OTAY WATER DISTRICT, Spring Valley, CA

Adopted Operating and Capital Budget

Fiscal Year 2016-2017

Otay Water District
Adopted Operating and Capital Budget
Fiscal Year 2016-2017

BOARD OF DIRECTORS

Mitchell Thompson, Division 2	President
Jose Lopez, Division 4	Vice President
Tim Smith, Division 1	Treasurer
Gary Croucher, Division 3	
Mark Robak, Division 5	

MANAGEMENT TEAM

Mark Watton	General Manager
German Alvarez	Assistant General Manager
Joseph R. Beachem	Chief Financial Officer
Adolfo Segura	Chief, Administrative Services
Pedro Porras	Chief, Water Operations
Jose Martinez	Assistant Chief, Water Operations
Rod Posada	Chief, Engineering

Table of Contents

Page

Letter of Transmittal . . . iv

Budget Foreword

Otay Water District At-A-Glance . . . 1
General Information . . . 2
Awards . . . 3
Organization Chart . . . 7
Budget Overview . . . 8
Resolution No. 4302 . . . 15

History and Community Profile

Past and Present . . . 17
Current Economic Conditions . . . 19
The Future . . . 20
Demographics . . . 22
Water Rate Comparison . . . 23
Sewer Rate Comparison . . . 24
Service Area Assessed Valuation . . . 25
Ten Principal Taxpayers . . . 26
Ten Largest Customers . . . 27
San Diego Rainfall . . . 28

Strategic Plan

Strategic Plan - Fiscal Years 2015-2018 . . . 29
Statement of Values . . . 30
Balanced Scorecard Perspective . . . 31
Administrative Services . . . 32
Finance . . . 36
Water Operations . . . 41
Engineering . . . 49

Financial Summaries

Budget Summary . . . 53
Operating Budget Summary – General Fund . . . 59
Operating Budget Summary by System . . . 61
General Fund Revenues, Expenditures and Transfers . . . 62
Fund Balance Summary by Fund . . . 63
Revenues and Expenditures by Fund . . . 64
Revenues and Expenditures by Type . . . 66

Five-Year Forecast

Five-Year Forecast . . . 67
General Fund Forecast . . . 68
Fund Balances Forecast . . . 69
Debt Management . . . 70
Schedule of Outstanding Debt . . . 72
Projected Principal Payments by Debt Issuance . . . 73
Projected Interest Payments by Debt Issuance . . . 74

Table of Contents

Revenues and Expenditures

Potable Revenues and Expenditures

Potable Narrative . . . 75
Operating Budget Summary . . . 78
Classification of Water Sales . . . 79
Water Sales Summary by Service Class . . . 80
Unit Sales History and Meter Count by Customer Class . . . 81
System Fees . . . 82
MWD and CWA Fixed Fees (pass-through) . . . 83
Meter Fees . . . 84
Revenue History . . . 85
Water Purchases and Related Costs . . . 86
Power Costs . . . 87
Administrative Expenditures . . . 88
Materials and Maintenance Expenditures . . . 89
Potable Water Service Area Maps . . . 91

Recycled Revenues and Expenditures

Recycled Narrative . . . 93
Operating Budget Summary . . . 96
Classification of Water Sales . . . 97
Water Sales Summary by Meter Size . . . 98
Unit Sales History and Meter Count by Customer Class . . . 99
System Fees . . . 100
Meter Fees . . . 101
Revenue History . . . 102
Water Purchases . . . 103
Power Costs . . . 104
Administrative Expenditures . . . 105
Materials and Maintenance Expenditures . . . 106
Recycled Water Service Area Maps . . . 107

Sewer Revenues and Expenditures

Sewer Narrative . . . 109
Operating Budget Summary . . . 110
Charges Summary by Service Class . . . 111
System Fees . . . 112
Revenue History . . . 113
Power Costs . . . 114
Administrative Expenditures . . . 115
Materials and Maintenance Expenditures . . . 116
Formula for Sewer Rates . . . 117
Sewer Service Area Map . . . 119

Table of Contents

General Revenues and Expenditures

General Revenues and Expenses Narrative . . . 121
General Revenues . . . 123
General Expense . . . 124

Departmental Operating Budget

Departmental Operating Budget Narrative . . . 125
Labor and Benefits . . . 128
Labor and Benefits by Fund . . . 129
Position Count by Department . . . 130
Contract/Temporary Employees . . . 131
Administrative Expenditures . . . 132
Materials and Maintenance Expenditures . . . 133
Operating Expenditures by Department . . . 134
Operating Expenditures by Object . . . 135
Departmental Budgets:
- Board of Directors . . . 137
- General Manager . . . 141
- Administrative Services . . . 147
- Finance . . . 157
- Water Operations . . . 163
- Engineering . . . 171
- General Expense . . . 179

Capital Budget

Capital Improvement Program Narrative . . . 181
Major CIP Projects . . . 183
CIP Projects in Construction . . . 184
CIP Reserve Funds . . . 188
Six-Year CIP Funding by Source . . . 189
Six-Year CIP Funding by Category . . . 189
Six-Year CIP Projects by Category ($1,000s) . . . 190
CIP Justification and Impact on Operating Budget . . . 193
Capital Purchases . . . 194

Policies

Summary of Financial Policies . . . 195
Reserve Policy . . . 197
Reserve Policy Glossary . . . 225
Investment Policy . . . 227
Investment Policy Glossary . . . 234
Debt Policy . . . 240
Debt Policy Glossary . . . 253

Appendix

Glossary . . . 259
List of Acronyms . . . 265
Index . . . 268

...Dedicated to Community Service
2554 SWEETWATER SPRINGS BOULEVARD, SPRING VALLEY, CALIFORNIA 91978-2004
TELEPHONE: 670-2222, AREA CODE 619

September 22, 2016

Honorable Board of Directors
Otay Water District

I am pleased to present the Otay Water District's Adopted Operating and Capital Budget for Fiscal Year 2017. The budget supports the District's updated FY 2015-2018 Strategic Plan as well as the financing of all of the District's services, programs, and capital needs during the 2017 fiscal year. With a balanced budget and the Strategic Plan in place, the District is well-positioned for continued success in the subsequent years.

The previous year has posed to be one of uncertainties and challenges regarding the drought and water supplies for those in California, specifically San Diego County's retail water agencies and their ratepayers. In May 2015, the District and its customers struggled with mandatory cuts in potable water use ordered by Governor Jerry Brown and the State Water Resources Control Board. Despite District customers having reduced water use 27% since 2007, they still needed to reduce water use by 20% compared to 2013 levels. Through their conservation efforts, District customers exceeded the 20% target, averaging 23% from June through December 2015. In February 2016, the State Water Board adopted revised emergency regulations, which included providing credits to agencies with new local, drought-resilient supplies. In March 2016, with the certification of the Claude "Bud" Lewis Carlsbad Desalination Plant as a drought-resilient supply, San Diego County Water agencies were able to reduce their conservation target by the State Water Board's maximum of eight percent, which lowered the District's target from 20% to 12%. The Carlsbad plant, which started commercial production in December 2015, provides the San Diego region with 56,000 acre-feet of drought-proof water each year, reducing reliance on imported sources.

In May 2016, the State Water Board replaced its state-mandated conservation target method with a supply-based approach, considering each agency's specific circumstances and available water supplies. Now individual urban water agencies may self-certify their

levels of available water supplies based on three additional dry years and the level of conservation necessary to ensure adequate supply assuming a third consecutive dry year.

At the same time the State Board modified its emergency regulations from a state-mandated water use target approach to a supply-based approach, the Metropolitan Water District of Southern California (MWD) also ended its supply allocations. On May 26, 2016, the San Diego County Water Authority (CWA) rescinded its Drought Management Plan Stage 2 and established a public awareness campaign to help maintain a regional commitment to water-use efficiency.

In San Diego, CWA has been allowed to certify supply sufficiency for all member agencies and in June 2016, CWA confirmed that its member agencies have sufficient water supplies to meet demands even during three additional dry years and will not be subject to state mandated water-use reductions through January 2017.

For more than a year the District, other water agencies in the San Diego region, and local civic and business groups advocated for state policies that reflected local water supply investments and conditions. Due to those steadfast efforts and the District's current level of water supply reliability, the District declared an end to Water Shortage Response Level 2 and is no longer under a Water Shortage Response Level.

As conservation mandates went into effect during FY 2016, potable sales volumes decreased 17.8% from FY 2015 levels. As one would expect, reductions in sales will impact revenues. Homeowners and businesses have also implemented conservation measures that are expected to generate permanent reductions in water use. As a result, the District expects sales volumes to recover only one percent from reduced conservation during FY 2017. Remaining increases in sales volumes are expected to come from new customers. Staff will continue to closely monitor these trends as they relate to overall District finances.

I am extremely proud of the District's staff, especially during the drought and state water conservation mandates, because we continued to serve our customers using the high standard of service that we have always striven for. This serves as a great reminder as to why Otay Water District exists. In 2016, we celebrated the District's 60th anniversary of service to East County and South Bay. Since its establishment, the District's motto has been "Dedicated to Community Service." From modest beginnings in 1956 through today, the District remains dedicated to providing outstanding service to the communities and the people we have the honor to serve.

Finding ways to streamline operations and cut costs also is a significant element of the District's ongoing commitment to our customers. By reducing the District's costs, we can pass those savings on to our ratepayers. In FY 2016, the District successfully refinanced its Certificates of Participation (COPs), saving customers more than $5.6 million. This is only one example of cost savings and the District's ongoing dedication in pursuing cost efficiencies. Since 2007 through 2017, the District has reduced its headcount from 174.5 to 135 employees, a 23% decrease, resulting in a cumulative savings of $30,052,900. Other cost savings include reducing the number of vehicles and equipment the District maintains, reducing fuel consumption, and decreasing water loss through our successful leak detection and repair program. The District's staff will continue to seek out other operational efficiencies, thus reducing costs and increasing savings for our customers.

In light of California and the West's persisting water challenges, the District continues its efforts to enhance the potable water supply for our service area. We have reached a key milestone in decreasing reliance on other water sources with the certification of the Final Environmental Impact Report/Final Environmental Impact Statement (EIR/EIS) for the District's Otay Mesa Conveyance and Disinfection System Project. Now that the Final EIR/EIS is complete, the United States Department of State (DOS) will use the document's findings and other factors to determine if the project would serve in the national interest. If the DOS determines the project is in the national interest, it will issue the Presidential Permit. If the project obtains other required approvals, the District could start receiving 18 million gallons of desalinated water per day from the Rosarito Desalination plant as early as 2024, serving potable water demands of up to two thirds of our customers.

The District's success as an organization is significantly enhanced by the policies and practices put in place by its Board to ensure the strength, stability, and reliability of the District. The management team is fully confident that with these policies and practices, supported by the FY 2015-2018 Strategic Plan, along with a dedicated and talented staff, that we will achieve continued success as an organization and thus, ensure the well-being of the people we serve.

