Executive Summary

Fiscal Years 2016-17 and 2017-18

Proposed Budget

ADOPTED
JUNE 22, 2016

Orange County Sanitation District, California

ORANGE COUNTY SANITATION DISTRICT
PROTECTING THE ENVIRONMENT

Orange County Sanitation District, California

BUDGET EXECUTIVE SUMMARY

Fiscal Years 2016-17 and 2017-18

OUR MISSION

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

GFOA BUDGET PRESENTATION AWARD

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, 2014.

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 communications 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.

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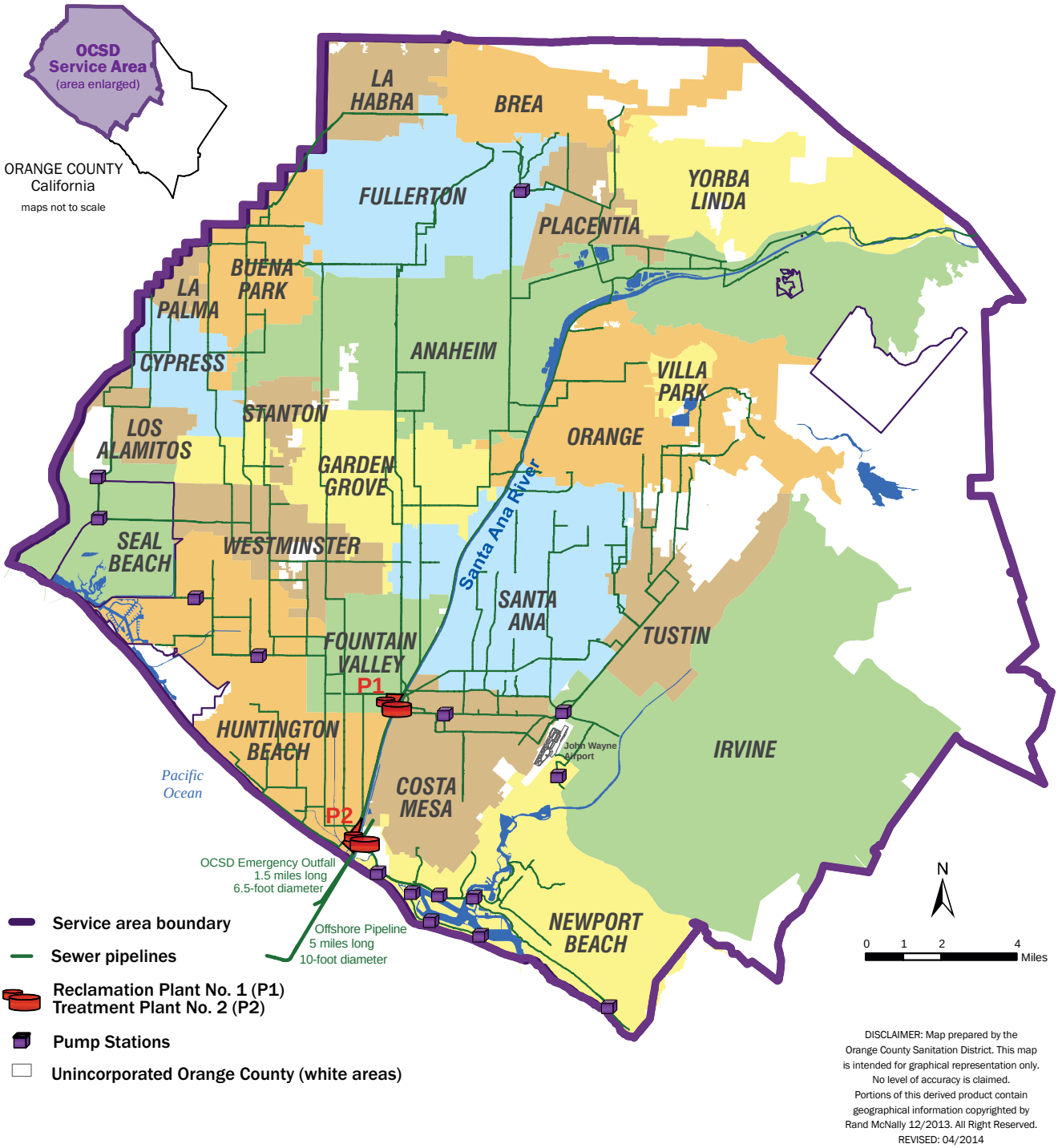
OCSD SERVICE AREA



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REVISED: 04/2014

BOARD OF DIRECTORS

Agency/Cities	Active Director	Alternate Director
Anaheim	Lucille Kring	James Vanderbilt
Brea	Glenn Parker	Cecilia Hupp
Buena Park	Fred Smith	Virginia Vaughn
Cypress	Mariellen Yarc	Stacy Berry
Fountain Valley	Steve Nagel	Cheryl Brothers
Fullerton	Greg Sebourn	Doug Chaffee
Garden Grove	Steve Jones	Kris Beard
Huntington Beach	Jim Katapodis	Erik Peterson
Irvine	Steven Choi	Lynn Schott
La Habra	Tom Beamish	Tim Shaw
La Palma	Peter Kim	Michele Steggell
Los Alamitos	Richard Murphy	Shelley Hasselbrink
Newport Beach	Keith Curry	Scott Peotter
Orange	Teresa Smith	Mark Murphy
Placentia	Chad Wanke	Constance Underhill
Santa Ana	Sal Tinajero	David Benavides
Seal Beach	Ellery Deaton	Sandra Massa-Lavitt
Stanton	David Shawver	Carol Warren
Tustin	John Nielsen	Allan Bernstein
Villa Park	Greg Mills	Diana Fascenelli
Sanitary Water Districts		
Costa Mesa Sanitary District	James Ferryman	Robert Ooten
Midway City Sanitary District	Joy Neugebauer	Al Krippner
Irvine Ranch Water District	John Withers	Douglas Reinhart
Yorba Linda Water District	Robert Kiley	Michael Beverage
County Areas		
Member of the Board of Supervisors	Michelle Steel	Shawn Nelson

BOARD COMMITTEES

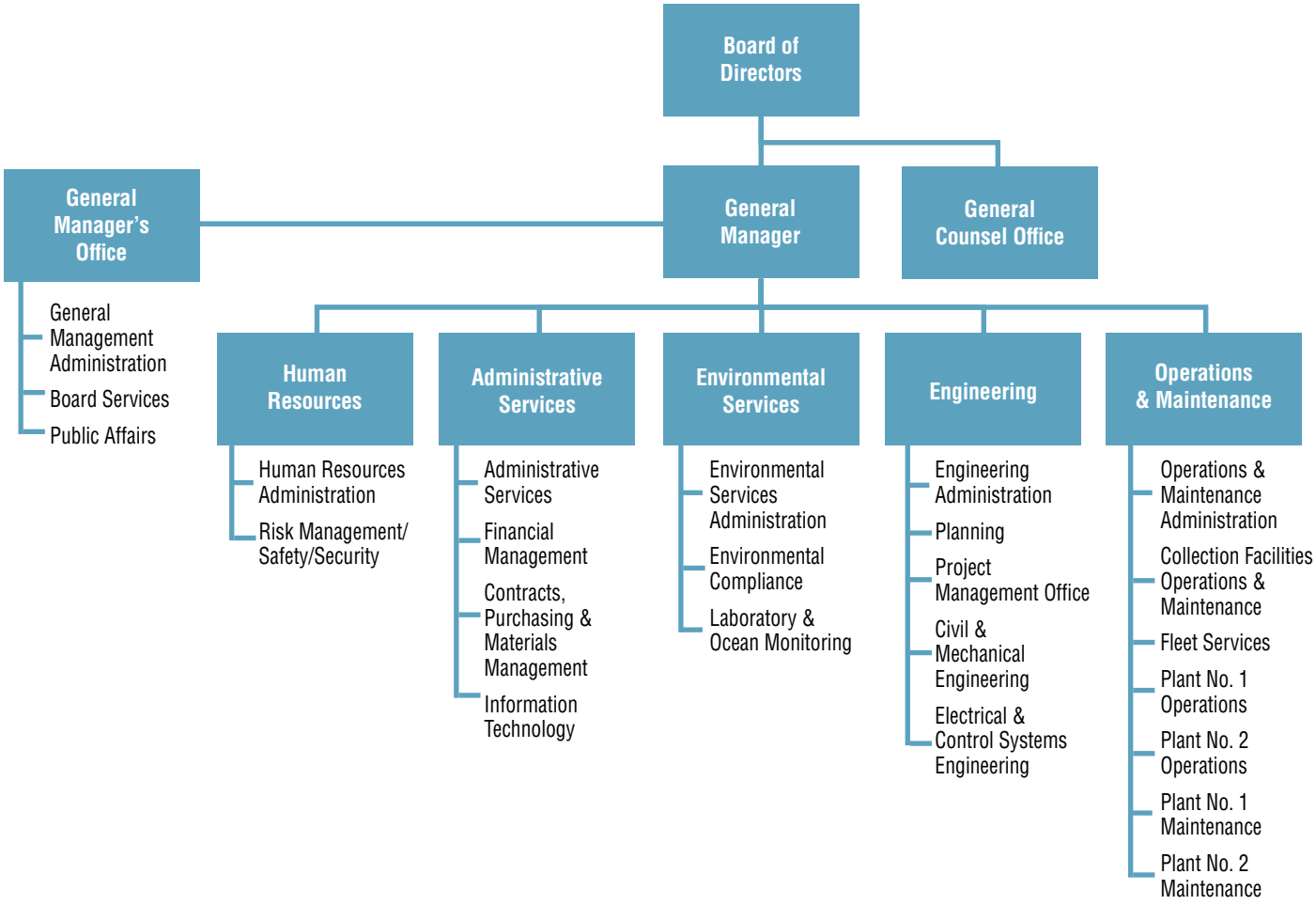
Steering Committee
John Nielsen, Board Chair
Greg Sebourn Board Vice-Chair
John Withers, Chair, Operations Committee
Keith Curry, Chair, Administration Committee
Lucille Kring, Member-At-Large
David Shawver, Member-At-Large
Tom Beamish, Member-At-Large

Administration Committee
Keith Curry, Chair (Newport Beach)
Lucille Kring Vice-Chair (Anaheim)
Steven Choi (Irvine)
James Ferryman (CMSD)
Jim Katapodis (Huntington Beach)
Peter Kim (La Palma)
Greg Mills (Villa Park)
Joy Neugebauer (MCSD)
Glenn Parker (Brea)
Teresa Smith (Orange)
Sal Tinajero (Santa Ana)
John Nielsen, Board Chair (Tustin)
Greg Sebourn, Board Vice-Chair (Fullerton)

Operations Committee
John Withers, Chair (IRWD)
David Shawver, Vice-Chair (Stanton)
Tom Beamish (La Habra)
Ellery Deaton (Seal Beach)
Steve Jones (Garden Grove)
Robert Kiley (YLWD)
Richard Murphy (Los Alamitos)
Steve Nagel (Fountain Valley)
Fred Smith (Buena Park)
Michelle Steel (Board of Supervisors)
Chad Wanke (Placentia)
Mariellen Yarc (Cypress)
John Nielsen, Board Chair (Tustin)
Greg Sebourn, Board Vice-Chair (Fullerton)

Legislative and Public Affairs Committee
Tom Beamish (La Habra)
Peter Kim (La Palma)
Robert Kiley (YLWD)
Lucille Kring (Anaheim)
John Nielsen, Board Chair (Tustin)
Greg Sebourn, Board Vice-Chair (Fullerton)
John Withers (IRWD)

ORGANIZATION CHART



ADMINISTRATIVE OFFICIALS

Management Team

General Manager ..... James Herberg

Assistant General Manager ..... Robert Ghirelli

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 & Maintenance ..... Edward Torres

General Counsel ..... Bradley Hogin

MESSAGE FROM THE GENERAL MANAGER

June 1, 2016

Honorable Chair and Board of Directors:

I am pleased to submit the Orange County Sanitation District's (OCSD) Proposed Budget for fiscal year 2016-17 and 2017-18. This document lays out the framework for OCSD's activities during the next two years, and serves as a source of information for OCSD's Board of Directors, our ratepayers and our employees. This budget includes the operational, capital and debt service expenditures necessary to cost-effectively support our mission and execute the Strategic Plan adopted by our Board of Directors in December 2015. Our work plan focuses on four distinct program areas:

- 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. Recognizing the need for a reliable, affordable and high quality water supply, our Board of Directors has set a goal of recycling 100 percent of our wastewater flows. We will be working with OCWD on the planning and design of the ultimate expansion of the Groundwater Replenishment System over the next two years.

- Infrastructure Reliability and Operational Sustainability – We will continue to improve our planned maintenance program to include civil assets in addition to electrical and mechanical systems. Our long term facilities Master Plan will also be updated during the next two years and will serve as a basis for our new rate structure that will take effect in 2018. Recognizing the importance of resiliency in the event of a disaster, we will complete our business continuity plan and establish offsite backup infrastructure. In fiscal year 2016-17, we will complete the transfer of local sewers in the Tustin area to a local provider, which will allow us to focus on regional services.

- Safety and Security – Capital projects, maintenance activities, and training to address safety in our workplace are included in our work plan. We are also enhancing our physical and electronic security measures.

- Workforce Succession Planning – Recognizing the ongoing retirement wave, we will continue to invest in our employees focusing on planning, leadership training and improved recruitment strategies.

I would like to take this opportunity to highlight some of the important revisions to next year's budget:

- Departmental Restructuring – OCSD restructured its departments to strategically align our engineering, operating, and environmental functions to better meet the challenges of the future. The business units within the Facilities Support Services Department were merged into other departments. The Collections, Operations and Maintenance and Fleet Services divisions were moved into the Operations and Maintenance Department. This change will allow for better coordination and standardization of our maintenance efforts for all of OCSD's infrastructure. The Source Control inspection team merged

with the Pretreatment Compliance team in a newly created Environmental Services Department. This new department will lead OCSD's environmental and regulatory efforts and will also include the Environmental Sciences Laboratory, Ocean Monitoring, Compliance, Air Quality, and Biosolids Programs. The reorganization also consolidated project management functions in the Engineering Department to form an agency wide Project Management Office. These changes will allow us to more efficiently and effectively deliver service to internal and external customers.

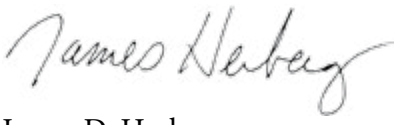
- Operating Expense Cost Containment – Despite inflationary increases on many external costs such as chemicals and utilities, we will minimize the impact on rate-payers by aggressively negotiating our contracts, ensuring a competitive bidding environment, prudently managing debt and implementing efficiencies. The 2016-17 Operating Budget represents only a 3.5 percent increase from the current year projected actuals. Operating efficiencies such as the reduction of long-term liabilities, operational improvements and general cost containment have allowed OCSD to reduce ongoing expenses and the need for additional resources.

- Reduction in Long-term Liabilities – Many government agencies are faced with growing long-term liabilities, particularly in the area of pensions. OCSD has been aggressive in reducing its liability and developed a plan to address this issue. By making advanced payments, as I have included in this budget, OCSD has eliminated its unfunded pension liability, saving tens of millions of dollars in premium payments.

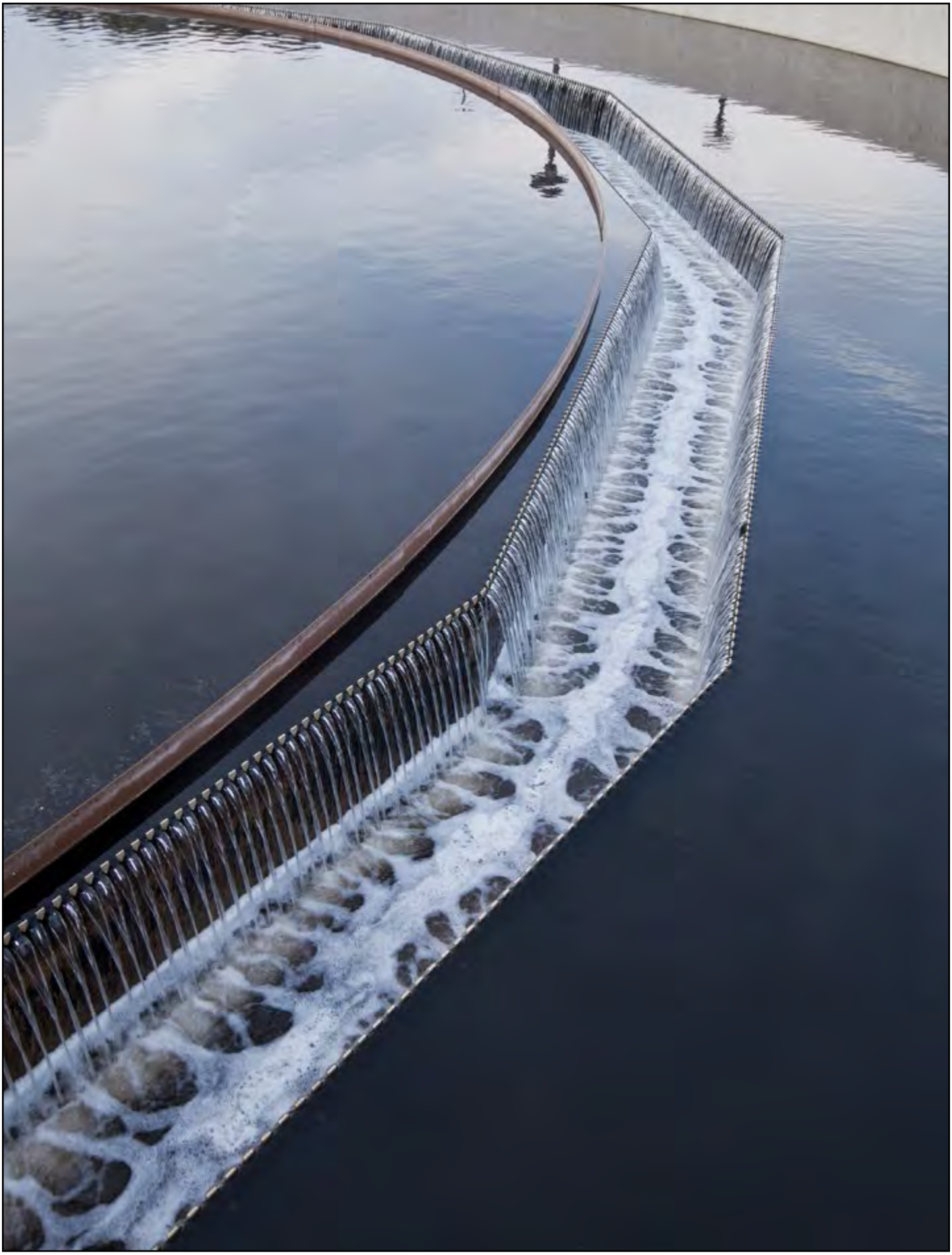
- Rate & Sewer Service Planning – Our current rate structure expires on June 30, 2018. During this budget period, we will establish and present to the board a sound financial plan in line with the goals of the agency.

