved by the Board in March 2018, the single-family residence (SFR) rate will increase by 1.2 percent to \$335 in FY 2018-19.
- Note that each \$1 increase in the SFR rate generates approximately \$900,000 per year.
- The capital facilities capacity charge (CFCC) fee captures only those infrastructure costs that relate to additional capacity. The proposed CFCC fee to be approved by the Board in March 2018 will increase by ten percent for FY 2018-19. Other infrastructure costs such as improved treatment, rehabilitation, refurbishment, and replacement, will be supported through user fees.
- Given the Facilities Master Plan adopted in December 2017, a rate study was completed in December 2017 to ensure that the CFCC fee methodology remains equitable and to confirm that an appropriate share of system costs would be recovered from new development.
- Revenues will be budgeted to reflect little growth in Equivalent Dwelling Unit (EDU) connections that have remained flat over the past five years.
- Propose permit user rates for flow will increase by 4.1 percent, Biochemical Oxygen Demand (BOD) will increase by 0.5 percent and Total Suspended Solids (TSS) will increase by 2.9 percent for FY 2018-19 based upon the Rate Study completed in December 2017.
- Annexation fees capture both the net current assets and the equivalent property tax allocations totaling \$4,235 per acre.

- Annexable property in the District's service area sphere is minimal; consequently, no FY 2018-19 income from annexation fees is anticipated.

- Property tax revenues are preliminarily estimated to increase by approximately five percent from FY 2017-18 to \$98,349,000.

A two percent annual increase in Assessed Value is authorized by the state constitution and is included in the increases noted above. The additional increase in assessed value is from authorized increases to market value when property is sold at a higher value.

- Earnings on the investment of the District's operating cash and reserves will be budgeted at 1.0 percent of the average cash and investment balance projected for the fiscal year.
- No additional debt issuance is scheduled for FY 2018-19.

Operating Assumptions

- Operating expenses are expected to approximate the adopted FY 2017-18 budget of \$154 million.
- Average daily flows are projected at 190 mgd for FY 2018-19 and 191 mgd for FY 2019-20. The FY 2018-19 flow projection of 190 mgd reflects an increase of 3 mgd from the actual for the first 5 months of the current year and is 2 mgd above the final actual flow for FY 2016-17.

Employee/Staffing Assumptions

- Staffing level is expected to remain flat. No additional positions are anticipated. The total FY 2017-18 authorized staffing level is 635.00 FTEs, excluding Management Discretion positions.
- Vacant positions as of 12/31/17 are budgeted at 50 percent of step 1 for the remainder of FY 2017-18 and at 100 percent of step 2 for FY 2018-19.
- New positions will be projected at 100 percent of step 1 for FY 2018-19.

2018-19 & 2019-20 Budget

- A 5.0 percent vacancy factor on authorized positions has been budgeted for FY 2018-19. The actual vacancy factor is currently running at 7.6 percent, but is on a downward trend due to the streamlined recruitment processes now in place. This vacancy factor accounts for time spent for recruitment and turnover.
- The Memorandums of Understanding (MOUs) for the OCEA, the Local 501, and the Supervisor and Professional (SPMT) groups expire on June 30, 2019. Salary adjustments will be included in the budget for COLA based upon the current MOUs.
- Retirement costs for employees enrolled in OCERS Plans G and H are estimated at a rate of 15.78 percent of the employee's base salary for FY 2018-19, down from 15.83 percent in FY 2017-18. The rates for Plans G and H include the District's pickup of 3.5 percent of employees' required contributions.

Employees enrolled in OCERS Plan B are estimated at a rate of 10.21 percent of the employee's base salary for FY 2018-19, down from 10.30 percent in FY 2017-18.

All employees hired on or after January 1, 2013 are enrolled in OCERS Plan U and are estimated at a rate of 9.27 percent for FY 2018-19, up from 9.25 percent in FY 2017-18.

Interns are not enrolled in OCERS so their retirement benefits are calculated at 6.2 percent (FICA rate).

- Other employee benefits and insurances will be budgeted to increase in FY 2018-19 and FY 2019-20 by moderate but yet to be determined amounts.

Materials, Supplies & Services Assumptions

- The proposed operating budget will continue to reflect an emphasis on safety, security, and maintenance of plant assets and infrastructure.
- An amount equal to half of one percent of the Operating materials and services budget will be a contingency for prior year re-appropriations. Since the current year's budget lapses on June 30, a contingency is needed in the succeeding budget year for goods or services ordered at the end of one budget year but not delivered until the following year.

- An amount equal to 0.85 percent of the Operating materials and services budget will be the General Manager's contingency budget. These funds will be allocated to appropriate line items during the year after requests and justifications for unanticipated needs are approved by the General Manager.
- Resource needs for strategic initiatives will be included in the budget.

Capital Improvement Program Assumptions

- The FY 2018-19 and FY 2019-20 cash flow budget, based on the most current Validated Capital Improvement Program (CIP), is the target.
- The baseline CIP cash flow for FY 2018-19 is \$169 million and for FY 2019-20 is \$193 million.
- Continual evaluation of the CIP by the Asset Management Team may result in deferral or reduction of some projects and a resultant increase in O&M repair costs for materials and services, if the net cash flow impact is a decrease.
- The FY 2018-19 and 2019-20 CIP budget will only increase for critical projects which were not previously identified in the Strategic Plan Update.
- For the first five months of FY 2017-18, \$41.1 million of the \$148.1 million CIP budget, approximately 27.8 percent, was expended.

Debt Financing

- The District will issue new debt in the form of Certificates of Participation (COP) as needed to fund the CIP and to maintain reserves.
- No additional debt issuance is scheduled for FY 2018-19 and FY 2019-20.
- Debt will only be used for CIP and capital expenses, not for operating expenses.
- Capital financing plans no longer include future borrowings over the next ten years as the approved user fee schedule is considered sufficient.
- Borrowing is proposed only for facilities which do not add capacity and that are funded by all users

Budget Assumptions

for replacement, rehabilitation, and improved treatment.

Reserve Assumptions

The existing reserve policy is summarized as follows:

- ▶ A cash flow criterion will be established to fund operations, maintenance and certificates of participation expenses for the first half of the fiscal year, prior to receipt of the first installment of the property tax allocation and sewer service user fees which are collected as a separate line item on the property tax bill. The level of this criterion will be established as the sum of an amount equal to six months operations and maintenance expenses and the total of the annual debt (COP) service payments due in August each year.
- ▶ An operating contingency criterion will be established to provide for non-recurring expenditures that were not anticipated when the annual budget and sewer service fees were considered and adopted. The level of this criterion will be established at an amount equal to ten percent of the annual operating budget.
- ▶ A capital improvement criterion will be maintained to fund annual increments of the capital improvement program. The long-term target is for one half of the capital improvement program to be funded from borrowing and for one half to be funded from current revenues and reserves. With this program in mind, the target level of this criterion has been established at one-half of the average annual capital improvement program over the next ten years.
- ▶ A catastrophic loss, or self-insurance, criterion will be maintained for property damage including fire, flood and earthquake, for general liability and for workers' compensation. This criterion is intended to work with purchased insurance policies, FEMA disaster reimbursements and State disaster reimbursements. The potential infrastructure loss from a major earthquake, of which the District currently has limited outside insurance coverage of \$25 million, has been estimated to be as high as \$1.3 billion. The level of this criterion has been set at \$57 million should such a catastrophic event occur. This criterion amount will assist the District with any short-term funding needs until Federal and State assistance becomes available.

- ▶ Accumulated capital funds will be set aside for certain specific, short-term capital improvements as the need and availability arise.
- ▶ A capital replacement/renewal criterion has been established to provide thirty percent of the funding to replace or refurbish the current collection, treatment and disposal facilities at the end of their useful economic lives.

Based on the Facilities Evaluation Report completed in December 2017, the current replacement value of these facilities is estimated to be \$3.17 billion for the collection facilities and \$6.94 billion for the treatment and disposal facilities. The initial criterion level has been established at \$50 million, which will be augmented by interest earnings and a small portion of the annual sewer user fee, in order to meet projected needs through the year 2030.

- ▶ Provisions of the various certificates of participation (COP) issues require debt service reserves to be under the control of the Trustee for that issue. These reserve funds are not available for the general needs of the District and must be maintained at specified levels. The current level of required COP service reserves is projected to be \$177.0 million.
- ▶ Accumulated funds exceeding the levels specified by District policy will be maintained in a rate stabilization fund. These funds will be applied to future years' needs in order to maintain rates or to moderate annual fluctuations. There is no established target for this criterion.

Miscellaneous

- The budget document will be in a bi-annual format with two, one-year budgets presented for FY 2018-19 and FY 2019-20.
- The budget worksheets for operating costs will contain one column for FY 2018-19 and one column for 2019-20. The column will represent all collection, treatment, and disposal/reuse costs.

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Accounting System & Budgetary Control

Accounting System and Budgetary Control

Fund Accounting & Proprietary Funds

The accounts of the District are organized within one Enterprise Fund, a Proprietary Fund Type. The District's Enterprise Fund is comprised of two Revenue Areas which are identified as Revenue Area 14 and the Consolidated Revenue Area (Revenue Area 15). Each Revenue Area includes a share of capital outlay activities, self-insurance activities, debt service activities, and operating activities. These activities are allocated to each Revenue Area based on sewage flows, location, or level of participation in specific programs.

Enterprise Funds are used to account for operations that are financed and operated in a manner similar to a private business enterprise, where the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis are financed or recovered through user charges.

Basis of Accounting

Basis of accounting refers to the point at which revenues and expenses are recognized in the accounts and reported in the financial statements. Enterprise funds are accounted for on the flow of economic resources measurement focus and use the accrual basis of accounting. In an enterprise fund, revenues are recognized when earned and expenses are recognized when incurred, regardless of the timing of related cash flows.

Budgetary Basis of Accounting

The operating budget for the Enterprise Fund is adopted on a basis consistent with generally accepted accounting principles. Except as noted in the following paragraph, the basis of accounting and the budgetary basis of accounting are the same. Budgeted amounts are as originally adopted and as further amended by Board action of the District.

Although the District does budget for capital improvement projects, the related capital outlays are recorded as increases in Property, Plant, and Equipment on the balance sheet of the Enterprise Fund. Similarly, the District budgets for the retirement of debt. However, the principal payments on debt are recorded as reductions in the current portion of long-term debt on the balance sheet of the Enterprise Fund.

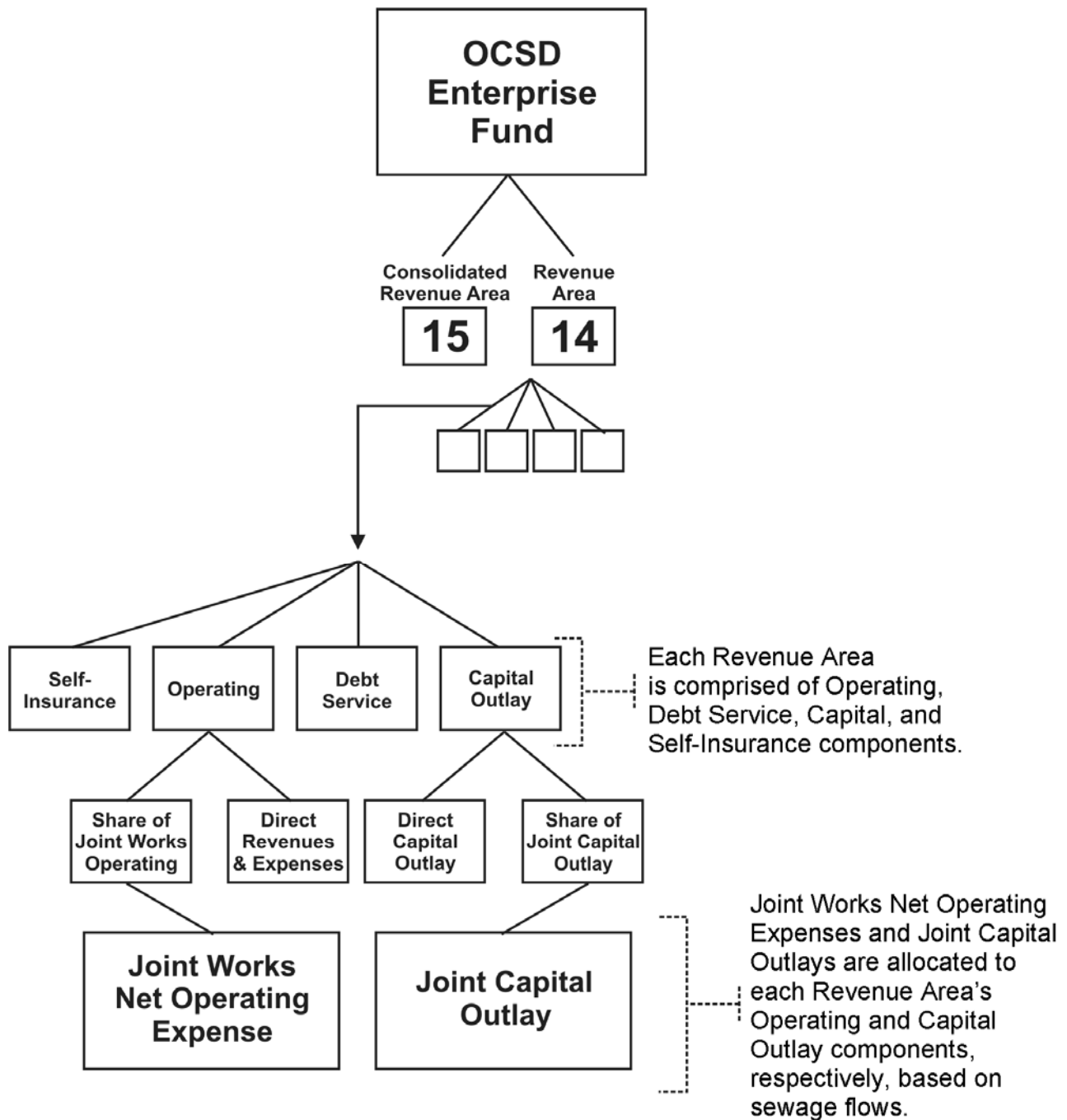
Internal Controls

The District is responsible for establishing and maintaining an internal control structure designed to ensure that the assets of the government are protected from loss, theft, or misuse and to ensure that adequate accounting data are compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The internal control structure is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgments by management.

Budgetary Control

Budgetary controls are maintained to ensure compliance with legal provisions embodied in the annual appropriated budget approved by the Board of Directors. The budgetary level of control, the level at which operating expenses cannot legally exceed the appropriated amount, is exercised at the department level.

Orange County Sanitation District Fund Structure Diagram



Revenue Sources

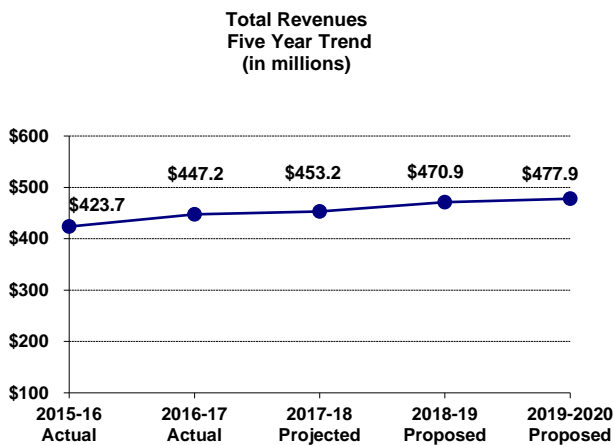
Revenue Sources

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

- User Fees
- Property Taxes
- Industrial Waste Permit User Fees
- Interest Earnings
- Debt Proceeds

These sources have generally accounted for 90 percent more than of the total revenue to the District.

The following graph summarizes revenues from all sources for the District over the past two fiscal years, the current year, and through the following two proposed budget years:



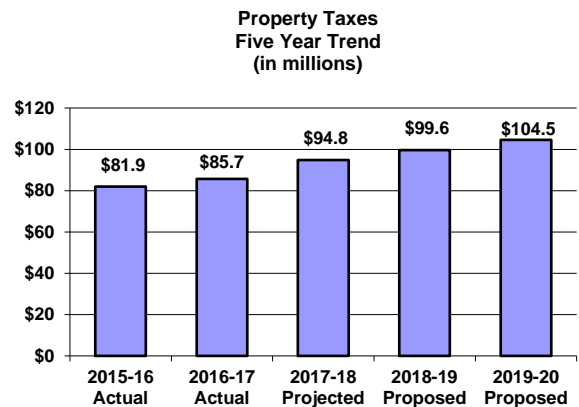
Total revenues increased from \$423.7 million in FY 2015-16 to \$447.2 million in FY 2016-17, or \$23.5 million. This increase was due mostly to: (1) an increase of \$21.7 million in intra-district equity sale/purchase between the Consolidated Revenue Areas and Revenue Area 14; (2) the \$1.2 million increase in permitted user fees due to higher rates and an increase in the strength of the discharge from the permittees.

In FY 2018-19, revenues are being proposed at \$470.9 million, an increase of \$17.7 million, or 3.9 percent over the prior year. This increase is primarily attributable to the increases of \$5.6 million in IRWD assessments, \$4.7 million in property taxes revenue as property assessed valuations continue to rebound from the previous market downturn, \$3.0 million in joint operating revenues, \$2.4 million in CIP reimbursements from other agencies, and \$1.5 million in general user fees.

In FY 2018-19, revenues are being proposed at \$477.9 million, an increase of \$7.0 million, or 1.4 percent over the prior year. This increase is primarily attributable to the 1.5 percent increase in user fees that is expected to generate an additional \$4.6 million. Property tax revenue is expected to generate an additional increase of \$5.0 million, or another projected increase of 5.0 percent over the prior year.

Property Taxes

The County 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. The District receives a share of this basic levy proportionate to the amount that 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.



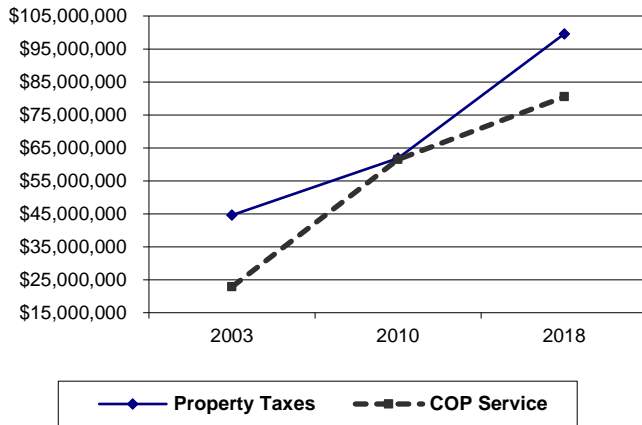
The District's annual share of the one percent ad valorem property tax levy is first dedicated for the payment of COP debt service. The apportionment of the ad valorem tax is pursuant to the Revenue Program adopted in April 1979 to comply with regulations of the Environmental Protection Agency, the State Water Resources Control Board, and in accordance with COP documents and Board policy.

As shown in the graph above, property tax revenues increased from \$81.9 million in FY 2015-16 to a projected \$94.8 million in FY 2017-18, primarily due to the rebound from the economic decline and the collapse in the housing and commercial property markets beginning in 2008. Property tax revenues are now being projected to increase 5.0 percent per year through FY 2019-20.

2018-19 & 2019-20 Budget

Historically the District's property tax revenues exceeded the District's debt service obligations. However, capital improvement requirements averaging \$200.0 million a year over the last ten years have required new COP debt issuances that have increased future debt service payments that more closely matches property tax revenues.

COP Funding Requirements vs. Property Tax Funding Source



User Fees

User fees are ongoing fees for service paid by customers connected to the sewer system. A property owner, or user, does not pay user fees until connected to the sewer system and receiving services. Once connected, a user is responsible for their share of the system's costs, both fixed and variable, in proportion to the user's demand on the system.

In addition, the Consolidated Revenue Area charges industrial and commercial user fees to customers discharging high-strength or high-volume wastes into the sewer systems. Revenue Area No. 14 needs are funded by IRWD. Previously the District had been able to avoid or minimize user fee increases by reducing operational costs through reorganizing and streamlining District operations. As a result of the capital improvement program expansion and the rehabilitation and refurbishment of existing facilities, annual increases in user fees are required.

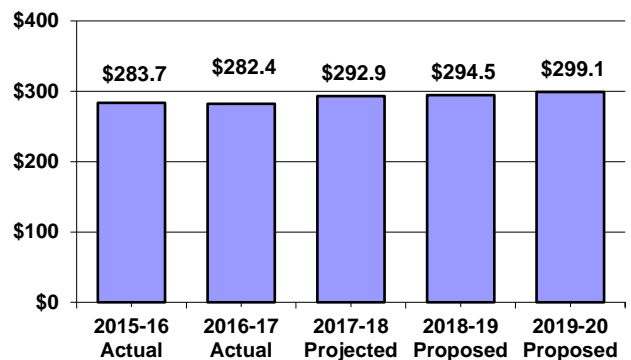
In 2007, District staff conducted strategic planning workshops with the Board of Directors to layout a capital program to deliver the levels of service desired by the Board of Directors. These levels of service and resulting capital projects are included in the District's 5-year Strategic Plan that were most recently updated

in December 2015. The original effort was reinforced through the adoption of a new Master Plan in December 2017, a planning effort to define the District's goals, responsibilities, and requirements over the next 20 years, and includes projections through the assumed "build-out" of the District's service area to the year 2050. Incorporating the 2017 Master Plan into the CIP validation update for FY 2018-19, the current CIP includes projects outlays of \$2.7 billion over the next ten years.

In March of 2018, following a Proposition 218 notice process, the Board approved sewer rate increases for each year over the next five years averaging approximately 1.2 percent a year. These increases are necessary to balance the funding of operating expenses and capital improvements with current revenues and existing debt, and to minimize the increase in rates over an extended period of time.

The impact of this five-year sewer fee schedule increased the single-family residence user fee rate, the underlying rate for all sewer service user fees, an average of 1.2 percent a year from \$335 in FY 2018-19 to \$351 in FY 2019-20. These rate increases by the District are still well below the average annual sewer rate of \$529 being charged throughout the State according to the 2017 California Wastewater Charge Survey conducted by the State Water Resources Control Board.

Net User Fees (in millions)



There was a \$1.3 million, or 0.4 percent, decrease in FY 2016-17 as shown in the Net User Fees chart above was due to rebates provided to commercial property users.

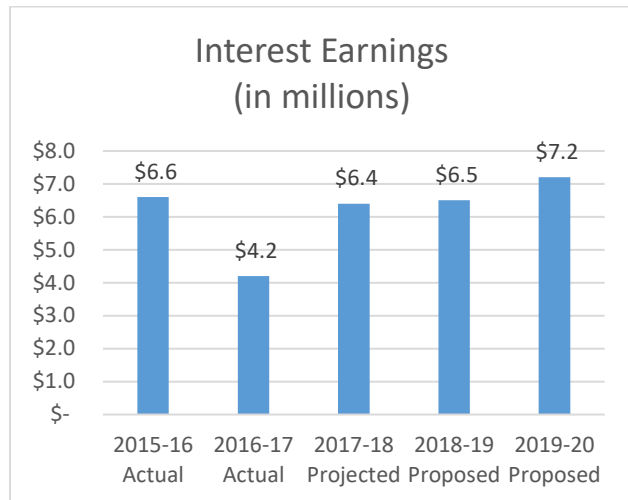
Interest Earnings

Interest earnings are generated from the investment of accumulated reserves consisting of a cash

Revenue Sources

flow/contingency, a capital improvement, a capital replacement/refurbishment, and a self-insurance reserve, all projected to total \$630.0 million at July 1, 2018.

The District's reserves are invested in accordance with the District's investment policy and the State Government Code through an outside money manager, and an independent custodian bank.



Interest earnings fluctuate from year to year based on the timing of CIP outlays and debt issuances, which impact the available balance in reserves for investing, and in the rise and fall of fixed-income investment market yields.

The District's investment policy is structured conservatively towards liquidity to avoid having to sell investments at a loss and having unrealized losses become realized losses. Total return on investments were 1.7 percent in FY 2015-16 and 0.7 percent in FY 2016-17. However, interest earnings were lower in FY 2016-17 due to lower yields earned on investments and lower cash and investment balances.

The District is proposing an interest earnings rate of 1.0 percent in both FY 2018-19 and FY 2019-20 to generate earnings of \$6.5 million and \$7.2 million, on annual average investment portfolio projections, with fiscal year end balances of \$678.6 million and \$773.3 million in FY 2018-19 and FY 2019-20, respectively.

Debt Proceeds

Over the next ten years, the District is projecting an additional \$2.4 billion in future treatment plant and collection system capital refurbishments. In order to

minimize annual sewer rate increases in the long-term, all of these refurbishments are being proposed to be funded from user fees with no issuances of new money debt issuances.

Teeter Plan

In June 1993, the County of Orange adopted the Teeter Plan pursuant to Sections 4701 through 4717 of the California Revenue and Taxation Code. The Teeter Plan is an alternative method of distribution of revenues from the secured property tax roll to local participating agencies.

The District participates in the Teeter Plan program and receives its full share of property tax and user fees from the secured roll, whether or not these taxes and user fees have been collected. The Teeter Plan provides the District with stable and timely cash flow without the collection risk. The County, in exchange for assuming the collection risk, receives the delinquent taxes and user fees, penalties and interest for the defaulted properties when paid.

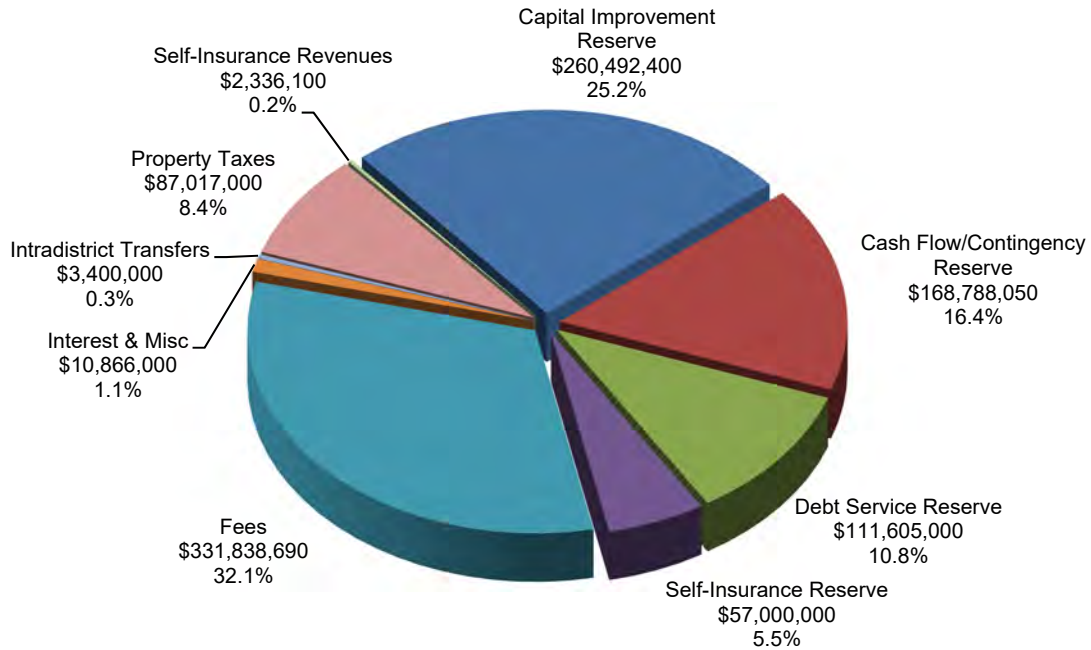
For the fiscal year ended June 30, 2017, the District received \$370,714,000 in tax and user fees from the County, or 99.99 percent of the total tax and user fee levy.

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DISTRICT SUMMARY
SECTION 4

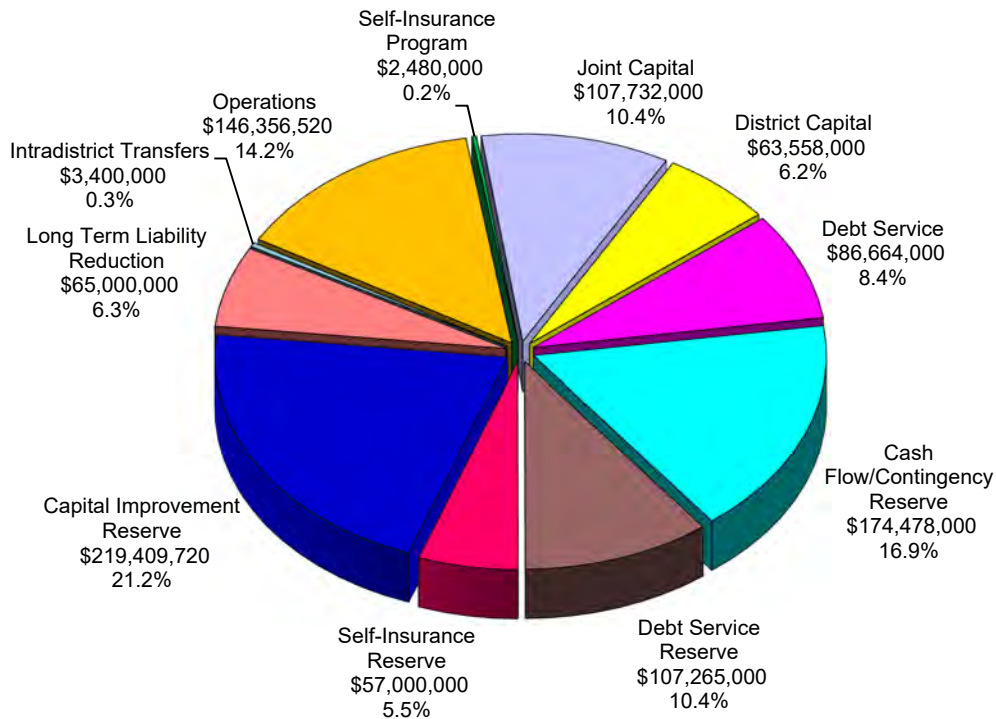
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Where the Money Comes From – FY 2018-19



FY 2018-19 Total Funding Sources - \$1,100,929,591

Where the Money Goes – FY 2018-19



FY 2018-19 Total Funding Uses - \$1,100,929,591

2018-19 & 2019-20 Budget

Funding Sources by Category FY 2018-19

	Consolidated Revenue Area	Revenue Area 14	Total Sources
Beginning Accum. Funds & Reserves	\$ 540,279,514	\$ 89,716,772	\$ 629,996,286
Services Fees	21,533,790	20,369,030	41,902,820
User Fees	294,450,000	-	294,450,000
Capital Facilities Capacity Charge	14,000,000	-	14,000,000
Capacity Rights	-	-	-
Debt Proceeds	-	-	-
Property Taxes	96,823,000	2,734,000	99,557,000
Intradistrict Transfers	3,700,000	-	3,700,000
Insurance In-Lieu Premiums	1,870,900	45,000	1,915,900
Interest and Other Revenue	<u>13,828,585</u>	<u>1,579,000</u>	<u>15,407,585</u>
Subtotal	<u>446,206,275</u>	<u>24,727,030</u>	<u>470,933,305</u>
Total Sources	<u>\$ 986,485,789</u>	<u>\$ 114,443,802</u>	<u>\$ 1,100,929,591</u>

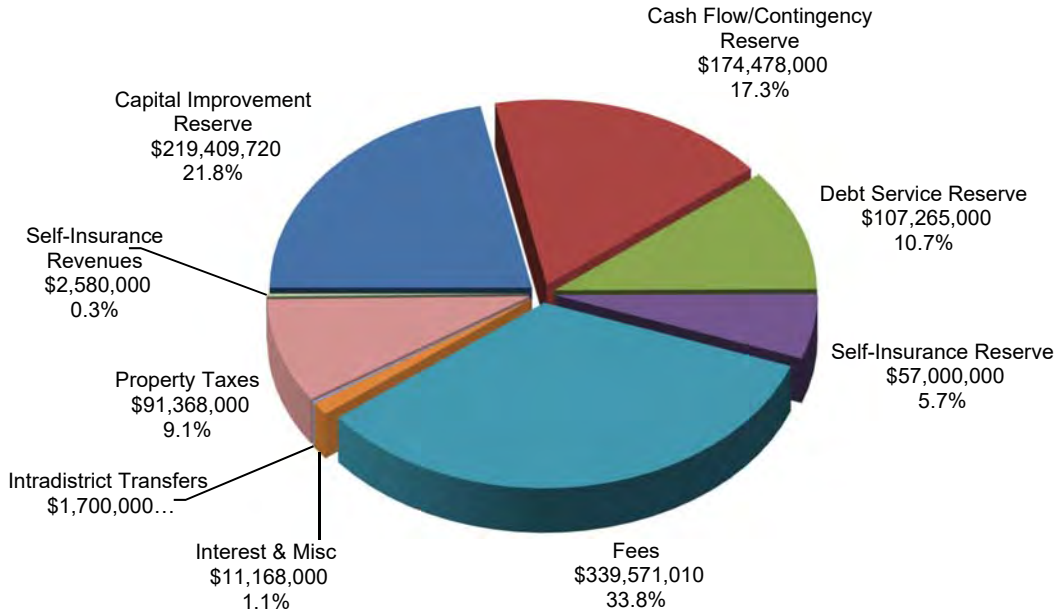
Funding Uses by Category

Funding Uses by Category FY 2018-19

	Consolidated Revenue Area	Revenue Area 14	Total Uses
Directors' Fees	\$ 154,873	\$ 3,727	\$ 158,600
Salaries & Benefits	87,421,260	8,412,940	95,834,200
Administrative Expenses	1,831,300	176,230	2,007,530
Printing & Publications	289,070	27,820	316,890
Training & Meetings	1,000,770	96,310	1,097,080
Operating Materials and Supplies	14,378,980	1,383,760	15,762,740
Contractual Expenses	22,993,730	2,212,790	25,206,520
Professional Expenses	4,920,010	473,470	5,393,480
Research & Monitoring	968,040	93,160	1,061,200
Repairs & Maintenance	19,809,050	1,906,310	21,715,360
Utilities	6,786,690	653,110	7,439,800
Self-Insurance Requirements	2,402,100	57,900	2,460,000
Other Materials, Supplies, & Services	4,789,290	460,900	5,250,190
Cost Allocation	(18,318,723)	(1,751,707)	(20,070,430)
Joint Works Capital Improvement Program	136,680,708	4,986,719	141,667,427
Collection System Capital Improvement Prog.	32,874,449	-	32,874,449
Debt Service	80,464,000	-	80,464,000
Long Term Debt Reduction	-	-	-
Intradistrict Transfers	-	3,700,000	3,700,000
Joint Equity Sale to IRWD	-	-	-
Subtotal	399,445,597	22,893,439	422,339,036
Ending Accum. Funds & Reserves	587,040,192	91,550,363	678,590,555
Total Uses	<u>\$ 986,485,789</u>	<u>\$ 114,443,802</u>	<u>\$ 1,100,929,591</u>

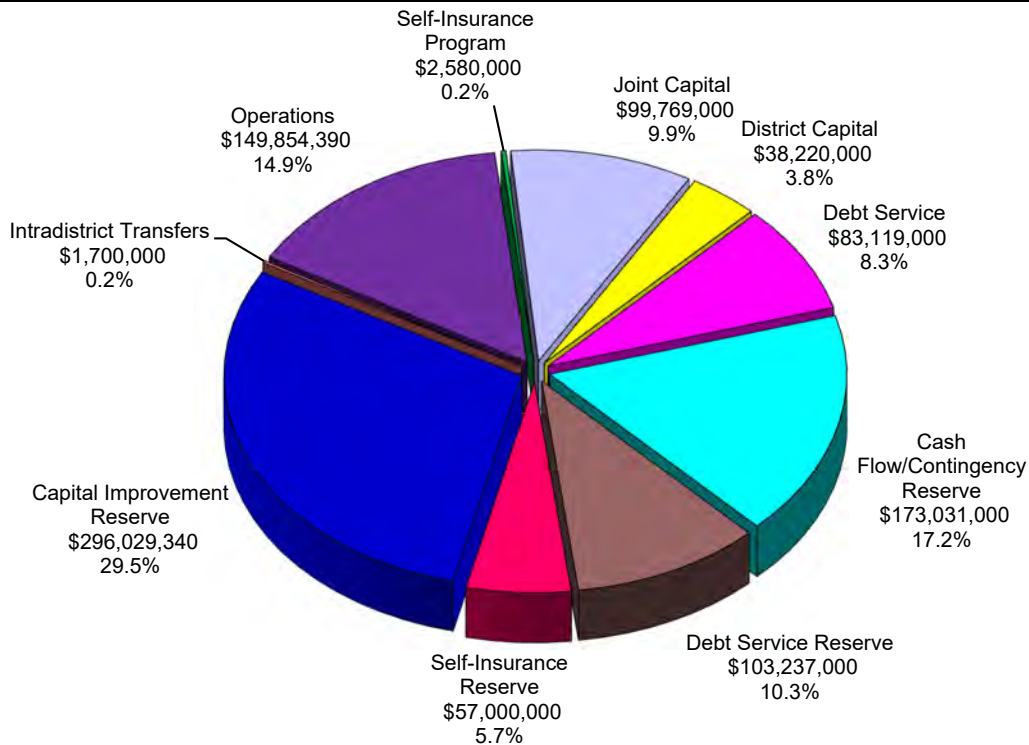
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Where the Money Comes From – FY 2019-20



FY 2019-20 Total Funding Sources - \$1,156,520,621

Where the Money Goes – FY 2019-20



FY 2019-20 Total Funding Uses - \$1,156,520,621

2018-19 & 2019-20 Budget

Funding Sources by Category FY 2019-20

	Consolidated Revenue Area	Revenue Area 14	Total Sources
Beginning Accum. Funds & Reserves	\$ 587,040,192	\$ 91,550,363	\$ 678,590,555
Services Fees	21,881,746	18,030,614	39,912,360
User Fees	299,084,000	-	299,084,000
Capital Facilities Capacity Charge	14,476,000	-	14,476,000
Capacity Rights	-	-	-
Debt Proceeds	-	-	-
Property Taxes	102,077,000	2,458,000	104,535,000
Intradistrict Transfers	3,500,000	-	3,500,000
Insurance In-Lieu Premiums	2,471,300	58,700	2,530,000
Interest and Other Revenue	12,396,206	1,496,500	13,892,706
Subtotal	455,886,252	22,043,814	477,930,066
Total Sources	<u>\$ 1,042,926,444</u>	<u>\$ 113,594,177</u>	<u>\$ 1,156,520,621</u>

Funding Uses by Category

Funding Uses by Category FY 2019-20

	Consolidated Revenue Area	Revenue Area 14	Total Uses
Directors' Fees	\$ 154,920	\$ 3,680	\$ 158,600
Salaries & Benefits	89,996,530	8,033,970	98,030,500
Administrative Expenses	1,749,820	156,210	1,906,030
Printing & Publications	291,400	26,010	317,410
Training & Meetings	907,400	81,000	988,400
Operating Materials and Supplies	17,330,730	1,547,110	18,877,840
Contractual Expenses	20,248,010	1,807,540	22,055,550
Professional Expenses	4,225,190	377,180	4,602,370
Research & Monitoring	1,009,480	90,120	1,099,600
Repairs & Maintenance	17,737,810	1,583,450	19,321,260
Utilities	8,288,670	739,930	9,028,600
Self-Insurance Requirements	2,470,600	59,400	2,530,000
Other Materials, Supplies, & Services	3,852,870	343,950	4,196,820
Cost Allocation	(18,717,820)	(1,660,790)	(20,378,610)
Joint Works Capital Improvement Program	97,758,058	3,566,600	101,324,658
Collection System Capital Improvement Prog.	35,702,600	-	35,702,600
Debt Service	79,956,000	-	79,956,000
Long Term Debt Reduction	-	-	-
Intradistrict Transfers	-	3,500,000	3,500,000
Joint Equity Sale to IRWD	-	-	-
Subtotal	362,962,268	20,255,360	383,217,628
Ending Accum. Funds & Reserves	679,964,176	93,338,817	773,302,993
Total Uses	<u>\$ 1,042,926,444</u>	<u>\$ 113,594,177</u>	<u>\$ 1,156,520,621</u>

2018-19 & 2019-20 Budget

DESCRIPTION OR ACCOUNT TITLE	ACTUAL 2016-17	APPROVED 2017-18	PROJECTED 2017-18	PROPOSED 2018-19	PROPOSED 2019-20
BEGINNING ACCUM. FUNDS & RESERVES	\$ 569,543,220	\$ 535,274,550	\$ 531,514,990	\$ 629,996,286	\$ 678,590,555
<u>OPERATING REVENUES</u>					
General Sewer Service User Fees	282,429,502	291,158,000	292,985,000	294,450,000	299,084,000
Permitted User Fees	14,172,851	12,925,000	18,101,000	18,320,000	18,538,000
IRWD Assessments	11,389,092	8,991,610	11,397,000	14,148,820	13,129,360
SAWPA Assessments	3,437,936	3,263,000	3,359,000	3,290,000	3,422,000
Interest	4,248,353	8,398,000	6,400,000	6,510,000	7,223,000
Miscellaneous Receipts	3,464,859	2,025,000	3,521,756	8,897,585	6,669,706
Operating Revenue Subtotal	319,142,593	326,760,610	335,763,756	345,616,405	348,066,066
<u>NON-OPERATING REVENUES</u>					
Property Tax Allocation	75,804,234	82,925,550	83,746,000	88,266,000	92,679,450
Redevelopment Agency Pass Thru	9,865,844	10,740,450	11,070,000	11,291,000	11,855,550
Subtotal-Taxes	85,670,078	93,666,000	\$94,816,000	99,557,000	104,535,000
Capital Facilities Capacity Charge	15,621,440	9,900,000	13,961,000	14,000,000	14,476,000
Sale of Capacity Rights, SAWPA & SSBSD	-	-	-	-	-
Capital Assessment (IRWD)	2,706,905	5,375,000	3,286,000	6,144,000	4,823,000
Non-Operating Revenue Subtotal	103,998,423	108,941,000	112,063,000	119,701,000	123,834,000
<u>INTRADISTRICT REVENUES</u>					
Annual Intradistrict Joint Equity Purchase/Sale	21,678,191	1,240,000	2,710,000	3,700,000	3,500,000
<u>FINANCING REVENUES</u>					
Sale of Certificates of Participation	-	-	-	-	-
Financing Revenues Subtotal	-	-	-	-	-
<u>SELF INSURANCE REVENUES</u>					
Workers' Comp SFI	1,196,300	564,330	554,300	586,600	780,000
General Liability SFI	1,147,545	2,129,570	2,135,700	1,329,300	1,750,000
Subtotal-Self Insurance	2,343,845	2,693,900	2,690,000	1,915,900	2,530,000
Total Revenues	447,163,052	439,635,510	453,226,756	470,933,305	477,930,066
TOTAL AVAILABLE FUNDING	\$ 1,016,706,272	\$ 974,910,060	\$ 984,741,746	\$ 1,100,929,591	\$ 1,156,520,621

Budget Resources

DESCRIPTION OR ACCOUNT TITLE	ACTUAL 2016-17	APPROVED 2017-18	PROJECTED 2017-18	PROPOSED 2018-19	PROPOSED 2019-20
<u>OPERATING REQUIREMENTS</u>					
Directors' Fees	\$ 151,540	\$ 152,600	\$ 158,600	\$ 158,600	\$ 158,600
Salaries & Benefits	91,453,234	90,464,800	90,221,280	95,834,200	98,030,500
Administrative Expense	1,842,155	1,865,480	2,068,300	2,007,530	1,906,030
Printing & Publications	266,648	368,960	344,010	316,890	317,410
Training & Meetings	943,824	1,182,210	984,170	1,097,080	988,400
Operating Materials & Supplies	14,863,560	17,369,600	14,910,520	15,762,740	18,877,840
Contractual Expense	23,711,308	22,648,530	24,281,770	25,206,520	22,055,550
Professional Expense	3,528,669	4,162,000	3,912,600	5,393,480	4,602,370
Research & Monitoring	892,313	872,400	785,000	1,061,200	1,099,600
Repairs & Maintenance	14,797,760	16,160,160	15,749,440	21,715,360	19,321,260
Utilities	6,118,857	10,233,670	6,967,860	7,439,800	9,028,600
Other Materials, Supplies, & Services	2,369,297	3,768,540	3,495,460	5,250,190	4,196,820
Cost Allocation	(20,137,574)	(19,394,560)	(20,266,650)	(20,070,430)	(20,378,610)
Subtotal- Operating	140,801,591	149,854,390	143,612,360	161,173,160	160,204,370
<u>CAPITAL IMPROVEMENTS</u>					
Joint Works Capital Improvements	95,730,304	112,118,000	101,937,900	141,667,427	101,324,658
Collection System Capital Improvements	43,951,666	35,943,000	22,396,100	32,874,449	35,702,600
Annual Intradistrict Joint Equity Purchase/Sale	21,678,191	1,240,000	2,710,000	3,700,000	3,500,000
Subtotal- Capital Improvements	161,360,161	149,301,000	127,044,000	178,241,876	140,527,258
<u>FINANCING REQUIREMENTS</u>					
Certificate of Participation Service	99,814,288	82,033,000	82,033,000	80,464,000	79,956,000
Long Term Debt Reduction	80,616,110	-	-	-	-
Subtotal-Financing Req	180,430,398	82,033,000	82,033,000	80,464,000	79,956,000
<u>SELF INSURANCE REQUIREMENTS</u>					
Workers' Comp SFI	645,060	1,040,000	845,300	760,000	780,000
General Liability SFI	1,954,072	1,335,000	1,210,800	1,700,000	1,750,000
Subtotal-Self Insurance	2,599,132	2,375,000	2,056,100	2,460,000	2,530,000
TOTAL REQUIREMENTS	485,191,282	383,563,390	354,745,460	422,339,036	383,217,628
REVENUES OVER / (UNDER) REQUIREMENTS	(38,028,230)	(37,165,890)	98,481,296	48,594,269	94,712,438
ENDING ACCUM. FUNDS & RESERVES	\$ 531,514,990	\$ 591,346,670	\$ 629,996,286	\$ 678,590,555	\$ 773,302,993

2018-19 & 2019-20 Budget

BUDGET RESOURCES BY REVENUE AREA - FY 2018-19

DESCRIPTION OR ACCOUNT TITLE	Consolidated Revenue Area Proposed	Rev Area 14 Proposed	Total Proposed
BEGINNING ACCUM. FUNDS & RESERVES	\$ 540,279,514	\$ 89,716,772	\$ 629,996,286
<u>OPERATING REVENUES</u>			
General Sewer Service User Fees	294,450,000	-	294,450,000
Permitted User Fees	18,320,000	-	18,320,000
O & M Joint Operating Assessment Service Fees (IRWD)	-	2,647,240	2,647,240
O & M Collection System Assessment Service Fees (IRWD)	-	1,726,580	1,726,580
O & M Sludge Disposal Assessment Service Fees (IRWD)	-	9,775,000	9,775,000
SAWPA Assessments	3,213,790	76,210	3,290,000
Interest	5,204,000	1,306,000	6,510,000
Miscellaneous Receipts	8,624,585	273,000	8,897,585
Operating Revenue Subtotal	329,812,375	15,804,030	345,616,405
<u>NON-OPERATING REVENUES</u>			
Property Tax Allocation	85,842,000	2,424,000	88,266,000
Redevelopment Agency Pass Thru	10,981,000	310,000	11,291,000
Subtotal-Taxes	96,823,000	2,734,000	99,557,000
Capital Facilities Capacity Charge	14,000,000	-	14,000,000
Sale of Capacity Rights, SAWPA & SSBSD	-	-	-
Capital Assessment (IRWD)	-	6,144,000	6,144,000
Non-Operating Revenue Subtotal	110,823,000	8,878,000	119,701,000
<u>INTRADISTRICT REVENUES</u>			
Annual Intradistrict Joint Equity Purchase/Sale	3,700,000	-	3,700,000
<u>FINANCING REVENUES</u>			
Sale of Certificates of Participation	-	-	-
Intradistrict Loans, Advances & Repayments	-	-	-
Financing Revenues Subtotal	-	-	-
<u>SELF INSURANCE REVENUES</u>			
Workers' Comp SFI	572,800	13,800	586,600
General Liability SFI	1,298,100	31,200	1,329,300
Subtotal-Self Insurance	1,870,900	45,000	1,915,900
Total Revenues	446,206,275	24,727,030	470,933,305
 TOTAL AVAILABLE FUNDING	 \$ 986,485,789	 \$ 114,443,802	 \$ 1,100,929,591

Budget Resources

DESCRIPTION OR ACCOUNT TITLE	Consolidated Revenue Area Proposed	Rev Area 14 Proposed	Total Proposed
<u>OPERATING REQUIREMENTS</u>			
Directors' Fees	\$ 154,873	\$ 3,727	\$ 158,600
Salaries & Benefits	87,421,260	8,412,940	95,834,200
Administrative Expense	1,831,300	176,230	2,007,530
Printing & Publications	289,070	27,820	316,890
Training & Meetings	1,000,770	96,310	1,097,080
Operating Materials and Supplies	14,378,980	1,383,760	15,762,740
Contractual Expense	22,993,730	2,212,790	25,206,520
Professional Expense	4,920,010	473,470	5,393,480
Research & Monitoring	968,040	93,160	1,061,200
Repairs & Maintenance	19,809,050	1,906,310	21,715,360
Utilities	6,786,690	653,110	7,439,800
Other Materials, Supplies, & Services	4,789,290	460,900	5,250,190
Cost Allocation	(18,318,723)	(1,751,707)	(20,070,430)
Subtotal- Operating	147,024,340	14,148,820	161,173,160
<u>CAPITAL IMPROVEMENTS</u>			
Joint Works Capital Improvements	136,680,708	4,986,719	141,667,427
Collection System Capital Improvements	32,874,449	-	32,874,449
Annual Intradistrict Joint Equity Purchase/Sale	-	3,700,000	3,700,000
Subtotal- Capital Improvements	169,555,157	8,686,719	178,241,876
<u>FINANCING REQUIREMENTS</u>			
Certificate of Participation Service	80,464,000	-	80,464,000
Long Term Debt Reduction	-	-	-
Subtotal- Financing Requirements	80,464,000	-	80,464,000
<u>SELF INSURANCE REQUIREMENTS</u>			
Workers' Comp SFI	742,100	17,900	760,000
General Liability SFI	1,660,000	40,000	1,700,000
Subtotal- Self Insurance	2,402,100	57,900	2,460,000
<u>OTHER CASH OUTLAYS</u>			
Joint Equity Sale to IRWD	-	-	-
Subtotal- Other Cash Outlays	-	-	-
TOTAL REQUIREMENTS	399,445,597	22,893,439	422,339,036
REVENUES EXCEEDING REQUIREMENTS	46,760,678	1,833,591	48,594,269
ENDING ACCUMULATED FUNDS & RESERVES	\$ 587,040,192	\$ 91,550,363	\$ 678,590,555

2018-19 & 2019-20 Budget

BUDGET RESOURCES BY REVENUE AREA - FY 2019-20

DESCRIPTION OR ACCOUNT TITLE	Consolidated Revenue Area Proposed	Rev Area 14 Proposed	Total Proposed
BEGINNING ACCUM. FUNDS & RESERVES	\$ 587,040,192	\$ 91,550,363	\$ 678,590,555
<u>OPERATING REVENUES</u>			
General Sewer Service User Fees	299,084,000	-	299,084,000
Permitted User Fees	18,538,000	-	18,538,000
O & M Joint Operating Assessment Service Fees (IRWD)	-	2,622,520	2,622,520
O & M Collection System Assessment Service Fees (IRWD)	-	1,795,840	1,795,840
O & M Sludge Disposal Assessment Service Fees (IRWD)	-	8,711,000	8,711,000
SAWPA Assessments	3,343,746	78,254	3,422,000
Interest	5,968,000	1,255,000	7,223,000
Miscellaneous Receipts	6,428,206	241,500	6,669,706
Operating Revenue Subtotal	333,361,952	14,704,114	348,066,066
<u>NON-OPERATING REVENUES</u>			
Property Tax Allocation	90,500,450	2,179,000	92,679,450
Redevelopment Agency Pass Thru	11,576,550	279,000	11,855,550
Subtotal-Taxes	102,077,000	2,458,000	104,535,000
Capital Facilities Capacity Charge	14,476,000	-	14,476,000
Sale of Capacity Rights, SAWPA & SSBSD	-	-	-
Capital Assessment (IRWD)	-	4,823,000	4,823,000
Non-Operating Revenue Subtotal	116,553,000	7,281,000	123,834,000
<u>INTRADISTRICT REVENUES</u>			
Annual Intradistrict Joint Equity Purchase/Sale	3,500,000	-	3,500,000
<u>FINANCING REVENUES</u>			
Sale of Certificates of Participation	-	-	-
Intradistrict Loans, Advances & Repayments	-	-	-
Financing Revenues Subtotal	-	-	-
<u>SELF INSURANCE REVENUES</u>			
Workers' Comp SFI	761,900	18,100	780,000
General Liability SFI	1,709,400	40,600	1,750,000
Subtotal-Self Insurance	2,471,300	58,700	2,530,000
Total Revenues	455,886,252	22,043,814	477,930,066
TOTAL AVAILABLE FUNDING	\$ 1,042,926,444	\$ 113,594,177	\$ 1,156,520,621

Budget Resources

DESCRIPTION OR ACCOUNT TITLE	Consolidated Revenue Area Proposed	Rev Area 14 Proposed	Total Proposed
<u>OPERATING REQUIREMENTS</u>			
Directors' Fees	\$ 154,920	\$ 3,680	\$ 158,600
Salaries & Benefits	89,996,530	8,033,970	98,030,500
Administrative Expense	1,749,820	156,210	1,906,030
Printing & Publications	291,400	26,010	317,410
Training & Meetings	907,400	81,000	988,400
Operating Materials and Supplies	17,330,730	1,547,110	18,877,840
Contractual Expense	20,248,010	1,807,540	22,055,550
Professional Expense	4,225,190	377,180	4,602,370
Research & Monitoring	1,009,480	90,120	1,099,600
Repairs & Maintenance	17,737,810	1,583,450	19,321,260
Utilities	8,288,670	739,930	9,028,600
Other Materials, Supplies, & Services	3,852,870	343,950	4,196,820
Cost Allocation	(18,717,820)	(1,660,790)	(20,378,610)
Subtotal- Operating	147,075,010	13,129,360	160,204,370
<u>CAPITAL IMPROVEMENTS</u>			
Joint Works Capital Improvements	97,758,058	3,566,600	101,324,658
Collection System Capital Improvements	35,702,600	-	35,702,600
Annual Intradistrict Joint Equity Purchase/Sale	-	3,500,000	3,500,000
Subtotal- Capital Improvements	133,460,658	7,066,600	140,527,258
<u>FINANCING REQUIREMENTS</u>			
Certificate of Participation Service	79,956,000	-	79,956,000
Long Term Debt Reduction	-	-	-
Subtotal-Financing Req	79,956,000	-	79,956,000
<u>SELF INSURANCE REQUIREMENTS</u>			
Workers' Comp SFI	761,700	18,300	780,000
General Liability SFI	1,708,900	41,100	1,750,000
Subtotal-Self Insurance	2,470,600	59,400	2,530,000
<u>OTHER CASH OUTLAYS</u>			
Joint Equity Sale to IRWD	-	-	-
Subtotal- Other Cash Outlays	-	-	-
TOTAL REQUIREMENTS	362,962,268	20,255,360	383,217,628
REVENUES EXCEEDING REQUIREMENTS	92,923,984	1,788,454	94,712,438
ENDING ACCUMULATED FUNDS & RESERVES	\$ 679,964,176	\$ 93,338,817	\$ 773,302,993

2018-19 & 2019-20 Budget

Projected Reserves at June 30, 2018, 2019 and 2020

	Projected 6/30/2018	Proposed 6/30/2019	Proposed 6/30/2020
Cash Flow Requirements			
Operating Expenses	\$ 71,806,000	\$ 80,587,000	\$ 80,102,000
COP Payments	82,033,000	80,464,000	79,956,000
Operating Contingencies	14,361,000	16,117,000	16,020,000
Capital Improvement Program	241,813,286	284,103,555	382,658,993
Catastrophe & Self Insurance	57,000,000	57,000,000	57,000,000
Sub-total	467,013,286	518,271,555	615,736,993
Capital Replacement & Refurbishment	62,515,000	63,765,000	65,040,000
COP Service Required Reserves	100,468,000	96,554,000	92,526,000
Total	\$ 629,996,286	\$ 678,590,555	\$ 773,302,993

Accumulated Funds and Reserves Policy

A cash flow criterion will be established to fund operations, maintenance and certificate of participations expenses for the first half of the fiscal year, prior to the receipt of the first installment of the property tax allocation and the sewer service user fees which are collected as a separate line item on the property tax bill. The level of this criterion will be established as the sum of an amount equal to six months operations and maintenance expenses and the total of the annual debt (COP) service payments due in August each year.

An operating contingency criterion will be established to provide for non-recurring expenditures that were not anticipated when the annual budget and sewer service fees were evaluated and adopted. The level of this reserve will be established at an amount equal to ten percent of the annual operating budget.

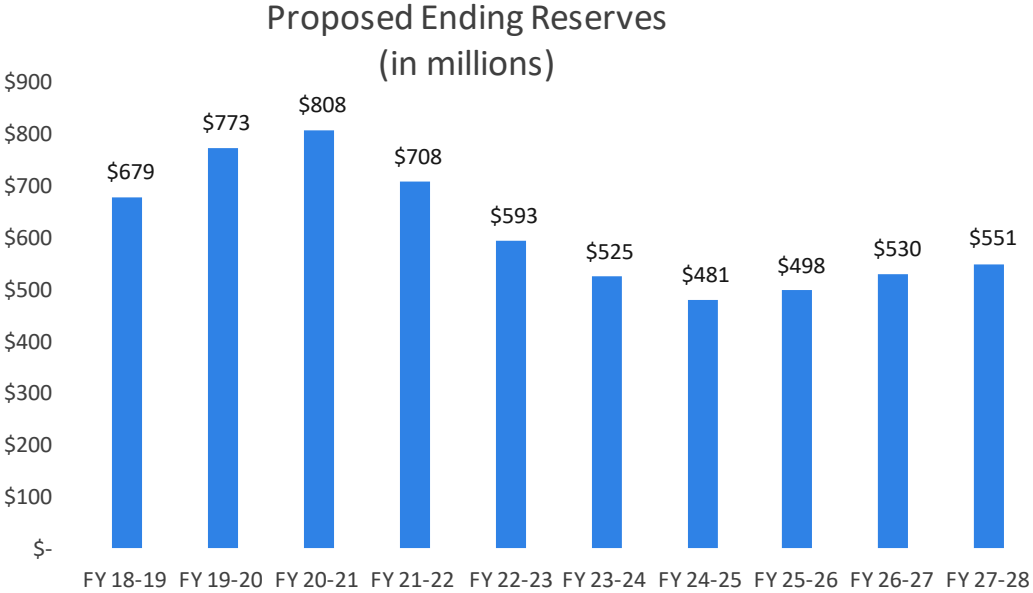
A capital improvement criterion will be maintained to fund annual increments of the capital improvement program. The long-term target is for one half of the capital improvement program to be funded from borrowing and for one half to be funded from current revenues and reserves. With this program in mind, the target level of this criterion has been established at one half of the average annual capital improvement program over the next ten years.

Levels higher and lower than the target can be expected as a result of outlay variability in the annual capital improvement programs.

A catastrophic loss or self-insurance criterion has been established to fund potential losses from property damage, including fire, flood and earthquake; general liability; and for workers' compensation. This criterion is intended to supplement purchased insurance policies, FEMA disaster reimbursements and State disaster reimbursements. The potential infrastructure loss from a major earthquake has been estimated at \$495 million. The level of this reserve has been set to fund the District's non-reimbursed costs, estimated to be \$57 million.

A capital replacement/renewal criterion policy has been established to provide thirty percent of the funding to replace or refurbish the current collection, treatment and disposal facilities at the end of their useful economic lives. The current replacement value of these facilities is estimated to be \$10.8 billion. The initial criterion level was established at \$50 million, which will be augmented by interest earnings and a small portion of the annual sewer user fee, to meet projected needs over the next 20 years.

Projected Reserves



Provisions of the various Certificate of Participation (COP) issues require debt service reserves to be under the control of the Trustee for that issue. These funds are not available for the general needs of the District and must be maintained at specified levels.

Accumulated funds exceeding the levels specified by District policy will be maintained in a rate stabilization fund. These funds will be applied to future years' needs in order to maintain rates or to moderate annual fluctuations. There is no established target for this group.

2018-19 & 2019-20 Budget

Orange County Sanitation District Consolidated Cash Flow Projections

Ref	Description	Preliminary 18-19	Preliminary 19-20	Preliminary 20-21	Preliminary 21-22	Preliminary 22-23	Preliminary 23-24
Revenues:							
1	General User Fees	294,450,000	299,084,000	303,743,000	308,428,000	313,138,000	321,624,000
2	Permitted User Fees	18,320,000	18,538,000	18,757,000	18,976,000	19,194,000	19,632,000
3	IRWD Assessments	20,292,820	17,952,360	14,196,350	17,829,840	18,795,780	17,238,390
4	SAWPA Assessments	3,290,000	3,422,000	3,559,000	3,701,000	3,849,000	4,003,000
5	Property Taxes	99,557,000	104,535,000	109,762,000	115,250,000	121,013,000	127,064,000
6	New COP Issues	-	-	-	-	-	-
7	Interest Revenues	6,510,000	7,223,000	7,869,000	7,545,000	6,472,000	8,321,000
8	Capital Facilities Capacity Charges	14,000,000	14,476,000	10,445,000	11,085,000	11,729,000	11,801,000
9	Other Revenues	14,513,485	12,699,706	11,605,495	23,679,843	25,153,148	13,672,671
10	Revenues	470,933,305	477,930,066	479,936,845	506,494,683	519,343,928	523,356,061
Requirements:							
11	Oper & Mtce Exp (4.0% yr)	161,173,160	160,204,370	163,731,000	173,162,000	178,120,000	184,221,000
12	Capital Improvement Program (CIP)	177,571,000	148,997,000	217,021,000	371,087,000	378,421,000	311,892,000
13	Less: CIP Savings & Deferrals	(17,307,124)	(14,899,742)	(21,702,080)	(29,686,967)	(22,705,253)	(9,356,772)
14	Future Rehabilitation and Replacem	14,278,000	2,930,000	7,242,000	17,262,000	25,791,000	29,329,000
15	COP Service (5.0%, 30 yrs)	80,464,000	79,956,000	76,019,000	72,472,000	72,466,000	72,470,000
16	Reduction of Long-Term Liabilites	-	-	-	-	-	-
17	Other Requirements	6,160,000	6,030,000	2,530,000	2,530,000	2,530,000	2,530,000
18	Requirements	422,339,036	383,217,628	444,840,920	606,826,033	634,622,747	591,085,228
19	Revenues-Requirements	48,594,269	94,712,438	35,095,925	(100,331,350)	(115,278,819)	(67,729,167)
Accumulated Funds:							
20	Beginning of Year	629,996,286	678,590,555	773,302,993	808,398,918	708,067,568	592,788,749
21	End of Year	678,590,555	773,302,993	808,398,918	708,067,568	592,788,749	525,059,582
22	Consolidated Reserve Policy	527,957,000	524,114,000	519,790,000	519,620,000	520,187,000	521,336,000
23	Over (Under) Reserve Policy*	150,633,555	249,188,993	288,608,918	188,447,568	72,601,749	3,723,582
Sewer Service User Fees:							
24	Avg SFR Annual User Fee	\$335	\$339	\$343	\$347	\$351	\$359
25	Percentage Change	1.21%	1.19%	1.18%	1.17%	1.15%	2.28%
26	Equivalent Dw elling Units	923,730	926,501	929,281	932,069	934,865	937,670
27	SFR Connection Fee	\$4,228	\$4,601	\$4,973	\$5,346	\$5,719	\$5,736
28	Outstanding COPs	\$965,539,815	\$925,257,565	\$887,211,498	\$851,126,075	\$813,575,753	\$774,624,983
<u>Reserve Policy</u>							
29	50% Next Year Operating	80,587,000	80,102,000	81,866,000	86,581,000	89,060,000	92,111,000
30	10% Next Year Operating	16,117,000	16,020,000	16,373,000	17,316,000	17,812,000	18,422,000
31	100% Next Year AUG COP Svc.	80,464,000	79,956,000	76,019,000	72,472,000	72,466,000	72,470,000
32	50% average ten-year CIP Bal.	133,470,000	133,470,000	133,470,000	133,470,000	133,470,000	133,470,000
33	DSR @ 10% Outstanding COPs	96,554,000	92,526,000	88,721,000	85,113,000	81,358,000	77,462,000
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	-	-	-	-	-	-
37	Total	527,957,000	524,114,000	519,790,000	519,620,000	520,187,000	521,336,000
<u>COP Ratios</u>							
38	Sr Lien Coverage, Min 1.25	3.68	3.79	4.02	4.45	4.55	4.52

Cash Flow Projection

Orange County Sanitation District Consolidated Cash Flow Projections

Ref	Description	Preliminary 24-25	Preliminary 25-26	Preliminary 26-27	Preliminary 27-28	10-Year Total
	Revenues:					
1	General User Fees	330,157,000	336,852,000	343,585,000	350,354,000	3,201,415,000
2	Permitted User Fees	20,070,000	20,397,000	20,725,000	21,052,000	195,661,000
3	IRWD Assessments	16,656,660	14,941,840	14,999,130	15,803,790	168,706,960
4	SAWPA Assessments	4,163,000	4,329,000	4,502,000	4,683,000	39,501,000
5	Property Taxes	133,417,000	140,088,000	147,092,000	154,447,000	1,252,225,000
6	New COP Issues	-	-	-	-	-
7	Interest Revenues	7,492,000	7,287,000	7,650,000	8,046,000	74,415,000
8	Capital Facilities Capacity Charges	11,870,000	11,938,000	12,011,000	12,081,000	121,436,000
9	Other Revenues	7,717,482	7,598,000	7,725,000	7,854,000	132,218,830
10	Revenues	531,543,142	543,430,840	558,289,130	574,320,790	5,185,578,790
	Requirements:					
11	Oper & Mtce Exp (4.0% yr)	190,525,000	197,039,000	203,769,000	210,722,000	1,822,666,530
12	Capital Improvement Program (CIP)	258,535,370	184,243,503	171,335,198	210,096,116	2,429,199,187
13	Less: CIP Savings & Deferrals	(7,756,061)	(3,684,870)	(3,426,704)	(4,201,922)	(134,727,495)
14	Future Rehabilitation and Replacement	58,956,000	74,634,000	82,925,000	61,585,000	374,932,000
15	COP Service	72,460,000	72,467,000	68,667,000	72,819,000	740,260,000
16	Reduction of Long-Term Liabilities	-	-	-	-	-
17	Other Requirements	2,530,000	2,530,000	2,530,000	2,530,000	32,430,000
18	Requirements	575,250,309	527,228,633	525,799,494	553,550,194	5,264,760,222
19	Revenues-Requirements	(43,707,167)	16,202,207	32,489,636	20,770,596	(79,181,432)
	Accumulated Funds:					
20	Beginning of Year	525,059,582	481,352,415	497,554,622	530,044,258	629,996,286
21	End of Year	481,352,415	497,554,622	530,044,258	550,814,854	550,814,854
22	Consolidated Reserve Policy	482,464,000	497,623,000	521,339,000	526,589,001	526,589,001
23	Over (Under) Reserve Policy*	(1,111,585)	(68,378)	8,705,258	24,225,853	24,225,853
	Sewer Service User Fees:					
24	Avg SFR Annual User Fee	\$367	\$373	\$379	\$385	
25	Percentage Change	2.23%	1.63%	1.61%	1.58%	
26	Equivalent Dw elling Units	940,483	943,304	946,134	948,972	
27	SFR Connection Fee	\$5,753	\$5,770	\$5,787	\$5,804	
28	<u>Outstanding COPs</u>	\$734,093,000	\$692,165,000	\$652,304,000	\$606,631,000	
	<u>Reserve Policy</u>					
29	50% Next Year Operating	95,263,000	98,520,000	101,885,000	105,361,000	
30	10% Next Year Operating	19,053,000	19,704,000	20,377,000	21,072,000	
31	100% Next Year AUG COP Svc.	72,460,000	72,467,000	68,667,000	72,819,000	
32	50% average ten-year CIP Bal.	133,470,000	133,470,000	133,470,000	133,470,000	
33	DSR @ 10% Outstanding COPs	73,409,000	69,217,000	65,230,000	60,663,000	
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	(40,000,000)	(26,000,000)	-	-	
37	Total	482,464,000	497,623,000	521,339,000	526,589,001	
	<u>COP Ratios</u>					
38	Sr Lien Coverage, Min 1.25	4.54	4.62	4.99	4.83	

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OPERATIONS OVERVIEW
SECTION 5

BACK OF SECTION 5 DIVIDER

Operations Budget Overview

OPERATING REQUIREMENTS

The net operating requirements budget finances the administrative, operations and maintenance, and program costs for collecting, treating, and recycling of wastewater. The departmental budgets are all completely funded by the operating fund. The net operating budget for FY 2018-19 is \$161.2 million and for FY 2019-20 is \$160.2 million.