FY 2015-2018 Strategic Plan

The FY 2015-2018 Strategic Plan consists of a four-phased approach. Phase one and phase two have been completed. The primary focus of phase one was to develop key enterprise-wide projects – SCADA, Work Order/Asset Management, and Emergency Preparedness/NIMS. Phase two focused on building upon the system foundation, business process improvement, and facilities. As part of phase three in FY 2017, we will continue to

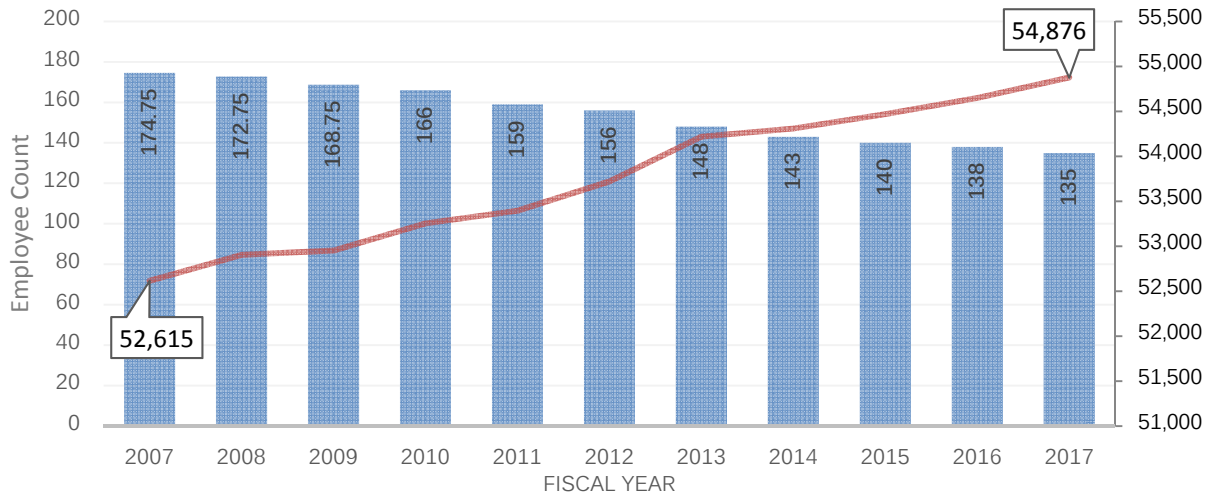
collect and populate these and other systems with new data so we can analyze and optimize these systems for efficiencies. Based on results from FY 2017, in phase four we will enhance key existing programs such as asset management, the internal auditing process, facilities maintenance and security, and work-resource planning. While rapid growth had been a significant focus in the early years of the District and in its earlier strategic plans, today we are primarily focused on operational efficiencies to cost-effectively manage long-term maintenance and replacement of infrastructure.

The change is based on the recognition that as an organization matures, fewer resources are needed to support growth; but greater effort is required to maintain and upgrade infrastructure and assets. This is important because in this phase of its lifecycle, an organization derives income more from customer rates and less from developer fees. Therefore, the increased maintenance and replacement costs place increased pressure on customer rates. To balance the customer's interest in minimizing rate increases while also maintaining an organization's infrastructure, investments, and a strong financial position; the management team must place greater emphasis on internal efficiency and the development of technology assisted best practices. In effect, the organization must use investments in technology to do more with the same or fewer resources.

From a water supply perspective, this means determining the optimum mix of water supply, treatment, and delivery solutions for customers. From a daily operating perspective, efficiency improvements have become the primary source of competitive advantage and cost optimization for utilities.

A goal included in the District's past strategic plans is to capitalize on technology investments and utilizing those technologies to continually improve efficiency and productivity. The success of this approach is evidenced by the gains in productivity and by the reduction in staffing the District has experienced. The following charts show that since 2007, the District has reduced staffing by 39.75 full-time equivalent positions, or 23%, while the number of customer accounts increased by 2,261.

Employee Count and Number of Accounts

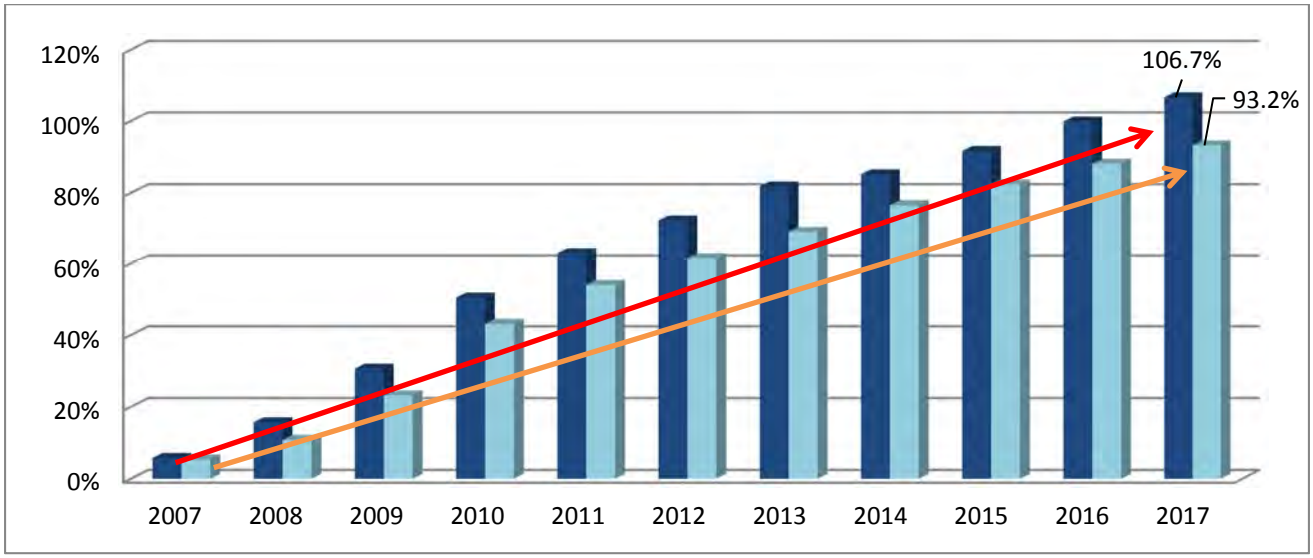


With increased efficiency and higher employee productivity, the District has been able to continue absorbing some of the pass-through costs from its water suppliers, the City of San Diego, San Diego County Water Authority, and Metropolitan Water District. This helps to address customer concerns about rising water rates.

Based on an annual survey of water and sewer rates conducted by District staff, Otay continues to be one of the lower cost providers in San Diego County. The District has the 11th lowest water rate out of the 22 member agencies in San Diego County and the 5th lowest sewer rate out of the 28 sewer service providers in San Diego County. The results of the water and sewer surveys are shown on pages 23 and 24, respectively.

The chart below shows that since 2007, the wholesale water supply costs have increased 106.7% while the District's retail water rates have increased a lesser 93.2%.

Wholesale Water Supply Costs vs. District Retail Rate Increases



The District currently delivers water service to nearly 49,425 potable and 708 recycled water customer accounts. All of the potable water sold to customers is purchased from CWA. Forty-seven percent of this water is in turn purchased from the region's primary water importer, MWD. This number has decreased significantly compared to previous years and beginning in FY 2016, 7% will come from seawater desalination.

The District has been proactive in reducing its dependence on MWD water treatment facilities. For example, in 2009 the District entered into an agreement with CWA that allowed our neighboring Helix Water District to treat imported water on behalf of the District at their Levy Water Treatment Plant. This has brought regional water treatment closer to our customers, which reduces dependence on water treatment facilities located outside of San Diego County.

The District also collects and recycles wastewater from approximately 4,669 homes and businesses. Wastewater is collected and delivered to the Ralph W. Chapman Water Recycling Facility (RWCWRF), which is capable of reclaiming wastewater at a rate of 1.3 million gallons per day. In addition to the Chapman facility, the District continues purchasing up to 6 million gallons per day of recycled water from the City of San Diego's South Bay Water Reclamation Plant. The use of recycled water for landscape irrigation and industrial processes reduces dependence on imported potable supplies, provides a local supply that is drought proof, and diversifies District resources.

Fiscal Year 2017 Operating Budget Summary

Otay Water District's operating expenditures consist of three major sectors: potable water, recycled water, and sewer, budgeted at $91,741,500 for Fiscal Year 2017. Revenues from potable and recycled water are projected to be $81,138,900, approximately $2,239,200 more than the Fiscal Year 2016 budget. Water sales volumes are expected to decrease by 8% compared to FY 2016 budgeted sales due to drought mandates. Sewer revenues are projected to be $2,918,900, approximately $287,400 less than fiscal year 2016. This decrease in sewer revenue is primarily due to the discontinuance of the system fee recapture, which was part of a 2013 Cost of Service study. The remaining budgeted revenues of $7.7 million come from various special fees, assessments, and miscellaneous income.

Significant aspects of the Operating Budget are:

- A balanced budget supporting the goals of the Strategic Plan.
- The use of an economist to project growth for the region.
- An updated six-year Rate Model to ensure sound financial planning and reserve levels.
- Ongoing water supply rate increases of 4.0% from MWD and 5.9% from CWA due to the reduced volumes as a result of the Governor's conservation mandate, high cost of supply programs, higher energy costs, and increasing operating costs.
- Implemented rate increases in potable, recycled water, and sewer. This included pass-through rate increases from the City of San Diego, CWA, and the County of San Diego.
- In efforts to minimize rate increases, the District has again reduced staffing levels from 140 full-time equivalent positions last year to 135 this year.
- Of San Diego County's 22 water agencies, the Otay Water District's water rates are below the countywide average.

Fiscal Year 2017 Capital Improvement Program

The Fiscal Year 2016-17 Capital Improvement Program (CIP) Budget consists of 89 projects and a budget of $10.7 million. The budget emphasizes maintenance of existing infrastructure and long-term planning for ongoing programs to meet population growth while functioning within fiscal constraints. This year's CIP budget decreased by $1,000,000 compared to last year's projection primarily due to $340,000 decrease in capital purchases for vehicles and field equipment and $600,000 reduction in reservoir recoating and relining of smaller reservoirs.

Awards and Acknowledgments

- The California Society of Municipal Finance Officers (CSMFO) presented Otay Water District the Certificate of Award for *Operating Budget Excellence Award* for Fiscal Year 2015-2016.
- The California Society of Municipal Finance Officers presented Otay Water District the Certificate of Award for *Capital Budgeting Excellence Award* for Fiscal Year 2015-2016.
- The Government Finance Officers Association Officers (GFOA) presented Otay Water District the *Certificate of Achievement for Excellence in Financial Reporting* for its Comprehensive Annual Financial Report for the Fiscal Year ended June 30, 2015.

Conclusion

The Otay Water District's Board of Directors met the challenges presented this year with responsibility, commitment, and persistence in an unwavering effort to continue preserving the stability and financial strength of the District as one of its highest priorities.

This budget reflects the vision of the District's Board, its management, and its employees. We will continue to strive to make enhancements in our budget processes, including an extensive review and analysis of projections for revenues, expenditures, capital projects, and reserves.

I would like to thank the District's staff involved in this process for the efforts put forth in the preparation of this budget to ensure a successful outcome.

To the Board of Directors, we acknowledge and appreciate your continued support and direction in achieving excellence in the financial management and operations of the District.

Mark Watton, General Manager

At-A-Glance

Mission Statement

To provide high value water and wastewater services to the customers of the Otay Water District in a professional, effective, and efficient manner.

History

The Otay Water District was formed in 1956 to serve as a public water and sewer agency, authorized as a California special district under the provisions of the Municipal Water District Act of 1911. The District's ordinances, policies, taxes, and rates for service are set by five Directors elected by voters in their respective geographic area. The District joined the San Diego County Water Authority (CWA) in September 1956 to acquire the right to purchase and distribute imported water throughout its service area. The District is also responsible for the collection, treatment, and disposal of wastewater from a portion of the northern region of the District. In 1980, the District started operation of the Ralph W. Chapman Water Recycling Facility (RWCWRF) and in May 2007 a new source of recycled water from the City of San Diego was obtained, allowing the Otay Water District to supply 12% of total water demand with recycled water.

Service Area

The District's boundaries encompass an area of approximately 125 square miles in San Diego County, lying immediately east of the City of San Diego metropolitan area and running from the City of El Cajon south to the international border, abutting the cities of El Cajon and La Mesa and encompassing most of the City of Chula Vista and a small portion of the City of San Diego.