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 staffing and operating cost increases; and rate increases averaging less than 2 percent per year.

OCSD will continue to provide wastewater treatment, recycling, sewer and facilities maintenance, ocean monitoring and many other services while maintaining one of the lowest rates in the state. I believe this budget fully supports the goals included in the Orange County Sanitation District's Strategic Plan and positions us well to address challenges in the coming years.



James D. Herberg
General Manager
Orange County Sanitation District



FINANCE SUMMARY

FINANCIAL SUMMARY/OVERVIEW & BUDGETARY ISSUES

Budget Overview

Orange County Sanitation District's (OCSD's fiscal year 2016-17 and 2017-18 operating and capital improvement budgets are proposed at $475 million and $375 million, respectively. The decrease in the 2017-18 budget is primarily due to (1) the transfer of local sewer lines to the East Orange County Water District along with the $40 million in capital replacement reserves and (2) the pay down of the remaining $25 million in unfunded actuarial accrued liability with the Orange County Employees Retirement System planned for fiscal year 2016-17. The budget continues to reflect the agency's ongoing efforts to streamline operations.

OCSD's CIP budgets for fiscal year 2016-17 and 2017-18 are $171 million and $138 million, respectively, net of savings and deferrals. This CIP budget supports collection system, joint works treatment and disposal system improvement projects. The decrease in the second year is due to the timing of construction cash outlays as we meet our infrastructure needs.

Financing

The District uses long-term Certificates of Participation (COP) for financing capital improvements that cannot be completely funded from current revenue. Before any new debt is issued, the impact of debt service payments on total annual fixed costs is analyzed. Total COP indebtedness is currently at $1.1 billion. No new money debt financings are currently forecasted to assist in the funding of the $2.4 billion in capital improvements required over the next 10 years.

Staffing

Reflecting the organization's commitment to providing service at the lowest costs, the budget reflects a minimal increase of three authorized full time equivalent (FTE) positions for fiscal years 2016-17 and 2017-18 as staffing is proposed at 627 FTE positions in both years. The new positions are needed to provide additional support for the increasing demands of the capital improvement and asset management programs.

This staffing level continues to reflect a significant reduction from the fiscal year 2010-11 approved staffing level of 641 FTE positions. Personnel costs will decrease primarily due to decreases in retirement premiums after OCSD made a $50 million payment to reduce the unfunded pension liability. An additional payment of $25 million against the unfunded pension liability is planned in 2016-17.

The District will continue to effectively manage these expenses with approximately 20 percent of the budget allocated to employee costs, much less than most other government agencies.

Level of Treatment

The agency's two treatment plants, located in Fountain Valley and Huntington Beach, process about 185 million gallons of wastewater each day generated by approximately 2.6 million people residing within central and northwest Orange County and the businesses that operate within this service area. The proposed budget to operate, maintain and manage our sewage collection, treatment and disposal system, including self-insurance requirements, for the next two years is $149 million and $153 million. Increases are primarily a result of repairs and maintenance, utilities, and personnel costs.

The cost per million gallons of wastewater treated (an industry-wide performance measurement) is expected to increase by $68, or 3.2 percent, in fiscal year 2016-17 to $2,167.

To eliminate most bacteria from being released from the ocean outfall, in fiscal year 2002-03 the District began using chlorine bleach to disinfect the effluent and then applying sodium bisulfite to remove remaining chlorine prior to releasing the treated wastewater to the ocean. This mode of disinfection continued until March 18, 2015. OCSD staff conducted numerous studies on the use of disinfection on the marine environment. OCSD used a Blue Ribbon Panel of experts assembled by the National Water Research Institute. After an exhaustive review of OCSD's practices and receiving water data, the Panel recommended eliminating the continuous use of disinfection. There will continue to be small amounts of bleach and bisulfite at the treatment plants for possible emergencies. Plant water is used throughout the wastewater processes, and there will be sufficient bleach for plant water disinfection.

FISCAL YEARS 2016-17 AND 2017-18 BUDGET

Sewer Service Fees

The 2016-17 and 2017-18 single family residential rates are scheduled to increase by approximately one percent each year to $327 and $331, respectively. OCSD's rates are well below the statewide average sewer rate of $475, according to a 2015 survey of 731 agencies in California.

Groundwater Replenishment System (GWRS)

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

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

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

A feasibility study for recycling all of OCSD's reclaimable effluent was completed in May 2016. This study was jointly funded by OCSD and OCWD with a grant from the U.S. Bureau of Reclamation. The feasibility study identified the projects necessary to implement the final expansion of GWRS. The expansion will add an additional 30 million gallons a day (MGD), bringing the total GWRS capacity to 130 MGD of drinking water.

Capital Improvement Program (CIP)

In preparation of this two-year budget, the District completed the FY 2016-17 CIP Validation Update. Highlights of this Validation Update are as follows:

- Fiscal year 2016-17 proposed CIP expenditures are $171.3 million, net of savings and deferrals.
- Overall total projected CIP expenditures over the 10 year life of the CIP program are $2.4 billion.
- Four new CIP projects were added with projected outlays of $15.9 million.

Projects Driving the CIP

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

1. Sludge Dewatering and Odor Control at Plant No. 2 - $40.3 million ($90.5 million total budget)
2. Newhope-Placentia Trunk Replacement - $35.1 million ($99.5 million total budget)
3. Sludge Dewatering and Odor Control at Plant No. 1 - $28.1 million ($188.3 million total budget)
4. Rehabilitation of Western Regional Sewers - $22.4 million ($215.3 million total budget)
5. Gisler - Red Hill Trunk Improvements - Reach B - $18.9 million ($25.2 million total budget)

FINANCIAL SUMMARY/OVERVIEW & BUDGETARY ISSUES

Operating Budget Increase

The operations budget for the collection, treatment, and disposal of wastewater is proposed at $148.9 million, a $5.0 million (3.5 percent) increase above 2015-16 projected expenditures. It is projected to increase by an additional $3.5 million (2.4 percent) in 2017-18.

Although some expenses will increase or decrease slightly, the overall increase to the operating budget in 2016-17 over the 2015-16 projected is primarily attributable to seven specific areas:

Salaries and Benefits – $0.6M Decrease

Salaries and benefits will decrease primarily due to a reduction of $4.6 million in retirement premiums as a result of the District's decision to use available cash reserves to reduce the unfunded pension liability by $50 million in 2015-16. This decrease will be partially offset by increases of $3.7 million (5.9 percent) in salaries and wages and an increase of $0.5 million (5.2 percent) in group insurance costs.

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

Contractual Services – $1.4M Increase

Although biosolids removal and transportation costs are expected to decrease in 2016-17 by $660,000 as a result of new service contracts, costs for temporary services and other contractual services are expected to increase to support the Civil Assets Maintenance Program.

Contractual services costs are expected to decrease by $2.2 million in 2017-18 as a result of the completion of the sludge dewatering facilities that will significantly reduce biosolids removal and transportation costs.

Professional Services – $1.1M Increase

The increase in professional services in fiscal year 2016-17 is to support the comprehensive Civil Assets Maintenance Program.

Repairs and Maintenance – $0.8M Increase

This expense category includes parts and services for repairing aging treatment plant and collection facilities, and reflects base budgets for equipment maintenance as well as out-sourced annual service contracts and maintenance agreements. The fiscal year 2016-17 budget increase of $839,000 (6.2 percent) is mostly attributable to increases in basic repairs and maintenance costs and Central Generation (CenGen) engine overhaul.

Utilities – $0.4M Increase

The proposed electric power budget reflects an increase of $346,000 over the prior year projected due to anticipated consumption and unit cost increases.

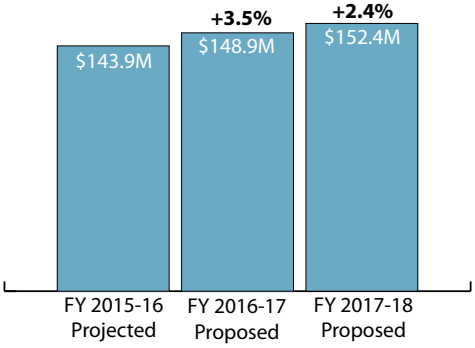
Other Materials, Supplies, Services – $1.8M Increase

The increase is primarily due to an increase in the property and general liability insurance premiums and the restoration of the General Manager's contingency and the contingency for prior year reappropriations.

Cost Allocation – $0.9M Increase

Total salary and overhead costs charged to capital projects are expected to increase based on the updated cost allocation plan and overhead rates. The increased charges to capital projects will decrease the net operating budget.

Operating Expenses

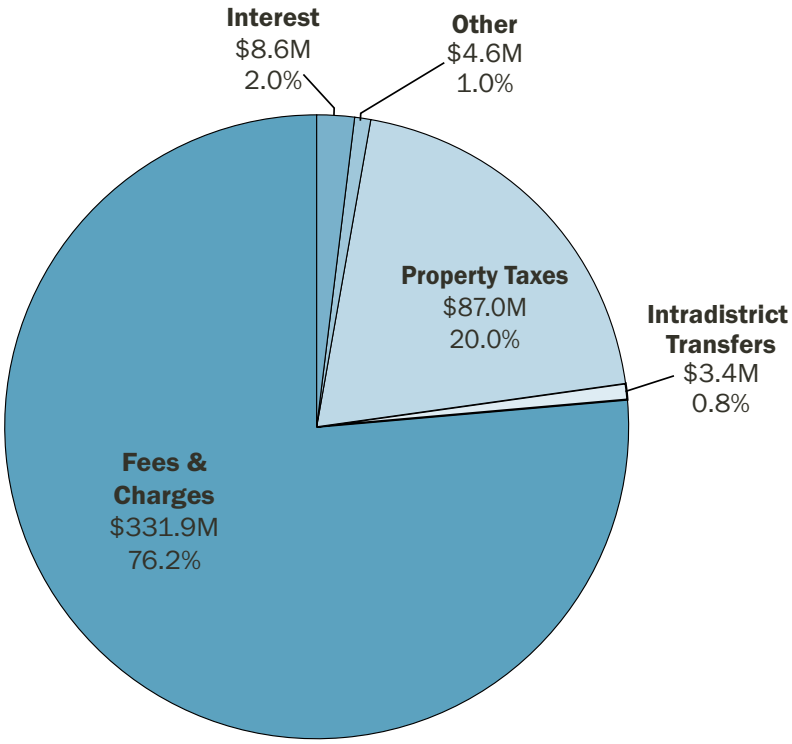


Operating and maintenance expenses increase $5.0 million (3.5%) in FY 2016-17 and another $3.5 million (2.4%) in FY 2017-18.

FISCAL YEARS 2016-17 AND 2017-18 BUDGET

FINANCIAL SUMMARY/FUNDING SOURCES BY CATEGORY

WHERE THE MONEY COMES FROM



Funding Sources by Category (in millions)

Category	2014-15 Actual	2015-16 Projected	2016-17 Proposed	2017-18 Proposed
Service Fees	$291.1	$308.7	$307.1	$310.1
Property Taxes	79.9	82.9	87.0	91.4
Capital Facilities Capacity Charges	20.2	13.3	13.5	18.1
Permit User Fees	14.6	11.1	11.3	11.4
Interest	8.1	7.1	8.6	8.8
Intradistrict Transfers	5.4	8.5	3.4	1.7
Debt Proceeds	0.0	0.0	0.0	0.0
Other Revenue	4.1	4.9	4.6	4.9
Total Funding Sources	$423.4	$436.5	$435.5	$446.4

FISCAL YEARS 2016-17 AND 2017-18 BUDGET

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

General Service Fees – $307.1M

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

Property Taxes – $87.0M

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

Capital Facilities Capacity Charges (CFCC) – $13.5M

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

Permit User Fees – $11.3M

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

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

Interest Earnings – $8.6M

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

Intradistrict Transfers – $3.4M

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

Debt Proceeds – $0M

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

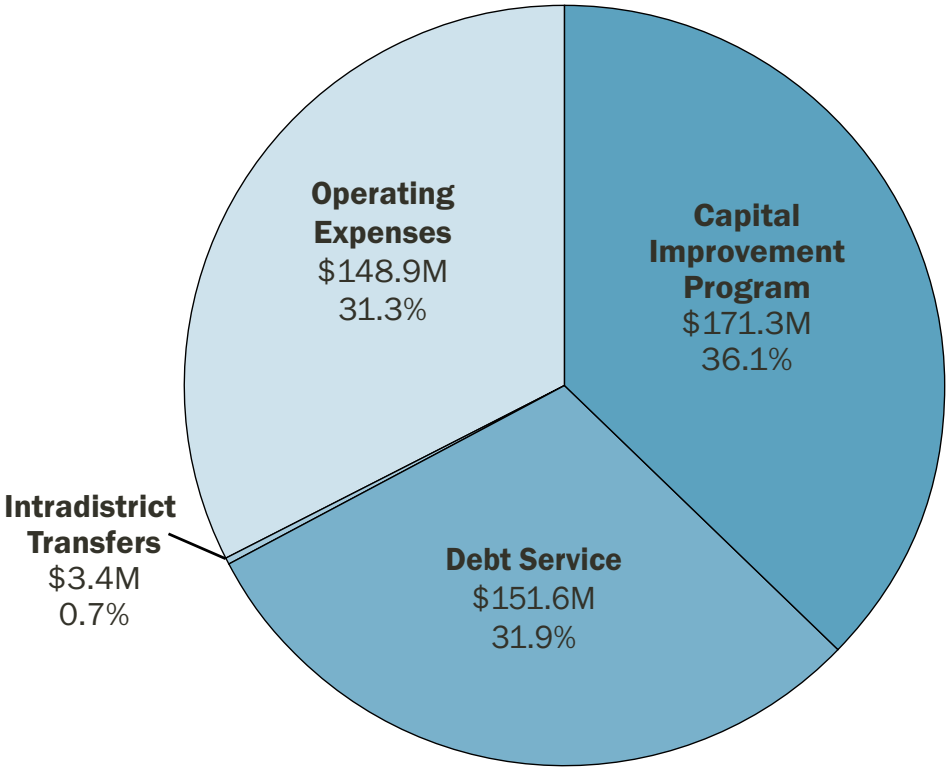
No new money debt issuances are being proposed over the next two fiscal years as the $2.4 billion in future replacement, rehabilitation, and refurbishment projects anticipated over the next ten years will be adequately funded through current sewer service fee charges and existing reserves.

Other Revenue – $4.6M

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

FINANCIAL SUMMARY/FUNDING USES BY CATEGORY

WHERE THE MONEY GOES



Funding Uses by Category (in millions)

Category	2014-15 Actual	2015-16 Projected	2016-17 Proposed	2017-18 Proposed
Capital Improvement Program, Net	$180.0	$140.2	$171.3	$138.0
Debt Service*	220.0	134.0	151.6	83.1
Operating Expenses	143.7	143.9	148.9	152.4
Intradistrict Transfers	5.4	8.5	3.4	1.7
Total Funding Uses	$549.1	$426.6	$475.2	$375.2

**The proposed amount for fiscal year 2016-17 includes a payment of $25 million against the District's unfunded pension liability and a payment of $40 million to the East Orange County Water District as part of an agreement to transfer responsibility for local sewer maintenance.*

FISCAL YEARS 2016-17 AND 2017-18 BUDGET

OCSD budgets its funds in four distinct areas:

Capital Improvement Program (CIP) – $171.3M

To provide an appropriate level of service to OCSD's rate payers, large capital improvements are required. The CIP provides for the management and implementation of these improvements. The CIP budget includes specific projects as well as an allocation for anticipated replacement, rehabilitation, or refurbishment (RRR) projects where detailed job plans have not yet been prepared. The gross CIP project budgets for 2016-17 and 2017-18 are $190.3 million and $153.0 million, respectively. However, the CIP cash outlays, net of savings and deferrals, are budgeted at $171.3 million and $138.0 million for each year, respectively.

Debt Service – $151.6M

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

Operating Expenses – $148.9M

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

Intradistrict Transfers – $3.4M

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

COLLECTION, TREATMENT & RECYCLING PROCESS OVERVIEW

OCSD's system includes approximately 570 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. Wastewater then flows to Secondary Treatment, which is a biological process using either the trickling filter or activated sludge process. Solids removed in Secondary Treatment are also sent to digestion.

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

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

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

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

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

FISCAL YEARS 2016-17 AND 2017-18 BUDGET

Asset Management

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

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.

Asset management has evolved into a comprehensive decision-making framework that encompasses engineering planning, design and construction of quality facilities, optimized operation, proper maintenance, and planned refurbishment and disposal that will meet 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 modeling of systems to ensure the proper rate structure is in place to support sustainable operations and to prioritize condition assessment studies based on service life and service conditions. These are important starting points and have yielded tangible benefits in reduced risk levels and an improved capital planning approach. The results of the long-term modeling are completely dependent on the data quality of the databases supplying information to the TeamPlan Software. Staff continues to improve the data quality of the source systems to improve the accuracy of the long-term model. The 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.

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

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

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

FISCAL YEARS 2016-17 AND 2017-18 BUDGET

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.

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

Asset Valuation

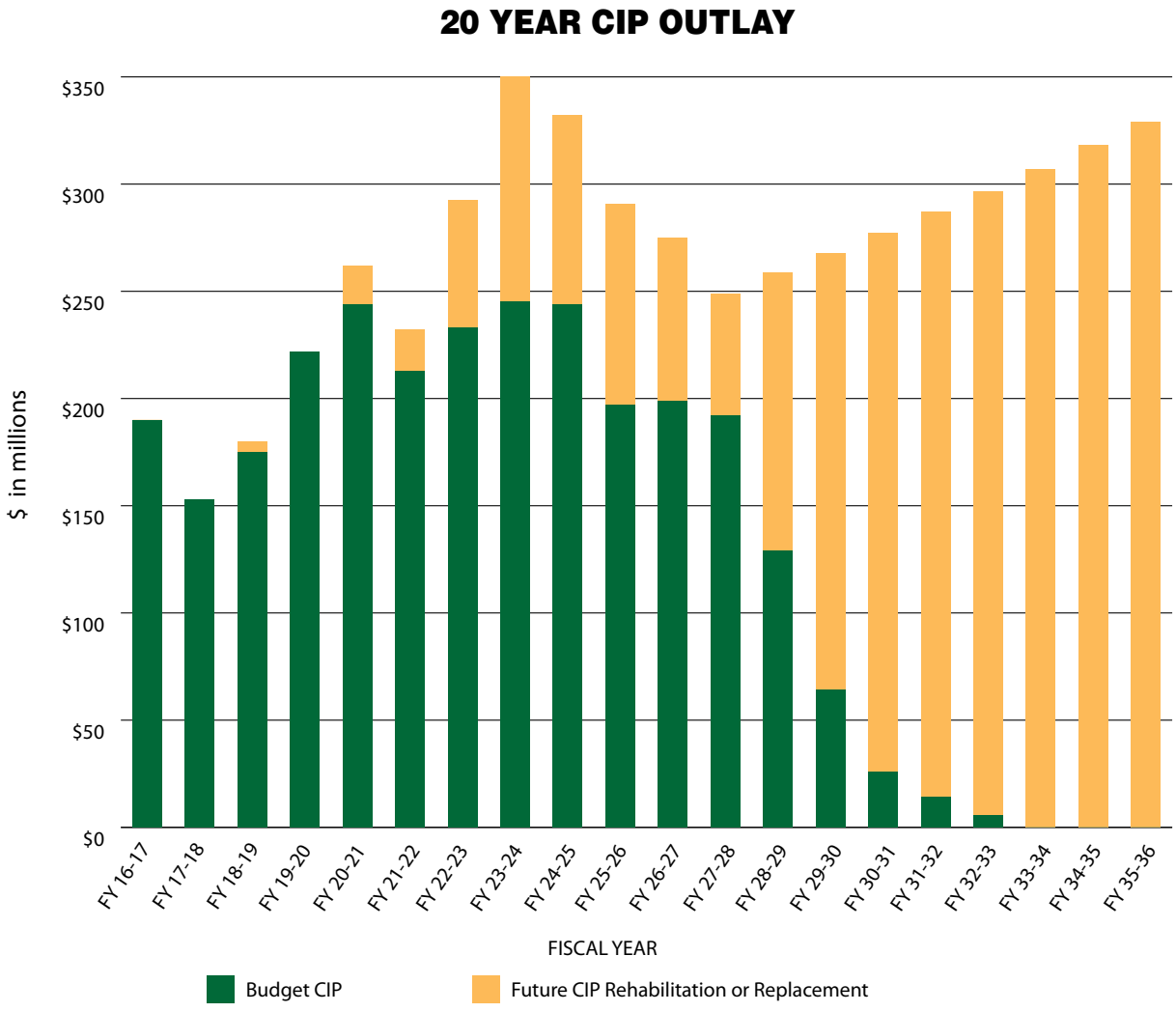
The replacement valuation for all of OCSD's assets has been updated. The table below presents the current replacement and depreciated values of OCSD's assets. The replacement value represents the cost in December 2009 dollars to completely rebuild all the assets to a new condition. The depreciated value is the book value of the assets based on their age, which is a prediction of their current condition.