Following are descriptions of the major factors that comprise the operating budget:

Regulatory Requirements: Many of the District's activities are either required or regulated by environmental permits issued by federal, state, and local regulatory authorities. These authorities regulate effluent quality, air emissions, greenhouse gases, stormwater quality, biosolids and hazardous waste management, as well as extensive monitoring of all media. New and developing regulations also drive future capital and operating expenses.

Urban Runoff Program: The Urban Runoff program was established to protect and improve the regional water quality of Orange County's coastal watershed by accepting dry weather urban runoff into the District's sewerage system. Since its creation as a means of protecting the Orange County shoreline from bacterial pollution carried by urban runoff, the program's role has expanded to include the mediation of selenium-laden waters reaching the Upper Newport Bay. This rerouting of urban runoff from stormwater pump stations, flood control channels, and natural conveyances before it reaches receiving waters, allows the District to provide essential regional public health and water quality protection.

Under the current urban runoff policy (Resolution No. 13-09), the cities or agencies are authorized to divert a maximum limit of 10 million gallons per day (MGD) for all permitted urban runoff diversions combined. To regulate the quantity and quality of urban runoff discharged into OCSD's sewerage system, the Resource Protection Division executes a discharge agreement and issues a discharge permit for each diversion. OCSD continues to work with Orange County Watersheds to prioritize existing and proposed diversion projects to ensure that the program's limited capacity is effectively utilized to improve coastal water quality.

Fats, Oils, and Grease (FOG) Control Program: As a regional agency with trunklines throughout Orange County, OCSD owns and maintains the larger trunklines, while the cities and agencies that form

OCSD own and maintain the smaller laterals. OCSD relies on the cooperation and resources of the 25 satellite cities and agencies to maintain the smaller laterals and to implement FOG control programs for the Food Service Establishments (FSEs) that discharge directly to the local collection systems. Though the specifics vary, the programs generally follow the basic approach of prohibiting FOG discharges and mandating the use of kitchen Best Management Practices (BMPs) at the FSEs in their jurisdictions.

In 2005, as the primary owner of both regional trunklines throughout Orange County and local sewer lines in the northwest Tustin area, OCSD assumed responsibility for initiating a commercial FOG control and residential outreach program to comply with Order No. R8-2002-0014 issued by the Santa Ana Regional Water Quality Control Board. This order was later rescinded in favor of the *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* (Order No. 2006-0003-DWQ) issued by the State Water Resources Control Board. On April 13, 2016, the Orange County Local Agency Formation Commission approved East Orange County Water District's (EOCWD) application to accept the transfer of the sewers within OCSD's Service Area 7, which included the Tustin area and several adjacent unincorporated areas of Orange County. The transfer of all assets was completed in August 2016. As of the transfer, OCSD is no longer the administering authority for the FOG Control Program in the transfer area. EOCWD has now transitioned into the administering authority role for the northwest Tustin area, while OCSD continues to manage a limited FOG Control Program for approximately 40 food service establishments that discharge directly into OCSD-owned trunklines in the City of Orange.

Operating Chemicals: Chemicals are used for disinfection, coagulation, and odor control programs.

- **Coagulants:** Coagulant chemicals are used to enhance primary treatment solids removal, solids dewatering, waste solids thickening, and to control hydrogen sulfide in the digesters.
 - Ferric chloride is an iron salt which is used with anionic polymer to increase the solids removal efficiencies in the primary treatment process and to control hydrogen sulfide levels in the digester gas as required by AQMD Rule 431.1.
 - Cationic polymer is added to digested sludge prior to dewatering to improve the sludge and water separation process. Cationic polymer is

2018-19 & 2019-20 Budget

also added to the waste activated sludge dissolved air flotation thickeners to thicken the solids before digestion.

- **Odor Control:** Under septic or anaerobic conditions, sulfate-reducing bacteria can flourish resulting in the accumulation of sulfides in the liquid phase. One of the sulfide forms present is hydrogen sulfide (H₂S). When released to the vapor phase, this creates the potential for both odor and corrosion problems in the collection system.
- Sodium hydroxide is added in “shock doses” to the sewers trunkline for sulfide control. Sodium hydroxide is added over a period of 30 to 45 minutes at sufficient dosages to elevate the pH level. The high pH slug temporarily inactivates sulfate reducing bacteria and greatly reduces hydrogen sulfide generation.
- The largest costs for collection system odor control are for ferrous chloride, magnesium hydroxide and calcium nitrate. These costs cover continuous treatment for odor control within four trunk lines. The contractor(s) provide(s) leased equipment and on-going labor for services such as maintenance, remote monitoring of the chemical feed rates, optimization, and field sampling.
- Sodium hypochlorite, caustic soda, and granular carbon are used in plant process scrubbers to treat foul air, comply with SCAQMD permits, and prevent odor complaints.

Residuals Management: These costs are for hauling and beneficial reuse of wastewater solids recovered during the treatment process. Solids treated through the digesters, called biosolids or treated sewage sludge, can be recycled offsite via composting (about 60 percent) or land application on farm fields (about 40 percent). Most of the District’s residuals management costs are for hauling 30 truckloads of biosolids offsite every day. A smaller component of residuals management cost is non-recyclable grit and screenings waste that must be disposed of at a landfill.

Repairs and Maintenance: Preventive maintenance and repair activities throughout the District’s expanded and upgraded treatment facilities and collection system continue to keep this budgetary category at a significant amount. This category

includes contracted services, materials and supplies, and outsourced service agreements.

Utilities: The cost for utilities is a significant component of the operating budget. The largest utility cost incurred by the District is the electricity that is purchased to supplement generated power to operate the plant processes. The central generation facilities produce approximately 65 percent of the electricity used for running the plants. In FY 2005-06, the central generation production was reduced in order to meet new air emission limits. This issue has been resolved by the installation of emission control systems on the engines at both plants.

Operations Summary

Proposed Budget Comparisons by Department

Department and Division	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget Percent Change	2019-20 Proposed	Budget Percent Change
General Manager's Office						
General Management Admin	\$ 2,911,810	\$ 2,184,360	\$ 2,938,490	0.92%	\$ 2,852,220	-2.94%
Board Services	602,340	625,340	691,530	14.81%	712,760	3.07%
Public Affairs	1,108,900	1,076,190	1,081,500	-2.47%	1,062,000	-1.80%
Department subtotal	4,623,050	3,885,890	4,711,520	1.91%	4,626,980	-1.79%
Human Resources Department						
Human Resources	4,038,470	3,806,670	4,171,570	3.30%	4,466,470	7.07%
Risk Management	6,426,070	5,930,320	5,427,000	-15.55%	5,900,700	8.73%
Department subtotal	10,464,540	9,736,990	9,598,570	-8.28%	10,367,170	8.01%
Administrative Services Department						
Administrative Services Admin	624,730	513,930	626,960	0.36%	651,860	3.97%
Financial Management	3,833,990	4,214,860	3,834,170	0.00%	3,376,810	-11.93%
Contracts, Purch, & Materials Mgmt	4,422,300	4,396,480	6,025,240	36.25%	4,584,440	-23.91%
Information Technology	10,568,540	10,547,740	11,620,570	9.95%	11,982,540	3.11%
Department subtotal	19,449,560	19,673,010	22,106,940	13.66%	20,595,650	-6.84%
Environmental Services Department						
Environmental Services Admin	825,750	849,450	866,770	4.97%	882,970	1.87%
Environmental Compliance	5,758,120	5,492,390	5,960,650	3.52%	5,955,020	-0.09%
Laboratory & Ocean Monitoring	10,727,570	10,400,720	11,147,210	3.91%	11,496,290	3.13%
Department subtotal	17,311,440	16,742,560	17,974,630	3.83%	18,334,280	2.00%
Engineering Department						
Engineering Admin	438,390	484,990	509,130	16.14%	528,930	3.89%
Planning	3,158,970	3,103,500	3,588,370	13.59%	3,626,870	1.07%
Project Management Office	2,868,900	2,597,300	2,888,850	0.70%	2,946,130	1.98%
Civil & Mechanical Engineering	8,629,930	8,276,590	8,834,460	2.37%	9,038,650	2.31%
Electrical & Control Systems Engineering	5,235,710	4,846,160	5,422,590	3.57%	5,516,640	1.73%
Department subtotal	20,331,900	19,308,540	21,243,400	4.48%	21,657,220	1.95%
Operations & Maintenance Dept.						
O & M Administration	735,030	561,770	957,270	30.24%	966,690	0.98%
Collection Facilities O&M	12,284,740	12,139,000	13,305,960	8.31%	14,348,730	7.84%
Fleet Services	1,965,050	1,973,180	2,108,870	7.32%	2,114,220	0.25%
Plant No. 1 Operations	27,866,660	26,017,880	26,592,250	-4.57%	29,850,860	12.25%
Plant No. 2 Operations	19,389,450	19,596,890	20,357,180	4.99%	18,131,670	-10.93%
Plant No. 1 Maintenance	14,628,280	15,737,060	18,439,550	26.05%	16,768,240	-9.06%
Maintenance Reliability & Planning	7,700,130	6,618,760	7,728,800	0.37%	7,299,200	-5.56%
Plant No. 2 Maintenance	14,548,410	11,887,480	16,118,650	10.79%	15,522,070	-3.70%
Department subtotal	99,117,750	94,532,020	105,608,530	6.55%	105,001,680	-0.57%
Less: Cost Allocation	(19,394,560)	(20,266,650)	(20,070,430)	3.48%	(20,378,610)	1.54%
Net Operating Requirements	\$ 151,903,680	\$ 143,612,360	\$ 161,173,160	6.10%	\$ 160,204,370	-0.60%

2018-19 & 2019-20 Budget

Proposed Budget Expense by Category

Description	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget Percent Change	2019-20 Proposed	Budget Percent Change
Salaries, Wages & Benefits	\$ 93,361,330	\$ 90,379,880	\$ 95,992,800	2.82%	\$ 98,189,100	2.29%
Administrative Expenses	2,026,550	2,068,300	2,007,530	-0.94%	1,906,030	-5.06%
Printing & Publication	403,900	344,010	316,890	-21.54%	317,410	0.16%
Training & Meetings	1,252,320	984,170	1,097,080	-12.40%	988,400	-9.91%
Operating Materials & Supplies	15,724,300	14,910,520	15,762,740	0.24%	18,877,840	19.76%
Contractual Services	24,489,090	24,281,770	25,206,520	2.93%	22,055,550	-12.50%
Professional Services	5,125,990	3,912,600	5,393,480	5.22%	4,602,370	-14.67%
Research & Monitoring	889,400	785,000	1,061,200	19.32%	1,099,600	3.62%
Repairs & Maintenance	15,945,110	15,749,440	21,715,360	36.19%	19,321,260	-11.02%
Utilities	7,898,590	6,967,860	7,439,800	-5.81%	9,028,600	21.36%
Other Materials, Supplies, and Svc.	4,181,660	3,495,460	5,250,190	25.55%	4,196,820	-20.06%
Cost Allocation	(19,394,560)	(20,266,650)	(20,070,430)	3.48%	(20,378,610)	1.54%
Net Operating Requirements	<u>\$ 151,903,680</u>	<u>\$ 143,612,360</u>	<u>\$ 161,173,160</u>	<u>6.10%</u>	<u>\$ 160,204,370</u>	<u>-0.60%</u>
Cost to Collect/Treat 1 Million Gallons	<u>\$ 2,249.59</u>	<u>\$ 2,124.91</u>	<u>\$ 2,412.95</u>	<u>7.26%</u>	<u>\$ 2,398.45</u>	<u>-0.60%</u>
Flow, Million Gallons	<u>67,525</u>	<u>67,585</u>	<u>66,795</u>	<u>-1.08%</u>	<u>66,795</u>	<u>0.00%</u>
Flow Per Day, MGD	<u>185.00</u>	<u>185.16</u>	<u>183.00</u>	<u>-1.08%</u>	<u>183.00</u>	<u>0.00%</u>

Operations Summary

Proposed Budget Allocation to Individual Revenue Areas

Revenue Area No.	Total Gallonage Flows, Million Gallons per Year (MG)					
	2017-18 Projected Flow (MG)	Projected Increase (MG)	2018-19 Projected Flow (MG)	Percent of Total	2019-20 Budgeted Flow (MG)	Percent of Total
Consolidated	65,997	(772)	65,225	97.65%	65,245	97.68%
14	1,588	(18)	1,570	2.35%	1,550	2.32%
TOTALS	67,585	(790)	66,795	100.00%	66,795	100.00%

Revenue Area No.	Average Daily Gallonage Flows, Million Gallons per Day (MGD)					
	2017-18 Projected Flow (MGD)	Projected Increase (MGD)	2018-19 Budgeted Flow (MGD)	Percent of Total	2019-20 Budgeted Flow (MGD)	Percent of Total
Consolidated	181	(2)	179	97.81%	179	97.81%
14	4	-	4	2.19%	4	2.19%
TOTALS	185	(2)	183	100.00%	183	100.00%

FY 2018-19 Estimated Allocation of Total Costs to Revenue Areas

Revenue Area No.	Collection Costs	Treatment & Disposal Costs	Total Costs	Total Cost/MG
Consolidated	\$28,792,820	\$ 118,231,520	\$ 147,024,340	\$ 2,254.11
14 - O&M	1,726,580	2,647,240	4,373,820	2,785.87
14 - Sludge	-	9,775,000	9,775,000	6,226.11
TOTALS	\$30,519,400	\$ 130,653,760	\$ 161,173,160	\$ 2,412.95

FY 2019-20 Estimated Allocation of Total Costs to Revenue Areas

Revenue Area No.	Collection Costs	Treatment & Disposal Costs	Total Costs	Total Cost/MG
Consolidated	\$29,947,760	\$ 117,127,250	\$ 147,075,010	\$ 2,254.20
14 - O&M	1,795,840	2,622,520	4,418,360	2,850.55
14 - Sludge	-	8,711,000	8,711,000	5,620.00
TOTALS	\$31,743,600	\$ 128,460,770	\$ 160,204,370	\$ 2,398.45

2018-19 & 2019-20 Budget

Proposed Budget Net Operating Expense by Line Item

Description	Adjusted Budget 2017-18	2017-18 Projected	2018-19 Proposed	% Budget Change to 2017-18	2019-20 Proposed	% Budget Change to 2018-19
Salaries, Wages, & Benefits						
<u>Salaries & Wages</u>						
Salaries & Wages	\$ 70,883,000	\$ 68,157,300	\$ 72,948,400	2.91%	\$ 74,101,100	1.58%
<u>Employee Benefits</u>						
Retirement	10,792,800	10,809,900	10,739,100	-0.50%	10,850,600	1.04%
Group Insurances	10,421,800	10,002,100	10,868,900	4.29%	11,605,000	6.77%
Tuition & Certificate Reimb	102,000	126,200	128,700	26.18%	131,300	2.02%
Edu.degrees,Cert. & Lic.	380,700	421,700	460,800	21.04%	460,800	0.00%
Uniform Rental	110,600	131,200	131,200	18.63%	131,200	0.00%
Workers' Compensation	554,330	594,680	586,600	5.82%	780,000	32.97%
Unemployment Insurance	24,700	37,700	37,700	52.63%	37,700	0.00%
EMT Supplemental Benefits	91,400	99,100	91,400	0.00%	91,400	0.00%
Salaries, Wages, & Benefits	93,361,330	90,379,880	95,992,800	2.82%	98,189,100	2.29%
Materials, Supplies, & Services						
<u>Administrative Expenses</u>						
Memberships	615,130	594,500	618,760	0.59%	619,350	0.10%
Office Exp - Supplies	66,220	58,930	67,470	1.89%	68,240	1.14%
Postage	320,570	298,990	43,270	-86.50%	43,330	0.14%
Books & Publications	41,530	35,110	38,070	-8.33%	40,640	6.75%
Forms	550	930	960	74.55%	970	1.04%
Small Computer Items	750,000	900,000	900,000	20.00%	900,000	0.00%
Minor Furniture & Fixtures	232,550	179,840	339,000	45.78%	233,500	-31.12%
<u>Printing & Publication</u>						
Repro-In-House	243,960	179,460	198,040	-18.82%	198,430	0.20%
Printing-Outside	112,560	107,140	60,370	-46.37%	60,480	0.18%
Notices & Ads	47,330	57,410	58,430	23.45%	58,450	0.03%
Photo Processing	50	-	50	0.00%	50	0.00%
<u>Meetings & Training</u>						
Meetings	198,620	132,740	167,360	-15.74%	175,510	4.87%
Training	1,053,700	851,430	929,720	-11.77%	812,890	-12.57%
<u>Operating Materials & Supplies</u>						
Chem. Coagulants	5,225,000	5,243,110	5,489,080	5.05%	8,369,990	52.48%
Odor Control	7,494,000	6,886,710	7,142,120	-4.70%	7,415,980	3.83%
Disinfection	307,600	217,820	253,000	-17.75%	288,000	13.83%
Chemicals - Cogen Op.	342,000	316,440	326,860	-4.43%	331,070	1.29%
Miscellaneous Chemicals	-	3,010	-	n/a	-	n/a
Gas, Diesel, & Oil	565,790	517,370	582,640	2.98%	596,010	2.29%
Tools	401,500	347,450	496,340	23.62%	399,140	-19.58%
Safety Equipment/tools	517,290	540,830	559,690	8.20%	538,900	-3.71%
Solv,Paint,Janitor Supplies	91,600	89,730	106,320	16.07%	113,200	6.47%
Lab Chemicals & Supplies	587,160	596,410	624,570	6.37%	640,650	2.57%
Misc. Operating Supplies	188,360	149,550	168,480	-10.55%	171,210	1.62%
Property Tax Fees	4,000	2,090	13,640	241.00%	13,690	0.37%
<u>Contractual Services</u>						
Solids Removal	15,900,000	16,200,000	16,200,000	1.89%	12,500,000	-22.84%
Other Waste Disp.	990,040	789,550	811,900	-17.99%	840,900	3.57%
Groundskeeping	129,720	163,720	175,700	35.45%	193,000	9.85%
Janitorial	366,440	357,480	435,000	18.71%	444,360	2.15%
Outside Lab Services	250,000	139,000	210,000	-16.00%	260,000	23.81%
Oxygen Plant Oper	375,000	320,000	330,000	-12.00%	340,000	3.03%
County Service Fee	658,700	483,000	497,490	-24.47%	512,410	3.00%
Temporary Services	1,537,190	1,354,940	1,429,400	-7.01%	1,319,400	-7.70%
Security Services	1,600,000	1,585,530	1,608,000	0.50%	1,608,000	0.00%
Other	2,682,000	2,888,550	3,509,030	30.84%	4,037,480	15.06%

Operations Summary

Proposed Budget Net Operating Expense by Line Item (Continued)

Description	Budget 2017-18	2017-18 Projected	2018-19 Proposed	% Budget Change to 2017-18	2019-20 Proposed	% Budget Change to 2018-19
Professional Services						
Legal	977,000	1,267,090	1,147,030	17.40%	1,148,820	0.16%
Audit & Accounting	259,300	192,850	231,690	-10.65%	241,110	4.07%
Engineering	1,758,000	978,210	1,985,460	12.94%	1,045,800	-47.33%
Enviro Scientific Consult	150,800	109,590	280,000	85.68%	180,000	-35.71%
Software Prgm Consult	416,000	370,000	376,000	-9.62%	376,000	0.00%
Advocacy Efforts	176,000	162,500	165,000	-6.25%	165,000	0.00%
Industrial Hygiene Svcs	50,000	40,000	50,000	0.00%	50,000	0.00%
Labor Negotiation Svc	20,000	-	40,000	100.00%	80,000	100.00%
Other	1,318,890	792,360	1,118,300	-15.21%	1,315,640	17.65%
Research & Monitoring						
Environ. Monitoring	369,200	310,000	511,200	38.46%	549,600	7.51%
Air Quality Monitoring	95,200	50,000	100,000	5.04%	100,000	0.00%
Research	425,000	425,000	450,000	5.88%	450,000	0.00%
Repairs & Maintenance						
Materials & Services	13,078,200	13,032,850	18,445,730	41.04%	15,836,630	-14.14%
Service Maint. Agreements	2,866,910	2,716,590	3,269,630	14.05%	3,484,630	6.58%
Utilities						
Telephone	400,000	400,000	501,000	25.25%	501,100	0.02%
Diesel For Generators	14,290	10,500	11,290	-20.99%	11,290	0.00%
Natural Gas	780,500	515,130	576,100	-26.19%	597,140	3.65%
Power	6,037,000	5,438,150	5,732,860	-5.04%	7,287,990	27.13%
Water	666,800	604,080	618,550	-7.24%	631,080	2.03%
Other Operating Costs						
Outside Equip Rental	107,600	128,770	132,000	22.68%	134,000	1.52%
Insurance Premiums	32,000	26,200	35,500	10.94%	37,800	6.48%
Prop & Gen Liab Insurance	2,110,870	2,110,870	1,299,300	-38.45%	1,720,000	32.38%
Freight	71,560	85,900	87,050	21.65%	87,050	0.00%
Misc. Operating Expense	259,250	301,870	210,250	-18.90%	249,980	18.90%
Regulatory Operating Fees	715,900	679,000	749,000	4.62%	769,000	2.67%
Contingency	281,000	-	715,000	154.45%	691,000	-3.36%
Prior year reappropriation	384,500	-	420,600	9.39%	406,500	-3.35%
Loss on obsolete inventory	2,300	(3,630)	1,501,570	65185.65%	1,570	-99.90%
Other Non-Oper Expense	216,680	166,480	99,920	-53.89%	99,920	0.00%
Materials, Supplies, & Services	77,936,910	73,499,130	85,250,790	9.38%	82,393,880	-3.35%
Total Operating Requirements	171,298,240	163,879,010	181,243,590	5.81%	180,582,980	-0.36%
Less: Cost Allocation	(19,394,560)	(20,266,650)	(20,070,430)	3.48%	(20,378,610)	1.54%
Net Operating Requirements	<u>\$ 151,903,680</u>	<u>\$ 143,612,360</u>	<u>\$ 161,173,160</u>	6.10%	<u>\$ 160,204,370</u>	-0.60%
Cost to Collect, Treat, & Dispose of 1 Million Gallons	<u>\$ 2,249.59</u>	<u>\$ 2,124.91</u>	<u>\$ 2,412.95</u>		<u>\$ 2,398.45</u>	
Flow, Million Gallons	<u>67,525</u>	<u>67,585</u>	<u>66,795</u>		<u>66,795</u>	
Flow Per Day, MGD	<u>185.00</u>	<u>185.16</u>	<u>183.00</u>		<u>183.00</u>	

2018-19 & 2019-20 Budget

NOTES TO THE FISCAL YEAR 2018-19 and 2019-20 OPERATIONS BUDGET

Salaries, Wages & Benefits

Salaries & Wages - The proposed budget is set at 636.0 Full Time Equivalent (FTE) positions for FY 2018-19 and 2019-20. Provision has been made in the proposed salaries for FY 2018-19 in order to comply with the terms of those current MOUs which extend through that fiscal year. Pending completion of the negotiation process, no salary adjustments have been included for periods beyond the expiration of current MOUs.

Retirement - The District's employees are members of the Orange County Employees' Retirement System. Employees participate in one of three plans depending on hire date: Plan G/H (older), Plan B, or Plan U (newer, with a lower retirement benefit). The employer's required contribution rate for Plan G/H has been decreased from 15.83 percent to 15.78 percent, Plan B has been decreased from 10.30 percent to 10.21 percent, and Plan U has increased from 9.25 percent to 9.27 percent in FY 2018-19. In addition, for Plan G/H the District pays 3.5 percent on behalf of each employee.

Group Insurance - This includes the District's share of employees' medical and dental insurance plans, and life and disability insurance premiums. It also includes the other post-employment benefits that the District is obligated to pay for retirees. The FY 2018-19 and 2019-20 budgets includes an estimated 7.0 percent increase for medical insurance. The FY 2018-19 and 2019-20 budgets include estimated average annual increases for dental, vision, life, and disability insurance of 4.0 percent, 5.0 percent, 12.0 percent and 9.0 percent, respectively.

Tuition & Certification Reimbursements -To encourage the self-development and training of employees, the District has a tuition and certification reimbursement program. This appropriation is set at \$128,700 for FY 2018-19 and \$131,100 for FY 2019-20.

Development Pay - To further promote employee efforts that increase job knowledge, skills, and abilities, the District has established this benefit for employees obtaining educational degrees and job-related certificates/ licenses. The budget of \$460,800 for FY 2018-19 and 2019-20 is based on estimated employee participation.

Uniforms - This budget projection is for uniforms provided to field and lab employees in accordance with employee MOU's.

Workers' Compensation - This item is used to maintain the level of accumulated reserves for workers' compensation self-insurance. The amount recommended is \$586,600 for FY 2018-19 and \$780,000 for FY 2019-20. The total estimated expenditures for the workers' compensation program are set forth in detail in the Self-Insurance section.

Unemployment Insurance - The District is on an actual claims paid basis, which has historically resulted in an overall lower cost because of favorable claims history. This appropriation is proposed at a level consistent with the prior year's actual costs.

Memberships - The District has memberships in agencies such as the National Association of Clean Water Agencies (NACWA), the National Water Research Institute (NWRI), the Water Emergency Response Organization of Orange County (WEROC), the Water Environment Research Foundation (WERF), the Information Technology Approval Group (ITAG), the California Association of Sanitation Agencies (CASA), the Southern California Alliance of Publicly Owned Treatment Works (SCAP), and the Center for Demographic Research

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

Printing and Publication - 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. This group of accounts also includes costs for photo processing, advertisements, and notices.

Training & Meetings - Board member and staff travel has been significantly reduced in recent years. This category includes meetings of professional societies; ongoing technical and safety training and materials for staff; expansion of the Leadership Academy training program, training for computerized plant monitoring and control systems and training to allow for an adaptive and flexible work force. The District

Notes to Operations Summary

continues to place an emphasis on safety, technical, leadership and management training. An amount equal to approximately 1.6 percent of the regular salaries budget is allocated to training.

Operating Materials & Supplies

Chemical Coagulants - Chemical coagulants are used to enhance the primary treatment process by increasing the solids removal efficiencies and are used to control hydrogen sulfide levels in the digester gas.

The anionic polymer budget for FY 2018-19 is \$418,000 with FY 2019-20 increasing to \$431,000 because of a 3 percent anticipated inflation rate increase. The cationic polymer budgets are \$1,876,000 for FY 2018-19 and \$4,520,000 in FY 2019-20 due to additional usage for the dewatering centrifuges expected to be operational in July 2019. The projected ferric chloride budget for FY 2018-19 is \$3,195,000 and \$3,419,000 for FY2019-20, reflecting expected price increases of 7 percent each year.

Odor Control Chemicals - The District uses sodium hydroxide (caustic soda), and bleach as the primary odor control chemicals within the treatment plants; muriatic acid is an odor control chemical used for cleaning the scrubbers. The treatment plant odor control chemicals budget reflects a \$695,000 decrease from FY 2017-18 since hydrogen peroxide is no longer being used in the foul air scrubbers and trunk sewers. New bio-scrubbers are efficient in capturing foul air from trunk sewers and optimization of caustic soda and bleach ensure effective foul air treatment. An increase of \$34,000 in FY 2019-20 is due to unit rate increases.

Ferrous chloride, magnesium hydroxide, calcium nitrate, and caustic soda are the primary odor control chemicals used within the collection system. The FY 2018-19 budgets for these chemicals reflect a \$343,000 increase from FY 2017-18 in order to maintain odor complaints within established performance levels, with an increase of \$240,000 in FY 2019-20 because of estimated unit rate increases and the planned addition of a new dosing site on the Euclid trunk sewer.

Disinfection Chemicals - Sodium Hypochlorite (Bleach) – The treatment plant bleach usage is for disinfection of plant water and the control of filamentous organisms in activated sludge in the secondary treatment process. The District

treatment plant bleach budgets will be \$245,000 in FY 2018-19 and \$280,000 in FY 2019-20.

Sodium Bisulfite – Sodium bisulfite is used for dechlorination of outfall effluent at Plant No. 2, if required, to ensure that no residual chlorine is discharged into the ocean. The sodium bisulfite budgets are \$5,000 in fiscal years 2018-19 and 2019-20.

Gasoline, Oil and Fuel - This group of accounts includes gasoline, oil, and diesel fuel required to operate stationary treatment plant equipment as well as approximately 300 pieces of major mobile equipment such as cars, trucks, cranes, and generators. Also included in this group of accounts is the cost of fuel for the compressed natural gas station. The cost of the natural gas is recovered by selling the compressed natural gas as vehicle fuel to outside users. The budgets for this group of items are expected to remain relatively the same for the next two fiscal years.

Other Operating Supplies - This group of accounts is for miscellaneous items such as scrubber acids, activated carbon, solvents, cleaners, hardware, janitorial supplies, tools, safety equipment, laboratory supplies, etc., that are required to operate and maintain existing and expanding facilities. This group of accounts is expected to remain relatively the same during fiscal years 2018-19 and 2019-20.

Contractual Services - The major component of this category is biosolids removal and transportation costs. Contracts have been executed with firms for agricultural reuse of residual solids and composting for biosolids disposal. The total cost budgeted for FY 2018-19 solids removal is expected to remain the same as FY 2017-18 projected amount and the cost is projected to decrease by \$3,700,000 in FY 2019-20 to \$12,500,000 due to the sludge dewatering and odor control facilities coming online at both plants.

This category also includes appropriations for other waste removal, groundskeeping services, janitorial services, security services, county service fees, temporary help to level out periodic increases in staff workload, long-term leaves, and position vacancies, outside laboratory services, manhole rehabilitation, CCTV services, industrial and line cleaning services.

Professional Services - Includes General Counsel, special labor counsel, engineering, advocacy efforts, audit and accounting services, software program consulting, and other technical consulting services.

2018-19 & 2019-20 Budget

Research and Monitoring - The costs in this category consist of contract services to carry out the extensive ocean monitoring program required by EPA Region IX under the provisions of the District's NPDES permit; air quality monitoring costs; the District'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 provides for operational and ocean research and evaluation to develop optimum operating parameters in the treatment plants. Overall this category of costs is expected to remain approximately the same for the FY 2018-19 and FY 2019-20 budgets.

Repairs and Maintenance - Around 96 percent of the materials and services budgets support the maintenance of the collection system and the treatment plants. These line items also reflect base budgets for equipment maintenance. Out-sourced annual service contracts and maintenance agreements are also included. The FY 2018-19 and FY 2019-20 budgets include repairs and maintenance costs totaling \$21.7 million and \$19.3 million, respectively. The increases following FY 2017-18 are mainly due to two central generation engines are scheduled for overhaul at an estimated cost of \$3.8 million and major rehabilitation of primary and secondary clarifiers at both plants is planned for \$1.6 million. Items previously deferred that are now being addressed in FY 2018-19 and FY 2019-20. Further, over 94 percent of service contracts are O&M maintenance-related or computer-related, that will provide services for the computer systems located throughout the collection facilities, treatment plants, and administration areas.

O&M contracted materials and services for FY 2018-19 include: Central Generation engine overhaul, digester cleaning, primary and secondary clarifier repairs, emergency generator maintenance, belt press overhaul, interplant line inspection and maintenance, and other maintenance work including heating, ventilation and air conditioning, lighting and electrical equipment maintenance projects at both treatment plants

Utilities - The cost for utilities is a significant component of the operating budget. In FY2018-19, the overall cost for utilities is anticipated to be \$7.4 million for the FY 2018-19 budget, with an increase to \$9.0 million in FY 2019-20.

Natural Gas - Natural gas is purchased to supplement the digester gas that is used to run the central generation facilities. The total FY 2018-19

natural gas budget is \$576,000, with only a slight increase to \$597,000 in FY 2019-20.

Electricity - Electricity is the largest utility cost incurred by the District. Purchased electricity is used to run the plant processes; support building and pump stations. The treatment plants and support buildings estimated consumption and resulting costs for electrical energy purchased from Southern California Edison for the 2018-19 fiscal year are \$4,510,000 and the pump stations budget for the same period is \$547,000. Other support buildings power costs are \$675,000, completing the total estimated power costs for FY 2018-19. The increase of \$1.6 million in FY 2019-20 is driven by increased power usage associated with the sludge dewatering and odor control facilities anticipated to be operational in July 2019.

Other Materials, Supplies, and Services

Insurance Premiums - Other than approximately \$36,000 budgeted each year in the operating section to insure the District's ocean vessel, the cost for general liability and property insurance premiums is budgeted entirely within the Self-Insurance section.

Property & General Liability In-Lieu Insurance Premium - This item is used to maintain the level of accumulated reserves for property and general liability self-insurance. The amount recommended is \$1,299,000 for FY 2018-19 and \$1,720,000 for FY 2019-20. The total estimated expenditures for the insurance program are set forth in detail in the Self-Insurance section.

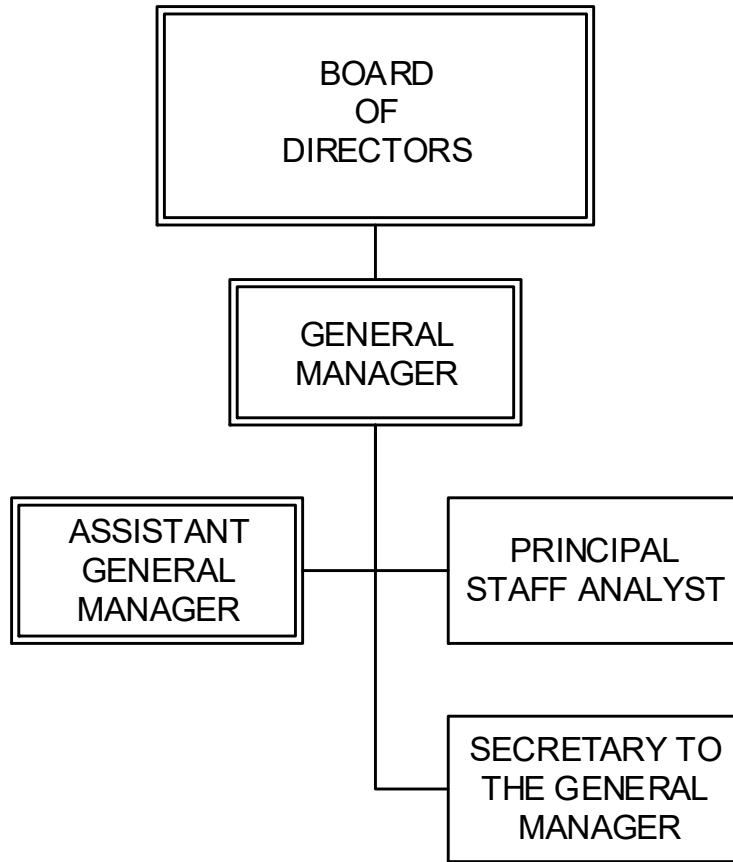
Other Operating & Non-Operating Expenses - Expenses not chargeable elsewhere, such as annual regulatory fees assessed by the SCAQMD and SWRCB, freight and other miscellaneous items are recorded within these groups of accounts.

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

Net Operating Requirements - This line item represents the net salary, wages, benefits, materials, supplies, and services related to operating costs for collection, treatment, and disposal activities, after charge backs to CIP.

OPERATING DIVISIONS
SECTION 6

BACK OF SECTION 6 DIVIDER

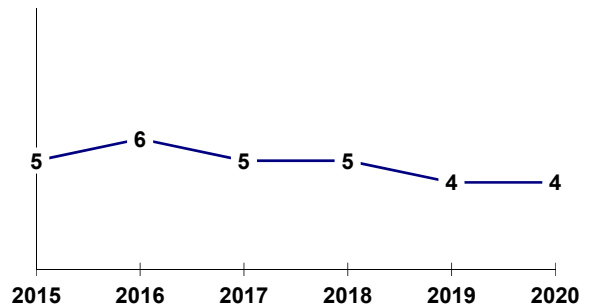


2018-19 & 2019-20 Authorized FTE Positions

Executive Managers	2.0
Supervisors / Professionals	2.0

Total **4.0**

Staffing Trends



2018-19 & 2019-20 Budget

Service Description

The mission of the General Management Administration Division is to work with the Board to establish standards, policies and procedures, and the overall goals and Strategic Plan of the agency. The Division reports the District's progress in meeting the established goals to support the District's mission, and provides general oversight of the District's operations. The General Manager reports directly to the Board of Directors and provides general oversight to all District operations, interagency relations, legislative activities, communications, and the Strategic Plan. The Assistant General Manager directly oversees the Public Affairs Division and Board Services Division.

2017-18 Performance Objectives

- ◆ Ensure that the Board approved Strategic Plan is implemented.
- ◆ Respond to 90% of public records requests within seven business days.
- ◆ Conduct an annual destruction day with District wide participation.
- ◆ Contribute to employee development through the BLAST program by providing quality leadership development training, materials, classes and presentations by reaching at least 70% of OCSD staff.

2017-18 Performance Results

- ◆ The Update to the Strategic Plan was adopted by the Board of Directors in December 2017.
- ◆ On track to complete the year with a 96% response rate.
- ◆ Destruction Day will be held in June 2018.
- ◆ At mid-year the BLAST program had already reached over 50% of OCSD staff and was on track to meet this goal.

2018-19 & 2019-20 Performance Objectives

- ◆ Create a new 5-year Strategic Plan & recommend for Board adoption.
- ◆ Manage operating expenditures to within 96% to 100% of the approved budget.
- ◆ Ensure the District does not exceed 636 FTEs.
- ◆ Contribute to employee development through the BLAST program by providing quality leadership development training, materials, classes and presentations by reaching at least 70% of OCSD staff.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Create new 5-year Strategic Plan	100%	100%	100%	100%	In-house standard
◆ Operating Expenditures	97%	96%	96%	96%	In-house standard
◆ Do not exceed 636 FTEs	578.25	≤ 635	≤ 636	≤ 636	In-house standard
◆ BLAST Program reach	86%	72%	70%	70%	In-house standard

General Management Administration

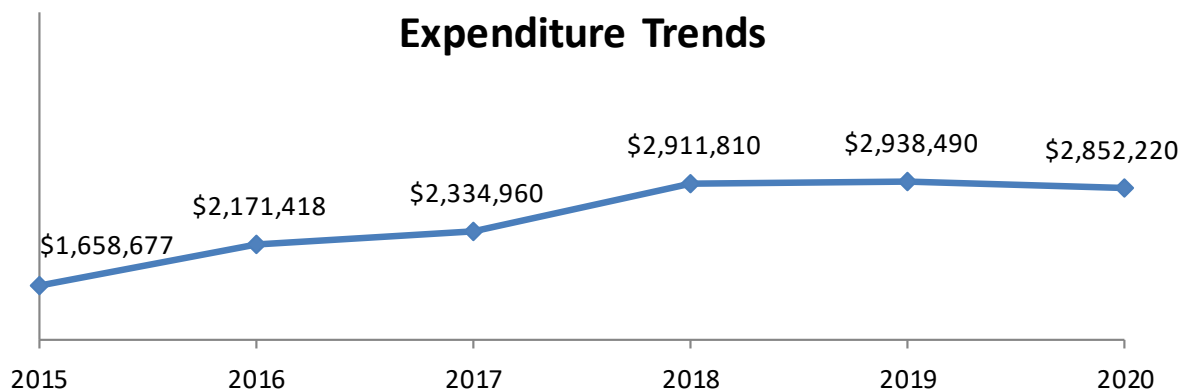
Budget Overview

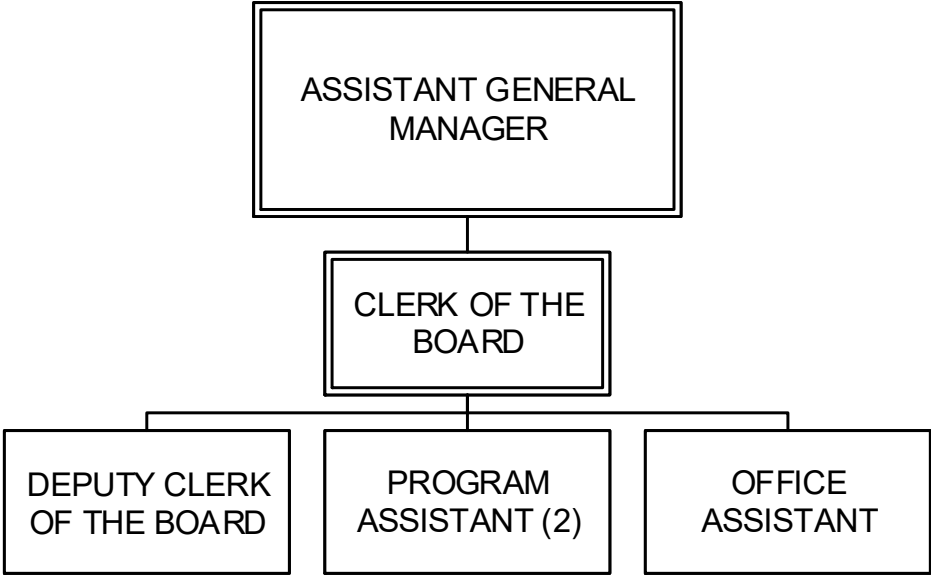
The FY 2018-19 & 2019-20 budgets for the General Management Administration Division reflect increase of 1% and a decrease of 3% over the prior year, respectively. The increase is primarily due to an increase in legal services and an increase in the General Manager's contingency and the contingency for reappropriations, which are set at 0.85% and 0.5% of the District's overall non-salary related operating budget, respectively.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 2,911,810
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments	(234,200)
Change in OCERS retirement costs	(33,100)
Change in group insurance costs	(38,700)
Other benefit cost adjustments	(700)
Other Cost Adjustments:	
Decrease in temporary services	(77,000)
Increase in legal services	100,000
Decrease in software program consulting	(40,000)
Decrease in other professional services	(52,000)
Increase in General Manager's contingency / reappropriations	470,100
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(67,720)
<hr/>	
2018-19 Proposed Budget - Total Operating Requirements	\$ 2,938,490
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	(38,300)
Change in OCERS retirement costs	(6,900)
Change in group insurance costs	3,800
Other benefit cost adjustments	1,200
Other Cost Adjustments:	
Decrease in training	(37,970)
Increase in other professional services	30,000
Decrease in General Manager's contingency / reappropriations	(38,100)
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	-
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2019-20 Proposed Budget - Total Operating Requirements	\$ 2,852,220

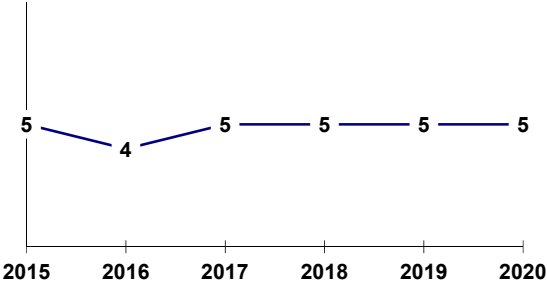
2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 1,346,834	\$ 1,272,300	\$ 1,276,100	\$ 965,600	(24.11%)	\$ 925,400	(4.16%)
Supplies	219,027	398,240	340,750	373,210	(6.29%)	335,240	(10.17%)
Professional & Contractual Services	664,718	434,000	451,840	345,000	(20.51%)	375,000	8.70%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	23	-	-	-	-	-	-
Utilities	95,619	130,000	107,460	110,000	(15.38%)	110,000	0.00%
Other	8,739	677,270	8,210	1,144,680	69.01%	1,106,580	(3.33%)
Total	\$ 2,334,960	\$ 2,911,810	\$ 2,184,360	\$ 2,938,490	0.92%	\$ 2,852,220	(2.94%)





Staffing Trends



2018-19 & 2019-20 Authorized FTE Positions

Supervisors / Professionals	2.00
Administrative / Clerical	3.00

Total 5.00

2018-19 & 2019-20 Budget

Service Description

The mission of the Board Services Division is to provide exceptional customer service and support to the Board of Directors, district staff and the general public through the Clerk of the Board's Office. The Clerk of the Board's office promotes public trust and ensures transparency by: accurately recording and preserving the legislative actions of the District; safeguarding the vital, historic and permanent records of the District as their official custodian; preparing and publishing agendas and notices in accordance with legal requirements; acting as filing officer for Statement of Economic Interest filings; receiving and processing summons and complaints filed against the District; and maintaining rosters of the Board of Directors, appointed committees and historical events.

2017-18 Performance Objectives

- ◆ Mail Board agenda packages six calendar days prior to Board meeting, 100% of the time, unless otherwise authorized by the General Manager.
- ◆ Maintain accurate records of official actions taken by the Board of Directors and publish those actions by 5:00 p.m. the day following a meeting.
- ◆ Respond to all Board of Directors, staff and public inquiries in a satisfactory time frame providing excellent internal and external customer service.
- ◆ Maintain legal compliance with various federal, state and local laws (Brown Act, Political Reform Act, etc.).
- ◆ Maintain District Transparency Certificate of Excellence (SDLF).

2017-18 Performance Results

- ◆ Achieved 100% success rate.
- ◆ Maintained & Published 100% successfully.
- ◆ Responded to all inquiries within 24 hours.
- ◆ Achieved 100% success rate.
- ◆ Achieved 100% success rate.

2018-19 & 2019-20 Performance Objectives

- ◆ Mail Board agenda packages six calendar days prior to Board meeting, 100% of the time, unless otherwise authorized by the General Manager.
- ◆ Maintain accurate records of official actions taken by the Board of Directors and post those actions on website by 5:00 p.m. the day following a meeting.
- ◆ Respond to 90% of public records requests within 7 business days.
- ◆ Respond to the Board of Directors, staff and public inquiries in a satisfactory time frame providing excellent internal and external customer service.
- ◆ Maintain legal compliance with various federal, state and local laws (Brown Act, Political Reform Act, etc.)
- ◆ Maintain District Transparency Certificate of Excellence (SDLF)

Performance Measures

Summary	Performance Measures				Justification
	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	
◆ Board Agenda Packages	100%	100%	100%	100%	In-house standard
◆ Maintain & post accurate Records of Board Actions	100%	100%	100%	100%	Legal compliance
◆ Respond to 90% of public requests within 7 business days	N/A	100%	100%	100%	In-house standard
◆ Respond to all inquiries in satisfactory time frame	100%	100%	100%	100%	In-house standard
◆ Maintain Legal Compliance	100%	100%	100%	100%	Legal compliance
◆ Maintain District Transparency Certificate of Excellence	100%	100%	100%	100%	In-house standard

Board Services

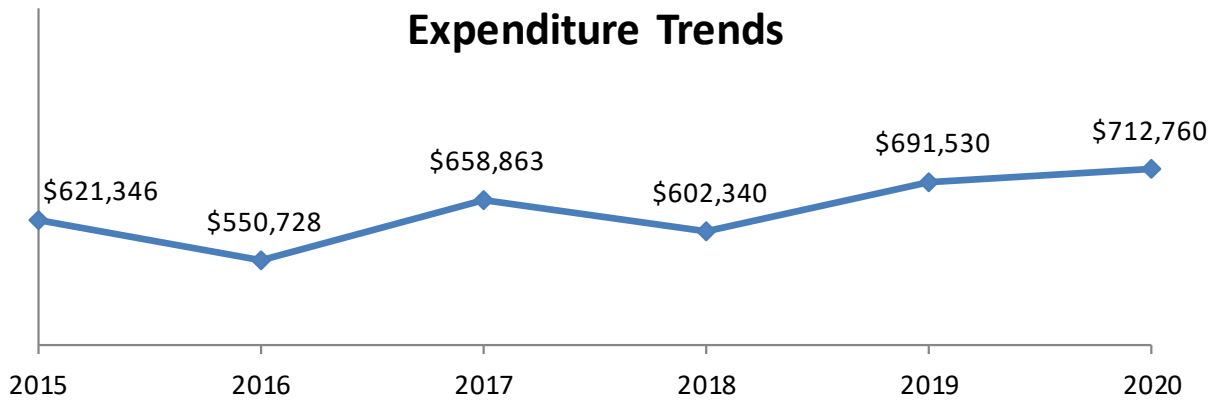
Budget Overview

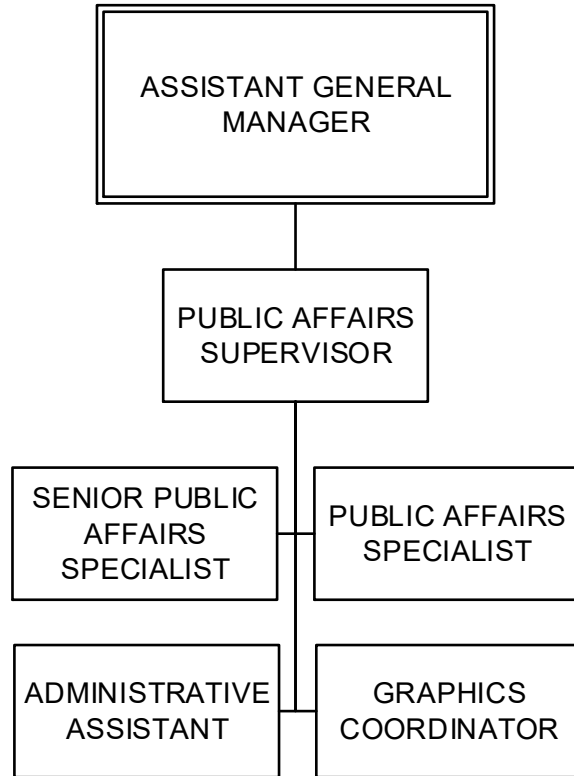
The FY 2018-19 & 2019-20 budgets for the Board Services Division reflect an increase of 15% and an increase of 3% over the prior year, respectively. The increase is primarily due to an increase in legal services and adjustments to salaries and benefits.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 602,340
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	26,600
Change in OCERS retirement costs	2,800
Change in group insurance costs	3,800
Other benefit cost adjustments	1,700
Other Cost Adjustments:	
Increase in legal services	50,000
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	4,290
2018-19 Proposed Budget - Total Operating Requirements	\$ 691,530
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	13,700
Change in OCERS retirement costs	1,200
Change in group insurance costs	5,800
Other benefit cost adjustments	1,500
Other Cost Adjustments:	
Decrease in training	(900)
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(70)
2019-20 Proposed Budget - Total Operating Requirements	\$ 712,760

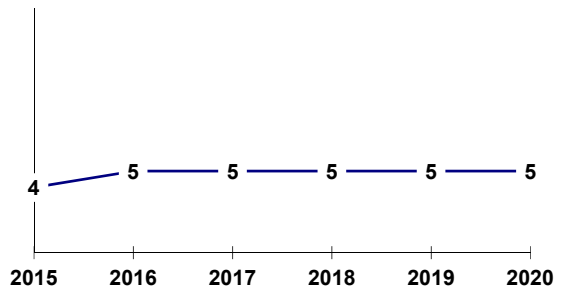
2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 510,189	\$ 485,700	\$ 490,600	\$ 520,600	7.19%	\$ 542,800	4.26%
Supplies	29,916	66,540	54,960	70,730	6.30%	69,760	(1.37%)
Professional & Contractual Services	118,610	50,000	79,730	100,000	100.00%	100,000	0.00%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	-	-	-	-	-	-	-
Utilities	-	-	-	-	-	-	-
Other	148	100	50	200	100.00%	200	0.00%
Total	\$ 658,863	\$ 602,340	\$ 625,340	\$ 691,530	14.81%	\$ 712,760	3.07%





Staffing Trends



2018-19 & 2019-20 Authorized FTE Positions

Supervisors / Professionals	3.0
Administrative & Clerical	2.0

Total 5.0

2018-19 & 2019-20 Budget

Service Description

The Public Affairs Division provides services and implements programs to meet the communications and legislative needs of both internal and external audiences for the Orange County Sanitation District. The division plans and implements media relations, website content, community relations, community education and outreach, employee newsletter, intranet development, corporate identity program, collateral material and graphics development, presentation development, crisis communications and legislative affairs. The goal is to create a total communications program that promotes clear and transparent communications with all designated audiences and to promote the understanding of OCSD's mission to protect the environment.

2017-18 Performance Objectives

- ◆ Provide services and implement programs that meet the communications needs of OCSD's internal audiences by producing a minimum of 70 internal communication pieces.
- ◆ Provide services and implement programs that meet communications needs of OCSD's external audiences by reaching a minimum of 3,000 people.
- ◆ Support General Manager activities and provide information to Board of Directors through the General Manager's monthly report and the new Board member orientation.

2017-18 Performance Results

- ◆ At mid-year, this goal had already been exceeded with over 150 pieces of internal communication already produced. The year will conclude with the goal met and exceeded.
- ◆ Produced and circulated daily articles on MyOCSD, weekly blurbs on 3 Things to Know email, monthly news in Digester, and bi-monthly stories in Pipeline.
- ◆ Coordinated employee events including holiday luncheons, Take Your Kid to Work Day, Harvest Festival, Public Works Day, Honor Walk and the GWRS 10th Anniversary event.
- ◆ At mid-year, this goal had already been exceeded with over 13,000 pieces of external communication already produced. The year will conclude with the goal met and exceeded.
- ◆ Hosted more than 3,000 people that toured Plant No. 1, staff participated in 24 speaking engagements, staffed a booth at 10 community events.
- ◆ Prepared key messages and talking points for Board Chair and General Manager.
- ◆ Prepared/presented reports on division efforts to OCSD Legislative and Public Affairs Committee.
- ◆ Prepared the GM Monthly Report.

2018-19 & 2019-20 Performance Objectives

- ◆ Provide services and implement programs that meet the communications needs of OCSD's internal audiences by producing a minimum of 70 internal communication pieces.
- ◆ Provide services and implement programs that meet communications needs of OCSD's external audiences by reaching a minimum of 3,000 people.
- ◆ Support General Manager activities and provide information to Board of Directors through the General Manager's monthly report and the new Board member orientation.
- ◆ Proactive engagement in legislative advocacy efforts that could impact OCSD and the industry.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Internal Services & Programs	Achieved	Achieved	Per Plan	Per Plan	Board Approved PAO Strategic Plan
◆ External Services & Programs	Achieved	Achieved	Per Plan	Per Plan	Board Approved PAO Strategic Plan
◆ Board of Directors & GM Support	Achieved	Achieved	Per Plan	Per Plan	Board Approved PAO Strategic Plan
◆ Legislative Advocacy	N/A	N/A	Per Plan	Per Plan	Board Approved PAO Strategic Plan

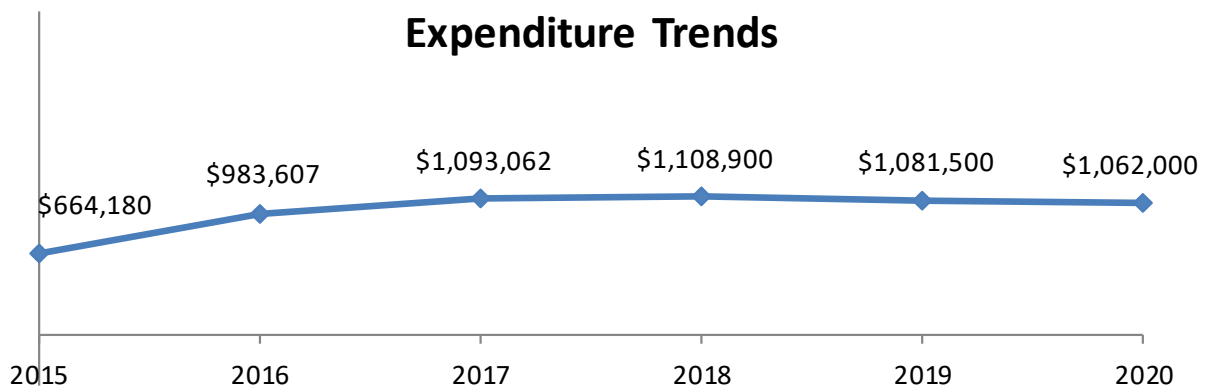
Budget Overview

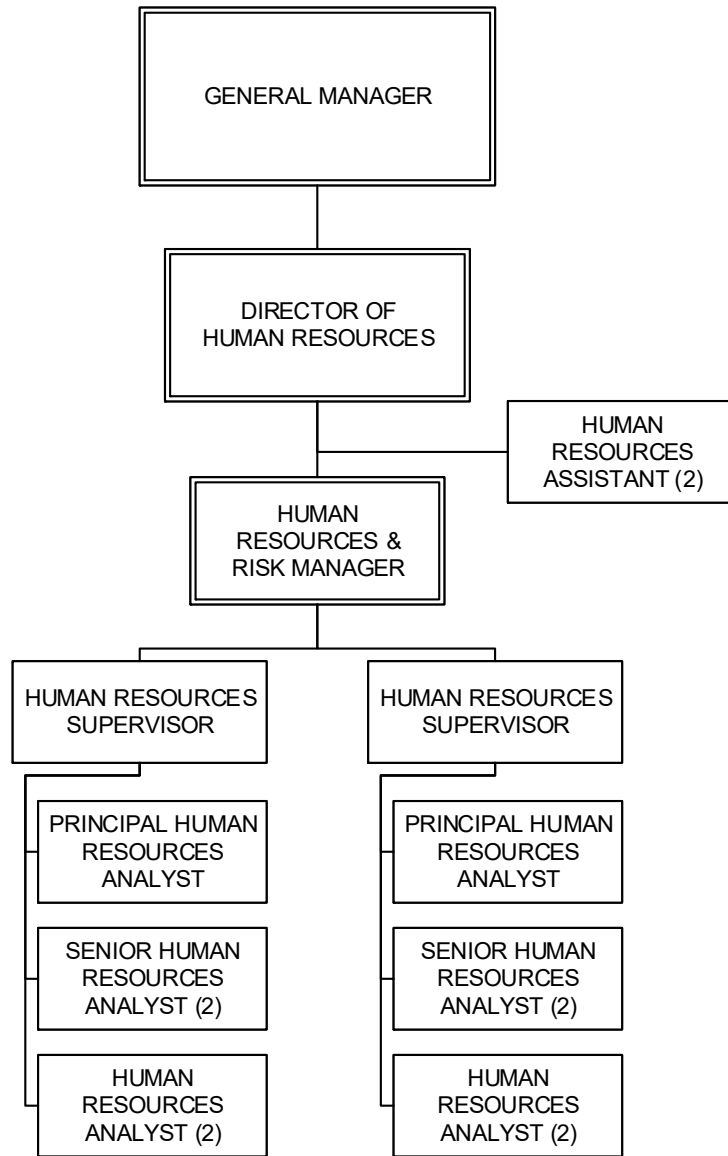
The FY 2016-17 & 2017-18 budgets for the Public Affairs Division reflect a decrease of 2% and 2% from the prior year, respectively. The decrease is primarily due to a decrease in temporary services and miscellaneous operating supplies expense.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 1,108,900
<i>Salaries for Position Changes:</i>	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
<i>Changes in Personnel Expenses:</i>	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	(2,600)
Change in OCERS retirement costs	2,100
Change in group insurance costs	30,700
Other benefit cost adjustments	400
<i>Other Cost Adjustments:</i>	
Decrease in training	(13,400)
Decrease in temporary services	(30,000)
Increase in other professional services	50,000
Decrease in miscellaneous operating supplies expense	(60,800)
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	(3,800)
2018-19 Proposed Budget - Total Operating Requirements	\$ 1,081,500
<i>Changes in Personnel Expenses:</i>	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	-
Change in OCERS retirement costs	(100)
Change in group insurance costs	5,600
Other benefit cost adjustments	1,500
<i>Other Cost Adjustments:</i>	
Decrease in other professional services	(30,000)
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	3,500
2019-20 Proposed Budget - Total Operating Requirements	\$ 1,062,000

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 677,906	\$ 658,600	\$ 662,700	\$ 689,200	4.65%	\$ 696,200	1.02%
Supplies	48,896	73,600	61,310	56,400	(23.37%)	55,900	(0.89%)
Professional & Contractual Services	265,379	235,000	178,430	255,000	8.51%	225,000	(11.76%)
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	-	-	-	-	-	-	-
Utilities	-	-	-	-	-	-	-
Other	100,881	141,700	173,750	80,900	(42.91%)	84,900	4.94%
Total	\$ 1,093,062	\$ 1,108,900	\$ 1,076,190	\$ 1,081,500	(2.47%)	\$ 1,062,000	(1.80%)



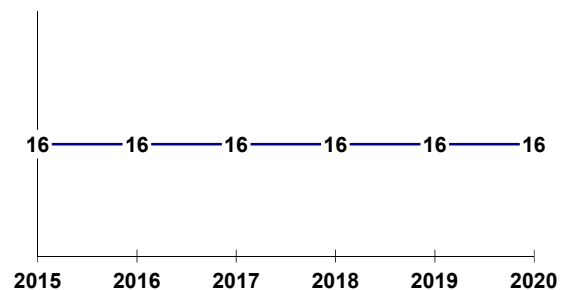


2018-19 & 2019-20 Authorized FTE Positions

Executive Manager	1.0
Manager	1.0
Supervisors / Professionals	12.0
Administrative/Clerical	2.0

Total **16.0**

Staffing Trends



2018-19 & 2019-20 Budget

Service Description

The mission of the Human Resources Administration Division is to work with employees and management to ensure an effective and productive employment relationship.

2017-18 Performance Objectives

- ◆ Continue with the development and implementation of effective workforce planning/development and succession planning strategies.
- ◆ Update and implement recruitment plan to reduce vacancies by 6/30/2018.
- ◆ Meet all training requirements and meet the training level of service of 45 hours per employee.
- ◆ Manage the department's budget to within 96% to 100% of the approved budget.

2017-18 Performance Results

- ◆ Implemented.
- ◆ Implemented.
- ◆ Estimated at 45 hours per employee.
- ◆ Projected at 84% of revised budget.

2018-19 & 2019-20 Performance Objectives

- ◆ Complete labor negotiations with all units by 6/30/2019.
- ◆ Continue with development and implementation of effective workforce planning/development and succession planning strategies.
- ◆ Implement a comprehensive employee relations and labor relations training program by the end of fiscal year 2019-20.
- ◆ Meet the training level of service of 45 hours per employee.
- ◆ Manage the department's budget to within 96% to 100% of the approved budget.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Approved labor contracts	N/A	N/A	Implement	Sustain	HR Work Plan
◆ Workforce Planning/ Workforce Development	Sustain	Sustain	Sustain	Sustain	OCSD Strategic Plan
◆ Comprehensive employee & labor relations training program	N/A	N/A	In Progress	Implement	HR Work Plan
◆ Training Level of Service	Sustain	In Progress	Sustain	Sustain	Level of Service
◆ Manage Budget	62%	84%	96-100%	96-100%	In-house standard

Human Resources Administration

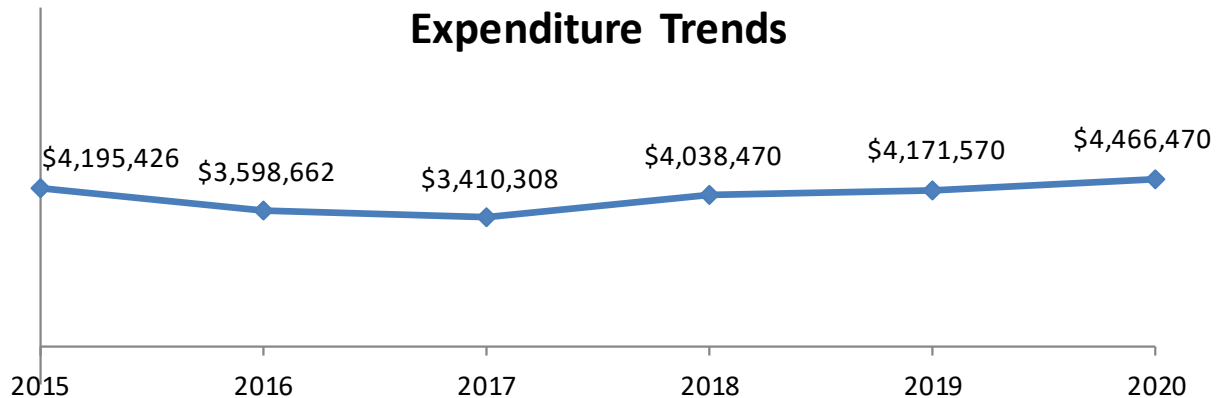
Budget Overview

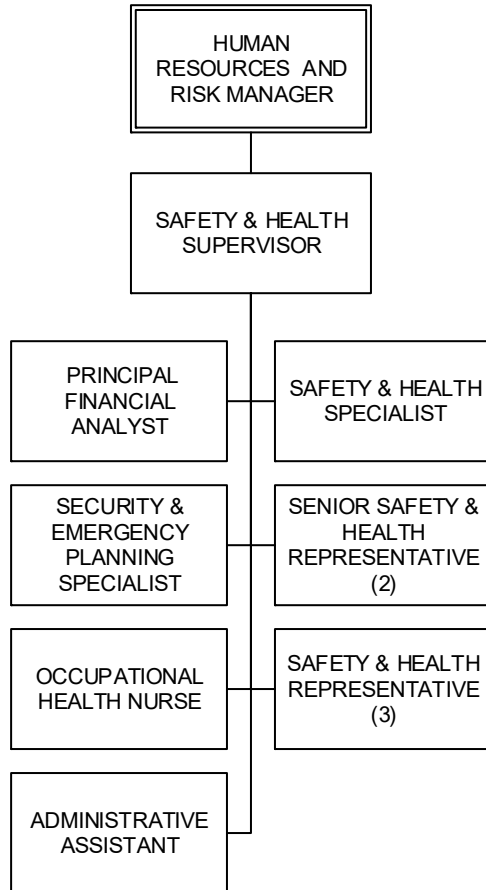
The FY 2018-19 & 2019-20 budgets for the Human Resources Administration Division reflect an increase of 3% and 7% over the prior year, respectively. The 2018-19 increase is primarily due to increases in budgeted retirement costs. The 2019-20 increase is primarily due to an increase in other professional services.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 4,038,470
<i>Salaries for Position Changes:</i>	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
<i>Changes in Personnel Expenses:</i>	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	4,100
Change in retirement costs	(13,800)
Change in group insurance costs	10,000
Other benefit cost adjustments	114,500
<i>Other Cost Adjustments:</i>	
Increase in labor negotiation services	20,000
Increase in other professional services	20,000
Decrease in other non-operating expense	(23,220)
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	1,520
2018-19 Proposed Budget - Total Operating Requirements	\$ 4,171,570
<i>Changes in Personnel Expenses:</i>	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	56,200
Change in retirement costs	6,100
Change in group insurance costs	18,800
Other benefit cost adjustments	7,400
<i>Other Cost Adjustments:</i>	
Decrease in training	(33,300)
Increase in labor negotiation services	40,000
Increase in other professional services	200,000
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	(300)
2019-20 Proposed Budget - Total Operating Requirements	\$ 4,466,470

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 2,828,387	\$ 3,163,400	\$ 3,075,110	\$ 3,278,200	3.63%	\$ 3,366,700	2.70%
Supplies	117,709	191,410	106,510	193,330	1.00%	159,730	(17.38%)
Professional & Contractual Services	429,789	584,400	545,000	624,000	6.78%	864,000	38.46%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	-	-	-	-	-	-	-
Utilities	-	-	-	-	-	-	-
Other	34,423	99,260	80,050	76,040	(23.39%)	76,040	0.00%
Total	\$ 3,410,308	\$ 4,038,470	\$ 3,806,670	\$ 4,171,570	3.30%	\$ 4,466,470	7.07%



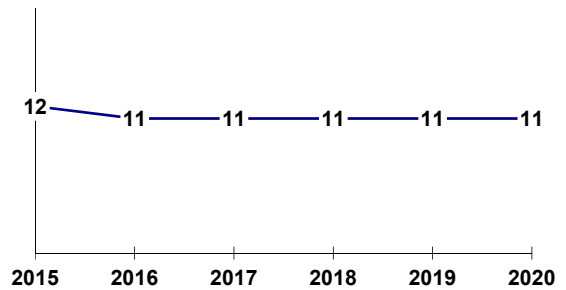


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Supervisors / Professionals	10.0
Administrative & Clerical	1.0

Total **11.0**



2018-19 & 2019-20 Budget

Service Description

The mission of the Risk Management/Safety/Security Division is to identify potential risk to the organization and provide solutions for mitigation or reduce the risk to acceptable levels. Through this process the Risk Management Division will create a safe, healthy, and secure environment for District staff, contractors, and visitors. It will partner with management and employees to take ownership of identifying risk and controlling the risk within their sphere of control.