Organizational Structure

The General Manager reports directly to the Board of Directors. The Assistant General Manager along with District management oversees day-to-day operations. The Assistant General Manager oversees the four departments of Administrative Services; Finance; Water Operations; and Engineering. These and other lines of reporting are shown on the organization chart on page 7.

General Information

For Fiscal Year 2017, the District will have a staff of 135 full-time equivalent employees under the leadership of the General Manager. The District provides water service to approximately 52% of its expected ultimate deliveries with a population of more than 220,000 people. This percentage increases as the District's service area continues to grow to ultimate build-out. The District is projected to deliver approximately 27,000 acre-feet of potable water to 49,500 potable customer accounts. By 2035, deliveries are expected to reach 45,501 acre-feet of potable water to serve 285,000 people or 69,000 accounts. The growth rate, as projected by the San Diego Association of Governments (SANDAG), for the City of Chula Vista, is approximately 1.0% per year over the next decade. Using historical data and considering current economic conditions, staff has moderated this projection to a growth rate of 0.3% for Fiscal Year 2017.

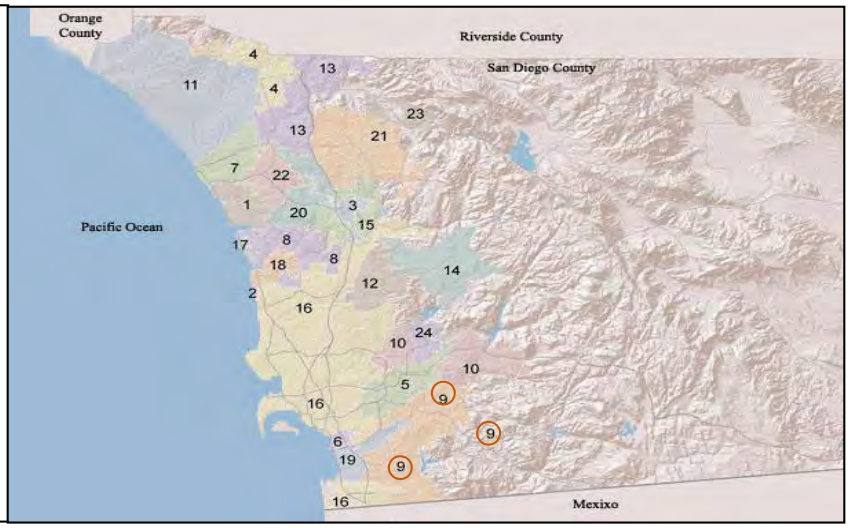
Since 1956, the District has provided high quality water to a semi-arid region of the southeastern San Diego County. In 1971 the District constructed a small collection and treatment plant for sewer in the northern section of the District, and in 1980 the District opened the Ralph W. Chapman Water Recycling Facility (RWCWRF). For over 50 years, the available supply of water has helped transform the District service area from a mostly scrub and cactus covered backcountry into a balance of diverse environments.

Recycled water from the RWCWRF is used to irrigate golf courses, schools, public parks, roadway landscapes, and various other approved uses in eastern Chula Vista. The RWCWRF is capable of recycling wastewater at a rate of 1.3 million gallons per day (1,200 acre-feet per year). The District is also in partnership with the City of San Diego to beneficially reuse an additional 2,460 acre-feet per year of recycled water for fiscal year 2017, and ultimately up to 6,720 acre-feet per year. The District continues to be the largest retail provider of recycled water in the County of San Diego.

The District also owns and operates a wastewater collection system providing public sewer service to approximately 4,677 customer accounts within the Jamacha drainage basin. The sewer service area covers approximately 8,797 acres, which is about 11% of the District's total service area. Residential customers comprise 97% of the sewer customer base.

San Diego County Water Agencies

1. Carlsbad Municipal Water District
2. City of Del Mar
3. City of Escondido
4. Fallbrook Public Utility District
5. Helix Water District
6. City of National City
7. City of Oceanside
8. Olivenhain Municipal Water District
9. Otay Water District
10. Padre Dam Municipal Water District
11. Camp Pendleton Marine Corps Base
12. City of Poway
13. Rainbow Municipal Water District
14. Ramona Municipal Water District
15. Rincon del Diablo Municipal Water District
16. City of San Diego
17. San Dieguito Water District
18. Santa Fe Irrigation District
19. South Bay Irrigation District
20. Vallecitos Water District
21. Valley Center Municipal Water District
22. Vista Irrigation District
23. Yuima Municipal Water District
24. Lakeside Water District



Distinguished Budget Presentation Award

The Government Finance Officers Association (GFOA) presented a *Distinguished Budget Presentation Award* to the District for its annual budget for the fiscal year 2015-2016. In order to receive this award, a governmental 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.

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

GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished
Budget Presentation
Award

PRESENTED TO

Otay Water District

California

For the Fiscal Year Beginning

July 1, 2015

Executive Director

Financial Awards

The California Society of Municipal Finance Officers (CSMFO) presented Otay Water District the *Operating Budget Excellence Award for Fiscal Year 2015-2016*.

The California Society of Municipal Finance Officers (CSMFO) presented Otay Water District the C*apital Budgeting Excellence Award for Fiscal Year 2015-2016*.

Financial Awards

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Otay Water District
California

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2015

Executive Director/CEO

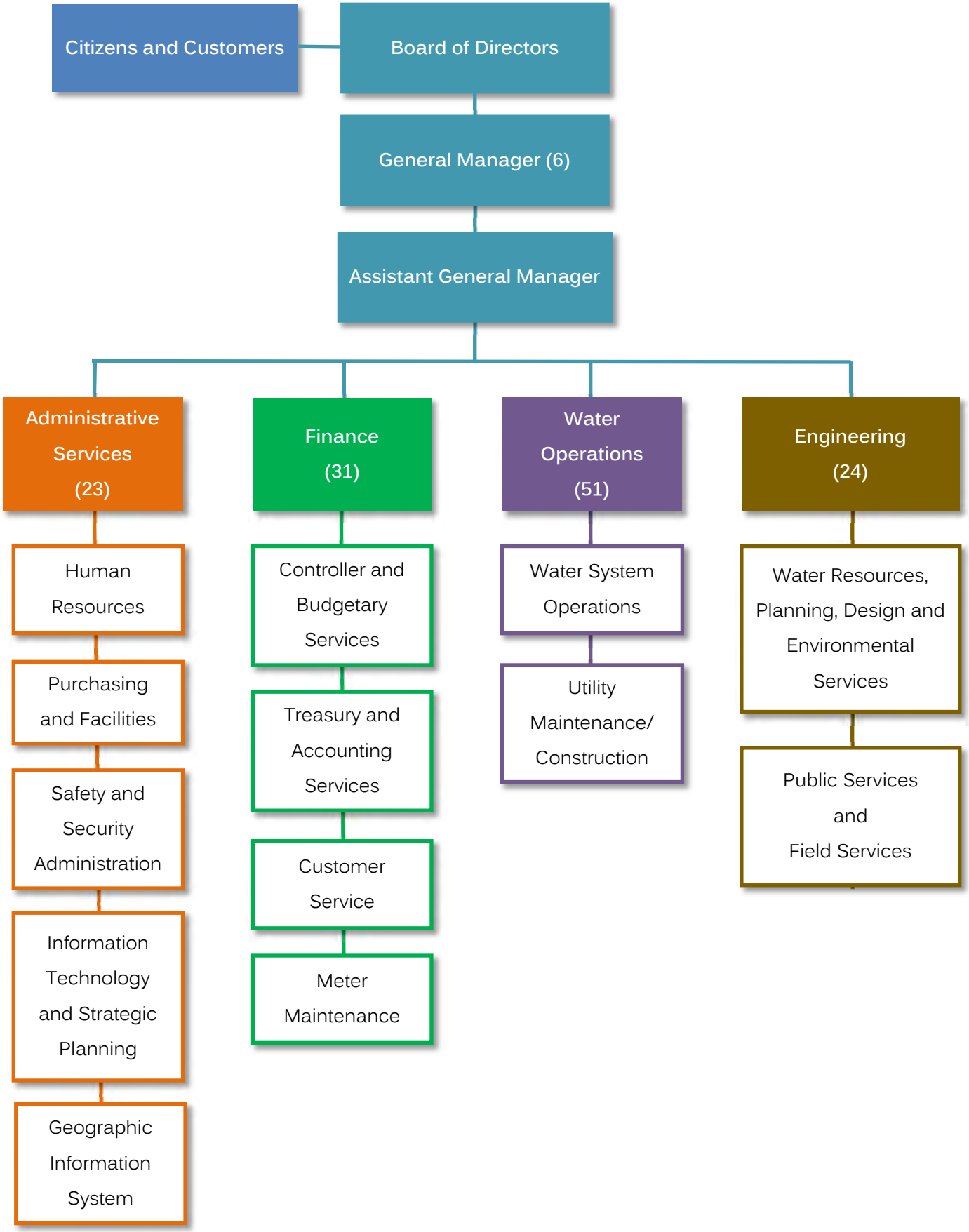
The Government Finance Officers Association Officers (GFOA) presented Otay Water District the *Certificate of Achievement for Excellence in Financial Reporting for its Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2015*.

Award

The Construction Management Association of America (CMAA) presented the Otay Water District with the *2016 Distinguished Owner Honoree Award.*

Organization Chart

District Position Count– (135 Positions)



Budget Overview

Budget Guide

The District views the budget as an essential tool for proper financial management. This budget is developed with input from the various department levels of the organization and is set prior to the start of each fiscal year. It is designed and presented for the general needs of the District, its staff, and citizens. The budget is a comprehensive and balanced financial plan that features District services, resources and their allocation, financial policies, and other useful information to allow the users to gain a general understanding of the District's financial status and future plans. To help readers navigate this document, the following is a general description of each of the tabulated sections of the budget.

Budget Foreword

This introductory section contains descriptions and general information about the District, strategic focus areas highlighting major initiatives and accomplishments, and the Budget Calendar and Process.

History and Community Profile

Included in this section is the history of the District, along with the current and projected economic conditions. It also includes statistics on the District's customers, the region's tax base, San Diego rainfall, future development and projects that will have an impact on the District in the coming years.

Financial Summaries

This section contains an overview of the District's revenues and expenditures by fund for the current budgeted fiscal year, the prior year's actual amounts, and the future estimated amounts. The prior year's actual amounts are unaudited due to timing of the completion of the financial statement audit; actual amounts may vary pending the completion of the audit. It includes a description of each of the revenue and expense categories as well as charts depicting their relationships.

Five-Year Forecast

The District prepares a comprehensive Rate Model each year based on budget input, trends, new programs, and requirements. Estimates are made for cost increases, rate increases, targeted fund balances, capital needs, and debt requirements. Analysis for the current budget year plus five subsequent years is conducted and a six-year forecast is prepared based on the Rate Model results.

Budget Overview

Revenues and Expenditures

The District budgets revenues and expenditures by Potable, Recycled, and Sewer Systems. General revenues and expenditures that are not specific to one system or department are budgeted in the General Revenues and Expenses section. An allocation of overhead costs is made to equitably distribute the cost of running the District among the various business segments.

Departmental Operating Budget

This section provides a summary of each department's operating expenditures and detailed budget information including its mission, responsibilities, three-year staffing schedules, performance indicators, accomplishments, and goals. Also provided are graphical presentations of departmental budget percentages to District totals, as well as summary expenditure information by division for three fiscal years.

Capital Budget

An overview of the District's Capital Improvement Program (CIP), the Water Resources Master Plan (WRMP), the Sewer Master Plan, major assumptions and criteria, a six-year listing of CIP project expenditures justifications, and the impact on the Operating Budget and capital purchases budget for the fiscal year are located in this section.