Valuation	Plants	Collection	Total
Replacement Value (in billions)	$3.11	$3.09	$6.20
Depreciated Value (in billions)	$1.88	$1.88	$3.76

The 2012 replacement value is estimated to be $6.20 billion. In 1998 the prediction was $2.03 billion, which was based on original purchase cost. It is projected that the replacement value will increase by approximately $7.1 billion when all of the existing three billion dollar CIP has been captured in the District's database. The major reasons for this increase are all the new assets added to the asset register and the increased replacement costs due to now having to perform construction in a more urbanized Orange County than in the past.

Planned CIP Outlays

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



FISCAL YEARS 2016-17 AND 2017-18 BUDGET

With the completion of the $537 million full secondary treatment expansion program, our capital improvement and maintenance programs are now more focused on maintaining our infrastructure to ensure that our mission is delivered reliably and that our facilities are managed in a way that minimizes overall life cycle costs.

Below is a status of the fiscal year 2015-16 infrastructure maintenance activities and planned activities for fiscal year 2016-17.

Collection System:

OCSD's collection system consists of 570 miles of sewers broken down by 170 miles of large regional sewers currently not on a cleaning schedule due to their size, 230 miles of regional sewers on a cleaning schedule and 170 miles of local sewers in Area 7 scheduled to be transferred to the East Orange County Water District in August 2016; and 15 pump stations and three metering locations that must be maintained, repaired, and upgraded to maintain wastewater service and to convey sewage to our treatment facilities. 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.

Maintenance activity tracking will change during the 2016-17 fiscal year to reflect various changes and best practices within our system. In addition, the Area 7 local sewers are tentatively scheduled for transfer starting August 2016. The Area 7 local sewer data will be excluded from the metrics values.

During fiscal year 2015-16 the following maintenance activities were completed:

- Cleaned 41 miles of regional sewer lines. Completed rapid manhole inspection of 860 regional manholes.
- Completed 2,900 inspections of 15 pump stations and 3 metering facilities.
- Completed 57 facility safety inspections.
- Completed 56 pump station wet well and 12 Plant No. 2 headwork cleanings.
- Completed 296 pump station preventative pump cleanings.
- Completed 487 pump station mechanical preventative maintenance tasks.
- Cleaned 70 trouble spots and 346 inverted siphons.
- Cleaned 94 miles of local sewer pipelines.
- Repaired 2,380 feet of local sewer lines.
- Completed 260 miles of pipeline video inspections.
- Completed 213 manhole video inspections.
- 1,277 dry tons of caustic soda slug dosed.
- 2,450 dry tons of magnesium hydroxide continuously dosed.
- 4,000 dry tons of ferrous chloride continuously dosed.
- 180,000 gallons of calcium nitrate continuously dosed.

Total costs: $6,792,304

The following activities and goals are planned for fiscal year 2016-17:

- Clean 60 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 95% of scheduled pump station preventative maintenance work.
- Clean 95% of trouble spot and scheduled inverted siphon work.
- Manage odor control chemical expenditures to between 95-102% of budget.

Estimated total costs: $8,864,300

Collection System Capital Improvement Projects

Our 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 to increase flow capacity due to growth in localized portions 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 handle the flow necessary to allow the abandonment of the Yorba Linda Pump Station which has reached the end of its useful life. After analyzing the system, it is not practical to update the facility due to the high costs of rehabilitation and the limitation to utilize the flow for reclamation. Currently, flow is diverted into the Santa Ana River line instead of the Newhope-Placentia line due to the existing insufficient capacity, thus preventing the use of flow for the Groundwater Replenishment System. The project will also include modifications to existing diversion structures to add flexibility to the collection system to divert other reclaimable flow. This project also provides adequate capacity for future development, minimizing the risk of sewer spills in the future. Construction efforts started in May 2016 and the first phase of the project is scheduled to be completed by fall 2017. The project has a current budget of $99 million.

Another large scale project is the Rehabilitation of the Western Regional Sewers (Project No. 3-64) which covers approximately 17 miles of sewers in the cities of Anaheim, Buena Park, Cypress, La Palma, Los Alamitos, Seal Beach and unincorporated areas of the County of Orange referred to as Rossmoor. This large project is required to rehabilitate or replace pipes that were installed 45 to 55 years ago. The sewers have multiple deficiencies which have allowed the intrusion of ground water primarily at the joints, but also sporadically along the pipe segments. In some cases, hard calcium deposits have developed, making the pipe difficult to clean, and over time may impede the wastewater flow. Portions of the project will be relined and others will be replaced with larger diameter pipelines. Also, over 150 manholes will be replaced. In addition, the Westside Pump Station will undergo some improvements, the aging pump station needs a new wet well and odor control measures. This project budget is $217 million.

At the southern edge of the previously mentioned project, the Seal Beach Pump Station (Project No. 3-62) also needs to be rehabilitated to properly support the western region of our service area. Not only are the electrical and safety codes significantly different from when the station was first constructed in the early 1970s, but many of the electrical, mechanical, and control system components are becoming obsolete, so long-term maintenance is no longer an option. The two force mains downstream of the pump station will also need to be addressed. One force main will be replaced and the other rehabilitated to properly support the updated facility. Odor control facilities will be added to reduce system corrosion and minimize public impacts. This project is currently in the design phase with construction anticipated for 2018. The budget for this project is $61 million.

In the cities of Santa Ana, Tustin, and Irvine, we have the Gisler-Red Hill Trunk Improvements (Project No. 7-37) which is rehabilitating or replacing aging parallel sewer lines. The current pipes, which run along Red Hill Avenue between McGaw Street and Mitchell Avenue, are not large enough to handle the high flows associated with wet weather events which create the risk of spills. The manholes are also deteriorated and corroded and must also be replaced or rehabilitated to avoid failure. The two-mile project has a current budget of $25 million and began construction in May 2016.

In Newport Beach, we have developed a comprehensive program to coordinate the various projects scheduled to take place in the city in the next few years. We recently completed construction of the Newport Force Main Rehabilitation Project (No. 5-60), which rehabilitated and replaced parallel pipes in Pacific Coast Highway between Dover Drive and just west of Superior Avenue. The project was sequenced in two phases to minimize public impacts by avoiding construction in the busy summer months. The 50-year steel pressurized mains

FISCAL YEARS 2016-17 AND 2017-18 BUDGET

were in poor condition and one of the pipelines was undersized to convey predicted wet weather flows. Now completed, the system should provide another 50 years of service. The project had a budget of $64 million.

Also in the City of Newport Beach and in portions of Costa Mesa, we have the District 6 Trunk Sewer Relief Project (No. 6-17). This project is replacing the sewer that extends from Pomona Avenue to Newport Boulevard ending near Pacific Coast Highway. These improvements will increase capacity to properly handle the projected increase in flow from planned developments. These improvements will extend the life of the sewer by 30 years. Once the project is completed, the risk of sewer spills during dry weather events and common wet weather events will significantly diminish. The current budget for the project is $8 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 million gallons per day for a total of 130 million gallons per day.

During fiscal year 2015-16, more than 4,200 preventative maintenance activities were performed at Plant No. 1. In addition to these routine activities, the following maintenance and repair activities were completed during the year:

- Completed the arc flash evaluation project to ensure the safety of workers servicing electrical equipment.
- Continued assessment and evaluation of proper settings of protective relays to ensure the safety of workers servicing electrical equipment .
- Initiated steps to replace the foul air scrubber atmospheric analyzer units that monitor compliance with South Coast Air Quality Management District (SCAQMD) requirements and feed chemicals into the scrubbers including completing a service contract to optimize installation and purchasing of analyzer units.
- Rebuilt one of the four Steve Anderson Lift Station pumps that transfer flow tributary to Treatment Plant No. 2 into Reclamation Plant No. 1.
- Completed major service on four of nine blowers that provide oxygen to the microorganisms in the secondary treatment process.

Replacement of the control system for emergency back-up power generators that service our activated sludge secondary treatment facilities, originally planned for fiscal year 2015-16, was made part of the Headworks Rehabilitation Capital Improvement Project scheduled for completion in 2020. Additionally, replacement of outdated atmospheric monitoring equipment in the digesters and central generation facility areas originally scheduled for this year was deferred to fiscal year 2016-17 due to changing priorities.

Total costs: $3,827,885

During fiscal year 2016-17, there are more than 4,900 preventative maintenance activities that are scheduled to be completed at Plant No.1. These include 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. In addition, staff will be utilizing predictive technologies such as vibration analysis to measure imbalance in rotating equipment, thermography to measure excessive heat, oil analysis to predict failure of lubricants, and ultrasonic to detect leaks as well as deterioration and short-circuiting in electrical equipment. Other major planned activities for fiscal year 2016-17 at Reclamation Plant No. 1 include:

- Completion of the arc flash and protective relay work, including labeling of assets and acting on recommendations from the evaluation completed last year, to ensure the safety of workers servicing electrical equipment.
- Replacement of eight foul air scrubber atmospheric analyzer units that monitor compliance with South Coast Air Quality Management District (SCAQMD) requirements and feed chemicals into the scrubbers.
- Major overhaul of one Central Generation (CenGen) Engine.
- Overhaul of one cake conveyor and one belt press for biosolids dewatering.
- Major service on two blowers that service the AS1 secondary treatment facility.

- Replacement of the vane bushings on three of the AS1 blowers.
- Servicing of emergency generators to ensure continuity of operations.
- Replacement of 23 outdated atmospheric monitoring units in the digester facility areas.

Total estimated costs: $5,105,970

Reclamation Plant No. 1 Capital Improvement Projects:

These projects are intended to rehabilitate or reconstruct major components of our treatment process to ensure compliance with regulatory permits, and 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 $275 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 increase 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 just under $188 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 $67 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. During fiscal year 2015-16, the number of process units in service at Treatment Plant No. 2 was reduced as additional flow was diverted to Reclamation Plant No. 1 in support of the expanded GWRS. Average flow treated at Plant No. 2 was 65 million gallons per day. In addition to more than 3,600 preventative maintenance activities completed during fiscal year 2015-16, the following major activities were also completed at Treatment Plant No. 2 during the year:

- Completed the arc flash evaluation project to ensure the safety of workers servicing electrical equipment.
- Continued assessment and evaluation of proper settings of protective relays to ensure the safety of workers servicing electrical equipment.
- Completed major overhaul on one of five central generation engines that supply two-thirds of the power for the treatment plant.
- Overhauled two of the three gas compressors that provide digester gas to the central generation facility for producing electrical power and heat.
- Initiated steps to replace the foul air scrubber atmospheric analyzer units that monitor compliance with South Coast Air Quality Management District (SCAQMD) requirements and feed chemicals into the scrubbers including completing a service contract to optimize installation and purchasing analyzer units.

- Cleaned and replaced mechanical equipment on two digesters to improve mixing and detention time to ensure the best possible reclamation of the biosolids.
- Removed debris from the by-pass flap gate discharge point into the Santa Ana River to ensure availability of this discharge in the event of an emergency.

Replacement of outdated atmospheric monitoring equipment in the digesters and central generation facility areas, originally scheduled for this year, was deferred to fiscal year 2016-17 due to changing priorities.

Total costs: $5,124,823

During fiscal year 2016-17, there are more than 4,300 preventative maintenance activities that are scheduled to be completed at Treatment Plant No. 2. These include 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. 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. In addition to planned preventative maintenance, other major planned activities at Treatment Plant No. 2 for fiscal year 2016-17 include:

- Completion of the arc flash and protective relay work, including labeling of assets and acting on recommendations from the evaluation completed last year, to ensure the safety of workers servicing electrical equipment.
- Replacement of foul air scrubber atmospheric analyzer units that monitor compliance with South Coast Air Quality Management District (SCAQMD) requirements and feed chemicals into the scrubbers, as required.
- Clean and replace mechanical equipment on two digesters to improve mixing and detention time to ensure best possible reclamation of the biosolids.
- Replacement of five outdated atmospheric monitoring equipment in the digesters facility areas, as required, and complete replacement in the central generation facility areas.

Total estimated costs: $4,291,204

Treatment Plant No. 2 Capital Improvement Projects:

The Primary Treatment Rehabilitation Project (P2-98) will rehabilitate the primary clarifiers, influent pipes, construct new primary effluent pipes, and rehabilitate and upgrade the odor control systems. These facilities date back to the late 1950s and are in need of seismic and condition based upgrades. 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 $428 million.

Treating 100 percent of our influent to full secondary treatment standards means there are more solids to manage which has generated several projects to address that need. A few are currently underway such as the Solids Thickening and Processing Upgrades (Project No. P2-89) which will be completed at the end of the year. The Sludge Dewatering and Odor Control project (No. P2-92) has started construction to replace 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 disposal costs for the Sanitation District. This $90 million project will be in construction through 2018.

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 refurbish the Ocean Outfall Booster Station. This 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 low flow pump station will be added due to our increased water recycling rates, which will reduce our outfall flows below the capacity of the current very large pumps. The budget for this project is $88 million.

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 Primary Treatment Area Study and the Bay Bridge Pump Station Relocation Study to help identify how to best address and manage the improvements for these two important components of our system. We also have studies focusing on topics such as: Effluent Reuse, which coincides with Board of Director's strategic goal for future water recycling; the Odor Control Master Plan, which will help identify areas of improvement to better define our level of service; and the Biosolids Master Plan. As these studies evolve, projects will be refined or created to improve our systems.

Civil Assets Maintenance Program

The Civil Assets Maintenance Program (CAMP) covers the predictive, proactive, and corrective maintenance tasks for all OCSD assets at all its facilities located at Plants No. 1 and No. 2, as well as all OCSD pump stations and its entire collection system to insure that OCSD civil assets meet design life expectancy and will complement the existing maintenance programs for mechanical, electrical and instrumentation maintenance. In addition, the plan ensures the assessment of all of primary and critical equipment required to meet OCSD's main mission of protecting the public health and environment. 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.

During fiscal year 2015-16, CAMP completed the following activities:

- Development of a Five-Year Plan
- Development of Reliability Maintenance Data Management System: developed an overall system architecture to track and locate all asset data through the Maximo Computerized Maintenance Management System (CMMS).
- Development of a Reliability Maintenance Housekeeping Plan, including a valve and gate exercising program.

Total costs: $200,000

Planned activities for fiscal year 2016-17 for CAMP include the following:

- Follow the CAMP Five-Year Plan by area and, for each area, identify the assets, adding preventative maintenance tasks for each asset into Maximo.
- Continue to update the Reliability Maintenance Data Management System.
- Continue to update the Reliability Maintenance Housekeeping Plan, including the addition of an equipment rotation plan and a cleaning and flushing plan.
- Pipeline cleaning and vactoring.
- CCTV inspections.
- Cathodic protection and coatings.
- Corrosion assessment and support.

Estimated total costs: $2,471,000

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.

Many of the District's projects take several years to complete the planning, design and construction cycle. The budget for a construction 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 2016-18 are continuing projects that were approved in prior years.

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 will continue to review and update the ongoing and future CIP to appropriately manage the risks associated with asset or system failure. This year several projects were delayed, consolidated and rescoped to help ensure that the CIP is delivered in the most efficient way possible. The Asset Management Program will continue these efforts and will continue to define the future CIP project requirements not currently included on the CIP list but are anticipated within the long-term financial plan to ensure effective and efficient operations in the future.

Four new projects are proposed for addition to the 2016-2018 budget to rehabilitate the Gisler-Red Hill Interceptor, relocate the Banning Gate at Plant No. 2, improve odor at various Newport Beach pump stations, and evaluate the steps necessary to replace District's process SCADA system. These CIP projects increase the amount of the CIP by $15.9 million. However, these projects will be funded from OCSD's existing budget and will not impact OCSD user rates.

In conjunction with preparation for the 2016-18 Budget, District staff have developed and reviewed with the Board of Directors a capital program to deliver the levels of service included in the District's Five-year Strategic Plan.

District staff has also validated all active and future CIP projects to ensure that the project scopes of work and cost estimates were accurate. Through the 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 81 active and future capital projects with a 10-year expenditure of $2.4 billion.

The proposed 2016-17 CIP budget is organized by treatment process. The funds requested for the current CIP budget total $190.3 million, which is part of an overall total CIP budget of $3.3 billion for active and future projects.

Following is a table of the fiscal year 2016-17 proposed CIP budget, by project phase, in millions:

Project Status	2016-17 CIP Budget
Planning	$ 11.0
Design	52.3
Construction	127.0
Total Gross CIP Budget	**190.3**
Less: Savings and Deferrals	(19.0)
CIP Net of Savings/Deferrals	**$ 171.3**

There are currently 11 projects in the Planning Phase with proposed capital outlay spending in 2016-17. Two of the larger 2016-17 cash flow projects in the Planning Phase are the Process SCADA Replacement Study and the Biosolids Master Plan, which is one of the planning studies within the Master Studies Program. The current year projected expenditures for these two projects are $1.3 million and $2.9 million, respectively.

Currently, there are 39 projects in the Design Phase with proposed capital outlay spending in 2016-17. The two largest projects in the Design Phase are the Rehabilitation of Western Regional Sewers and the Headworks Rehabilitation and Expansion at Plant No. 1 with projected current year expenditures of $16.0 million and $6.7 million, respectively.