2017-18 Performance Objectives

- ◆ Safety Compliance Training
- ◆ Develop JSA's Planned
- ◆ Contractor Safety Analysis
- ◆ Third Party Safety Audit
- ◆ Revise Claim Procedure

2017-18 Performance Results

- ◆ Completed.
- ◆ Ongoing.
- ◆ Ongoing.
- ◆ Ongoing.
- ◆ Ongoing.

2018-19 & 2019-20 Performance Objectives

- ◆ Ensure 100% of Safety Compliance Training is completed.
- ◆ Develop JSA's for high risk work activities.
- ◆ Contractor Safety Analysis to reduce injuries and accidents.
- ◆ Third Party Safety Audit of Safety Program to ensure compliance
- ◆ Implement Security Recommendations from security consultant.
- ◆ Implement Leading Safety Indicators to reduce injuries to employees.
- ◆ Revise Risk Register with newly identified risks.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Safety Compliance Training	99%	99%	100%	100%	OCSD Strategic Plan
◆ Develop JSA's	Ongoing	Ongoing	100%	Planned	OSHA Requirement
◆ Contractor Safety Initiative	N/A	N/A	Planned	Planned	Uniform Bid Evaluation
◆ Third Party VPP Feasibility Audit	100%	100%	Planned	Planned	GM Strategic Plan
◆ Security Recommendations	Ongoing	Ongoing	Planned	Planned	DHS Recommendations
◆ Implement Leading Safety Indicator	N/A	N/A	Planned	Planned	Continuous Safety Improvement
◆ Revise Risk Register	Complete	Complete	Planned	Planned	GM Strategic Plan

Risk Management/Safety/Security

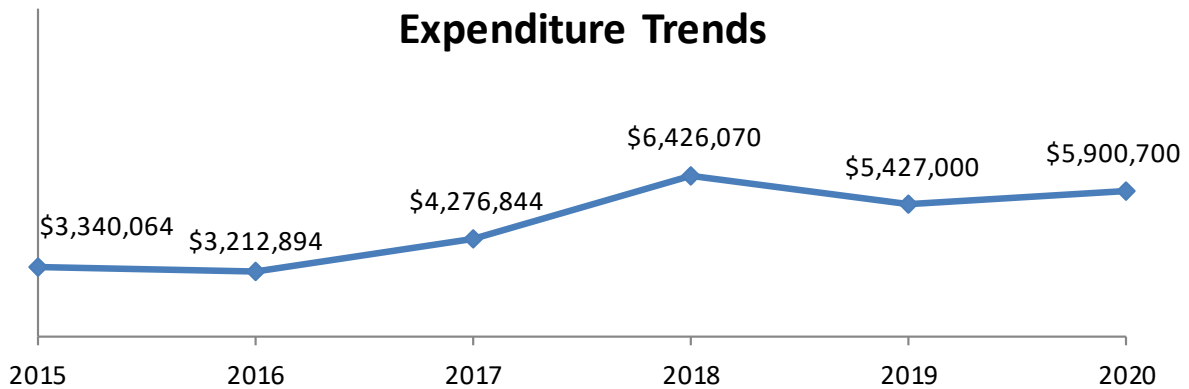
Budget Overview

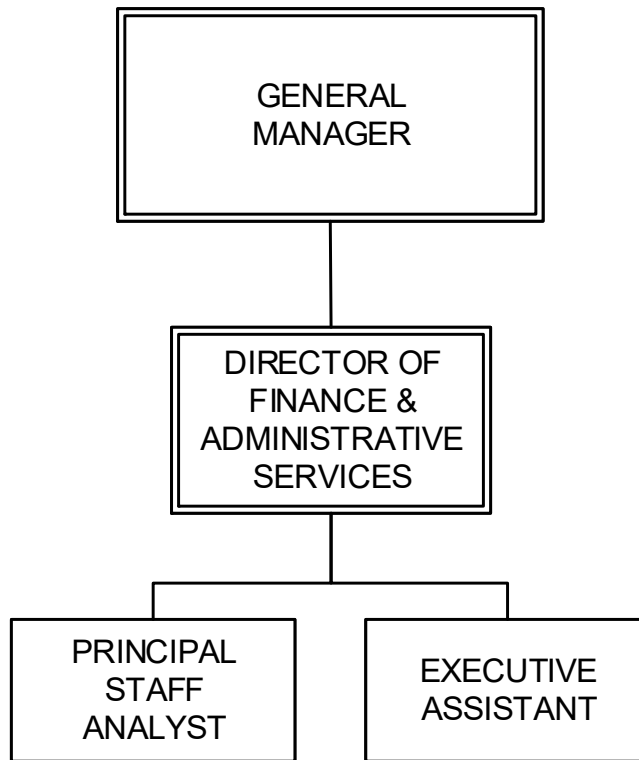
The FY 2018-19 & 2019-20 budgets for the Risk Management/Safety/Security Division reflect a decrease of 16% and an increase of 9% from the prior year, respectively. These changes are primarily due to adjustments to the property and general liability insurance in-lieu premiums.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 6,426,070
<i>Salaries for Position Changes:</i>	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
<i>Changes in Personnel Expenses:</i>	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	14,900
Change in OCERS retirement costs	(4,300)
Change in group insurance costs	8,100
Other benefit cost adjustments	11,800
<i>Other Cost Adjustments:</i>	
Decrease in training	(77,910)
Decrease in other professional services	(60,000)
Decrease in property/general liability insurance in-lieu premium	(811,570)
Decrease in other non-operating expense	(90,580)
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	10,490
2018-19 Proposed Budget - Total Operating Requirements	\$ 5,427,000
<i>Changes in Personnel Expenses:</i>	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	33,500
Change in OCERS retirement costs	3,100
Change in group insurance costs	13,000
Other benefit cost adjustments	3,400
<i>Other Cost Adjustments:</i>	
Increase in property/general liability insurance in-lieu premium	420,700
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	-
2019-20 Proposed Budget - Total Operating Requirements	\$ 5,900,700

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 1,187,277	\$ 1,470,500	\$ 1,230,370	\$ 1,501,000	2.07%	\$ 1,554,000	3.53%
Supplies	439,745	562,050	544,050	497,330	(11.51%)	497,330	0.00%
Professional & Contractual Services	1,489,795	2,153,500	1,938,530	2,093,500	(2.79%)	2,093,500	0.00%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	2,486	3,050	1,500	3,050	0.00%	3,050	0.00%
Utilities	-	-	-	-	-	-	-
Other	1,157,541	2,236,970	2,215,870	1,332,120	(40.45%)	1,752,820	31.58%
Total	\$ 4,276,844	\$ 6,426,070	\$ 5,930,320	\$ 5,427,000	(15.55%)	\$ 5,900,700	8.73%



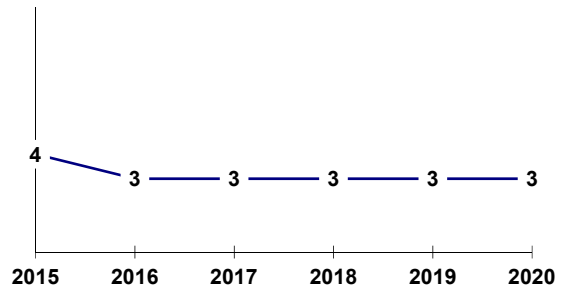


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Executive Manager	1.0
Supervisors / Professionals	1.0
Administrative / Clerical	1.0

Total 3.0



2018-19 & 2019-20 Budget

Service Description

The mission of the Administrative Services Administration Division is to oversee the functions of the Financial Management, Contracts, Purchasing, & Materials Management, and Information Technology Divisions. This oversight includes both day-to-day operations and strategic planning. The division is the departmental liaison with Executive Management, the Administration Committee, the Board of Directors, and other departments of the District.

2017-18 Performance Measures

- ◆ Submittal of annual sewer service fees (SSF) within property parcel database to the County by August 10th.
- ◆ All Treasury investments will be in compliance with the State Government Code 100% of the time.
- ◆ Coordinate and uphold solicitation schedules in support of planned projects and emergency procurements.

2017-18 Performance Results

- ◆ Submittal completed in time for placement on secured property tax bills.
- ◆ All Treasury investments in compliance 100% of the time.
- ◆ Solicitation schedules upheld at 100% completion.

2018-19 & 2019-20 Performance Objectives

- ◆ Submit annual sewer service fees (SSF) within property parcel database to the County by August 10th.
- ◆ Comply with the California State Government Code 100% of the time with all treasury investments.
- ◆ Coordinate and uphold solicitation schedules in support of planned projects and emergency procurements.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Submit SSF to the County by August 10 th	Yes	Expected	Expected	Expected	In-house standard
◆ Investment Compliance	Yes	Yes	Expected	Expected	In-house standard
◆ Uphold Solicitation Schedules	100%	100%	100%	100%	In-house standard

Administrative Services Administration

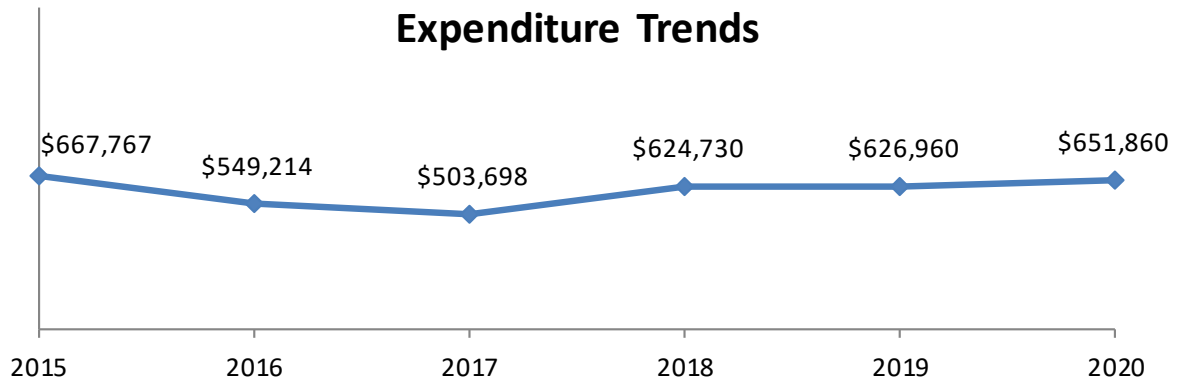
Budget Overview

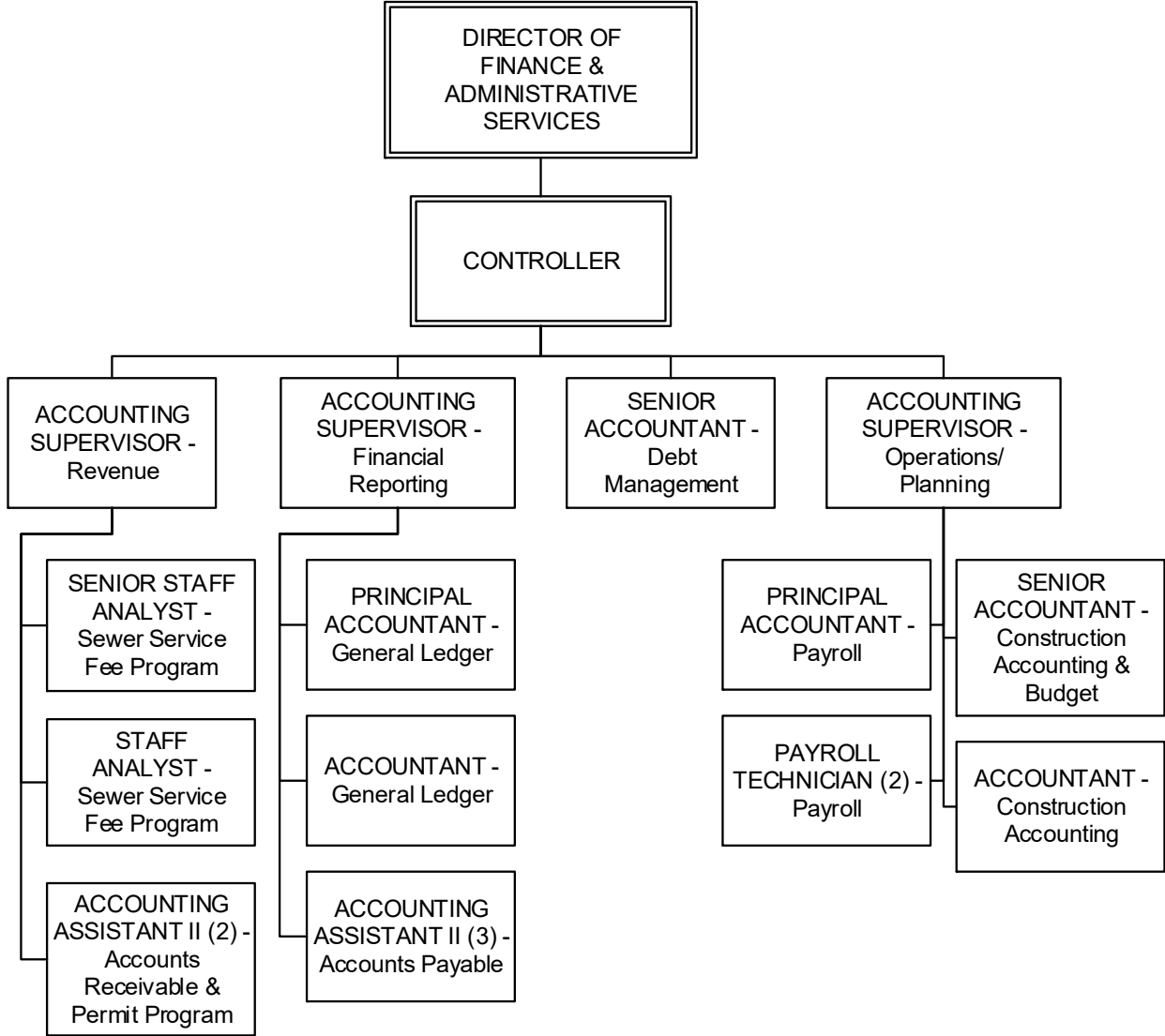
The FY 2018-19 & 2019-20 budgets for the Administrative Services Administration Division reflect an increase of 0.4% and an increase of 4% over the prior year, respectively. The increase is primarily due to adjustments in salaries and benefits costs.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 624,730
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	6,400
Change in OCERS retirement costs	4,200
Change in group insurance costs	2,100
Other benefit cost adjustments	(10,200)
Other Cost Adjustments:	
No other significant cost changes	
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(270)
2018-19 Proposed Budget - Total Operating Requirements	\$ 626,960
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	17,900
Change in OCERS retirement costs	2,400
Change in group insurance costs	3,700
Other benefit cost adjustments	900
Other Cost Adjustments:	
No other cost changes	
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	-
2019-20 Proposed Budget - Total Operating Requirements	\$ 651,860

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 486,354	\$ 608,900	\$ 498,700	\$ 611,400	0.41%	\$ 636,300	4.07%
Supplies	-	770	540	500	(35.06%)	500	0.00%
Professional & Contractual Services	17,284	15,000	14,630	15,000	0.00%	15,000	0.00%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	-	-	-	-	-	-	-
Utilities	-	-	-	-	-	-	-
Other	60	60	60	60	0.00%	60	0.00%
Total	\$ 503,698	\$ 624,730	\$ 513,930	\$ 626,960	0.36%	\$ 651,860	3.97%



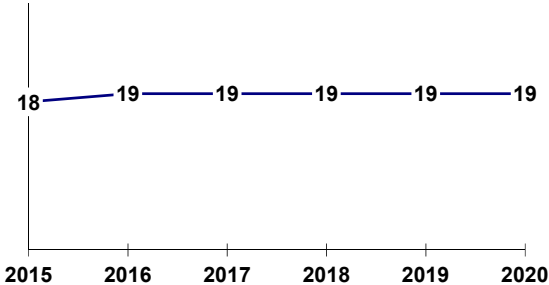


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Manager	1.0
Supervisors / Professionals	11.0
Administrative & Clerical	7.0

Total 19.0



2018-19 & 2019-20 Budget

Service Description

The mission of the Financial Management Division is to maintain financial oversight and administration of all District funds and accounts. The Financial Management Division is responsible for administering the treasury management and debt financing programs, the processing of cash receipts, accounts payable, accounts receivable, user fees, and payroll, accounting for fixed assets, and coordinating the capital and operating budget process throughout the District. The annual audit required by law and all financial reporting required of special districts by the State of California is coordinated and administered through this division.

2017-18 Performance Objectives	2017-18 Performance Results
◆ Issue monthly financial reports within 10 working days of the following month for 83% of the year.	◆ Goal was achieved.
◆ No more than 30 invoices for payment outstanding longer than 30 days during the completion of any one accounts payable cycle 90% of the time.	◆ No more than 30 invoices for payment outstanding longer than 30 days during the completion of any one accounts payable cycle 100% of the time.
◆ All sewer service fee rebate requests will be processed within 90 days 90% of the time.	◆ All sewer service fee rebate requests were processed within 90 days 100% of the time.
◆ Payroll processing will be completed on time 100% of the time and error free >99.5% of the time.	◆ Payroll was processed with an error-free rate of 100% on a bi-weekly and interim basis.
◆ All debt service payments will be paid electronically, on the actual due dates, and error free 100% of the time.	◆ All debt service payments were paid electronically, on the actual due dates, and error free 100% of the time.
◆ All treasury investments will be in compliance with the California State Government Code 100% of the time.	◆ All treasury investments were in compliance with the California State Government Code 100% of the time.

2018-19 & 2019-20 Performance Objectives

- ◆ Issue monthly financial reports within 10 working days of the following month for 83% of the year.
- ◆ No more than 30 invoices for payment shall be outstanding longer than 30 days during the completion of any one accounts payable cycle 90% of the time.
- ◆ The current backlog of rebate claims will be processed resulting in all claims being processed within 90 days of receipt.
- ◆ Payroll processing will be completed on time 100% of the time and error free >99.5% of the time.
- ◆ All debt service payments will be paid electronically, on the actual due dates, and error free 100% of the time.
- ◆ All treasury investments will be in compliance with the California State Government Code 100% of the time.

Summary	Performance Measures				Justification
	2016-17 Actual	2015-16 Projected	2018-19 Proposed	2019-20 Proposed	
◆ Financial Reports Issuance Standard	83%	83%	83%	83%	In-house standard
◆ Accounts Payable Standard	100%	100%	90%	90%	In-house standard
◆ Sewer Service Refund 90 Day Standard	0%	0%	90%	90%	In-house standard
◆ Payroll Error Free Standard	99.7%	99.8%	99.5%	99.5%	In-house standard
◆ Debt Service Payment Standard	100%	100%	100%	100%	In-house standard
◆ Investment Compliance	100%	100%	100%	100%	In-house standard

Financial Management

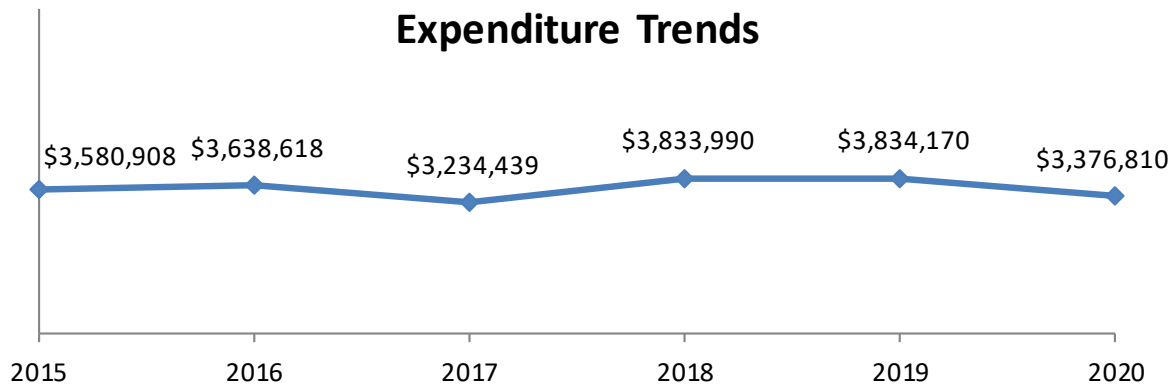
Budget Overview

The FY 2018-19 & 2019-20 budgets for the Financial Management Division reflects a 0% increase and a decrease of 12% over the prior year, respectively. The minimal increase in 2018-19 is primarily due to the reduction in postage, printing services, and county service fee, offset by an increase in other professional services for a sewer flow and loading study. The 2019-20 decrease is primarily due to decreases in other contractual services.

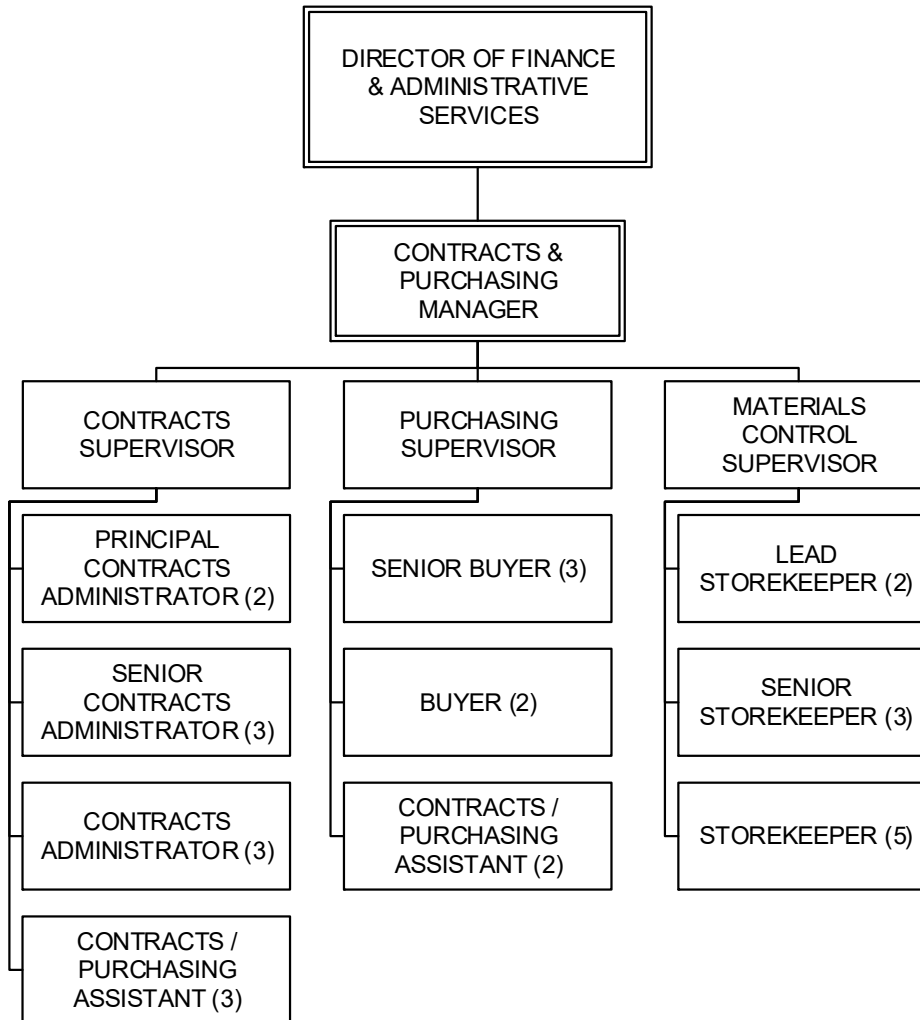
2017-18 Adjusted Budget - Total Operating Requirements	\$ 3,833,990
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	9,800
Change in OCERS retirement costs	(15,300)
Change in group insurance costs	12,400
Other benefit cost adjustments	(1,200)
Other Cost Adjustments:	
Decrease in postage	(269,280)
Decrease in outside printing services	(82,350)
Decrease in county service fee	(161,210)
Increase in other contractual services	517,000
Decrease in other professional services	
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(9,680)
2018-19 Proposed Budget - Total Operating Requirements	\$ 3,834,170
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	36,700
Change in OCERS retirement costs	3,600
Change in group insurance costs	22,000
Other benefit cost adjustments	5,800
Other Cost Adjustments:	
Increase in county service fee	14,920
Decrease in other contractual services	(521,550)
Decrease in other professional services	(27,340)
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	8,510
2019-20 Proposed Budget - Total Operating Requirements	\$ 3,376,810

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 2,654,317	\$ 2,533,900	\$ 2,590,500	\$ 2,539,600	0.22%	\$ 2,607,700	2.68%
Supplies	41,544	394,710	373,360	37,300	(90.55%)	40,610	8.87%
Professional & Contractual Services	538,077	905,000	1,250,620	1,256,890	38.88%	728,120	(42.07%)
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	18	-	-	-	-	-	-
Utilities	-	-	-	-	-	-	-
Other	483	380	380	380	0.00%	380	0.00%
Total	\$ 3,234,439	\$ 3,833,990	\$ 4,214,860	\$ 3,834,170	0.00%	\$ 3,376,810	(11.93%)



Contracts, Purchasing, & Materials Management

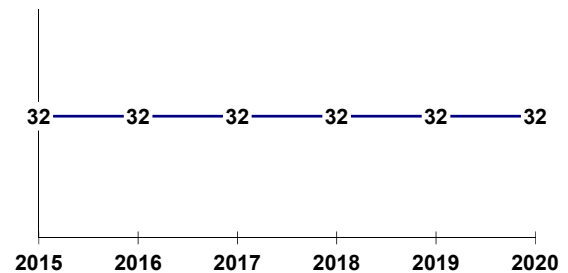


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Manager	1.00
Supervisors / Professionals	16.00
Administrative & Clerical	15.00

Total 32.00



2018-19 & 2019-20 Budget

Service Description

The Contracts, Purchasing and Materials Management Division's goal is to provide equipment, services and information with the commitment to achieving the highest ethical, economic and progressive contracts and purchasing standards possible. The division is responsible for contract administration and procurement for all Districts' departments. The Districts' warehouses receive, inventory and distribute supplies, materials and equipment to all departments in addition to inventory control analysis and surplus disposition.

2017-18 Performance Objectives

- ◆ Re-implement the cycle count program and maintain a 97% accuracy rate or better.
- ◆ Obtain the 2017 "Achievement of Excellence in Procurement" (AEP) award by meeting all National requirements.
- ◆ Successfully reorganize a bin reorganization for Materials Management staff to ensure continuity and efficiency.
- ◆ Successfully implement a new surplus ordinance.
- ◆ Successfully implement two high-volume inventory commodity contracts to maximize savings and performance.

2017-18 Performance Results

- ◆ Achieved
- ◆ AEP award received.
- ◆ Completed
- ◆ Delayed
- ◆ Completed.

2018-19 & 2019-20 Performance Objectives

- ◆ Re-implement the cycle count program and maintain a 97% accuracy rate or better.
- ◆ Obtain the 2018 "Achievement of Excellence in Procurement" (AEP) award by meeting all National requirements.
- ◆ Successfully implement a new surplus ordinance.
- ◆ Conduct District-wide procurement training.
- ◆ Successfully implement a new Purchasing Ordinance.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Cycle Count	Achieved	Achieved	97%	97%	APICS standard
◆ AEP Award	Obtained	Obtained	Obtain	Obtain	NPI, NAPM, NIGP, & CAPPO standards
◆ Surplus Ordinance	N/A	Delayed	In Progress	In Progress	Best Practices
◆ Procurement Training	N/A	N/A	In Progress	In Progress	Best Practices
◆ Purchasing Ordinance	N/A	N/A	In Progress	In Progress	Optimizing Resources

Contracts, Purchasing, & Materials Management

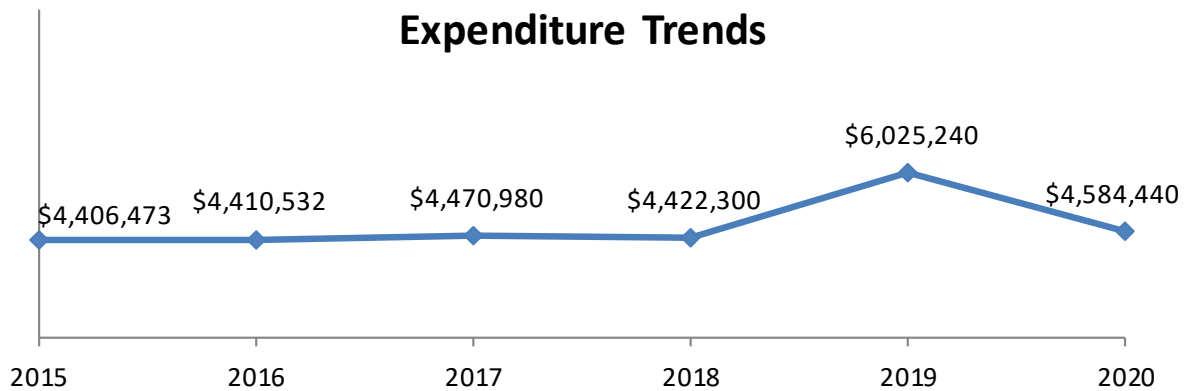
Budget Overview

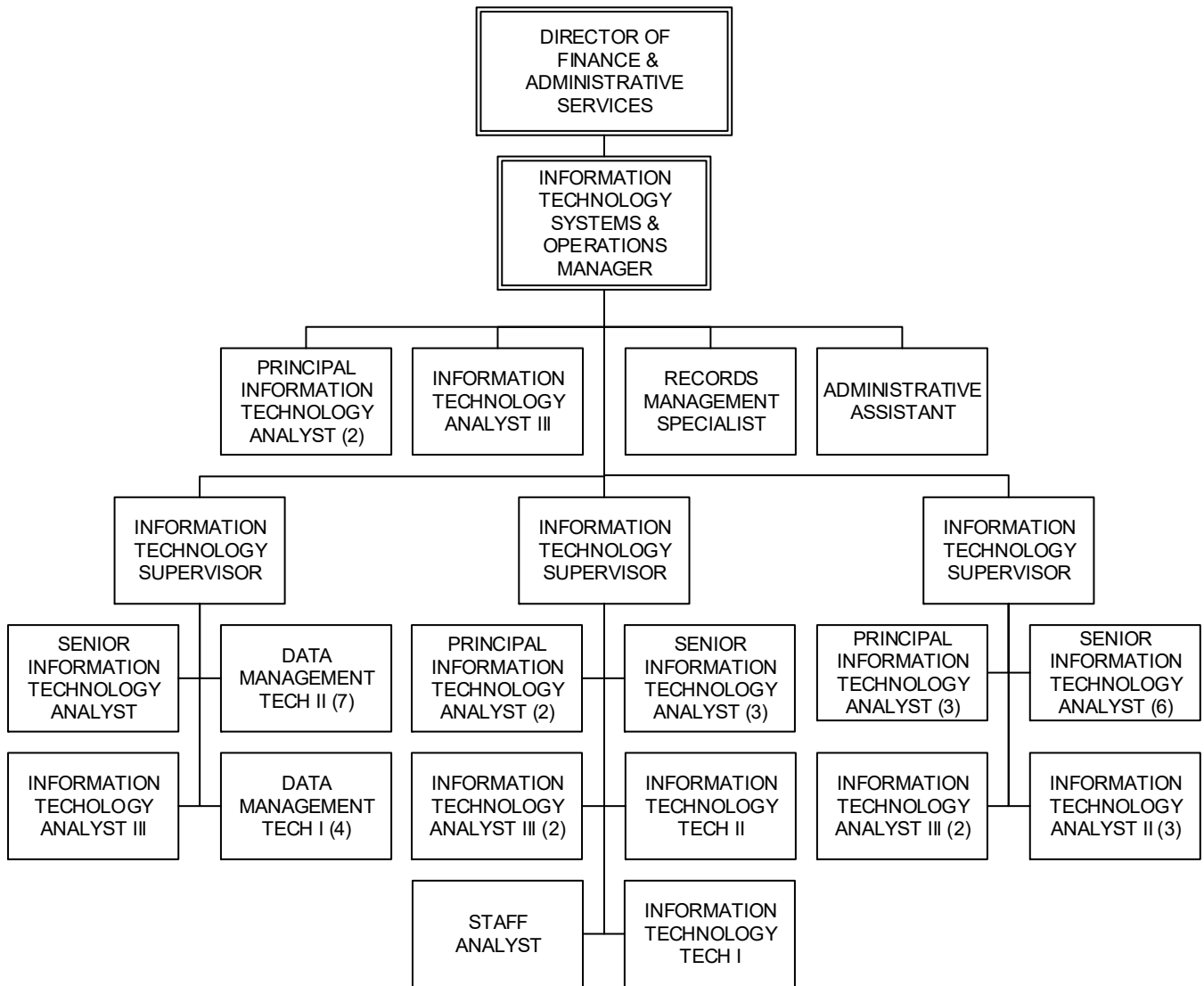
The FY 2018-19 & 2019-20 budgets for the Contracts, Purchasing, & Materials Management Division reflect an increase of 36% and a decrease of 24% over the prior year, respectively. These changes are primarily due to the one-time disposal of obsolete inventory in 2018-19.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 4,422,300
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	161,400
Change in OCERS retirement costs	6,400
Change in group insurance costs	23,100
Other benefit cost adjustments	3,800
Other Cost Adjustments:	
Decrease in legal services	(40,000)
Decrease in audit and accounting services	(25,000)
Decrease in other professional services	(25,000)
Increase in freight charges	18,000
Increase in loss on obsolete inventory	1,500,000
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(19,760)
2018-19 Proposed Budget - Total Operating Requirements	\$ 6,025,240
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	31,600
Change in OCERS retirement costs	2,900
Change in group insurance costs	36,600
Other benefit cost adjustments	9,700
Other Cost Adjustments:	
Decrease in temporary services	(15,000)
Decrease in loss on obsolete inventory	(1,500,000)
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(6,600)
2019-20 Proposed Budget - Total Operating Requirements	\$ 4,584,440

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 4,253,633	\$ 4,125,500	\$ 4,219,400	\$ 4,320,200	4.72%	\$ 4,401,000	1.87%
Supplies	43,929	58,160	33,190	44,900	(22.80%)	38,300	(14.70%)
Professional & Contractual Services	93,630	160,000	57,650	70,000	(56.25%)	55,000	(21.43%)
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	954	8,000	(4,190)	-	(100.00%)	-	-
Utilities	-	-	-	-	-	-	-
Other	78,834	70,640	90,430	1,590,140	2151.05%	90,140	(94.33%)
Total	\$ 4,470,980	\$ 4,422,300	\$ 4,396,480	\$ 6,025,240	36.25%	\$ 4,584,440	(23.91%)



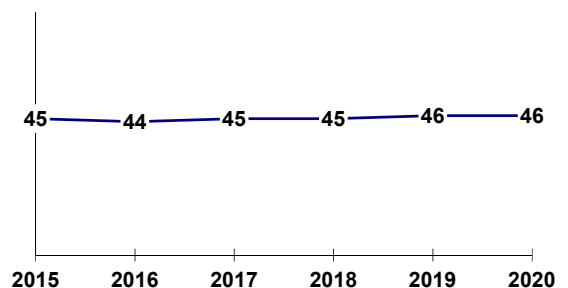


2018-19 & 2019-20 Authorized FTE Positions

Manager	1.0
Supervisors / Professionals	31.0
Technical Staff	13.0
Administrative/Clerical	1.0

Total 46.0

Staffing Trends



2018-19 & 2019-20 Budget

Service Description

The Information Technology Division provides support to the users of the District's information technology related assets and services, as well as developing and implementing technology solutions that best meet the needs of the District. The Division procures and manages computer hardware/software and provides end user support with a Service Desk that performs computer and telecommunications installations, moves, and changes. The Division is also responsible for the design, installation, maintenance, troubleshooting, and upgrades of all enterprise applications, networking infrastructure component and back-end computer system, wireless connectivity, plant radio system, public address system, fire system, cyber security infrastructure and system, reprographics, and copy center. Additionally, this Division work closely with every department and division in developing an understanding of the organization's software application and information requirements and provides systems analysis, design, custom programming, system implementation and integration, database/data warehousing and support.

2017-18 Performance Objectives

- ◆ Replace obsolete computers
- ◆ Critical system availability
- ◆ Replace CIP Management System
- ◆ Maintain a Safety Scorecard above 90% for overall.

2017-18 Performance Results

- ◆ Replaced 39% of total computers
- ◆ Critical system up time was greater than 90%
- ◆ This project was transferred to Engineering
- ◆ Safety Scorecard was at 100%

2018-19 & 2019-20 Performance Objectives

- ◆ 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.
- ◆ Complete the implementation of a high availability server environment to improve disaster recovery and business continuity capabilities.
- ◆ Maintain a Safety Scorecard above 90% for overall.
- ◆ Cyber Security Awareness/Protection – report on the overall effectiveness of the phishing campaign.
- ◆ Manage Operating Budget within 96% to 100% of approved budget.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Replace Obsolete Computers	7%	39%	25% of total computers	25% of total computers	In-house standard
◆ Implement Server High Availability	N/A	N/A	100% Complete	Maintain	In-house standard
◆ Safety Scorecard	100%	100%	>90%	>90%	In-house standard
◆ Cyber Security Awareness/Protection	N/A	N/A	Report percentage	Report percentage	GM Work Plan
◆ Manager Operating Budget	86%	102%	96-100%	96-100%	In-house standard

Information Technology

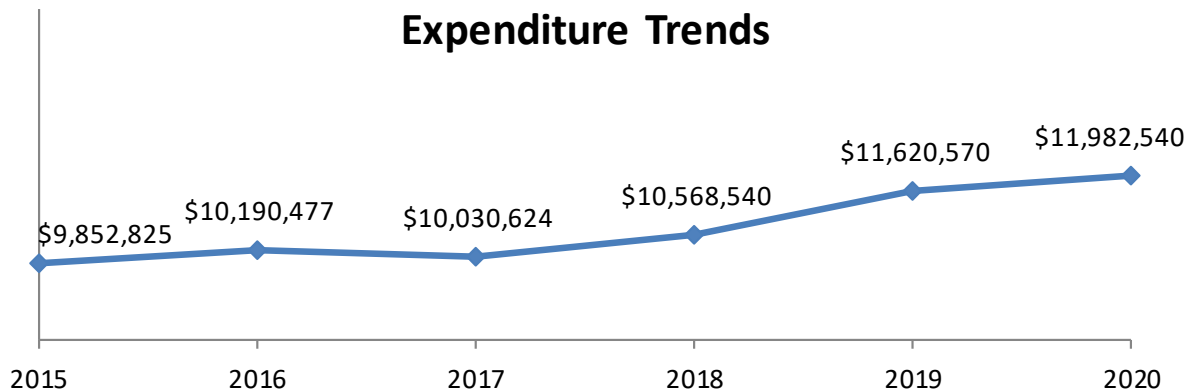
Budget Overview

The FY 2018-19 & 2019-20 budgets for the Information Technology Division reflect an increase of 10% and 2% over the prior year, respectively. The increase is primarily due to salary and benefit increases, the addition of one FTE position, and increases in small computer items, telephone expense and service maintenance agreements.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 10,568,540
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	119,300
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	309,700
Change in OCERS retirement costs	33,000
Change in group insurance costs	66,800
Other benefit cost adjustments	(6,000)
Other Cost Adjustments:	
Increase in small computer items	150,000
Decrease in in-house reproduction services	(40,500)
Increase in outside printing services	22,220
Increase in temporary services	85,000
Increase in other contractual services	20,000
Decrease in repairs & maintenance services and materials	(32,000)
Increase in service maintenance agreements	200,000
Increase in telephone	100,000
Increase in outside equipment rental	19,900
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	4,610
2018-19 Proposed Budget - Total Operating Requirements	\$ 11,620,570
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	82,100
Change in OCERS retirement costs	7,700
Change in group insurance costs	54,400
Other benefit cost adjustments	14,300
Other Cost Adjustments:	
Increase in service maintenance agreements	200,000
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	3,470
2019-20 Proposed Budget - Total Operating Requirements	\$ 11,982,540

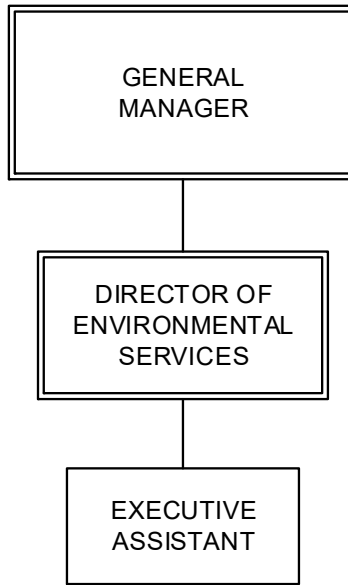
2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 6,545,043	\$ 6,616,000	\$ 6,531,900	\$ 7,138,800	7.90%	\$ 7,297,300	2.22%
Supplies	1,231,493	1,108,010	1,199,440	1,244,280	12.30%	1,247,750	0.28%
Professional & Contractual Services	288,030	260,000	268,000	365,000	40.38%	365,000	0.00%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	1,573,165	2,132,000	2,083,000	2,300,000	7.88%	2,500,000	8.70%
Utilities	324,239	400,000	400,000	500,000	25.00%	500,000	0.00%
Other	68,654	52,530	65,400	72,490	38.00%	72,490	0.00%
Total	\$ 10,030,624	\$ 10,568,540	\$ 10,547,740	\$ 11,620,570	9.95%	\$ 11,982,540	3.11%



Environmental Services Administration

610

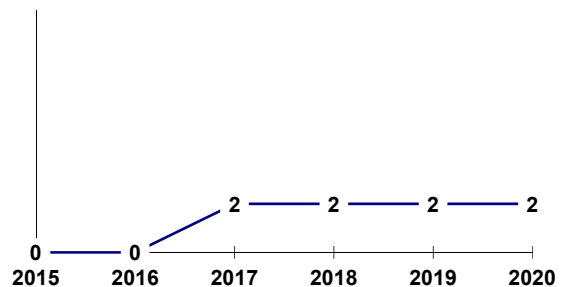


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Executive Manager	1.00
Administrative / Clerical	1.00

Total 2.00



2018-19 & 2019-20 Budget

Service Description

The Environmental Services Administration Division provides leadership, support, and oversight of the Environmental Services Department staff whose mission is: Protecting staff, facilities, the environment, and the public by influencing, tracking and ensuring compliance with environmental permits and regulations; providing laboratory services for plant process optimization, recreational water quality, and industrial discharge monitoring; and controlling industrial, commercial and residential discharges to create water, biosolids, and energy for reuse.

2017-18 Performance Objectives

- ◆ Manage operating expenditures to within 96% to 100% of the approved budget.
- ◆ Ensure that reporting divisions achieve 90% of individual performance objectives.
- ◆ Ensure all environmental compliance reporting requirements are met on or before required submission date 100% of the time.
- ◆ Audit environmental permits every 3 years.

2017-18 Performance Results

- ◆ On Track to meet goal of 96-100%
- ◆ All objectives met except one compliance report was late.
- ◆ 19 of 20 compliance reports submitted on time. One report was 5 days late due to needed correction found shortly before submission.
- ◆ On track: audits included Stormwater and Air Quality.

2018-19 & 2019-20 Performance Objectives

- ◆ Manage operating expenditures to within 96% to 100% of the approved budget.
- ◆ Ensure that reporting divisions achieve 90% of individual performance objectives.
- ◆ Ensure all environmental compliance reporting requirements are met on or before required submission date 100% of the time.
- ◆ Conduct audits of all major environmental permits at least once every 3 years.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Manage Budget	106%	99%	96-100%	96-100%	In-house standard
◆ Department Performance Objectives	≥ 90%	≥ 90%	≥ 90%	≥ 90%	In-house standard & permit req.
◆ Compliance Reporting Requirements	100%	95%	100%	100%	Required by permit
◆ Audit Environmental Permits Every 3 Years	100%	100%	100%	100%	In-house standard & permit req.

Environmental Services Administration

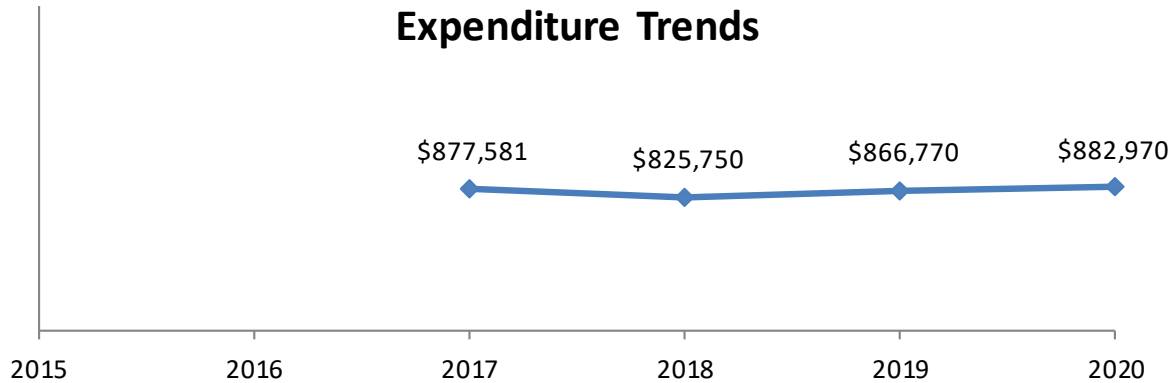
Budget Overview

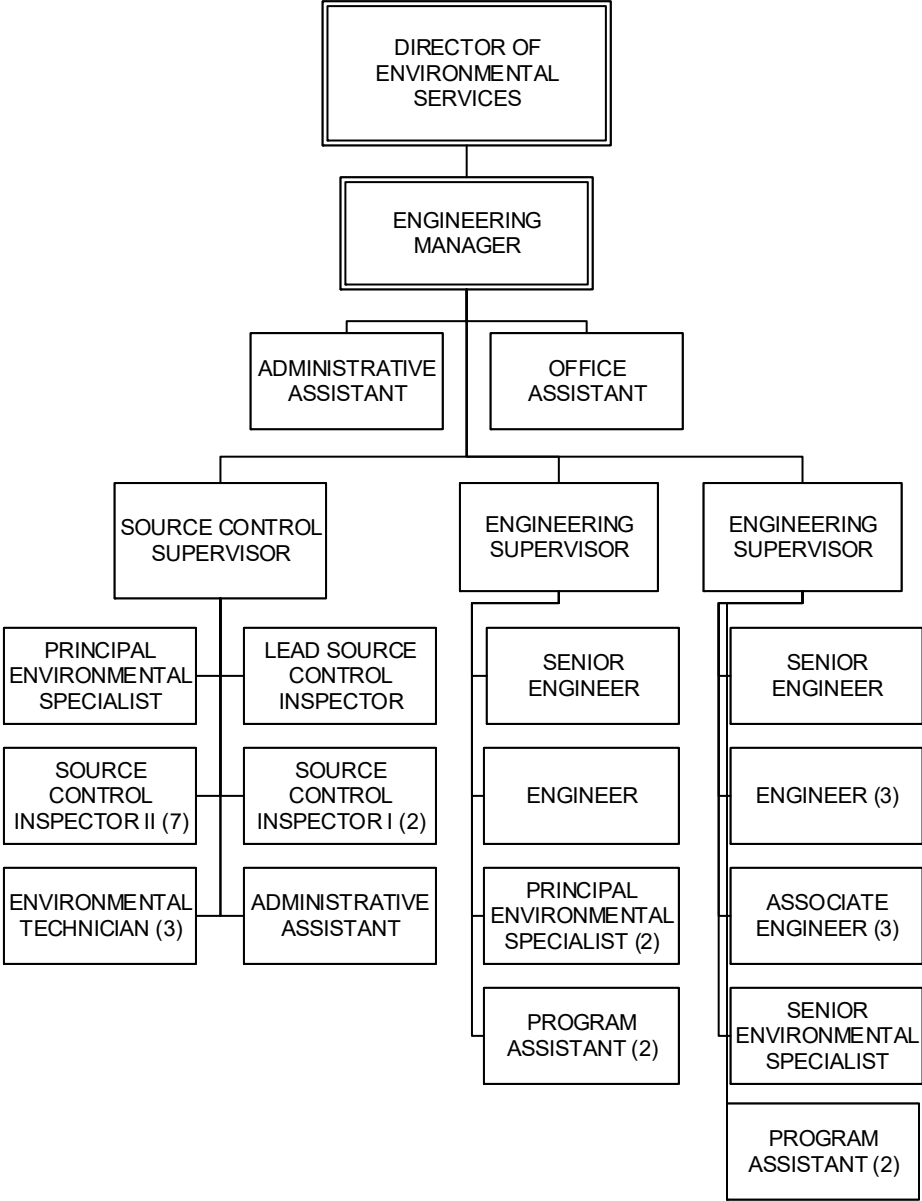
The FY 2018-19 & 2019-20 budgets for the Environmental Services Administration Division reflect an increase of 5% and 2% over the prior year, respectively. The increase is primarily due to salary and benefits adjustments and research and monitoring costs.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 825,750
<i>Salaries for Position Changes:</i>	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
<i>Changes in Personnel Expenses:</i>	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	13,200
Change in OCERS retirement costs	3,600
Change in group insurance costs	1,400
Other benefit cost adjustments	200
<i>Other Cost Adjustments:</i>	
Increase in research & monitoring	25,000
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	(2,380)
2018-19 Proposed Budget - Total Operating Requirements	\$ 866,770
<i>Changes in Personnel Expenses:</i>	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	11,100
Change in OCERS retirement costs	1,700
Change in group insurance costs	2,400
Other benefit cost adjustments	700
<i>Other Cost Adjustments:</i>	
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	300
2019-20 Proposed Budget - Total Operating Requirements	\$ 882,970

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 439,851	\$ 386,300	\$ 413,400	\$ 404,700	4.76%	\$ 420,600	3.93%
Supplies	14,428	13,450	11,050	12,030	(10.56%)	12,330	2.49%
Professional & Contractual Services	-	-	-	-	-	-	-
Research & Monitoring	423,337	425,000	425,000	450,000	5.88%	450,000	0.00%
Repairs & Maintenance	-	-	-	-	-	-	-
Utilities	-	-	-	-	-	-	-
Other	(35)	1,000	-	40	(96.00%)	40	0.00%
Total	\$ 877,581	\$ 825,750	\$ 849,450	\$ 866,770	4.97%	\$ 882,970	1.87%



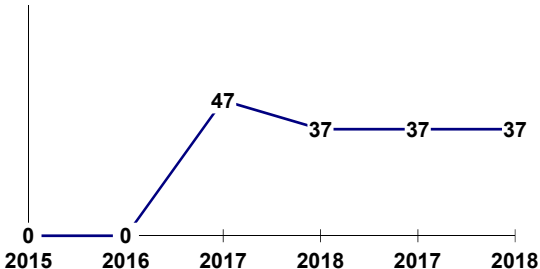


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Manager	1.0
Supervisors / Professionals	16.0
Technical Staff	13.0
Administrative / Clerical	7.0

Total 37.0



2018-19 & 2019-20 Budget

Service Description

The Resource Protection Division implements a comprehensive, federally-mandated Pretreatment Program which protects staff and community health, the environment, and OCSD's infrastructure and reuse initiatives.

2017-18 Performance Objectives

- ◆ Meet 100% of regulatory deadlines for required pretreatment program reports.
- ◆ Implement new Local Limits and Prohibitions into all permits by June 2018.
- ◆ Issue and renew 100% of the industrial wastewater permits prior to the expiration date.
- ◆ Complete all assigned inspections and monitoring of Class I industrial permit holders.
- ◆ Continue to implement the fats, oil & grease (FOG) control program and strategies on a regional basis in conformance with the Wastewater Discharge Requirements Order.
- ◆ Support of GWRS, special projects and routine monitoring requirements.

2017-18 Performance Results

- ◆ To date 100% compliance.
- ◆ To date 100% compliance.
- ◆ Staff issued and renewed 100% of the industrial wastewater permits prior to the expiration dates.
- ◆ Staff completed all assigned inspections and monitoring of Class I industrial permit holders.
- ◆ To date 100% compliance.
- ◆ Staff is supporting GWRS, special projects and routine monitoring requirements.

2018-19 & 2019-20 Performance Objectives

- ◆ Ensure the division's expenditures are managed to 98-100% of proposed budget.
- ◆ Meet 100% of regulatory deadlines for required pretreatment program reports.
- ◆ Issue and renew 100% of the industrial wastewater permits prior to the expiration date.
- ◆ Complete all assigned inspections and monitoring of Class I industrial permit holders.
- ◆ Continue to implement the fats, oil & grease (FOG) control program and strategies on a regional basis in conformance with the Wastewater Discharge Requirements Order.
- ◆ Support of GWRS, special projects and routine monitoring requirements.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Manage Division Budget	101%	104%	100%	100%	In-house Standard
◆ Meet 100% of Regulatory Deadlines (Reports)	100%	100%	100%	100%	NPDES Permit Requirement
◆ Implement New Local Limits and Ordinance Update	100%	100%	N/A	N/A	Federal Pretreatment Requirement
◆ Industrial Permit Issuance/Renewal	100%	100%	100%	100%	Federal Rule and Permit Requirement
◆ Inspections/Monitoring	100%	100%	100%	100%	Federal Rule and Permit Requirement
◆ Fats, Oil & Grease Program	100%	100%	100%	100%	Permit Requirement
◆ Support GWRS, special projects, and routine monitoring.	100%	100%	100%	100%	Joint Agreement

Resource Protection

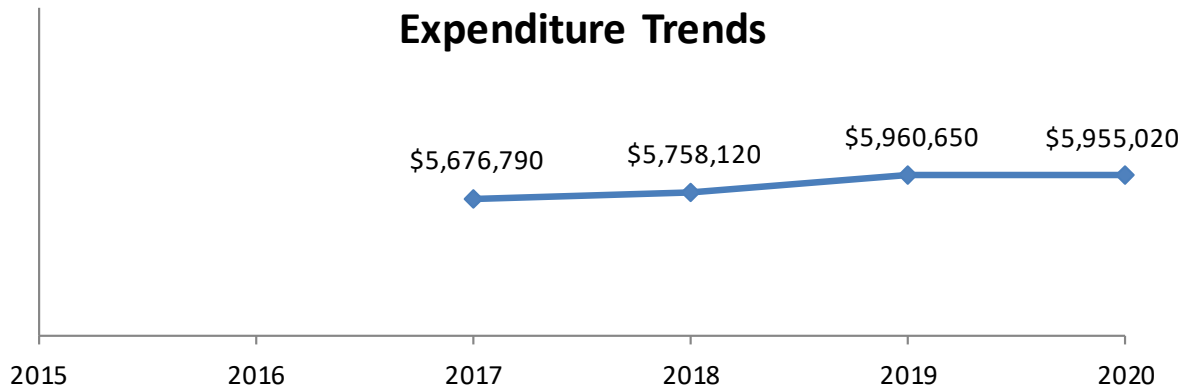
Budget Overview

The FY 2018-19 budget for the Resource Protection Division reflects an increase of 4% over the prior year primarily due to an increase in environmental consulting services. The 2019-20 budget reflects a minimal decrease due to decreases in furniture & fixtures, small tools expense, and environmental consulting services, largely offset by salary and benefits adjustments and increases in accounting and other professional services.

2015-16 Adjusted Budget - Total Operating Requirements	\$ -
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	4,774,200
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	399,500
Change in OCERS retirement costs	744,500
Change in group insurance costs	731,500
Other benefit cost adjustments	296,700
Other Cost Adjustments:	
Increase in administrative expense	13,830
Increase in training & meetings	52,220
Increase in tools	25,200
Increase in lab chemicals & supplies	27,500
Increase in outside lab services	18,000
Increase in temporary services	30,000
Increase in legal services	300,000
Increase in auditing and accounting services	65,000
Increase in enviro scientific consulting services	85,000
Increase in advocacy efforts	26,000
Increase in other professional services	170,000
Increase in air quality monitoring	85,000
Increase in regulatory operating fees	708,900
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	10,170
2016-17 Proposed Budget - Total Operating Requirements	\$ 8,563,220
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	38,300
Change in OCERS retirement costs	4,000
Change in group insurance costs	36,900
Other benefit cost adjustments	(5,700)
Other Cost Adjustments:	
Decrease in legal services	(150,000)
Increase in auditing and accounting services	100,000
increase in other professional services	90,000
Increase in regulatory operating fees	14,180
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	1,000
2017-18 Proposed Budget - Total Operating Requirements	\$ 8,691,900

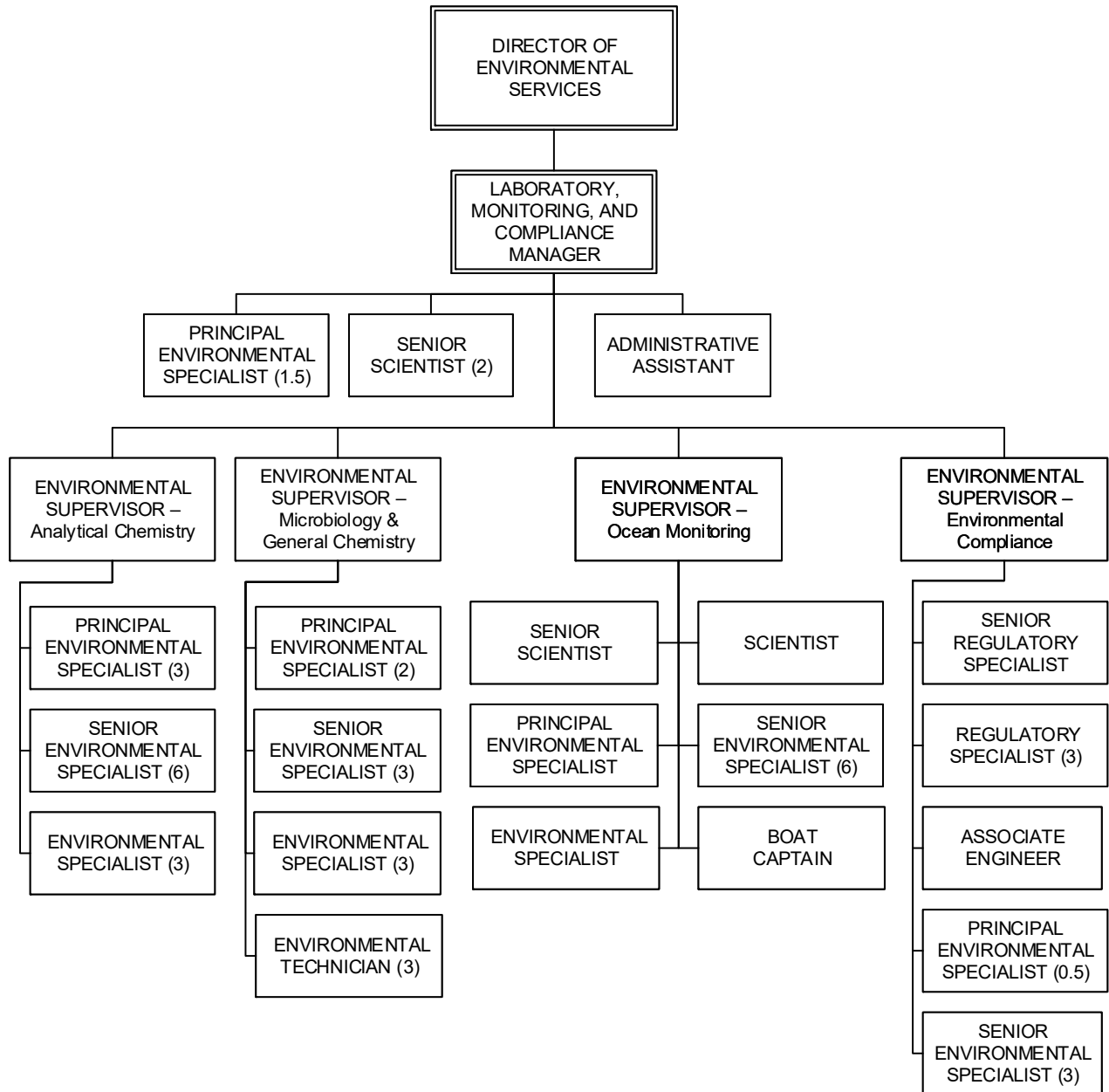
2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 5,418,021	\$ 5,452,500	\$ 5,173,600	\$ 5,489,600	0.68%	\$ 5,627,200	2.51%
Supplies	143,794	138,650	158,510	215,320	55.30%	172,090	(20.08%)
Professional & Contractual Services	104,906	165,000	152,370	246,660	49.49%	146,660	(40.54%)
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	7,443	-	7,330	7,330	-	7,330	0.00%
Utilities	-	-	-	-	-	-	-
Other	2,626	1,970	580	1,740	(11.68%)	1,740	0.00%
Total	\$ 5,676,790	\$ 5,758,120	\$ 5,492,390	\$ 5,960,650	3.52%	\$ 5,955,020	(0.09%)



Laboratory, Monitoring & Compliance

630

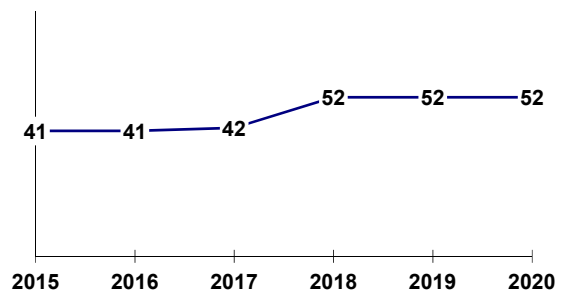


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Manager	1.0
Supervisors / Professionals	47.0
Technical Staff	3.0
Administrative / Clerical	1.0

Total 52.0



2018-19 & 2019-20 Budget

Service Description

The mission of the Laboratory, Monitoring & Compliance Division is to perform sampling, environmental and process monitoring, accurate analysis, evaluation and compliance reporting for collection system, treatment processes, air emissions, coastal water quality, marine sediments and fish populations within the influence of OCSD's wastewater discharge and comparison sites to evaluate and address issues of concern to the District.

2017-18 Performance Objectives

- ◆ Meet or surpass efficiency improvement as measured by internal standards and industry benchmarking with other laboratories.
- ◆ Successful performance on proficiency test standards 100% correctly in no more than two attempts and achieve no less than 95% correct results on the first attempt.
- ◆ Manage division controllable costs to 98% to 102% of projection.
- ◆ Support of GWRS, special projects and routine monitoring requirements.
- ◆ Meet all NPDES Permit compliance standards, Strategic Initiatives and Strategic Process Studies to advance OCSD's Mission.

2017-18 Performance Results

- ◆ Benchmarking with other regional laboratories is an ongoing effort and external metrics are being updated. All indications are that OCSD is as efficient as other regional laboratories.
- ◆ Proficiency testing has resulted in 100% passing of all tests on first attempt for this year.
- ◆ Final budget expenditures are projected at 88% of budget.
- ◆ Several special projects in support of GWRS were undertaken and successfully completed.
- ◆ Met all NPDES Permit compliance standards and initiatives for this year.

2018-19 & 2019-20 Performance Objectives

- ◆ Continued efficiency improvement as measured by internal standards and industry benchmarking with regional laboratories.
- ◆ Successful performance on proficiency test standards 100% correctly in no more than two attempts and achieve no less than 95% correct results on the first attempt.
- ◆ Manage division controllable costs to within 96% to 100% of budget projection.
- ◆ Support of GWRS, special projects and routine monitoring requirements.
- ◆ Meet all NPDES Permit compliance standards, Strategic Initiatives and Strategic Process Studies to advance OCSD's Mission.

Summary	Performance Measures				Justification
	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	
◆ Laboratory Productivity	100%	100%	100%	100%	Internal and external benchmark comparison.
◆ Laboratory Standards	100%	100%	100%	100%	Blind check standards.
◆ Budget	91%	88%	≤100%	≤100%	In-house standard
◆ Support GWRS	100%	100%	100%	100%	Percent of requested work completed
◆ Permit Compliance	100%	100%	100%	100%	Compliance measure

Laboratory, Monitoring & Compliance

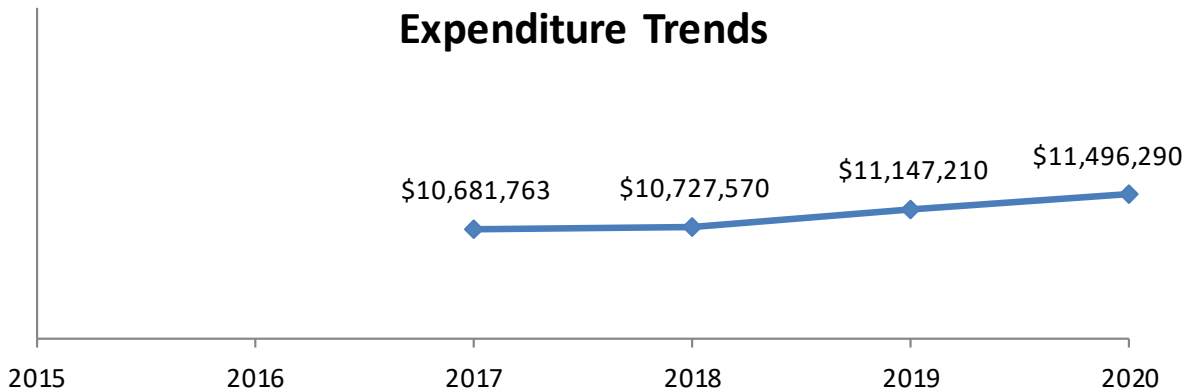
Budget Overview

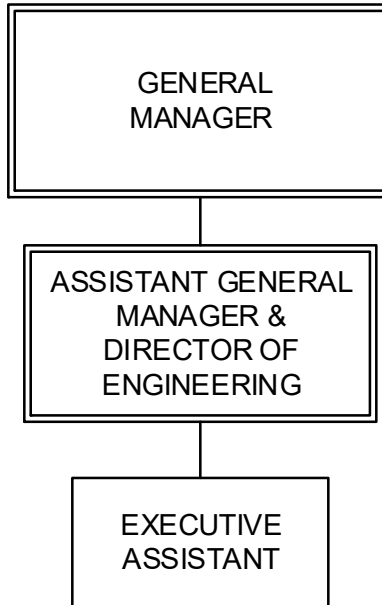
The FY 2018-19 & 2019-20 budgets for the Laboratory, Monitoring & Compliance Division reflect an increase of 4% and 3% over the prior year, respectively. The 2018-19 increase is primarily due to salary and benefits adjustments and an increase in research and monitoring costs, partially offset by a decrease in electricity costs.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 10,727,570
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	234,000
Change in OCERS retirement costs	12,500
Change in group insurance costs	36,200
Other benefit cost adjustments	5,800
Other Cost Adjustments:	
Increase in lab chemicals and supplies	24,500
Increase in temporary services	30,000
Decrease in legal services	(40,000)
Increase in audit & accounting services	10,000
Decrease in advocacy efforts	(11,000)
Increase in research & monitoring	146,800
Increase in repairs and maintenance	20,000
Decrease in electricity costs	(130,600)
Increase in miscellaneous operating expenses	19,400
Increase in regulatory operating fees	31,100
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	30,940
2018-19 Proposed Budget - Total Operating Requirements	\$ 11,147,210
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	80,400
Change in OCERS retirement costs	8,300
Change in group insurance costs	60,100
Other benefit cost adjustments	15,800
Other Cost Adjustments:	
Increase in lab chemicals and supplies	15,000
Increase in outside lab services	50,000
Increase in research & monitoring	38,400
Increase in repairs and maintenance	17,640
Increase in electricity costs	11,100
Increase in regulatory operating fees	20,000
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	32,340
2019-20 Proposed Budget - Total Operating Requirements	\$ 11,496,290

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 7,896,902	\$ 7,581,200	\$ 7,642,300	\$ 7,869,700	3.81%	\$ 8,034,300	2.09%
Supplies	704,081	643,080	647,660	693,870	7.90%	719,210	3.65%
Professional & Contractual Services	233,747	492,800	353,380	490,000	(0.57%)	555,000	13.27%
Research & Monitoring	468,976	464,400	360,000	611,200	31.61%	649,600	6.28%
Repairs & Maintenance	252,669	270,000	268,400	290,000	7.41%	307,640	6.08%
Utilities	328,548	500,000	387,100	369,400	(26.12%)	380,500	3.00%
Other	796,840	776,090	741,880	823,040	6.05%	850,040	3.28%
Total	\$ 10,681,763	\$ 10,727,570	\$ 10,400,720	\$ 11,147,210	3.91%	\$ 11,496,290	3.13%

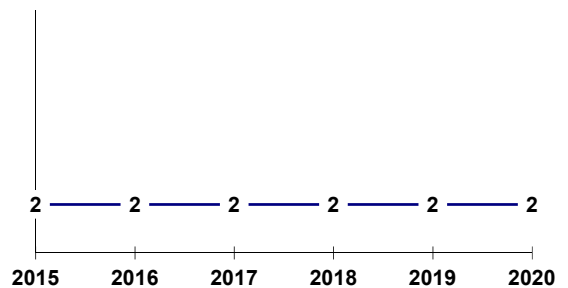




Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Executive Manager	1.0
Administrative / Clerical	1.0
<hr/>	
Total	<u>2.0</u>



2018-19 & 2019-20 Budget

Service Description

The mission of the Engineering Administration Division is to deliver world class engineered projects through skilled staff, technical excellence, proactive project planning, effective project delivery, effective communication, and critical thinking.