Policies

This section includes a summary of the District's financial policies and practices, including the Reserve Policy, Investment Policy, and Debt Policy.

Appendix

The last section consists of a Glossary, List of Acronyms, and an Index.

Budget Overview

Budget Process

The District has integrated the Capital Improvement Program (CIP) Budget and the Operating Budget. These budgets are developed based on the District's Water Resources Master Plan, the Sewer Master Plan, and Strategic Business Plan. New initiatives and programs are categorized into the Balanced Scorecard perspectives. Appropriate budget amounts are determined by using the historical data of operations and new growth, developers' input, SANDAG projections, and economic outlook.

To assure reliable and high-quality service to the growing customer base, the District has committed to a number of long-range strategies that drive the budgeting process. The strategies and assumptions used to develop the District's integrated budget are:

- An average projected long-term growth rate of 1.4%.
- Pass-through rate increases for costs imposed on the District by the wholesale water providers.
- Accurate projections of capital budget needs (including replacement needs).
- Reserve funding in accordance with the Reserve Policy to meet future growth demands and maintain financial stability.
- Funding of the Strategic Plan initiatives as categorized into the Balanced Scorecard perspectives.
- Avoid rate spikes by leveling rate increases over a six-year period.

The Finance Department prepares the budget for the potable, recycled, and sewer systems. This is done using estimated cost increases from the District's wholesale water providers as well as estimated sewer charge increases provided by the County and City of San Diego. Other significant factors in the budget development include estimated conservation levels, projected growth in customer accounts, and weather. Additionally, all general revenue and expense budgets are calculated using trend analysis and any external factors that may affect these items.

Each year, the Finance Department provides departments with a Budget Workbook which gives instructions on how to budget for personnel, administrative expenses, and materials and maintenance expenses. Included in this workbook are historical trends, assumptions, and training on how to enter the expense data into the District's budget system.

Budget Overview

Budget Calendar

February	March	April	May-June	July – January
2/10/16 Chiefs submit request for new personnel, personnel reclassification changes, advancements, and long-term staffing to HR 2/19/16 Project Managers submit CIP Budgets for new projects and changes to existing projects in CIP Budget application 2/24/16 HR to complete preliminary review of new personnel, personnel reclassification changes, requests, and advancements 2/24/16 Chiefs to submit Operating and Admin Budget; Capital Purchases and justifications; Labor Budget Worksheet 2/29/16 Engineering Department reviews all CIP Budget requests with AGM	3/01-02/2016 Finance to review Operating Budget and reconciliation with departments 3/02/16 Finance to review preliminary CIP Budget with Chief of Engineering including year over year explanations 3/08/16 HR to review new personnel, reclassifications and change requests with GM 3/09/16 Finance to have second review of CIP Budget with AGM and Engineering 3/17/16 Finance to review Department Operating Budgets and personnel cost with Chiefs, AGM and GM 3/17/16 CIP budget presented to the General Manager for review and comments	4/06/16 Chiefs submit Position Analysis Questionnaire to HR for GM approval Personnel requests and request for reclassifications 4/28/16 Preliminary budget review with General Manager	5/07/16 Review assumptions and rates with Chiefs, Assistant General Manager, and General Manager 5/11/16 Practice run of budget presentation with Finance, Chiefs, AGM, and GM 5/23/16 Board Meeting – approval of the FY 2016-2017 Operating and Capital Budgets 5/23/16 Board gave direction to staff to mail rate notices to customers	07/07/16-08/04/16 Rate increase message inserted with water and sewer billing 1/01/17 Water and sewer rate increase

Budget Overview

Personnel Budget

The budgeting of salaries and benefits is performed in the position budgeting module of the Enterprise Resource Planning (ERP) system. This tool allows the District to budget for each authorized position and the associated benefits in an automated fashion. Departments submit requests for new positions, reclassifications, or advancements to the Assistant General Manager. These requests are reviewed by the Assistant General Manager and then presented to the General Manager for approval. Upon their approval, the Finance Department enters these changes, as well as negotiated pay increases and benefit rate changes, into the position budget system. Position budgeting calculates the salaries and benefits to be included in the District's budget.

Administrative and Materials and Maintenance Budget

Administrative and Materials and Maintenance expenses are entered into the budget model of the ERP system by individual requests. These requests are compared to last year's budgeted and actual projected expenses to determine reasonableness by the Finance Department. All costs are justified and supported by explanations. Finance compiles the operating budget and submits it to the Assistant General Manager and the General Manager for review prior to presentation to the Board of Directors.

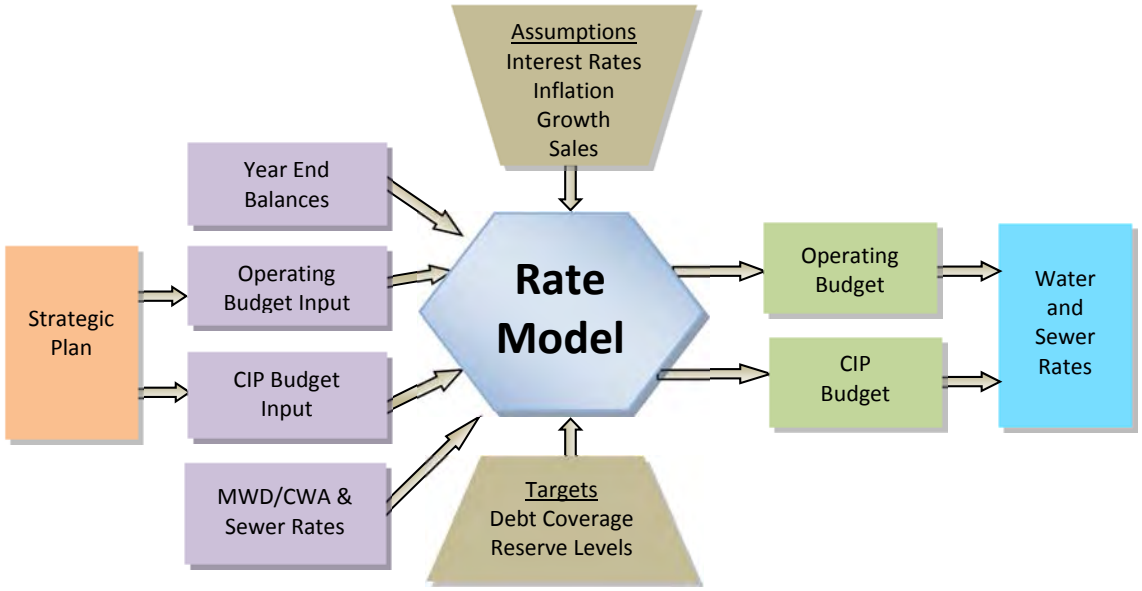
Capital Improvement Plan (CIP) Budget

The Engineering Department issues budget instructions for the CIP budget process. Each project manager uses the CIP Budget module system to review year-to-date project expenses and then estimates costs to the end of the fiscal year. They also project future costs to complete the project. Costs are adjusted for scope changes as well as construction cost increases. Engineering then compiles the CIP Budget and submits it to the Assistant General Manager and the General Manager for review prior to presentation to the Board of Directors.

Rate Model

Once budgets have been calculated, the Finance Department inputs all of the operating revenues and expenses, CIP expenses, reserve funding, and reserve levels into the District's Rate Model. Inflators for cost and volume are input into the Rate Model to project the next six years of revenue and expenses. The debt coverage ratio is also evaluated to ensure adequate levels. Projected rates are then set for the current fiscal year, plus five subsequent years, such that all financial targets are met. Using this comprehensive modeling tool, the District is able to smooth future rate increases, determine when debt should be issued, and maintain all of the reserve levels in accordance with the Reserve Policy.

Budget Overview



The District has a three-year Strategic Plan, and each year in the spring, the portion of the plan that pertains to the upcoming fiscal year is presented to the Board of Directors for review and direction. This is followed by a coordinated presentation of the budget by all departments, to the Board of Directors for their approval at a special budget workshop in May. The review of the Strategic Plan and the adoption of the budget on an annual basis give the District its direction for the following fiscal year.

During the year, each department receives monthly budget and cost reports that are essential to monitor and control costs. As events occur or conditions change, modifications to or deviations from the original budget may be necessary. In the event the General Manager determines that an emergency exists which requires immediate action; he may transfer appropriations within the budget allocations or request that the Board of Directors increase the current budgeted funds.

Due to the size of the District's CIP, a separate budget book has been prepared outlining in detail the projects and expenditures required to ultimate build-out. A synopsis of the CIP may be found under the Capital Budget section of this report. As part of the integrated budget, capital purchases have been included within the CIP Budget.

The Budget Report is intended as a financial guide and may be modified by the Board of Directors during fiscal year 2017. All approved modifications to the budget will be documented in the form of a staff report and noted in the board meeting minutes.

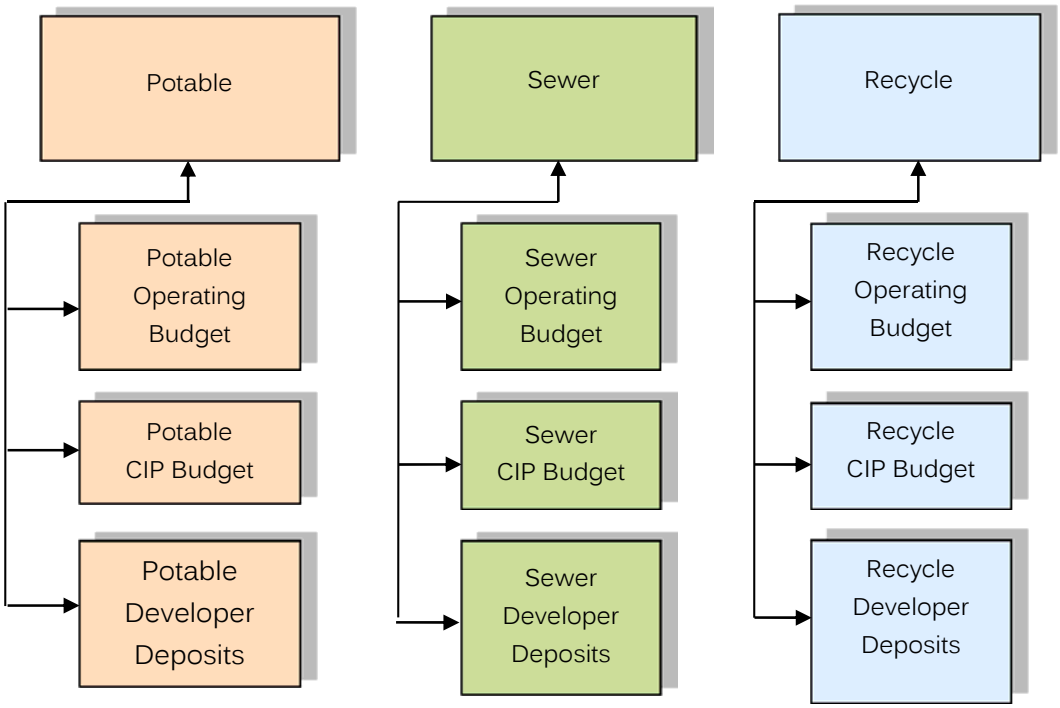
Budget Overview

Budget Basis

The District utilizes the accrual basis for budgeting which is the same as the basis of accounting used in the audited financial statements, recognizing revenues and expenses in the period in which they are earned and incurred, regardless of the timing of cash receipts and disbursements. The District reports its activities on an enterprise fund basis, which is used to account for operations that are financed and operated in a manner similar to a private business enterprise and conforms to the guidelines of Generally Accepted Accounting Principles (GAAP). The intent of the District is that the costs (including replacement cost of existing assets) of providing goods or services to the general public on a continuing basis, be financed or recovered primarily through user charges.