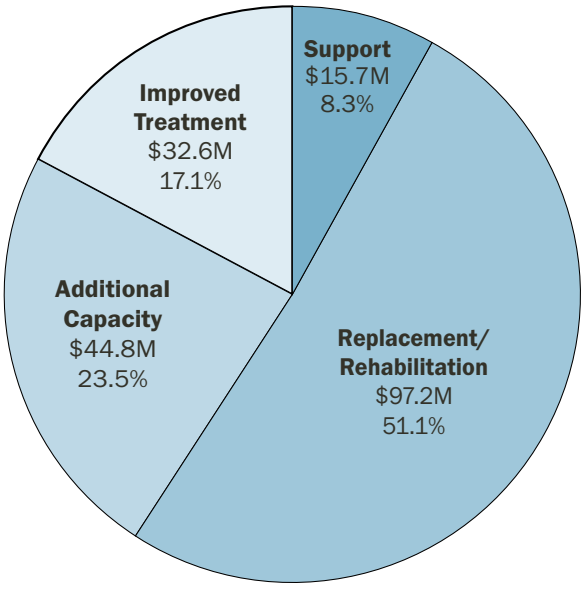
There are currently 31 projects in the Construction Phase with proposed capital outlay spending in 2016-17. The two most significant projects in the construction phase are the Sludge Dewatering and Odor Control at Plant No. 2 and the Newhope-Placentia Trunk Replacement with projected fiscal year 2016-17 expenditures of $23.5 million and $20.9 million, respectively.

FISCAL YEARS 2016-17 AND 2017-18 BUDGET

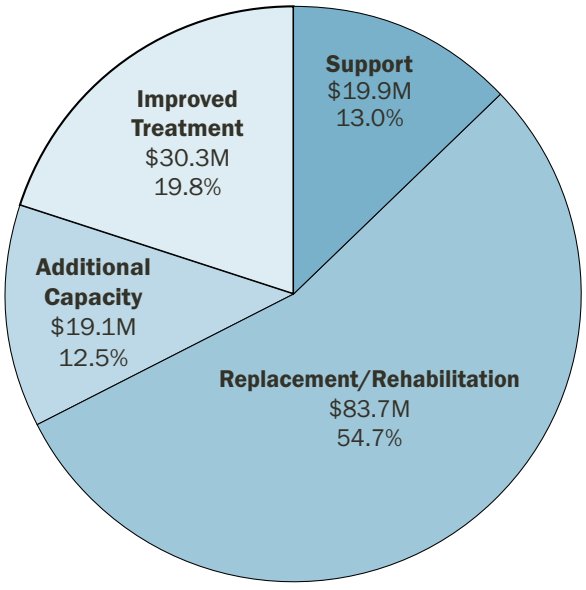
Standard contingency factors have been applied to improve cost estimates. The rates of 30, 20, and 10 percent have been applied respectively to the estimates made during the project development, design, and construction project phases. This reflects standard practice for estimating construction project costs.

Each project went through an extensive validation and prioritization process. Projects have been prioritized based on risk exposure. Projects that would present a higher risk or disproportionally higher future cost if they were delayed are given a higher priority.

FISCAL YEAR 2016-17
CIP Outlays by Process
Total = $190.3 Million



FISCAL YEAR 2017-18
CIP Outlays by Process
Total = $153.0 Million



DEBT FINANCING PROGRAM

Debt Financing

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

Certificates of Participation (COP)

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

As of July 1, 2016, the total outstanding COP indebtedness will be $1.1 billion.

Build America Bonds Financings

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

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

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

Dedicated Funding Source

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

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

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

The District Maintains AAA Bond Rating

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

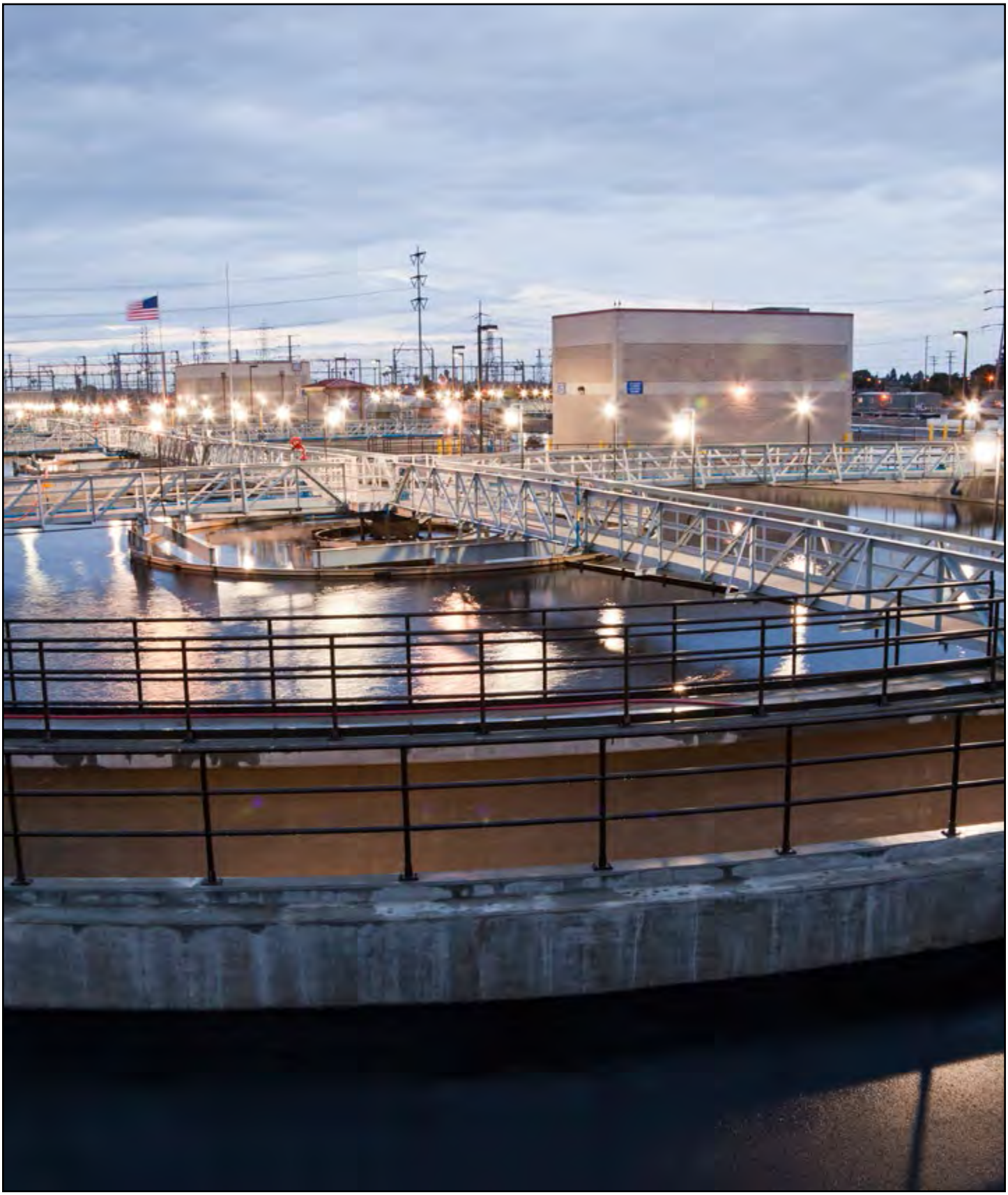
Debt Ratios

The District has contractual covenants within the existing COP agreements which require minimum coverage ratios of 1.25. The minimum coverage ratio is the ratio of net annual revenues available for debt service requirements to total annual debt service requirements for all senior lien COP debt. The coverage ratio for senior lien COP debt is being proposed to remain above 3.00 for fiscal years 2016-17 and 2017-18.

Future Financings

No new money debt issuances are being proposed over the next two fiscal years as the $2.4 billion in future replacement, rehabilitation, and refurbishment projects anticipated over the next ten years will be adequately funded through current sewer service fee charges and existing reserves.

FISCAL YEARS 2016-17 AND 2017-18 BUDGET



OPERATING EXPENSES

Summary of Operating and Maintenance Expenses (in millions)

Category	2014-15 Actual	2015-16 Projected	2016-17 Proposed	2017-18 Proposed
Salaries and Benefits	$94.2	$89.9	$89.3	$90.6
Contractual Services	22.2	23.5	24.8	22.6
Operating Materials & Supplies	15.4	16.4	16.7	17.4
Repairs and Maintenance	11.6	13.4	14.2	16.1
Utilities	7.2	8.5	8.9	10.2
Professional Services	3.2	3.0	4.2	4.2
Other Materials, Supplies, Services	1.7	1.7	3.4	3.8
Self-Insurance Requirements	2.2	2.5	2.5	2.6
Administrative Expenses	1.4	1.5	1.8	1.8
Training and Meetings	0.8	0.8	1.2	1.2
Research and Monitoring	0.8	0.7	0.8	0.9
Printing and Publications	0.3	0.3	0.3	0.4
Cost Allocation	(17.3)	(18.3)	(19.2)	(19.4)
Total Operating Expenses	$143.7	$143.9	$148.9	$152.4

Salaries, Wages & Benefits – $89.3M

Salaries & Wages – The proposed budget for Full Time Equivalent (FTE) positions for both 2016-17 and 2017-18 reflects an increase of three FTEs from the 2015-16 approved staffing level of 624.0 FTEs to 627.0 FTEs. Provision has been made in these salary projections to comply with the terms of the most recently adopted Memorandums of Understanding.

Retirement – OCSD employees are members of the Orange County Employees' Retirement System (OCERS). Information from OCERS indicates that the employer's required contribution rates will be decreased in fiscal year 2016-17 from 20.75 percent to 13.09 percent as a result of the District's additional payment in 2015-16 to reduce the unfunded actuarial accrued liability. In addition, OCSD pays 3.5 percent of the employee required contribution.

Group Insurance – These expenses include OCSD's share (approximately $13,900 per employee) of employee medical plan benefits for the indemnity plan, prepaid HMO plans, dental insurance plan, and life and disability insurance premiums. The proposed budget includes a 5.0 percent increase for medical plans over the prior year projected.

Contractual Services – $24.8M

The treatment plants currently produce about 775 wet tons per day of biosolids which are recycled in California and Arizona. Nearly 50 percent of biosolids are currently allocated to composting, 40 percent is used on farms for soil enrichment, and 10 percent is sent to a local landfill that produces methane. In 2016-17 and 2017-18, biosolids budgets will be approximately $17.2 million and $14.0 million respectively, approximately 69 percent of the Contractual Services budget. Other residuals solids and waste includes disposal costs for grit and screening waste, digester cleaning waste, and hazardous materials.

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

Operating Materials & Supplies – $16.7M

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

The costs for this group of chemicals are expected to decrease by $879,000 (14 percent) in 2016-17 primarily due to the award of new purchase agreements for ferric chloride with lower pricing.

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

The 2016-17 and 2017-18 budgets for these chemicals are $8.2 million, and $8.7 million, respectively. The collection system chemical costs are expected to increase due to the replacement of Irvine Ranch Water District (IRWD) injection points using ferrous chloride with an injection point using the more expensive magnesium hydroxide and calcium nitrate to mitigate collection system odors.

Repairs and Maintenance – $14.2M

This item, which is for parts and services for repair of plant and collection facilities and annual service contracts, is expected to increase by approximately $839,000 or 6.2 percent in 2016-17, followed by an increase of 1.9 million or 13.3 percent in 2017-18.

Planned repairs include: digester cleaning ($1.3M); CenGen engine overhaul ($1.3M); service of aeration blowers ($400K); electrical protective relay maintenance ($325K); interplant gas line maintenance ($185K); and emergency generator maintenance ($150K).

Utilities – $8.9M

During fiscal year 2016-17, the overall cost for utilities, a significant component of the operating budget, is anticipated to increase by 5.2 percent over the projected 2015-16 costs and then increase by $1.3 million, or 14.8 percent, in 2017-18.

Natural Gas – Natural gas is purchased from two providers for different purposes. Purchases from a gas marketer are used to supplement the digester gas that is used to run the CenGen facilities. The fiscal year 2016-17 natural gas budget is $519,000, 5.3 percent higher than the projected 2015-16 costs. With the new emission control systems installed on all GenGen engines, natural gas usage is expected to increase during the summer months in order to reduce peak electricity demand.

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

The 2016-17 proposed budget is five percent higher than the 2015-16 projected costs due to rate increases. The costs are expected to further increase in 2017-18 by $1.2 million due to the startup of the sludge dewatering facilities and a projected four percent rate increase.

With the completion of the emission controls system installation, staff have the opportunity to optimize power usage by either purchasing supplemental natural gas or electricity, whichever costs less.

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

- GAP water is secondary treated effluent from the Sanitation District that is further treated by the Orange County Water District. GAP water is significantly less expensive than potable water and is

used in the process wherever possible. The major uses of GAP water include cooling water, solids handling, and landscaping. By agreement, OCSD receives up to 1,120 acre feet per year of GAP water at no charge. The proposed budget is $5,000 for each of the next two years.

- Potable Water – The potable water budget includes water supplied by the City of Fountain Valley for Plant No. 1 and the City of Huntington Beach for Plant No. 2. Approximately five percent of the potable water at Plant No. 1 is used for domestic uses and less than one percent is used for irrigation. The majority of the irrigation at both plants uses reclaimed water. Less than one percent of the potable water used at Plant No. 2 is for domestic uses due to the relatively small number of employees at Plant No. 2. The proposed total potable water cost for 2016-17 is $646,000, a three percent increase from the projected 2015-16 costs.

Professional Services – $4.2M

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

Other Material, Supplies, Services – $3.4M

This category of costs includes the in-lieu insurance premium used to maintain the level of accumulated reserves for the property and general liability self-insurance programs. This in-lieu cost for 2016-17 is proposed at $1.1 million.

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

Insurance – $2.5M

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

The District's property insurance coverage is $1 billion for perils of fire and $300 million for perils of flood, subject to a self-insurance retention of $250,000. The District is partially self-insured for earthquake, but does carry $25 million in coverage on seven 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.

An appropriation of $1.1 million for in-lieu premium contribution charged to operations is recommended for the Property and General Liability Program.

This will serve to maintain the reserves balance.

Administrative Expenses – $1.8M

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

Training and Meetings – $1.2M

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

Research and Monitoring – $0.8M

Research and monitoring expenditures consist of contract services to carry out the extensive ocean monitoring program required by the EPA under 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 power

agreement with other Southern California municipal dischargers; and also provide for increased operational and ocean research and evaluation to develop optimum operating parameters in treatment plants.

Printing and Publication – $0.3M

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

Cost Allocation – ($19.2M)

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

DEPARTMENTS SUMMARY

Expenses by Department (in millions)

Department	Projected 2015-16	Proposed 2016-17	Percent Change	Proposed 2017-18	Percent Change
Administration Units:					
General Manager's Office	$3.4	$4.5	32.4%	$4.6	2.2%
Human Resources	5.7	7.1	24.6%	7.5	5.6%
Administrative Services	17.7	17.5	(1.1%)	18.5	5.7%
Sub-Total	$26.8	$29.1	8.6%	$30.6	5.2%
Operating Units:					
Facilities Support Services	18.7	0.0	(100.0%)	0.0	0.0%
Environmental Services	0.0	17.1	100.0%	17.5	2.3%
Engineering	7.8	2.4	(69.2%)	2.3	(4.2%)
Operations & Maintenance	88.1	97.8	11.0%	99.5	1.7%
Sub-Total	$114.6	$117.3	2.4%	$119.3	1.7%
Total	$141.4	$146.4	3.5%	$149.9	2.4%

Staffing by Department (FTEs)

Department	Projected 2015-16	Proposed 2016-17	Percent Change	Proposed 2017-18	Percent Change
Administration Units:					
General Manager's Office*	15.00	15.00	0.0%	15.00	0.0%
Human Resources	27.00	27.00	0.0%	27.00	0.0%
Administrative Services	98.00	99.00	1.0%	99.00	0.0%
Sub-Total	140.00	141.00	0.7%	141.00	0.0%
Operating Units:					
Facilities Support Services	63.00	0.00	(100.0%)	0.00	0.0%
Environmental Services	0.00	91.00	100.0%	91.00	0.0%
Engineering	127.00	116.00	(8.7%)	116.00	0.0%
Operations & Maintenance	294.00	279.00	(5.1%)	279.00	0.0%
Sub-Total	484.00	486.00	0.4%	486.00	0.0%
Total FTEs*	624.00	627.00	0.5%	627.00	0.0%

**FTE totals exclude Management Discretion positions that are authorized but used only on a temporary basis to facilitate the replacement of key positions. A total of three Management Discretion positions are included in the proposed budget for FY 2016-17; however, total filled positions will not exceed 627 FTEs at any point in time.*

Administration Units

Office of the General Manager
Budget $4.5M – Staffing 15 FTE Positions

The Office of the General Manager provides general oversight of all District operations and incorporates functions in the areas of Public Affairs and Board Services. This office reports directly to the Board of Directors.

Human Resources
Budget $7.1M – Staffing 27 FTE Positions

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

Administrative Services
Budget $17.5M – Staffing 99 FTE Positions

The Administrative Services Department maintains financial oversight and administration of all District funds and accounts and is responsible for contract administration and procurement, and oversees all District computer, networking and customer support issues. The budget reflects the transfer in of one position from another department.

Operating Units

Environmental Services
Budget $17.1M – Staffing 91 FTE Positions

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

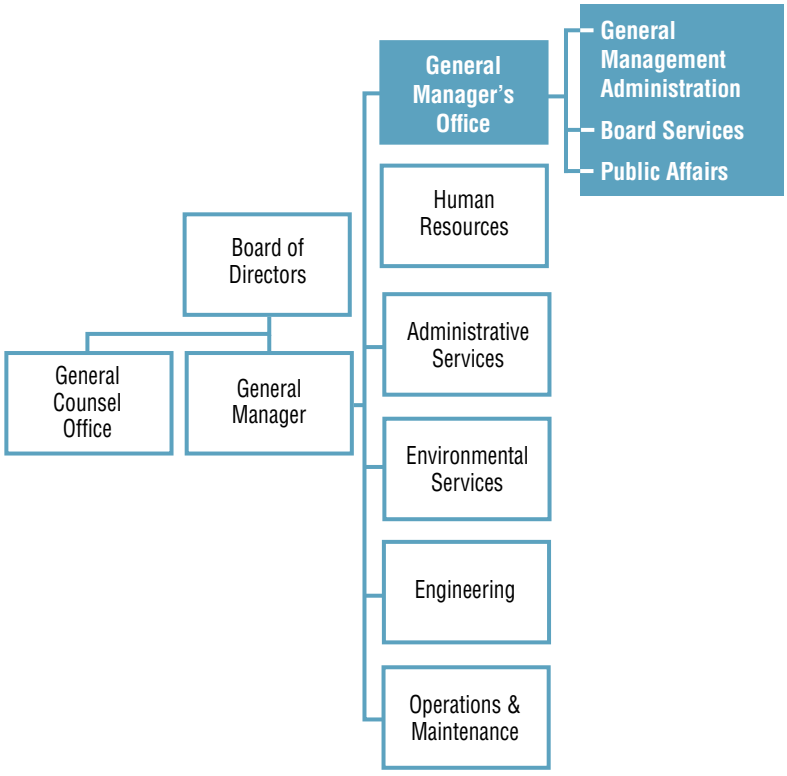
Engineering
Budget $2.4M – Staffing 116 FTE Positions

The Engineering Department is responsible for the planning and execution of the District's capital improvement program and asset management program. The budget reflects the transfer out of 14 positions to other departments, partially offset by the addition of three new positions.