2017-18 Performance Objectives

- ◆ Expend 90 to 100% of project annual CIP cash flow.
- ◆ Ensure the department's expenditures are managed to 96- 100% of approved budget.
- ◆ Ensure that reporting divisions achieve 90% of individual performance objectives.
- ◆ Prepare and maintain 20-year District-wide capital plan.

2017-18 Performance Results

- ◆ Expected to expend 97.8%.
- ◆ Expected to be 30%.
- ◆ Expected to be 90%.
- ◆ Yes.

2018-19 & 2019-20 Performance Objectives

- ◆ Expend 90-100% of project annual CIP cash flow.
- ◆ Ensure the department's expenditures are managed to within 96-100% of the proposed budgets.
- ◆ Ensure that reporting divisions achieve 90% of individual performance objectives.
- ◆ Prepare and maintain a 20-year District-wide capital plan coordinating research, condition assessment, regulatory requirements, changing levels of service, and projected capacity requirements.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Expend 90-100% of Project Annual CIP Cash Flow	86.7%	97.8%	90-100%	90-100%	In-house standard
◆ Ensure Department's Expenditures 96-100%	49%	30%	96-100%	96-100%	In-house standard
◆ Ensure Reporting Divisions Achieve 90% Performance Measures	95%	90%	90% min	90% min	In-house standard
◆ Prepare & Maintain 20-year District-wide Capital Plan	Yes	Yes	Yes	Yes	In-house standard

Engineering Administration

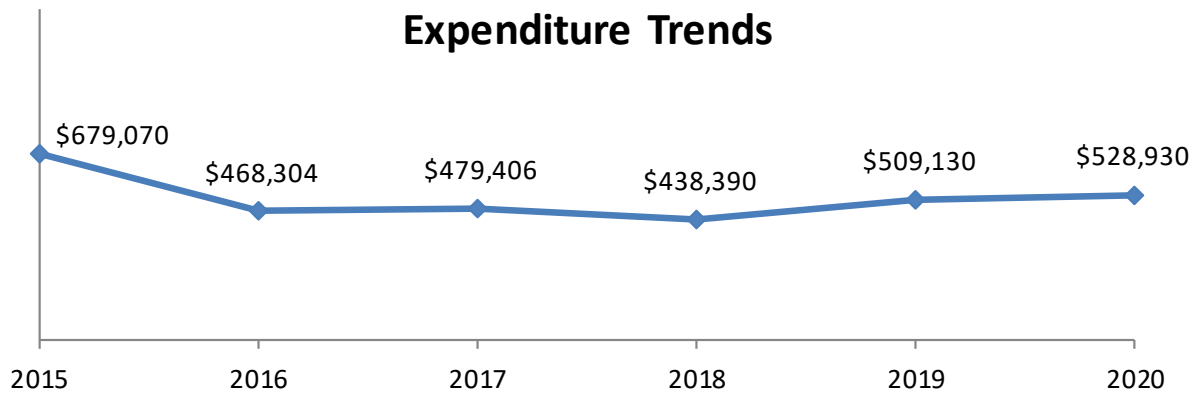
Budget Overview

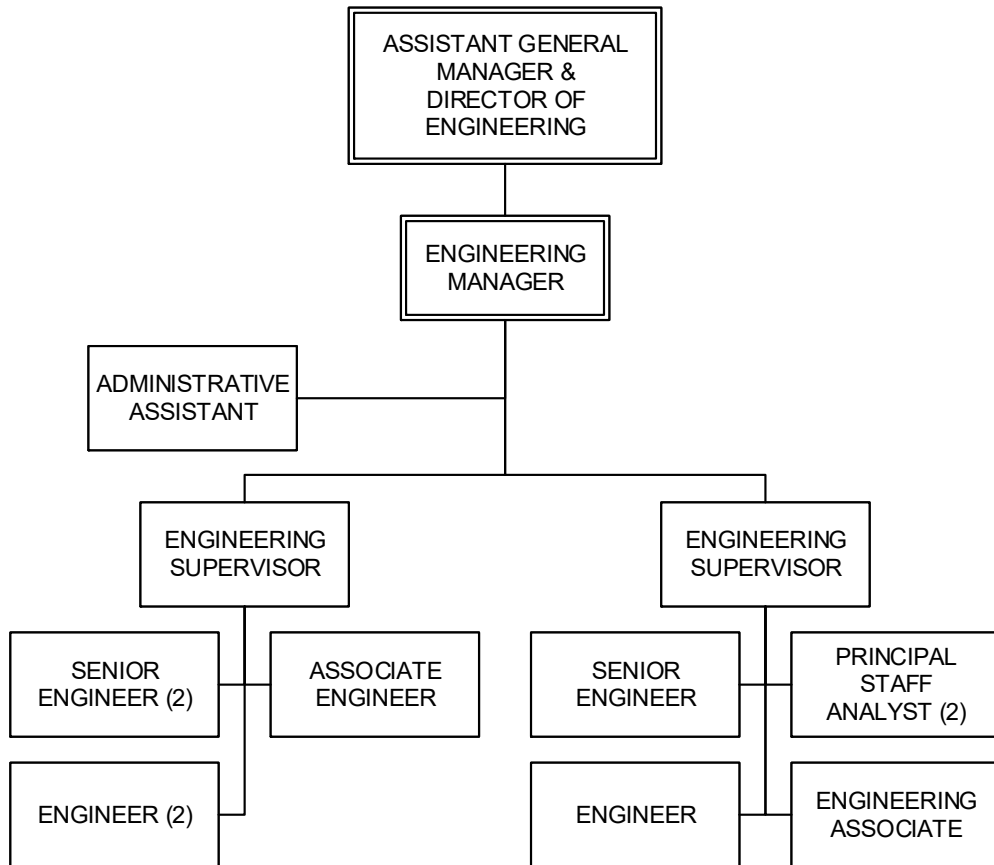
The FY 2018-19 & 2019-20 budgets for the Engineering Administration Division reflect an increase of 16% and an increase of 4% over the prior year, respectively. This is primarily due to increases in salary and benefits adjustments.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 438,390
<i>Salaries for Position Changes:</i>	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
<i>Changes in Personnel Expenses:</i>	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	63,300
Change in OCERS retirement costs	6,700
Change in group insurance costs	2,100
Other benefit cost adjustments	100
<i>Other Cost Adjustments:</i>	
No other significant cost changes	
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	(1,460)
2018-19 Proposed Budget - Total Operating Requirements	\$ 509,130
<i>Changes in Personnel Expenses:</i>	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	14,600
Change in OCERS retirement costs	2,000
Change in group insurance costs	2,500
Other benefit cost adjustments	700
<i>Other Cost Adjustments:</i>	
No other significant cost changes	
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	-
2019-20 Proposed Budget - Total Operating Requirements	\$ 528,930

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 470,806	\$ 419,500	\$ 479,400	\$ 491,700	17.21%	\$ 511,500	4.03%
Supplies	6,514	8,850	2,050	7,390	(16.50%)	7,390	0.00%
Professional & Contractual Services	-	10,000	3,500	10,000	0.00%	10,000	0.00%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	-	-	-	-	-	-	-
Utilities	-	-	-	-	-	-	-
Other	2,086	40	40	40	0.00%	40	0.00%
Total	\$ 479,406	\$ 438,390	\$ 484,990	\$ 509,130	16.14%	\$ 528,930	3.89%



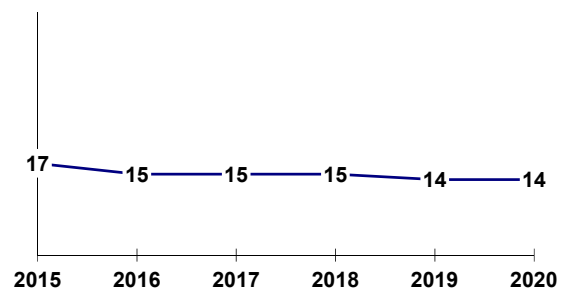


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Manager	1.0
Supervisors / Professionals	11.0
Administrative / Clerical	2.0

Total 14.0



2018-19 & 2019-20 Budget

Service Description

The mission of the Planning Division is to provide a comprehensive Capital Improvement Program for the District considering projected capacity requirements, condition of current asset, projected regulatory and level of service changes, and research or business opportunities. The Planning Division takes an active role in the Asset Management Program at the District. The Division is also responsible for water resources management, California Environmental Quality Act preparation and review, annexations, connection permitting, easements, and interagency agreements.

2017-18 Performance Objectives

- ◆ Ensure the division's expenditures are managed to within 96-100% of proposed budget.
- ◆ Facilitate the District-wide project clearinghouse.
- ◆ Prepare and maintain a 20-year District-wide capital plan coordinating research, condition assessment, regulatory requirements, changing levels of service, and projected capacity requirements.
- ◆ Response to 100% of environmental correspondence within 45 days.
- ◆ Maintain a hydraulic model for the collection system.

2017-18 Performance Results

- ◆ Division expenditures are projected to be 122%.
- ◆ Planning has facilitated the biweekly Clearinghouse meeting to disposition all capital and maintenance projects.
- ◆ The Planning Division completed the 2017 Facilities Master Plan which defines a 20-year CIP totaling \$5 Billion. The Master Plan included recently completed efforts of the Biosolids Master Plan and the Odor Control Master Plan, both completed in 2017.
- ◆ 100% of environmental correspondence was responded to within 45 days.
- ◆ 2006 hydraulic model is on track for a complete update in July 2018.

2018-19 & 2019-20 Performance Objectives

- ◆ Ensure the division's expenditures are managed to 96-100% of proposed budget.
- ◆ Facilitate the District-wide project clearinghouse to properly disposition maintenance, repair, replacement and capital expansion work into projects. Meet regularly and clearly assign tasks.
- ◆ Prepare and maintain a 20-year District-wide Capital Improvement Program considering research, condition assessment, regulatory requirements, changing levels of service, and projected capacity requirements.
- ◆ Response to 100% of environmental correspondence within 45 days.
- ◆ Complete the Facilities Master Plan Program Environmental Impact Report.
- ◆ Complete the Biosolids Master Plan Program Environmental Impact Report.

Summary	Performance Measures				Justification
	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	
◆ Manage Budget	114%	122%	96-100%	96-100%	In-house standard
◆ Facilitate Project Clearinghouse	Yes	Yes	Yes	Yes	In-house standard
◆ Prepare and Maintain a 20-Year District-Wide Capital Plan	Yes	Yes	Yes	Yes	In-house standard
◆ CEQA Correspondence	100%	100%	100%	100%	CEQA requirement
◆ Facilities Master Plan EIR	N/A	N/A	100%	100%	CEQA requirement
◆ Biosolids Master Plan EIR	N/A	N/A	100%	100%	CEQA requirement

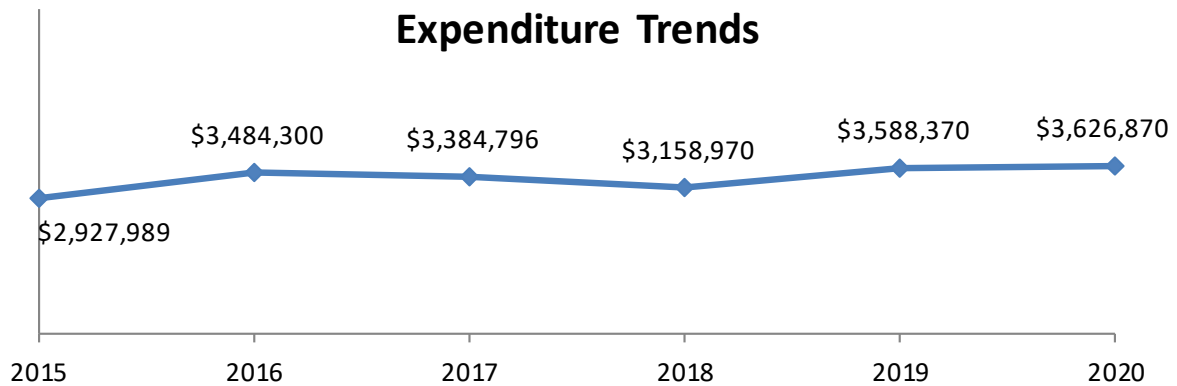
Budget Overview

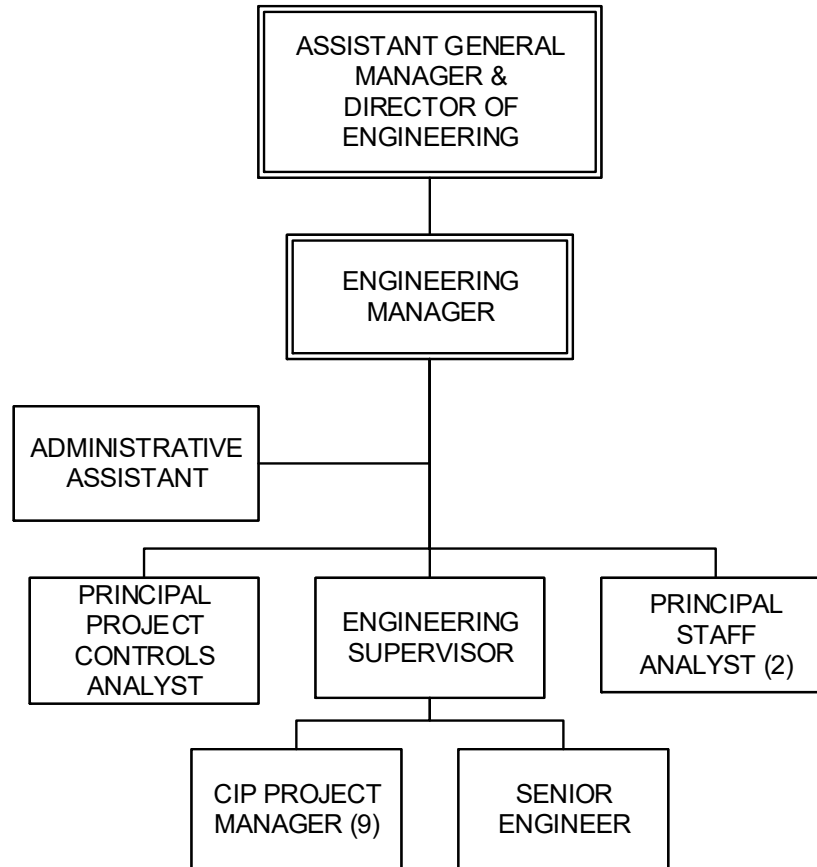
The FY 2018-19 budget for the Planning Division reflect an increase of 14%. This is primarily due to increases in legal services, repairs and maintenance, and electricity costs. The FY 2019-20 budget reflects an increase of 1%, with no significant changes affecting the budget.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 3,158,970
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	(17,200)
Change in OCERS retirement costs	(11,800)
Change in group insurance costs	(6,100)
Other benefit cost adjustments	(31,700)
Other Cost Adjustments:	
Decrease in training	(12,290)
Increase in operating materials & supplies	30,710
Increase in groundskeeping services	10,700
Increase in janitorial services	55,000
Decrease in temporary services	(20,000)
Increase in legal services	100,000
Increase in other professional services	60,000
Increase in repairs & maintenance services and materials	105,000
Increase in electricity costs	159,000
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	8,080
2018-19 Proposed Budget - Total Operating Requirements	\$ 3,588,370
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	6,600
Change in OCERS retirement costs	500
Change in group insurance costs	16,100
Other benefit cost adjustments	4,300
Other Cost Adjustments:	
Increase in electricity costs	5,000
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	6,000
2019-20 Proposed Budget - Total Operating Requirements	\$ 3,626,870

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 2,752,644	\$ 2,662,700	\$ 2,499,200	\$ 2,595,900	(2.51%)	\$ 2,623,400	1.06%
Supplies	272,417	250,470	237,840	256,610	2.45%	256,610	0.00%
Professional & Contractual Services	352,501	235,000	348,250	448,700	90.94%	454,000	1.18%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	37	-	550	105,000	-	105,000	0.00%
Utilities	6,087	10,000	17,120	178,100	1681.00%	183,500	3.03%
Other	1,110	800	540	4,060	407.50%	4,360	7.39%
Total	\$ 3,384,796	\$ 3,158,970	\$ 3,103,500	\$ 3,588,370	13.59%	\$ 3,626,870	1.07%



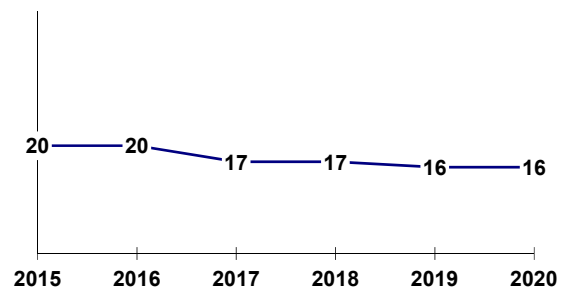


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Manager	1.00
Supervisors / Professionals	14.00
Administrative / Clerical	1.00

Total 16.00



2018-19 & 2019-20 Budget

Service Description

The mission of the Project Management Office (PMO) Division is to be responsible for managing the design and construction of new collection and treatment and disposal facilities plus the rehabilitation of older facilities to ensure the safe, cost effective transport, and treatment of influent/effluent. This division is responsible for the delivery of capital projects from the preliminary design stages through closeout of construction. The division provides standards, processes, and methodologies to improve project quality, cost, and timeliness.

2017-18 Performance Objectives

- ◆ Ensure that the division's expenditures are managed to 96-100% of the proposed budget.
- ◆ Expend 85-105% of budgeted CIP expenditures.
- ◆ Manage non-construction costs for active projects to < 37.5% of construction costs.
- ◆ Maintain a Combined Advertising Variance of < 30 days late.
- ◆ Maintain a Combined Completion Variance of < 120 days late.

2018-19 Performance Results

- ◆ Projected to be 38%.
- ◆ Projected at 98%.
- ◆ Projected to be < 37.5%.
- ◆ Projected to be 88 days late.
- ◆ Projected to be 111 days early.

2018-19 & 2019-20 Performance Objectives

- ◆ Ensure the division's expenditures are managed to 96-100% of proposed budget.
- ◆ Expend 85%-105% of budgeted CIP expenditures.
- ◆ Manage non-construction costs for active projects to < 37.5% of construction costs.
- ◆ Maintain a Combined Advertising Variance of < 30 days.
- ◆ Maintain a Combined Completion Variance of < 120 days.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Manage Division Budget	18%	38%	96-100%	96-100%	In-house standard
◆ Expend 85-105% of Projected Project Expenditures	86.7%	98%	85-105%	85-105%	In-house standard
◆ Manage Non-construction Costs for Active Projects to <37.5% of Construction Costs	35.3%	< 37.5%	< 37.5%	< 37.5%	In-house standard
◆ Combined Advertising Variance of < 30 days late	117 late	88 late	< 30 late	< 30 late	In-house standard
◆ Combined Negative Completion Variance of < 120 days late	25 early	111 early	< 120 late	< 120 late	In-house standard

Project Management Office

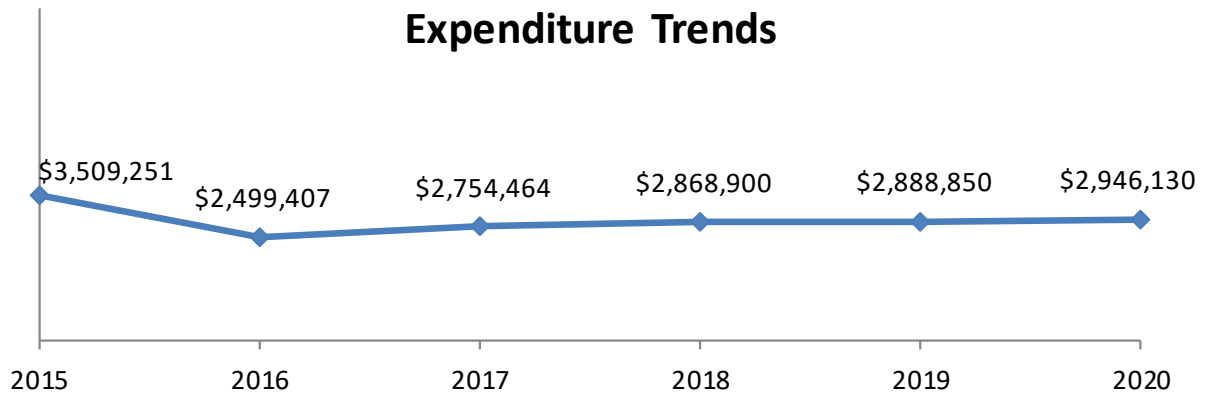
Budget Overview

The FY 2018-19 & 2019-20 budgets for the Project Management Office Division reflect an increase of 1% and an increase of 2% over the prior year, respectively. The increases are primarily due to salary and benefits adjustments. FY 2018-19 is partially off-set with a decrease due to an FTE transfer.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 2,868,900
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	(72,100)
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	122,000
Change in OCERS retirement costs	(13,500)
Change in group insurance costs	(3,700)
Other benefit cost adjustments	5,500
Other Cost Adjustments:	
Increase in training & meetings expense	(12,000)
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(6,250)
2018-19 Proposed Budget - Total Operating Requirements	\$ 2,888,850
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	29,100
Change in OCERS retirement costs	2,600
Change in group insurance costs	18,400
Other benefit cost adjustments	4,800
Other Cost Adjustments:	
No other significant cost changes	
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	2,380
2019-20 Proposed Budget - Total Operating Requirements	\$ 2,946,130

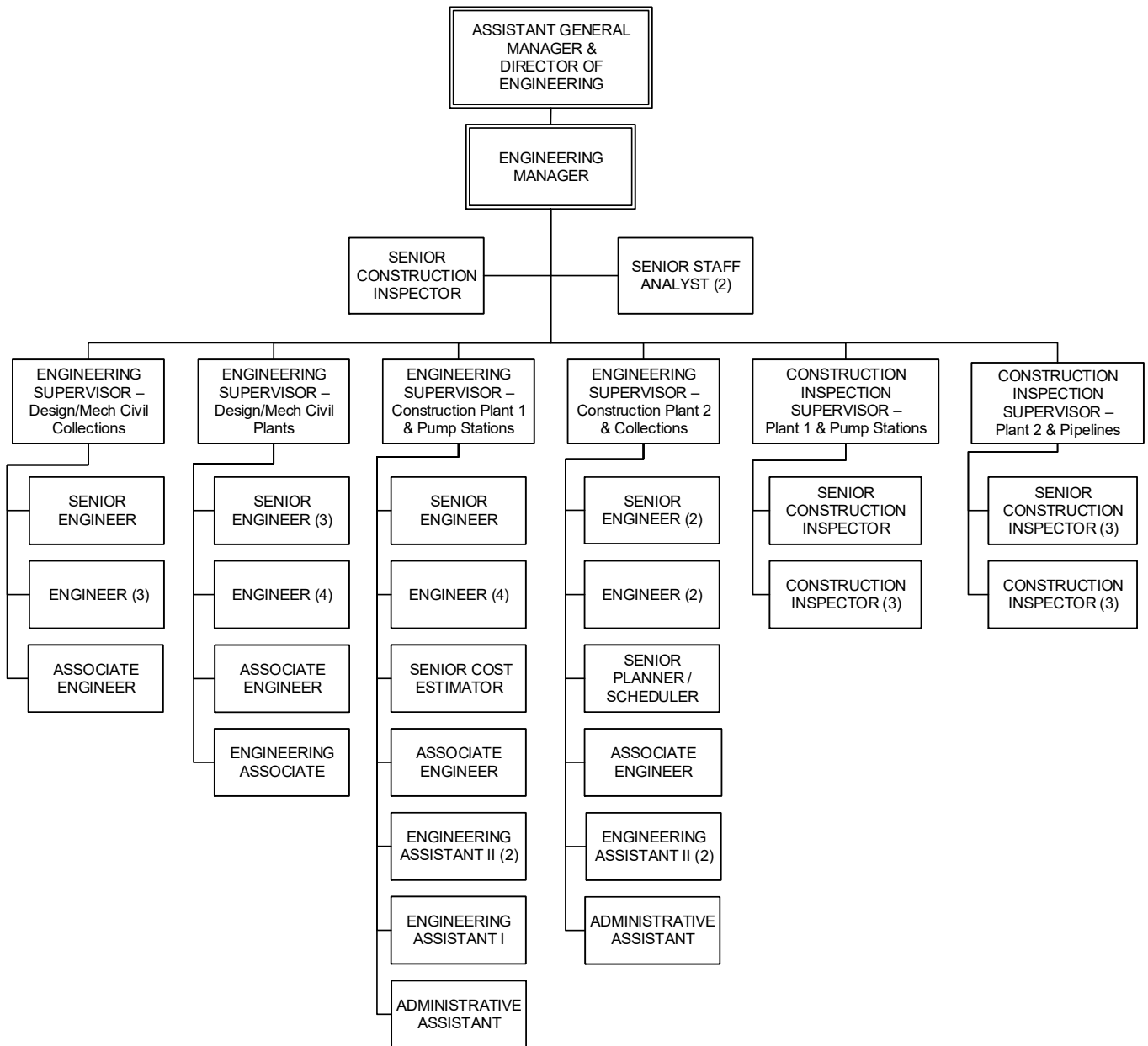
2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 2,746,521	\$ 2,825,000	\$ 2,580,500	\$ 2,863,200	1.35%	\$ 2,918,100	1.92%
Supplies	7,577	43,260	16,440	25,280	(41.56%)	27,660	9.41%
Professional & Contractual Services	-	-	-	-	-	-	-
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	36	100	-	-	(100.00%)	-	-
Utilities	-	-	-	-	-	-	-
Other	330	540	360	370	(31.48%)	370	0.00%
Total	\$ 2,754,464	\$ 2,868,900	\$ 2,597,300	\$ 2,888,850	0.70%	\$ 2,946,130	1.98%



Civil & Mechanical Engineering

760

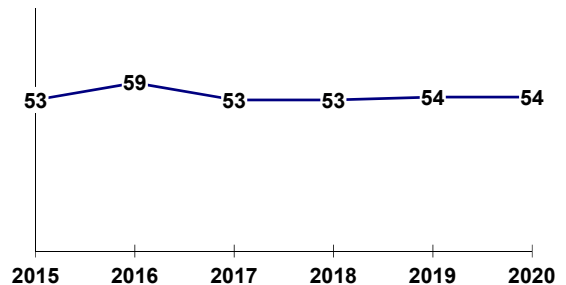


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Manager	1.0
Supervisors / Professionals	34.0
Administrative / Clerical	19.0

Total 54.0



2018-19 & 2019-20 Budget

Service Description

The mission of the Civil & Mechanical Engineering Division is to provide civil/mechanical engineering and construction management services for OCSD divisions and for project support to ensure OCSD projects are designed to meet stakeholder needs, comply with applicable codes and standards, are safely constructed and are fully inspected while minimizing impacts to operations, maintenance, local agencies and the public.

2017-18 Performance Objectives

- ◆ Ensure the division's expenditures are managed to 96-100% of proposed budget.
- ◆ Reduce program change order performance towards Change Order Management Plan goal of 5%.
- ◆ Respond to public complaints or inquiries regarding construction projects within 1 day.
- ◆ No sewer spills on CIP collections projects.
- ◆ Division Injury Incident Rate < 2.9 to support OCSD goal of < 5.7.
- ◆ Develop and implement a plan of continuous improvement incorporating lessons learned from executed projects.

2017-18 Performance Results

- ◆ Expected to be 118%.
- ◆ 5.2% as of December 31 data.
- ◆ Within 1-day response rate.
- ◆ No spills.
- ◆ Projected to be 4.5.
- ◆ Implemented specification ticket module and contract document improvement plan for continued use.

2018-19 & 2019-20 Performance Objectives

- ◆ Ensure division's expenditures are managed to 96-100% of proposed budget.
- ◆ Manage construction change orders to a CIP Change Order Management Plan goal of 5.5%.
- ◆ Respond to public complaints or inquiries regarding construction projects within 1 day.
- ◆ No sewer spills on CIP collections projects.
- ◆ Division Injury Incident Rate < 2.9 to support OCSD goal of < 5.7.
- ◆ Routinely update standard specifications and design guidelines based on lessons learned from executed projects and the latest industry standards.
- ◆ Implement the Project Management Information System (PMIS) to replace the existing system.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Manage Division Budget	68%	118%	96-100%	96-100%	In-house standard
◆ Change Order Rate	4.6%	5.2%	< 5.5%	< 5.5%	In-house standard
◆ Respond to Public	1 day	1 day	1 day	1 day	In-house standard
◆ No Sewer Spills	0	0	0	0	In-house standard
◆ Injury Incident Rate < 2.9	2.1	4.5	< 2.9	< 2.9	In-house standard
◆ Update Standards	N/A	N/A	12 yearly	12 yearly	In-house standard
◆ Implement PMIS	N/A	In Progress	Implement	Complete	In-house standard

Civil & Mechanical Engineering

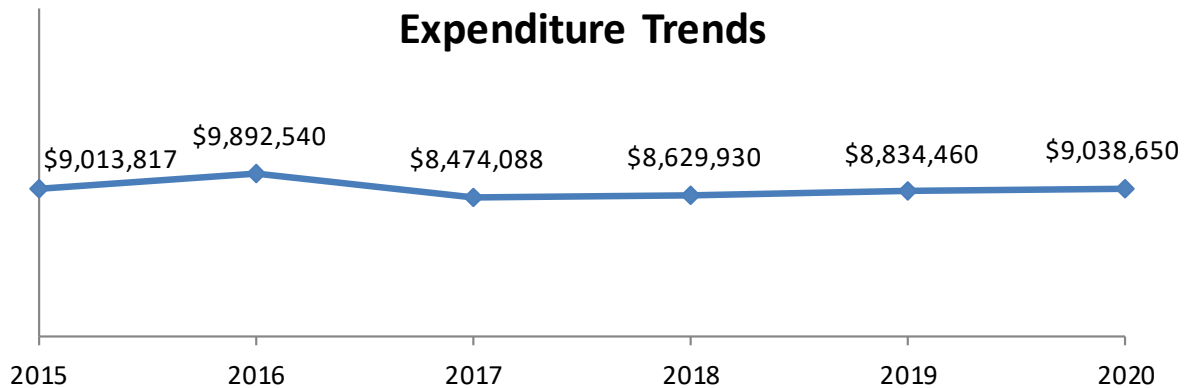
Budget Overview

The FY 2018-19 & 2019-20 budgets for the Civil & Mechanical Engineering Division reflect an increase of 2% and an increase of 2% over the prior year, respectively. The increases are primarily due to salary and benefits adjustments.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 8,629,930
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	188,000
Change in OCERS retirement costs	(40,200)
Change in group insurance costs	52,000
Other benefit cost adjustments	15,570
Other Cost Adjustments:	
Decrease in training & meetings	(6,300)
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(4,540)
2018-19 Proposed Budget - Total Operating Requirements	\$ 8,834,460
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	113,300
Change in OCERS retirement costs	10,800
Change in group insurance costs	62,900
Other benefit cost adjustments	16,400
Other Cost Adjustments:	
No other significant cost changes	
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	790
2019-20 Proposed Budget - Total Operating Requirements	\$ 9,038,650

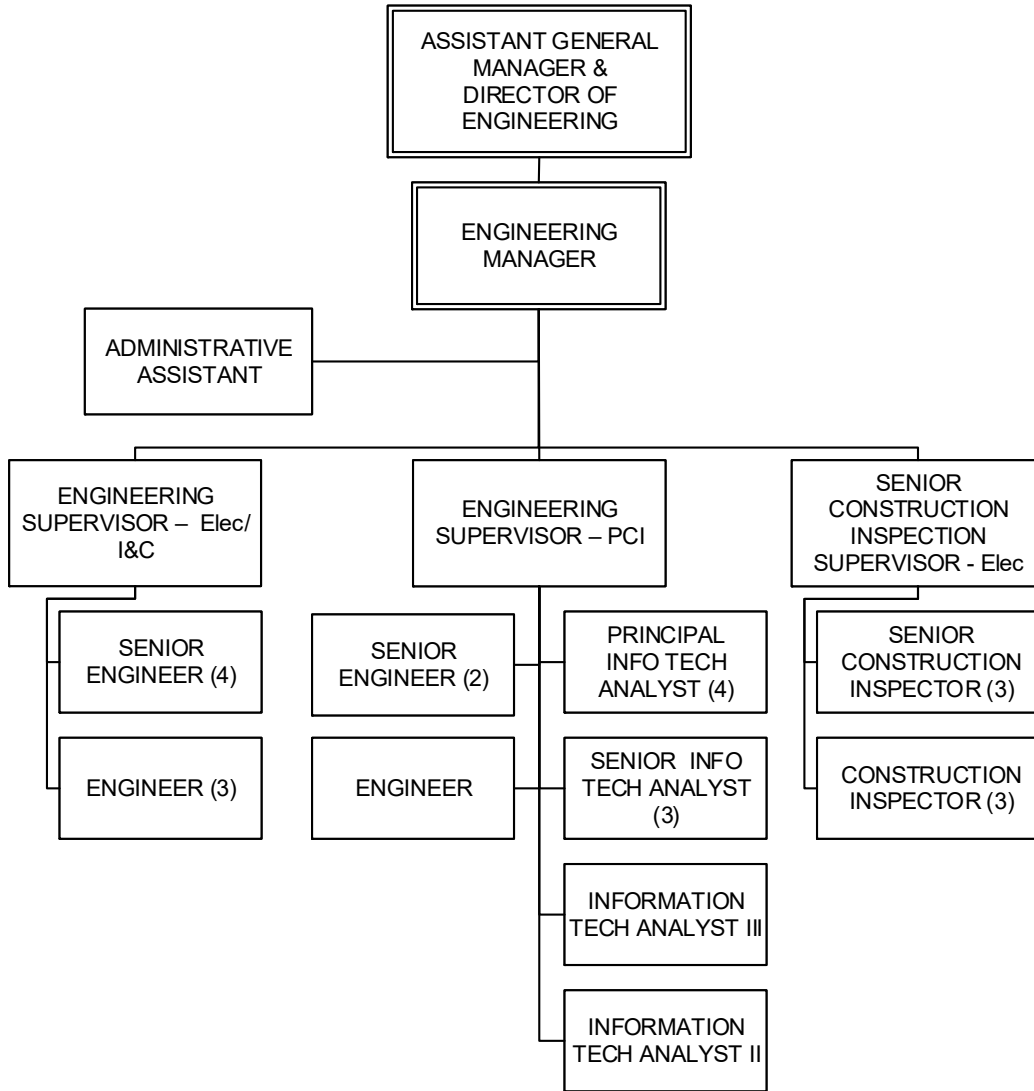
2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 8,418,163	\$ 8,550,230	\$ 8,182,600	\$ 8,765,600	2.52%	\$ 8,969,000	2.32%
Supplies	49,871	66,570	81,020	55,780	(16.21%)	56,570	1.42%
Professional & Contractual Services	4,254	10,000	10,000	10,000	0.00%	10,000	0.00%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	148	600	490	500	(16.67%)	500	0.00%
Utilities	-	-	-	-	-	-	-
Other	1,652	2,530	2,480	2,580	1.98%	2,580	0.00%
Total	\$ 8,474,088	\$ 8,629,930	\$ 8,276,590	\$ 8,834,460	2.37%	\$ 9,038,650	2.31%



Electrical & Control Systems Engineering

770

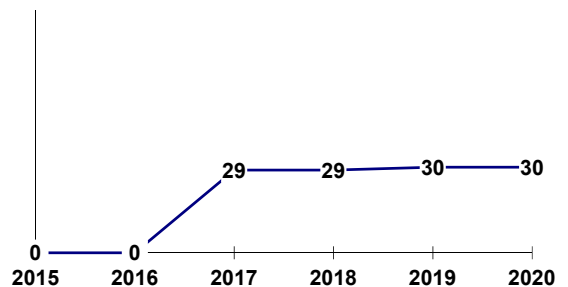


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Manager	1.0
Supervisors / Professionals	22.0
Administrative / Clerical	7.0

Total 30.0



2018-19 & 2019-20 Budget

Service Description

The mission of the Electrical & Control Systems Engineering Division is to provide electrical and control system designs which are reliable, maintainable, and operable at optimum lifecycle costs in accordance with Engineering Standards and codes. Ensures that projects are properly and safely constructed and executed in accordance with the contract documents with minimal impact to operations, maintenance, local agencies, and the public. Provide process control SCADA system hardware, software and data network support for collections and treatment plant processes that are highly reliable, safe, secure, online, and available to monitor, record, control, and operate our facilities.

2017-18 Performance Objectives

- ◆ Ensure the division's expenditures are managed to 96-100% of proposed budget.
- ◆ Reduce program change order performance towards Change Order Management Plan goal of 5%.
- ◆ Assure all mission critical real-time SCADA systems are online and available > 99.9%.
- ◆ SCADA system programming complete and bench tested prior to functional acceptance testing.
- ◆ New electrical equipment is properly modeled in the power systems software and equipment is properly configured and tested prior to energization.
- ◆ Division Injury Rate < 2.9.

2017-18 Performance Results

- ◆ Expected to be 86%
- ◆ 5.2% as of December 31 data.
- ◆ Expected to be 100%.
- ◆ Expected to be 100%.
- ◆ Expected to be 100%.
- ◆ 0.0

2018-19 & 2019-20 Performance Objectives

- ◆ Ensure division's expenditures are managed to within 96-100% of proposed budget.
- ◆ Manage construction change order to CIP Change Order Management Plan goal of 5.5%.
- ◆ Assure all mission critical real-time SCADA systems are online and available greater than 99.9% (8hr/year of unplanned downtime).
- ◆ SCADA system programming is complete and bench tested prior to functional acceptance testing.
- ◆ New electrical equipment is properly modeled in the power systems software and equipment is properly configured and tested prior to energization.
- ◆ Division Injury Incident Rate < 2.9 to support OCSD goal of < 5.7.
- ◆ Routinely update standard specifications and design guidelines based on lessons learned from executed projects and the latest industry standards.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Manage Division Budget	65%	86%	96-100%	96-100%	In-house standard
◆ Change Order Rate	4.6%	5.2%	< 5.5%	< 5.5%	In-house standard
◆ SCADA system availability (less planned downtime)	100%	100%	99.9%	99.9%	In-house standard
◆ SCADA System Programming Complete	100%	100%	> 98%	> 98%	In-house standard
◆ New Electrical Equipment Configured and Tested	100%	100%	> 98%	> 98%	In-house standard
◆ Injury Incident Rate < 2.9	0.0	0.0	< 2.9	< 2.9	In-house standard
◆ Update Standards	N/A	N/A	12 Annually	12 Annually	In-house standard

Electrical & Control Systems Engineering

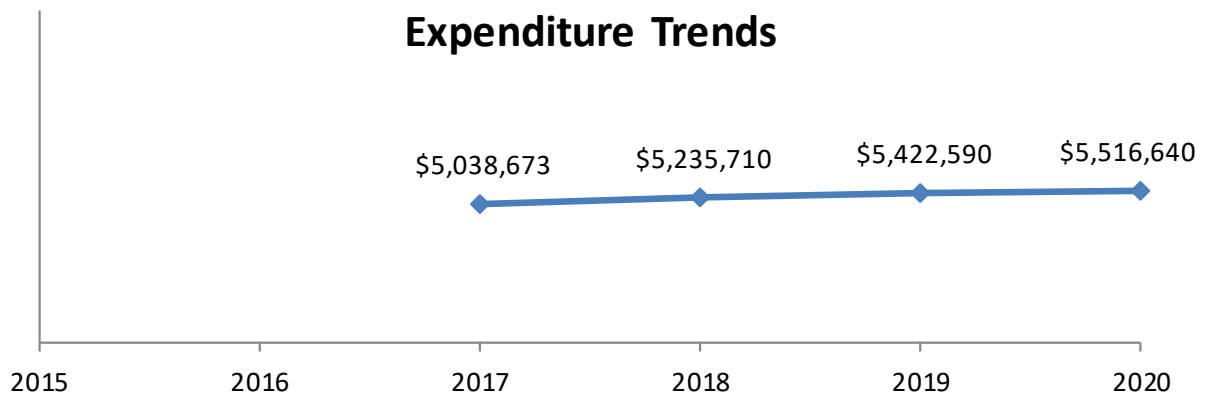
Budget Overview

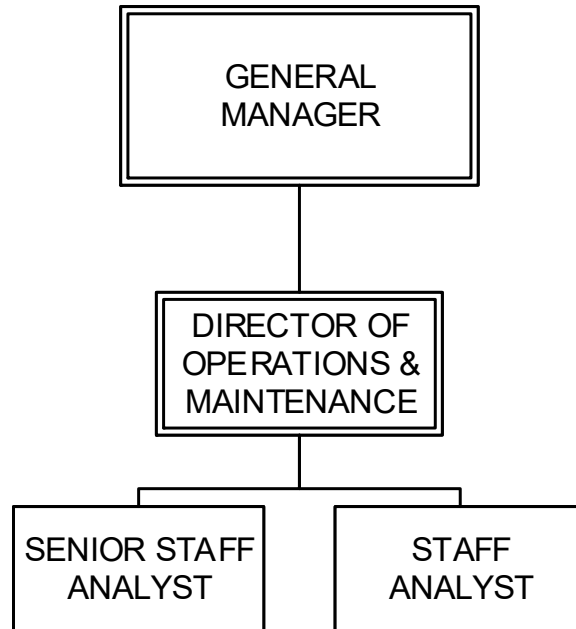
The FY 2018-19 budget for the Electrical & Control Systems Engineering Division reflects an increase of 4%. This is primarily due to increases in salary and benefits adjustments and an FTE transfer. The FY 2019-20 budget reflects an increase of 2% over the prior year, primarily due an increase in salary and benefits adjustments.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 5,235,710
<i>Salaries for Position Changes:</i>	
Transfer of Positions from/(to) Other Divisions	72,100
New or (decreased) FTE	-
<i>Changes in Personnel Expenses:</i>	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	48,800
Change in OCERS retirement costs	24,400
Change in group insurance costs	35,200
Other benefit cost adjustments	5,700
<i>Other Cost Adjustments:</i>	
Increase in training	16,720
Decrease in engineering services	(25,000)
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	8,960
2018-19 Proposed Budget - Total Operating Requirements	\$ 5,422,590
<i>Changes in Personnel Expenses:</i>	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	61,100
Change in OCERS retirement costs	6,300
Change in group insurance costs	35,000
Other benefit cost adjustments	9,100
<i>Other Cost Adjustments:</i>	
Decrease in training	(19,630)
<i>Aggregate change in Other Categories:</i>	
Aggregate change in other materials, supplies, and services	2,180
2019-20 Proposed Budget - Total Operating Requirements	\$ 5,516,640

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 4,811,354	\$ 4,896,000	\$ 4,553,700	\$ 5,082,200	3.80%	\$ 5,193,700	2.19%
Supplies	51,041	88,210	80,110	106,740	21.01%	89,290	(16.35%)
Professional & Contractual Services	164,567	246,000	199,800	221,000	(10.16%)	221,000	0.00%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	11,711	5,000	12,000	12,000	140.00%	12,000	0.00%
Utilities	-	-	-	-	-	-	-
Other	-	500	550	650	30.00%	650	0.00%
Total	\$ 5,038,673	\$ 5,235,710	\$ 4,846,160	\$ 5,422,590	3.57%	\$ 5,516,640	1.73%



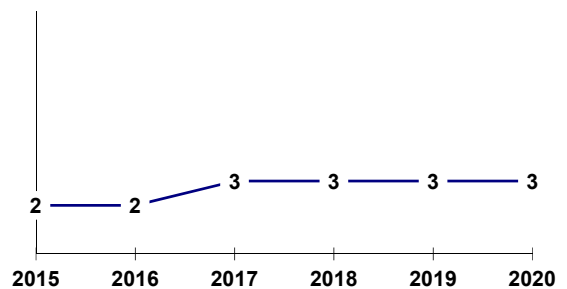


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Executive Manager	1.00
Supervisors / Professionals	2.00

Total 3.00



2018-19 & 2019-20 Budget

Service Description

The mission of the Operations and Maintenance (O&M) Administration Division is to provide leadership and support, as well as management oversight and development of the department. Ratepayer owned facilities and assets managed by the O&M Divisions have a replacement value that exceeds \$10 billion. The Director, as a member of the Executive Management Team, provides counsel and expertise in developing the necessary strategies to maintain alignment with the District's Strategic Plan, levels of service, and annual divisional work plans. The Director and staff also proactively network with the OCSD member cities, sewerage agencies and regional regulators on operational issues.

2017-18 Performance Objectives

- ◆ Achieve 100% compliance with water, solids, air, and energy permits.
- ◆ Achieve a compliance level of 96 to 100% of the levels of service targets.
- ◆ Manage operating expenditures to within 96 to 100% of approved budget.

2017-18 Performance Results

- ◆ Achieved 100% compliance with water, solids, air, and energy permits.
- ◆ Achieved a compliance level of 90% of the level of service targets.
- ◆ Managed operating expenditures 16% of approved budget.

2018-19 & 2019-20 Performance Objectives

- ◆ Achieve 100% compliance with water, solids, air, and energy permits.
- ◆ Achieve 100% compliance level of 90 to 100% of the Levels of Service targets.
- ◆ Manage operating expenditures to within 96 to 100% of approved budget.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Compliance with Permits & Regulatory Requirements	100%	100%	100%	100%	In-house standard
◆ Levels of Service Compliance	100%	90%	100%	100%	In-house standard
◆ Manage Budget	24%	16%	96-100%	96-100%	In-house standard

Operations and Maintenance Administration

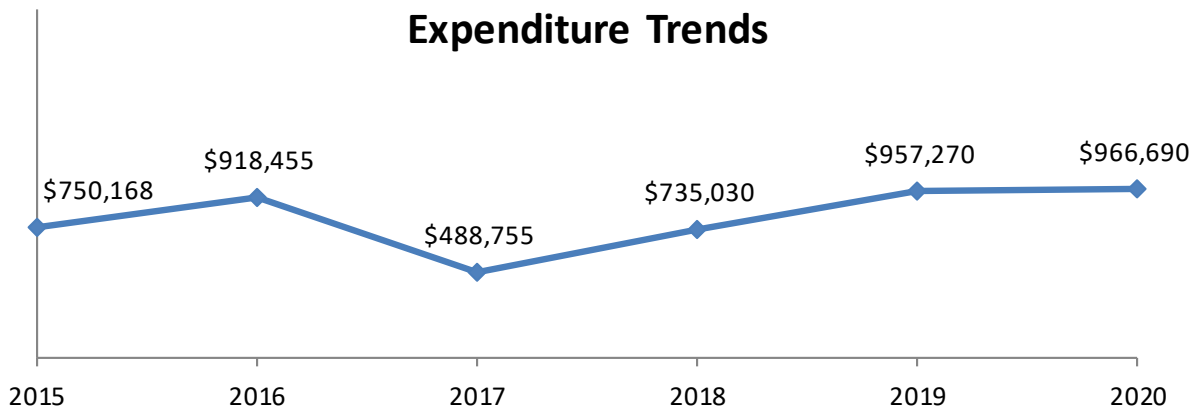
Budget Overview

The FY 2018-19 budget for the Operations and Maintenance Administration Division reflect an increase of 30%. This is primarily due to an increase in temporary services. The FY 2019-20 budget reflects an increase of 1% over the prior year, with no significant changes affecting the budget.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 735,030
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	(41,400)
Change in OCERS retirement costs	4,100
Change in group insurance costs	(1,100)
Other benefit cost adjustments	10,100
Other Cost Adjustments:	
Increase in temporary services	256,600
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(6,060)
2018-19 Proposed Budget - Total Operating Requirements	\$ 957,270
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	15,600
Change in OCERS retirement costs	2,200
Change in group insurance costs	3,700
Other benefit cost adjustments	900
Other Cost Adjustments:	
Decrease in other professional services	(18,000)
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	5,020
2019-20 Proposed Budget - Total Operating Requirements	\$ 966,690

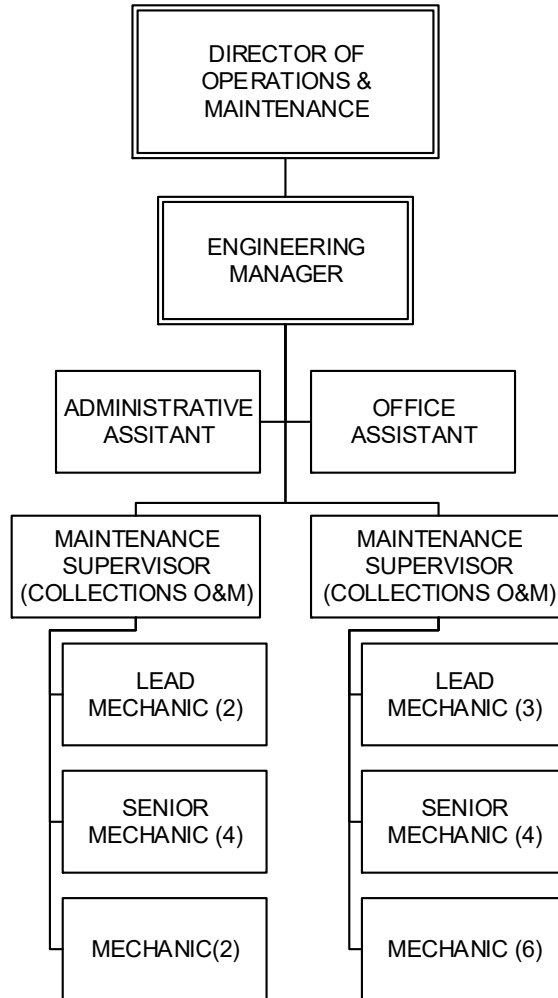
2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 481,892	\$ 693,200	\$ 555,000	\$ 664,900	(4.08%)	\$ 687,300	3.37%
Supplies	6,197	9,620	5,330	2,890	(69.96%)	2,900	0.35%
Professional & Contractual Services	35	31,580	500	288,520	813.62%	275,530	(4.50%)
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	-	-	-	-	-	-	-
Utilities	-	-	-	-	-	-	-
Other	631	630	940	960	52.38%	960	0.00%
Total	\$ 488,755	\$ 735,030	\$ 561,770	\$ 957,270	30.24%	\$ 966,690	0.98%



Collections Facilities Operations and Maintenance

820

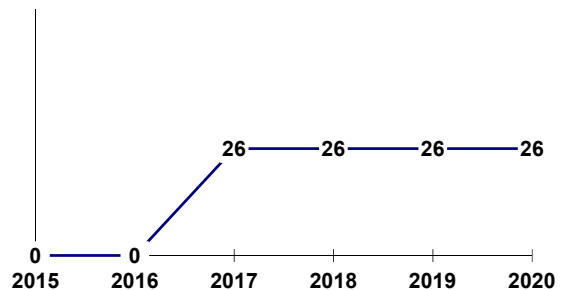


2018-19 & 2019-20 Authorized FTE Positions

Manager	1.0
Supervisors / Professionals	2.0
Operations & Maintenance	21.0
Administrative / Clerical	2.0

Total 26.0

Staffing Trends



2018-19 & 2019-20 Budget

Service Description

The mission of the Collections Facilities Operations and Maintenance Division is to provide support and services which preserve the integrity and reliability of the District's infrastructure. The Pipeline and Pump Station teams operate and maintain the sewer systems and auxiliary facilities to protect public health and the environment and to achieve regulatory compliance.

2017-18 Performance Objectives

- ◆ Achieve levels of service for keeping number of sewer spills less than 8.4 per year based on the industry average of 2.1 per 100 miles of sewer.
- ◆ Achieve levels of service for response to sewer spills within one hour and full containment within five hours.
- ◆ Manage operating expenditures to within 96 to 100% of the approved budget.
- ◆ Achieve 100% compliance with the safety scorecard.

2017-18 Performance Results

- ◆ Incurred zero spills during the FY 2017-18.
- ◆ Achieved 100% compliance.
- ◆ Managed operating expenditures to 99% of approved budget.
- ◆ Achieved 97.8% compliance with the safety scorecard.

2018-19 & 2019-20 Performance Objectives

- ◆ Achieve 100% compliance with water, solids, air, and energy permits and regulatory requirements.
- ◆ Achieve 100% compliance level of 90 to 100% of the Levels of Service targets.
- ◆ Achieve greater than 90% compliance with the safety scorecard.
- ◆ Manage operating expenditures to within 96 to 100% of approved budget.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Compliance with Permits & Regulatory Requirements	N/A	N/A	100%	100%	In house standard
◆ Levels of Service Compliance	N/A	N/A	100%	100%	In house standard
◆ Compliance with the Safety Scorecard	97%	97.8%	100%	100%	In house standard
◆ Manage Budget	96%	99%	96-100%	96-100%	In house standard

Collections Facilities Operations and Maintenance

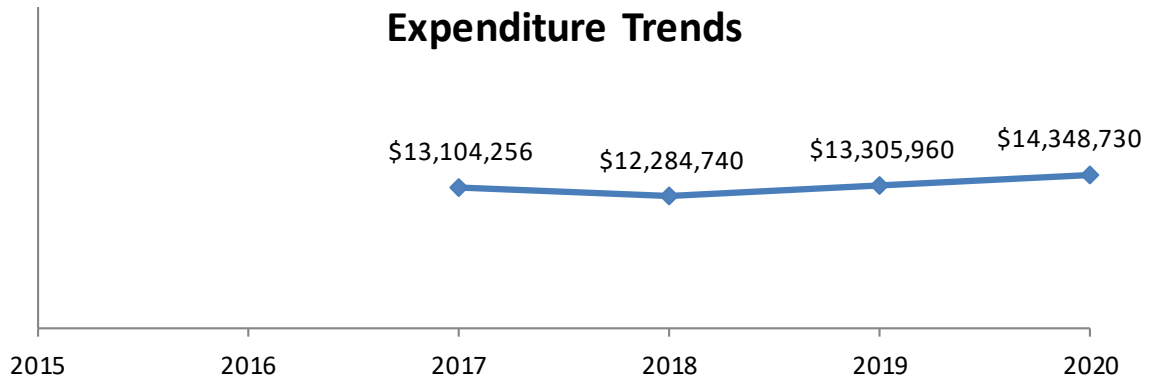
Budget Overview

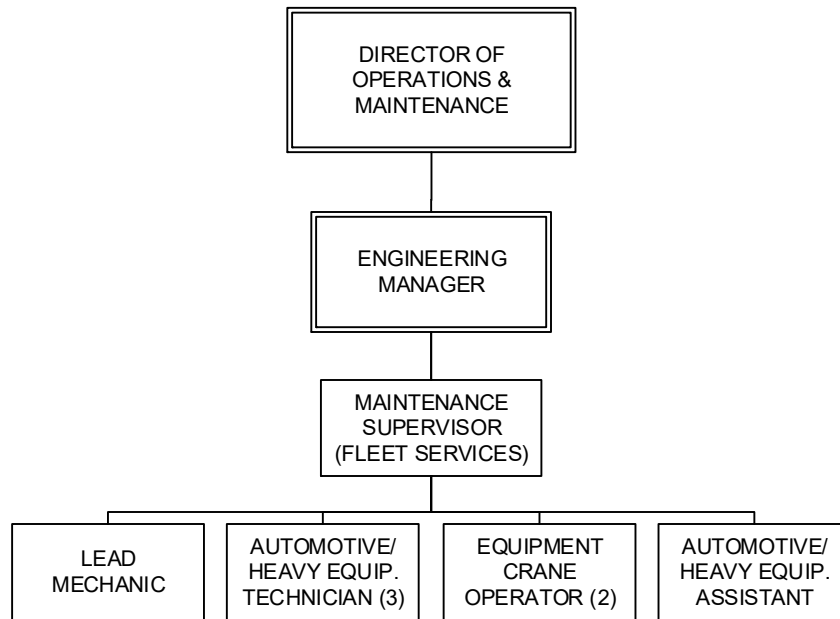
The FY 2018-19 budget for the Collections Facilities Operations and Maintenance Division reflect an increase of 8%. This is primarily due to increases in salary and benefits, odor control costs, engineering, and repairs and maintenance. The FY 2019-20 budget reflects an increase of 8% over the prior year. This is primarily due to the increase in odor control costs and other contractual services, which is somewhat off-set with a decrease in engineering services.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 12,284,740
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	100,800
Change in OCERS retirement costs	15,300
Change in group insurance costs	17,100
Other benefit cost adjustments	8,500
Other Cost Adjustments:	
Decrease in training	(22,370)
Increase in odor control costs	342,620
Decrease in temporary services	(60,000)
Decrease in other contractual services	(62,140)
Increase in engineering services	606,210
Increase in other professional services	21,440
Increase in repairs and maintenance	135,620
Decrease in electricity costs	(52,580)
Decrease in miscellaneous operating expense	(18,380)
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(10,900)
2018-19 Proposed Budget - Total Operating Requirements	\$ 13,305,960
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	18,400
Change in OCERS retirement costs	1,700
Change in group insurance costs	29,600
Other benefit cost adjustments	7,900
Other Cost Adjustments:	
Increase in odor control costs	240,060
Increase in other contractual services	1,200,000
Decrease in engineering services	(513,660)
Increase in repairs and maintenance	10,460
Increase in electricity costs	13,140
Increase in miscellaneous operating expense	30,730
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	4,440
2019-20 Proposed Budget - Total Operating Requirements	\$ 14,348,730

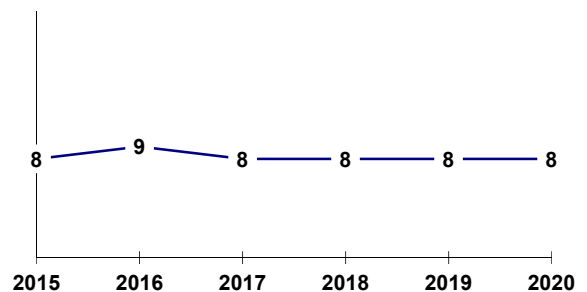
2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 3,321,859	\$ 3,245,300	\$ 3,180,800	\$ 3,387,000	4.37%	\$ 3,444,600	1.70%
Supplies	6,051,933	6,531,230	6,618,160	6,835,180	4.65%	7,078,020	3.55%
Professional & Contractual Services	1,796,286	1,467,900	1,309,710	1,978,810	34.81%	2,666,430	34.75%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	1,303,387	375,000	450,410	510,620	36.17%	521,080	2.05%
Utilities	595,667	615,800	550,020	563,220	(8.54%)	576,740	2.40%
Other	35,124	49,510	29,900	31,130	(37.12%)	61,860	98.72%
Total	\$ 13,104,256	\$ 12,284,740	\$ 12,139,000	\$ 13,305,960	8.31%	\$ 14,348,730	7.84%





Staffing Trends



2018-19 & 2019-20 Authorized FTE Positions

Supervisors / Professionals	1.0
Operations & Maintenance	7.0

Total 8.0

2018-19 & 2019-20 Budget

Service Description

The mission of the Fleet Services Division is to provide our customers with high quality, dependable, cost effective and efficient services.

2017-18 Performance Objectives

- ◆ Manage operating expenditures to within 96 to 100% of the approved budget
- ◆ Achieve 100% compliance with state emissions regulations on all mobile equipment and vehicles.
- ◆ Fleet Services in-house survey published with results achieving 80% or above satisfaction ratings.
- ◆ Achieve 100% compliance with the safety scorecard.

2017-18 Performance Results

- ◆ Managed operating expenditures to 96% of the approved budget.
- ◆ Achieved 100% compliance with state emissions regulations on all mobile equipment and vehicles.
- ◆ Achieved > 80% on in-house customer satisfaction ratings.
- ◆ Achieved 94.7% compliance with the safety scorecard.

2018-19 & 2019-20 Performance Objectives

- ◆ Achieve 100% compliance with water, solids, air, and energy permits and regulatory requirements.
- ◆ Fleet Services in-house survey published with results achieving 90% at or above satisfaction ratings.
- ◆ Decrease average age of fleet over a 5-year period until all fleet vehicles meet the industry standard.
- ◆ Achieve greater than 90% compliance with the safety scorecard.
- ◆ Manage operating expenditures to within 96 to 100% of the approved budget.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Compliance with Permits & Regulatory Requirements	N/A	N/A	100%	100%	In-house standard
◆ In-house Survey	95.4%	> 80%	> 90%	> 90%	In-house standard
◆ 5-Year Fleet Buy Down	N/A	N/A	20%	20%	In-house standard
◆ Compliance with Safety Scorecard	100%	94.7%	> 90%	> 90%	In-house standard
◆ Manage Budget	88%	96%	96-100%	96-100%	In-house standard

Fleet Services

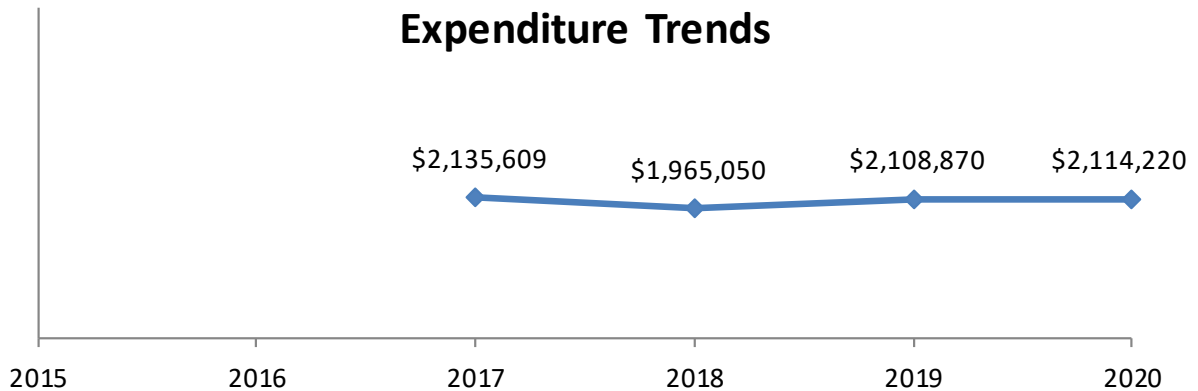
Budget Overview

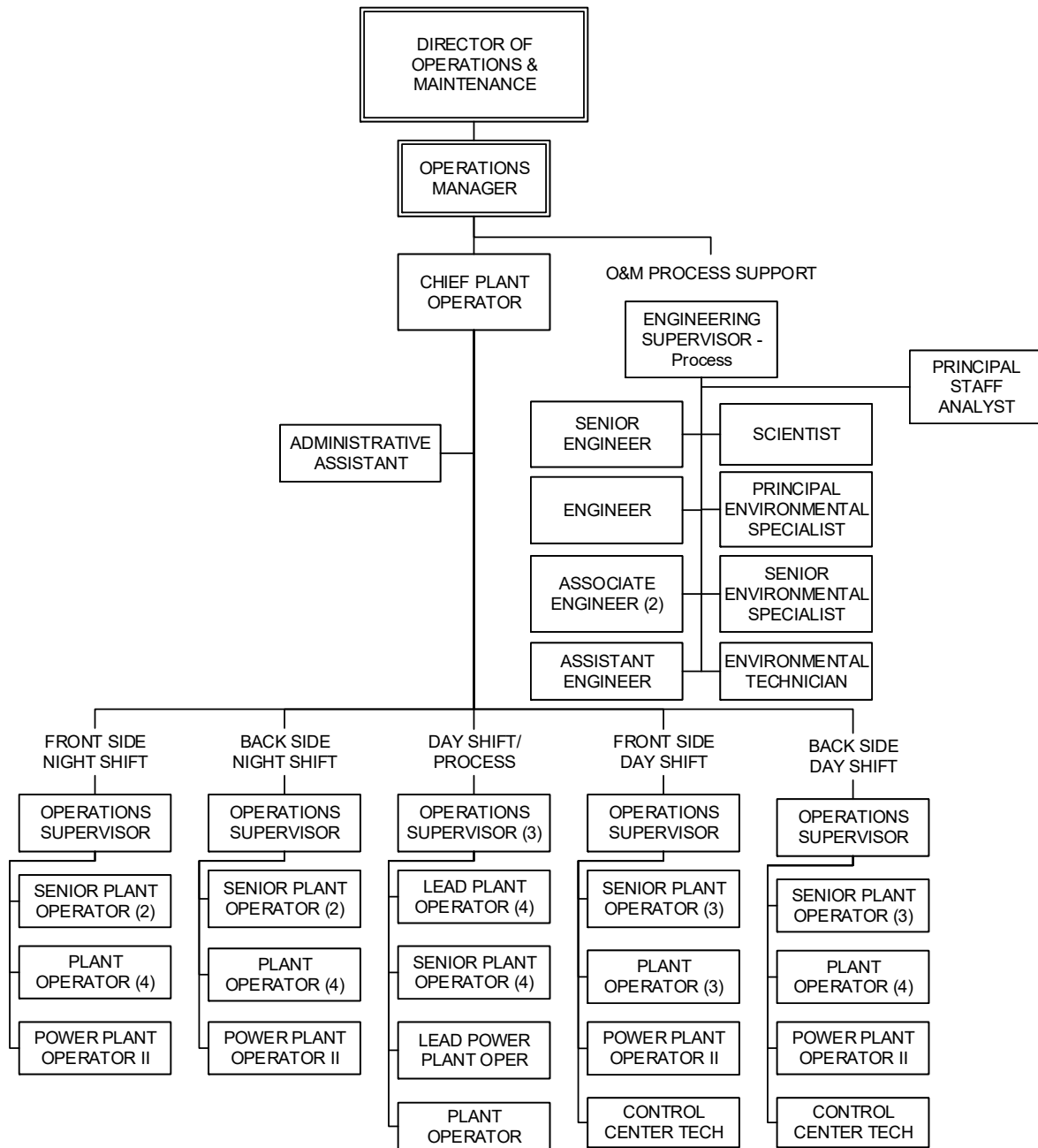
The FY 2018-19 budget for the Fleet Services Division reflects an increase of 7%. This is primarily due to increases in salaries and benefits adjustments and small tools expense. The FY 2019-20 budget reflects an increase of 0.25% over the prior year, with no significant changes affecting the budget.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 1,965,050
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	37,700
Change in OCERS retirement costs	3,300
Change in group insurance costs	5,800
Other benefit cost adjustments	(16,700)
Other Cost Adjustments:	
Increase in training	18,470
Increase in small tools expense	52,200
Increase in repairs and maintenance	30,500
Increase in outside equipment rental	10,000
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	2,550
2018-19 Proposed Budget - Total Operating Requirements	\$ 2,108,870
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	-
Change in OCERS retirement costs	(100)
Change in group insurance costs	8,900
Other benefit cost adjustments	2,400
Other Cost Adjustments:	
Decrease in training	(13,800)
Increase in vehicle fuel & lubricants	5,000
Increase in compressed natural gas	5,000
Decrease in other professional services	(15,000)
Increase in repairs and maintenance	10,000
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	2,950
2019-20 Proposed Budget - Total Operating Requirements	\$ 2,114,220

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 1,198,889	\$ 1,054,200	\$ 1,096,500	\$ 1,084,300	2.86%	\$ 1,095,500	1.03%
Supplies	453,599	420,190	347,360	489,210	16.43%	486,360	(0.58%)
Professional & Contractual Services	338	60,000	95,000	65,000	8.33%	50,000	(23.08%)
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	431,271	378,500	368,150	409,000	8.06%	419,000	2.44%
Utilities	-	-	-	-	-	-	-
Other	51,512	52,160	66,170	61,360	17.64%	63,360	3.26%
Total	\$ 2,135,609	\$ 1,965,050	\$ 1,973,180	\$ 2,108,870	7.32%	\$ 2,114,220	0.25%

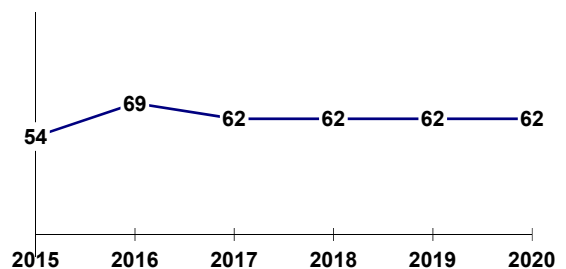




2018-19 & 2019-20 Authorized FTE Positions

Manager	1.00
Supervisors / Professionals	18.00
Operations & Maintenance	41.00
Technical Staff	1.00
Administrative / Clerical	1.00
Total	62.00

Staffing Trends



2018-19 & 2019-20 Budget

Service Description

The mission of the Plant No. 1 Operations Division is to safely, reliably, and cost effectively operate the plant to meet all regulatory requirements for the land, air, and water environments of Orange County and the 2.6 million residents we serve.