Fund Structure

The District budgets services in one of the three business segments: Potable, Sewer, or Recycled. Each business segment categorizes revenue and expenditure as a function of the Operating Budget, Capital Improvement Plan Budget, or Developer Deposits. Please refer to the District's Reserve Policy, beginning on page 197, which provides the detailed flow of funds.



RESOLUTION NO. 4302

A RESOLUTION OF THE BOARD OF DIRECTORS OF
OTAY WATER DISTRICT ADOPTING THE
FISCAL YEAR 2016-2017
OPERATING AND CAPITAL BUDGET; AND THE JOB
CLASSIFICATION AND SALARY SCHEDULE

WHEREAS, the Otay Water District Board of Directors have been presented with a budget (Exhibit 1) for the operation of the Otay Water District for Fiscal Year 2016-2017; and

WHEREAS, the Fiscal Year 2016-2017 Operating and Capital Budget, has been reviewed and considered by the Board;

WHEREAS, it is in the interest of the District to adopt a budget for said year;

WHEREAS, in connection with the adoption of the budget, the Board is also being presented with a listing of job classifications and salary schedule (Exhibit 2) for its consideration, in order to comply with California Code of Regulations Section 570.5,

NOW, THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED by the Board of Directors of the Otay Water District that the Operating and Capital Budget for the operation of the District, incorporated herein by reference, is hereby adopted as the District's budget for Fiscal Year 2016-2017.

BE IT FURTHER RESOLVED that the Board hereby approves and adopts the salary schedule included with the budget and, consistent with his authority over employee compensation under

both State law and the District's Code of Ordinances, authorizes the General Manager to update the salary schedule whenever necessary to reflect changes made within his authority.

PASSED, APPROVED AND ADOPTED by the Board of Directors of Otay Water District at a board meeting held this 23rd day of May 2016, by the following vote:

Ayes: Directors Croucher, Lopez and Smith
Noes: None
Abstain: Director Robak
Absent: Director Thompson

Vice President

ATTEST:

District Secretary

Past and Present

The Otay Water District was formed in 1956 by a small group of ranchers, farmers, and other property owners concerned about the declining quality and quantity of well water. In 1957, developers in south Spring Valley created the La Presa County Water District to obtain water from the San Diego County Water Authority (CWA). The CWA is the water wholesale supplier of the member agencies in San Diego County. In the fall of 1969, Otay Water District and La Presa County Water District merged into the Otay Water District.

La Presa County Water District (ca. 1957)

Since then, the District has grown from a handful of customers and two employees to become an organization operating a water network with more than 730 miles of potable and 104 miles of recycled pipelines, 44 reservoirs, a water reclamation plant, and one of the largest recycled water distribution systems in the State of California. The character of the service area has also changed from predominantly dry-land farming and cattle ranching to businesses, high-tech industries, and large master-planned communities. The District's boundaries currently stretch from Otay Mesa and eastern Chula Vista to Spring Valley, southern El Cajon, and Jamul.

The coming years will continue to pose considerable challenges for those in California's water community. The state is just beginning to recover from its fourth straight year of a record drought and despite extensive efforts to develop more reliable water, Governor Jerry Brown and the State Water Resources Control Board (SWCRB) ordered mandatory cuts in potable water use across California. The District's mandatory cut of 20% in FY 2016 has been reduced to 8% for FY 2017. The District's customers have done an excellent job in conserving water usage, which has resulted in the District meeting the mandatory reductions. Additionally, the region experienced large potable water supply cost increases totaling more than 90% since 2007 and a 116% increase in the recycled water supply, which was effective January 1, 2016.

Finally, the inaction in the State Capitol to address the crisis in the Sacramento – San Joaquin Bay Delta, the source of 30.0% of Southern California's water supply adds further uncertainty to the future cost and availability of water. Fortunately, the District, as a member of the CWA, is well-positioned for water coming from the Colorado River due to the Quantification Settlement Agreements (QSA) and desalinated water from the Carlsbad Desalination Plant.

In June 2007, the District dedicated the Supply Link Project connecting the recycled water system to the City of San Diego's City South Bay Water Reclamation Plant. Today, the District purchases about 3 million gallons per day (mgd) of recycled water from the City of San Diego, increasing to 6 mgd ultimately. In addition, 1 mgd is produced at the District's RWCWRF Plant. With recycled water meeting a large portion of the landscape irrigation needs, this means in the future approximately 7 mgd of potable water does not have to be pumped hundreds of miles from northern California or the Colorado River. Instead, enough drinking water to serve more than 15,000 homes is being replaced by recycled water in the years to come.

Current Economic Conditions

The District services the needs of a growing population by purchasing water from the San Diego County Water Authority (CWA). The CWA purchases its water from the Metropolitan Water District of Southern California (MWD) and the Imperial Irrigation District (IID). The District takes delivery of the water through several connections of large diameter pipelines owned and operated by CWA. The District currently receives treated water from CWA and from Helix Water District (HWD) by contract with CWA. In addition to the treated water deliveries from CWA, the District has several emergency agreements with the City of San Diego, Helix Water District, and Sweetwater Authority that allows agencies to have flexibility to deal with emergency shutdowns. Through innovative agreements like these, benefits can be achieved by both parties by using excess capacity of another agency and diversifying local supply, thereby increasing reliability.

For several decades, the District has collected and recycled wastewater generated within the Jamacha drainage basin and pumped the recycled water south to the Salt Creek basin where it is used for irrigation and other non-potable uses. However, the demand for recycled water out-paced the supply, requiring the District to supplement the limited supply of recycled water with potable water. Through the agreement with the City of San Diego, the District has discontinued supplementing its recycled demand with potable water. Once again, this decreases the demand on potable water and increases reliability of the District's supply.

The District's sewer service area is growing at a slow but steady rate of approximately 0.2% each year. Most of this growth is from small development projects or homeowners converting their septic system to sewer because of environmental issues.

The District's water service area was one of the fastest growing regions in the nation. It is estimated that the District is currently serving approximately 220,000 residents. The local and national recovery from the global recession of 2009 has been slow; however, due to San Diego County's diverse economy, it is forecasted to do better than most of the nation.

Over the past 12 years, the District has added more than 7,409 new customer connections, with 2,189 occurring in Fiscal Year 2004. In Fiscal Year 2016, the District sold 118 meters which is an average of 10 meters per month.

The Future

The District continues to use the challenges presented by growth to create new opportunities and new organizational efficiencies. By utilizing and continuing to refine its Strategic Business Plan, it has captured the Board of Director's vision and united its staff in a common mission. The organization has achieved a number of significant accomplishments based on its successful adherence to its Strategic Business Plan. The District is not only poised to continue successfully providing an affordable, safe, and reliable water supply for the people of its service area, but is set to reap the rewards of greater efficiencies and economies of scale.

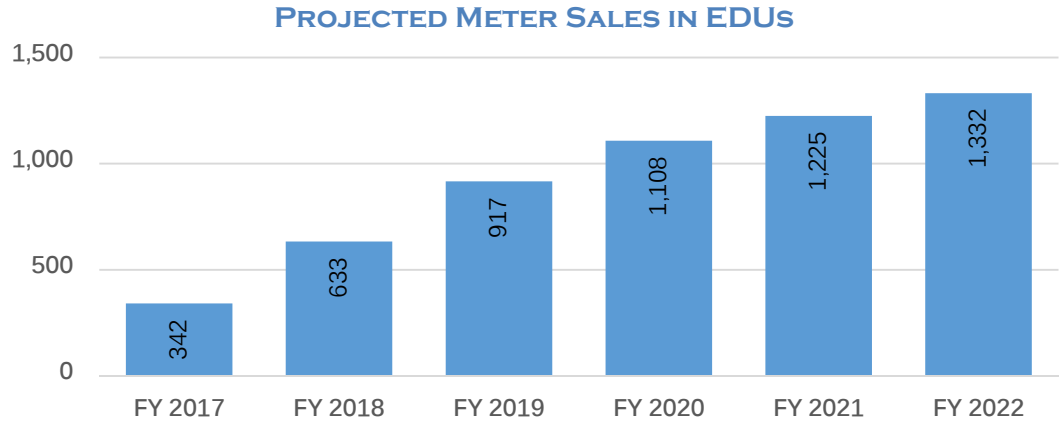
Future Development

As in the previous fiscal year, the District employed an Economist to provide an Economic Outlook of the national economy, San Diego County's economy, the future of south San Diego County, and an overview of the Otay Water District. Projections of future development indicate that the ratio of multi-family units will increase because the remaining land is zoned for multi-family development.

	Projected Units for Sale and Rental Otay Water District Service Area FY 2016 through FY 2022							
Project	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	Total
Total Single-Family Units	16	91	399	544	619	725	747	3,141
Total Condominium	275	302	232	347	649	669	788	3,262
Total Rental	0	519	310	563	745	557	721	3,415
Total Units	**291**	**912**	**941**	**1,454**	**2,013**	**1,951**	**2,256**	**9,818**
% Multi-Family	**95%**	**90%**	**58%**	**63%**	**69%**	**63%**	**67%**	**68%**

Source: The London Group Realty Advisors, March 2016

Using the economist report, the District's engineering staff projects that over the next six years the District will sell another 3,416 meters which translates to 5,557 equivalent dwelling units (EDUs). These projections have been incorporated in the Five-Year Forecast on page 67.



The Future

San Diego County Water Supply

San Diego County imports about 84.0% of its water from the Colorado River and Northern California. Since these sources face legal and environmental constraints, the region has been exploring other ways to ensure an adequate water supply including increased water recycling, more aggressive conservation programs, increased water storage, groundwater desalination, and seawater desalination.

Carlsbad Desalination Plant

Carlsbad Desalination Plant, 2015

The District's water wholesaler, the San Diego County Water Authority, entered into a formal Water Purchase Agreement (WPA) in November 2012. The WPA outlines the commercial and financial terms for the purchase and delivery of desalinated ocean water produced at the Carlsbad Desalination Plant. Under the WPA, the County Water Authority will purchase 48,000 to 56,000 acre-feet of water annually from the desalination plant. The plant is expected to produce up to 50 million gallons of water a day and will generate enough water to serve about 112,000 families and meet 7 to 10 percent of the region's demand. Commercial production began on December 23, 2015. The total price for the desalinated water for 2016 is estimated to be between $2,131 and $2,267 per acre-foot depending on how much is purchased annually. An acre-foot is approximately 325,900 gallons or enough to supply two typical single-family households of four for a year.

Rosarito Desalination and the Otay Mesa Conveyance and Disinfection System Projects

The Rosarito Desalination Project is comprised of a 100 million gallons per day seawater reverse osmosis desalination plant, together with a pump station and pipeline, to convey water to Tijuana and to the District. This would be the first cross-border water supply project of its kind and requires public messaging to inform key stakeholders and the public of the significance of the Project. If successful, this Project may start delivering water to District customers by early 2024. The Project includes the construction of facilities on the U.S. side to include a large diameter pipeline 3.5 miles long, a pump station, a disinfection facility and the use of the Roll Reservoir in Otay Mesa.

Rosarito Desalination Project rendering

Demographics

The District boundaries shown in the map encompass an area of approximately 125.5 square miles in San Diego County, located immediately east of the City of San Diego metropolitan area and running from the City of El Cajon south to the international border. SANDAG creates and maintains a tremendous quantity of demographic, economic, land use, transportation, and criminal justice information about the San Diego region. The demographic data include population characteristics such as age, education, and employment. The following demographic data was provided by The London Group Realty Advisors, which summarizes the sub regional areas of Sweetwater, South Bay and Jamul.