Operations and Maintenance
Budget $97.8M – Staffing 279 FTE Positions

The Operations and Maintenance Department is responsible for the operation and maintenance of the District's two wastewater treatment plants as well as the sanitary sewer system pipeline and pumping facilities. The department also provides fleet management services for the District. The budget reflects the transfer out of 15 positions to other departments.

GENERAL MANAGER'S OFFICE



Service Description

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

Board Services provides a high level of customer service through the Clerk of the Board's office. The Clerk of the Board's office supports the Board of Directors and the public by preparing and publishing agendas in accordance with legal requirements for meetings of the Board of Directors; recording the actions taken by the Board; publishing notices as required by law; acting as filing officer for Statement of Economic Interests filings; receiving and processing summons and complaints filed against the District; and maintaining rosters of the Board of Directors and appointed committee assignments.

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

Operating Expense

Category	2014-15 Actual	2015-16 Budget	2015-16 Projected	2016-17 Proposed	2017-18 Proposed
Personnel	$2,161,806	$2,462,470	$2,199,500	$2,286,100	$2,336,300
Supplies	243,943	327,540	267,730	355,590	362,690
Professional / Contractual Services	335,085	630,500	777,980	728,900	642,900
Research & Monitoring	0	0	0	0	0
Repairs & Maintenance	847	1,500	0	0	0
Utilities	110,824	136,000	116,000	122,000	137,000
Other	91,698	1,033,420	77,890	1,115,270	1,151,970
Cost Allocation	(81,781)	(92,500)	(83,040)	(57,240)	(57,240)
Total	$2,862,422	$4,498,930	$3,356,060	$4,550,620	$4,573,620

Budget Overview

The fiscal year 2016-17 budget for the General Manager's Office reflects an increase of 1.1 percent over the current budget. The increase is primarily due to increases in costs for legal services, software program consulting services, and temporary services in addition to the transfer of funding for the National Water Research Institute membership from the Engineering Department. These increases were partially offset by reductions in retirement costs, advocacy efforts, and training and meeting expenses.

Performance Objectives / Measures

- Ensure that the Board approved Strategic Plan is implemented.
- Provide leadership development opportunities reaching at least 70% of staff.
- Maintain the Special District Leadership Foundation (SLDF) District Transparency Certificate of Excellence.
- Respond to 90% of public records requests within seven business days.

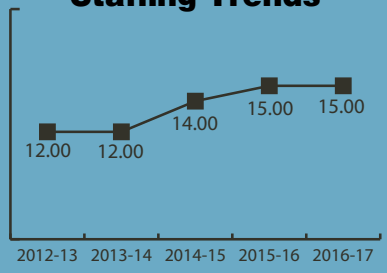
Authorized FTE Positions

Managers 2.00
Supervisors /Professionals 8.00
Administrative /Clerical 5.00

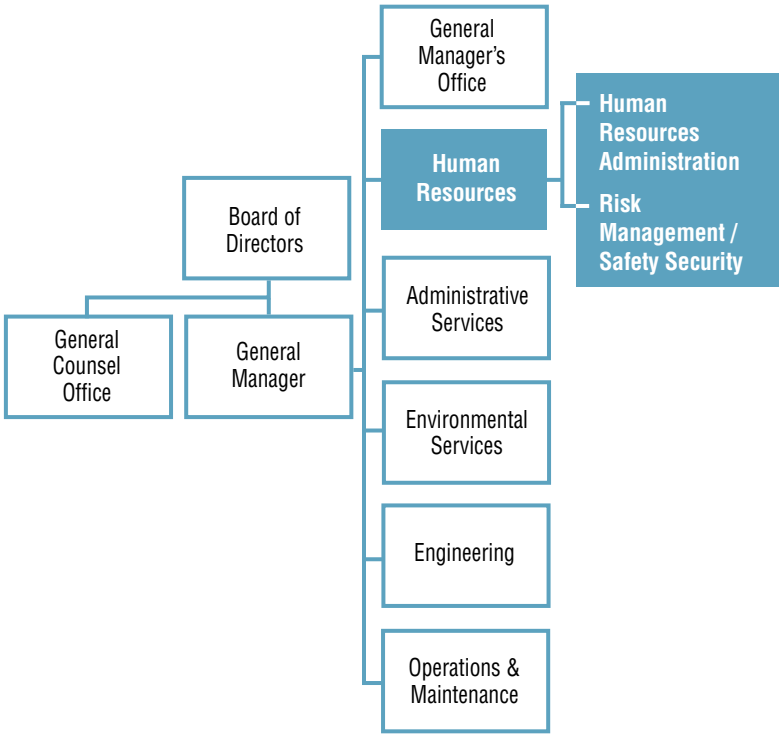
Total.....15.00

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

Staffing Trends



HUMAN RESOURCES DEPARTMENT



Service Description

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

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

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

Operating Expense

Category	2014-15 Actual	2015-16 Budget	2015-16 Projected	2016-17 Proposed	2017-18 Proposed
Personnel	$3,345,017	$5,473,600	$4,301,780	$4,409,600	$4,484,300
Supplies	104,626	546,110	521,220	682,370	687,910
Professional / Contractual Services	718,293	1,655,800	1,438,390	1,622,000	1,642,400
Research & Monitoring	0	0	0	0	0
Repairs & Maintenance	0	3,550	3,050	28,050	28,050
Utilities	0	0	0	0	0
Other	27,490	629,580	608,300	1,255,920	1,576,120
Cost Allocation	(681,160)	(1,118,100)	(1,119,920)	(931,720)	(931,720)
Total	$3,514,266	$7,190,540	$5,752,820	$7,066,220	$7,487,060

Budget Overview

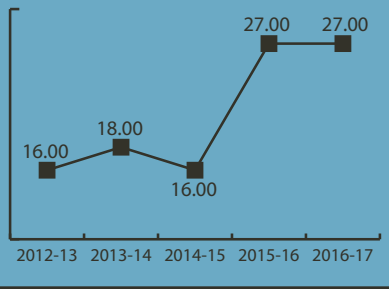
The fiscal year 2016-17 budget for the Human Resources Department reflects a 1.7 percent decrease from the current budget. The decrease is primarily due to a reduction in budgeted retirement costs. The decrease is partially offset by an increase in the general liability insurance in-lieu premium expense and adjustments to the district-wide cost allocation plan.

Authorized FTE Positions

Managers 2.00
Supervisors /Professionals 22.00
Administrative /Clerical 3.00

Total.....27.00

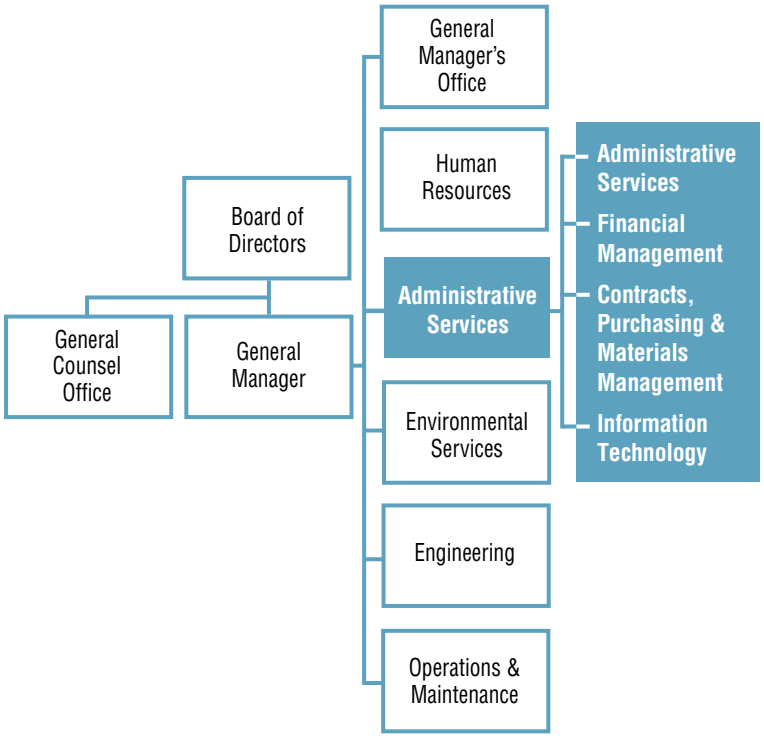
Staffing Trends



Performance Objectives / Measures

- Continue with development and implementation of effective workforce planning/development and succession planning strategies.
- Update and implement recruitment plan to reduce vacancies by June 30, 2017.
- Review all training requirements and meet the training level of service of 45 hours per employee.
- Complete labor negotiations with all bargaining units by December 31, 2016.
- Ensure 100% of Safety Compliance Training is completed.
- Implement Leading Safety Indicators to reduce injuries to employees.
- Manage operating expenditures to within 96 to 100 percent of the approved budget.

ADMINISTRATIVE SERVICES DEPARTMENT



Service Description

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

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

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

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

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

Operating Expense

Category	2014-15 Actual	2015-16 Budget	2015-16 Projected	2016-17 Proposed	2017-18 Proposed
Personnel	$16,071,788	$14,188,900	$13,824,000	$13,363,400	$13,563,000
Supplies	1,431,769	1,354,360	1,141,120	1,233,960	1,581,870
Professional / Contractual Services	2,032,272	1,468,570	1,276,910	1,289,400	1,578,900
Research & Monitoring	0	0	0	0	0
Repairs & Maintenance	1,342,205	1,354,140	2,006,260	2,042,000	2,142,000
Utilities	315,172	385,000	350,000	400,000	400,000
Other	654,831	64,820	80,280	109,610	121,610
Cost Allocation	(1,441,269)	(1,117,710)	(1,001,310)	(942,320)	(942,320)
Total	$20,406,768	$17,698,080	$17,677,260	$17,496,050	$18,445,060

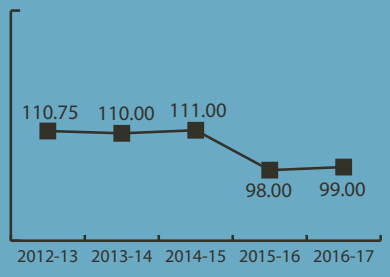
Budget Overview

The fiscal year 2016-17 budget for the Administrative Services Department reflects a 1.1 percent decrease from the current budget. The decrease is primarily due to a reduction in budgeted retirement costs, in-house reproduction services, and other professional services. The decrease is partially offset by increased costs for repairs and maintenance, service maintenance agreements, and adjustments to the district-wide cost allocation plan.

Authorized FTE Positions

Managers	5.00
Supervisors /Professionals	56.00
Administrative /Clerical	36.00
Other	2.00
Total	**99.00**

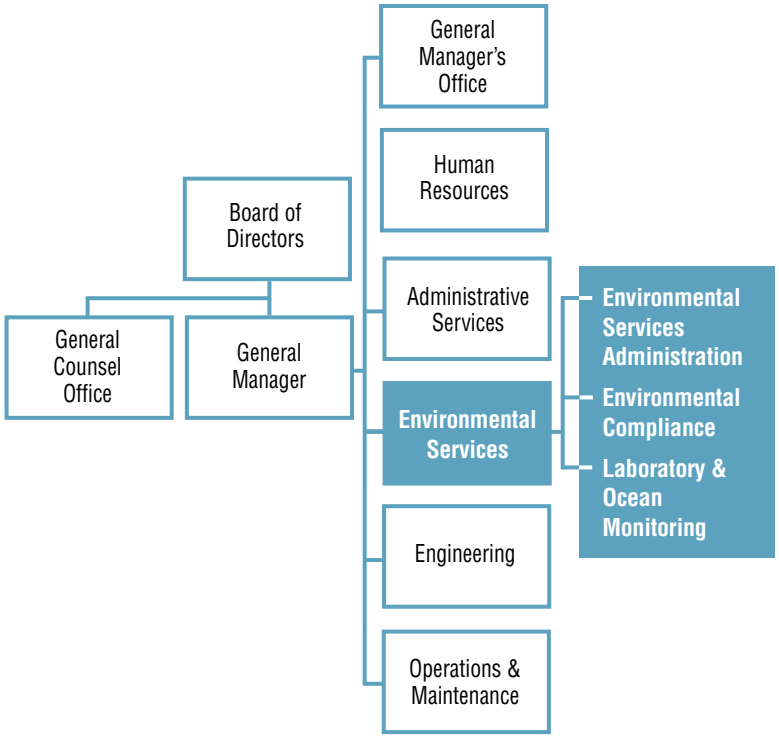
Staffing Trends



Performance Objectives / Measures

- Manage operating expenditures to within 96 to 100 percent of the approved budget.
- Comply with the California State Government Code 100 percent of the time with all treasury investments.
- Submit the annual sewer service fee property parcel database to the County in time for placement on annual secured property tax bills.
- Process all approved sewer service fee refund requests within 45 days, 90 percent of the time.
- All debt service payments will be paid electronically, on the actual due dates, and error free 100 percent of the time.
- Continue the warehouse inventory cycle count program and maintain a 97 percent accuracy rate or better.
- Ensure the measurement of the Information Technology Strategic Plan target achievement based on the importance and completion of goals supporting the Levels of Service (LOS) in the OCSD Strategic Plan.
- Maintain an average uptime of 90 percent for critical applications.

ENVIRONMENTAL SERVICES DEPARTMENT



Service Description

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

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

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

Laboratory and Ocean Monitoring performs sampling, monitoring, analysis, evaluation and recommendations for collection system, treatment processes, air samples, coastal water quality, marine sediments and the fish populations within the influence of OCSD's wastewater discharge and comparison sites to evaluate and address related issues of concern to the District in order to protect and preserve the environment and public health.

FISCAL YEARS 2016-17 AND 2017-18 BUDGET

Operating Expense

Category	2014-15 Actual	2015-16 Budget	2015-16 Projected	2016-17 Proposed	2017-18 Proposed
Personnel	$0	$0	$0	$13,239,100	$13,387,300
Supplies	0	0	0	768,150	781,530
Professional / Contractual Services	0	0	0	881,000	966,800
Research & Monitoring	0	0	0	800,000	872,400
Repairs & Maintenance	0	0	0	255,000	270,000
Utilities	0	0	0	448,000	504,000
Other	0	0	0	778,370	793,240
Cost Allocation	0	0	0	(34,950)	(34,950)
Total	$0	$0	$0	$17,134,670	$17,540,320

Budget Overview

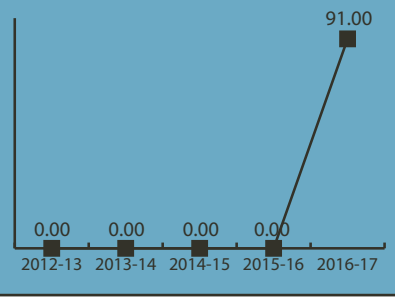
The fiscal year 2016-17 budget for the newly created Environmental Services Department is $17.1 million. The major cost items include salaries and benefits for 91 full-time equivalent (FTE) positions reallocated from other departments, as well as costs for research and monitoring, regulatory operating fees, laboratory chemical and supplies, electricity, and legal services.

Authorized FTE Positions

Managers 3.00
Supervisors / Professionals 63.00
Administrative /Clerical 9.00
Technical.....16.00

Total.....91.00

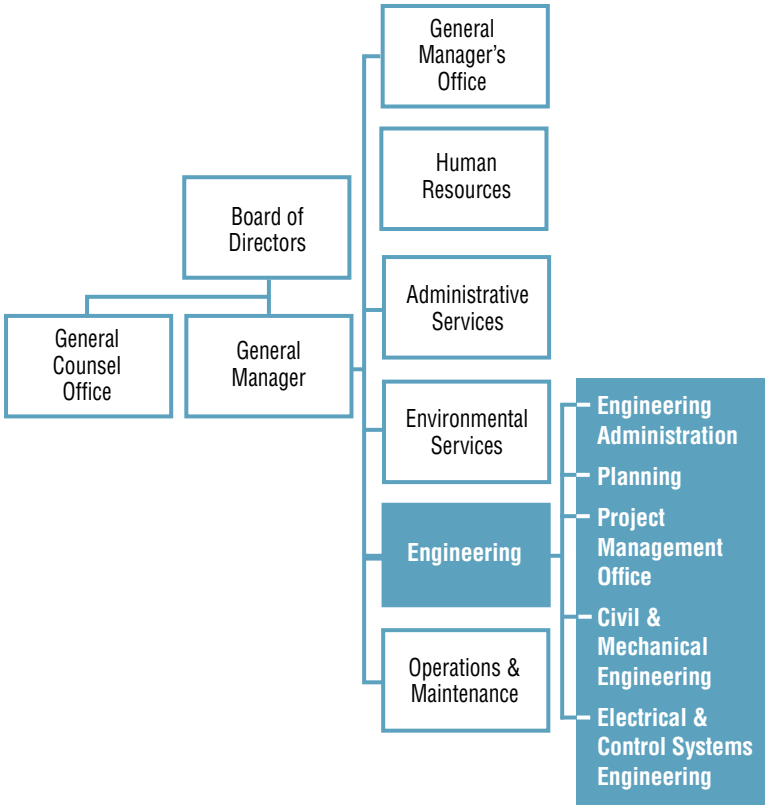
Staffing Trends



Performance Objectives / Measures

- Manage operating expenditures to within 96 to 100 percent of the approved budget.
- Ensure that reporting divisions achieve 90% of individual performance objectives.
- Ensure that all environmental compliance reporting requirements are met on or before required submission dates.
- Conduct audits of all major environmental permits at least once every three years.
- Complete 100% of Safety Scorecard requirements each quarter.

ENGINEERING DEPARTMENT



Service Description

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

Engineering Administration provides management to all Engineering Divisions.

Planning is responsible for estimating future capacity requirements, planning existing asset lifecycles, performing applied research, developing the OCSD Capital Improvement Program and complying with the California Environmental Quality Act. In addition, this division is responsible for OCSD's Asset Management program to ensure that required levels of service are maintained by performing necessary rehabilitation and replacement of facilities at optimal lifecycle costs. The Planning division also performs services for annexations, connection permitting, and inter-agency agreements.

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

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

Electrical & Control Systems Engineering provides electrical and control system designs, ensures that projects are properly and safely constructed, and provides process control SCADA system hardware, software and data network support for collections and treatment plant processes that monitor, record, control, and operate our facilities.