2017-18 Performance Objectives

- ◆ Achieve 100% permit compliance.
- ◆ Maintain overtime as less than 6% of the total hours worked.
- ◆ Maintain a safety scorecard above 90% overall.
- ◆ Manage expenditures to within 96 to 100% of approved budget.

2017-18 Performance Results

- ◆ Achieved 100% permit compliance.
- ◆ Maintained overtime at 2.6% of the total hours worked.
- ◆ Maintained a safety scorecard at 100%.
- ◆ Managed operating expenditures to 90% of approved budget.

2018-19 & 2019-20 Performance Objectives

- ◆ Achieve 100% compliance with water, solids, air, and energy permits and regulatory requirements.
- ◆ Achieve 100% compliance level of 90 to 100% of Levels of Service targets.
- ◆ Achieve greater than 90% compliance with the safety scorecard.
- ◆ Manage operating expenditures to within 96 to 100% of approved budget.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Compliance with Permits & Regulatory Requirements	100%	100%	100%	100%	In-house standard
◆ Levels of Service Compliance	N/A	N/A	100%	100%	In-house standard
◆ Compliance with Safety Scorecard	100%	100%	> 90%	> 90%	In-house standard
◆ Manage Budget	88%	90%	96-100%	96-100%	In-house standard

Operations – Plant No. 1

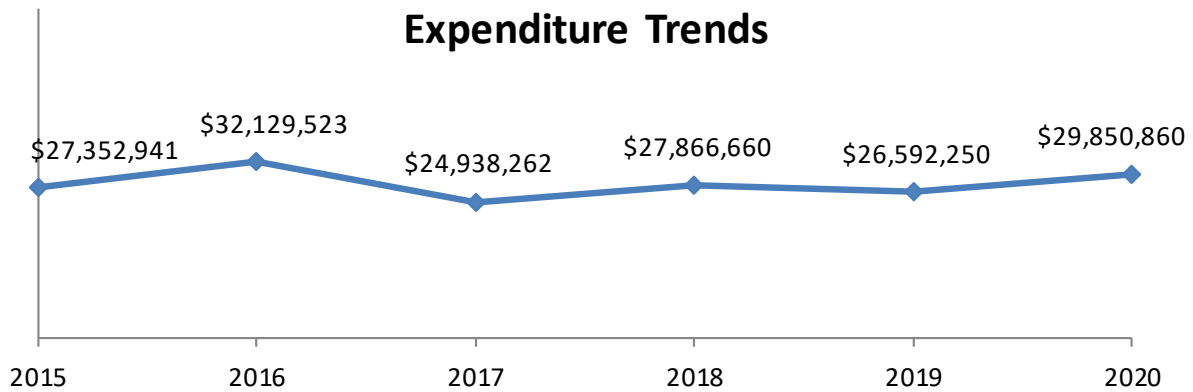
Budget Overview

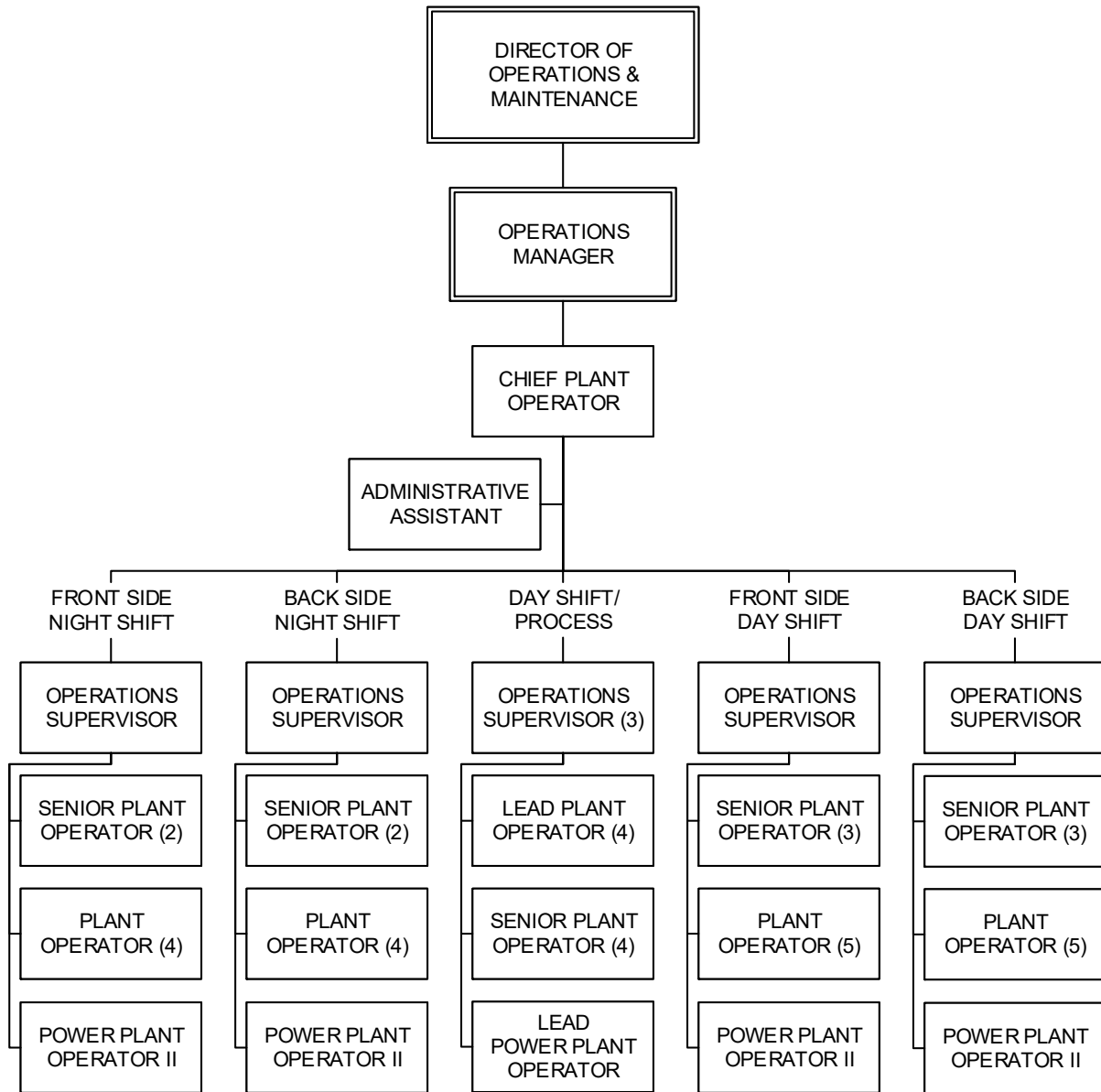
The FY 2018-19 budget for the Plant No. 1 Operations Division reflect a decrease of 5%. This is primarily due to decreases in odor control chemicals, solids removal costs, other waste disposal costs, natural gas costs, and electricity costs, which is somewhat off-set with increases in salary and benefit adjustments and chemical coagulants. The FY 2019-20 budget reflects an increase of 12% over the prior year. This is primarily due to increases in chemical coagulants, electricity costs, and salary and benefits adjustments.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 27,866,660
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	(32,000)
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	257,800
Change in OCERS retirement costs	(19,800)
Change in group insurance costs	27,300
Other benefit cost adjustments	(4,200)
Other Cost Adjustments:	
Increase in administrative expense	67,140
Increase in chemical coagulants	320,080
Decrease in odor control chemicals	(611,500)
Decrease in disinfection chemicals	(77,000)
Decrease in solids removal costs	(400,000)
Decrease in other waste disposal costs	(93,000)
Decrease in temporary services	(65,000)
Decrease in other contractual services	(60,000)
Decrease in repairs and maintenance	(51,750)
Decrease in natural gas costs	(145,900)
Decrease in electricity costs	(320,000)
Increase in water costs	
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(66,580)
2018-19 Proposed Budget - Total Operating Requirements	\$ 26,592,250
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	90,900
Change in OCERS retirement costs	8,100
Change in group insurance costs	69,300
Other benefit cost adjustments	18,300
Other Cost Adjustments:	
Decrease in administrative expense	(50,000)
Increase in chemical coagulants	2,092,910
Decrease in engineering services	(50,000)
Increase in electricity costs	1,000,000
Increase in water costs	
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	79,100
2019-20 Proposed Budget - Total Operating Requirements	\$ 29,850,860

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 8,894,642	\$ 8,679,800	\$ 8,716,500	\$ 8,908,900	2.64%	\$ 9,095,500	2.09%
Supplies	4,343,097	4,876,880	4,166,840	4,526,850	(7.18%)	6,610,340	46.03%
Professional & Contractual Services	7,979,021	9,490,000	8,993,730	8,885,000	(6.38%)	8,853,000	(0.36%)
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	113,352	148,200	120,060	96,450	(34.92%)	96,450	0.00%
Utilities	3,603,083	4,670,500	4,016,580	4,169,850	(10.72%)	5,190,370	24.47%
Other	5,067	1,280	4,170	5,200	306.25%	5,200	0.00%
Total	\$24,938,262	\$27,866,660	\$26,017,880	\$26,592,250	(4.57%)	\$29,850,860	12.25%



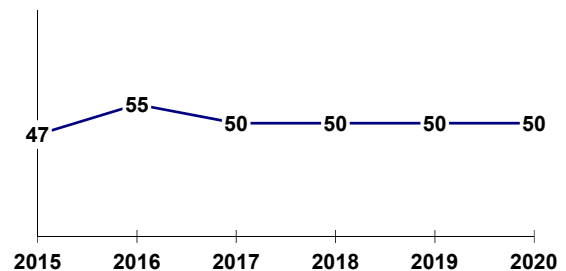


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Supervisors / Professionals	8.0
Operations & Maintenance	41.0
Administrative / Clerical	1.0

Total **50.0**



2018-19 & 2019-20 Budget

Service Description

The mission of the Plant No. 2 Operations Division is to safely, reliably, and cost effectively operate the plant to meet all regulatory requirements for the land, air, and water environments of Orange County and the 2.6 million residents we serve.

2017-18 Performance Objectives

- ◆ Achieve 100% permit compliance.
- ◆ Maintain overtime as less than 6% of the total hours worked.
- ◆ Maintain a safety scorecard above 90% overall.
- ◆ Manage operating expenditures to within 96 to 100% of approved budget.

2017-18 Performance Results

- ◆ Received one (1) Notice of Violation (NOV).
- ◆ Maintained overtime at 2.9% of total hours worked.
- ◆ Maintained a safety scorecard at 100% overall.
- ◆ Managed operating expenditures to 101% of approved budget.

2018-19 & 2019-20 Performance Objectives

- ◆ Achieve 100% compliance with water, solids, air, and energy permits and regulatory requirements.
- ◆ Achieve 100% compliance level of 90 to 100% of the Levels of Service targets.
- ◆ Achieve greater than 90% compliance with the safety scorecard.
- ◆ Manage operating expenditures to within 96 to 100% of approved budget.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Compliance with Permits & Regulatory Requirements	100%	1 NOV	100%	100%	In-house standard
◆ Levels of Service Compliance	N/A	N/A	100%	100%	In-house standard
◆ Compliance with Safety Scorecard	100%	100%	> 90%	> 90%	In-house standard
◆ Manage Budget	105%	101%	96-100%	96-100%	In-house standard

Operations – Plant No. 2

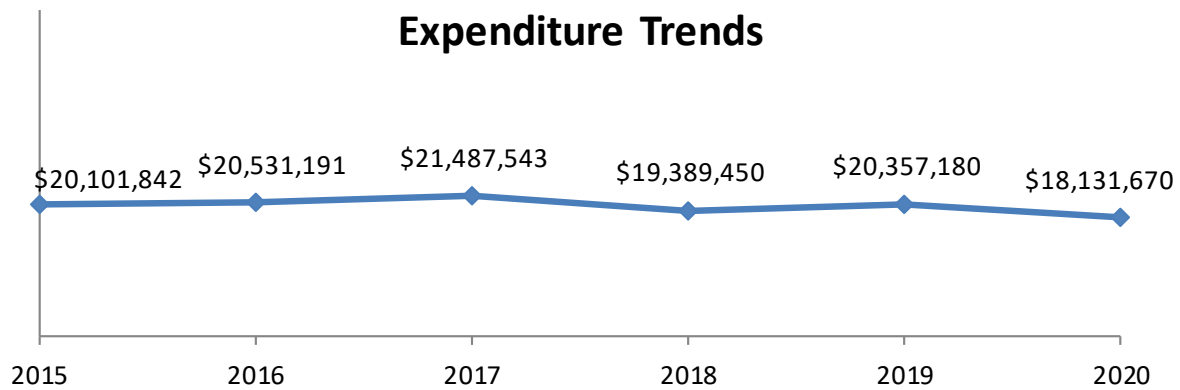
Budget Overview

The FY 2018-19 budget for the Plant No. 2 Operations Division reflect an increase of 5%. This is primarily due to increases in salary and benefits adjustments and solids removal costs, which is somewhat off-set with decreases in odor control chemicals and repairs and maintenance. The FY 2019-20 budget reflects a decrease of 11% over the prior year. This is primarily due to a decrease in solids removal costs, which is somewhat off-set with increases in chemical coagulants, electricity costs, and salary and benefits adjustments.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 19,389,450
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	32,000
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	378,800
Change in OCERS retirement costs	23,100
Change in group insurance costs	54,300
Other benefit cost adjustments	68,000
Other Cost Adjustments:	
Increase in administrative expense	29,960
Decrease in chemical coagulants	(56,000)
Decrease in odor control chemicals	(83,000)
Increase in solids removal costs	700,000
Decrease in repairs and maintenance	(102,530)
Decrease in natural gas costs	(66,600)
Increase in electricity costs	60,040
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(70,340)
2018-19 Proposed Budget - Total Operating Requirements	\$ 20,357,180
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	78,300
Change in OCERS retirement costs	7,500
Change in group insurance costs	60,100
Other benefit cost adjustments	15,800
Other Cost Adjustments:	
Decrease in administrative expense	(30,000)
Increase in chemical coagulants	788,000
Decrease in solids removal costs	(3,700,000)
Decrease in repairs and maintenance	(50,000)
Increase in electricity costs	525,890
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	78,900
2019-20 Proposed Budget - Total Operating Requirements	\$ 18,131,670

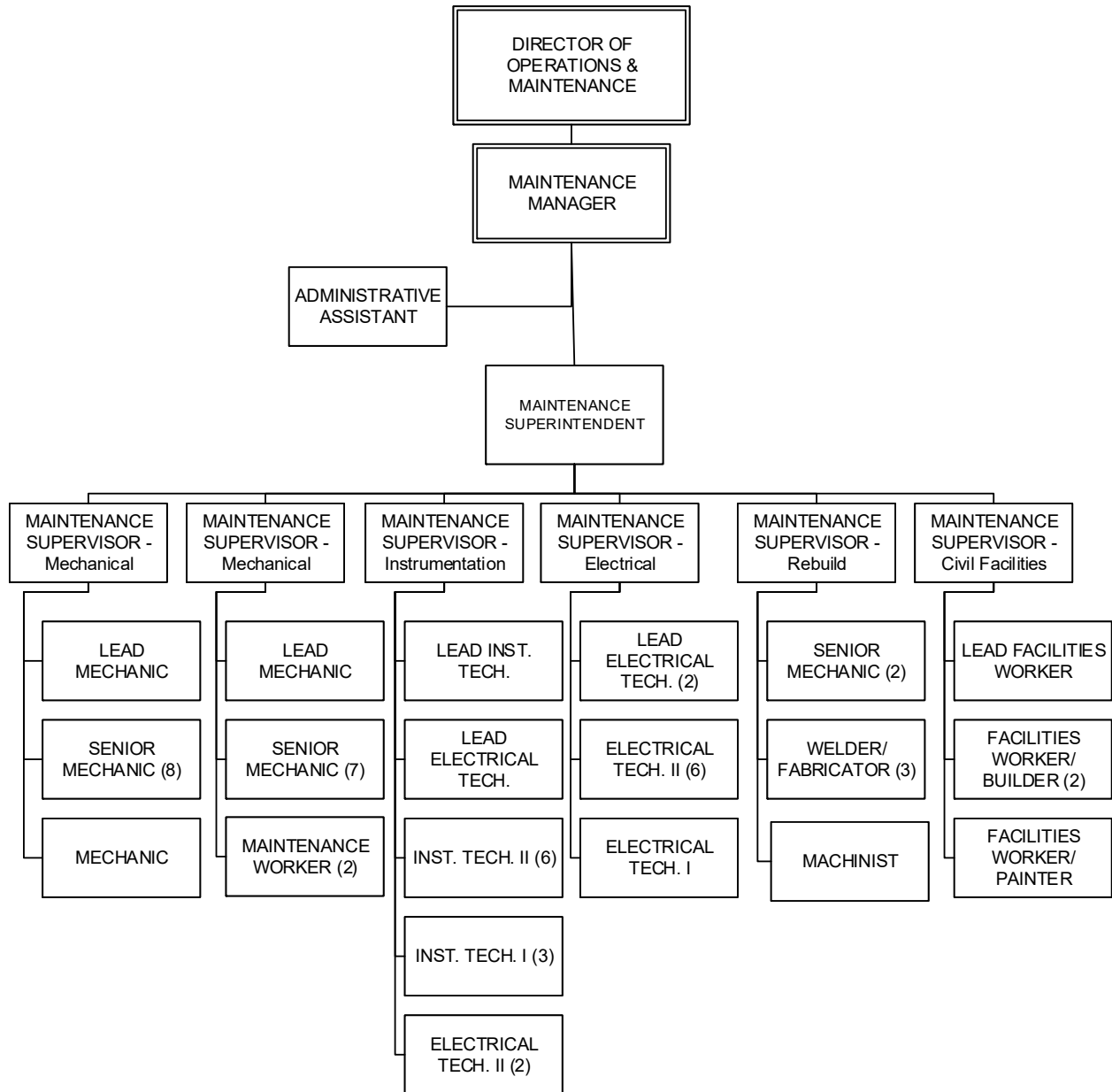
2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 7,501,649	\$ 7,158,500	\$ 7,205,600	\$ 7,714,700	7.77%	\$ 7,876,400	2.10%
Supplies	2,589,687	2,499,700	2,282,130	2,438,830	(2.44%)	3,242,360	32.95%
Professional & Contractual Services	9,725,303	7,750,750	8,348,000	8,343,000	7.64%	4,664,000	(44.10%)
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	502,645	420,200	278,510	317,670	(24.40%)	267,670	(15.74%)
Utilities	1,158,746	1,558,000	1,479,080	1,537,940	(1.29%)	2,076,200	35.00%
Other	9,513	2,300	3,570	5,040	119.13%	5,040	0.00%
Total	\$21,487,543	\$19,389,450	\$19,596,890	\$20,357,180	4.99%	\$18,131,670	(10.93%)



Maintenance – Plant No. 1

870

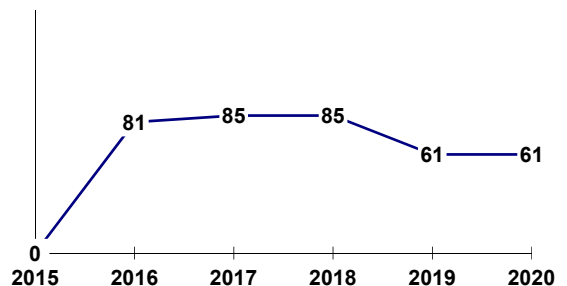


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Manager	1.0
Supervisors / Professionals	7.0
Operations & Maintenance	52.0
Administrative / Clerical	1.0

Total 61.0



2018-19 & 2019-20 Budget

Service Description

The mission of the Plant No. 1 Maintenance Division is to protect public health and the environment by providing reliable power distribution, electrical and instrument maintenance, civil facilities and grounds maintenance, and mechanical maintenance to the treatment plant and associated pump stations in outer lying service areas. The Division's professional, highly skilled staff use best practices and technology to provide Collection, Plant Operations, and District staff with electrical power, control systems, environmental controls that are safe and on-line, and mechanical and facilities support to ensure and restore reliability.

2017-18 Performance Objectives

- ◆ Maintain overtime at less than 5% of the total hours worked.
- ◆ Maintain a total work order backlog of no greater than 6 weeks.
- ◆ Maintain a safety scorecard rating above 90%.
- ◆ Maintain 100% records compliance for Volatile Organic Compounds (VOC's).
- ◆ Manage operating expenditures to within 96 to 100% of approved budget.
- ◆ Maintain electrical power availability at the distribution level greater than 99.9% (8 hr/yr of unplanned outage).

2017-18 Performance Results

- ◆ Maintained overtime at 10.8% of the total hours worked.
- ◆ Maintained a total work order backlog of < 6 weeks.
- ◆ Maintained a safety scorecard rating of 98.2%.
- ◆ Maintain 100% records compliance for Volatile Organic Compounds (VOCs).
- ◆ Manage operating expenditures to 131% of approved budget.
- ◆ Maintain electrical power availability at the distribution level greater than 99.9% (8hr/yr of unplanned outage).

2018-19 & 2019-20 Performance Objectives

- ◆ Achieve 100% compliance with water, solids, air, and energy permits and regulatory requirements.
- ◆ Achieve 100% compliance level of 90 to 100% of Levels of Service targets.
- ◆ Maintain a total work order backlog of less than 6 weeks.
- ◆ Achieve preventative maintenance (PM) compliance of greater than 75%.
- ◆ Achieve greater than 90% compliance with the safety scorecard.
- ◆ Manage operating expenditures to within 96 to 100% of the approved budget.

Summary	Performance Measures				Justification
	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	
◆ Compliance with Permits & Regulatory Requirements	N/A	N/A	100%	100%	In-house standard
◆ Levels of Service Compliance	N/A	N/A	100%	100%	In-house standard
◆ Maintain Work Order Backlog	6.4 weeks	< 6 weeks	< 6 weeks	< 6 weeks	In-house standard
◆ PM Compliance	N/A	N/A	> 75%	> 80%	In-house standard
◆ Compliance with Safety Scorecard	97%	98.2%	> 90%	> 90%	In-house standard
◆ Manage Budget	98%	131%	96-100%	96-100%	In-house standard

Maintenance – Plant No. 1

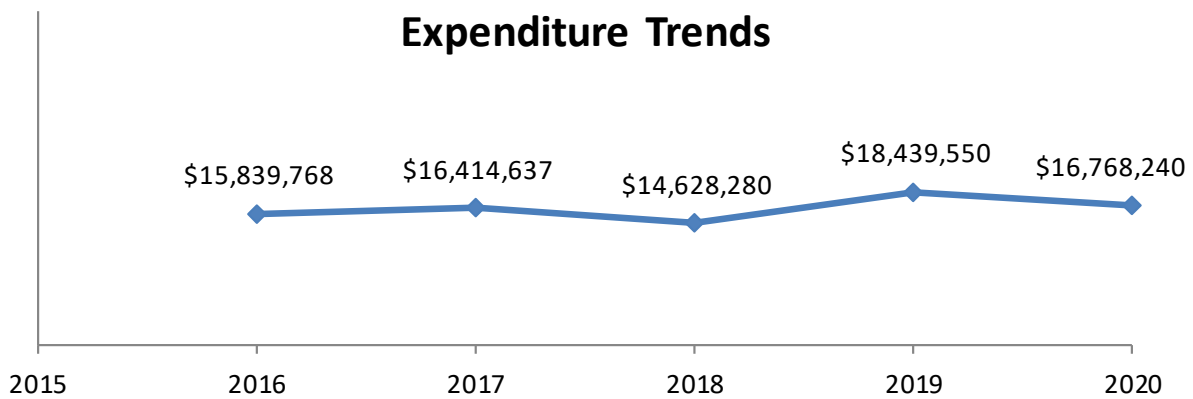
Budget Overview

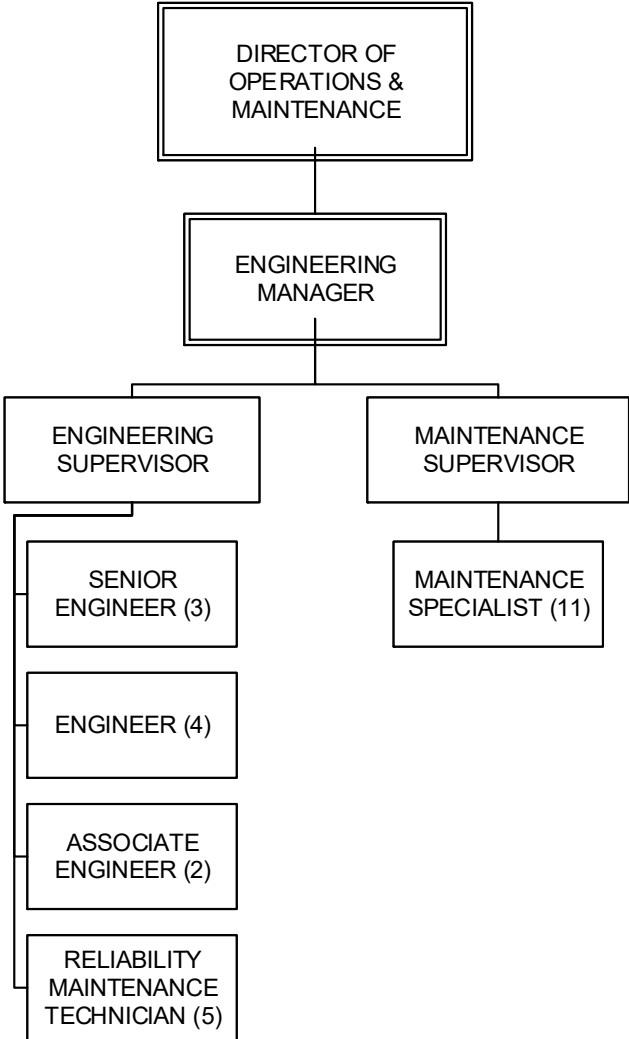
The FY 2018-19 budget for the Plant No. 1 Maintenance Division reflect an increase of 26%. This is primarily due to increases in repairs and maintenance costs and salary and benefits adjustments, which is somewhat off-set with a decrease in professional services. The FY 2019-20 budget reflects a decrease of 9% over the prior year. This is primarily due to a decrease in repairs and maintenance and temporary services, which is somewhat off-set with an increase in salary and benefits adjustments.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 14,628,280
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	160,400
Change in OCERS retirement costs	(3,000)
Change in group insurance costs	36,100
Other benefit cost adjustments	(7,400)
Other Cost Adjustments:	
Increase in tools	69,560
Increase in safety equipment and tools	32,740
Decrease in temporary services	(64,200)
Decrease in other professional services	(206,900)
Increase in repairs and maintenance	3,794,270
Increase in repairs and maintenance	
Decrease in outside equipment rental	
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(300)
2018-19 Proposed Budget - Total Operating Requirements	\$ 18,439,550
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	136,800
Change in OCERS retirement costs	11,600
Change in group insurance costs	71,100
Other benefit cost adjustments	18,500
Other Cost Adjustments:	
Decrease in tools	(58,840)
Decrease in safety equipment and tools	(29,740)
Decrease in temporary services	(100,000)
Decrease in repairs and maintenance	(1,760,220)
Increase in service maintenance agreements	
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	39,490
2019-20 Proposed Budget - Total Operating Requirements	\$ 16,768,240

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 8,739,082	\$ 8,067,400	\$ 7,150,500	\$ 8,253,500	2.31%	\$ 8,491,500	2.88%
Supplies	597,172	424,360	482,350	506,640	19.39%	417,190	(17.66%)
Professional & Contractual Services	1,501,347	1,077,320	930,820	828,500	(23.10%)	768,860	(7.20%)
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	5,566,928	5,043,190	7,161,930	8,837,460	75.24%	7,077,240	(19.92%)
Utilities	2,638	8,000	4,210	5,000	(37.50%)	5,000	0.00%
Other	7,470	8,010	7,250	8,450	5.49%	8,450	0.00%
Total	\$ 16,414,637	\$ 14,628,280	\$ 15,737,060	\$ 18,439,550	26.05%	\$ 16,768,240	(9.06%)



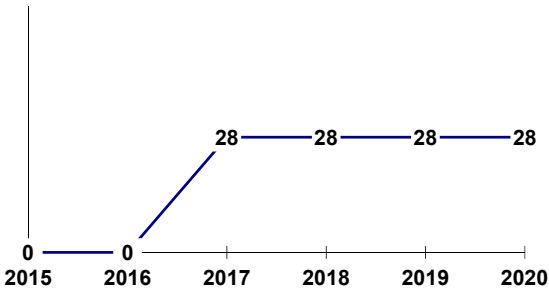


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Manager	1.0
Supervisors / Professionals	22.0
Operations & Maintenance	5.0

Total 28.0



2018-19 & 2019-20 Budget

Service Description

The mission of the Maintenance Reliability and Planning Division is to ensure the highest level of reliability for mechanical, electrical, and instrumentation assets at the lowest cost through the execution of correct, preventative, and predictive maintenance activities and the engagement of the engineering department for assets at the end of their life cycle.

2017-18 Performance Objectives

- ◆ Achieve 100% permit compliance.
- ◆ Achieve a compliance level of 90 to 100% of the levels of service targets.
- ◆ Maintain a safety scorecard above 90% overall.
- ◆ Manage operating expenditures to within 96 to 100% of approved budget.

2017-18 Performance Results

- ◆ Achieved 100% permit compliance.
- ◆ Achieved a compliance level of 100% of the level of service targets.
- ◆ Maintained a safety scorecard at > 96%.
- ◆ Managed operating expenditures to 68% of approved budget.

2018-19 & 2019-20 Performance Objectives

- ◆ Achieve 100% compliance with water, solids, air, and energy permits and regulatory requirements.
- ◆ Achieve 100% compliance level of 90 to 100% of the Levels of Service targets.
- ◆ Approved maintenance service requests will be processed within 3 days 90% of the time.
- ◆ Staff will respond to all received root cause analysis (RCA) requests within 1 week and will initiate proper investigation of these requests.
- ◆ Achieve greater than 90% compliance with the safety scorecard.
- ◆ Manage operating expenditures to within 96 to 100% of approved budget.

Summary	Performance Measures				Justification
	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	
◆ Compliance with Permits & Regulatory Requirements	N/A	100%	100%	100%	In-house standard
◆ Levels of Service Compliance	N/A	100%	100%	100%	In-house standard
◆ Process Maintenance Service Requests	N/A	N/A	90%	90%	In-house standard
◆ Respond to RCA requests within 1 week	N/A	N/A	100%	100%	In-house standard
◆ Compliance with Safety Scorecard	N/A	> 96%	> 90%	> 90%	In-house standard
◆ Manage Budget	57%	68%	96-100%	96-100%	In-house standard

Maintenance Reliability and Planning

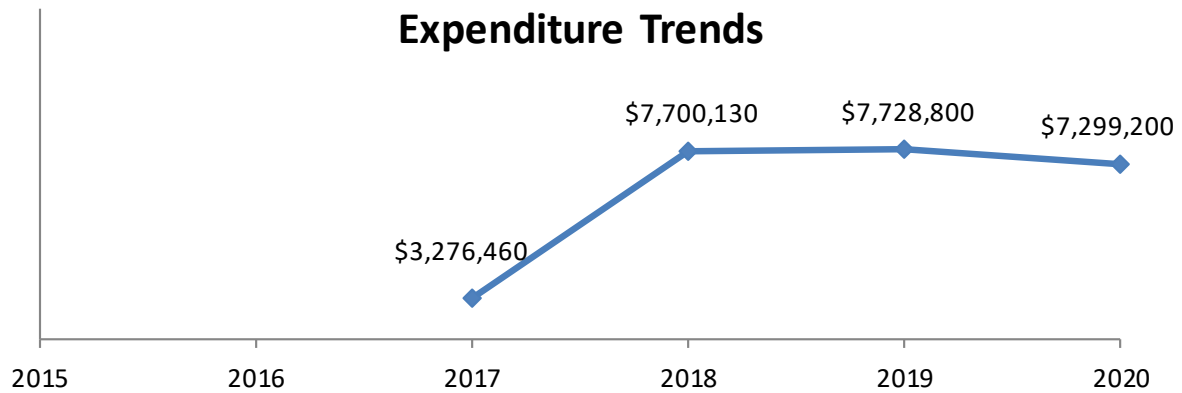
Budget Overview

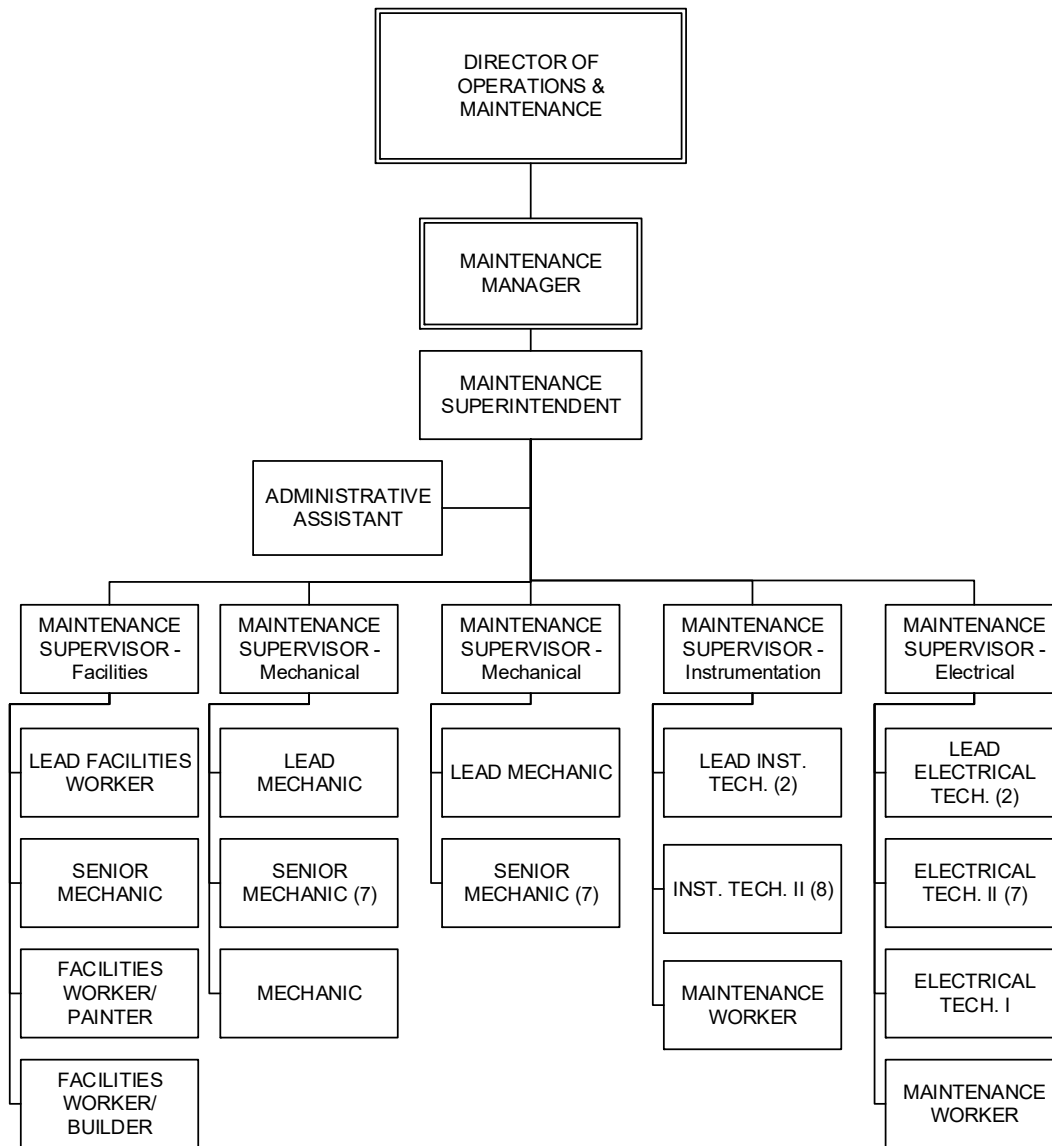
The FY 2018-19 budget for the Maintenance Reliability and Planning Division reflect an increase of 0.37%. This is primarily due an increase in other contractual services, which is off-set with decreases in temporary services and engineering services. The FY 2019-20 budget reflects a decrease of 6% over the prior year. This is primarily due to decreases in other contractual services and engineering services, which is somewhat off-set with an increase in salary and benefits adjustments.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 7,700,130
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	18,800
Change in OCERS retirement costs	24,900
Change in group insurance costs	2,200
Other benefit cost adjustments	16,900
Other Cost Adjustments:	
Decrease in temporary services	(134,000)
Increase in other contractual services	432,170
Decrease in engineering services	(378,750)
Increase in repairs and maintenance	46,500
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(50)
2018-19 Proposed Budget - Total Operating Requirements	\$ 7,728,800
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	58,900
Change in OCERS retirement costs	6,600
Change in group insurance costs	32,500
Other benefit cost adjustments	8,500
Other Cost Adjustments:	
Decrease in other contractual services	(150,000)
Decrease in engineering services	(376,000)
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	(10,100)
2019-20 Proposed Budget - Total Operating Requirements	\$ 7,299,200

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 2,139,724	\$ 4,437,200	\$ 4,385,500	\$ 4,500,000	1.42%	\$ 4,606,500	2.37%
Supplies	74,136	88,930	50,340	79,120	(11.03%)	70,520	(10.87%)
Professional & Contractual Services	1,046,726	3,164,000	2,128,750	3,092,420	(2.26%)	2,564,920	(17.06%)
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	15,376	10,000	54,000	56,500	465.00%	56,500	0.00%
Utilities	-	-	-	-	-	-	-
Other	498	-	170	760	-	760	0.00%
Total	\$ 3,276,460	\$ 7,700,130	\$ 6,618,760	\$ 7,728,800	0.37%	\$ 7,299,200	(5.56%)



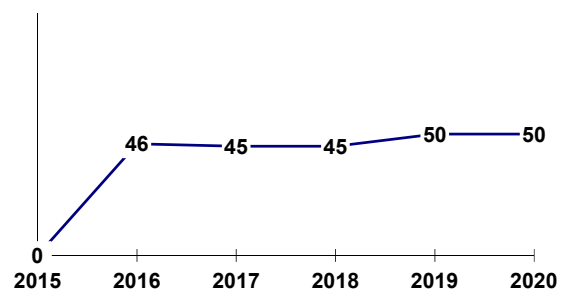


Staffing Trends

2018-19 & 2019-20 Authorized FTE Positions

Supervisors / Professionals	6.0
Operations & Maintenance	43.0
Administrative / Clerical	1.0

Total 50.0



2018-19 & 2019-20 Budget

Service Description

The mission of the Plant No. 2 Maintenance Division is to protect public health and the environment by providing reliable power distribution, electrical and instrument maintenance, civil facilities and grounds maintenance, and mechanical maintenance to the treatment plant and associated pump stations in outer lying service areas. The Division's professional, highly skilled staff use best practices and technology to provide Collections, Plant Operations, and District staff with electrical power, control systems, environmental controls that are safe and on-line, and mechanical and facilities support to ensure and restore reliability.

2017-18 Performance Objectives

- ◆ Maintain overtime at less than 5% of the total hours worked.
- ◆ Maintain a total work order backlog of no greater than 6 weeks.
- ◆ Maintain a safety scorecard rating above 90%.
- ◆ Maintain 100% records compliance for Volatile Organic Compounds (VOC's).
- ◆ Manage operating expenditures to within 96 to 100% of approved budget.
- ◆ Maintain electrical power availability at the distribution level greater than 99.9% (8 hr/yr of unplanned outage).

2017-18 Performance Results

- ◆ Maintained overtime at 4.8% of the total hours worked.
- ◆ Maintained a total work order backlog of < 6 weeks.
- ◆ Maintained a safety scorecard rating of 99.9%.
- ◆ Maintain 100% records compliance for Volatile Organic Compounds (VOCs).
- ◆ Manage operating expenditures to 72% of approved budget.
- ◆ Maintain electrical power availability at the distribution level greater than 99.9% (8hr/yr of unplanned outage).

2018-19 & 2019-20 Performance Objectives

- ◆ Achieve 100% compliance with water, solids, air, and energy permits and regulatory requirements.
- ◆ Achieve 100% compliance level of 90 to 100% of Levels of Service targets.
- ◆ Maintain a total work order backlog of less than 6 weeks.
- ◆ Achieve preventative maintenance (PM) compliance of greater than 75%.
- ◆ Achieve greater than 90% compliance with the safety scorecard.
- ◆ Manage operating expenditures to within 96 to 100% of the approved budget.

Performance Measures

Summary	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed	Justification
◆ Compliance with Permits & Regulatory Requirements	N/A	N/A	100%	100%	In-house standard
◆ Levels of Service Compliance	N/A	N/A	100%	100%	In-house standard
◆ Maintain Work Order Backlog	6.4 weeks	< 6 weeks	< 6 weeks	< 6 weeks	In-house standard
◆ PM Compliance	N/A	N/A	> 75%	> 80%	In-house standard
◆ Compliance with Safety Scorecard	99%	99.9%	> 90%	> 90%	In-house standard
◆ Manage Budget	86%	72%	96-100%	96-100%	In-house standard

Maintenance – Plant No. 2

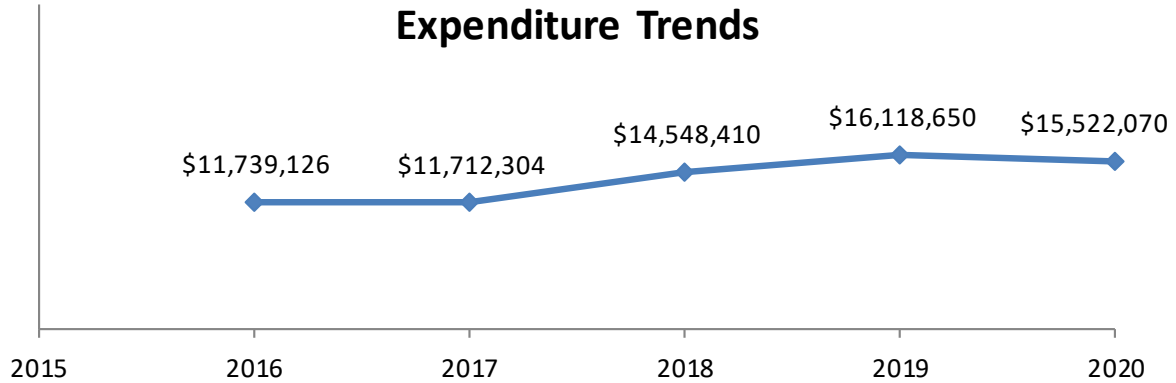
Budget Overview

The FY 2018-19 budget for the Plant No. 2 Maintenance Division reflect an increase of 11%. This is primarily due to increases in repairs and maintenance costs. The FY 2019-20 budget reflects a decrease of 4% over the prior year. This is primarily due to a decrease in repairs and maintenance, which is somewhat off-set with an increase in salary and benefits adjustments.

2017-18 Adjusted Budget - Total Operating Requirements	\$ 14,548,410
Salaries for Position Changes:	
Transfer of Positions from/(to) Other Divisions	-
New or (decreased) FTE	-
Changes in Personnel Expenses:	
Other net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	67,000
Change in OCERS retirement costs	(23,800)
Change in group insurance costs	47,600
Other benefit cost adjustments	(56,000)
Other Cost Adjustments:	
Decrease in training	(36,400)
Decrease in small tools expense	(28,600)
Decrease in other waste disposal costs	(30,730)
Decrease in other professional services	(33,660)
Increase in repairs and maintenance	1,530,840
Increase in service maintenance agreements	87,670
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	46,320
2018-19 Proposed Budget - Total Operating Requirements	\$ 16,118,650
Changes in Personnel Expenses:	
Net salary adjustments (MOU-related, leave payoffs, vacancy, etc.)	129,500
Change in OCERS retirement costs	12,500
Change in group insurance costs	57,400
Other benefit cost adjustments	14,900
Other Cost Adjustments:	
Decrease in repairs and maintenance	(821,980)
Aggregate change in Other Categories:	
Aggregate change in other materials, supplies, and services	11,100
2019-20 Proposed Budget - Total Operating Requirements	\$ 15,522,070

2018-19 & 2019-20 Budget

Operating Expenses By Category	2016-17 Actual	2017-18 Revised Budget	2017-18 Projected	2018-19 Proposed	Budget % Change	2019-20 Proposed	Budget % Change
Personnel	\$ 5,882,835	\$ 6,317,500	\$ 5,989,400	\$ 6,352,300	0.55%	\$ 6,566,600	3.37%
Supplies	378,384	450,130	405,700	414,520	(7.91%)	395,720	(4.54%)
Professional & Contractual Services	425,634	617,830	536,130	568,000	(8.07%)	597,900	5.26%
Research & Monitoring	-	-	-	-	-	-	-
Repairs & Maintenance	5,016,111	7,151,270	4,947,300	8,769,780	22.63%	7,947,800	(9.37%)
Utilities	4,230	6,290	6,290	6,290	0.00%	6,290	0.00%
Other	5,110	5,390	2,660	7,760	43.97%	7,760	0.00%
Total	\$ 11,712,304	\$ 14,548,410	\$ 11,887,480	\$ 16,118,650	10.79%	\$ 15,522,070	(3.70%)



SELF-INSURANCE PROGRAM
SECTION 7

BACK OF SECTION 7 DIVIDER

Self-Insurance Program Overview

SELF-FUNDED INSURANCE PLANS

The District is partially self-insured for general liability and workers' compensation. The General Liability and Property program and the Workers' Compensation program have been in existence since 1979. The annual in-lieu premiums and charges to the Revenue Areas or Operating Divisions are the revenue sources within these programs. Expenses primarily consist of claim settlements, legal fees and excess loss insurance premiums. Ending Reserve Balances are projected at \$57,000,000 in FY 2018-19 and in FY 2019-20.

General Liability and Property

- The District's current outside excess general liability insurance coverage is \$40 million per occurrence with an annual aggregate limit and with a self-insured retention of \$500,000.
- The District'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. The District is partially self-insured for earthquake, but does carry \$25 million in coverage on 15 key structures with a \$5 million deductible. The District 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 a reserve balance of \$55 million for FY 2018-19 and FY 2019-20 for the Property and General Liability program, appropriations for in-lieu premiums charged to the Revenue Areas are recommended at \$1,299,300 and \$1,720,000 for FY 2018-19 and FY 2019-20, respectively.

Workers' Compensation

- The District's current excess workers' compensation coverage has unlimited statutory coverage per occurrence and \$4 million employer's liability 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 \$586,600 and \$780,000 for FY 2018-19 and FY 2019-20, respectively.

2018-19 & 2019-20 Budget

Total of the Self-Insurance Programs

DESCRIPTION OR ACCOUNT TITLE	2016-17 Actuals	2017-18 Budget	2017-18 Projected	2018-19 Proposed	2019-20 Proposed
Beginning Reserves	\$ 57,165,477	\$ 56,681,100	\$ 56,910,200	\$ 57,544,100	\$ 57,000,000
<u>Revenues</u>					
In-Lieu Premiums	2,307,400	2,665,200	2,665,200	1,885,900	2,500,000
Miscellaneous Other Revenue	17,749	10,000	6,100	10,000	10,000
Service Department Allocation	18,696	18,700	18,700	20,000	20,000
Total Revenues	2,343,845	2,693,900	2,690,000	1,915,900	2,530,000
<u>Expenses</u>					
Benefits/Claims	1,015,890	700,000	484,100	770,000	790,000
Contractual Services	-	-	-	-	-
Legal Services	127,245	305,000	120,100	120,000	120,000
Professional Services	84,510	90,000	53,000	70,000	70,000
Subtotal	1,227,645	1,095,000	657,200	960,000	980,000
Policy Premium Expense	1,371,487	1,280,000	1,398,900	1,500,000	1,550,000
Total Expenses	2,599,132	2,375,000	2,056,100	2,460,000	2,530,000
Excess Revenue (Expenses)	(255,287)	318,900	633,900	(544,100)	-
Ending Reserves	\$ 56,910,190	\$ 57,000,000	\$ 57,544,100	\$ 57,000,000	\$ 57,000,000

Self-Insurance Program

General Liability and Property Self-Insurance Program

DESCRIPTION OR ACCOUNT TITLE	2016-17 Actuals	2017-18 Budget	2017-18 Projected	2018-19 Proposed	2019-20 Proposed
Beginning Reserves	\$ 55,252,299	\$ 54,205,430	\$ 54,445,800	\$ 55,370,700	\$ 55,000,000
<u>Revenues</u>					
In-Lieu Premiums	1,111,100	2,110,870	2,110,900	1,299,300	1,720,000
Miscellaneous Other Revenue	17,749	-	6,100	10,000	10,000
Service Department Allocation	18,696	18,700	18,700	20,000	20,000
Total Revenues	1,147,545	2,129,570	2,135,700	1,329,300	1,750,000
<u>Expenses</u>					
Benefits/Claims	674,613	100,000	4,300	350,000	360,000
Contractual Services	-	-	-	-	-
Legal Services	81,434	130,000	4,400	40,000	40,000
Professional Services	27,165	25,000	-	10,000	10,000
Subtotal	783,212	255,000	8,700	400,000	410,000
Policy Premium Expense	1,170,860	1,080,000	1,202,100	1,300,000	1,340,000
Total Expenses	1,954,072	1,335,000	1,210,800	1,700,000	1,750,000
Excess Revenue (Expenses)	(806,527)	794,570	924,900	(370,700)	-
Ending Reserves	\$ 54,445,772	\$ 55,000,000	\$ 55,370,700	\$ 55,000,000	\$ 55,000,000

2018-19 & 2019-20 Budget

Workers' Compensation Self-Insurance Program

DESCRIPTION OR ACCOUNT TITLE	2016-17 Actuals	2017-18 Budget	2017-18 Projected	2018-19 Proposed	2019-20 Proposed
Beginning Reserves	\$ 1,913,178	\$ 2,475,670	\$ 2,464,400	\$ 2,173,400	\$ 2,000,000
<u>Revenues</u>					
In-Lieu Premiums	1,196,300	554,330	554,300	586,600	780,000
Miscellaneous Other Revenue	-	10,000	-	-	-
Transfer In	-	-	-	-	-
Service Department Allocation	-	-	-	-	-
Total Revenues	1,196,300	564,330	554,300	586,600	780,000
<u>Expenses</u>					
Benefits/Claims	341,277	600,000	479,800	420,000	430,000
Contractual Services	-	-	-	-	-
Legal Services	45,811	175,000	115,700	80,000	80,000
Professional Services	57,345	65,000	53,000	60,000	60,000
Subtotal	444,433	840,000	648,500	560,000	570,000
Policy Premium Expense	200,627	200,000	196,800	200,000	210,000
Total Expenses	645,060	1,040,000	845,300	760,000	780,000
Excess Revenue (Expenses)	551,240	(475,670)	(291,000)	(173,400)	-
Ending Reserves	\$ 2,464,418	\$ 2,000,000	\$ 2,173,400	\$ 2,000,000	\$ 2,000,000

CAPITAL IMPROVEMENTS
SECTION 8

BACK OF SECTION 8 DIVIDER

Capital Improvement Program Overview

CIP BUDGET REQUEST SUMMARY

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

CIP projects take several years to complete the planning, design and construction cycle. The proposed budget for each project covers the life of the project. This budget is reevaluated each year for the purpose of managing annual cash flows. Thus, many of the projects in the CIP Budget for FY 2018-19 and 2019-20 are continuing projects that were approved in prior years.

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

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

This year, five new projects are proposed for addition to the 2018-20 budget. These are:

- Project No. 3-67: Seal Beach Pump Station Replacement
- Project No. 3-68: Los Alamitos Sub-Trunk Extension
- Project No. P1-133: Primary Influent Splitter Box Rehabilitation at Plant No. 1
- Project No. P2-133: B/C-Side Primary Clarifiers Rehabilitation at Plant No. 2

- M-FE: Small Construction Projects Program

District staff has also validated all active and future CIP projects to ensure that the project scopes of work and cost estimates were up-to-date. Through the budget validation process, each project's schedule, staff resources, total project cost, cash flow and risks are assessed to confirm the budgetary requirements. The validated CIP includes 68 active and future capital projects, five programs, such as the Planning Studies Program (M-Studies) and Small Construction Program (M-FE), and budget for capital equipment purchases with a total CIP budget authority of \$4.01 billion. The total CIP budget authority has decreased by \$108 million as compared to FY 2017-18 approved budget of \$4.12 billion. The changes are summarized below:

FY2017-18 Approved Total CIP Budget Authority	\$4.12B
Net Changes:	
New Projects	\$171M
Closed/Cancelled Projects	(\$180M)
Budget Changes for Active Projects	(\$94M)
Budget Changes for Future Projects	(\$5M)
	<u>(\$108M)</u>
FY2018-19 Proposed Total CIP Budget Authority	<u>\$4.01B</u>

Following is a table of the FY 2018-19 proposed CIP budget:

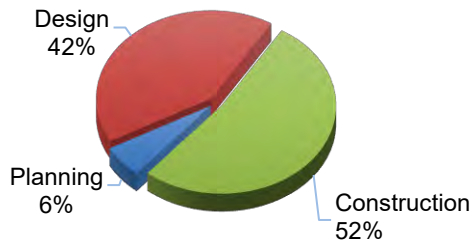
<u>Description</u>	<u>FY 2018-19 CIP Budget</u>
Capital Improvement Program (CIP)	\$177.6M
Future Rehab & Replacement	\$14.3M
	<u>\$191.9M</u>
Less: Savings and Deferrals	(\$17.3M)
Net CIP Outlay	<u>\$174.5M</u>

The proposed 2018-19 and 2019-20 net CIP outlays can be categorized by the location of the projects in terms of wastewater treatment process, or by the reasons why the projects are needed, i.e. project drivers. The charts showing the distribution of the funds requested for FYs 2018-19 and 2019-20 are shown on pages 5 and 7, respectively.

The proposed net CIP outlays can also be categorized by project phase or status. The following chart shows the net CIP outlays of projects in the Planning, Design and Construction phases for FY 2018-19.

2018-19 & 2019-20 Budget

**Projected FY18-19 Net CIP Outlay
by Project Status**



Projects that are in the Planning phase make up about 6% of the FY 2018-19 net CIP outlay. Projects in the Planning phase are planning or research studies that are mostly managed under the Planning Studies Program, or M-Studies.

42% of the FY 2018-19 net CIP outlay will be for projects that are in the Design phase. The three largest projects in the Design phase are Headquarters Complex and Site Security at Plant No. 1 (Project No. P1-128), Headworks Rehabilitation and Expansion at Plant No. 1 (Project No. P1-105), and Bay Bridge Pump Station Replacement (Project No. 5-67) with projected expenditures of \$10.5 million and \$12.4 million, \$13M respectively in FY 2018-19.

52% of the FY 2018-19 net CIP outlay will be spent in construction. The four most significant construction projects are the Consolidated Demolition and Utility Improvements at Plant 2 (Project No. P2-110), Sludge Dewatering and Odor Control at Plant 2 (Project No. P2-92), Newhope-Placentia Trunk Replacement (Project No. 2-72) and Sludge Dewatering and Odor Control at Plant 1 (Project No. P1-101) with projected FY 2018-19 expenditures of \$11.3 million, \$11.9 million, \$13.5 million, and \$16.7 million, respectively.

Following within this section are individual capital improvement project detail sheets that have been provided as a brief overview of each project, the budget for the next five years, and the budget for the total project.

The Treatment Process:

The Treatment Process Diagram on the following page illustrates the stages of wastewater treatment in relation to the flow of wastewater through the treatment process. The icons in the legend are shown as graphics in the individual CIP Detail Sheets to give the reader insight about where a project correlates to the treatment process.

OCSD's system includes approximately 396 miles of sewers that convey wastewater generated within the Sanitation District's boundaries to the Sanitation District's two wastewater treatment plants, Reclamation Plant No. 1 located in the City of Fountain Valley, and Treatment Plant No. 2 located in the City of Huntington Beach.

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

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

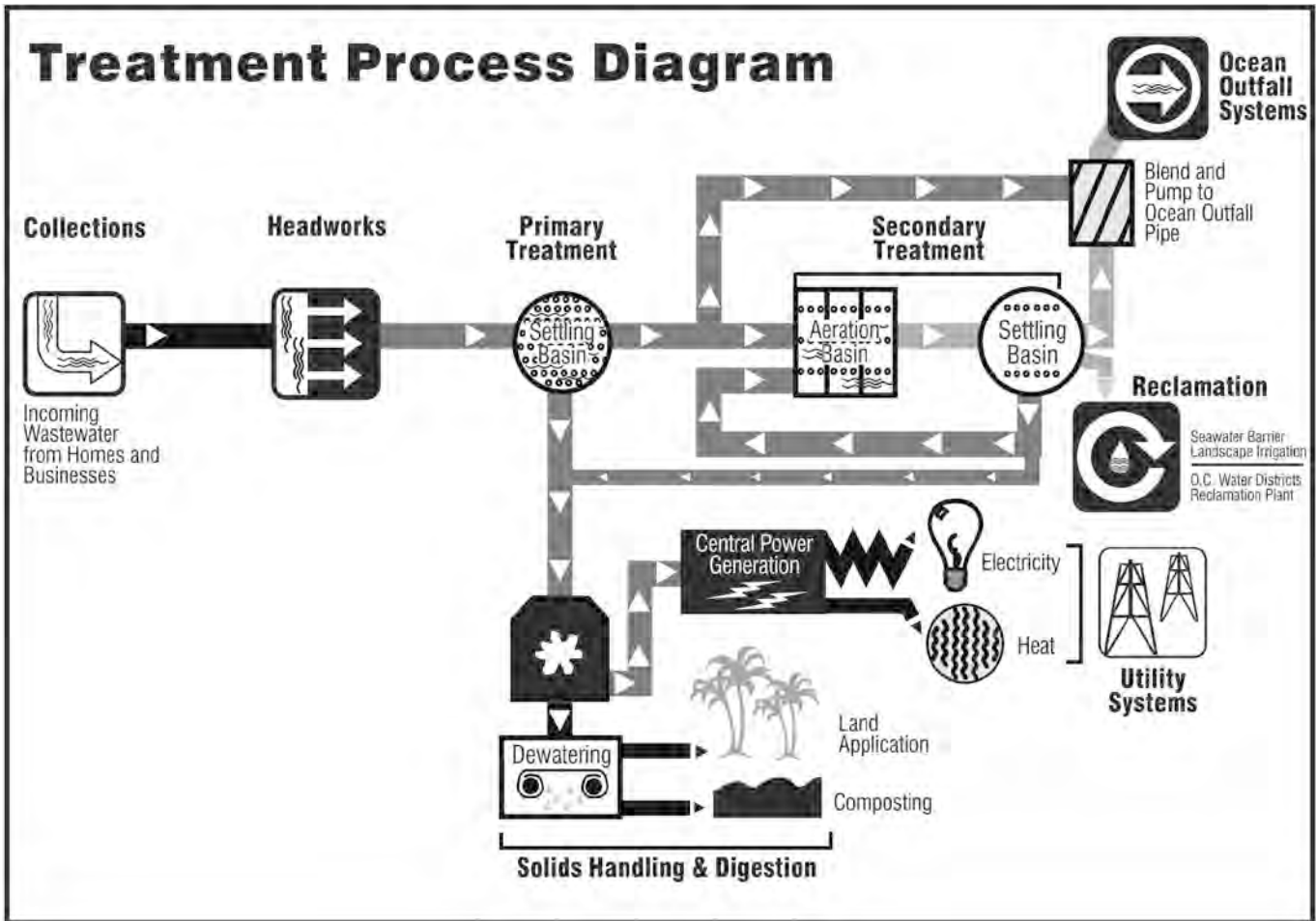
Solids are then dewatered to a 20 percent solids consistency, called biosolids, and recycled via direct land application or composting.

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

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

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

Secondary effluent from Treatment Plant No. 2, as well as brine generated from the GWRS, is discharged into the ocean through our ocean outfall systems.