Demographics of the Otay Water District

The population of the Otay Water District has grown from 114,937 in 1980 to 286,329 in 2010. This represents a 149.1% increase over the past 30 years. The average persons per household was 3.46. For 2016, SANDAG reports the City of Chula Vista's ethnic/racial makeup with 44.3% Hispanic, 9.0% non-Hispanic white, 17.2% Asian and the remaining population are of other ethnic/racial descent. In a recent economic forecast conducted by The London Group Realty Advisors, the District's median age is 35.8 and 33.14% of adults have a four-year degree or higher. The average household income is $102,299 and the median household income is $85,663.

The London Group Realty Advisors have projected that the housing units in the District's service area will consist of low density townhomes and multi-plexes. The average residential sales price in South San Diego County has increased from $398,174 in 2009 to $686,183 in 2015.

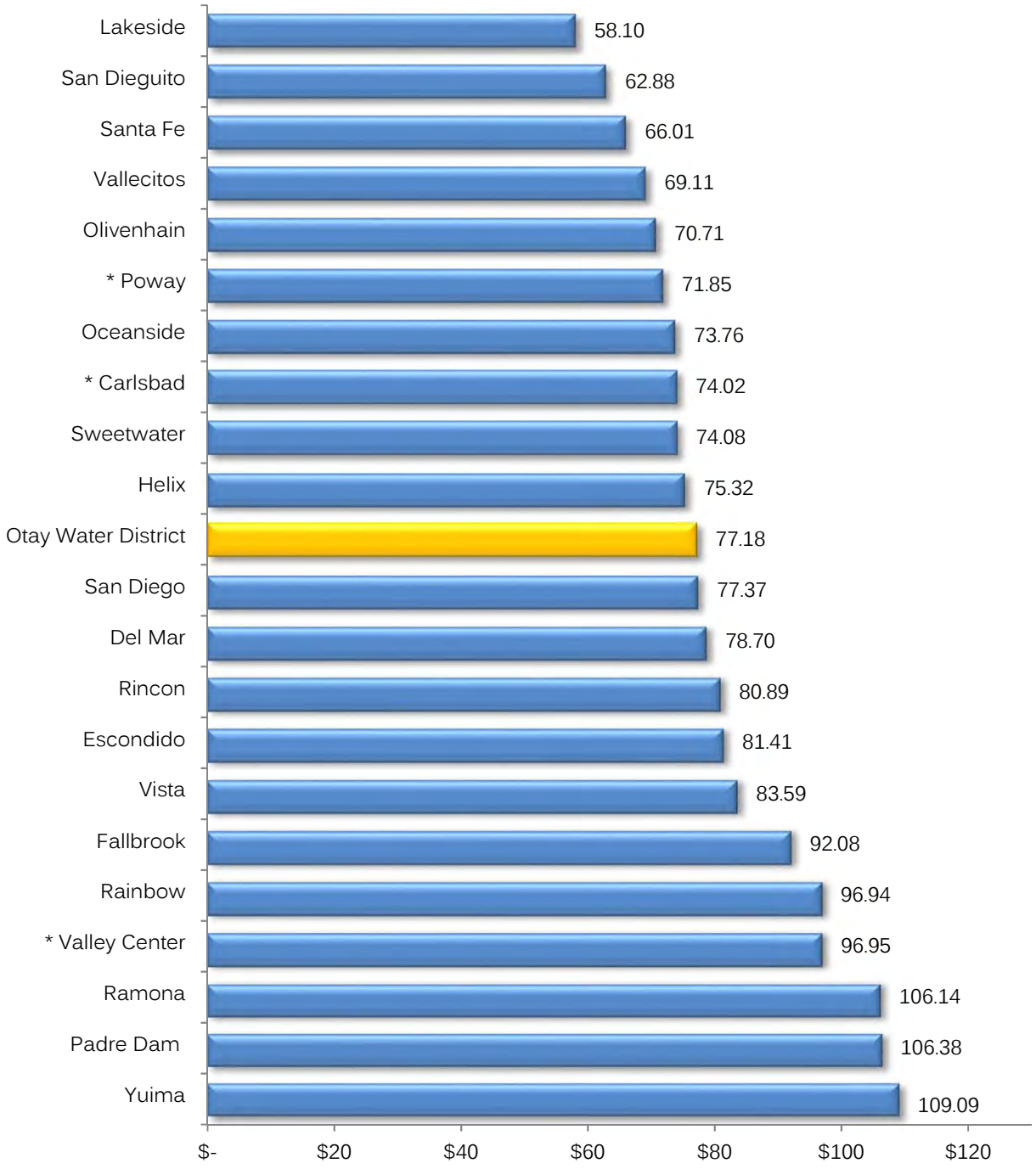
Otay Water District Demographics (2016)	
Population	243,916
Persons/Household	3.46
Ethnic/Racial makeup	
Hispanic	44.3%
Non-Hispanic White	9.0%
Asian	17.2%
Other	15.1%
Median Age	35.8
Percentage with 4 year degree or higher	33.14%
Average Household Income	$ 102,299
Median Household Income	$ 85,663

Source: SANDAG, The London Group Realty Advisors, Claritas Demographics

Water Rate Comparison, Member Agency Water Rates

The District strives to remain cost effective in its rate setting by controlling operating costs, yet passing through the full cost of supply. In May 2016, the District conducted a survey of the water rates of its neighboring water providers within San Diego County. The following chart shows that the District has the 11th lowest water rates in San Diego County.

Projected water bill for FY 2017
Based on 11 Units of water Use and 3/4 meter size

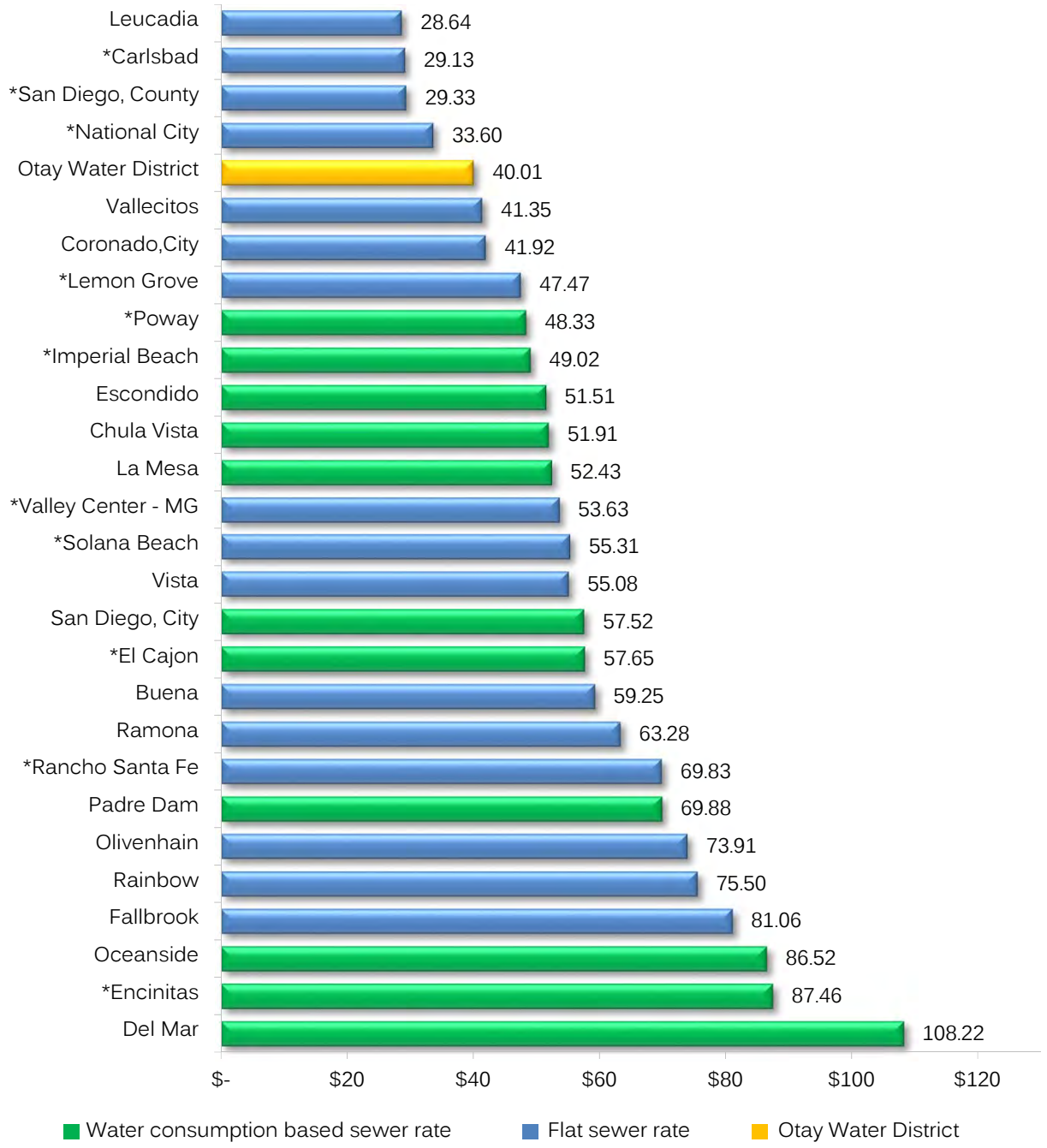


* At the time of the survey in May 2016, the member agency's FY 2017 rate was unavailable. The estimated increase is equal to the District's FY 2017 average rate increase.

Sewer Rate Comparison, San Diego County

The District conducted a survey of the rates of the sewer providers within San Diego County. Sewer rates are billed at either a fixed or variable rate. The following chart shows the various sewer providers and the type of rate that is charged to the consumers. The District is among the lowest sewer rates in the County of San Diego.

Projected sewer bill for FY 2017
Based on 11 units of water Use and 3/4 residential meter size

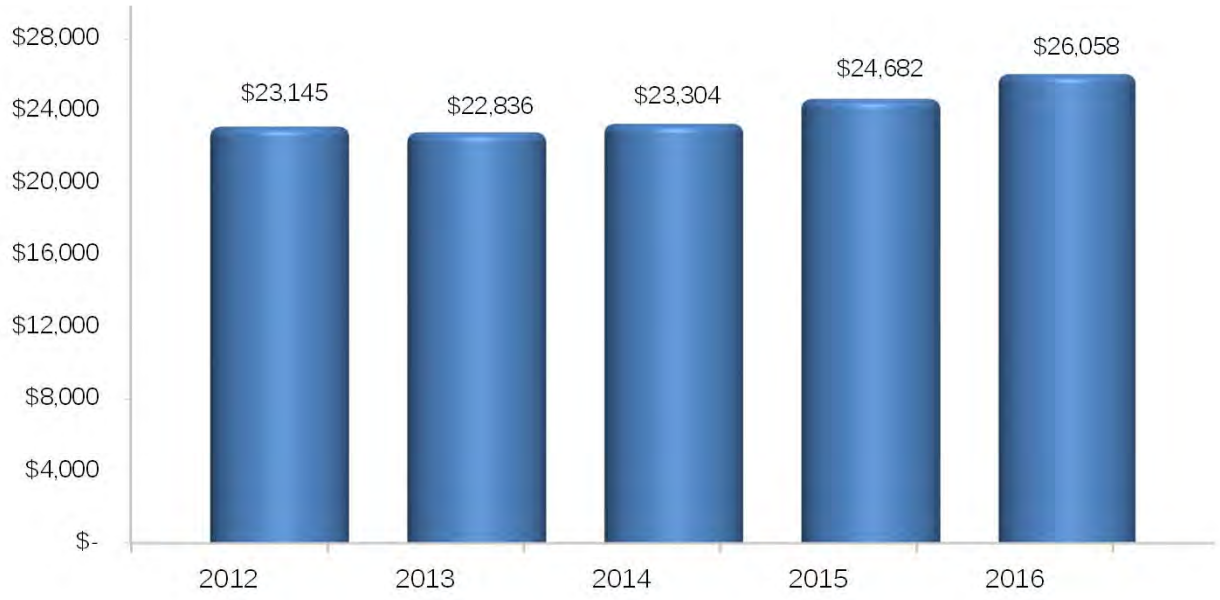


* At the time of the survey in July 2016, the member agency's FY 2017 rate was unavailable. The estimated increase is equal to the District's FY 2017 average rate increase.