Operating Expense

Category	2014-15 Actual	2015-16 Budget	2015-16 Projected	2016-17 Proposed	2017-18 Proposed
Personnel	$21,037,728	$21,045,730	$20,229,400	$18,341,000	$18,594,200
Supplies	424,129	514,370	392,300	516,090	471,430
Professional / Contractual Services	1,383,448	551,000	765,600	500,000	430,000
Research & Monitoring	94,932	85,000	85,000	0	0
Repairs & Maintenance	1,096	0	2,040	2,000	2,000
Utilities	0	0	0	0	0
Other	700,384	702,660	699,700	4,360	4,410
Cost Allocation	(13,426,197)	(13,355,500)	(14,327,550)	(17,010,000)	(17,220,420)
Total	$10,215,520	$9,543,260	$7,846,490	$2,353,450	$2,281,620

Budget Overview

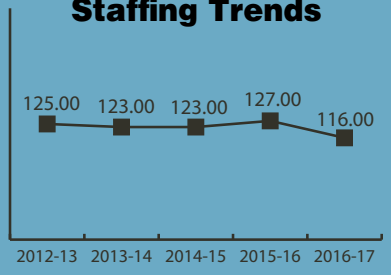
The fiscal year 2016-17 budget for the Engineering Department reflects a 75.3 percent decrease from the current budget. The decrease is primarily due to the reallocation of 11 FTE positions to other departments, a reduction in budgeted retirement costs, the transfer of regulatory operating costs to the new Environmental Services Department and adjustments to the district-wide cost allocation plan.

Authorized FTE Positions

Managers 5.00
Supervisors / Professionals 82.00
Administrative / Clerical 29.00

Total.....116.00

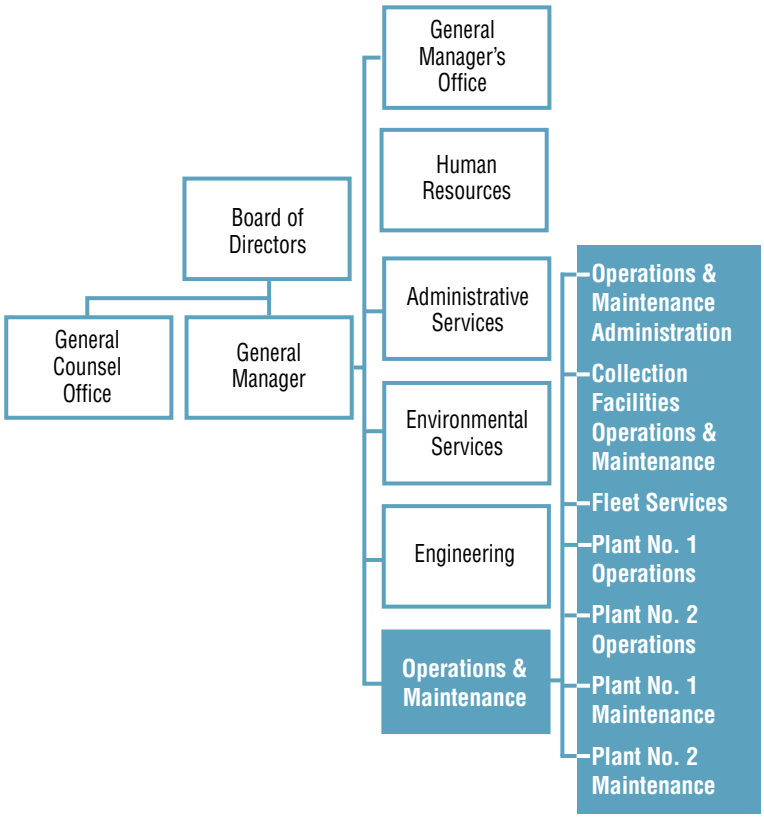
Staffing Trends



Performance Objectives / Measures

- Expend minimum 90 percent of project annual Capital Improvement Program cash flows for fiscal year 2016-17.
- Manage operating expenditures to within 96 to 100 percent of the approved budget.
- Ensure that reporting divisions achieve 90 percent of individual performance objectives.
- Complete the Odor Control Master Plan in fiscal year 2016-17.

OPERATIONS & MAINTENANCE DEPARTMENT



Service Description

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

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

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

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

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

Plant No. 1 and Plant No. 2 Maintenance are responsible for civil, electrical, facilities, instrumentation and mechanical maintenance of the two treatment plants and pump stations. Also centralized under the Maintenance Manager in support of both plants and collection system is the Maintenance Management Group and the Reliability Maintenance Team, which provide district-wide support services for planning and scheduling maintenance events and predictive maintenance activities

FISCAL YEARS 2016-17 AND 2017-18 BUDGET

Operating Expense

Category	2014-15 Actual	2015-16 Budget	2015-16 Projected	2016-17 Proposed	2017-18 Proposed
Personnel	$41,873,009	$42,634,100	$40,683,200	$37,650,600	$38,252,300
Supplies	9,118,904	9,978,000	10,160,520	16,337,150	16,900,820
Professional / Contractual Services	19,490,254	21,232,380	20,405,360	23,970,950	21,549,530
Research & Monitoring	715,922	745,000	635,000	0	0
Repairs & Maintenance	8,564,533	9,938,040	10,241,850	11,938,880	13,718,110
Utilities	6,054,294	6,501,160	7,384,380	7,942,240	9,192,670
Other	70,528	196,730	81,370	121,490	121,190
Cost Allocation	(1,216,587)	(914,520)	(1,505,680)	(205,800)	(207,910)
Total	$84,670,857	$90,310,890	$88,086,000	$97,755,510	$99,526,710

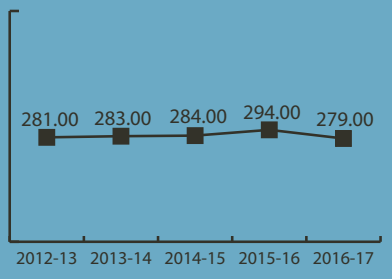
Budget Overview

The fiscal yar 2016-17 budget for the Operations and Maintenance Department reflects an increase of 8.2 percent over the current budget. The increase is primarily due to increases in costs for odor control, other contractual services, repairs and maintenance, and electricity. These increases were partially offset by reductions in costs for retirement, solids removal, research and monitoring, laboratory chemicals and supplies, and the reallocation of 15 FTE positions to other departments. These budget changes reflect the District's reorganization that added Fleet Services and Collection System Operations and Maintenance functions to the Operations and Maintenance Department and transferred Laboratory and Ocean Monitoring functions to the new Environmental Services Department.

Authorized FTE Positions

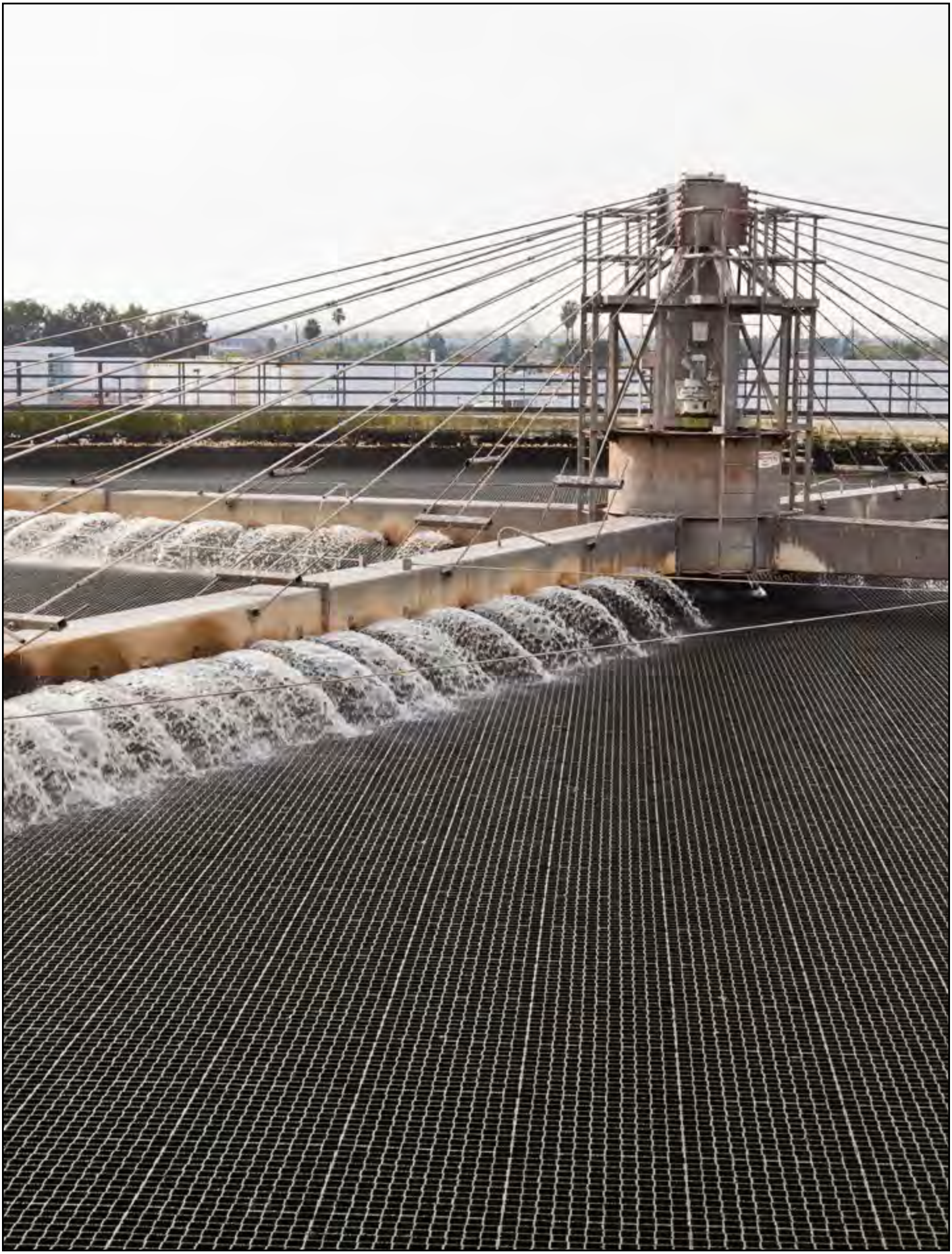
Managers	4.00
Supervisors /Professionals	58.00
Administrative /Clerical	6.00
Technical	1.00
Operations & Maintenance	210.00
Total	**279.00**

Staffing Trends

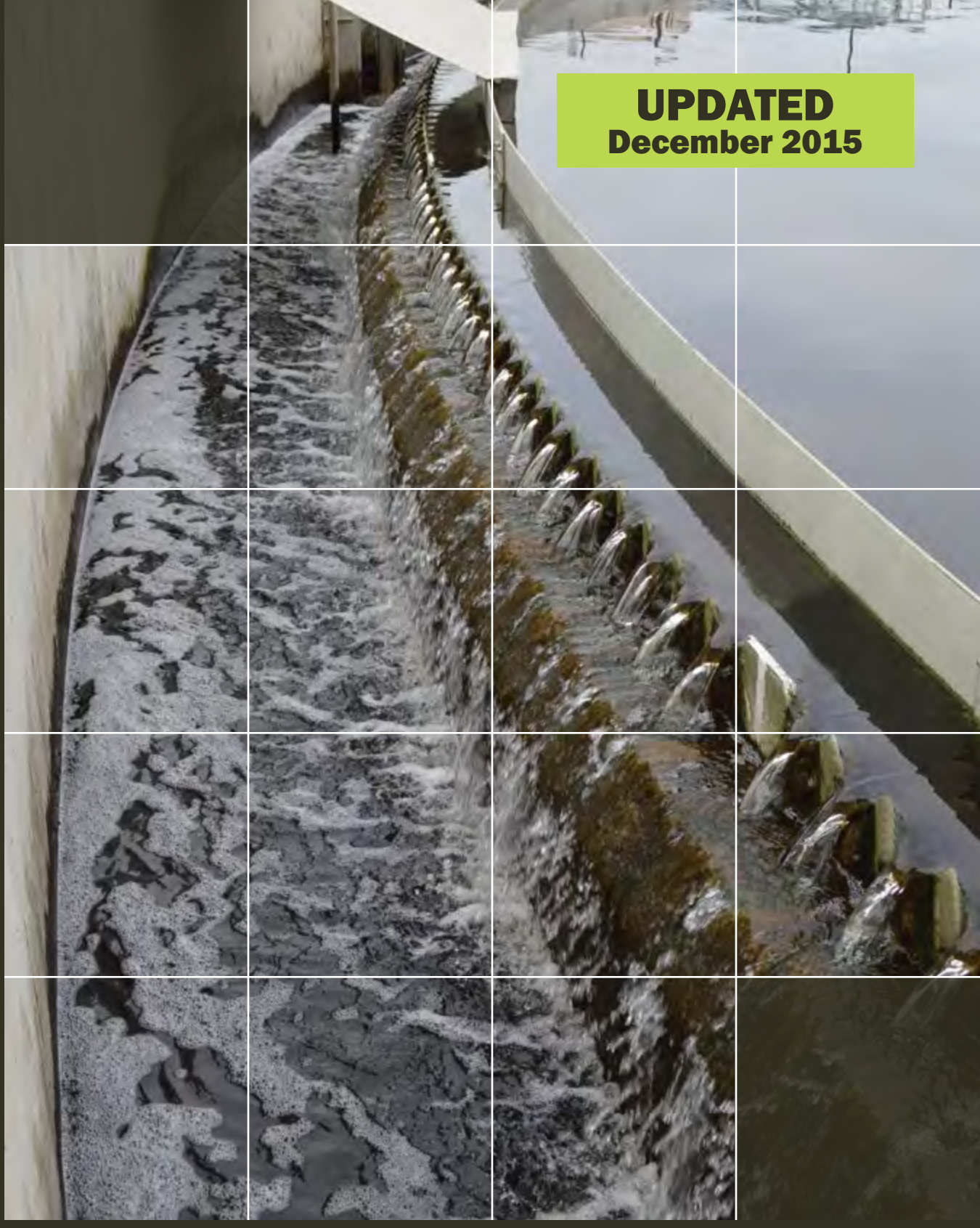


Performance Objectives / Measures

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



APPENDIX



UPDATED
December 2015

5 year strategic plan

DECEMBER 2015

ORANGE COUNTY SANITATION DISTRICT

ORANGE COUNTY SANITATION DISTRICT

5 year strategic plan

DECEMBER 2015

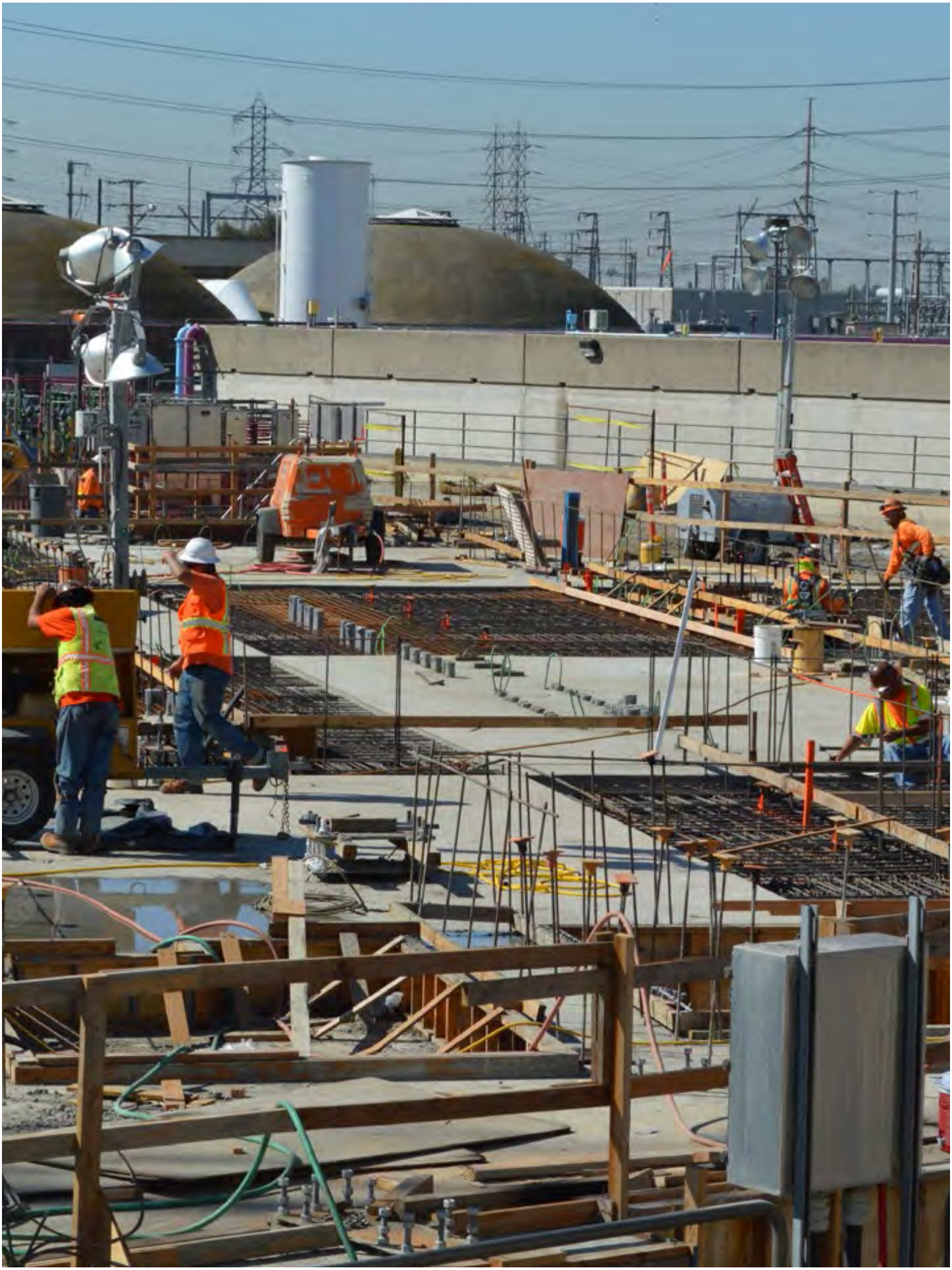


table of **contents**

board of directors

The strategic planning effort starts with the Board of Directors setting overall policy and priorities for the Sanitation District. Based on that policy direction, staff develops the annual operational plan and budget.

Anaheim
Lucille Kring

Brea
Glenn Parker

Buena Park
Fred Smith

Costa Mesa Sanitary District
James M. Ferryman

Cypress
Mariellen Yarc

Fountain Valley
Steve Nagel

Fullerton
Greg Sebourn
(Board Vice Chair)

Garden Grove
Steve Jones

Huntington Beach
Jim Katapodis

Irvine
Steven Choi

Irvine Ranch Water District
John Withers

La Habra
Tom Beamish

La Palma
Peter Kim

Los Alamitos
Richard Murphy

Member of the Board of Supervisors
Lisa Bartlett

Midway City Sanitary District
Joy Neugebauer

Newport Beach
Keith Curry

Orange
Teresa Smith

Placentia
Chad Wanke

Santa Ana
Sal Tinajero

Seal Beach
Ellery Deaton

Stanton
David Shawver

Tustin
John Nielsen
(Board Chair)

Villa Park
Greg Mills

Yorba Linda Water District
Robert Kiley

message from the **general manager**

In November 2013 the Orange County Sanitation District (OCSD) adopted a 5 Year Strategic Plan that envisioned an organizational culture that adheres to our core values and makes efficient and effective use of all available resources. The Strategic Plan centered our efforts on customer service, fiscal responsibility, protecting public health and the environment, communication, partnering with others and creating the best possible workforce. We committed to the execution of that plan and implementation of the eight strategic goals necessary to achieve success.