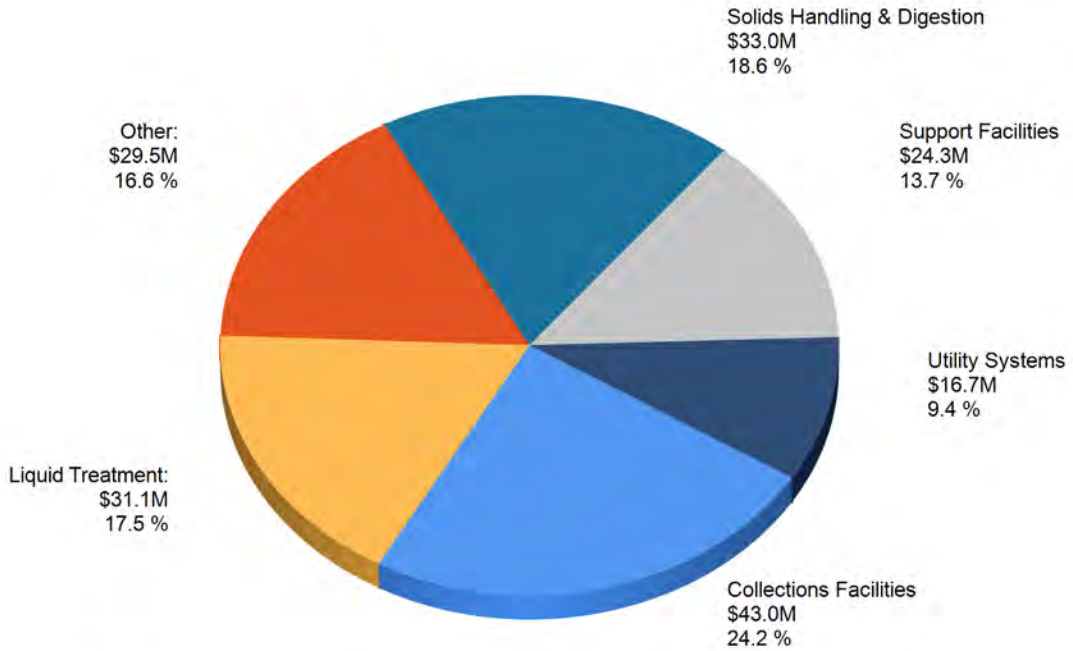


2018-19 & 2019-20 Budget

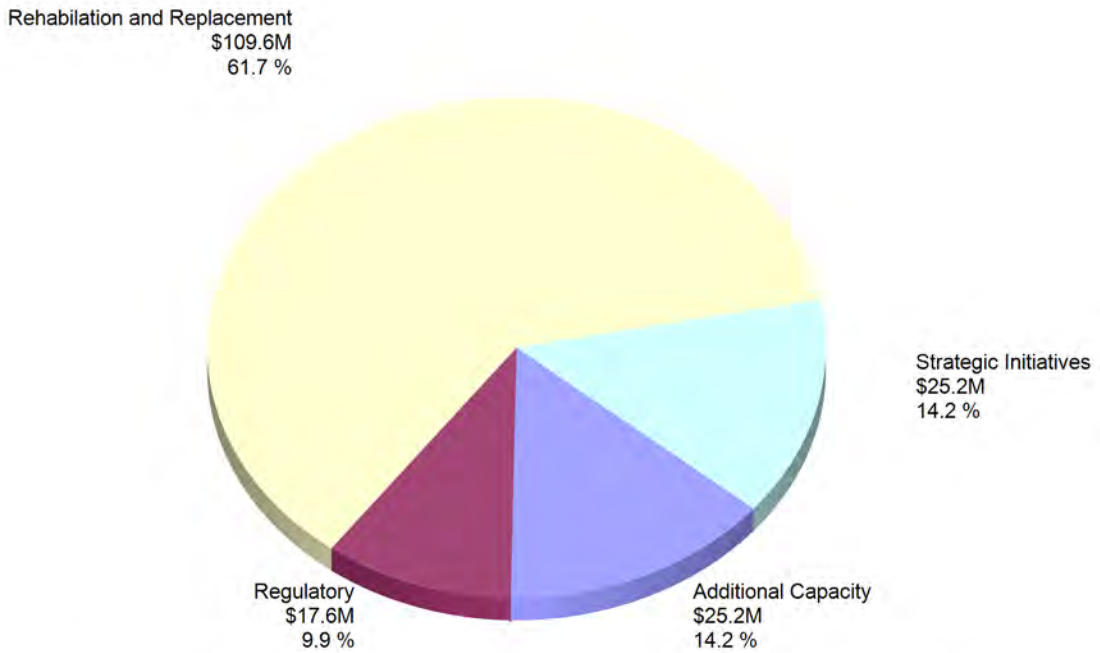
Project Summary FY 2018-19

Item	Rehabilitation and Replacement	Strategic Initiatives	Additional Capacity	Regulatory	Total Budget Authority
Collections Facilities	\$ 24,282,943	\$ 3,400,201	\$ 14,062,189	\$ 1,209,582	\$ 42,954,915
Solids Handling & Digestion	24,363,030	304,086	8,340,897	-	33,008,013
Support Facilities	13,458,700	6,361,254	966,080	3,520,439	24,306,473
Utility Systems	16,704,908	-	-	-	16,704,908
Liquid Treatment:					
Headworks	12,397,710	2,500,263	-	-	14,897,973
Ocean Outfall Systems	1,854,446	5,563,337	-	-	7,417,783
Primary Treatment	5,040,352	-	189,666	-	5,230,018
Secondary Treatment	3,522,391	-	-	-	3,522,391
Liquid Treatment Total	22,814,899	8,063,600	189,666	-	31,068,165
Other:					
Process Related Special Projects	-	-	-	9,372,763	9,372,763
Strategic & Master Planning	2,819,087	1,950,687	704,772	1,761,930	7,236,476
Information Management Systems	4,162,036	1,926,443	-	867,988	6,956,467
Equipment	895,600	895,600	895,600	895,600	3,582,400
Research	-	2,166,356	-	-	2,166,356
Water Management Projects	-	108,588	-	-	108,588
Others	105,711	-	-	-	105,711
Other Total	7,982,434	7,047,674	1,600,372	12,898,281	29,528,761
Grand Total	\$ 109,606,914	\$ 25,176,815	\$ 25,159,204	\$ 17,628,302	\$ 177,571,235

Summary of Capital Requirements - FY 2018-19



Total FY 2018-19 Capital Improvement Authority by Process - \$177.6 Million



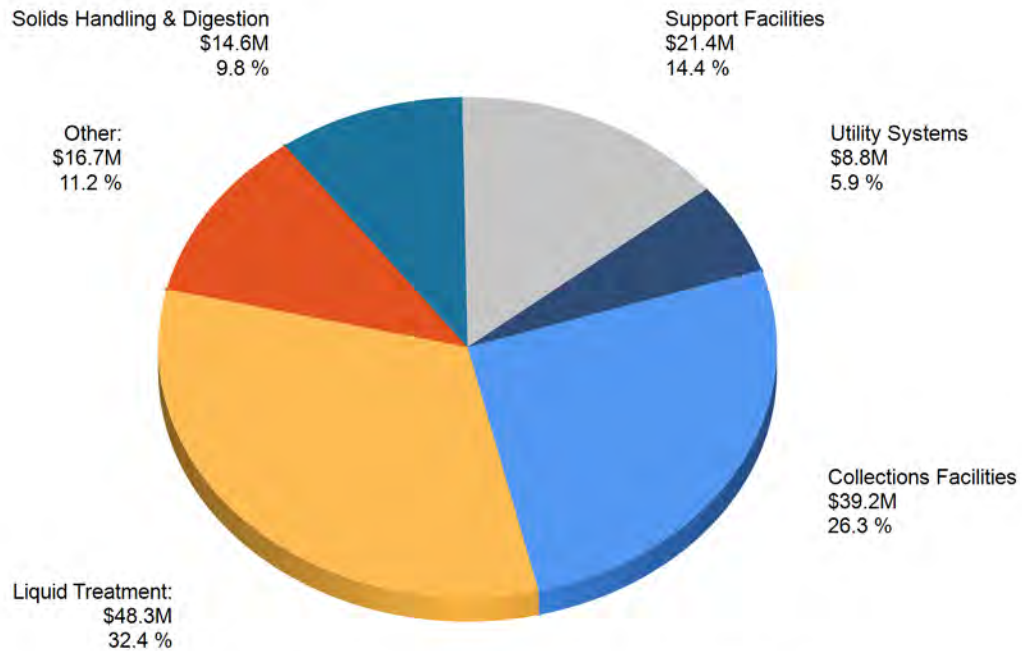
Total FY 2018-19 Capital Improvement Authority by CIP Driver - \$177.6 Million

2018-19 & 2019-20 Budget

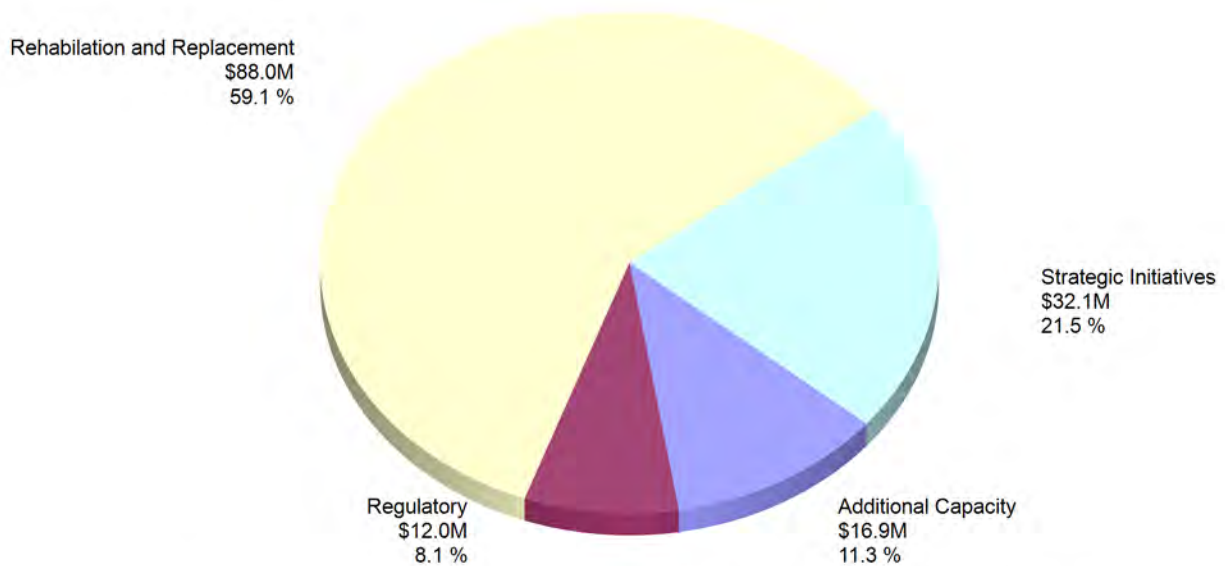
Project Summary FY 2019-20

Item	Rehabilitation and Replacement	Strategic Initiatives	Additional Capacity	Regulatory	Total Budget Authority
Collections Facilities	\$ 17,055,200	\$ 4,905,705	\$ 12,475,411	\$ 4,747,780	\$ 39,184,096
Solids Handling & Digestion	11,934,504	412,370	2,297,977	-	14,644,851
Support Facilities	13,523,377	6,057,081	794,541	983,110	21,358,109
Utility Systems	8,817,089	-	-	-	8,817,089
Liquid Treatment:					
Ocean Outfall Systems	4,532,278	13,596,834	-	-	18,129,112
Secondary Treatment	10,449,181	-	-	-	10,449,181
Primary Treatment	9,452,082	-	451,408	-	9,903,490
Headworks	7,505,074	2,300,703	-	-	9,805,777
Liquid Treatment Total	<u>31,938,615</u>	<u>15,897,537</u>	<u>451,408</u>	<u>-</u>	<u>48,287,560</u>
Other:					
Information Management Systems	2,974,786	1,808,564	-	631,223	5,414,573
Process Related Special Projects	-	-	-	4,431,775	4,431,775
Strategic & Master Planning	941,466	937,639	235,367	588,417	2,702,889
Equipment	618,650	618,650	618,650	618,650	2,474,600
Research	-	1,315,161	-	-	1,315,161
Others	219,498	7,241	-	-	226,739
Water Management Projects	-	139,973	-	-	139,973
Other Total	<u>4,754,400</u>	<u>4,827,228</u>	<u>854,017</u>	<u>6,270,065</u>	<u>16,705,710</u>
Grand Total	\$ <u>88,023,185</u>	\$ <u>32,099,921</u>	\$ <u>16,873,354</u>	\$ <u>12,000,955</u>	\$ <u>148,997,415</u>

Summary of Capital Requirements - FY 2019-20



Total FY 2019-20 Capital Improvement Authority by Process - \$149.0 Million



Total FY 2019-20 Capital Improvement Authority by CIP Driver - \$149.0 Million

2018-19 & 2019-20 Budget

Summary of Capital Requirement - Collection System Improvement Projects

	Project Number	Project Phase 7/1/18	Total Project Budget	Est. Cost to Date 6/30/18	2018-19 Cashflow Budget	2019-20 Cashflow Budget	Future Budget	Budget Status
Collections Facilities								
Raitt & Bristol Street Sewer Extension	1-101	Planning	\$ 7,100,000	\$ 259,081	\$ 135,408	\$ 242,828	\$ 6,462,683	Future
Edinger Bolsa Chica Trunk Impr.	11-25	Planning	5,159,000				5,159,000	Future
Edinger Pump Station Upgrade & Rehab	11-33	Planning	14,100,000				14,100,000	Future
Slater Avenue Pump Station Rehab	11-34	Planning	25,300,000				25,300,000	Future
SARI Rock Stabilizers Removal	2-41-8	Design	6,860,000	955,915	1,058,174	4,687,312	158,599	Continuing
Taft Branch Impr.	2-49	Planning	2,130,000	12,072			2,117,928	Future
Newhope - Placentia Trunk Grade Separation Repl.	2-65	Const./Impl.	4,300,000	4,199,401	100,599			Continuing
Newhope-Placentia Trunk Repl.	2-72	Const./Impl.	112,000,000	35,341,259	13,499,364	19,302,417	43,856,960	Continuing
Yorba Linda Pump Station Abandonment	2-73	Planning	10,800,000				10,800,000	Future
Tustin Rose OCTA Grade Separation	2-76	Const./Impl.	455,000	443,639	11,361			Revised
Beach Trunk/Knott Interceptor Sewer Relief	3-60	Planning	136,000,000				136,000,000	Future
Westminster Blvd Force Main Repl.	3-62	Design	54,000,000	5,208,834	3,356,135	3,002,218	42,432,813	Continuing
Rehab of Western Regional Sewers	3-64	Design	202,000,000	12,152,930	6,537,370	6,656,821	176,652,879	Revised
Interstate 405 Widening Project Impacts on OCSD Sewers	3-66	Design	528,000	172,102	39,448	60,468	255,982	Continuing
Seal Beach Pump Station Repl.	3-67	Planning	78,900,000		485,556	1,214,803	77,199,641	New
Los Alamitos Sub-Trunk Extension	3-68	Planning	66,000,000				66,000,000	New
Newport Force Main Rehab	5-60	Const./Impl.	59,668,000	59,596,532	71,468			Continuing
Crystal Cove Pump Station Upgrade & Rehab	5-66	Planning	17,900,000				17,900,000	Future
Bay Bridge Pump Station Repl.	5-67	Design	64,000,000	844,567	13,047,597	3,622,954	46,484,882	Continuing
Newport Beach Pump Stations Pressurization Impr.	5-68	Planning	4,066,000		50,720	160,202	3,855,078	Continuing
District 6 Trunk Sewer Relief	6-17	Const./Impl.	7,965,000	5,055,366	2,886,772	22,862		Continuing
Gisler - Red Hill Trunk Impr. - Reach B	7-37	Const./Impl.	25,213,000	23,538,057	1,674,943			Continuing
MacArthur Pump Station Rehab	7-63	Planning	13,100,000				13,100,000	Future
Main Street Pump Station Rehab	7-64	Planning	60,400,000				60,400,000	Future
Gisler - Red Hill Interceptor Rehab	7-65	Planning	14,800,000			211,211	14,588,789	Future
Bay Bridge Pumpstation & Force Mains Rehab Study	SP-178	Planning	725,000	725,000				Continuing
Collections Facilities Total Budget			993,469,000	148,504,755	42,954,915	39,184,096	762,825,234	

Summary of Capital Requirements

Summary of Capital Requirement - Treatment System Improvement Projects

	Project Number	Project Phase 7/1/18	Total Project Budget	Est. Cost to Date 6/30/18	2018-19 Cashflow Budget	2019-20 Cashflow Budget	Future Budget	Budget Status
Equipment								
Equipment Purchases	Equipment	Const./Impl.	9,593,700	3,536,700	3,582,400	2,474,600		Continuing
Equipment Total			9,593,700	3,536,700	3,582,400	2,474,600		
Headworks								
Headworks Rehab & Expansion at P1	P1-105	Design	370,000,000	10,880,664	12,397,710	7,505,074	339,216,552	Revised
Trunk Line Odor Control Impr.	P1-123	Const./Impl.	9,299,000	9,250,501	48,499			Continuing
Headworks Modifications at P2 for GWRS Final Expansion	P2-122	Design	54,000,000	2,614,865	2,451,764	2,300,703	46,632,668	Continuing
Headworks Total			433,299,000	22,746,030	14,897,973	9,805,777	385,849,220	
Primary Treatment								
Primary Clarifiers Repl.s & Impr. at P1	P1-126	Planning	106,000,000	520,765			105,479,235	Revised
Primary Clarifiers 6-31 Reliability Impr. at P1	P1-133	Planning	21,500,000		379,331	902,815	20,217,854	New
B/C-Side Primary Clarifiers Rehab at P2	P2-133	Planning	249,560,000				249,560,000	New
Primary Treatment Rehab at P2	P2-98	Design	245,000,000	9,991,239	4,850,687	9,000,675	221,157,399	Revised
Primary Treatment Total			622,060,000	10,512,004	5,230,018	9,903,490	596,414,488	
Secondary Treatment								
Return Activated Sludge Piping Repl. at Activated Sludge P1	P1-129	Design	7,900,000	588,673	697,946	5,970,017	643,364	Revised
Activated Sludge Aeration Basin Deck Repair at P2	P2-118	Const./Impl.	2,800,000	1,317,535	1,376,540	105,925		Continuing
Return Activated Sludge Piping Repl. at Plant No 2	P2-123	Planning	12,750,000	394,235	1,447,905	4,373,239	6,534,621	Revised
Secondary Treatment Total			23,450,000	2,300,443	3,522,391	10,449,181	7,177,985	
Solids Handling & Digestion								
Digester Rehab at P1	P1-100	Const./Impl.	66,000,000	65,863,145	136,855			Revised
Sludge Dewatering & Odor Control at P1	P1-101	Const./Impl.	199,500,000	177,390,045	16,681,794	4,595,954	832,207	Revised
Interim Food Waste Receiving Facility	P2-124	Planning	6,300,000	59,422	304,086	412,370	5,524,122	Revised
Digester P, Q, R, & S Repl.	P2-129	Planning	166,000,000				166,000,000	Revised
P2 Digester Facilities Rehab	P2-91-1	Planning	20,000,000	778,526	2,507,265	2,843,022	13,871,187	Revised
Sludge Dewatering & Odor Control at P2	P2-92	Const./Impl.	90,477,000	68,728,205	13,378,013	6,793,505	1,577,277	Continuing
Solids Handling & Digestion Total			548,277,000	312,819,343	33,008,013	14,644,851	187,804,793	
Ocean Outfall Systems								
Ocean Outfall System Rehab	J-117	Design	166,000,000	21,999,936	7,417,783	18,129,112	118,453,169	Continuing
Ocean Outfall Systems Total			166,000,000	21,999,936	7,417,783	18,129,112	118,453,169	
Utility Systems								
UPS System Upgrades	J-121	Planning	4,700,000				4,700,000	Future
Digester Gas Facilities Rehab	J-124	Design	96,500,000	695,775	4,896,117	3,627,156	87,280,952	Continuing
Natural Gas Pipelines Repl. at P1 & P2	J-127	Planning	1,310,000	42,308	65,178	359,943	842,571	Continuing

2018-19 & 2019-20 Budget

Summary of Capital Requirement - Treatment System Improvement Projects

	Project Number	Project Phase 7/1/18	Total Project Budget	Est. Cost to Date 6/30/18	2018-19 Cashflow Budget	2019-20 Cashflow Budget	Future Budget	Budget Status
Utility Systems								
Electrical Power Distribution System Impr.	J-98	Planning	34,608,000	55,370	285,913	1,393,714	32,873,003	Future
Central Generation Rehab at P1	P1-127	Planning	87,000,000				87,000,000	Continuing
Uninterruptable Power Supply Impr. at P1	P1-132	Planning	4,800,000	30,163	154,548	375,534	4,239,755	Continuing
Consolidated Demolition & Utility Impr. at P2	P2-110	Const./Impl.	31,000,000	16,564,396	11,303,152	3,060,742	71,710	Revised
Central Generation Rehab at P2	P2-119	Planning	114,000,000				114,000,000	Continuing
Utility Systems Total			373,918,000	17,388,012	16,704,908	8,817,089	331,007,991	
Process Related Special Projects								
Safety Impr. Program	J-126	Design	19,000,000	5,195,462	9,372,763	4,431,775		Continuing
Process Related Special Projects Total			19,000,000	5,195,462	9,372,763	4,431,775		
Information Management Systems								
Process Control Systems Upgrades	J-120	Planning	46,000,000			239,864	45,760,136	Future
Project Mgmt. Information System	J-128	Planning	4,000,000	876,706	1,668,647	1,454,647		Continuing
Information Technology Capital Program	M-MC-IT	Const./Impl.	10,000,000	1,230,667	515,592	707,833	7,545,908	Continuing
SCADA System & Network Upgrades	P2-107	Design	5,000,000	3,668,180	1,299,323	32,497		Continuing
EAM Software & Process Implementation	SP-100	Const./Impl.	7,500,000	5,015,163	941,955	1,178,517	364,365	Continuing
Geographic Information System	SP-15	Const./Impl.	4,568,000	3,068,789	867,988	631,223		Revised
Process Control Systems Upgrades Study	SP-196	Planning	3,554,000	721,046	1,662,962	1,169,992		Continuing
Information Management Systems Total			80,622,000	14,580,551	6,956,467	5,414,573	53,670,409	
Strategic & Master Planning								
Planning Studies Program	M-STUDIES	Planning	28,652,000	13,799,868	7,047,719	2,353,667	5,450,746	Continuing
Climate Resiliency Study	SP-152	Planning	590,000	52,021	188,757	349,222		Continuing
Strategic & Master Planning Total			29,242,000	13,851,889	7,236,476	2,702,889	5,450,746	
Water Management Projects								
GWRS Final Expansion Coordination	J-36-2	Planning	1,132,000	122,302	108,588	139,973	761,137	Continuing
Water Management Projects Total			1,132,000	122,302	108,588	139,973	761,137	
Research								
Research Program	M-RESEARCH	Planning	8,500,000	952,490	2,166,356	1,315,161	4,065,993	Revised
Research Total			8,500,000	952,490	2,166,356	1,315,161	4,065,993	
Support Facilities								
18350 Mt. Langley St. Building Purchase & Improvement	J-131	Planning	11,000,000	9,752,410	126,931	435,786	684,873	Revised
Small Construction Projects Program	M-FE	Const./Impl.	55,000,000	12,333,994	9,660,804	7,945,406	25,059,796	Revised
Operations & Maintenance Capital Program	M-SM-CAP	Design	15,622,000	579,285	930,125	2,033,358	12,079,232	Continuing
Title 24 Access Compliance & Building Rehab Project	P1-115	Const./Impl.	18,400,000	15,657,072	2,554,359	188,569		Revised
P1-128 Headquarters Complex & Site Security at P1	P1-128	Design	179,067,000	2,460,949	10,536,486	9,653,508	156,416,057	Continuing

Summary of Capital Requirements

Summary of Capital Requirement - Treatment System Improvement Projects

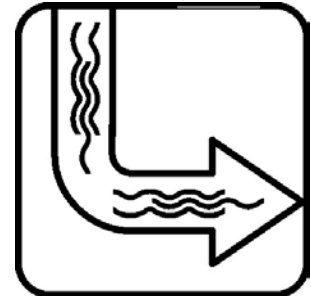
	Project Number	Project Phase 7/1/18	Total Project Budget	Est. Cost to Date 6/30/18	2018-19 Cashflow Budget	2019-20 Cashflow Budget	Future Budget	Budget Status
Support Facilities								
P2 Warehouse Relocation	P2-126	Planning	9,800,000		497,768	195,424	9,106,808	Continuing
P2 Collections Yard Relocation	P2-127	Planning	1,840,000				1,840,000	Revised
TPAD Digester Facility at P2	P2-128	Planning	405,100,000			906,058	404,193,942	Revised
Support Facilities Total			695,829,000	40,783,710	24,306,473	21,358,109	609,380,708	
Others								
Banning Gate Relocation & Grading at P2	P2-120	Planning	2,931,000			7,241	2,923,759	Continuing
Perimeter Screening at P2	P2-125	Planning	2,800,000	39,553	105,711	219,498	2,435,238	Continuing
Capital Improvement Program Mgmt. Services	SP-195	Planning	300,000	70,630			229,370	Continuing
Others Total			6,031,000	110,183	105,711	226,739	5,588,367	
Total Treatment and Disposal Projects			3,007,360,000	463,362,355	131,033,920	107,338,719	2,305,625,006	
Total Collections Facilities			993,469,000	148,504,755	42,954,915	39,184,096	762,825,234	
Capital Equipment Purchases			9,593,700	3,536,700	3,582,400	2,474,600		
Total Capital Improvement Program Budget			\$ 4,010,422,700	\$615,403,810	\$177,571,235	\$148,997,415	\$3,068,450,240	

2018-19 & 2019-20 Budget

Project Name & Number	Raitt and Bristol Street Sewer Extension - 1-101		
Project Category	Collections Facilities	Project Status:	Future

Description

This project will replace 2,360 linear feet of 21-inch City of Santa Ana sewer with a 24-inch Sanitation District's sewer line and a parallel 8-inch City of Santa Ana sewer line to allow for redirecting all house lateral connections. The sewer line is located along Myrtle Street, between Raitt and Bristol Streets in the City of Santa Ana.



**Collections
Facilities**

Justification

This project was identified in the 2006 Strategic Plan Update and is needed to reduce the potential for minor surcharging in the Lower Bristol Trunk during major storm events.

The project budget has been decreased from \$13,622,000 to \$7,100,000. The reduced budget is a result of changes in the project elements as determined in the 2017 Facilities Master Plan. The project's construction cost is \$3,970,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	255,168	38,884	39,039	1,556				334,647
Prelim Design			104,426	14,790				119,216
Design	3,610			196,190	387,392	131,708		718,900
Construction	303					247,842	4,361,816	4,609,961
Commissioning							79,474	79,474
Close-out							19,868	19,868
Contingency		96,524	99,363	115,599	135,056	162,638	608,754	1,217,934
Total	259,081	135,408	242,828	328,135	522,448	542,188	5,069,912	7,100,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Edinger Bolsa Chica Trunk Improvements - 11-25		
Project Category	Collections Facilities	Project Status:	Future

Description

The scope of this project includes increasing the size of approx. 4,000 linear feet of Edinger Bolsa Chica Trunk from 12-inches to 15-inches. The project is located in Bolsa Chica Street from Robinwood Drive, north to Bolsa Avenue in the City of Huntington Beach.



**Collections
Facilities**

Justification

The need for this project was identified in the 2006 Strategic Plan Update. These improvements will accommodate changing flow patterns due to planned development strategies, economic influences, and potential wet weather surcharges.

The project's construction cost is \$3,010,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev							60,153	60,153
Prelim Design							90,250	90,250
Design							541,498	541,498
Construction							3,489,698	3,489,698
Commissioning							60,165	60,165
Close-out							15,042	15,042
Contingency							902,194	902,194
Total							5,159,000	5,159,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Edinger Pump Station Upgrade and Rehabilitation - 11-33		
Project Category	Collections Facilities	Project Status:	Future

Description

The purpose of the Edinger Pump Station Rehabilitation Project is to execute the conceptual design plan that is currently being developed as a result of the study by the same name. This project will rehabilitate the Edinger Pump Station to improve the condition of the structures and the mechanical piping and support systems. The electrical and controls system will also be updated.



**Collections
Facilities**

Justification

Edinger Pump Station was originally constructed in 1968. Although the pumps have recently been replaced, the control systems are rapidly becoming obsolete and the facility is relatively dangerous to access. The electrical system does not comply with current codes.

The project budget has been increased from \$8,880,000 to \$14,100,000. The increased budget is needed based on escalation of costs associated with delaying the project as determined in the 2017 Facilities Master Plan. The project's construction cost is \$7,640,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev						120,868	31,938	152,806
Prelim Design							229,235	229,235
Design							1,757,480	1,757,480
Construction							9,398,696	9,398,696
Commissioning							152,837	152,837
Close-out							152,825	152,825
Contingency							2,256,121	2,256,121
Total						120,868	13,979,132	14,100,000

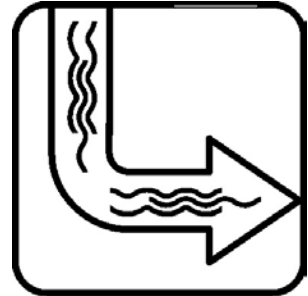
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Slater Avenue Pump Station Rehabilitation - 11-34		
Project Category	Collections Facilities	Project Status:	Future

Description

This project will rehabilitate the existing Slater Avenue Pump Station to meet current building, electrical and safety codes, and OCSD design standards, and to extend the useful life of the pump station. In addition to the improvements to the pump station, both force mains currently serving this pump station will be rehabilitated.



**Collections
Facilities**

Justification

Slater Avenue Pump Station was constructed in the late 1990s and needs rehabilitation to maintain the pump station's reliability in the coming decades. The electrical system does not meet current building code requirements. The ductile iron force mains, one of which was constructed with the original Slater Avenue Pump Station, are aging and need to be rehabilitated.

The project budget has been increased from \$9,729,000 to \$25,300,000. The increased budget is needed based on changes in the project elements as determined in the 2017 Facilities Master Plan. The project's construction cost is \$13,680,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev							273,657	273,657
Prelim Design							410,488	410,488
Design							3,147,049	3,147,049
Construction							16,829,872	16,829,872
Commissioning							273,648	273,648
Close-out							273,657	273,657
Contingency							4,091,629	4,091,629
Total							25,300,000	25,300,000

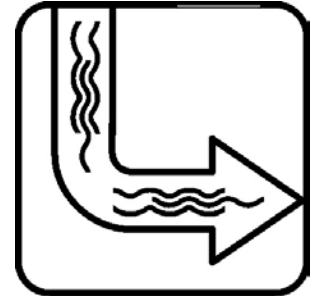
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	SARI Rock Stabilizers Removal - 2-41-8		
Project Category	Collections Facilities	Project Status:	Continuing

Description

This project involves the removal and disposal of approximately 22,000 tons of rip rap rocks from within sensitive habitat in the Santa Ana River bed between the Green River Golf Course and Weir Canyon Road in Yorba Linda. The work also includes the restoration and mitigation of temporary gravel access roads.



**Collections
Facilities**

Justification

This is a condition of the emergency permits issued by the US Army Corps of Engineers over the years for temporarily protecting the SARI line.

The project's construction cost is \$4,160,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	338,018							338,018
Prelim Design	323,096							323,096
Design	244,970	11,041						256,011
Construction	3,801	846,051	3,980,533					4,830,385
Commissioning								
Close-out			28,016					28,016
Contingency	46,029	201,082	678,763	158,599				1,084,473
Total	955,915	1,058,174	4,687,312	158,599				6,860,000

Reimbursable Costs: 161,214

CIP Project Detail Sheets

Project Name & Number	Taft Branch Improvements - 2-49		
Project Category	Collections Facilities	Project Status:	Future

Description

The purpose of this project is to increase the capacity of a portion of the Taft Branch regional sewer. The project includes replacing approximately 9,500 feet of 12-inch to 18-inch pipe with 15-inch to 24-inch diameter pipe along both Taft and Meats Avenues in the City of Orange.



**Collections
Facilities**

Justification

This project was identified in the 2006 Strategic Plan Update. These improvements will accommodate changing flow patterns due to planned development strategies, economic influences, and potential wet weather surcharges.

The project budget has been increased from \$1,928,000 to \$2,130,000. The increased budget is needed based on changes in the project elements as determined in the 2017 Facilities Master Plan. The project's construction cost is \$1,230,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	9,375						24,690	34,065
Prelim Design							37,032	37,032
Design	2,697						222,207	224,904
Construction							1,431,974	1,431,974
Commissioning							24,697	24,697
Close-out							6,174	6,174
Contingency							371,154	371,154
Total	12,072						2,117,928	2,130,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Newhope - Placentia Trunk Grade Separation Replacement - 2-65		
Project Category	Collections Facilities	Project Status:	Continuing

Description

This project will replace a section of the OCSD's Newhope-Placentia Trunk and Wastewater Disposal Company Sewers in State College Boulevard between Orangethorpe and Commonwealth. The project is being done with the City of Fullerton as part of a railroad grade separation project.



**Collections
Facilities**

Justification

The existing sewers need to be relocated to accommodate the undergrounding of State College Boulevard below the railroad tracks at the intersection of Valencia Drive and State College Boulevard . These improvements will also accommodate the projected increases in flow for this section of sewer from planned developments and growth and be designed to convey potential wet weather surcharges. The project is anticipated to be constructed by the City of Fullerton's contractor performing the roadwork under the railroad. The original project and budget were to upsize a large stretch of sewer that will be hydraulically deficient. The remaining portion of the sewer upsizing was re-budgeted under a new CIP project.

The project's construction cost is \$3,170,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	103,062							103,062
Prelim Design	64,933							64,933
Design	313,041							313,041
Construction	3,653,607							3,653,607
Commissioning								
Close-out	13,786	9,009						22,795
Contingency	50,972	91,590						142,562
Total	4,199,401	100,599						4,300,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Newhope-Placentia Trunk Replacement - 2-72		
Project Category	Collections Facilities	Project Status:	Continuing

Description

This project will increase the size of approx. 35,000 feet of the Newhope-Placentia Trunk sewer from Yorba Linda Boulevard to Orangewood Avenue. The upsized sewer will accommodate flows from the newly abandoned Yorba Linda Pump Station and the newly interconnected Atwood Sub-trunk. The scope also includes rehabilitating five sections of the Rolling Hill Sub trunk, and abandoning any remaining portion of the wastewater disposal company sewer alignment not used for the new pipeline.



**Collections
Facilities**

Justification

This section of the Newhope-Placentia Trunk Sewer was originally constructed in 1961. These improvements will accommodate the projected flow increases due to the abandonment of the aging Yorba Linda Pump Station, increase capacity in a short portion of the Rolling Hills Sub-trunk that is undersized when burdened by 2030 wet weather flows, and increase operational flexibility of the collection system.

The project's construction cost is \$79,460,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	132,601							132,601
Prelim Design	6,033,652							6,033,652
Design	4,506,048	379,446						4,885,494
Construction	24,198,835	12,280,833	17,457,161	18,336,097	17,741,675			90,014,601
Commissioning								
Close-out	4,765	14,774	12,924	8,082	244,056	73,276		357,877
Contingency	465,358	824,311	1,832,332	2,794,834	3,857,972	800,968		10,575,775
Total	35,341,259	13,499,364	19,302,417	21,139,013	21,843,703	874,244		112,000,000

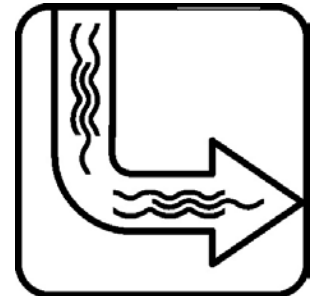
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Yorba Linda Pump Station Abandonment - 2-73		
Project Category	Collections Facilities	Project Status:	Future

Description

This project will abandon the Yorba Linda Pump Station and downstream force main. Gravity sewers located in Yorba Linda Boulevard will also be reconfigured to improve access to the facilities for maintenance. Flows which are currently being pumped by the Yorba Linda Pump Station east will be conveyed by gravity through the newly upsized Newhope-Placentia Trunk located in State College Boulevard to the west.



**Collections
Facilities**

Justification

The Yorba Linda Pump Station was built, in part, to convey flow away from undersized gravity sewers located in State College Boulevard. Land development in the vicinity necessitates the upsizing of the same gravity sewers and the project to do so is currently in design. When complete the pump station will no longer be needed. Also, the pump station is rapidly aging and does not meet current electrical and safety codes. Costly rehabilitation would be necessary for the pump station to remain in service.

The project budget has been increased from \$7,053,000 to \$10,800,000. The increased budget is needed based on escalation of costs associated with delaying the project as determined in the 2017 Facilities Master Plan. The project's construction cost is \$5,840,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev					85,034	31,834		116,868
Prelim Design						155,470	19,842	175,312
Design						49,543	1,294,480	1,344,023
Construction							7,187,605	7,187,605
Commissioning							116,872	116,872
Close-out							116,870	116,870
Contingency					24,331	153,501	1,564,618	1,742,450
Total					109,365	390,348	10,300,287	10,800,000

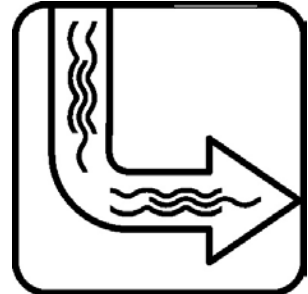
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Tustin Rose OCTA Grade Separation - 2-76		
Project Category	Collections Facilities	Project Status:	Revised

Description

This project will provide construction costs and staff support costs for the realignment of an OCSD trunkline as part of Orange County Transit Authority's (OCTA) Grade Separation Project at the intersection of Tustin Avenue/Rose Drive and Orangethorpe Avenue.



**Collections
Facilities**

Justification

The Orange County Transportation Authority (OCTA) will construct a vehicle overpass at the intersection of Tustin Avenue/Rose Drive and Orangethorpe Avenue, along the Burlington Northern Santa Fe railroad track. An OCSD trunkline will need to be relocated as part of the project. The design of relocating OCSD's trunkline is complete and was paid for by OCTA.

The project budget has been decreased from \$586,000 to \$455,000. The reduced budget is a result of an updated estimate to complete the work based on project closeout and release of contingency. The project's construction cost is \$300,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev								
Prelim Design								
Design								
Construction	424,270							424,270
Commissioning	15,906	5,300						21,206
Close-out	715	1,570						2,285
Contingency	2,749	4,491						7,240
Total	443,639	11,361						455,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Beach Trunk/Knott Interceptor Sewer Relief - 3-60		
Project Category	Collections Facilities	Project Status:	Future

Description

The purpose of this project is to increase the capacity of numerous OCSD regional sewers located in the City of Buena Park. The project consists of the following potential capacity improvements projects: 1) upsize 11,100 feet of 39 to 45-inch pipe along Knott Avenue from Orangethorpe Avenue to Artesia Boulevard, East to Kingman, and North to Dobbs Avenue, and 2) upsize 9,800 feet of 24 to 36-inch along Knott Avenue from 8th Street north to Artesia Boulevard and then east to Dale Street. Portions of the pipe within the project limits will be rehabilitated with a structural liner and aging manholes will also be rehabilitated.



**Collections
Facilities**

Justification

The need for this project was identified in the 2006 Strategic Plan Update. These improvements will accommodate changing flow patterns due to planned development strategies, economic influences, and potential wet weather surcharges. The facilities are also aging and need to be rehabilitated.

The project budget has been increased from \$118,678,000 to \$136,000,000. The increased budget is needed based on an updated estimate to complete the work. The project's construction cost is \$84,030,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev						369,750		369,750
Prelim Design						66,072	1,194,432	1,260,504
Design							11,764,769	11,764,769
Construction							96,639,133	96,639,133
Commissioning							840,341	840,341
Close-out							214,287	214,287
Contingency						170,822	24,740,394	24,911,216
Total						606,644	135,393,356	136,000,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Westminster Blvd Force Main Replacement - 3-62		
Project Category	Collections Facilities	Project Status:	Continuing

Description

This project will replace the two existing Westminster Blvd force mains that extend along Westminster Blvd for almost 3 miles from Seal Beach Blvd in the City of Seal Beach to Rancho Rd in the City of Westminster. The exiting siphons near Rancho Rd will be slip lined to extend the force main to terminate at an existing discharge structure. A Midway City Sanitation District (MCSD) sewer will be re-routed and extended to a downstream OCSD manhole.



**Collections
Facilities**

Justification

The pump station currently operates with just one of two force mains, a 42" ductile iron pipe that has no cathodic protection system. The other force mains is reinforced plastic mortar pipe in danger of failing and cannot be placed back into operation, thus eliminating operational redundancy. This project will replace the existing Westminster Blvd force mains to provide adequate redundancy and increase capacity to handle the new predicted peak wet weather flow of 34 MGD.

The project's construction cost is \$34,800,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	199,656							199,656
Prelim Design	4,862,940							4,862,940
Design	56,249	2,972,275	1,062,696					4,091,220
Construction	77		1,452,550	14,859,308	15,733,183	6,524,599		38,569,717
Commissioning				63,337	238,984	137,030		439,351
Close-out						425,012		425,012
Contingency	89,911	383,860	486,972	994,431	1,818,281	1,472,521	166,127	5,412,103
Total	5,208,834	3,356,135	3,002,218	15,917,076	17,790,448	8,559,162	166,127	54,000,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Rehabilitation of Western Regional Sewers - 3-64		
Project Category	Collections Facilities	Project Status:	Revised

Description

The project will replace or rehabilitate a significant portion of the sewers and manholes located in Revenue Area 3. The extent of the rehabilitation/replacement effort includes Orange Western Sub-Trunk and Knott Avenue Collector; (19,202 feet), the Los Alamitos Sub-Trunk; (34,392 feet), and the Westside Relief Interceptor pipeline; (33,164 feet). These sewers are located primarily within public rights of way except for a few segments within Sanitation Districts' easements in the Cities of Rossmoor (Unincorporated Areas of County of Orange), Seal Beach, Los Alamitos, Cypress, Anaheim, Buena Park and La Palma.



**Collections
Facilities**

Justification

Most of the sewers were originally constructed in late 1950's and early 1960's. The estimated life of this type of pipe is 40 to 50 years. During routine cleaning of the sewer, it has been noted that the sewer liner had significant defects and the joints are allowing significant amounts of groundwater into the sewers. The area has a high groundwater level that can contribute to the formation of sink holes if sediments are allowed to continue to be washed into the sewer through the failed joints and cracks. Upsizing the Westside Relief Interceptor will provide capacity for future flows projected from redevelopment and inflow in the City of Cypress.

The project budget has been decreased from \$217,069,000 to \$202,000,000. The reduced budget is a result of changes in the project elements identified from recent engineering efforts. The project's construction cost is \$132,800,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	489,057						44	489,101
Prelim Design	11,298,267	3,179,596						14,477,863
Design	187,153	2,439,937	4,312,280	625,001				7,564,371
Construction	8,509		654,816	18,377,134	27,375,471	28,701,472	76,761,285	151,878,687
Commissioning								
Close-out	41,742				59,467	110,319	182,653	394,181
Contingency	128,202	917,837	1,689,725	1,950,083	3,669,118	4,825,729	14,015,103	27,195,797
Total	12,152,930	6,537,370	6,656,821	20,952,218	31,104,056	33,637,520	90,959,085	202,000,000

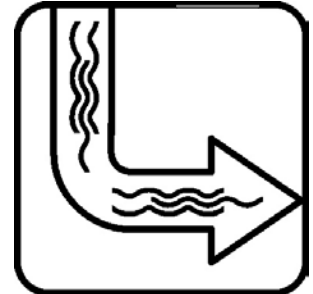
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Interstate 405 Widening Project Impacts on OCSD Sewers - 3-66		
Project Category	Collections Facilities	Project Status:	Continuing

Description

This project will provide reimbursement for staff support for the realignment/conflicts of District facilities as part of Orange County Transit Authority's (OCTA) proposed widening of the Interstate 405 (I-405) between State Route 73 and Interstate 605.



**Collections
Facilities**

Justification

In partnership with the California Department of Transportation (CalTrans), the Orange County Transportation Authority (OCTA) proposes to widen the Interstate 405 (I-405) between State Route 73 and Interstate 605. This project will require relocation of existing District facilities. Eight utility agreements provide the terms for 22 District facility conflicts and reimbursement up to \$427,151.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	116,877							116,877
Prelim Design								
Design	40,032							40,032
Construction	12,399	18,066	23,935	24,623	10,452			89,475
Commissioning								
Close-out					27,298	190		27,488
Contingency	2,794	21,382	36,533	53,862	70,640	68,917		254,128
Total	172,102	39,448	60,468	78,485	108,390	69,107		528,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Seal Beach Pump Station Replacement - 3-67		
Project Category	Collections Facilities	Project Status:	New

Description

This project will replace the existing Seal Beach Pump Station on the existing site and demolish the old pump station when the new one is complete. The new pump station will have a deeper wet well to allow gravity flow from the future extension of the Los Alamitos Sub-Trunk from the West Side Pump Station to the Seal Beach Pump Station, thus allowing the West Side Pump Station to be abandoned. Extension of the Los Alamitos Sub-Trunk and abandonment of the West Side Pump Station is budgeted under Los Alamitos Sub-Trunk Extension, Project No. 3-68. The project will also include odor control improvements of vapor-phase and liquid-phase treatment at the pump station to minimize both upstream and downstream odors and corrosion.



**Collections
Facilities**

Justification

The existing Seal Beach Pump Station is in need of extensive rehabilitation due to age and condition. A life-cycle cost evaluation determined that the most cost effective alternative is to replace the existing pump station on site to allow extension of the Los Alamitos Sub-Trunk by gravity and abandonment of the West Side Pump Station.

The project's construction cost is \$42,660,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev		453,774	399,323					853,097
Prelim Design			542,310	737,348				1,279,658
Design				1,820,788	4,157,259	3,832,641		9,810,688
Construction						639,960	51,825,871	52,465,831
Commissioning							853,091	853,091
Close-out							853,105	853,105
Contingency		31,782	273,170	618,921	1,004,223	1,407,674	9,448,760	12,784,530
Total		485,556	1,214,803	3,177,057	5,161,482	5,880,275	62,980,827	78,900,000

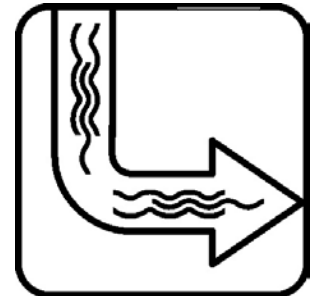
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Los Alamitos Sub-Trunk Extension - 3-68		
Project Category	Collections Facilities	Project Status:	New

Description

This project will extend the Los Alamitos Sub-trunk by gravity from the Westside Pump Station to the new, deeper Seal Beach Pump Station to be constructed under Seal Beach Pump Station Replacement, Project No.3-67. It will also abandon the existing Westside Pump Station.



**Collections
Facilities**

Justification

Extension of this section of gravity sewer will allow the Westside Pump Station to be abandoned when it reaches the end of its useful life, at which point it would require replacement on a different site.

The project's construction cost is \$40,770,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev							179,365	179,365
Prelim Design							611,493	611,493
Design							5,707,286	5,707,286
Construction							46,881,256	46,881,256
Commissioning							407,665	407,665
Close-out							103,951	103,951
Contingency							12,108,984	12,108,984
Total							66,000,000	66,000,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Newport Force Main Rehabilitation - 5-60		
Project Category	Collections Facilities	Project Status:	Continuing

Description

This project will rehabilitate approximately 28,000 feet of the Newport Force Main system located on Pacific Coast Highway in Newport Beach between the Bitter Point Pump Station and Dover Drive. The force main system consists of two parallel, interconnected pipelines, varying in size from 22 to 36 inches. More than half of the force main system will be rehabilitated rather than replaced to minimize impacts to the community, businesses, tourism and the environment.



**Collections
Facilities**

Justification

The force main system has reached the end of its useful life. Rehabilitation and replacement is necessary because the force main system is more than 50 years old and has experienced multiple structural failures due to corrosion since 1984.

The project's construction cost is \$46,200,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	1,224,529							1,224,529
Prelim Design	2,364,482							2,364,482
Design	1,658,807							1,658,807
Construction	53,635,489	71,468						53,706,957
Commissioning	376,321							376,321
Close-out	336,903							336,903
Contingency								
Total	59,596,532	71,468						59,668,000

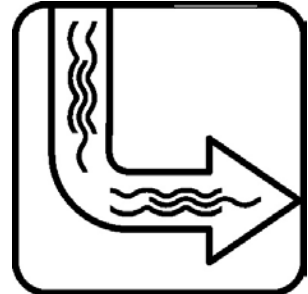
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Crystal Cove Pump Station Upgrade and Rehabilitation - 5-66		
Project Category	Collections Facilities	Project Status:	Future

Description

This project will rehabilitate the existing Crystal Cove Pump Station to maintain compliance with electrical and safety codes, and to restore the condition of the aging facility. The project also consists of rehabilitating the two 8-inch ductile iron force mains. The existing gravity system in the vicinity of the pump station, located in Pacific Coast Highway, will also be assessed and rehabilitated as needed.



**Collections
Facilities**

Justification

The Pump Station was originally constructed in 1995 and needs rehabilitation to maintain the pump station's reliability in the coming decades. The electrical system does not meet current code requirements. The control system is out of date and does not meet OCSD standards. The force mains are not currently protected from corrosion.

The project budget has been increased from \$10,882,000 to \$17,900,000. The increased budget is needed based on changes in the project elements as determined in the 2017 Facilities Master Plan. The project's construction cost is \$9,660,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev							193,168	193,168
Prelim Design							289,755	289,755
Design							2,221,441	2,221,441
Construction							11,879,873	11,879,873
Commissioning							193,167	193,167
Close-out							193,167	193,167
Contingency							2,929,429	2,929,429
Total							17,900,000	17,900,000

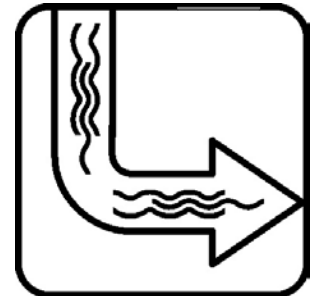
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Bay Bridge Pump Station Replacement - 5-67		
Project Category	Collections Facilities	Project Status:	Continuing

Description

This project will replace the existing Bay Bridge Pump Station to meet current building, electrical, and safety codes and OCSD design standards. The Bay Bridge Pump Station associated force mains will also be replaced. The force mains to be replaced extend from Bay Bridge Pump Station to a valve box on the west side of Upper Newport Bay.



**Collections
Facilities**

Justification

The Bay Bridge Pump Station was originally constructed in 1966. The pumping systems are aging, and have control systems that are rapidly becoming obsolete, all require additional attention from maintenance staff. Also, the existing pumping station does not comply with current electrical and safety codes. The force mains have reached the end of their expected life and the risk of failure will increase if not addressed.

The project's construction cost is \$27,060,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	433,735							433,735
Prelim Design	309,792	3,030,107	120,329					3,460,228
Design	58,245	9,683,780	2,791,835	2,193,724				14,727,584
Construction	1,774			2,378,251	17,371,467	14,433,056	2,438,881	36,623,429
Commissioning					141,360	481,310	210,245	832,915
Close-out						143,076	270,978	414,054
Contingency	41,021	333,710	710,790	986,577	1,624,005	2,132,229	1,679,723	7,508,055
Total	844,567	13,047,597	3,622,954	5,558,552	19,136,832	17,189,671	4,599,827	64,000,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Newport Beach Pump Stations Pressurization Improvements - 5-68		
Project Category	Collections Facilities	Project Status:	Continuing

Description

This project will address the ventilation issues that causes odorants to migrate to unwanted areas at the Newport Beach collections system pump stations. It will also provide odor control at selected pump stations and gravity lines in the Newport Beach collections system.



**Collections
Facilities**

Justification

This will reduce corrosion at the pump stations, reduce odor complaints, and allow the onsite bathrooms to be used. The project's construction cost is \$2,030,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev		31,697	9,001					40,698
Prelim Design			56,447	4,597				61,044
Design			28,200	275,651	164,152			468,003
Construction					622,204	1,880,585		2,502,789
Commissioning					3,020	37,679		40,699
Close-out						40,697		40,697
Contingency		19,023	66,554	125,028	204,371	339,650	157,444	912,070
Total		50,720	160,202	405,276	993,747	2,298,611	157,444	4,066,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	District 6 Trunk Sewer Relief - 6-17		
Project Category	Collections Facilities	Project Status:	Continuing

Description

This project is to increase the capacity, rehabilitate and perform access improvements for the District 6 Trunk sewer. The existing 3,700 feet of 12-inch through 18-inch pipeline runs west of Pomona, southerly to 16th Street, to Newport Boulevard, and southerly along Newport Boulevard towards Coast Highway in the Cities of Costa Mesa and Newport Beach. Portions of the sewer that are not being increased in size are being rehabilitated so the life of this sewer will be extended by 30 years. Combined into this work are Maintenance access improvements for OCSD personnel.



**Collections
Facilities**

Justification

The need for this project was identified in the January 2006 Draft Strategic Plan Update. Based on current flow projections and hydraulic modeling, this project is needed to reduce the potential for surcharging and sewer spills due to projected increase in flow from planned developments and growth. Investigations during preliminary design also revealed the that segments not being up-sized, required rehabilitation and maintenance access improvements.

The project's construction cost is \$3,700,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	70,429							70,429
Prelim Design	442,648							442,648
Design	1,461,047							1,461,047
Construction	2,856,213	1,799,284						4,655,497
Commissioning	6,985	9,714						16,699
Close-out		77,319						77,319
Contingency	218,043	1,000,455	22,862					1,241,360
Total	5,055,366	2,886,772	22,862					7,965,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Gisler - Red Hill Trunk Improvements - Reach B - 7-37		
Project Category	Collections Facilities	Project Status:	Continuing

Description

This project will replace a section of the existing sewer and rehabilitate other reaches in the Gisler-Redhill System. This will include installing larger diameter pipelines, providing interties, new diversion settings, sliplining and relining manholes. The project includes repairs of up to 13,200 feet along Redhill Avenue in the Cities of Santa Ana, Tustin and Irvine.



**Collections
Facilities**

Justification

This section of the Gisler-Redhill System was originally built in the 1960's. Based on hydraulic analysis and condition assessments of the pipes, a new replacement section of pipeline and rehabilitation of other sections are needed. To accommodate near-term future flows the project will also reset several diversions to accommodate new flows.

The project's construction cost is \$17,720,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	15,006							15,006
Prelim Design	293,306							293,306
Design	3,089,653							3,089,653
Construction	19,728,822	1,257,750						20,986,572
Commissioning	207							207
Close-out	145,969	87,021						232,990
Contingency	265,094	330,172						595,266
Total	23,538,057	1,674,943						25,213,000

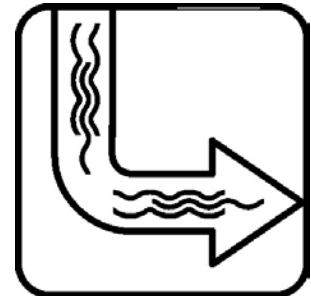
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	MacArthur Pump Station Rehabilitation - 7-63		
Project Category	Collections Facilities	Project Status:	Future

Description

This project will rehabilitate the existing MacArthur Pump Station, force main and upstream gravity system pipeline and manholes (approximately 2,000 linear feet of 8-inch pipe and eight manholes). The existing station is located in the vicinity of John Wayne Airport in the City of Newport Beach. The work includes bringing the pump station into compliance with the latest applicable electrical and safety codes and replacing maintenance-intensive pumps. 700 feet of the nearby Von Karman Trunk Sewer (located in Campus Drive north of the pump station) will also be upsized as part of this project. The sewer, which is a 12-inch vitrified clay pipe (VCP), will be upsized to 15-inch in diameter.



**Collections
Facilities**

Justification

The MacArthur Pump Station was originally built in 1960. The pump station is aging and requires increased effort to adequately maintain, does not comply with current electrical and safety codes, and needs to be upgraded to reliably serve the cities of Irvine and Newport Beach. The age and condition of the force main indicates that it needs to be replaced and the condition of the upstream sewers indicates that rehabilitation is necessary in the near future. The capacity project for the Von Karman Trunk Sewer was identified in 2006 Strategic Plan Update.

The project budget has been increased from \$8,762,000 to \$13,100,000. The increased budget is needed based on changes in the project elements as determined in the 2017 Facilities Master Plan. The project's construction cost is \$7,060,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev							141,180	141,180
Prelim Design							211,777	211,777
Design							1,623,600	1,623,600
Construction							8,682,730	8,682,730
Commissioning							141,182	141,182
Close-out							141,183	141,183
Contingency							2,158,348	2,158,348
Total							13,100,000	13,100,000

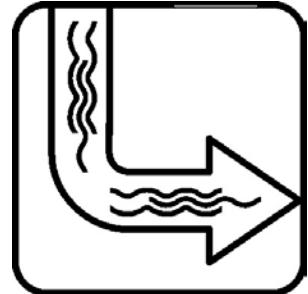
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Main Street Pump Station Rehabilitation - 7-64		
Project Category	Collections Facilities	Project Status:	Future

Description

This project will rehabilitate the existing Main Street Pump Station to meet current building, electrical and safety codes and to extend its useful life. In addition to the pump station, two of three force mains will be rehabilitated and access manholes constructed for future condition assessments and the third force main will be completely reconstructed as part of this project. The condition of gravity system components in close proximity to the pump station such as a reinforced concrete pipe and access manholes will be assessed and the facilities rehabilitated as needed.



**Collections
Facilities**

Justification

Main Street pump station was constructed in 1987 and needs rehabilitation to maintain the pump station's reliability in the coming decades. Two of the force mains that serve this facility are ductile iron pipe and have been operating without corrosion protection.

The project budget has been increased from \$39,219,000 to \$60,400,000. The increased budget is needed based on changes in the project elements as determined in the 2017 Facilities Master Plan. The project's construction cost is \$32,650,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev							652,961	652,961
Prelim Design							979,425	979,425
Design							7,508,927	7,508,927
Construction							40,156,449	40,156,449
Commissioning							652,945	652,945
Close-out							652,951	652,951
Contingency							9,796,342	9,796,342
Total							60,400,000	60,400,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Gisler - Red Hill Interceptor Rehabilitation - 7-65		
Project Category	Collections Facilities	Project Status:	Future

Description

This project will rehabilitate the Gisler Redhill Interceptor from a diversion manhole near the Main Street Pump Station to the College Avenue Pump Station. The project is expected to line or repair 38 manholes and approximately 15,000 feet of VCP sewer in Costa Mesa.



**Collections
Facilities**

Justification

The condition of Gisler Redhill Interceptor upstream of College Avenue pump station is of concern. Condition assessments completed in 2007 and again in 2015 indicate that the condition of the piping is worsening. Camera video of the manholes indicate liner failures and corrosion from the cover to the base in the majority of the structures.

The project budget has been decreased from \$15,300,000 to \$14,800,000. The reduced budget is a result of changes in the project elements identified from recent engineering efforts. The project's construction cost is \$8,630,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev			144,337	28,177				172,514
Prelim Design				257,955	815			258,770
Design				124,041	1,077,199	351,372		1,552,612
Construction					7,164	2,986,065	7,012,491	10,005,720
Commissioning						17,706	154,814	172,520
Close-out							43,128	43,128
Contingency			66,874	155,988	297,696	419,348	1,654,830	2,594,736
Total			211,211	566,161	1,382,874	3,774,491	8,865,263	14,800,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Ocean Outfall System Rehabilitation - J-117		
Project Category	Ocean Outfall Systems	Project Status:	Continuing

Description

This project will rehabilitate the Ocean Outfall Booster Station at Plant No. 2, rehabilitate the 84-inch and 120-inch interplant effluent lines between Plant No. 1 and Plant No. 2, and construct a new Low Flow Pump Station and a Plant Water Pump Station, and replace existing electrical switchgear at CenGen. The Low Flow Pump Station will consist of four 40-mgd pumps and deliver non-reclaimable dry weather flows to the effluent outfall. The Plant Water Pump Station will replace the existing plant water pump station.



**Ocean Outfall
Systems**

Justification

The existing Ocean Outfall Booster Station facility is over 20 years old and requires extensive rehabilitation. The two interplant effluent lines have been found to need repairs and lining. Diversions of some Plant No. 2 effluent to the Orange County Water District's Groundwater Replenishment System (GWRS) will result in outfall flow rates dropping below the minimum flow rates of the existing Ocean Outfall Booster pumps. The Plant Water Pump Station must be relocated because the existing pump station in its current location would transfer non-reclaimable effluent to GWRS. Replacement of the CenGen switchgear will replace electrical equipment that is nearing obsolescence and does not provide sufficient redundancy.

The project's construction cost is \$111,890,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	287,938							287,938
Prelim Design	5,353,613							5,353,613
Design	7,901,261	563,959						8,465,220
Construction	8,316,986	5,868,198	16,521,984	38,466,487	44,511,994	22,752,636	1,066,865	137,505,150
Commissioning		98,068	60,045	1,219,073	1,735,425	1,875,668	125,477	5,113,756
Close-out			387,013	30,751	14,969	345,965	601,500	1,380,198
Contingency	140,138	887,558	1,160,070	1,059,073	1,739,456	2,417,116	490,714	7,894,125
Total	21,999,936	7,417,783	18,129,112	40,775,384	48,001,844	27,391,385	2,284,556	166,000,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Process Control Systems Upgrades - J-120		
Project Category	Information Management Systems	Project Status:	Future

Description

This project will upgrade the existing Supervisory Control and Data Acquisition (SCADA) Systems for the treatment plants and pump stations which includes Human Machine Interface (HMI) hardware and software, SCADA servers, historian, and a select number of Programmable Logic Controllers (PLCs). These improvements will replace the existing obsolete HMI systems, databases and software programs, which includes trending, diagnostic data, monitoring, control, alarming and reporting. PLCs not replaced under this project will be replaced as part of future projects. This project will develop SCADA programming standards, templates, programming methodologies, tools, and databases and will develop standards for SCADA networking and control panels. Project also includes the replacement of the existing fiber optic system at Plant 1 and modifications to the existing fiber optic system at Plant 2. The scope and technical details of this project will be defined by Process Control Systems Upgrades Study, Project No. SP-196, which may affect the scope of this project.



Justification

The existing HMI system consisting of the CRISP software and associated SCADA subsystems are obsolete. The CRISP software has a limited customer installed base and technical expertise for support and source code modifications will become scarce in the future. The CRISP HMI software in conjunction with the SCADA subsystems provides important data communications for treatment process and plant monitoring, control, automation, visualization, alarm handling and notification. The existing Quantum PLCs that are currently being used throughout the treatment plants and pump stations are no longer being manufactured. The manufacturer has developed a family of replacement PLC processors and ancillary equipment with enhanced capabilities and security features. A replacement PLC processor system will be evaluated and selected to provide a long-term, 20-year life. Reliability and maintainability of the SCADA systems is critical to maintaining regulatory compliance for both the collections system and the treatment plants. Many of the fiber optic cables at Plant 1 have reached the end of their useful life. Since the existing 62.5 micron fiber cables are no long manufactured, the entire fiber optic system needs to be replaced with 50 micron fibers to provide overall system compatibility.

The project budget has been decreased from \$102,399,000 to \$46,000,000. The reduced budget is a result of changes in the project elements identified from recent engineering efforts. The project's construction cost is \$9,230,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev			11,008	11,097				22,105
Prelim Design				550,236	929,360			1,479,596
Design					84,412	804,374	287,723	1,176,509
Construction							10,596,617	10,596,617
Commissioning					485,492	2,725,024	11,308,973	14,519,489
Close-out							119,375	119,375
Contingency			228,856	650,029	1,511,863	1,968,638	13,726,923	18,086,309
Total			239,864	1,211,362	3,011,127	5,498,036	36,039,611	46,000,000

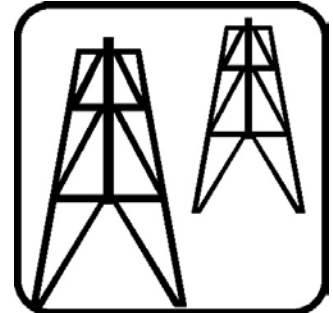
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	UPS System Upgrades - J-121		
Project Category	Utility Systems	Project Status:	Future

Description

This project will provide a regional uninterruptible power system (UPS) in the northern portion of Plant No. 2 and provide UPS power distribution and power distribution units (PDUs) to feed UPS loads from the regional UPSs installed by this project and existing regional UPSs installed in the DAFT Thickener Building and in Effluent Pump Station Annex Standby Power Building. The regional UPSs will be industrial grade with lead acid batteries and will replace the smaller UPS units. This approach of replacing small UPS units with a limited number of larger units was recommended in the Energy Master Plan, Project No. J-102.



Utility Systems

Justification

The existing UPS system includes units of various sizes, configurations, and capabilities. This system does not provide an ideal level of reliability or cost effective operation. Issues with the existing UPS system include failures without warning, use of maintenance free battery that last less than 5 years compared to 20 years for lead acid batteries, locations that are difficult to maintain, increased maintenance due to UPS quantity, and lack of standby diesel generator back up power to maintain UPS operation during an extended power outage.

The project budget has been decreased from \$8,087,000 to \$4,700,000. The reduced budget is a result of changes in the project elements identified from recent engineering efforts. The project's construction cost is \$2,330,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev							57,553	57,553
Prelim Design							128,235	128,235
Design							599,688	599,688
Construction							3,107,363	3,107,363
Commissioning							87,834	87,834
Close-out							46,793	46,793
Contingency							672,534	672,534
Total							4,700,000	4,700,000

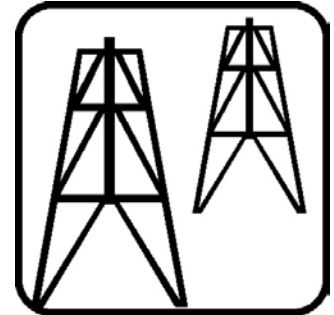
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Digester Gas Facilities Rehabilitation - J-124		
Project Category	Utility Systems	Project Status:	Continuing

Description

This project will rehabilitate the low and high pressure digester gas facilities at Plant Nos. 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.



Utility Systems

Justification

The major equipment associated with the digester gas systems are at the end of their useful lives and need to be replaced for reliability purposes.

The project's construction cost is \$53,360,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	384,708							384,708
Prelim Design	290,796	4,739,061	572,527					5,602,384
Design	433		2,734,824	5,043,515	913,754			8,692,526
Construction					2,332,928	12,657,763	54,896,828	69,887,519
Commissioning							3,798,588	3,798,588
Close-out							788,723	788,723
Contingency	19,838	157,056	319,805	482,829	486,746	576,415	5,302,863	7,345,552
Total	695,775	4,896,117	3,627,156	5,526,344	3,733,428	13,234,178	64,787,002	96,500,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Safety Improvements Program - J-126		
Project Category	Process Related Special Projects	Project Status:	Continuing

Description

This project will address approximately 900 safety deficiencies throughout the Sanitation District's Facilities that could not be readily addressed with staff resources, or that require engineering efforts. This project will be completed using a number of construction contracts to allow the highest priority items to be constructed while the design of lower priority items is being completed.



**Process Related
Special Projects**

Justification

Correction of these safety deficiencies is needed to address potential safety risks to Sanitation District staff, consultants, contractors, and visitors, and to comply with code requirements.

The project's construction cost is \$10,060,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	743,291							743,291
Prelim Design	476,773	193,090	31,143					701,006
Design	2,479,150	995,970	459,168					3,934,288
Construction	1,360,808	7,384,787	2,783,014					11,528,609
Commissioning								
Close-out			170,555					170,555
Contingency	135,440	798,916	987,895					1,922,251
Total	5,195,462	9,372,763	4,431,775					19,000,000

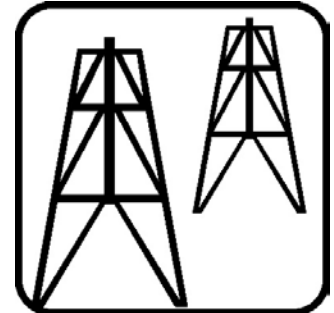
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Natural Gas Pipelines Replacement at Plant Nos. 1 and 2 - J-127		
Project Category	Utility Systems	Project Status:	Continuing

Description

This project will rehabilitate the natural gas pipelines at Plants No 1 and 2. This includes the replacement of aging metallic pipelines and risers and upgrades to the cathodic protection systems.



Utility Systems

Justification

Recent condition assessments of the natural gas piping have revealed that some of the metallic piping and risers have reached the end of their useful life and require replacement. The cathodic protection systems will also be upgraded to provide corrosion control of the buried metallic piping. This project will ensure safe, reliable operations of the natural gas systems.

The project's construction cost is \$430,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	32,233							32,233
Prelim Design								
Design		7,481	191,267	43,460				242,208
Construction			74,725	593,154				667,879
Commissioning								
Close-out				25,798				25,798
Contingency	10,075	57,697	93,951	126,729	53,430			341,882
Total	42,308	65,178	359,943	789,141	53,430			1,310,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Project Management Information System - J-128		
Project Category	Information Management Systems	Project Status:	Continuing

Description

This project will implement a new Project Management Information System to replace the obsolete software application currently in use and to serve additional business processes related to management of the capital improvement program.



Justification

The software application currently used to manage construction contracts is no longer supported by the vendor and cannot continue to meet requirements. In addition, a number of business processes involved in managing the capital improvement program could be more efficiently and effectively performed using a modern commercially available software system.

The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	319,465							319,465
Prelim Design								
Design	381,164	715,615	419,766					1,516,545
Construction								
Commissioning								
Close-out			16,491					16,491
Contingency	176,077	953,032	1,018,390					2,147,499
Total	876,706	1,668,647	1,454,647					4,000,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	18350 Mt. Langley St. Building Purchase and Improvement - J-131		
Project Category	Support Facilities	Project Status:	Revised

Description

This project provides capital funds for the purchase and purchase-related costs for the property at 18350 Mt. Langley in Fountain Valley, California, and to perform necessary life-safety system upgrades.



Support Facilities

Justification

In September 2017, the Board of Directors approved the purchase of the property as part of a strategic effort to free space for treatment facilities at either plant by relocating non-treatment facilities off-site. This property has the advantages of proximity to Plant No. 1 and being adjacent to the proposed Headquarters Complex.

The project's construction cost is \$400,000. This project will increase operational budgets by \$400,000 annually resulting from net rental income after expenses, assuming the building is fully leased to tenants. This income will be reduced to the extent the building is space is used for Sanitation District purposes.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev								
Prelim Design								
Design	9,750,000	103,818	242,005					10,095,823
Construction			144,954	483,405				628,359
Commissioning								
Close-out				14,985	538			15,523
Contingency	2,410	23,113	48,827	117,089	67,349		1,507	260,295
Total	9,752,410	126,931	435,786	615,479	67,887		1,507	11,000,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	GWRs Final Expansion Coordination - J-36-2		
Project Category	Water Management Projects	Project Status:	Continuing

Description

This project will be used to track costs, forecast resources, and coordinate Sanitation District reviews related to the Orange County Water District's Groundwater Replenishment System Final Expansion project. This project will not address modification of Sanitation District Facilities, which are included in other projects such as the Headworks Modifications at Plant 2 for GWRs Final Expansion, Project No. P2-122, and the Ocean Outfall Rehabilitation Project No. J-117. This project does not address modifications of any Sanitation District Facilities; any such changes are included in other projects such as the Headworks Modifications at Plant 2 for GWRs Final Expansion, Project No. P2-122, and the Ocean Outfall Rehabilitation Project No. J-117.



**Water Management
Projects**

Justification

The Orange County Water District's Groundwater Replenishment System Final Expansion will impact Sanitation District Facilities at both plants and along the interplant effluent pipelines. Per a cooperative agreement between the two agencies, Sanitation District costs for this coordination will not be charged to the Water District.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	49,036							49,036
Prelim Design	45,468							45,468
Design	12,913	50,440	25,624					88,977
Construction			55,967	226,337	300,660	83,655		666,619
Commissioning								
Close-out								
Contingency	14,885	58,148	58,382	59,077	60,706	30,702		281,900
Total	122,302	108,588	139,973	285,414	361,366	114,357		1,132,000

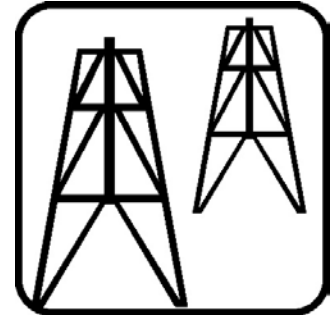
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Electrical Power Distribution System Improvements - J-98		
Project Category	Utility Systems	Project Status:	Future

Description

This project provides various electrical distribution system improvements at Plant Nos. 1 and 2, as recommended by the J-25-4 project study, which are needed based on equipment condition and age, insufficient equipment ratings, grounding safety, non-compliance with the National Electrical Code (NEC) requirements, and electrical configuration reliability. This includes replacing electrical that is at the end of its useful life, modifying the electrical system configurations to improve reliability and support maintenance, replacing electrical cables and equipment that are not properly sized, and adding surge protection to protect equipment.



Utility Systems

Justification

These improvements are required to improve electrical safety, reliability and protective device coordination and for compliance with NEC requirements. As the electrical systems at Plant 1 and 2 has aged and reliability and safety philosophy has improved, the existing electrical systems, which are not scheduled for rehabilitation in the near future, require improvements and replacement to maintain electrical system reliability and improved safety.

The project's construction cost is \$20,040,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	48,687	97,350						146,037
Prelim Design		57,241	968,433	1,440				1,027,114
Design			152,575	1,528,167	1,142,741			2,823,483
Construction					160,367	3,332,300	19,390,419	22,883,086
Commissioning						54,248	171,852	226,100
Close-out							59,302	59,302
Contingency	6,683	131,322	272,706	495,120	688,545	901,629	4,946,873	7,442,878
Total	55,370	285,913	1,393,714	2,024,727	1,991,653	4,288,177	24,568,446	34,608,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Small Construction Projects Program - M-FE		
Project Category	Support Facilities	Project Status:	Revised

Description

This budget provides funds for small construction projects. A construction project is defined as small when the professional engineering services for design and construction can be provided by a Task Order issued under a master professional design services agreement per Purchasing Ordinance No 47, or by using Sanitation District staff. This budget request is intended to cover active small construction projects created under the previous Facilities Engineering Programs (Project No. F-FE-PLANT and Project No. M-FE-COLLECT), and those that will be identified and created through Fiscal Year 2022/2023. These small projects are individually managed within the Small Construction Projects Program budget.



Support Facilities

Justification

This fund allows Sanitation District staff to complete small construction projects more quickly and cost effectively than larger projects that require specific Board authorization. Of the requested budget, \$28,400,000 is allocated for small construction projects active as of April 1, 2018. The remainder is for not-yet-identified projects.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	382,920	7,204						390,124
Prelim Design	14,666							14,666
Design	3,444,988	453,118	78,180					3,976,286
Construction	7,905,307	6,488,954	3,296,204	476,605				18,167,070
Commissioning			45,849					45,849
Close-out	12,701	66,123	83,828	65,136	27,935			255,723
Contingency	573,412	2,645,405	4,441,345	2,269,448	2,197,115	2,515,980	17,507,577	32,150,282
Total	12,333,994	9,660,804	7,945,406	2,811,189	2,225,050	2,515,980	17,507,577	55,000,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Information Technology Capital Program - M-MC-IT		
Project Category	Information Management Systems	Project Status:	Continuing

Description

This project will provide for the replacement, rehabilitation and/or upgrade of various Information technology assets that meet the criteria and justification for capital expenditure.



Justification

These funds are needed in order to replace/rehabilitate/upgrade Information technology assets that are not included or identified in a capital improvement project.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	274,170							274,170
Prelim Design								
Design	27,414	155,572	213,575	273,465	337,514	394,974		1,402,514
Construction	747,615			54,751	3,222,184	935,062		4,959,612
Commissioning	105,428							105,428
Close-out								
Contingency	76,039	360,020	494,258	632,851	781,068	914,039		3,258,275
Total	1,230,667	515,592	707,833	961,067	4,340,766	2,244,075		10,000,000

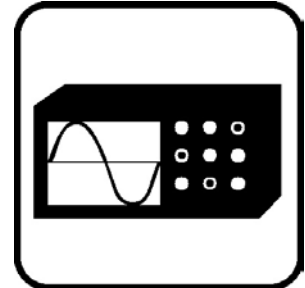
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Research Program - M-RESEARCH		
Project Category	Research	Project Status:	Revised

Description

This budget provides funds for research projects. Specific projects will be identified and developed to be funded from this budget. This budget request is intended to cover currently-active research projects already created under the previous Research Program (Project No. M-RESEARCH), and those that will be identified and created through Fiscal Year 2022/2023. These research projects are individually managed within the Research Program budget.



Research & Development

Justification

Research projects are used demonstrate technologies, equipment, configurations, and control strategies to improve operational efficiency, reduce costs, improve safety, or fill important information gaps. The results will support operations and maintenance and provide information needed for future planning and design work. Of the requested budget, \$1,300,000 is allocated for Research Projects active as of April 1, 2018. The remainder is for not-yet-identified projects.