Service Area Assessed Valuation

Otay Water District's service area encompasses property with over $26.1 billion of assessed valuation. Properties are assessed at 100% of their full value less exemption from taxation under the law and homeowner's exemptions. The District receives its portion of the 1% property tax, according to Proposition 13 and AB8. With the very recent increases in the assessed valuation, the District will benefit by receiving its proportionate share of this increase.

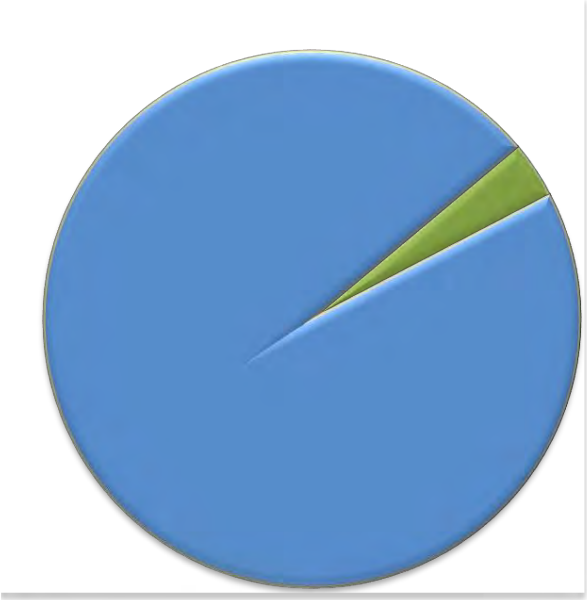
Five-Year Service Area Assessed Valuation, in millions ($)



Source: County of San Diego Auditor and Controller

Ten Principal Taxpayers as of June 30, 2016

	Organization		Assessed Value	Percent to Total
1.	GGP-OTAY RANCH LP	$	119,330,990	0.460%
2.	BRISA ACQUISITIONS LLC		118,281,029	0.450%
3.	AVALON II CALIFORNIA VALUE IV LP		115,380,000	0.440%
4.	REGULO PLACE APARTMENTS INVESTORS LLC		100,283,129	0.380%
5.	VISTA PACIFIC VILLAS LP		91,951,717	0.350%
6.	JOHN HANCOCK LIFE INSURANCE CO USA		88,422,185	0.340%
7.	BRE - FM CA LLC		76,216,169	0.290%
8.	SP LAVIDA REAL LLC		70,475,975	0.270%
9.	CAMDEN USA INC		67,081,961	0.260%
10.	FRG CORONA POINTE LLC		52,987,961	0.200%
	Total	$	900,411,116	3.460%
	Total Service Area Assessed Valuation	$	26,057,698,553	

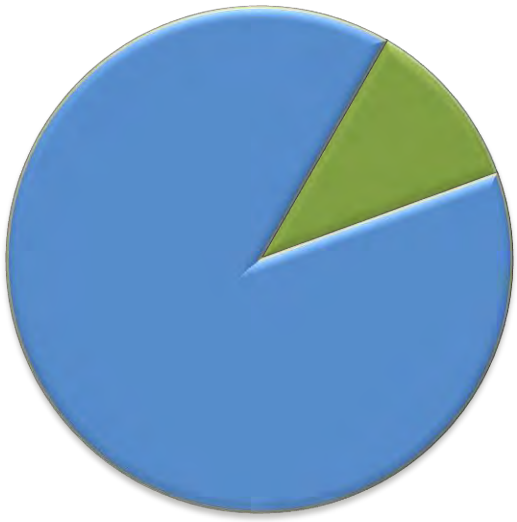


Ten Principal Taxpayers	$	900,411,116
Other Taxpayers		25,157,287,437
	$	26,057,698,553

Source: County of San Diego Auditor and Controller

Ten Largest Customers - Fiscal Year 2016

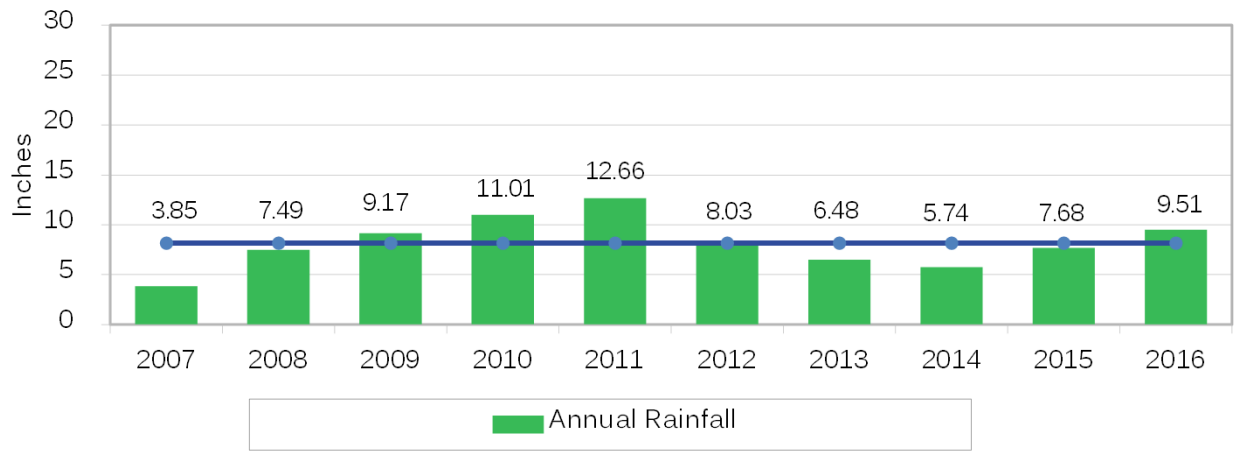
	Customer Name	Customer Type	Annual Revenues	% of Water Sales
1.	CITY OF CHULA VISTA	Publicly Owned	$ 3,247,032	4.4%
2.	STATE OF CALIFORNIA	Publicly Owned	1,017,064	1.4%
3.	COUNTY OF SAN DIEGO	Publicly Owned	750,769	1.0%
4.	EASTLAKE III COMMUNITY	Commercial	637,974	0.9%
5.	STEELE CANYON GOLF CLUB LLC	Commercial	598,046	0.8%
6.	CHULA VISTA SCHOOL DISTRICT	Publicly Owned	524,968	0.7%
7.	EASTLAKE COUNTRY CLUB	Commercial	442,514	0.6%
8.	SWEETWATER SCHOOL DISTRICT	Publicly Owned	353,981	0.5%
9.	HIGHLANDS GOLF COMPANY LLC	Commercial	335,488	0.5%
10.	EASTLAKE 1 HOA	Commercial	306,520	0.4%
	Total		$ 8,214,357	11.1%
			$ 73,874,227	



Ten Largest Customers	$ 8,214,357	11.1%
Others	65,659,870	88.9%
	$ 73,874,227	100.0%

San Diego Rainfall

Fiscal years 2007 - 2016



Although San Diego received less than normal rainfall in Fiscal Year 2016, the District is hopeful that San Diego's rainfall will return to its average pattern and volume for Fiscal Year 2017. The 10-year average of 8.16 inches for San Diego rainfall reflects the long-term drought conditions for our area. San Diego's rainfall average over 20 years is 8.7 inches; the 30-year average is 9.52 inches; and the 40-year average is 10.27 inches.

San Diego rainfall, while a contributing factor, is not the controlling factor for our potable water supply shortage. The San Diego region imports 84.0% of its potable supply, so conditions elsewhere significantly affect the actual amount of water available to the District. In the event the amount of water supplied to the District is reduced, water sales revenues would decrease. Related water purchase expenses would also be reduced, mitigating the impact of the decrease in revenues. The amount of any supply reduction would dictate the magnitude of the District's response and type of reaction.

The San Diego rainfall information shown in the chart above uses data from the San Diego Airport at Lindbergh Field and is provided by the Western Regional Climate Center. More information can be obtained from their website: http://www.wrcc.dri.edu. The Western Regional Climate Center's website data, in turn, is derived from data received from the National Climatic Data Center, the National Weather Service, the National Resource Conservation Service, the Bureau of Land Management, the U.S. Forest Service, and other federal, state, and local agencies. Although the data reflects actual rainfall at Lindbergh field, it is representative of rainfall for the area served by the Otay Water District.

Strategic Plan – Fiscal Years 2015 - 2018

Introduction

The Strategic Plan is the core document which guides the District's efforts to meet and positively adapt to change. The overall plan is extensively reviewed and revised every three to four years. This current edition (covering fiscal years 2015-2018) is the fifth in a series of updated plans.

In order to develop the FY 2015-2018 Strategic Plan, the Senior Management Team carefully reviewed the previous strategic plans and, in an interactive environment, examined future opportunities and risks. After careful analysis, an overall direction is set for the plan. In 2015 a solid systems foundation was put in place completing a replacement work order and SCADA system, and improving the core GIS system for managing the District's infrastructure. The FY 2016 to 2018 objectives, which follow, build upon this foundation and focus on business process improvement and facilities.

The General Manager presented the plan to the Board on May 19, 2015 as part of the overall District Budget. With this plan, the Board is able to make more informed oversight decisions about the utility's direction, and assess performance.

MISSION

To provide high quality and reliable water and wastewater services to the customers of the Otay Water District, in a professional, effective and efficient manner.

VISION

A District that is innovative in providing water services at competitive rates, with a reputation for outstanding customer service.

KEY CHALLENGE

Our key challenge, as District staff, is to quantify and demonstrate our commitment and ability to optimize our resources, business processes, and technology to achieve the strategic plan goals. We, as a team, commit to regularly assess and document how our decisions and work practices accomplish our goals and objectives.

Strategic Plan – Statement of Values

CUSTOMERS

We take pride that our commitment to customer-centered service is our highest priority.

EXCELLENCE

We strive to provide the highest quality and value in all that we do.

INTEGRITY

We commit ourselves to doing the right thing. Ethical behavior, trustworthiness, and accountability are the District's foundation.

EMPLOYEES

We see each individual as unique and important. We value diversity and open communication to promote fairness, dignity, and respect.

TEAMWORK

We promote mutual trust by sharing information, knowledge and ideas to reach our common goals.

Strategic Plan – Balanced Scorecard Perspective

The Balanced Scorecard is used as a core methodology for the District's Strategic Plan. This method aligns business activities to the vision and strategy of the organization and is designed to ensure that a company is performing consistently on a wide range of measures necessary to ensure both short-term and long-term advancements.

The Balanced Scorecard emphasizes an integrated strategy approach for the development of goals and measures in four perspectives: customer, financial, business processes, and learning and growth.

Major components of the Strategic Plan are the District's strategic objectives which guide the agency's efforts to meet and positively adapt to change. Each objective is broken down by the balanced scorecard, strategy, and goal required to meet the specific challenge.

Customer	Deliver high quality services to meet and increase confidence of the customer in the value the District provides
Financial	Manage the financial issues that are critical to the District
Business Processes	Maximize efficiency and effectiveness
Learning & Growth	Provide leadership and management expertise

Performance measures and targets are a critical element of the Strategic Plan but differ from strategic plan objectives. Objectives identify the action items that are necessary to execute the mission of the District. Performance measures are designed to ensure the day-to-day operations and services of the utility are meeting agreed upon expectations.