Protecting public health and the environment is critical to our mission, and I am pleased to report that our ocean monitoring program reflects that the ocean is healthy around OCSD's ocean outfall. We also continue to be fiscally strong. This year OCSD received AAA bond ratings and we have reduced our long term pension liabilities, which in turn enabled us to reduce planned rate increases by 35 percent over the next three years.

Two years into the five year Strategic Plan, I am pleased to report that we have completed two of the strategic goals and made strides towards accomplishing the remaining six. We held a Strategic Plan Update workshop, prepared two issue papers and updated our Summary of Accomplishments and the Risk Register. We remain committed to sustaining and improving our performance and meeting all of the established strategic goals.

Under the direction of the Board of Directors, I am honored to be leading this effort and I look forward to working together to accomplish our goals in the years ahead and continuing our successes.

The accomplishments laid out in this Strategic Plan Update would not be possible without the collective dedication and effort of our workforce and the commitment and support of our Board of Directors and the public we serve.

Respectfully submitted,

James D. Herberg
General Manager

executive **summary**

The 2014 – 2019 5 year Strategic Plan is a guiding document that provides a framework that directs our work. Every two years, the Strategic Plan will be reassessed, updated, and submitted for approval by the Board of Directors.

This year's Strategic Plan Update began with a consultant retained by OCSD conducting confidential interviews with interested Board members to identify issues or concerns. The Strategic Plan Update continued with a workshop and presentation of two issue papers. The Update concluded with two Strategic Goals being identified as completed, no new goals being adopted and no modifications being made to OCSD's levels of service.

Completed Strategic Goals:

Disinfection of Ocean Discharge – Develop an implementation plan including the technical, financial and societal factors associated with cessation of disinfection of the ocean discharge.

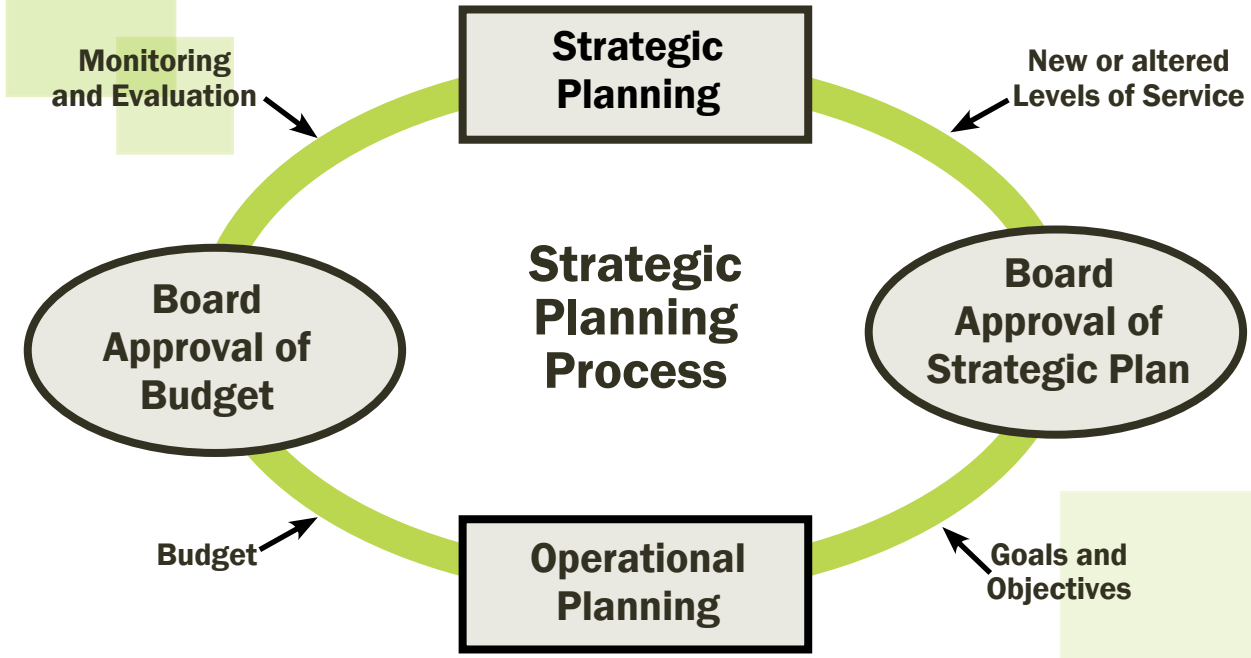
Legislative Advocacy and Public Outreach – Develop a unified legislative advocacy and public outreach program.

Strategic Goals in Progress:

1. Odor Control – Completion of the Odor Control Master Plan.
2. Future Biosolids Management Options – Study biosolids management options including third party contracts and onsite capital facilities.
3. Energy Efficiency – Continue to research new energy efficiency and energy conversion technologies.
4. Local Sewer Transfers – Complete the transfer of 174 miles of local sewers serving parts of Tustin and unincorporated areas north of Tustin and local sewer transfers in the City of Santa Ana.
5. Future Water Recycling – Determine partnerships, needs, strategies, benefits and costs associated with recycling of Plant No. 2 effluent water.
6. Workforce Planning and Workforce Development – This initiative is ongoing and part of a comprehensive workforce planning and development effort to ensure we have the right people with the right skills and abilities, in the right place, at the right time.

strategic planning **framework**

The planning framework illustrated below shows how OCSD staff and the Board of Directors play a critical role in strategic planning and resource allocation.



our **mission** statement

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

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

vision statement

The Vision Statement supports the Mission Statement by expressing a broad philosophy of what the Orange County Sanitation District strives to achieve 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 interaction with each other, our suppliers, our customers, and our community.

Teamwork and Problem Solving

We strive to reach OCSD goals through cooperative efforts and collaboration with each other and our constituencies. We work to solve problems in a creative, cost-effective and safe manner, and we acknowledge team and individual efforts.

Leadership and Commitment

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

Learning/Teaching

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.

risk register 2015

The Risk Register is a periodic compilation of the various risks facing the Orange County Sanitation District, as seen and determined by our management team.

The 2015 Risk Register Update identified these as the top risks:

- Pipelines damaged or severed after earthquake – focusing on the concern of liquefaction from an earthquake, that may cause movement of pipes or other system failures.
- Attracting qualified applicants and enticing top candidates to join OCSD – reflecting the concern that as we lose talent due to retirements and staff movement, our lack of a comprehensive strategy to attract top talent and the existing pay and benefits program which is not competitive with other agencies may limit us from attracting tenured public sector employees.

The top opportunities for the 2015 update are:

- **As employees leave, restructure staffing to become more efficient** – referring to the many employees who are eligible for retirement, and the opportunity to look at staffing needs thereafter.
- **Focus on main mission without other endeavors leading to higher rates** – an opportunity to stick to our core business so that costs are kept in line.

The major underrated continuity challenges include:

- **Cyber-terrorist or hacker attacks on OCSD –** related to the ever-changing risks and increased need to secure our computer network servers.
- **Emergency Preparedness –** expressing concern that OCSD is unprepared to deal with disasters such as electrical outages and explosions.

Staff is developing plans to mitigate the risks and continuity challenges, and to take advantage of the opportunities. OCSD's Risk Management division released a schedule of "table top exercises" designed to respond to the top risks and challenges, and held an exercise focused on the possible interruption of electrical power after a disaster. An exercise is also planned to consider how to respond to the potential damage to pipelines from an earthquake. As for opportunities, OCSD's General Manager has directed, as part of this Strategic Plan, that comprehensive workforce planning activities be designed and implemented.

strategic **goals** and levels of **service**

OCSD has six outstanding strategic goals to support the vision of the Board of Directors and Executive Management Team. The levels of service are key performance indicators in achieving the overall vision.

Providing Exceptional Customer Service

- Providing reliable, responsive and affordable services in line with **customer** needs and expectations.

1. **Odor Control** - Completion of the Odor Control Master Plan to make sure the District's investment is current and, if needed, future process systems to produce the benefits intended. *Target completion in FY 15-16.*

Providing Exceptional Customer Service	FY 14-15 Results	Level of Service Target
Odor complaint response: Treatment plants within 1 hour	100%	100%
Odor complaint response: Collection system within 1 working day	98%	100%
Number of odor complaints: • Reclamation Plant No. 1 • Treatment Plant No. 2 • Collection System *Under normal operating conditions	 8 9 27	 0 0 12
Respond to public complaints or inquiries regarding construction projects within 1 working day	100%	100%
New connection permits processed within 1 working day	100%	100%
Respond to all biosolids contractor violations within a week of violation notice	100%	100%

Protecting Public Health and the Environment

- Protecting public health and the environment utilizing all practical and effective means for wastewater, energy, and solids resource recovery.

2. **Future Biosolids Management Options** — Study biosolids management options including third party contracts and onsite capital facilities for mid-term and long-term approaches beginning in 2016-2017. *Target for completion in FY 15-16.*

3. **Energy Efficiency** — The District will research new energy efficiency and energy conversion technologies to maximize energy efficiency, reduce operating costs, minimize environmental impact, and replace assets that are at the end of their useful lives. *Target for completion in FY 17-18.*

OCSD owns and operates $6.2 billion in infrastructure assets. Through these assets, OCSD collects, treats, and either reuses or safely discharges 185 million gallons per day of wastewater.

Protecting Public Health & The Environment	FY 14-15 Results	Level of Service Target
Accept dry weather runoff diversion flows without imposing fees	1.2 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	1.2	< 2.1
Contain sanitary sewer spills within 5 hours	100%	100%
Meet secondary treatment standards	BOD 4.8 mg/L TSS 5.7 mg/L	BOD 25 mg/L TSS 30 mg/L
Thirty-day geometric mean of coliform bacteria in effluent after initial dilution of 250:1 (MPN)	881	<1000
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	60	100
Compliance with core industrial pretreatment requirements	100%	100%

Managing and Protecting the Public's Funds

- Continually seeking efficiencies to ensure that the public's money is wisely spent.

4. **Local Sewer Transfers –** Complete transfer of 174 miles of local sewers serving parts of Tustin and unincorporated areas north of Tustin and local sewer transfers in the City of Santa Ana to be concluded by December 31, 2016. Following those, no further local sewers to be transferred at the initiation of OCSD. If a local jurisdiction is interested in OCSD transferring sewers, each request will be considered on an individual basis assuming the sewers meet the requirements identified. *Target for completion in FY 16-17.*

Managing and Protecting the Public Funds	FY 14-15 Results	Level of Service Target
Annual user fees sufficient to cover all O&M requirements	100%	100%
Actual collection, treatment, and disposal costs per million gallons	3% under	≤ 10% of budget
Maintain AAA Bond Rating	100%	100%

strategic **goals** and levels of **service**

Stakeholder Understanding and Support

- 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.

5. **Future Water Recycling Options –** Determine partnerships, needs, strategies, benefits and costs associated with recycling of Plant No. 2 effluent water. *Target for completion in FY 18-19.*

Stakeholder Understanding and Support	FY 14-15 Results	Level of Service Target
Meet GWRS specification requirements for Plant No. 1 secondary effluent	2.7 NTU	5 NTU
Provide specification effluent available to the Groundwater Replenishment System to maximize production of purified water	100%	100%

Organizational Effectives

- Creating the best possible workforce in terms of safety, productivity, customer service, and training.

6. **Workforce Planning and Workforce Development –** This initiative is ongoing and part of a comprehensive workforce planning and development effort to ensure we have the right people with the right skills and abilities, in the right place, at the right time. Target for completion is ongoing.

Organizational Effectiveness	FY 14-15 Results	Level of Service Target
Employee injury incident rate – per 100 employees	1.7	<3.3 Industry Average
Meet mandatory OSHA training requirements	100%	>95%
Hours worked since last lost work day	430,000	>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	0.8	<2.5
Average cost per Workers Compensation claim	$6,774	$13,545
Training hours per employee	45.23	45 per year

appendix A: **issue papers**

In preparation for the October 21, 2015 Board of Directors Strategic Planning Workshop staff prepared two issue papers related to the new goals. The appendix includes issue papers on the following topics:

1. Odor Control Level Of Service
2. Stormwater Capture

odor **control**

Should OCSD change the level of service for odor control?

Why is this issue important to the District?

In 1989, OCSD began addressing collection system odor and corrosion concerns chemically by implementing a caustic soda shock-dosing program for some of the trunklines. In 2001, this program evolved to continuous chemical dosing in the collection system for odor control which utilized ferrous chloride, magnesium hydroxide, and calcium nitrate at nine different dosing locations. The program has proven to reduce odor and corrosion in the regional trunk system and suppress odors at the headworks of the treatment plants. It also helps condition the sewage arriving at the treatment plants.

In 2007, the Board of Directors adopted the Five-Year Strategic Plan, which set the Level of Service standard at a goal of 34 or less odor complaints attributed to the OCSD collection system. At that time two categories were tracked; Attributed, and Not Attributed. The attributed category captured complaints attributed to OCSD as well as those whose source could not be determined. The complaints were classified by the OCSD responder. In 2009, a third category was created by staff to appropriately document odors of an undetermined source. With the addition of this category, odor complaints attributed to OCSD were reduced significantly. As a result, the goal was reduced in 2014 to 12 complaints or less attributed to OCSD.

In 2014, the Odor Control Division revised its Odor Response Procedure to include a follow up investigation as a secondary response for each odor complaint. The objective was to minimize the unknown sources and ultimately better address the root causes of the odors. The complaints were classified by the secondary OCSD responder after the investigation was concluded. Our LOS goal for FY 14/15 was 12 or fewer. Due to the results of the detailed investigations, the number of OCSD attributed complaints has increased. We had 27 validated odor complaints in the collection facilities in FY 14/15 due to various causes. It is recommended that the Level of Service goals be changed to better reflect the current methodology used to investigate.

Recommendation

Increase our current level of service from 12 odor complaints to 28. A new goal of 28 or less odor complaints attributed to OCSD would reflect the success of the change in procedures in determining the true source or root cause of the odor complaints. This new LOS could also be achieved within the current budget/sewer fee structure. Staff does not foresee a reduction to the current number of complaints until the plant odor facilities modifications are completed. Any further reductions would also require modifications to Collections' Odor Control Program. Modifications could include items such as additional dosing facilities, additional siphon vents, and repairs to existing siphon vents within the collection system. The Collection Facilities Odor Control Master Plan Update expected in 2017 will help guide the future direction.

The new goal of 28 or less odor complaints attributed to OCSD is an appropriate reflection of current Odor Control Program procedures. By continuing to better investigate the root causes of the odors, we can improve strategies for mitigation. The desired outcome may be to eventually reduce the number of attributable odor complaints to zero for those facilities that are a part of the continuous dosing or "sewage conditioning" program

Should we capture stormwater?

Why is this issue important to the District?

The Board of Directors has expressed interest in stormwater capture to augment water supplies and aquifer recharge for North Central Orange County.

Background: OCSD has been active in stormwater capture for more than a decade with its urban runoff diversion program. This program is approved to accept up to ten million gallons per day of urban runoff, which is technically stormwater. Expressed differently, this ten million gallon per day of flow is equivalent to 18 cubic feet per second. The program was originally begun to improve beach water quality by diverting river water laden with bacteria from reaching recreational beaches. OCSD has limited the flow to dry weather to protect its collection system and treatment plants from having overflows which are spills.

OCSD's service area contains several dams to control wet weather stormwater flows. These include Prado Dam, Carbon Canyon Dam, Brea Dam, Fullerton Dam, Villa Park Dam, and Santiago Dam. These Dams are connected to rivers and channels which are designed to flow large volumes of silt laden water in order to protect regions from the damage associated with flooding events. Prado Dam is capable of releasing more than 30,000 cubic feet of water per second, or more than 19 billion gallons per day.

The Orange County Water District is primarily responsible for recharging the aquifer in North Central Orange County. It controls more than 1,000 acres of river, ponds and percolation basins in Anaheim and 1,250 acres of surface water storage behind Prado Dam. The dam is controlled by the Army Corps of Engineers to protect from flooding and secondarily to store stormwater to recharge of Orange Counties' aquifer. The water is released at a rate that allows for diversion to the Anaheim recharge ponds and lakes usually less than 100 cubic feet per second.

OCSD's systems are not designed to handle wet weather stormwater volumes or content. Wet weather naturally increases flow through OCSD's system caused by inflow and infiltration. Inflow is direct flow into the system generally attributed to illegal connections, leaks through manholes and other openings to standing or flowing surface water. Infiltration is ground water that seeps into the sewer system through pipe and manhole defects. These flows can increase normal dry weather flows by 2.2 times.

Recommendation

Orange County Sanitation District must balance its mission to protect public health and to create usable products like potable water. Treatment Plant and collection system capacities are designed around normal system flow patterns. These sewers and plants are completely incapable of dealing with even minor rain event stormwater flows. Sewer pipes are a fraction of the size of storm drains, much less flood channels. Storms flows are not necessary for feeding the GWRS. Normal sewage flows, even in a historic drought, are feeding the system at near capacity. The greater risk to OCSD's mission is the risk to public health that occurs with sewer overflows. Raw sewage in the streets or waterways is a completely unacceptable outcome.