The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	585,962	700,760						1,286,722
Prelim Design								
Design								
Construction	29,750	22,000						51,750
Commissioning								
Close-out	1,439	1,066						2,505
Contingency	335,339	1,442,530	1,315,161	1,330,878	1,367,557	1,367,558		7,159,023
Total	952,490	2,166,356	1,315,161	1,330,878	1,367,557	1,367,558		8,500,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Operations & Maintenance Capital Program - M-SM-CAP		
Project Category	Support Facilities	Project Status:	Continuing

Description

This project will provide for the replacement and rehabilitation of various plant processes and collection facilities as well as the replacement and or rehabilitation of facilities that meet the criteria for capital replacement.



Justification

These funds are needed in order to replace/rehabilitate equipment that is beyond economical repair or is at the end of its useful life or repair of facilities that are not included in a capital improvement project. It is also used to replace equipment when parts or services are no longer economically feasible.

The project's construction cost is \$1,040,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	221,628							221,628
Prelim Design								
Design	4,973	171,131	287,455	393,560	513,084	634,786		2,004,989
Construction	352,684	185,272	263,109	203,117	273,873	355,266		1,633,321
Commissioning								
Close-out								
Contingency		573,722	1,482,794	2,305,587	3,221,293	4,178,666		11,762,062
Total	579,285	930,125	2,033,358	2,902,264	4,008,250	5,168,718		15,622,000

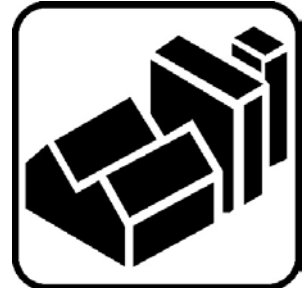
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Planning Studies Program - M-STUDIES		
Project Category	Strategic & Master Planning	Project Status:	Continuing

Description

This budget provides funds for planning studies. This budget request is intended to cover currently-active planning studies already created under the previous Planning Studies Program (Project No. M-STUDIES), and those that will be identified and created through Fiscal Year 2022/2023. These planning studies are individually managed within the Planning Studies Program budget.



Strategic & Master Planning

Justification

Planning studies provide comprehensive capital program planning for the District to meet anticipated capacity needs, manage risks associated with asset or system failure, take advantage of technology advancements, comply with regulatory changes, and meet strategic goals. Of the requested budget, \$20,700,000 is allocated for planning studies active as of April 1, 2018. The remainder is for not-yet-identified projects.

The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	12,800,328	4,242,852	978,006					18,021,186
Prelim Design	348,157	65,079						413,236
Design	31,219	7,789						39,008
Construction	7,793							7,793
Commissioning								
Close-out	2,770	3,464						6,234
Contingency	609,600	2,728,535	1,375,661	1,067,455	1,096,874	1,096,874	2,189,543	10,164,542
Total	13,799,868	7,047,719	2,353,667	1,067,455	1,096,874	1,096,874	2,189,543	28,652,000

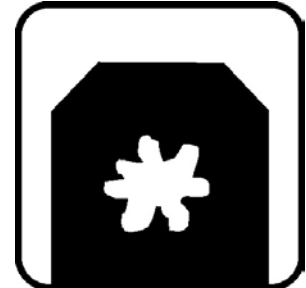
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Digester Rehabilitation at Plant 1 - P1-100		
Project Category	Solids Handling & Digestion	Project Status:	Revised

Description

The project rehabilitates Digesters No. 5 through No. 16 at Plant No. 1 to replace aging equipment and improve solids handling capacity. The equipment rehabilitation includes sludge pumping, heating, structural systems, mechanical systems, electrical and control systems, and digester roofing replacement.



**Solids Handling
& Digestion**

Justification

This project is being built in conjunction with Project P1-101 to treat increased solids due to secondary expansion at Plant No. 1, efficiently use existing digesters' capacity, increase reliability, and improve quality of sludge production. Scope of work includes removal of sludge accumulated in digesters, replacing aging mechanical/electrical equipment, and structural rehabilitation of digesters 5-16 that were built during the years of 1959-1993.

The project budget has been decreased from \$67,150,000 to \$66,000,000. The reduced budget is a result of an updated estimate to complete the work based on project closeout and release of contingency. The project's construction cost is \$43,760,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	217,569							217,569
Prelim Design	3,094,006							3,094,006
Design	3,603,301							3,603,301
Construction	55,991,113							55,991,113
Commissioning	2,699,102							2,699,102
Close-out	141,785	11,500						153,285
Contingency	116,270	125,355						241,625
Total	65,863,145	136,855						66,000,000

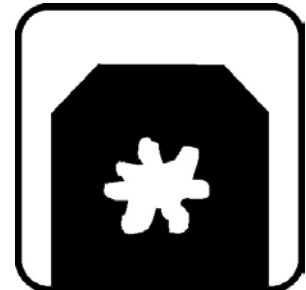
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Sludge Dewatering and Odor Control at Plant 1 - P1-101		
Project Category	Solids Handling & Digestion	Project Status:	Revised

Description

This project constructs primary sludge thickening facilities to improve solids handling capacity, replace sludge dewatering facilities with aging equipment and reduce biosolids handling and disposal, rehabilitate solids handling odor control equipment for aging equipment, and temporarily expand sludge dewatering facilities to accommodate temporary construction needs.



**Solids Handling
& Digestion**

Justification

This project is necessary to support the need for more capacity to thicken and dewater sludge due to conversion of Plant No. 1 to full secondary treatment and increased flows to support expansion of the GWR System. The existing sludge dewatering facilities that were built in the late 1970's have reached the end of useful life and are in need of replacement. This project will increase cake dryness which will reduce biosolids management costs; improve sludge thickening to optimize use of existing digesters while eliminating construction of new digesters and improve site constraints at Plant No. 1 by building compact solids treatment facilities and facilitate future expansion.

The project budget has been increased from \$188,328,000 to \$199,500,000. The increased budget is needed based on an updated estimate to complete the work due to an extended construction duration. The project's construction cost is \$138,220,000. This project will decrease operational budgets by \$3,600,000 annually. Sludge hauling and disposal costs will drop because there will be less moisture in the sludge. This operational savings factors in the additional energy and chemical costs associated with operating centrifuges.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	330,031							330,031
Prelim Design	6,904,058							6,904,058
Design	11,395,368							11,395,368
Construction	155,391,316	9,099,339	511,496					165,002,151
Commissioning	1,646,825	1,630,477	84,392					3,361,694
Close-out	251,550	278,283	10,099	4,385				544,317
Contingency	1,470,897	5,673,695	3,989,967	827,822				11,962,381
Total	177,390,045	16,681,794	4,595,954	832,207				199,500,000

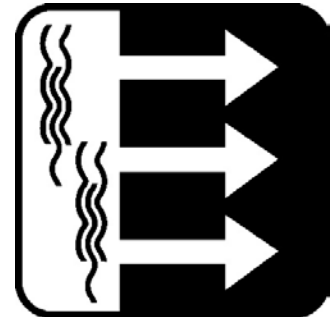
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Headworks Rehabilitation and Expansion at Plant 1 - P1-105		
Project Category	Headworks	Project Status:	Revised

Description

This project will rehabilitate and upgrade facilities at the Plant 1 Headworks. 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 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.



Headworks

Justification

The purpose of the work is to rehabilitate the Plant 1 headworks area in order to increase the life of critical assets, improve services of other areas in the plant, and meet level of service goals.

The project budget has been decreased from \$436,000,000 to \$370,000,000. The reduced budget is a result of changes in the project elements and a reduced construction duration. The project's construction cost is \$254,150,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	152,473							152,473
Prelim Design	7,470,867	740,578						8,211,445
Design	2,750,303	9,804,665	3,412,275					15,967,243
Construction	75,661		1,760,037	27,289,915	74,648,909	79,760,878	101,949,402	285,484,802
Commissioning				719,412	1,322,302	1,327,139	4,127,704	7,496,557
Close-out	36						1,157,948	1,157,984
Contingency	431,324	1,852,467	2,332,762	3,111,833	4,958,742	6,570,918	32,271,450	51,529,496
Total	10,880,664	12,397,710	7,505,074	31,121,160	80,929,953	87,658,935	139,506,504	370,000,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Title 24 Access Compliance and Building Rehabilitation Project - P1-115		
Project Category	Support Facilities	Project Status:	Revised

Description

The project evaluated Title 24 (Americans with Disabilities Act) upgrades and retrofits, code compliance and asset condition at the existing office facilities and grounds at Plant No. 1. The buildings studied in the Preliminary Design Report include: Administration, Human Resources, Laboratory, Maintenance Facilities, Fleet Services, Purchasing, Warehouses, Purchasing Conference Room and office trailers and Demolition of Building H. The grounds modifications include changes to the parking areas, asphalt repair, drainage improvements, and accessibility improvements.

The project costs developed for the Preliminary Design Report for the Laboratory, Administration Building, Purchasing, Human Resources Building, Fleet Services and supporting trailers were used for comparison to other options for housing the staff and laboratory including the construction of new facilities and/or repurposing the Laboratory. The options were considered in the Administrative Facilities Master Plan under this project budget.

This project scope is revised to only include the rehabilitation of the Warehouse and Maintenance Facilities, demolition of Building H and area improvements adjacent to these buildings under P1-115A and rehabilitation of the Fleet Services compound under P1-115B.

Justification

State and federal law requires that OCSD ensure that these facilities can be accessible to individuals with disabilities. Roofing, lighting, some ventilation equipment, and other building features are at the end of their useful life and require replacement. Building H does not meet current building codes and needs to be demolished.

An implementation plan for the construction of new facilities for the Administration Building, Laboratory, Fleet Services, Purchasing, Human Resources and office trailers was conducted under Project No. SP-194.

The project's construction cost is \$9,890,000. This project will not have an impact on operational budgets.



Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	696,253							696,253
Prelim Design	1,600,880							1,600,880
Design	2,559,710							2,559,710
Construction	10,476,307	2,063,009						12,539,316
Commissioning								
Close-out	134,091	39,062						173,153
Contingency	189,831	452,288	188,569					830,688
Total	15,657,072	2,554,359	188,569					18,400,000

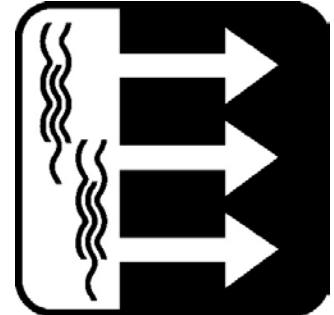
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Trunk Line Odor Control Improvements - P1-123		
Project Category	Headworks	Project Status:	Continuing

Description

Scrubbers 9 and 10, which are part of Plant No. 1 Headworks odor control system, will be replaced with new biological scrubbers. The new scrubbers will treat air from Steve Anderson Lift Station (SALS), Waste Hauler Station, Sunflower Pump Station and M&D Structure. The treated air will then continue to existing Chemical Scrubbers 1 through 4 for further treatment. The second part of the scope of work is to eliminate odors upstream of the three siphons along the Baker-Gisler Interceptor and Santa Ana Trunk sewers by implementing air jumper improvements.



Headworks

Justification

The concept evaluation study for Project J-71-8 indicated an imbalance of airflow between existing Scrubbers 9 and 10 causing poor performance of the scrubbers. The carbon units of the SALS odor control system and the packaged biofilter at the Waste Hauler Station have both been operating inefficiently. Replacing the existing Scrubbers 9 and 10 will improve the overall efficiency of the Headworks facilities' odor control system.

The project's construction cost is \$5,580,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev								
Prelim Design	568,156							568,156
Design	935,736							935,736
Construction	7,491,201							7,491,201
Commissioning	165,415	23,241						188,656
Close-out	65,547	1,195						66,742
Contingency	24,445	24,063						48,508
Total	9,250,501	48,499						9,299,000

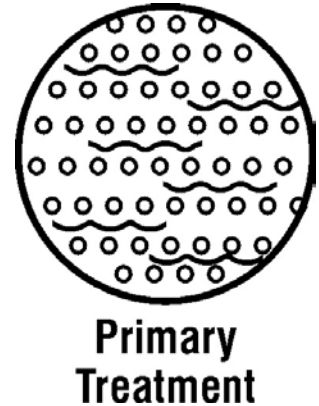
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Primary Clarifiers Replacements and Improvements at Plant No. 1 - P1-126		
Project Category	Primary Treatment	Project Status:	Revised

Description

This project will rehabilitate or replace the Plant No. 1 Primary Clarifiers 3, 4, & 5 System which includes all primary influent and effluent lines, distribution boxes, junction boxes, the Primary Effluent Pump Station, structural, mechanical, and electrical systems affiliated with Primary Clarifiers 3, 4, & 5. This project will demolish Primary Clarifiers 1&2.



Justification

The project is needed due to the age and condition of the Primary Clarifiers (PCs) 3, 4, & 5 System. PCs 3&4 were constructed in 1956 and are the oldest primary clarifiers at Plant No. 1. They share a common sludge and scum pumping facility located between them. PC 5 was constructed in 1963. Many of the PC 3-5 System components are showing significant deterioration. To continue to operate the PC 3-5 system for the next 50 years will require the entire system be rehabilitated or replaced. PCs 1-2 were constructed in 1986 to replace the two original clarifiers. These primary clarifiers are currently used only during extreme flow events. They share a common sludge and scum pumping facility at the southwest end of PCs 1-2 that also serves PC 5. PCs 1-2 shall be demolished to make space for other future processes.

The project budget has been decreased from \$112,267,000 to \$106,000,000. The reduced budget is a result of an updated estimate to complete the work as determined in the 2017 Facilities Master Plan. The project's construction cost is \$67,410,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	520,268			31,823	68,347			620,438
Prelim Design	497				14,769	155,334	17,902	188,502
Design							5,811,610	5,811,610
Construction							77,954,242	77,954,242
Commissioning							501,300	501,300
Close-out							535,417	535,417
Contingency				368,401	1,198,859	1,453,256	17,367,975	20,388,491
Total	520,765			400,224	1,281,975	1,608,590	102,188,446	106,000,000

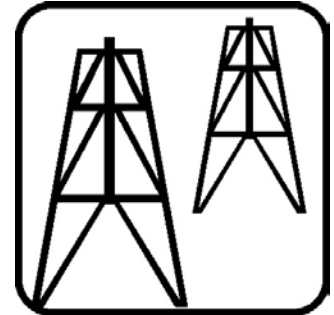
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Central Generation Rehabilitation at Plant No. 1 - P1-127		
Project Category	Utility Systems	Project Status:	Continuing

Description

This project will rehabilitate the Cen Gen facility equipment including the lube oil system, the engine jacket water loop, steam loop, hot water loop, waste/supplement heat system, chilled water loop, cooling water loop, HVAC system, starting air and instrumentation air systems, exhaust gas monitoring system, miscellaneous building improvements, and allowance for electrical and I&C improvements.



Utility Systems

Justification

Cen Gen equipment had been rebuilt through regular maintenance program, or by CIP projects working in the area. There has not been a project just focusing on the condition assessment and rehabilitation of overall Cen Gen facility equipment, particularly the equipment that are too large to be rebuilt through regular maintenance.

The project's construction cost is \$52,160,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev							101,827	101,827
Prelim Design							158,666	158,666
Design							5,420,048	5,420,048
Construction							58,443,809	58,443,809
Commissioning							3,038,287	3,038,287
Close-out							549,932	549,932
Contingency							19,287,431	19,287,431
Total							87,000,000	87,000,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	P1-128 Headquarters Complex and Site Security at Plant No. 1 - P1-128		
Project Category	Support Facilities	Project Status:	Continuing

Description

This project will construct of a new Headquarters Complex on the north side of Ellis Avenue to house administrative, engineering and laboratory staff. In addition to the main building for administrative, engineering and laboratory staff, the Headquarters Complex will include parking and a pedestrian/utility bridge over Ellis Avenue to Plant No. 1.

This project will also include security and storm water upgrades along the south border of Plant No. 1 and along the west perimeter between Garfield Avenue and the Orange County Water District property. That work will include new 8-foot tall split-face concrete masonry walls and two motorized vehicle gates on Garfield. Grading and storm drainage work will include the installation of catch basins, underground retention basins and storm drain lines within the plant.



Support Facilities

Justification

The administrative, engineering and laboratory functions are located primarily at Reclamation Plant No. 1 in Fountain Valley. The Administration, Laboratory, Human Resources, and Purchasing buildings are aging, were not permitted when constructed and are in need of replacement. Also, approximately 130 staff are located in aging office trailers throughout Plant No. 1. OCSD has decided that the most cost effective solution is replacement of the aging buildings and trailers with new buildings that serve administrative, engineering, and laboratory functions.

The project's construction cost is \$115,380,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	531,890							531,890
Prelim Design	1,295,488	6,208,076	16,560					7,520,124
Design	154,522	2,030,353	5,871,499	559,501				8,615,875
Construction			730,408	17,337,239	56,774,379	51,254,656	4,813,105	130,909,787
Commissioning				3,951	183,134	354,404	137,288	678,777
Close-out				29,642	36,706		3,097,059	3,163,407
Contingency	479,049	2,298,057	3,035,041	3,800,830	5,150,661	6,412,718	6,470,784	27,647,140
Total	2,460,949	10,536,486	9,653,508	21,731,163	62,144,880	58,021,778	14,518,236	179,067,000

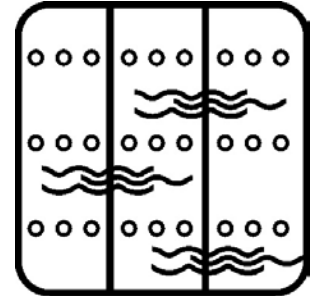
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Return Activated Sludge Piping Replacement at Activated Sludge Plant No. 1 - P1-129		
Project Category	Secondary Treatment	Project Status:	Revised

Description

The work consists of the removal and replacement of an existing deteriorated 30-inch steel discharge header piping, valves, flexible couplings, and pipe hangers in the Return Activated Sludge (RAS) Pump Room at Plant No. 1 and approximately 220 linear feet of buried discharge piping.



Secondary Treatment

Justification

The RAS facility was constructed under Project No. P1-16 in 1974. Over the past few years, the header piping failed in numerous locations due to internal corrosion warranting replacement of leaking piping.

The project budget has been increased from \$3,979,000 to \$7,900,000. The increased budget is needed based on changes in the project elements identified from recent engineering efforts. The project's construction cost is \$4,700,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	237,097							237,097
Prelim Design	248,940							248,940
Design	75,998	266,786						342,784
Construction		276,625	5,362,235	204,499				5,843,359
Commissioning			115,793					115,793
Close-out			19,736	38,653				58,389
Contingency	26,638	154,535	472,253	374,192	26,020			1,053,638
Total	588,673	697,946	5,970,017	617,344	26,020			7,900,000

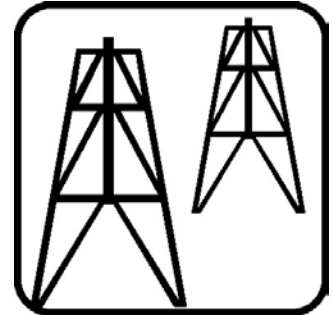
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Uninterruptable Power Supply Improvements at Plant 1 - P1-132		
Project Category	Utility Systems	Project Status:	Continuing

Description

This project will add a regional Uninterruptable Power Supply (UPS) in the northwest portion of plant 1. The UPS will supply power to power distribution buildings 4, 7 and 8, maintenance buildings, primary clarifiers, any other users requiring UPS in the area. Also, included in the project is the installation of power distribution units for facilities to be fed from the Sludge Dewatering and Odor Control UPS. The project will also determine if the UPS will supply power to the laboratory building.



Utility Systems

Justification

The control center requires a reliable properly sized Uninterruptable Power Supply (UPS). If power is lost to the control center the ability to control the plant could be lost. This project will supply a regional UPS that will also supply power for Power Buildings and Primary Clarifiers in the area based on the UPS study conducted in March 2013.

The project's construction cost is \$2,370,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	26,243	11,727						37,970
Prelim Design								
Design		114,426	333,630	174,216				622,272
Construction				541,575	2,556,148	17,210		3,114,933
Commissioning				18,768	275,116			293,884
Close-out					59,354	17,134		76,488
Contingency	3,920	28,395	41,904	93,839	363,410	122,985		654,453
Total	30,163	154,548	375,534	828,398	3,254,028	157,329		4,800,000

Reimbursable Costs: N/A

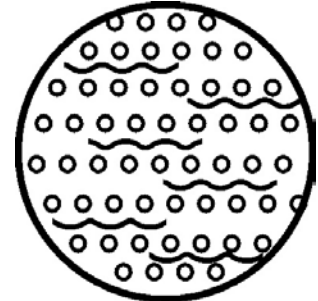
2018-19 & 2019-20 Budget

Project Name & Number	Primary Clarifiers 6-31 Reliability Improvements at Plant No. 1 - P1-133		
Project Category	Primary Treatment	Project Status:	New

Description

Increase the operating reliability of the rectangular primary clarifiers at Plant No.1 by modifying the Primary Influent Splitter Box (PISB) to increase hydraulic capacity upstream of the facilities. Improvements will also be made to the Microfiltration Backwash Waste piping that currently discharges to PISB, allowing it to be discharged to the effluent side of the primary clarifiers. Additional primary sludge pumps will be added to allow sludge removal from all of the primary clarifiers in lieu of using basins for sludge thickening.

Leaky pipe joints in the 90 & 108 inch primary effluent pipes will also be repaired.



Primary Treatment

Justification

District has been discharging high quality backwash water to Primary Clarifiers 6-14, thus increasing the hydraulic load to the clarifiers. This backwash water can be discharged to the effluent structure, thus reducing hydraulic load on the primary clarifiers and increasing reliability.

The failing primary influent pipe joints are discussed in the District's Corrosion Assessment Report dated 2-5-15.

The project's construction cost is \$12,280,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev		325,546	35,159					360,705
Prelim Design			364,685					364,685
Design			310,889	1,164,991	275,508			1,751,388
Construction				55,061	4,077,731	10,528,030	281,886	14,942,708
Commissioning					73,344	197,260	13,052	283,656
Close-out						34,367	93,096	127,463
Contingency		53,785	192,082	387,175	686,376	1,316,216	1,033,761	3,669,395
Total		379,331	902,815	1,607,227	5,112,959	12,075,873	1,421,795	21,500,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	SCADA System and Network Upgrades - P2-107		
Project Category	Information Management Systems	Project Status:	Continuing

Description

This project will provide a Process Data Network at Plant No. 2 which is independent and isolated from the Office Data and Security systems. These improvements will provide greater security, increase SCADA system capacity, and provide the network needed for the Load Management and Load Shedding System. Load Management and Load Shedding items will be provided under this project.



Justification

With the improvements made under this project, staff will be able to respond quickly via remote control panels to perform normal power switching or switching as a result of a fault condition, allowing operators to maintain a safe operating distance from live electrical panels to avoid arc flash risks.

Improvements to the industrial control system will improve reliability by eliminating a potential single point of failure with the fiber optic network

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	100,243							100,243
Prelim Design	1,174,912							1,174,912
Design	2,205,336	913,642						3,118,978
Construction	8,195							8,195
Commissioning	88,880							88,880
Close-out								
Contingency	90,614	385,681	32,497					508,792
Total	3,668,180	1,299,323	32,497					5,000,000

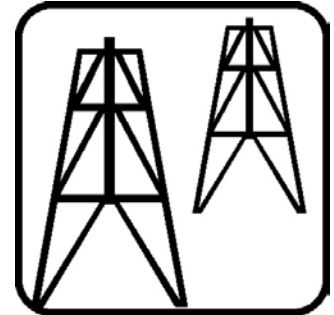
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Consolidated Demolition and Utility Improvements at Plant 2 - P2-110		
Project Category	Utility Systems	Project Status:	Revised

Description

This project will demolish Digesters A and B; Primary Clarifiers A, B and C; the Air Compressor Building; the Emergency Power Building, and several other facilities at the end of useful life. Several existing tunnels will be demolished and/or rehabilitated including new pipe supports, drainage improvements, structural repair, lighting improvements etc. The demolition site will receive extensive grading, drainage and paving improvements.



Utility Systems

Justification

The demolished facilities are at the end of useful life or are no longer in use.

The project budget has been increased from \$30,300,000 to \$31,000,000. The increased budget is needed based on an updated estimate to complete the work . The project's construction cost is \$17,320,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	221,226							221,226
Prelim Design	4,384,291							4,384,291
Design	2,013,629							2,013,629
Construction	9,757,626	9,879,691	1,123,236					20,760,553
Commissioning	28,623	500,999	267,960					797,582
Close-out	27,389	181,453	1,052,174					1,261,016
Contingency	131,612	741,009	617,372	71,710				1,561,703
Total	16,564,396	11,303,152	3,060,742	71,710				31,000,000

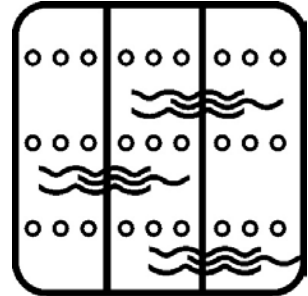
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Activated Sludge Aeration Basin Deck Repair at Plant No. 2 - P2-118		
Project Category	Secondary Treatment	Project Status:	Continuing

Description

This project will rehabilitate the concrete deck at the oxygen activated sludge basins at Plant No. 2 in order to increase the life of its critical assets and to address safety issues associated with oxygen seepage from cracks in the deck. This project will focus on repair of full penetration cracks and surface spalling on the top deck of the basins.



Secondary Treatment

Justification

The deck of the aeration basins has incurred cracking over time, many of which go through the entire slab potentially exposing the rebar to corrosion and causing leakage of oxygen. The leaking oxygen imposes a safety concern because of the potential for it to accumulate in confined areas potentially creating an oxygen-enriched environment. Additionally, there are large areas of surface spalling where the top layer of reinforcement is exposed, causing corrosion of the metal. This project will rehabilitate or restore the reinforcement as needed and replace the spalled concrete with an epoxy-based mortar to cover and protect the reinforcement from being compromised further and to maintain the structural integrity of the deck.

The project's construction cost is \$940,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	44,873							44,873
Prelim Design	55,191							55,191
Design	393,097							393,097
Construction	593,240	423,751						1,016,991
Commissioning								
Close-out	22,705	24,804						47,509
Contingency	208,429	927,985	105,925					1,242,339
Total	1,317,535	1,376,540	105,925					2,800,000

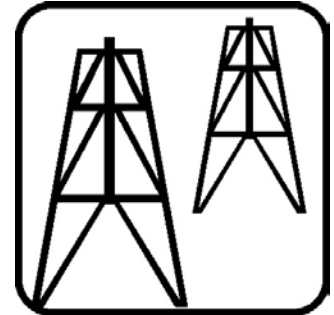
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Central Generation Rehabilitation at Plant No. 2 - P2-119		
Project Category	Utility Systems	Project Status:	Continuing

Description

This project will rehabilitate the Plant 2 Cen Gen facility equipment including the lube oil system, the engine jacket water loop, steam loop, hot water loop, cooling water loop, HVAC system, starting air and instrumentation air systems, exhaust gas monitoring system, miscellaneous building improvements, and allowance for electrical and I&C improvements.



Utility Systems

Justification

Cen Gen equipment had been rebuilt through regular maintenance program, or by CIP projects working in the area. There has not been a project just focusing on the condition assessment and rehabilitation of overall Cen Gen facility equipment, particularly the equipment that are too large to be rebuilt through regular maintenance.

The project's construction cost is \$64,850,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev							1,602,674	1,602,674
Prelim Design							3,570,566	3,570,566
Design							16,697,868	16,697,868
Construction							86,521,873	86,521,873
Commissioning							2,445,716	2,445,716
Close-out							1,302,953	1,302,953
Contingency							1,858,350	1,858,350
Total							114,000,000	114,000,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Banning Gate Relocation and Grading at Plant 2 - P2-120		
Project Category	Others	Project Status:	Continuing

Description

This project relocates the Plant No. 2 vehicular gate near Banning Avenue to align with Banning Avenue. This includes moving the gate and supporting infrastructure such as the wall, curb, gutter, and sidewalk. It will also re-grade the pavement in Plant No. 2 in this area to improve drainage and storm water flow.



Others

Justification

This project is needed to improve traffic flow so that vehicles, in particular trucks, may exit left from the Banning Avenue gate. Currently, if vehicles need to drive to the south, they must exit to the north and perform a u-turn. Aligning the gate with the intersection should reduce unnecessary travel. The grading will reduce ponding that occurs during storm events.

The project's construction cost is \$1,430,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev			2,418	655				3,073
Prelim Design				44,629	17,388			62,017
Design					154,751	310,253	37,320	502,324
Construction							1,843,294	1,843,294
Commissioning							38,375	38,375
Close-out							51,893	51,893
Contingency			4,823	13,833	30,217	43,761	337,390	430,024
Total			7,241	59,117	202,356	354,014	2,308,272	2,931,000

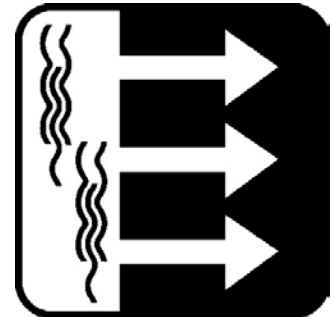
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Headworks Modifications at Plant 2 for GWRs Final Expansion - P2-122		
Project Category	Headworks	Project Status:	Continuing

Description

This project will modify the Headworks, related piping, and sidestream flow routing to separate reclaimable and non-reclaimable flows to accommodate the Orange County Water District's Groundwater Replenishment System Final Expansion. Work elements include installing a new 66-inch diameter flow diversion, installing or upgrading existing gates, and modification of waste sidestream pump station discharge piping to the non-reclaimable portion of the plant. The work includes replacing three existing main sewage pumps with new, smaller pumps.



Headworks

Justification

This project is necessary to separate reclaimable and non-reclaimable flows to accommodate the Orange County Water District's Groundwater Replenishment System Final Expansion project. The planning project SP-173 was completed in October 2016 that recommended the modification option.

The project's construction cost is \$33,680,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	623,315							623,315
Prelim Design	1,953,767	608,528						2,562,295
Design	40	1,568,666	1,843,479	173,304				3,585,489
Construction			28,817	3,809,209	15,344,309	16,102,803	4,193,871	39,479,009
Commissioning				139,981	493,716	557,234	226,717	1,417,648
Close-out							322,471	322,471
Contingency	37,743	274,570	428,407	519,649	1,067,122	1,681,415	2,000,867	6,009,773
Total	2,614,865	2,451,764	2,300,703	4,642,143	16,905,147	18,341,452	6,743,926	54,000,000

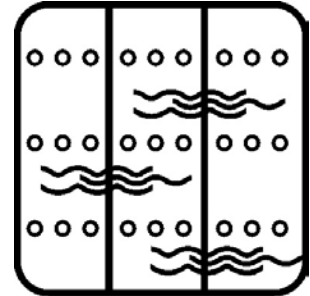
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Return Activated Sludge Piping Replacement at Plant No 2 - P2-123		
Project Category	Secondary Treatment	Project Status:	Revised

Description

The Activated Sludge (AS) facility was built in 1979 as part of multi-facility treatment improvement. The work consists of the removal and replacement of the existing deteriorated AS piping, valves, valve actuators, flexible couplings, and pipe supports located in the AS pump stations east and west, Kinnison tunnel, and Scott tunnel at Plant No. 2. All piping and associated appurtenances will be replaced in kind, with the exception of the butterfly valves, which will be replaced with plug valves.



Secondary Treatment

Justification

The AS facility has experienced major leaks in various locations within its piping system. Multiple repair methods have been used with varying success. Based on the results of a recent assessment and O&M concerns, a recommendation was made to rehabilitate the piping immediately. Due to the level of corrosion of the pipes, replacement is the only feasible option.

The project budget has been decreased from \$15,000,000 to \$12,750,000. The reduced budget is a result of changes in the project elements identified from recent engineering efforts. The project's construction cost is \$7,000,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	83,618							83,618
Prelim Design	1,326							1,326
Design	276,983	1,216,607	150,013					1,643,603
Construction		72,004	3,803,341	4,431,693	572,039			8,879,077
Commissioning			31,479	116,561				148,040
Close-out				27,261	69,019			96,280
Contingency	32,308	159,294	388,406	819,488	498,560			1,898,056
Total	394,235	1,447,905	4,373,239	5,395,003	1,139,618			12,750,000

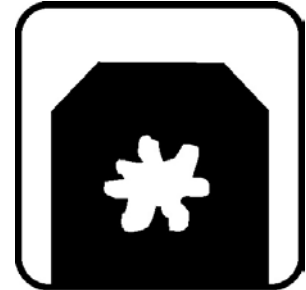
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Interim Food Waste Receiving Facility - P2-124		
Project Category	Solids Handling & Digestion	Project Status:	Revised

Description

This project will construct a station to receive, store, and feed pre-processed food waste slurry to the digester complex at Plant 2 to generate additional digester gas. The cost of the project will be offset by revenues from tipping fees charged to food waste haulers. This facility will be replaced with a permanent receiving station following completion of a proposed program to replace existing digesters at Plant 2.



**Solids Handling
& Digestion**

Justification

This project was identified in the Biosolids Master Plan, Project No. PS15-01, to address the need for solid waste generators and haulers to divert organic waste from landfills. Waste haulers will separate organics at the source, screen, and process the high strength organic waste into a liquid slurry. The Sanitation District's costs to construct, operate the facilities, and handle the additional biosolids production will be offset by tipping fees charged to haulers and additional power associated with increased digester gas production.

The project budget has been increased from \$5,400,000 to \$6,300,000. The increased budget is needed based on changes in the project elements identified from recent engineering efforts. The project's construction cost is \$3,380,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	53,274	29,573						82,847
Prelim Design		230,064	45,370					275,434
Design			281,523	248,938				530,461
Construction				135,299	3,796,260	302,656		4,234,215
Commissioning					2,601	73,377		75,978
Close-out					12,752	86,532		99,284
Contingency	6,148	44,449	85,477	133,172	292,596	373,484	66,455	1,001,781
Total	59,422	304,086	412,370	517,409	4,104,209	836,049	66,455	6,300,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Perimeter Screening at Plant No. 2 - P2-125		
Project Category	Others	Project Status:	Continuing

Description

This project will install landscaping or other appropriate line-of-sight barriers to minimize the visual impact on neighbors and traffic on Pacific Coast Highway and Brookhurst street. The work is expected to include construction of a berm along the south perimeter and additional landscaping on the berm and along the Brookhurst perimeter.



Others

Justification

This project is necessary to minimize the visual impact on neighbors and traffic on Pacific Coast Highway and Brookhurst Street from proposed digesters to be built on the Southwest corner of plant.

The project's construction cost is \$1,310,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	36,338	46,872						83,210
Prelim Design		37,846	84,875					122,721
Design			83,829	218,551	36,299			338,679
Construction					675,166	977,789		1,652,955
Commissioning					369	1,054		1,423
Close-out						23,232	1,618	24,850
Contingency	3,215	20,993	50,794	79,803	134,131	235,143	52,083	576,162
Total	39,553	105,711	219,498	298,354	845,965	1,237,218	53,701	2,800,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Plant 2 Warehouse Relocation - P2-126		
Project Category	Support Facilities	Project Status:	Continuing

Description

The project will construct a replacement for the existing warehouse located in the southwest corner of Plant 2, which must be demolished to accommodate the proposed Temperature Phased Anaerobic Digestion facilities.



Support Facilities

Justification

The area where the Plant 2 Warehouse is currently located is needed to accommodate facilities associated with the new digester project. These new facilities must be near the new digesters.

The project's construction cost is \$5,320,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev		61,642	94,682					156,324
Prelim Design			53,323	51,514				104,837
Design		431,002		532,209	263,775			1,226,986
Construction					586,470	5,184,128	705,454	6,476,052
Commissioning					5,920	87,742	29,277	122,939
Close-out							55,240	55,240
Contingency		5,124	47,419	155,594	269,441	490,826	689,218	1,657,622
Total		497,768	195,424	739,317	1,125,606	5,762,696	1,479,189	9,800,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Plant 2 Collections Yard Relocation - P2-127		
Project Category	Support Facilities	Project Status:	Revised

Description

This project will replace the existing Collections Facilities yard and fencing in a new location, yet to be determined.



Support Facilities

Justification

The area where this facility is currently located is needed for the new Temperature Phased Anaerobic Digestion facilities.

The project budget has been increased from \$1,500,000 to \$1,840,000. The increased budget is needed based on changes in the project elements identified from recent engineering efforts. The project's construction cost is \$900,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev					1,735	187		1,922
Prelim Design						38,844		38,844
Design					43,780	106,029	164,841	314,650
Construction							1,154,622	1,154,622
Commissioning							24,043	24,043
Close-out							32,504	32,504
Contingency					6,191	25,796	241,428	273,415
Total					51,706	170,856	1,617,438	1,840,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	TPAD Digester Facility at Plant 2 - P2-128		
Project Category	Support Facilities	Project Status:	Revised

Description

This project is the largest of a set of related projects to replace the mesophilic anaerobic digesters at Plant 2 with new digesters in a temperature-phased anaerobic digester (TPAD) configuration. This project will include six new thermophilic digesters, batch tanks, cooling facilities, and associated sludge pumping, digester mixing, power distribution, and controls. Replacement and demolition of existing digesters will be included in a separate project.



Justification

The 2017 Biosolids Master Plan conducted a comprehensive evaluation of end-to-end alternatives for solids processing at Plant No. 2. The study was prompted by seismic and condition deficiencies in many of the existing digesters. The evaluation concluded that the best alternative was to replace the existing digester complex with a temperature-phased anaerobic digestion process with batch tanks to meet Class A requirements. One of the key benefits of this approach is that when the thermophilic digesters are placed into service, the Sanitation District would be able to produce classified sludge even if the existing digesters failed due to seismic event.

The project budget has been decreased from \$419,000,000 to \$405,100,000. The reduced budget is a result of an updated estimate to complete the work as determined in the 2017 Facilities Master Plan. The project's construction cost is \$265,140,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev			175,935	46,781				222,716
Prelim Design				1,248,024	4,375,449	17,076		5,640,549
Design					262,046	6,351,808	9,966,534	16,580,388
Construction							297,698,813	297,698,813
Commissioning							5,370,611	5,370,611
Close-out							4,772	4,772
Contingency			730,123	1,424,140	2,366,510	3,911,278	71,150,100	79,582,151
Total			906,058	2,718,945	7,004,005	10,280,162	384,190,830	405,100,000

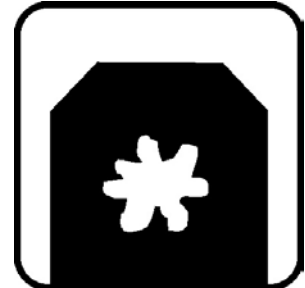
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Digester P, Q, R, and S Replacement - P2-129		
Project Category	Solids Handling & Digestion	Project Status:	Revised

Description

This project will replace, or extensively rehabilitate Digesters P, Q, R, and S to address both condition issues, seismic deficiencies, and liquefaction risks, and relocated the ferric facility to the new digesters location. The new P, Q, R, S digesters will be the mesophilic phase of the TPAD process.



**Solids Handling
& Digestion**

Justification

Digesters P, Q, R, and S are subject to liquefaction in the event of an earthquake, there are known structural deficiencies with the structures, and a thorough rehabilitation of mechanical and electrical systems is required based on age and condition.

The project budget has been increased from \$158,000,000 to \$166,000,000. The increased budget is needed based on escalation of costs associated with delaying the project as determined in the 2017 Facilities Master Plan. The project's construction cost is \$99,640,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev							238,535	238,535
Prelim Design							371,655	371,655
Design							12,695,574	12,695,574
Construction							114,346,644	114,346,644
Commissioning							7,116,694	7,116,694
Close-out							1,288,131	1,288,131
Contingency							29,942,767	29,942,767
Total							166,000,000	166,000,000

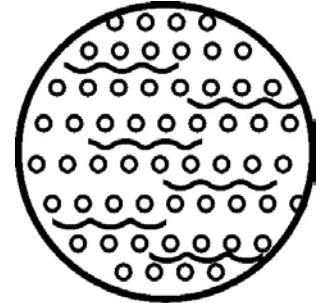
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	B/C-Side Primary Clarifiers Rehabilitation at Plant 2 - P2-133		
Project Category	Primary Treatment	Project Status:	New

Description

This project will extensively rehabilitate the C-Side primary clarifiers at Plant No. 2. The work is expected to include structural improvements, replacement of all mechanical and electrical systems, new covers for odor control, and miscellaneous upgrades. This work was originally included in Primary Treatment Rehabilitation at Plant No. 2, Project No. P2-98, but was broken out into a separate project due to the significant time interval between the two projects, and the lower degree of scope definition of this project.



Primary Treatment

Justification

The project is necessary to modify aging clarifiers and their associated mechanical and electrical systems. A concept study was completed in 2015 that recommended these permanent repairs.

The project's construction cost is \$149,940,000. The impacts to operational budgets have not yet been determined.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev							358,966	358,966
Prelim Design							559,291	559,291
Design							19,105,224	19,105,224
Construction							172,077,227	172,077,227
Commissioning							10,709,722	10,709,722
Close-out							1,938,473	1,938,473
Contingency							44,811,097	44,811,097
Total							249,560,000	249,560,000

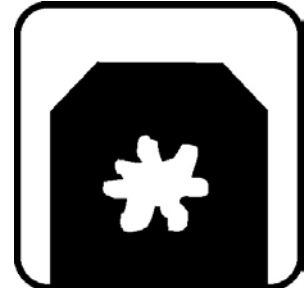
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Plant No. 2 Digester Facilities Rehabilitation - P2-91-1		
Project Category	Solids Handling & Digestion	Project Status:	Revised

Description

This project will rehabilitate all the Plant 2 Digesters. The extent of rehabilitation will vary per digester but may include mechanical equipment and piping including sludge mixing system, sludge recirculation and heating system, hot water system, auxiliary equipment, repair of concrete structure, miscellaneous safety item, and related electrical and instrumentation work.



**Solids Handling
& Digestion**

Justification

The Biosolids Master Plan mandates that the existing small digesters will be replaced by six Temperature-Phased Anaerobic Digesters (TPAD) and the four larger digesters will either be fully rehabilitated or rebuilt. It will take about 10-15 years to finish the design and construction of the new digesters in a phased manner. In order to keep all the existing digesters online until they are replaced, this project will complete smaller rehabilitation projects on the digesters to extend their useful lives.

The project budget has been decreased from \$49,220,000 to \$20,000,000. The reduced budget is a result of changes in the project elements identified from recent engineering efforts. The project's construction cost is \$8,270,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	317,818							317,818
Prelim Design								
Design	64,636	533,085	612,116	634,793	736,729	682,978	52,416	3,316,753
Construction	370,770	1,788,356	1,830,982	2,039,027	2,221,012	2,029,271	1,978,100	12,257,518
Commissioning			104,887	106,138	109,063	109,064	93,183	522,335
Close-out							201,869	201,869
Contingency	25,303	185,824	295,037	398,908	539,865	656,872	1,281,899	3,383,708
Total	778,526	2,507,265	2,843,022	3,178,866	3,606,669	3,478,185	3,607,467	20,000,000

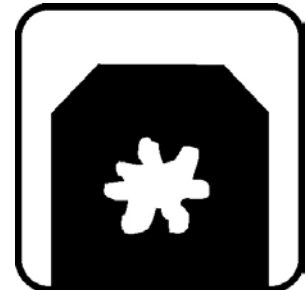
Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Sludge Dewatering and Odor Control at Plant 2 - P2-92		
Project Category	Solids Handling & Digestion	Project Status:	Continuing

Description

This project constructs facilities to reduce biosolids handling and disposal costs, replace aging sludge dewatering facilities, and provides associated odor control facilities. The project will also demolish the existing Belt Press Dewatering Building, and two unused sludge cake storage silos. This budget also includes construction of Truck Loading Bay Odor Control, Contract No. P2-92A, which is built under a separate construction contract.



**Solids Handling
& Digestion**

Justification

This project will replace the dewatering facilities that have reached the end of their service life. Based on the Long Range Biosolids Master Plan, a newer dewatering technology, centrifuges, will be utilized to reduce the amount of water in the biosolids hauled offsite to reduce biosolids management disposal costs.

The project's construction cost is \$55,060,000. This project will decrease operational budgets by \$1,800,000 annually. Sludge hauling and disposal costs will drop because there will be less moisture in the sludge. This operational savings factors in the additional energy and chemical costs associated with operating centrifuges.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	1,298,345							1,298,345
Prelim Design	2,793,707							2,793,707
Design	7,163,556							7,163,556
Construction	56,868,202	11,316,664	4,477,450	121,704				72,784,020
Commissioning	380,673	995,599	1,326,155	147,119				2,849,546
Close-out				681,544				681,544
Contingency	223,722	1,065,750	989,900	609,090	17,820			2,906,282
Total	68,728,205	13,378,013	6,793,505	1,559,457	17,820			90,477,000

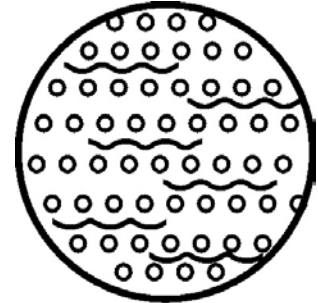
Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Primary Treatment Rehabilitation at Plant 2 - P2-98		
Project Category	Primary Treatment	Project Status:	Revised

Description

The primary treatment facilities at Plant No. 2 consist of 14 circular clarifiers which are supported by influent piping, influent distribution structures, effluent piping and sludge pumping units. The clarifiers are covered with geodesic domes which collect foul air from the clarifiers for conveyance and treatment at two foul air scrubbing complexes. The first phase of the project will provide interim repairs to the ten clarifiers on B and C Side, and pipelines to provide necessary reliability when the A-Side clarifiers are taken out of service. The second phase will replace the four clarifiers on A-Side, construct a new odor control system, and provide a new power building.



Primary Treatment

Justification

This project is necessary to modify the aging clarifiers and their associated mechanical and electrical systems. A concept study was completed in January 2015 that recommended the replacement and repair.

The project budget has been decreased from \$491,000,000 to \$245,000,000. The reduced budget is a result of transferring the major rehabilitation work for the B-side and C-Side clarifiers to Project No. P2-133 . The project's construction cost is \$157,610,000. This project will increase operational budgets by \$50,000 annually due to additional effort to monitor clarifiers with flat covers.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	828,155							828,155
Prelim Design	8,159,888	1,112,479						9,272,367
Design	948,259	2,656,728	3,454,982	5,060,232	1,154,411			13,274,612
Construction	3,806	439,833	4,114,015	4,112,118	10,658,795	36,644,255	122,123,232	178,096,054
Commissioning			1,795	5,557	222,519	744,986	2,826,355	3,801,212
Close-out				73,488	14,838		1,209,886	1,298,212
Contingency	51,131	641,647	1,429,883	2,659,806	2,716,943	3,956,665	26,973,313	38,429,388
Total	9,991,239	4,850,687	9,000,675	11,911,201	14,767,506	41,345,906	153,132,786	245,000,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	EAM Software and Process Implementation - SP-100		
Project Category	Information Management Systems	Project Status:	Continuing

Description

This project will implement the IBM Maximo System in support of the Enterprise Asset Management program. The system will replace the current Computerized Maintenance Management System. The system will manage asset data and asset activities throughout the asset lifecycle.



Justification

The IBM Maximo System will provide the means to manage asset to achieve the highest return at low risk by improving asset usage and reducing cost. The system will also manage asset lifecycle, provide visibility into asset performance, streamline process by eliminating paper work order, and reduce maintenance cost. The system will be integrated with other District system (i.e. FIS, GIS, and Timecard).

The project's construction cost is \$210,000. This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	1,306,829							1,306,829
Prelim Design	412,837							412,837
Design	2,119,035	373,980	686,232					3,179,247
Construction	864,288	319,982	243,464					1,427,734
Commissioning	223,344	41,024	41,024					305,392
Close-out	35,846							35,846
Contingency	52,983	206,969	207,797	210,278	154,087			832,114
Total	5,015,163	941,955	1,178,517	210,278	154,087			7,500,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Geographic Information System - SP-15		
Project Category	Information Management Systems	Project Status:	Revised

Description

Geographic Information Systems (GIS) can be utilized at the District for any works project such as collections, ocean monitoring, flow studies, rate structure studies, and construction. The GIS can be a planning tool for Asset Management, and a reporting tool for Permits and Sewer Shed Modeling. Other regional programs that would utilize the GIS are Bacteria Investigations, Air Quality, Special Purpose Discharge Permits, Connection Permits, and Source Control Permits. A goal of the project is to enable Internet access to the District's GIS and Electronic Data Management System (EDMS) by consultants to collect data for projects and to check out and check in drawings. The public would also benefit through Internet access to reports and news about District's projects.



Justification

There is a need for spatial data control, and a reporting tool that can graphically display the District's data on maps via the Internet for reporting to agencies, the public, and across the organization.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	801,985							801,985
Prelim Design	121,040							121,040
Design	141,989	26,631	26,631					195,251
Construction	1,825,679	249,445	249,445					2,324,569
Commissioning	2,091							2,091
Close-out	24,476							24,476
Contingency	151,529	591,912	355,147					1,098,588
Total	3,068,789	867,988	631,223					4,568,000

Reimbursable Costs: N/A

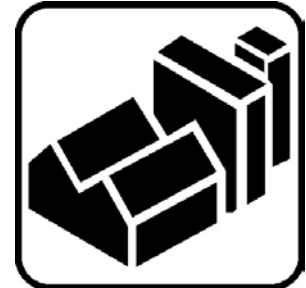
2018-19 & 2019-20 Budget

Project Name & Number	Climate Resiliency Study - SP-152		
Project Category	Strategic & Master Planning	Project Status:	Continuing

Description

This study provides a site-specific vulnerability analysis of potential impacts of climate change on OCSD's infrastructure and operations in response to the Governor's Executive Order (EO) S-13-08.

OCSD's Climate Change/Environmental Footprint Initiative started in 2007 and has completed a detailed carbon footprint study. The next step and the subject of this study includes a site-specific assessment to identify threats to infrastructure and operations and develop resilience strategies to reduce vulnerabilities to weather extremes, climate change and variability.



Strategic & Master Planning

Justification

On November 14, 2008, Governor Arnold Schwarzenegger issued an executive order directing state agencies to plan for sea level rise and climate impacts. The executive order predicts global warming may lead to thermal expansion of sea water, along with partial melting of land-based glaciers and sea-ice, resulting in a rise of sea level.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	32,986	68,452	187,649					289,087
Prelim Design								
Design								
Construction								
Commissioning								
Close-out								
Contingency	19,035	120,305	161,573					300,913
Total	52,021	188,757	349,222					590,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Bay Bridge Pumpstation and Force Mains Rehabilitation Study - SP-178		
Project Category	Collections Facilities	Project Status:	Continuing

Description

This project will investigate opportunities to replace and relocate the Bay Bridge Pump Station and replace the forcemains under the Newport Bay Channel. The pump station and forcemains are aging and undersized. This project will also investigate operation, maintenance, and code compliance issues associated with the Bay Bridge Pump Station and the force mains leaving the station. This includes CEQA requirements, odor control needs, equipment inspection, hydraulic capacities, National Fire Protection Association (NFPA) compliance, and Occupational Safety & Health Administration (OSHA) requirements.



**Collections
Facilities**

Justification

This project will provide needed recommendations and direction for future Project No. 5-67, Bay Bridge Pumping Station Upgrade and Rehabilitation.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	666,740							666,740
Prelim Design								
Design	58,202							58,202
Construction	58							58
Commissioning								
Close-out								
Contingency								
Total	725,000							725,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Project Name & Number	Capital Improvement Program Management Services - SP-195		
Project Category	Others	Project Status:	Continuing

Description

Program management consulting services for the Capital Improvement Program not related on any one specific project, but on the management of the projects as a whole. Includes consulting services related to best practices in project and program management including risk analysis, benchmarking, analysis of key performance indicators (KPI), program metrics, and data analysis. May also include review of project controls including project budgeting, cash flow analysis and project scheduling.



Others

Justification

Project facilitates continuous improvements to program management practices to maintain effectiveness in managing the Capital Improvement Program as business practices and the project makeup of the CIP evolves.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	5,826							5,826
Prelim Design								
Design	19,620					100,005		119,625
Construction	45,184							45,184
Commissioning								
Close-out								
Contingency						129,365		129,365
Total	70,630					229,370		300,000

Reimbursable Costs: N/A

CIP Project Detail Sheets

Project Name & Number	Process Control Systems Upgrades Study - SP-196		
Project Category	Information Management Systems	Project Status:	Continuing

Description

This study will evaluate and identify suitable replacements for the existing Supervisory Control and Data Acquisition (SCADA) Systems for the treatment plants and pump stations, which includes Human Machine Interface (HMI) hardware and HMI software, Programmable Logic Controllers (PLCs), Historian, import-export tools to align HMI servers, and security and administrative requirements for the Industrial Control System (ICS) network. These improvements will provide greater reliability and system continuity by replacing the existing obsolete HMI systems, databases and software programs, to provide trending, diagnostic data, monitoring, control, automation and management information such as logistic information, detailed linked Standard Operating Procedures (SOPs), and expert-system troubleshooting guides. This study will review the latest technology offerings, evaluate the existing process networks and hardwired network configuration and recommend changes, define system reliability, redundancy, performance and scan time requirements, identify software programming tools that need replacement, evaluate enterprise wide process data integration needs, evaluate and define requirements for current and future SCADA and ICS security requirements, define requirements for upgrading HMI and PLC hardware and software standards.



Justification

The existing HMI system consisting of the CRISP software and associated SCADA sub systems is obsolete. The CRISP software has a limited customer installed base and technical expertise for support and source code modifications will become scarce in the future. The CRISP HMI software in conjunction with the SCADA sub systems provides important data communications for treatment process and plant monitoring, control, automation, visualization, alarm handling and notification. The existing Quantum PLCs that are currently being used throughout the treatment plants and pump stations are no longer being manufactured.. The manufacturer has developed a family of replacement PLC processors and ancillary equipment with enhanced capabilities and security features. A new processor system will also be evaluated and selected to provide a long-term, 20-year plus life. Reliability and maintainability of the SCADA systems is critical to maintaining regulatory compliance for both the collections system and the treatment plants.

This project will not have an impact on operational budgets.

Budget Projections

Budget Phase	Cost To-Date	2018-2019	2019-20	2020-21	2021-22	2022-23	Thereafter	Total Project Budget
Proj Dev	618,462	1,269,017	823,321					2,710,800
Prelim Design	1,716							1,716
Design	19							19
Construction								
Commissioning								
Close-out								
Contingency	100,849	393,945	346,671					841,465
Total	721,046	1,662,962	1,169,992					3,554,000

Reimbursable Costs: N/A

2018-19 & 2019-20 Budget

Collection System Improvement Projects - Budget by Project Status

Project Number	Title	Total Budget	New Project	Continuing Project	Revised Project	Future Project
Collections Facilities						
1-101	Raitt & Bristol Street Sewer Extension	\$ 7,100,000				\$ 7,100,000
11-25	Edinger Bolsa Chica Trunk Impr.	5,159,000				5,159,000
11-33	Edinger Pump Station Upgrade & Rehab	14,100,000				14,100,000
11-34	Slater Avenue Pump Station Rehab	25,300,000				25,300,000
2-41-8	SARI Rock Stabilizers Removal	6,860,000		6,860,000		
2-49	Taft Branch Impr.	2,130,000				2,130,000
2-65	Newhope - Placentia Trunk Grade Separation Repl.	4,300,000		4,300,000		
2-72	Newhope-Placentia Trunk Repl.	112,000,000		112,000,000		
2-73	Yorba Linda Pump Station Abandonment	10,800,000				10,800,000
2-76	Tustin Rose OCTA Grade Separation	455,000			455,000	
3-60	Beach Trunk/Knott Interceptor Sewer Relief	136,000,000				136,000,000
3-62	Westminster Blvd Force Main Repl.	54,000,000		54,000,000		
3-64	Rehab of Western Regional Sewers	202,000,000			202,000,000	
3-66	Interstate 405 Widening Project Impacts on OCSD Sewers	528,000		528,000		
3-67	Seal Beach Pump Station Repl.	78,900,000	78,900,000			
3-68	Los Alamitos Sub-Trunk Extension	66,000,000	66,000,000			
5-60	Newport Force Main Rehab	59,668,000		59,668,000		
5-66	Crystal Cove Pump Station Upgrade & Rehab	17,900,000				17,900,000
5-67	Bay Bridge Pump Station Repl.	64,000,000		64,000,000		
5-68	Newport Beach Pump Stations Pressurization Impr.	4,066,000		4,066,000		
6-17	District 6 Trunk Sewer Relief	7,965,000		7,965,000		
7-37	Gisler - Red Hill Trunk Impr. - Reach B	25,213,000		25,213,000		
7-63	MacArthur Pump Station Rehab	13,100,000				13,100,000
7-64	Main Street Pump Station Rehab	60,400,000				60,400,000
7-65	Gisler - Red Hill Interceptor Rehab	14,800,000				14,800,000
SP-178	Bay Bridge Pumpstation & Force Mains Rehab Study	725,000		725,000		
Collections Facilities Total Budget		993,469,000	144,900,000	339,325,000	202,455,000	306,789,000

Summary by Project Status

Treatment & Disposal Projects - Budget by Project Status

Project Number	Title	Total Budget	New Project	Continuing Project	Revised Project	Future Project
Headworks						
P1-105	Headworks Rehab & Expansion at P1	370,000,000			370,000,000	
P1-123	Trunk Line Odor Control Impr.	9,299,000		9,299,000		
P2-122	Headworks Modifications at P2 for GWRS Final Expansion	54,000,000		54,000,000		
Headworks Total Budget		433,299,000		63,299,000	370,000,000	
Primary Treatment						
P1-126	Primary Clarifiers Repl.s & Impr. at P1	106,000,000			106,000,000	
P1-133	Primary Clarifiers 6-31 Reliability Impr. at P1	21,500,000	21,500,000			
P2-133	B/C-Side Primary Clarifiers Rehab at P2	249,560,000	249,560,000			
P2-98	Primary Treatment Rehab at P2	245,000,000			245,000,000	
Primary Treatment Total Budget		622,060,000	271,060,000		351,000,000	
Secondary Treatment						
P1-129	Return Activated Sludge Piping Repl. at Activated Sludge P1	7,900,000			7,900,000	
P2-123	Return Activated Sludge Piping Repl. at Plant No 2	12,750,000			12,750,000	
P2-118	Activated Sludge Aeration Basin Deck Repair at P2	2,800,000		2,800,000		
Secondary Treatment Total Budget		23,450,000		2,800,000	20,650,000	
Solids Handling & Digestion						
P2-124	Interim Food Waste Receiving Facility	6,300,000			6,300,000	
P1-100	Digester Rehab at P1	66,000,000			66,000,000	
P1-101	Sludge Dewatering & Odor Control at P1	199,500,000			199,500,000	
P2-91-1	P2 Digester Facilities Rehab	20,000,000			20,000,000	
P2-92	Sludge Dewatering & Odor Control at P2	90,477,000		90,477,000		
P2-129	Digester P, Q, R, & S Repl.	166,000,000			166,000,000	
Solids Handling & Digestion Total Budget		548,277,000		90,477,000	457,800,000	
Ocean Outfall Systems						
J-117	Ocean Outfall System Rehab	166,000,000		166,000,000		
Ocean Outfall Systems Total Budget		166,000,000		166,000,000		
Utility Systems						
J-121	UPS System Upgrades	4,700,000				4,700,000
J-124	Digester Gas Facilities Rehab	96,500,000		96,500,000		
J-127	Natural Gas Pipelines Repl. at P1 & P2	1,310,000		1,310,000		
J-98	Electrical Power Distribution System Impr.	34,608,000				34,608,000
P2-119	Central Generation Rehab at P2	114,000,000		114,000,000		

2018-19 & 2019-20 Budget

Treatment & Disposal Projects - Budget by Project Status

Project Number	Title	Total Budget	New Project	Continuing Project	Revised Project	Future Project
Utility Systems						
P1-132	Uninterruptable Power Supply Impr. at P1	4,800,000		4,800,000		
P1-127	Central Generation Rehab at P1	87,000,000		87,000,000		
P2-110	Consolidated Demolition & Utility Impr. at P2	31,000,000			31,000,000	
Utility Systems Total Budget		373,918,000		303,610,000	31,000,000	39,308,000
Process Related Special Projects						
J-126	Safety Impr. Program	19,000,000		19,000,000		
Process Related Special Projects Total Budget		19,000,000		19,000,000		
Information Management Systems						
J-120	Process Control Systems Upgrades	46,000,000				46,000,000
J-128	Project Mgmt. Information System	4,000,000		4,000,000		
M-MC-IT	Information Technology Capital Program	10,000,000		10,000,000		
P2-107	SCADA System & Network Upgrades	5,000,000		5,000,000		
SP-100	EAM Software & Process Implementation	7,500,000		7,500,000		
SP-15	Geographic Information System	4,568,000			4,568,000	
SP-196	Process Control Systems Upgrades Study	3,554,000		3,554,000		
Information Management Systems Total Budget		80,622,000		30,054,000	4,568,000	46,000,000
Strategic & Master Planning						
SP-152	Climate Resiliency Study	590,000		590,000		
M-STUDIES	Planning Studies Program	28,652,000		28,652,000		
Strategic & Master Planning Total Budget		29,242,000		29,242,000		
Water Management Projects						
J-36-2	GWRS Final Expansion Coordination	1,132,000		1,132,000		
Water Management Projects Total Budget		1,132,000		1,132,000		
Research						
M-RESEARCH	Research Program	8,500,000			8,500,000	
Research Total Budget		8,500,000			8,500,000	
Support Facilities						
M-SM-CAP	Operations & Maintenance Capital Program	15,622,000		15,622,000		
P1-115	Title 24 Access Compliance & Building Rehab Project	18,400,000			18,400,000	
J-131	18350 Mt. Langley St. Building Purchase & Improvement	11,000,000			11,000,000	
M-FE	Small Construction Projects Program	55,000,000			55,000,000	
P1-128	P1-128 Headquarters Complex & Site Security at P1	179,067,000		179,067,000		
P2-126	P2 Warehouse Relocation	9,800,000		9,800,000		

Summary by Project Status

Treatment & Disposal Projects - Budget by Project Status

Project Number	Title	Total Budget	New Project	Continuing Project	Revised Project	Future Project
Support Facilities						
P2-127	P2 Collections Yard Relocation	1,840,000			1,840,000	
P2-128	TPAD Digester Facility at P2	405,100,000			405,100,000	
Support Facilities Total Budget		695,829,000		204,489,000	491,340,000	
Others						
P2-120	Banning Gate Relocation & Grading at P2	2,931,000		2,931,000		
P2-125	Perimeter Screening at P2	2,800,000		2,800,000		
SP-195	Capital Improvement Program Mgmt. Services	300,000		300,000		
Others Total Budget		6,031,000		6,031,000		
Total Treatment and Disposal Projects		3,007,360,000	271,060,000	916,134,000	1,734,858,000	85,308,000
Total Collections Facilities		993,469,000	144,900,000	339,325,000	202,455,000	306,789,000
Capital Equipment Purchases		9,593,700		9,593,700		
Total Capital Improvement Program Budget		\$4,010,422,700	\$415,960,000	\$1,265,052,700	\$1,937,313,000	\$392,097,000

2018-19 & 2019-20 Budget

Collection System Improvement Projects

Project Name	Total Project Budget	Percentage Allocation				Total Project Cost Budget			
		Rehab/ Repl	Strategic Initiative	Additional Capacity	Regulatory	Rehab./ Replacement	Strategic Initiative	Additional Capacity	Regulatory
Collections Facilities									
Raitt & Bristol Street Sewer Extension	\$ 7,100,000			100%		-	-	\$ 7,100,000	-
Edinger Bolsa Chica Trunk Impr.	5,159,000			100%		-	-	5,159,000	-
Edinger Pump Station Upgrade & Rehab	14,100,000	100%				14,100,000	-	-	-
Slater Avenue Pump Station Rehab	25,300,000	100%				25,300,000	-	-	-
SARI Rock Stabilizers Removal	6,860,000				100%	-	-	-	6,860,000
Taft Branch Impr.	2,130,000			100%		-	-	2,130,000	-
Newhope - Placentia Trunk Grade Separation Repl.	4,300,000				100%	-	-	-	4,300,000
Newhope-Placentia Trunk Repl.	112,000,000	25%	25%	50%		28,000,000	28,000,000	56,000,000	-
Yorba Linda Pump Station Abandonment	10,800,000		100%			-	10,800,000	-	-
Tustin Rose OCTA Grade Separation	455,000				100%	-	-	-	455,000
Beach Trunk/Knott Interceptor Sewer Relief	136,000,000			100%		-	-	136,000,000	-
Westminster Blvd Force Main Repl.	54,000,000	100%				54,000,000	-	-	-
Rehab of Western Regional Sewers	202,000,000	75%		25%		151,500,000	-	50,500,000	-
Interstate 405 Widening Project Impacts on OCSD Sewers	528,000				100%	-	-	-	528,000
Seal Beach Pump Station Repl.	78,900,000	100%				78,900,000	-	-	-
Los Alamitos Sub-Trunk Extension	66,000,000	75%		25%		49,500,000	-	16,500,000	-
Newport Force Main Rehab	59,668,000	100%				59,668,000	-	-	-
Crystal Cove Pump Station Upgrade & Rehab	17,900,000	50%		50%		8,950,000	-	8,950,000	-
Bay Bridge Pump Station Repl.	64,000,000	75%		25%		48,000,000	-	16,000,000	-
Newport Beach Pump Stations Pressurization Impr.	4,066,000	50%	50%			2,033,000	2,033,000	-	-
District 6 Trunk Sewer Relief	7,965,000	50%		50%		3,982,500	-	3,982,500	-
Gisler - Red Hill Trunk Impr. - Reach B	25,213,000	50%		50%		12,606,500	-	12,606,500	-
MacArthur Pump Station Rehab	13,100,000	100%				13,100,000	-	-	-
Main Street Pump Station Rehab	60,400,000	100%				60,400,000	-	-	-
Gisler - Red Hill Interceptor Rehab	14,800,000	100%				14,800,000	-	-	-
Bay Bridge Pumpstation & Force Mains Rehab Study	725,000	100%				725,000	-	-	-
Collections Facilities Projects Total	993,469,000					625,565,000	40,833,000	314,928,000	12,143,000

Summary of Revenue Program Category

Treatment & Disposal Improvement Projects

Project Name	Total Project Budget	Percentage Allocation				Total Project Cost Budget			
		Rehab/ Rep	Strategic Initiative	Additional Capacity	Regulatory	Rehab./ Replacement	Strategic Initiative	Additional Capacity	Regulatory
Trunk Line Odor Control Impr.	9,299,000		100%			-	9,299,000	-	-
Headworks Modifications at P2 for GWRS Final Expansion	54,000,000		100%			-	54,000,000	-	-
Headworks Rehab & Expansion at P1	370,000,000	100%				370,000,000	-	-	-
Headworks Projects Total	433,299,000					370,000,000	63,299,000	-	-
Process Control Systems Upgrades	46,000,000	100%				46,000,000	-	-	-
Project Mgmt. Information System	4,000,000		100%			-	4,000,000	-	-
Information Technology Capital Program	10,000,000	50%	50%			5,000,000	5,000,000	-	-
SCADA System & Network Upgrades	5,000,000	100%				5,000,000	-	-	-
EAM Software & Process Implementation	7,500,000	100%				7,500,000	-	-	-
Geographic Information System	4,568,000				100%	-	-	-	4,568,000
Process Control Systems Upgrades Study	3,554,000	100%				3,554,000	-	-	-
Information Management Systems Projects Total	80,622,000					67,054,000	9,000,000	-	4,568,000
Ocean Outfall System Rehab	166,000,000	25%	75%			41,500,000	124,500,000	-	-
Ocean Outfall Systems Projects Total	166,000,000					41,500,000	124,500,000	-	-
Banning Gate Relocation & Grading at P2	2,931,000		100%			-	2,931,000	-	-
Perimeter Screening at P2	2,800,000	100%				2,800,000	-	-	-
Capital Improvement Program Mgmt. Services	300,000		100%			-	300,000	-	-
Others Projects Total	6,031,000					2,800,000	3,231,000	-	-
Primary Clarifiers Repl.s & Impr. at P1	106,000,000	100%				106,000,000	-	-	-
Primary Clarifiers 6-31 Reliability Impr. at P1	21,500,000	50%		50%		10,750,000	-	10,750,000	-
B/C-Side Primary Clarifiers Rehab at P2	249,560,000	100%				249,560,000	-	-	-
Primary Treatment Rehab at P2	245,000,000	100%				245,000,000	-	-	-
Primary Treatment Projects Total	622,060,000					611,310,000	-	10,750,000	-
Safety Impr. Program	19,000,000				100%	-	-	-	19,000,000
Process Related Special Projects Projects Total	19,000,000					-	-	-	19,000,000
Research Program	8,500,000		100%			-	8,500,000	-	-
Research Projects Total	8,500,000					-	8,500,000	-	-
Return Activated Sludge Piping Repl. at Activated Sludge P1	7,900,000	100%				7,900,000	-	-	-

2018-19 & 2019-20 Budget

Treatment & Disposal Improvement Projects

Project Name	Total Project Budget	Percentage Allocation				Total Project Cost Budget			
		Rehab/ Rep	Strategic Initiative	Additional Capacity	Regulatory	Rehab./ Replacement	Strategic Initiative	Additional Capacity	Regulatory
Return Activated Sludge Piping Repl. at Plant No 2	12,750,000	100%				12,750,000	-	-	-
Activated Sludge Aeration Basin Deck Repair at P2	2,800,000	100%				2,800,000	-	-	-
Secondary Treatment Projects Total	23,450,000					23,450,000	-	-	-
Interim Food Waste Receiving Facility	6,300,000	100%				-	6,300,000	-	-
P2 Digester Facilities Rehab	20,000,000	100%				20,000,000	-	-	-
Sludge Dewatering & Odor Control at P2	90,477,000	100%				90,477,000	-	-	-
Digester P, Q, R, & S Repl.	166,000,000	100%				166,000,000	-	-	-
Digester Rehab at P1	66,000,000	100%				66,000,000	-	-	-
Sludge Dewatering & Odor Control at P1	199,500,000	50%		50%		99,750,000	-	99,750,000	-
Solids Handling & Digestion Projects Total	548,277,000					442,227,000	6,300,000	99,750,000	-
Climate Resiliency Study	590,000	100%				-	590,000	-	-
Planning Studies Program	28,652,000	40%	25%	10%	25%	11,460,800	7,163,000	2,865,200	7,163,000
Strategic & Master Planning Projects Total	29,242,000					11,460,800	7,753,000	2,865,200	7,163,000
Operations & Maintenance Capital Program	15,622,000	100%				15,622,000	-	-	-
Title 24 Access Compliance & Building Rehab Project	18,400,000				100%	-	-	-	18,400,000
18350 Mt. Langley St. Building Purchase & Improvement	11,000,000		100%			-	11,000,000	-	-
Small Construction Projects Program	55,000,000	70%	10%	10%	10%	38,500,000	5,500,000	5,500,000	5,500,000
P1-128 Headquarters Complex & Site Security at P1	179,067,000	50%	50%			89,533,500	89,533,500	-	-
P2 Warehouse Relocation	9,800,000	100%				9,800,000	-	-	-
P2 Collections Yard Relocation	1,840,000	100%				1,840,000	-	-	-
TPAD Digester Facility at P2	405,100,000	100%				405,100,000	-	-	-
Support Facilities Projects Total	695,829,000					560,395,500	106,033,500	5,500,000	23,900,000
UPS System Upgrades	4,700,000	100%				4,700,000	-	-	-
Digester Gas Facilities Rehab	96,500,000	100%				96,500,000	-	-	-
Natural Gas Pipelines Repl. at P1 & P2	1,310,000	100%				1,310,000	-	-	-
Electrical Power Distribution System Impr.	34,608,000	100%				34,608,000	-	-	-
Consolidated Demolition & Utility Impr. at P2	31,000,000	100%				31,000,000	-	-	-
Central Generation Rehab at P2	114,000,000	100%				114,000,000	-	-	-
Uninterruptable Power Supply Impr. at P1	4,800,000	100%				4,800,000	-	-	-

Summary of Revenue Program Category

Treatment & Disposal Improvement Projects

Project Name	Total Project Budget	Percentage Allocation				Total Project Cost Budget			
		Rehab/ Rep	Strategic Initiative	Additional Capacity	Regulatory	Rehab./ Replacement	Strategic Initiative	Additional Capacity	Regulatory
Central Generation Rehab at P1	87,000,000	100%				87,000,000	-	-	-
Utility Systems Projects Total	373,918,000					373,918,000	-	-	-
GWRS Final Expansion Coordination	1,132,000	100%				-	1,132,000	-	-
Water Management Projects Projects Total	1,132,000					-	1,132,000	-	-
Total Treatment and Disposal Projects	3,007,360,000	2,504,115,300	329,748,500	118,865,200	54,631,000				
Total Collections Facilities	993,469,000	625,565,000	40,833,000	314,928,000	12,143,000				
Capital Equipment Purchases	9,593,700	2,398,425	2,398,425	2,398,425	2,398,425				
Total Capital Improvement Program	\$4,010,422,700	\$3,132,078,725	\$372,979,925	\$436,191,625	\$69,172,425				

2018-19 & 2019-18 Budget

Proposed Capital Equipment Budget 2018-19

Department	Trucks & Vehicles 09410000	Other Mobile Eq 09410001	Machine Eq & Tools 09410002	Comm Equipment 09410003
Information Technology	\$ -	\$ -	\$ -	\$ -
Resource Protection	-	-	-	-
Laboratory, Monitoring and Compliance	-	-	-	-
Electrical and Control Systems Engineering	-	-	-	-
Collection Facilities O&M	-	-	18,400	-
Fleet Services	724,100	1,066,900	22,000	-
Plant No. 1 Operations	-	-	-	-
Plant No. 1 Maintenance	-	-	84,800	-
Maintenance Reliability and Planning	-	-	-	-
Plant No. 2 Maintenance	-	-	33,200	-
Total Proposed Capital Equipment	\$ 724,100	\$ 1,066,900	\$ 158,400	\$ -

Proposed Capital Equipment Budget Summary

Proposed Capital Equipment Budget 2018-19

Department	Instr / Test Equipment 09410004	Safety & Traffic Eq 09410005	Office Fix & Eq 09410006	Computer Equipment 09410007	2018-19 Proposed Budget
Information Technology	\$ -	\$ -	\$ -	\$ 15,000	\$ 15,000
Resource Protection	39,000	-	-	-	39,000
Laboratory, Monitoring and Compliance	1,047,300	-	-	-	1,047,300
Electrical and Control Systems Engineering	123,200	-	-	-	123,200
Collection Facilities O&M	50,900	-	-	-	69,300
Fleet Services	-	-	-	-	1,813,000
Plant No. 1 Operations	128,700	-	-	-	128,700
Plant No. 1 Maintenance	22,100	-	-	-	106,900
Maintenance Reliability and Planning	179,900	-	-	-	179,900
Plant No. 2 Maintenance	26,900	-	-	-	60,100
Total Proposed Capital Equipment	\$1,618,000	\$ -	\$ -	\$ 15,000	\$3,582,400

2018-19 & 2019-20 Budget

Proposed Capital Equipment Budget Detail

<u>Division</u>	<u>Equipment Type</u>	<u>Proposed Capital Equip. Budget</u>
<u>250 - Information Technology</u>		
	Cathodic Protection Software (Div. 875)	\$ 15,000
	Total	<u>15,000</u>
<u>620 - Resource Protection</u>		
	Five (5) Weather Refrigerated Sampler & Five (5) Portable Sampler	39,000
	Total	<u>39,000</u>
<u>630 - Laboratory, Monitoring, and Compliance</u>		
	Automated Sample Extraction System	120,000
	LCMS External Pump	33,000
	EPA 624 Purge & Trap GCMS System	165,000
	Benchtop Balance Enclosure	15,300
	Digital Droplet PCR System	86,400
	Freezer (-80 Degrees Celsius)	16,400
	Skalar Auto-Sampler	16,000
	Scientific Winch	150,000
	Seakeeper Vessel Stabilization System	208,000
	Training Microscope	22,000
	Two (2) Acoustic Doppler Current Profiler	81,200
	Six (6) Ocean Acidification And Hypoxia Sensor Packages	134,000
	Total	<u>1,047,300</u>
<u>770 - Electrical and Control Systems Engineering</u>		
	Fiber Optic Networking Testing And Maintenance Kit	80,000
	Two (2) PLC Test Units	43,200
	Total	<u>123,200</u>
<u>820 - Collection Facilities O&M</u>		
	Pole Camera	18,400
	Trimble R2 GNSS Receiver (2)	50,900
	Total	<u>69,300</u>
<u>822 - Fleet Services</u>		
	Eleven (11) Sedans	308,600
	Six (6) Light Trucks	220,200
	Two (2) Heavy Trucks	195,300
	21 Electric Carts	262,600
	Four (4) Electric Carts (Large Cab) BF-3000	90,500
	14-Passenger Electric Cart For Div. 140	20,000
	Two (2) Towable Light Tower With Generator	29,100
	500 Kw Trailer-Mounted Generator	325,000
	Hose Reel Trailer For The 12" Pumps For Div. 820	317,900
	Trailer For The Transportation of 25' Pump Hoses For Div. 880	21,800
	2-Post, 10000 Lbs. Capacity Autolift	22,000
	Total	<u>1,813,000</u>

Proposed Capital Equipment Budget Detail

Proposed Capital Equipment Budget Detail

Division	Equipment Type	Proposed Capital Equip. Budget
<u>830 - Plant No. 1 Operations</u>		
	FLIR GF320 Optical Gas Imaging Camera	\$ 105,500
	Two (2) Hydrogen Sulfide Analyzers	23,200
	Total	128,700
 <u>870 - Plant No. 1 Maintenance</u>		
	Two (2) Miller Gas Engine Driven Generator Trailblazer 302 Air Pak	28,200
	Skid-Mounted Pump System & Water Suction & Discharge Hoses	56,600
	Two (2) Midtronics CAD-5500 Battery Tester/Analyzer	11,000
	Fluke 437 II 3-Phase Power Quality & Energy Analyzer	11,100
	Total	106,900
 <u>875 - Maintenance Reliability and Planning</u>		
	Megger DDA-6000 High Current Circuit Breaker Tester	81,000
	Electric Motor & Generator Analyzer	90,000
	Sverker900 High Voltage 3-Phase Protection Relay Tester	8,900
	Total	179,900
 <u>880 - Plant No. 2 Maintenance</u>		
	Ice Blaster - Electric Motor & Generator Cleaner	33,200
	10 Amp Micro-Ohm Meter	5,100
	Fluke Networks Cable Tester	21,800
	Total	60,100
 Total Proposed 2018-19 Capital Equipment Budget		 \$ 3,582,400

2018-19 & 2019-20 Budget

Proposed Capital Equipment Budget 2019-20

Department	Trucks & Vehicles 09410000	Other Mobile Eq 09410001	Machine Eq & Tools 09410002	Comm Equipment 09410003
Laboratory, Monitoring and Compliance	\$ -	\$ -	\$ -	\$ -
Electrical & Control Systems Engineering	-	-	-	-
Collection Facilities O&M	-	-	-	-
Fleet Services	909,400	595,500	-	-
Plant No. 1 Operations	-	-	-	-
Plant No. 1 Maintenance	-	-	57,300	-
Plant No. 2 Maintenance	-	-	-	-
Total Proposed Capital Equipment	\$ 909,400	\$ 595,500	\$ 57,300	\$ -

Proposed Capital Equipment Budget Summary

Proposed 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
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	-	-	-	-	1,504,900
Plant No. 1 Operations	23,200	-	-	-	23,200
Plant No. 1 Maintenance	50,300	-	-	-	107,600
Plant No. 2 Maintenance	105,600	-	-	-	105,600
Total Proposed Capital Equipment	\$ 912,400	\$ -	\$ -	\$ -	\$ 2,474,600

2018-19 & 2019-20 Budget

Proposed Capital Equipment Budget Detail

<u>Division</u>	<u>Equipment Type</u>	<u>Proposed Capital Equip. Budget</u>
<u>630 - Laboratory, Monitoring, and Compliance</u>		
	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	<u>639,200</u>
<u>770 - Electrical & Control Systems Engineering</u>		
	Two (2) PLC Test Units	43,200
	Total	<u>43,200</u>
<u>820 - Collection Facilities O&M</u>		
	Two (2) Trimble R2 GNSS Receiver	50,900
	Total	<u>50,900</u>
<u>822 - Fleet Services</u>		
	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
	Total	<u>1,504,900</u>
<u>830 - Plant No. 1 Operations</u>		
	Two (2) Hydrogen Sulfide Analyzers	23,200
	Total	<u>23,200</u>
<u>870 - Plant No. 1 Maintenance</u>		
	Schenck Balancer CAB820 Control Upgrade	44,300
	Cold Saw	13,000
	Portable Vibration Sensor Calibrator	23,000
	Beamex Multi-Calibrator	27,300
	Total	<u>107,600</u>
<u>880 - Plant No. 2 Maintenance</u>		
	Two (2) Fluke 729 Automatic Pressure Calibrator	18,900
	Megger Trax 220	86,700
	Total	<u>105,600</u>
Total Proposed 2019-20 Capital Equipment Budget		<u>\$ 2,474,600</u>

DEBT PROGRAM
SECTION 9

BACK OF SECTION 9 DIVIDER

Debt Financing Program

CERTIFICATES OF PARTICIPATION DEBT FINANCING PROGRAM

A Ten-Year Financial Plan is maintained to establish financing parameters regarding the issuance of debt, the levying of user charges and the funding level for required reserves in accordance with the District's reserve policy. The Financial Plan is revised annually to reflect the most current cost and revenue figures resulting from capital program revisions and operating changes.

In December 2017, the 2017 Facilities Master Plan was adopted by the Board of Directors. The Master Plan identified a phased 20-year program of capital improvement projects that will allow the District to

maintain reliability and accommodate future growth, as well as meet future regulatory requirements, level of service goals, and strategic initiatives.

Each project in the master plan was initiated to address the impact of one or more of the main drivers (existing facilities condition, changes in regulations, facilities capacity, redundancy criteria, District initiatives, and health and safety). Most of the CIP needs for the next 20 years are due to the condition of existing aging facilities requiring rehabilitation and replacement.

Figure 1

Summary of Certificates of Participation / Revenue Obligations and Notes				
Series	2009A Series	2010A Series	2010C Series	2011A Series
Issue Name	COPs	Taxable BABs	Taxable BABs	Refund Rev Oblig
Issue Date	04-23-2009	05-18-10	11-29-10	10-03-11
Original Par	\$200,000,000	\$80,000,000	\$157,000,000	\$147,595,000
Outstanding Par	\$4,690,000	\$80,000,000	\$157,000,000	\$75,370,000
Payment Date	February 1	February 1	February 1	February & August 1
Use of Proceeds	Current/Future CIP	Current/Future CIP	Current/Future CIP	Advance Refund
Lien or Tier	Open Senior	Open Senior	Open Senior	Open Senior
Interest Rate Mode	Fixed	Fixed	Fixed	Fixed
Final Maturity Date	02-01-2019	02-01-2040	02-01-2044	02-01-2026
Series	2012A Series	2012B Series	2014A Series	2015A Series
Issue Name	Refund Rev Oblig	Refund Rev Oblig	Refund Rev Oblig	Refund Rev Oblig
Issue Date	03-22-12	08-16-12	08-07-14	02-12-15
Original Par	\$100,645,000	\$66,395,000	\$85,090,000	\$127,510,000
Outstanding Par	\$100,645,000	\$66,395,000	\$78,375,000	\$127,510,000
Payment Date	February 1	February 1	February 1	February 1
Use of Proceeds	Advance Refund	Advance Refund	Advance Refund	Advance Refund
Lien or Tier	Open Senior	Open Senior	Open Senior	Open Senior
Interest Rate Mode	Fixed	Fixed	Fixed	Fixed
Final Maturity Date	02-01-2033	02-01-2026	02-01-2027	02-01-2037
Series	2016A Series	2016B Series	2017A Series	
Issue Name	Refund Rev Oblig	Refunding CANs	Refund Rev Oblig	
Issue Date	03-30-16	11-01-16	02-01-17	
Original Par	\$145,880,000	\$109,875,000	\$66,370,000	
Outstanding Par	\$145,880,000	\$109,875,000	\$66,370,000	
Payment Date	February 1	December 15	February 1	
Use of Proceeds	Advance Refund	Current Refund	Advance Refund	
Lien or Tier	Open Senior	Open Senior	Open Senior	
Interest Rate Mode	Fixed	Fixed	Fixed	
Final Maturity Date	02-01-2039	12-15-2018	02-01-2030	

2018-19 & 2019-20 Budget

In conjunction with preparation for the 2018-20 Budget, District staff has developed and reviewed with the Board of Directors a capital program to deliver the levels of service included in the District's 5-year Strategic Plan.

District staff has also validated the active CIP projects currently being executed to ensure that the active project scopes of work and cost estimates were accurate. The validated CIP includes 68 active and future capital projects, five programs, and capital equipment purchases, with a 10-year expenditure of \$2.7 billion.

The District embarked upon its Debt Financing and Management Program, and specifically its Variable and Fixed Rate Debt Program (the "Program"), in 1990 with the issuance of \$100 million in Certificates of Participation ("COP"), Capital Improvement Program, 1990 Series "A." The Program was established to:

- Finance assets with long useful lives with long-term debt;
- Achieve the lowest possible interest costs and highest investment returns, commensurate with the appropriate risk;
- Recoup reserve moneys that had previously been spent.

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 the District serves as the purchaser. Accordingly, the District is not subject to the usual State restrictions surrounding the issuance of debt. COPs can be issued with fixed or variable interest rates.

As of July 1, 2018, the total outstanding COP indebtedness is \$1.0 billion.

Dedicated Funding Source

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

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

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

Historically the District's property tax revenues were at a higher level than necessary to support the District's debt service obligations. However, capital improvement requirements averaging \$200.0 million a year over the last ten years have required new COP debt issuances that have increased future debt service payments that more closely matches property tax revenues.

Establishment of Debt Policy

In 2001, the District developed a written debt policy for the following underlying reasons:

- committing to long-term financial planning;
- promoting credit quality to rating agencies;
- rationalizing the decision making process;
- enhancing the quality of decisions; and
- promoting consistency and continuity.

This Board adopted policy serves as the agency's guide in the management of existing debt and in the issuance of future debt.

Debt Coverage Ratios

The only legal debt limits pertaining to the District are those that are provided within the existing COP indenture agreements requiring 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 proposed at 3.68 and 3.79 for FY 2018-19 and FY 2019-20, respectively.

Debt Financing Program

Build America Bonds Financings

The District issued the \$80.0 million Wastewater Revenue Obligation, Series 2010A in May 2010 and the \$157.0 million Wastewater Revenue Obligations, Series 2010C in November 2010 as “Build America Bonds” (BABs) fixed rate debt.

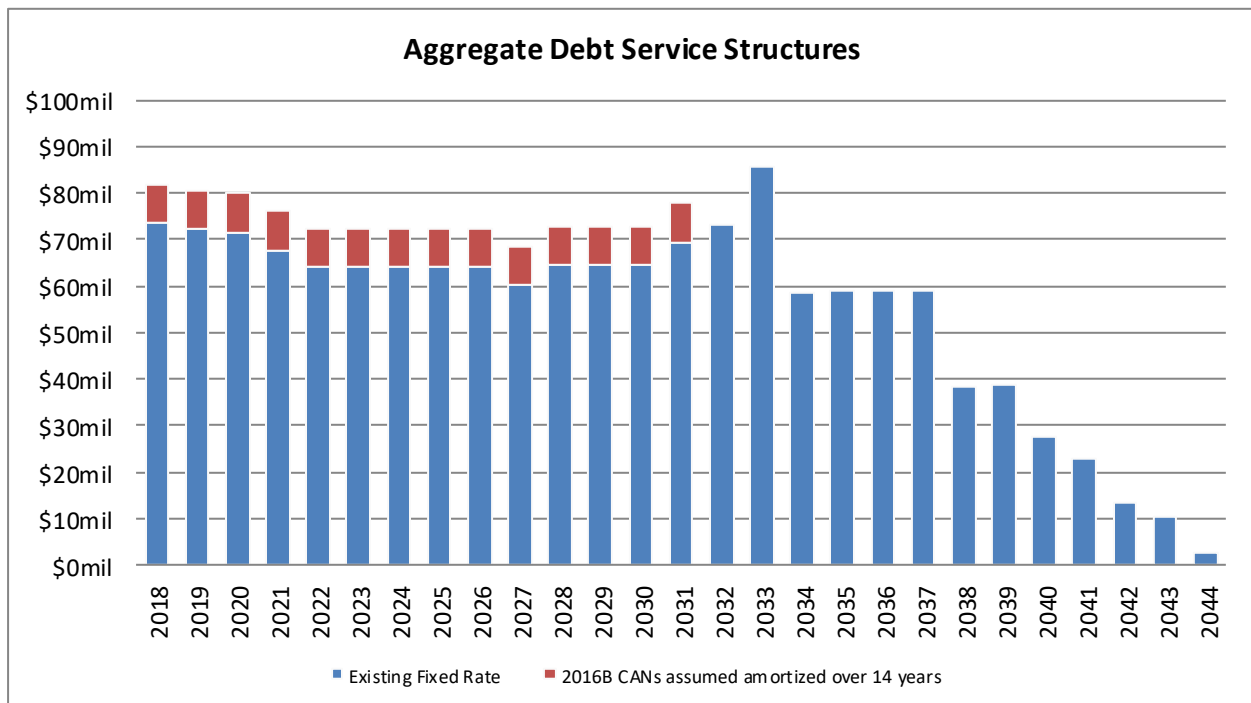
The American Recovery and Reinvestment Act of 2009 created a new financing product, BABs, for the municipal issuer. BABs are issued as higher interest taxable bonds; however, the U.S. Treasury provides a 35 percent subsidy on interest payments. The net cost, after accounting for the 35 percent subsidy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

On March 1, 2013, the federal government implemented certain automatic spending cuts known as the sequester. As a result of the sequester, federal subsidy payments on BABs have been reduced annually from a high of 8.7 percent for the federal fiscal year ended September 30, 2013 to a low of 6.6 percent for the federal fiscal year ended September 30, 2018.

Future Financings

As a result of having a prudent reserve policy, experienced management, and prudent planning, the District has been able to secure “AAA” credit ratings from Fitch Ratings, Moody’s and Standard and Poor’s. The District’s long-range financing plan is designed to maintain these high ratings. Over the next 10 years, the District is projecting an additional \$2.7 billion in future treatment plant and collection system capital replacement, refurbishment, and rehabilitation improvements. In accordance with the District’s long-term debt fiscal policy, the District will confine long-term borrowing to capital improvements that cannot be financed from current revenue. Before any new debt is issued, the impact of debt service payments on total annual fixed costs will be analyzed.

The District’s cash flow forecast does not require any new money debt issuances over the next ten years as all capital improvements planned over this time period primarily consist of replacement, refurbishment, and rehabilitation of existing projects which are to be funded through existing reserves and current sewer charges.



2018-19 & 2019-20 Budget

Figure 2

	<u>Schedule of Future Certificates of Participation Issues and CIP Cash Flows</u> (in millions)									
	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
New COP Issues	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
CIP Outlays	\$174.5	\$137.0	\$202.6	\$358.7	\$381.5	\$331.9	\$309.7	\$255.2	\$250.8	\$267.5

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2018-19 & 2019-20 Budget

Total Certificates of Participation / Revenue Obligations and Notes Debt Service Requirements

Principal and Interest Combined

Fiscal Year Of Payments	2009A Acquisition/ Construction	2010A Build America Bonds Acq./Const.	2010C Build America Bonds Acq./Const.	2011A Refunding (Partial 2000 & 2003)	2012A Refunding (Remain 2003)	2012B Refunding (2000-A & 2000-B)
2018-19	\$ 4,924,500	\$ 2,897,639	\$ 6,523,780	\$ 3,348,350	\$ 3,735,900	\$23,107,400
2019-20	-	2,897,639	6,523,780	3,348,350	3,735,900	23,106,400
2020-21	-	2,897,639	6,523,780	3,348,350	3,735,900	18,535,650
2021-22	-	2,897,639	6,523,780	17,143,350	3,735,900	1,776,150
2022-23	-	2,897,639	6,523,780	17,093,600	3,735,900	1,821,150
2023-24	-	2,897,639	6,523,780	17,136,200	3,735,900	1,781,950
2024-25	-	2,897,639	6,523,780	17,088,450	3,735,900	1,818,050
2025-26	-	2,897,639	6,523,780	17,141,250	3,735,900	1,771,600
2026-27	-	2,897,639	6,523,780	-	3,735,900	-
2027-28	-	2,897,639	6,523,780	-	3,735,900	-
2028-29	-	2,897,639	6,523,780	-	3,735,900	-
2029-30	-	2,897,639	6,523,780	-	3,735,900	-
2030-31	-	2,897,639	12,258,780	-	32,725,900	-
2031-32	-	2,897,639	23,382,068	-	31,921,200	-
2032-33	-	2,897,639	23,476,472	-	44,304,000	-
2033-34	-	12,487,639	13,967,040	-	-	-
2034-35	-	12,696,056	13,897,232	-	-	-
2035-36	-	12,919,416	13,834,528	-	-	-
2036-37	-	13,151,453	13,758,096	-	-	-
2037-38	-	13,399,607	13,667,936	-	-	-
2038-39	-	13,658,823	13,574,048	-	-	-
2039-40	-	13,937,832	13,481,016	-	-	-
2040-41	-	-	22,698,216	-	-	-
2041-42	-	-	13,457,728	-	-	-
2042-43	-	-	10,305,640	-	-	-
2043-44	-	-	2,583,168	-	-	-
Totals	\$ 4,924,500	\$135,715,410	\$282,627,331	\$ 95,647,900	\$153,781,900	\$73,718,350

Debt Financing Program

Total Certificates of Participation / Revenue Obligations and Notes Debt Service Requirements

Principal and Interest Combined

Fiscal Year Of Payments	2014A Refunding (Partial 2007B)	2015A Refunding (Partial 2007B)	2016A Refunding (Partial 2009A)	2016B Refunding Notes (2014B)	2017A Refunding (Remain 2007A)	Total Payment Per Fiscal Year
2018-19	\$ 10,963,750	\$ 6,375,500	\$ 6,977,300	\$ 110,973,750	\$ 3,318,500	\$ 183,146,369
2019-20	10,966,500	6,375,500	11,392,300	-	3,318,500	71,664,869
2020-21	11,046,500	6,375,500	11,391,550	-	3,873,500	67,728,369
2021-22	11,049,000	6,375,500	11,389,800	-	3,290,750	64,181,869
2022-23	11,046,750	6,375,500	11,391,550	-	3,290,750	64,176,619
2023-24	11,044,000	6,375,500	11,396,050	-	3,290,750	64,181,769
2024-25	11,049,750	6,375,500	11,392,550	-	3,290,750	64,172,369
2025-26	11,052,500	6,375,500	11,390,800	-	3,290,750	64,179,719
2026-27	11,051,250	6,375,500	11,390,050	-	18,405,750	60,379,869
2027-28	-	21,615,500	11,394,550	-	18,365,000	64,532,369
2028-29	-	21,658,500	11,388,300	-	18,323,500	64,527,619
2029-30	-	20,776,250	11,391,050	-	19,204,500	64,529,119
2030-31	-	10,228,000	11,411,550	-	-	69,521,869
2031-32	-	3,702,250	11,413,050	-	-	73,316,207
2032-33	-	3,702,250	11,415,550	-	-	85,795,911
2033-34	-	20,882,250	11,408,050	-	-	58,744,979
2034-35	-	20,883,250	11,415,050	-	-	58,891,588
2035-36	-	20,881,250	11,409,800	-	-	59,044,994
2036-37	-	20,879,250	11,411,800	-	-	59,200,599
2037-38	-	-	11,411,000	-	-	38,478,543
2038-39	-	-	11,414,000	-	-	38,646,871
2039-40	-	-	-	-	-	27,418,848
2040-41	-	-	-	-	-	22,698,216
2041-42	-	-	-	-	-	13,457,728
2042-43	-	-	-	-	-	10,305,640
2043-44	-	-	-	-	-	2,583,168
Totals	<u>\$ 99,270,000</u>	<u>\$222,588,250</u>	<u>\$234,995,700</u>	<u>\$ 110,973,750</u>	<u>\$101,263,000</u>	<u>\$1,515,506,091</u>

2018-19 & 2019-20 Budget

Certificates of Participation/ Revenue Obligations and Notes Debt Service Requirements

Annual Interest Payments

Fiscal Year Of Payments	2009A Acquisition/ Construction	2010A Build America Bonds Acq./Const.	2010C Build America Bonds Acq./Const.	2011A Refunding (Partial 2000 & 2003)	2012A Refunding (Remain 2003)	2012B Refunding (2000-A & 2000-B)
2018-19	\$ 234,500	\$ 2,897,639	\$ 6,523,780	\$ 3,348,350	\$ 3,735,900	\$ 3,187,400
2019-20	-	2,897,639	6,523,780	3,348,350	3,735,900	2,191,400
2020-21	-	2,897,639	6,523,780	3,348,350	3,735,900	1,145,650
2021-22	-	2,897,639	6,523,780	3,348,350	3,735,900	276,150
2022-23	-	2,897,639	6,523,780	2,658,600	3,735,900	216,150
2023-24	-	2,897,639	6,523,780	2,081,200	3,735,900	151,950
2024-25	-	2,897,639	6,523,780	1,328,450	3,735,900	103,050
2025-26	-	2,897,639	6,523,780	816,250	3,735,900	51,600
2026-27	-	2,897,639	6,523,780	-	3,735,900	-
2027-28	-	2,897,639	6,523,780	-	3,735,900	-
2028-29	-	2,897,639	6,523,780	-	3,735,900	-
2029-30	-	2,897,639	6,523,780	-	3,735,900	-
2030-31	-	2,897,639	6,523,780	-	3,735,900	-
2031-32	-	2,897,639	6,287,068	-	2,866,200	-
2032-33	-	2,897,639	5,581,472	-	1,704,000	-
2033-34	-	2,897,639	4,837,040	-	-	-
2034-35	-	2,551,056	4,457,232	-	-	-
2035-36	-	2,184,416	4,064,528	-	-	-
2036-37	-	1,796,453	3,658,096	-	-	-
2037-38	-	1,384,607	3,237,936	-	-	-
2038-39	-	948,823	2,804,048	-	-	-
2039-40	-	487,832	2,356,016	-	-	-
2040-41	-	-	1,893,216	-	-	-
2041-42	-	-	1,027,728	-	-	-
2042-43	-	-	510,640	-	-	-
2043-44	-	-	103,168	-	-	-
Totals	\$ 234,500	\$ 55,715,410	\$125,627,331	\$20,277,900	\$ 53,136,900	\$ 7,323,350

Debt Financing Program

Certificates of Participation/ Revenue Obligations and Notes Debt Service Requirements

Annual Interest Payments

Fiscal Year Of Payments	2014A Refunding (Partial 2007B)	2015A Refunding (Partial 2007B)	2016A Refunding (Partial 2009A)	2016B Refunding Notes (2014B)	2017A Refunding (Remain 2007A)	Total Interest Per Fiscal Year
2018-19	\$ 3,918,750	\$ 6,375,500	\$ 6,977,300	\$ 1,098,750	\$ 3,318,500	\$ 41,616,369
2019-20	3,566,500	6,375,500	6,977,300	-	3,318,500	38,934,869
2020-21	3,196,500	6,375,500	6,756,550	-	3,318,500	37,298,369
2021-22	2,804,000	6,375,500	6,524,800	-	3,290,750	35,776,869
2022-23	2,391,750	6,375,500	6,281,550	-	3,290,750	34,371,619
2023-24	1,959,000	6,375,500	6,026,050	-	3,290,750	33,041,769
2024-25	1,504,750	6,375,500	5,757,550	-	3,290,750	31,517,369
2025-26	1,027,500	6,375,500	5,475,800	-	3,290,750	30,194,719
2026-27	526,250	6,375,500	5,180,050	-	3,290,750	28,529,869
2027-28	-	6,375,500	4,869,550	-	2,535,000	26,937,369
2028-29	-	5,613,500	4,543,300	-	1,743,500	25,057,619
2029-30	-	4,811,250	4,201,050	-	914,500	23,084,119
2030-31	-	4,013,000	3,841,550	-	-	21,011,869
2031-32	-	3,702,250	3,463,050	-	-	19,216,207
2032-33	-	3,702,250	3,065,550	-	-	16,950,911
2033-34	-	3,702,250	2,648,050	-	-	14,084,979
2034-35	-	2,843,250	2,210,050	-	-	12,061,588
2035-36	-	1,941,250	1,749,800	-	-	9,939,994
2036-37	-	994,250	1,266,800	-	-	7,715,599
2037-38	-	-	861,000	-	-	5,483,543
2038-39	-	-	439,000	-	-	4,191,871
2039-40	-	-	-	-	-	2,843,848
2040-41	-	-	-	-	-	1,893,216
2041-42	-	-	-	-	-	1,027,728
2042-43	-	-	-	-	-	510,640
2043-44	-	-	-	-	-	103,168
Totals	<u>\$ 20,895,000</u>	<u>\$ 95,078,250</u>	<u>\$ 89,115,700</u>	<u>\$ 1,098,750</u>	<u>\$ 34,893,000</u>	<u>\$ 503,396,091</u>

2018-19 & 2019-20 Budget

Certificates of Participation/ Revenue Obligations and Notes Debt Service Requirements

Annual Principal Payments

Fiscal Year Of Payments	2009A Acquisition/ Construction	2010A Build America Bonds Acq./Const.	2010C Build America Bonds Acq./Const.	2011A Refunding (Partial 2000 & 2003)	2012A Refunding (Remain 2003)	2012B Refunding (2000-A & 2000-B)
2018-19	\$ 4,690,000	\$ -	\$ -	\$ -	\$ -	\$ 19,920,000
2019-20	-	-	-	-	-	20,915,000
2020-21	-	-	-	-	-	17,390,000
2021-22	-	-	-	13,795,000	-	1,500,000
2022-23	-	-	-	14,435,000	-	1,605,000
2023-24	-	-	-	15,055,000	-	1,630,000
2024-25	-	-	-	15,760,000	-	1,715,000
2025-26	-	-	-	16,325,000	-	1,720,000
2026-27	-	-	-	-	-	-
2027-28	-	-	-	-	-	-
2028-29	-	-	-	-	-	-
2029-30	-	-	-	-	-	-
2030-31	-	-	5,735,000	-	28,990,000	-
2031-32	-	-	17,095,000	-	29,055,000	-
2032-33	-	-	17,895,000	-	42,600,000	-
2033-34	-	9,590,000	9,130,000	-	-	-
2034-35	-	10,145,000	9,440,000	-	-	-
2035-36	-	10,735,000	9,770,000	-	-	-
2036-37	-	11,355,000	10,100,000	-	-	-
2037-38	-	12,015,000	10,430,000	-	-	-
2038-39	-	12,710,000	10,770,000	-	-	-
2039-40	-	13,450,000	11,125,000	-	-	-
2040-41	-	-	20,805,000	-	-	-
2041-42	-	-	12,430,000	-	-	-
2042-43	-	-	9,795,000	-	-	-
2043-44	-	-	2,480,000	-	-	-
Totals	<u>\$ 4,690,000</u>	<u>\$80,000,000</u>	<u>\$157,000,000</u>	<u>\$ 75,370,000</u>	<u>\$100,645,000</u>	<u>\$66,395,000</u>

Debt Financing Program

Certificates of Participation/ Revenue Obligations and Notes Debt Service Requirements

Annual Principal Payments

Fiscal Year Of Payments	2014A Refunding (Partial 2007B)	2015A Refunding (Partial 2007B)	2016A Refunding (Partial 2009A)	2016B Refunding Notes (2014B)	2017A Refunding (Remain 2007A)	Total Principal Per Fiscal Year
2018-19	\$ 7,045,000	\$ -	\$ -	\$ 109,875,000	\$ -	\$ 141,530,000
2019-20	7,400,000	-	4,415,000	-	-	32,730,000
2020-21	7,850,000	-	4,635,000	-	555,000	30,430,000
2021-22	8,245,000	-	4,865,000	-	-	28,405,000
2022-23	8,655,000	-	5,110,000	-	-	29,805,000
2023-24	9,085,000	-	5,370,000	-	-	31,140,000
2024-25	9,545,000	-	5,635,000	-	-	32,655,000
2025-26	10,025,000	-	5,915,000	-	-	33,985,000
2026-27	10,525,000	-	6,210,000	-	15,115,000	31,850,000
2027-28	-	15,240,000	6,525,000	-	15,830,000	37,595,000
2028-29	-	16,045,000	6,845,000	-	16,580,000	39,470,000
2029-30	-	15,965,000	7,190,000	-	18,290,000	41,445,000
2030-31	-	6,215,000	7,570,000	-	-	48,510,000
2031-32	-	-	7,950,000	-	-	54,100,000
2032-33	-	-	8,350,000	-	-	68,845,000
2033-34	-	17,180,000	8,760,000	-	-	44,660,000
2034-35	-	18,040,000	9,205,000	-	-	46,830,000
2035-36	-	18,940,000	9,660,000	-	-	49,105,000
2036-37	-	19,885,000	10,145,000	-	-	51,485,000
2037-38	-	-	10,550,000	-	-	32,995,000
2038-39	-	-	10,975,000	-	-	34,455,000
2039-40	-	-	-	-	-	24,575,000
2040-41	-	-	-	-	-	20,805,000
2041-42	-	-	-	-	-	12,430,000
2042-43	-	-	-	-	-	9,795,000
2043-44	-	-	-	-	-	2,480,000
Totals	<u>\$78,375,000</u>	<u>\$127,510,000</u>	<u>\$145,880,000</u>	<u>\$109,875,000</u>	<u>\$ 66,370,000</u>	<u>\$1,012,110,000</u>

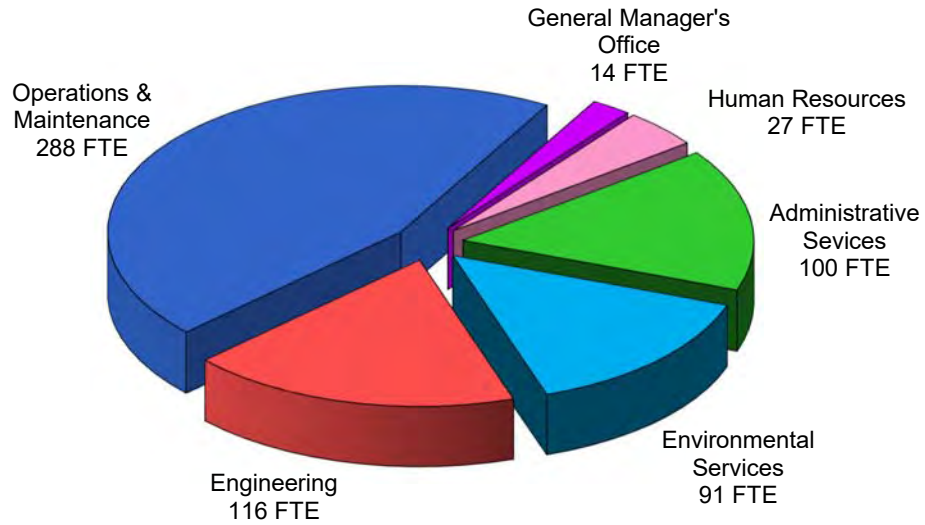
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APPENDIX
SECTION 10

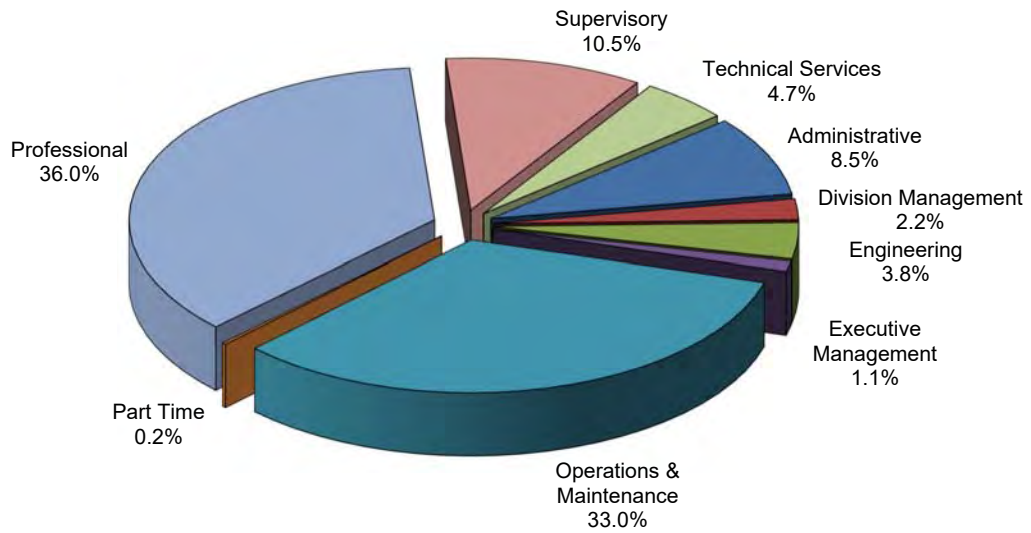
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Staffing Allocation

Staffing by Department
Total 636 FTE

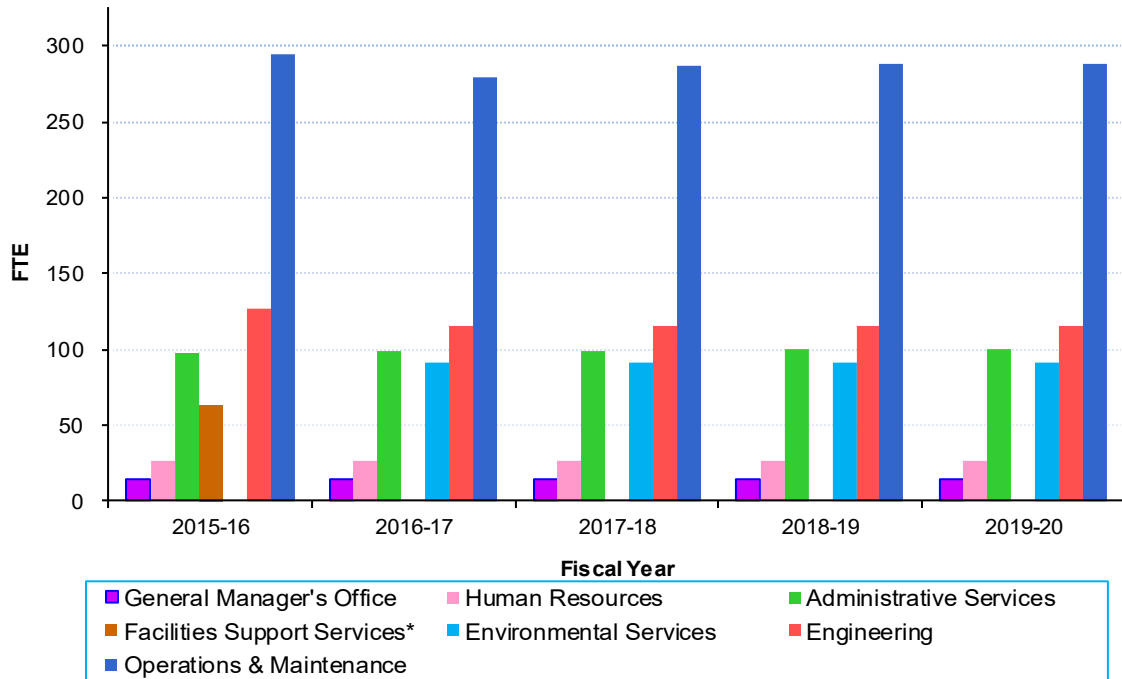


Staffing by Category



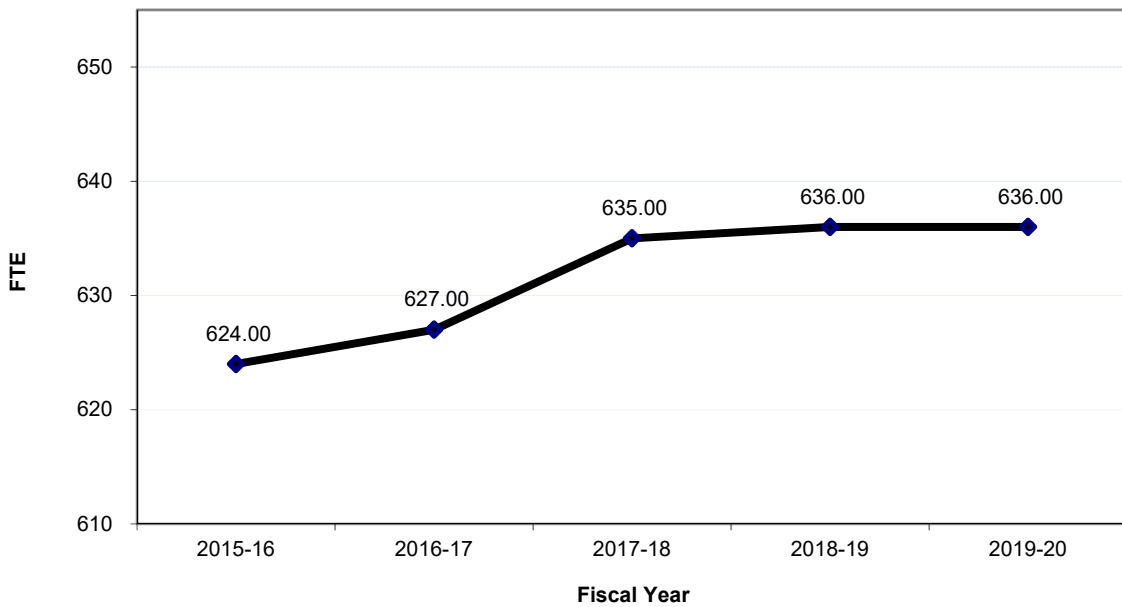
2018-19 & 2019-20 Budget

Historical Staffing By Department



* The Facilities Support Services Department was eliminated as part of the District's 2016-17 reorganization.

Total Historical Staffing



Staffing Allocation

Department and Division Name	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Proposed 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	5.00
Department Subtotal*	15.00	15.00	15.00	14.00	14.00
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	46.00
Department Subtotal	98.00	99.00	99.00	100.00	100.00
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	-	-	-	-
Environmental 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	52.00
Department Subtotal	-	91.00	91.00	91.00	91.00
Engineering Department					
Engineering Administration	2.00	2.00	2.00	2.00	2.00
Planning	15.00	15.00	15.00	14.00	14.00
Project Management Office	20.00	17.00	17.00	16.00	16.00
Civil and Mechanical Engineering	59.00	53.00	53.00	54.00	54.00
Electrical and Control Systems Engineering	-	29.00	29.00	30.00	30.00
Environmental Compliance	31.00	-	-	-	-
Department Subtotal	127.00	116.00	116.00	116.00	116.00
Operations and Maintenance Department					
Operations and Maintenance Administration	2.00	3.00	3.00	3.00	3.00
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	61.00
Maintenance Reliability and Planning	-	-	28.00	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	288.00
Grand Total - All Departments*	624.00	627.00	635.00	636.00	636.00

2018-19 & 2019-20 Budget

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Proposed 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					
Public Affairs Supervisor	-	1.00	1.00	1.00	1.00
Principal Public Affairs Specialist	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	5.00
Total General Manager's Office	15.00	15.00	15.00	14.00	14.00
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	1.00
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	2.00
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

Historical Staffing Detail

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Proposed 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	-	-
Contracts Administrator	3.00	3.00	3.00	3.00	3.00
Senior Buyer	1.00	1.00	1.00	3.00	3.00
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	6.00
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	46.00
Total Administrative Services Department	98.00	99.00	99.00	100.00	100.00

2018-19 & 2019-20 Budget

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Proposed FTEs 2018-19	Proposed FTEs 2019-20
Facilities Support Services Department					
310 Facilities Support Services Administration					
Director of Facilities Support	1.00	-	-	-	-
Principal Financial Analyst	1.00	-	-	-	-
Senior Staff Analyst	1.00	-	-	-	-
Executive Assistant	1.00	-	-	-	-
Total Facilities Support Services Administration	4.00	-	-	-	-
322 Fleet Services					
Maintenance Supervisor	1.00	-	-	-	-
Lead Mechanic	1.00	-	-	-	-
Automotive/ Heavy Equipment Technician	3.00	-	-	-	-
Mobile Crane Operator	2.00	-	-	-	-
Automotive/ Heavy Equipment Assistant	1.00	-	-	-	-
Office Assistant	1.00	-	-	-	-
Total Fleet Services	9.00	-	-	-	-
330 Facilities Engineering and Repair Services					
Engineering Manager	1.00	-	-	-	-
Senior Engineer	1.00	-	-	-	-
Associate Engineer	2.00	-	-	-	-
Administrative Assistant	1.00	-	-	-	-
Total Facilities Engineering and Repair Services	5.00	-	-	-	-
341 NPDES Source Inspection					
Source Control Supervisor	1.00	-	-	-	-
Principal Environmental Specialist	1.00	-	-	-	-
Lead Source Control Inspector	1.00	-	-	-	-
Source Control Inspector II	7.00	-	-	-	-
Source Control Inspector I	2.00	-	-	-	-
Administrative Assistant	1.00	-	-	-	-
Environmental Technician	3.00	-	-	-	-
Total NPDES Source Inspection	16.00	-	-	-	-
342 Odor and Corrosion Control					
Engineering Supervisor	1.00	-	-	-	-
Associate Engineer	1.00	-	-	-	-
Senior Environmental Specialist	2.00	-	-	-	-
Engineering Assistant I	1.00	-	-	-	-
Environmental Technician	1.00	-	-	-	-
Total Odor and Corrosion Control	6.00	-	-	-	-
343 Collection Facilities Operations and Maintenance					
Maintenance Supervisor	2.00	-	-	-	-
Lead Mechanic	5.00	-	-	-	-
Senior Mechanic	8.00	-	-	-	-
Mechanic	8.00	-	-	-	-
Total Collection Facilities Operations and Maintenance	23.00	-	-	-	-
Total Facilities Support Services Department	63.00	-	-	-	-

Historical Staffing Detail

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Proposed FTEs 2018-19	Proposed FTEs 2019-20
Environmental 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	1.00
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	52.00
Total Environmental Services Department	-	91.00	91.00	91.00	91.00

2018-19 & 2019-20 Budget

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Proposed 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	-	-
Executive Assistant	1.00	1.00	1.00	1.00	1.00
Total Engineering Administration	2.00	2.00	2.00	2.00	2.00
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	3.00
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	1.00
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	14.00
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	1.00
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	16.00
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	2.00
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	1.00
Total Civil and Mechanical Engineering	59.00	53.00	53.00	54.00	54.00

Historical Staffing Detail

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Proposed 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	6.00
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	30.00
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	116.00
Operations and Maintenance Department					
810 Operations and Maintenance Administration					
Director of Operations & Maintenance	1.00	1.00	1.00	1.00	1.00
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	3.00
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

2018-19 & 2019-20 Budget

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

2018-19 & 2019-20 Budget

Division & Position	Authorized FTEs 2015-16	Authorized FTEs 2016-17	Authorized FTEs 2017-18	Proposed 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	8.00
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	15.00
Lead Facilities Worker	-	1.00	1.00	1.00	1.00
Electrical Technician I	1.00	1.00	1.00	1.00	1.00
Instrumentation Technician I	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	288.00
Grand Total, All Departments*	624.00	627.00	635.00	636.00	636.00

*FTE totals above exclude three Management Discretion positions that are authorized but used only on a temporary basis to facilitate the replacement of key positions. FTE totals also exclude three companion positions to be used for extended leaves of absence. Total filled positions will not exceed 636 FTEs at any point in time.

Appropriations Limit

Appropriations Limit

Article XIII B 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 2018-19 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 2018-19. The increase in the limit is based upon population changes ranging from 0.06% to 1.13% for major cities within the District as provided by the State Department of Finance and a per capita personal income change of 3.67% as provided by the State Department of Finance.

Annual Appropriation Limits:

2016-17	\$101,768,666
2017-18	\$105,998,787
2018-19	\$110,229,598

Proceeds of Taxes (Appropriations)

2018-19	\$17,665,729
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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 the District's service area. This method results in a lower limit than using the County-wide change.

2018-19 & 2019-20 Budget

Budget Glossary

Accounting System:

The set of records and procedures which are used to record, classify, and report information on the financial status and operations of an entity.

Accrual Basis Accounting:

Under this accounting method, transactions are recognized when they occur, regardless of the timing of related cash receipts and disbursements.

Administrative and Clerical:

An employee group that provides administrative and clerical support.

Ad Valorem Taxes:

The District's allocated share of the property taxes assessed by the County representing a 2% annual increase in assessed values of property taxes.

Annual Budget:

A budget applicable to a single fiscal year.

Appropriation Ordinance:

The official legal document approved by the District's Board of Directors authorizing officials to obligate and expend resources.

Appropriation:

An authorization made by the District's Board of Directors which permits officials to incur obligations against and to make expenditures of governmental resources. Operating appropriations are typically granted for a one-year period.

AQMD:

Air Quality Management District. See also SCAQMD.

Assessed Valuation:

The estimated value of real and personal property used by the Orange County Assessor as the basis for levying property taxes.

Balanced Budget:

A budget in which the sum of estimated net revenues and appropriated fund balances is equal to appropriations.

Biennial Budget:

A budget applicable to two individual fiscal years.

Biosolids:

Treated sewage sludge that meets the USEPA pollutant and pathogen requirements for land application as an agricultural soil conditioner or surface disposal.

BLAST:

A District program that stands for Building Leaders, Abilities and Skills for Tomorrow. The BLAST program is an employee designed leadership development program that aims to provide training and opportunities for staff at levels of the organization to develop themselves as leaders

Budget Document:

The official financial spending and resource plan submitted by the General Manager, adopted by the Board of Directors, and made available to the public and other interested parties.

Budget Message:

A written explanation by the General Manager of the proposed budget. The budget message explains principal budget and policy issues and presents an overview of the General Manager's budget recommendations.

Budget Calendar:

The schedule of key dates which the District follows in preparing and adopting the budget.

Capital Facilities Capacity Charge:

A one-time, nondiscriminatory charge imposed at the time a building or structure is newly connected to the District's system, directly or indirectly, or an existing structure or category of use is expanded or increased. This charge is to pay for District facilities in existence at the time the charge is imposed, or to pay for new facilities to be constructed in the future, that are of benefit to the property being charged. This charge does not apply to temporary facilities.

Capital Improvement Program:

A plan over a period of five years setting forth each capital project, the amount to be expended in each year, and the method of financing capital expenditures.

Capital Outlay:

Cash outlays which result in the acquisition of or additions to capital assets. Examples include land, buildings, machinery, equipment, and other improvements.

Budget Glossary

Capital Assets:

Assets of significant value which have a useful life of several years. Examples are land, buildings, other improvements, machinery, and equipment.

Cash Basis Accounting:

A basis of accounting under which transactions are recognized only when cash is received or disbursed.

CCTV:

Closed-circuit television (CCTV), also known as video surveillance, is technology often used by the OCSD to inspect and document the condition of underground sewer lines.

CEQA:

California Environmental Quality Act, is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible.

Certificates of Participation (COPs):

A type of debt financing in which certificates are issued which represent an investor's participation in the stream of lease payments paid by the issuer. COPs are secured by the lease payments. Voter approval is not required prior to issuance.

Comprehensive Annual Financial Report (CAFR):

The official financial report of a government. It includes an audit opinion as well as basic financial statements and supporting schedules necessary to demonstrate compliance with legal and contractual requirements of the District.

Contingency:

A budgetary reserve set aside for emergencies or unforeseen expenditures not otherwise budgeted.

Contingent Liabilities:

Items which may become liabilities of the District but are undetermined at a given date, such as pending law suits, unsettled disputed claims, unfilled purchase orders, and uncompleted contracts.

Contractual Services:

Personal services provided to the District from the private sector or other public agencies.

CRWQCB:

California Regional Water Quality Control Board.

Debt Service:

Payment of interest and repayment of principal to holders of the District's debt instruments.

Decision Package:

A standardized format whereby departments may request budgetary consideration for new programs, positions, capital equipment, and position reclassification.

Deficit:

The excess of an entity's liabilities over its assets.

Engineers:

A professional engineers/employee group.

Enterprise Fund:

In governmental accounting, a fund that provides goods or services to the public for a fee that makes the entity self-supporting.

Executive Manager:

The group of employees which head each department.

Expenditures / Expenses:

Where accounts are kept on the accrual basis of accounting, expenses are recognized when goods are received or services rendered. Where accounts are kept on a cash basis, expenditures are recognized only when the cash payments are made.

FEMA:

Federal Emergency Management Agency. This agency provides federal grant monies for disaster relief.

Fiscal Year:

A 12-month period to which the annual operating budget applies and at the end of which a government determines its financial position and results of its operations. The District's fiscal year runs from July 1 - June 30.

Five-Year Financial Forecast:

Estimates of future revenues and expenditures to help predict the future financial condition of the community.

FLSA:

The Fair Labor Standards Act sets minimum wage, overtime pay, equal pay, and Child Labor Standards to private and public sector employees. Enforcement of the FLSA is assigned to the Department of Labor (DOL), Wage and Hour Division.

2018-19 & 2019-20 Budget

Fats, Oils, & Grease (FOG) Control Program:

Educational and regulatory efforts designed to achieve reductions in the quantity of fats, oils and grease that is found in the wastewater that is discharged into the District's sewerage system.

Full-Time Equivalents (FTE):

The amount of time a regular, full-time employee normally works in a year. For example, a full-time employee (1 FTE) is budgeted to work 2,080 hours per year, while a .5 FTE is budgeted to work 1,040 hours per year.

Fund:

An independent fiscal and accounting entity with a self-balancing set of accounts recording cash and/or other resources together with all related liabilities, obligations, reserves, and equities.

Fund Accounting:

System used by nonprofit organizations, particularly governments. Since there is no profit motive, accountability is measured instead of profitability. The main purpose is stewardship of financial resources received and expended in compliance with legal requirements.

Fund Equity:

The excess of an entity's assets over liabilities.

General Obligation Bonds:

Bonds for which the full faith and credit of the insuring government are pledged for payment. Ad valorem property taxes are pledged to pay the bonds. A two-thirds voter approval is required prior to bond issuance.

Generally Accepted Accounting Principles (GAAP):

Uniform standards for financial accounting and reporting. They govern the form and content of the basic financial statements of an entity.

Government Finance Officers Association (GFOA):

A nonprofit, professional association, serving over 18,000 government finance professionals through the United States and Canada.

GFOA's Best Practices and Advisories:

A listing of the Accounting, Auditing, and Financial Reporting, Treasury and Investment Management, Budgeting and Fiscal Policy, Debt Management, Retirement and Benefits Administration, and Economic Development and Capital Planning

practices identified as contributing to improved government management by the Government Finance Officers Association of the United States and Canada.

GFOA's Distinguished Budget Presentation Award Program:

The only national awards program in governmental budgeting. It represents a significant accomplishment in meeting the highest principles of governmental budgeting and satisfying nationally recognized guidelines for effective budget presentation.

Groundwater Replenishment System (GWRS):

A joint project by the Orange County Water District (OCWD) and the District, the GWRS reclaims up to 100 million gallons a day of the District's secondary effluent. GWRS is the world's largest water purification system for indirect potable reuse. The system takes highly treated wastewater that would have previously been discharged into the Pacific Ocean and purifies it using a three-step advanced treatment process consisting of microfiltration, reverse osmosis and ultraviolet light with hydrogen peroxide. The process produces high-quality water that meets or exceeds all state and federal drinking water standards.

Improvements:

Buildings, structures, or attachments to land such as sidewalks, trees, drives, tunnels, drains and sewers.

Interest:

Revenue derived from the investment of idle cash and/or reserves.

Intergovernmental Services:

Purchases from other governments of those specialized services typically performed by local governments.

Intergovernmental Revenue:

Revenue received from other governmental agencies and municipalities.

IRWD:

Irvine Ranch Water District is a California Special District formed in 1961 and incorporated under the California water code. IRWD provides potable water, sewer service and reclaimed (or recycled) water to its customers in Irvine and portions of Costa Mesa, Lake Forest, Newport Beach, Orange, Tustin and unincorporated areas of Orange County.

Budget Glossary

Levy:

(Verb) To impose taxes, special assessments, or service charges for the support of governmental activities. (Noun) The total amount of taxes, special assessments, or service charges imposed by a government levying property taxes.

Long-Term Debt or Long-Term Liabilities:

Debt borrowed from a source outside the District with a maturity of more than one year after the date of issuance.

Maintenance Employees:

An employee group of the District.

Manager Employees:

The group of employees who assume management responsibilities for operating divisions.

MGD:

Million Gallons per Day is a measurement of water or wastewater flow.

NPDES (National Pollution Discharge Elimination System):

Permit system established by the U.S. Environmental Protection Agency to regulate discharge of treated sewage, storm water, and urban runoff.

Object:

An expenditure classification which refers to the type of item purchased or the service obtained. Examples include personnel, supplies, or contract services.

OCWD:

The Orange County Water District (OCWD) is a California special district that manages the groundwater basin beneath central and northern Orange County, California.

OES:

State Office of Emergency Services. This agency provides state grant monies for disaster relief.

Operating Engineers:

An employee group of the District.

Operating Budget:

The operating budget is the primary means by which most of the financing of acquisition, spending, and service delivery activities of a government are controlled.

Other Revenues:

Revenues from sources, other than those specifically identified, that are immaterial in amount and do not justify reporting as separate line items.

Other Charges:

Expenditures that do not fit in other categories, are immaterial in amount, and do not justify reporting as separate line items.

Performance Measure:

Represents the objectives of each department along with a target date for achieving the objective.

Performance Results:

A summary of major accomplishments and objectives that were met during the fiscal year.

Permits:

Revenues earned by the issuance of permits levied in accordance with the benefits conferred by the permit.

Personnel:

Salaries and benefits paid to the District's employees. Included are items such as special duty pay, insurance, and retirement.

Personnel Benefits:

Those benefits paid by the District as conditions of employment. Examples include insurance and retirement benefits.

Professional Employees:

An employee group consisting of technical experts, analysts, and planners.

Program:

Organizational units directed to attain specific purposes or objectives.

Reserve:

A term used to indicate that a portion of fund equity is restricted for a specific purpose.

Resources:

Total dollars available for appropriations including estimated revenues and beginning fund equity.

Revenue Bonds:

Bonds issued pledging future revenues such as sewer charges to cover debt payments. A majority voter approval is required prior to bond issuance.

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Revenue Estimate:

A formal estimate of how much revenue will be earned from a specific revenue source for some future period, typically a fiscal year.

Revenue:

Income received by the District to support wastewater treatment services. This income may be in the form of property taxes, fees, user charges, grants, and interest.

Risk Register:

The Risk Register is a compilation of the various risks facing the District, as seen by the District's management team.

Service Charges:

Charges for specific services rendered.

Service Description:

A description of the services or functions provided by each department or division.

SCADA (Supervisory Control And Data Acquisition):

A system for remote monitoring and control that operates with coded signals over communication channels.

SCAQMD:

The South Coast Air Quality Management District, also using the acronym SCAQMD, formed in 1976, is the air pollution agency responsible for regulating stationary sources of air pollution in the South Coast Air Basin, in Southern California.

Secondary Treatment:

A treatment process for wastewater (or sewage) to achieve a certain degree of effluent quality by using a sewage treatment plant with physical phase separation to remove settleable solids and a biological process to remove dissolved and suspended organic compounds.

Significant Changes:

This section provides an overview of the changes adopted in the budget. Additionally, the significant impacts of budgetary changes are outlined (Budget Impact) along with dollar amounts (Increase/Decrease).

Strategic Goals:

District-wide goals that demonstrate the District's long-term commitment to excellence and that establish the framework necessary to maintain the

District's high level of service standards.

Strategic Plan:

A planning effort to define the District's goals, responsibilities, and requirements over a specified future period. Key factors used in the planning effort include estimates for population growth, new construction, the volume of wastewater delivered to the plants, and viable water conservation and reclamation programs.

Supervisory Employees:

An employee group whose members have responsibility for directing the work of line employees.

Supplemental Appropriation:

An appropriation approved by the Directors after the initial budget is adopted.

Supplies:

An expenditure classification for articles and commodities purchased for consumption or resale. Examples include office and operating supplies, fuel, power, water, gas inventory, or small tools and equipment.

SWRCB:

The California State Water Resources Control Board (SWRCB) is one of six branches of the California Environmental Protection Agency.

Taxes:

Compulsory charges levied by a government for the purpose of financing services performed for the common benefit.

Technical Services:

Support services to the District's wastewater management program through environmental sampling, analysis and research, source control of industrial users, administration of compliance programs to meet federal, state and local environmental standards; provides leadership and influence in the development and implementation of environmental policies, laws, and regulations.

Miscellaneous Statistics

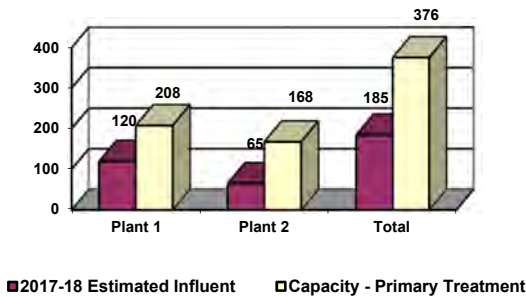
General Information

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
 2017-18 Assessed Value \$416.3 billion

Miles of Sewers..... 396 miles
 On-Plant Pump Station.....2
 Off-Plant Pump Stations 15
 Operating AuthorityRWQCB/NPDES Permit No.
CA0110604
Statewide WDR Order No. 2006-0003
 Authorized Staff (Full-Time Equivalent)636.00

Treatment Information

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



2016-17 Influent BOD:
 Plant No. 1 312 milligrams per liter
 Plant No. 2 344 milligrams per liter

2016-17 Influent Suspended Solids:
 Plant No. 1 362 milligrams per liter
 Plant No. 2 430 milligrams per liter

2016-17 Effluent BOD..... 11 milligrams per liter

2016-17 Effluent Suspended Solids.... 5 milligrams per liter

2016-17 Biosolids Produced & Reused .. 289,336 wet tons

Primary Treatment Capacity (includes standby):
 Plant No. 1208 MGD
 Plant No. 2168 MGD
 TOTAL376 MGD

2017-18 Estimated Average Daily Influent:
 Plant No. 1 120 MGD
 Plant No. 2 65 MGD
 TOTAL 185 MGD

Secondary Treatment Capacity:
 Plant No. 1182 MGD
 Plant No. 2 150 MGD
 TOTAL332 MGD

2017-18 Estimated Electricity Generated:
 Plant No. 1 44,121,508 kwh
 Plant No. 2 49,677,613 kwh
 TOTAL 93,799,121 kwh

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

Financial Information

	2016-17 Actual	2017-18 Projected	2018-19 Proposed	2019-20 Proposed
Fees and Charges:				
One-Time 3-Bedroom Residence Connection	\$3,710.00	\$3,855.00	\$4,228.00	\$4,601.00
Average Annual Single-Family Residence Fee	\$327	\$331	\$335	\$339
Local SRF Fee	\$108	\$108	\$108	\$108
District's Avg. Share of Ad Valorem Property Tax	1.61%	1.60%	1.60%	1.60%
Cost to Collect, Treat, & Dispose of One Million Gallons	\$ 2,054.56	\$ 2,124.91	\$2,412.95	\$2,398.45

Summary of COP Issues:

April 2009A New Money	\$ 4,690,000	August 2014A Refunding	78,375,000
May 2010A New Money	80,000,000	February 2015A Refunding	127,510,000
November 2010C New Money	157,000,000	March 2016A Refunding	145,880,000
September 2011A Refunding	75,370,000	November 2016B Refunding	109,875,000
February 2012A Refunding	100,645,000	February 2017A Refunding	66,370,000
August 2012B Refunding	66,395,000	Total Outstanding COP Balance 7/1/18	<u>\$1,012,110,000</u>

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ORANGE COUNTY SANITATION DISTRICT

Estimated Population Served by the
Orange County Sanitation District

	Population as of <u>January 1, 2018</u>
Anaheim	357,084
Brea	44,890
Buena Park	83,995
Costa Mesa	115,296
Cypress	49,978
Fountain Valley	56,920
Fullerton	144,214
Garden Grove	176,896
Huntington Beach	202,648
Irvine	276,176
La Habra	62,850
La Palma	15,948
Los Alamitos	11,863
Newport Beach	87,182
Orange	141,952
Placentia	52,755
Santa Ana	338,247
Seal Beach	25,984
Stanton	39,470
Tustin	82,344
Villa Park	5,951
Westminster	94,476
Yorba Linda	69,121
Subtotal Cities ⁽¹⁾	<u>2,536,240</u>
Estimated Population Served in Unincorporated Areas ⁽²⁾	<u>73,127</u>
	<u><u>2,609,367</u></u>

Data Source:

(1) Demographic Research Unit, State of California Department of Finance

(2) Center for Demographic Research, California State University, Fullerton.

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