Stormwater capture is the purview of Orange County Water District, OC Flood, and the Army Corps of Engineers. They have the necessary infrastructure and available land. OCSD should continue to accept dry weather urban runoff to support water reuse and protect beach water quality.

appendix B summary of accomplishments

Goal	Completed							
	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 15-16
SARI Line Relocation - Work in conjunction with the County of Orange and the Federal Government to relocate the SARI Line by December 31, 2013.							●	
Management System for Environmental Compliance - Implement a management control system for environmental compliance information that incorporates a dashboard-style report.	●							
Contaminants of Potential Concern (CPC) - Complete three phase testing and analysis of 550+ CPC, prepare report on findings and recommendations, develop initial source control strategy if they are CPCs identified that require control.	●							
Climate Change/Greenhouse Gases								
Develop an overall strategy for responding to climate change regulations and proactively adapting to the effects of climate change including identification and mitigation of greenhouse gases and adapting to any impacts to our facilities and operations.		●						
Develop models to estimate greenhouse gas and traditional pollutant emissions for determination of our environmental footprint. (Functional predictive greenhouse gas model completed)				●				
Engine Emission Compliance								
Complete study to evaluate alternatives for complying with lower emission limits in the South Coast Air Quality Management's Rule 1110.2. Initiate planning and design of demonstration testing of most promising technology(s) identified in the study.	●							
Implement capital improvements or operational modifications in order to achieve compliance.							●	
Providing Ongoing Leadership Development - Maximize the development of a pool of dedicated and talented employees ready to lead OCSD into the future.				●				

summary of **accomplishments**

Goal	Completed							
	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 15-16
Fuel Cell Evaluation								
Start up 300kW demonstration unit.				●				
Evaluate cost feasibility of replacing or supplementing CGS engines with fuel cell.							●	
Reclaiming Santa Ana River Interceptor Line (SARI) Flows - Meet with stakeholders, develop a list of obstacles that need to be overcome to reclaim the SARI Line and develop a strategy to obtain regulatory approval to reclaim SARI Line flows. This goal was canceled due to inability to obtain regulatory approval.		●						
Sewer Rate for Green Development - Submit for Board approval an amendment to sewer rate ordinance with incentives for green developments.	●							
Complete Facilities Master Plan Update – Complete a comprehensive update of the Facilities Master Plan and obtain Board approval	●							
Enterprise Information Technology Strategic Plan – Complete a District-wide Information Technology Strategic Plan.			●					
Updating OCSD's Risk Register – Review and update OCSD's risk register to include an assessment of technical, regulatory, financial, and political risks (among others) and possible mitigation strategies	●							
Annex Unincorporated Areas – With Board concurrence, annex unincorporated areas onto OCSD's service area.	●							
Review Interagency Agreements – Conduct a comprehensive review of agreements with the Santa Ana Watershed Project Authority and Irvine Ranch Water District, and, if appropriate, reopen for discussion.			●					
Strategic Business Plan – With Board concurrence, annually update and implement the Strategic Plan and Business Plan.				●				
Business Accountability Charters – Create Business Accountability Charters for each department consistent with those developed by managers and supervisors				●				

summary of **accomplishments**

Goal	Completed							
	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 15-16
Chemical Supplies – Develop a Chemical Sustainability Plan that provides OCSD with options for obtaining wastewater treatment chemicals during chemical shortages, emergencies or complete stoppages.				●				
Chemical Sustainability - Ensure a reliable and sustainable chemical supply using multiple vendor contracts to reduce the risk of supply disruption while benefiting from competitive pricing.						●		
Full-Cost Recovery 2010-11 - Conduct a comprehensive review of the Sanitation District's Urban Runoff Program to ensure a fair share recovery of costs for services.				●				
Full-Cost Recovery 2012-13 - Implement a direct charging mechanism to recover the full cost of urban runoff treatment starting July 1, 2013 when the new rate structure is in place. This goal was canceled in FY 12-13 to allow additional urban runoff at no cost to the local jurisdiction.						●		
Groundwater Replenishment System - Maximize the production of GWR System product water to augment and protect the Orange County groundwater basin with a goal of 70 mgd.		●						
Sustainable Biosolids Program								
Complete new in-county Compost Take-Back Program Plan Strategy.	●							
Evaluate the feasibility of deep injection/ methane recovery including commissioning a study of the geological formations below Plants 1 and 2, and availability and acceptability of any existing wells		●						
Evaluate option of processing some biosolids at the City of Los Angeles Terminal Island demonstration well.		●						
Implement Energy Master Plan – After the completion of the plan, assess final recommendations to ensure adequate power resources and energy management.			●					
Disinfection of Final Effluent - Develop a cost effective program to sustain protection of public health associated with bacteria in the effluent and incorporate program elements into our NPDES Permit.				●				

summary of **accomplishments**

Goal	Completed							
	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 15-16
Ocean Protection – Undertake studies to determine the cause of benthic community changes near the ocean outfall and take corrective action to return affected areas to reference conditions.					●			
Space Planning Study Recommendations – Complete relocation of staff housed in Information Technology Trailers, Administration Building, Control Center and Building 6.	●							
Improve the Sanitation District Security - Provide long-term security enhancements at both treatment plants and within OCSD's Collection System.	●							
Safety and Health Strategic Plan – Develop and implement a Safety and Health Strategic Plan for all OCSD activities.		●						
Human Resources Strategic Plan - Design, develop and implement human resources policies, practices, systems and tools to ensure OCSD has a workforce that meets future needs of OCSD and the public it serves.		●						
Succession Plan - Implement the Succession Management Plan including management training and the creation of a Leadership Academy.		●						
North County Yard – Open the North County Maintenance Yard and complete the relocation of selected staff and equipment to the facility. Implement flex space for added agency-wide needs as appropriate. This goal was canceled in FY 10-11 and the facility is currently being leased.				●				
Five-Year Rate Plan – Prepare an updated 5-year rate schedule for Board consideration to go into effect July 1, 2013						●		
Sustainable Biosolids Program - Conduct research to reduce the amount of biosolids produced and increase digester gas production						●		
Disinfection of Ocean Discharge - Develop an implementation plan including the technical, financial and societal factors associated with cessation of disinfection of the ocean discharge								●
Legislative Advocacy and Public Outreach - Develop a unified legislative advocacy and public outreach program								●

appendix C: glossary

Activated-sludge process—A secondary biological wastewater treatment process where bacteria reproduce at a high rate with the introduction of excess air or oxygen, and consume dissolved nutrients in the wastewater.

Biochemical Oxygen Demand (BOD)—The amount of oxygen used when organic matter undergoes decomposition by microorganisms. Testing for BOD is done to assess the amount of organic matter in water.

Biosolids—Biosolids are nutrient rich organic and highly treated solid materials produced by the wastewater treatment process. This high-quality product can be recycled as a soil amendment on farm land or further processed as an earth-like product for commercial and home gardens to improve and maintain fertile soil and stimulate plant growth.

Business Accountability Charters—A business unit strategic plan.

Capital Improvement Program (CIP)—Projects for repair, rehabilitation, and replacement of assets. Also includes treatment improvements, additional capacity, and projects for the support facilities.

Coliform bacteria—A group of bacteria found in the intestines of humans and other animals, but also occasionally found elsewhere used as indicators of sewage pollution. E. coli are the most common bacteria in wastewater.

Collections system—In wastewater, it is the system of typically underground pipes that receive and convey sanitary wastewater or storm water.

Certificate of Participation (COP)—A type of financing where an investor purchases a share of the lease revenues of a program rather than the bond being secured by those revenues.

Contaminants of Potential Concern (CPC)—Pharmaceuticals, hormones, and other organic wastewater contaminants.

Dashboard—A computer based business tool used to visually track performance.

Dilution to Threshold (D/T)— the dilution at which the majority of the people detect the odor becomes the D/T for that air sample.

1,4-Dioxane—A chemical used in solvents for manufacturing, fumigants and automotive coolant. Like NDMA, it occurs in the Groundwater Replenishment System water and is eliminated with hydrogen peroxide and additional ultra-violet treatment.

Greenhouse gases—In the order of relative abundance water vapor, carbon dioxide, methane, nitrous oxide, and ozone gases that are considered the cause of global warming ("greenhouse effect").

Groundwater Replenishment (GWR) System—A joint water reclamation project that proactively responds to Southern California's current and future water needs. This joint project between the Orange County Water District and the Orange County Sanitation District will provide 70 million gallons a day of drinking quality water to replenish the local groundwater supply.

Levels of Service (LOS)—Goals to support environmental and public expectations for performance.

Million gallons per day (mgd)—A measure of flow used in the water industry.

Most Probable Number (MPN)—Number of organisms per 100 ml that would yield a test result or the observed test result with the greatest frequency. Commonly used for coliform bacteria.

NDMA—N-Nitrosodimethylamine is an N-nitrosoamine suspected cancer-causing agent. It has been found in the Groundwater Replenishment System process and is eliminated using hydrogen peroxide with extra ultra-violet treatment.

appendix C: glossary

Nephelometric Turbidity Units (NTU)—An instrument for measuring the concentration of suspended particles in a liquid.

O&M—Operations and maintenance of the treatment plants facilities and collections system.

Publicly-owned Treatment Works (POTW)—Municipal wastewater treatment plant.

Recycling—The conversion of solid and liquid waste into usable materials or energy.

Risk Register—An internal document that describes vulnerabilities of the Sanitation District.

Santa Ana River Interceptor (SARI) Line—A regional brine line designed to convey 30 million gallons per day (MGD) of non-reclaimable wastewater from the upper Santa Ana River basin to the ocean for disposal, after treatment.

Sanitary sewer—Separate sewer systems specifically for the carrying of domestic and industrial wastewater. Combined sewers carry both wastewater and urban run-off.

South Coast Air Quality Management District (SCAQMD)—Regional regulatory agency that develops plans and regulations designed to achieve public health standards by reducing emissions from business and industry.

Secondary treatment—Biological wastewater treatment, particularly the activated-sludge process, where bacteria and other microorganisms consume dissolved nutrients in wastewater.

Sludge—Untreated solid material created by the treatment of wastewater.

Total suspended solids (TSS)—The amount of solids floating and in suspension in wastewater.

Trickling filter—A biological secondary treatment process in which bacteria and other microorganisms, growing as slime on the surface of rocks or plastic media, consume nutrients in wastewater as it trickles over them.

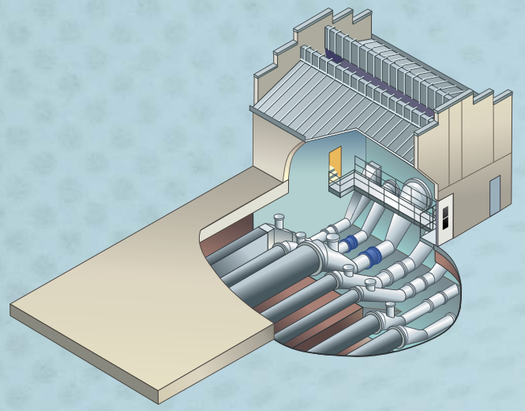
Urban runoff—Water from city streets and domestic properties that carry pollutants into the storm drains, rivers, lakes, and oceans.

Wastewater—Any water that enters the sanitary sewer.

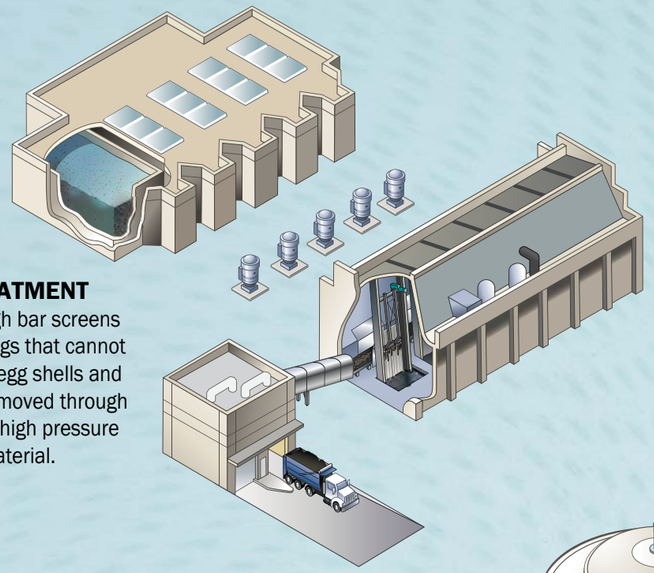
Watershed—A land area from which water drains to a particular water body. OCSD's service area is in the Santa Ana River Watershed.

Orange County Sanitation District

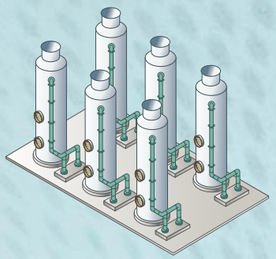
Wastewater Treatment Process



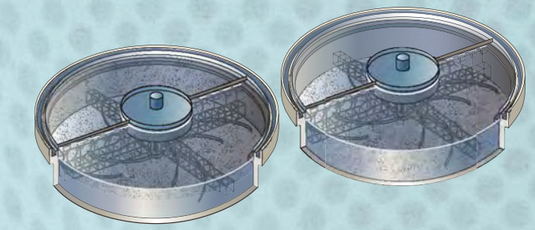
1. METERING AND DIVERSION
Wastewater enters our plant at 2.5 - 5 mph through pipes up to 10 feet in diameter. High tech equipment monitors the temperature, pH, conductivity, and flow of the incoming wastewater.



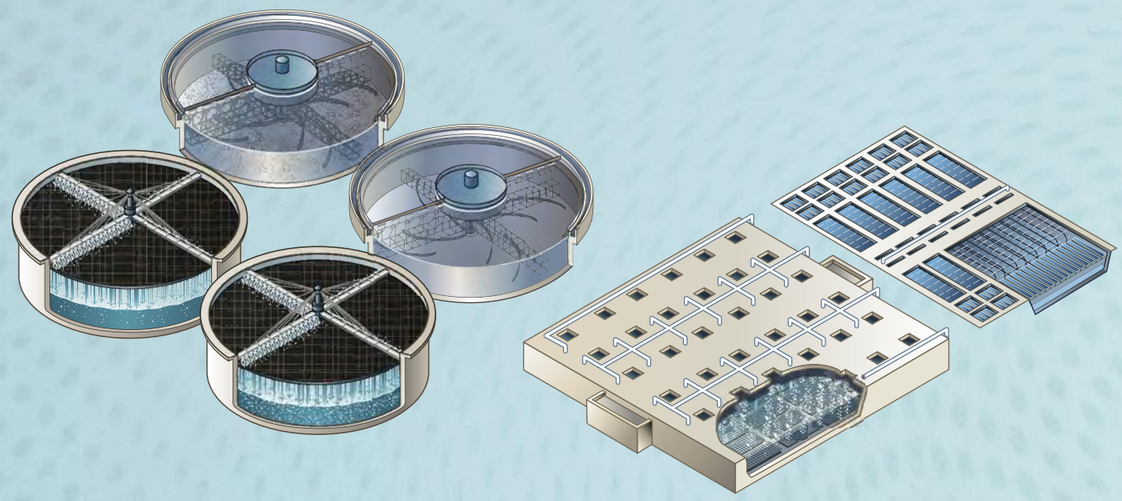
2. PRELIMINARY TREATMENT
Raw sewage passes through bar screens that trap large items like rags that cannot be recycled. Materials like egg shells and coffee grounds are then removed through the grit chamber that uses high pressure air to separate the gritty material.



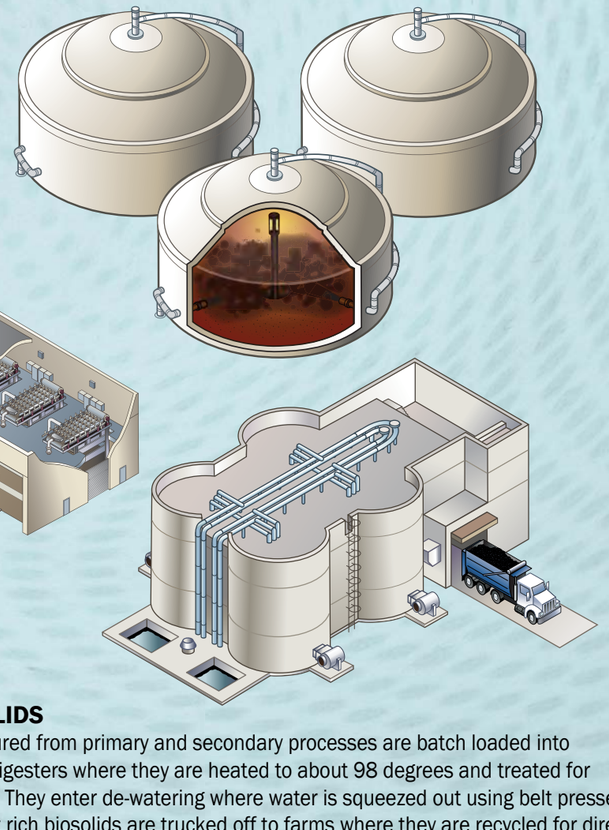
3. AIR SCRUBBER
Hydrogen Sulfide (foul air) is captured throughout the process and funneled into large silos. It passes through a plastic medium and mixes with caustic soda and bleach. Causing the odorous compounds to be neutralized.



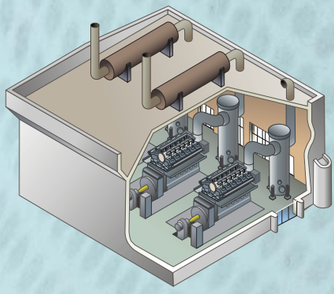
4. PRIMARY TREATMENT
Primary clarifiers or settling basins, slow the water down to let the solids that are within the water settle out, separate and float to the surface. Scraper arms that move along the top and bottom remove up to 80% of the solids. Solids are then sent to digesters for processing.



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



6. BIOSOLIDS
Solids captured from primary and secondary processes are batch loaded into anaerobic digesters where they are heated to about 98 degrees and treated for 18-21 days. They enter de-watering where water is squeezed out using belt presses. The nutrient rich biosolids are trucked off to farms where they are recycled for direct land application, and composting. The digestion process produces methane gas.



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

PA 06/2015

Our Mission:

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

The Orange County Sanitation District (OCSD) is a public agency that provides wastewater collection, treatment, and disposal services for approximately 2.5 million people in our service area of central and northern Orange County. OCSD is a special district that is governed by a Board of Directors consisting of 25 board members. OCSD has two operating facilities that treat wastewater from residential, commercial, and industrial sources.

Follow the Flow:

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

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

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

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

4. **Advanced Primary Treatment:** Chemicals (ferric chloride and anionic polymer) are added to the preliminary treated sewage to improve settling. Heavier suspended solids clump together and sink to the bottom. Lighter waste (grease and oil) float to the surface. This process takes about 2 hours and up to 75% of the suspended solids are continuously removed by scraper arms revolve along the top and bottom of the basin. These solids are sent to digesters for further processing.

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

Final Effluent: Almost all the secondary treated wastewater from Plant 1 is sent to the Orange County Water Districts for advanced treatment though the Ground Water Replenishment System (GWRS). This water is used to replenish Orange County's groundwater aquifers and protect against seawater intrusion. The secondary treated wastewater from Plant 2 is safely released though our ocean pipeline five miles out to sea at a depth of 200 feet below the ocean surface.

Biosolids

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

Some of our biosolids are recycled and used like fertilizer on farm fields to create and maintain healthy soils and improve crop yields.

Some of OCSD's biosolids are further processed through composting to create a consumer-grade soil amendment that is distributed to agricultural, commercial and residential users.

Certified Program

OCSD was the first public wastewater agency in the nation certified by the National Biosolids Partnership (NBP) (www.biosolids.org) for our biosolids program in 2003. Certification is maintained through independent, third-party audits that verify OCSD conforms to the management system standard that was designed by the NBP, U.S. Environmental Protection Agency (EPA) and other clean water partners.

National Biosolids Partnership
Certified Management Program

Learn More

Visit our web site at **www.ocsewers.com/biosolids** for more information and to sign up for periodic biosolids program newsletters using the "Keep me Informed" button.

GWRS

GROUNDWATER REPLENISHMENT SYSTEM

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

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

The GWRS provides a reliable supply of high-purity near-distilled quality water even during drought and offers a more cost-effective and energy-efficient strategy than importing water from distant sources.

GWRS provides the county with new water it can count on and serves as a model project for other regions throughout the United States and the world that are or will be facing natural and man-made water supply challenges.

WHAT 2 FLUSH®.com

Know what should go down the drain that is sewer safe

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

Unfortunately, over the years, people have turned the toilet into a trash can. From medications and sanitary products to deceased pet fish and cigarette butts. If it fits, people flush it. Flushing these types of items down the toilet causes home pipes to clog, wastes water (up to 5 gallons of water every time you flush) and most importantly can have a huge impact on our sewers, not to mention our ocean.

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

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

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

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

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

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

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05/2016