Strategic Plan – Administrative Services

OBJECTIVES

Balanced Scorecard: Customer

Goal Improve and expand communications

Objective Regularly produce and evaluate communications tools and explore the effective use of new media options including: electronic newsletters, auto-dialer services, video streaming, social networks, or web media to ensure the District's outreach efforts are cost-effectively reaching all stakeholders

Goal Provide effective water services

Objective Update of SCADA program[2]

Balanced Scorecard: Financial

Goal Improve financial information and systems

Objective Enterprise e-commerce (purchasing/contracting) solution – BidSync[2]

Balanced Scorecard: Business Processes

Goal Identify and evaluate improvements to enterprise and departmental business processes.

Objectives

- Optimize asset management program
- Enhance District's enterprise facilities physical security
- Enhance District's enterprise confine space program
- Automation and enhancement of District-wide operational forms and workflows[2]
- Evaluate implementation of an on-line performance management system[1]

Balanced Scorecard: Learning and Growth

Goal Reinforce a results-oriented and accountable culture

Objectives

- Negotiate a successor Memorandum of Understanding for represented employees for 2017 and beyond and related compensation and benefits for unrepresented employees with emphasis on making necessary updates to employee health benefits related to health care reform[1]
- Enhance District's emergency response program

[1] New objective in fiscal year 2017

[2] Objectives completed in fiscal year 2016

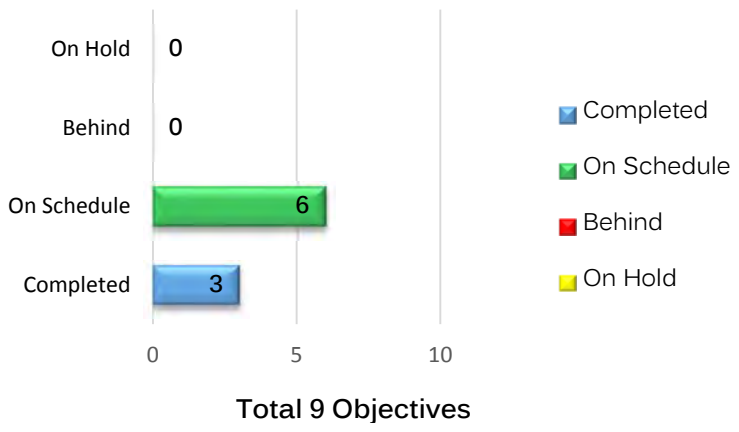
Strategic Plan – Administrative Services

Goal Focus on achieving a lean, flexible workforce

Objectives

- Evaluate opportunities to combine or transfer similar work functions
- Evaluate training and development programs for new and existing supervisors/managers[1]

Fiscal Year 2016 Year End Results



PERFORMANCE MEASURES

Customer Satisfaction

Level of overall customer satisfaction with the District

Balanced Scorecard

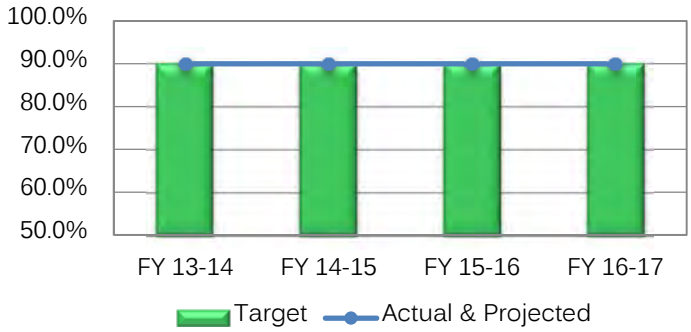
Customer

Target

90% Customer Satisfaction

Measurement Method

Percent positive/Percent surveyed



[1] New objective in fiscal year 2017

Strategic Plan – Administrative Services

Enterprise System Availability

Percentage of network uptime and reliability

Balanced Scorecard

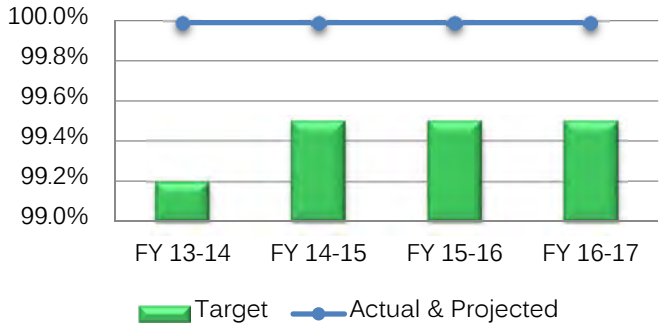
Business Processes

Target

No less than 99.5% each quarter in a year

Measurement Method

99.5% = 3.60 hours of downtime per month/1.83 days of downtime in a year



Employee Voluntary Turnover Rate

Annual percentage of voluntary terminations (excludes retirement)

Balanced Scorecard

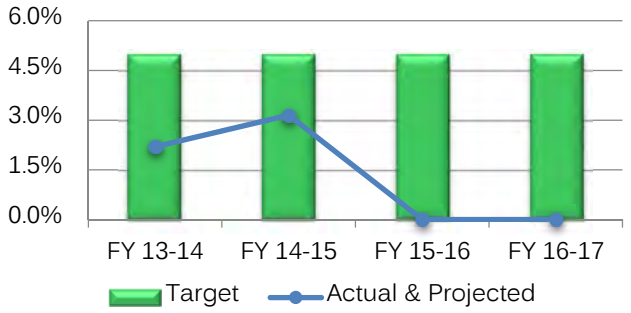
Learning and Growth

Target

Less than 5% turnover in a year

Measurement Method

Number of voluntary resignations (not including retirements) /Average number of employees



Training Hours per Employee

General and management formal training hours completed per employee

Balanced Scorecard

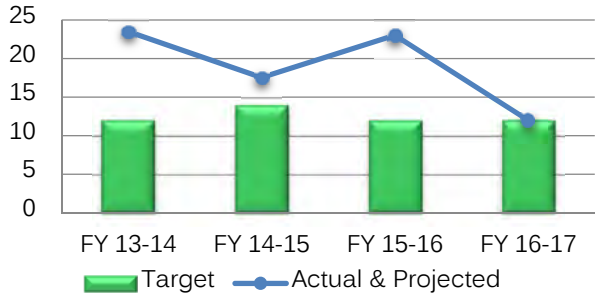
Learning and Growth

Target

12 hours or more per employee per year

Measurement Method

Total qualified training hours for all employees/ Average number of full time employee (FTE)



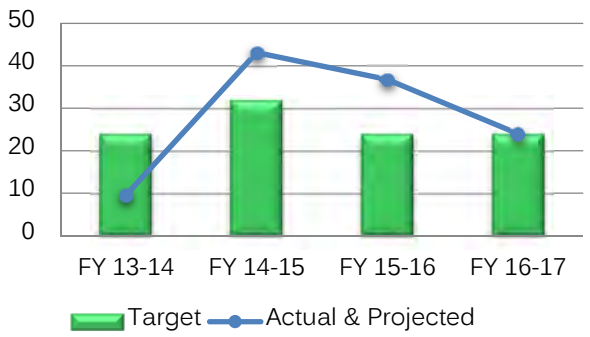
Safety Training Program

Number of safety training programs/ hours annually provided to all field employees

Balanced Scorecard
Learning and Growth

Target
24 hours or more per field employee per year

Measurement Method
Number of safety training hours/Number of field employees (includes mandated training)



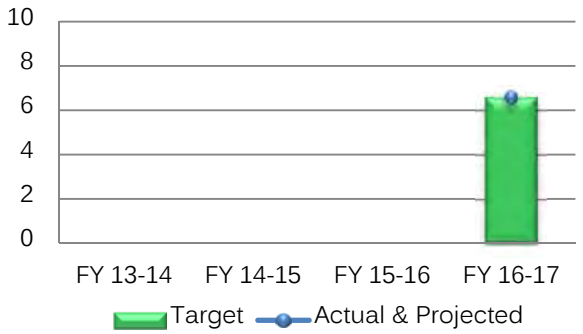
Injury Incident Rate[1]

Injury incidents per 200,000 hours worked compared to the National Average for Utilities – Water, Sewage, and other Systems

Balanced Scorecard
Learning and Growth

Target
No more than 6.6 injury incidents per 200,000 hours worked in a year

Measurement Method
[200,000 (Number of injuries and illnesses)]/Employee hours worked



[1] New performance measure for fiscal year 2017

Strategic Plan – Finance

Objectives

Balanced Scorecard: Customer

Goal Increase customer confidence in the District

Objectives Enhance communications with customers

Balanced Scorecard: Financial

Goal Maintain District financial strength

Objectives

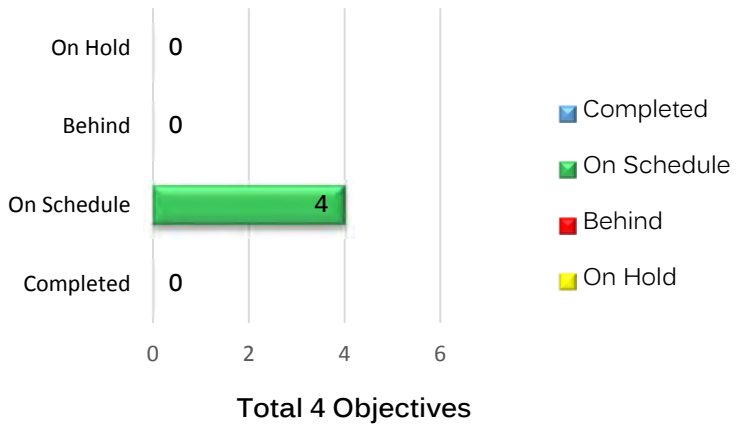
- Implement a cost benefit program
- Strengthen internal audit program

Balanced Scorecard: Business Processes

Goal Identify and evaluate improvements to enterprise and departmental business processes

Objectives Improve and streamline meter related processes

Fiscal Year 2016 Year End Results



Strategic Plan – Finance

Performance Measures

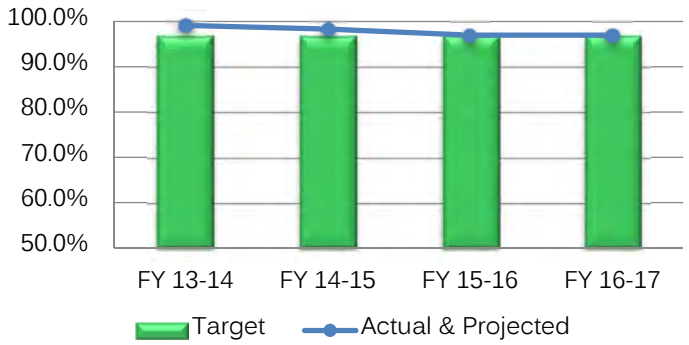
Answer Rate

Percent of calls as a measure of all calls received

Balanced Scorecard
Customer

Target
No less than 97% each quarter in a single year

Measurement Method
Number of all calls answered/Number of all calls received



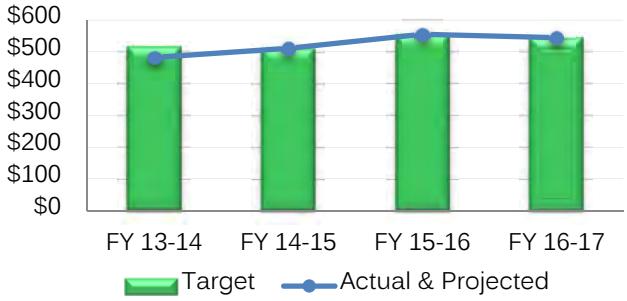
O&M Cost per Account

Operation and maintenance cost per account (per customer)

Balance Scorecard
Financial

Target
Less than $544.88 per account in a year

Measurement Method
Total O&M costs/Number of accounts



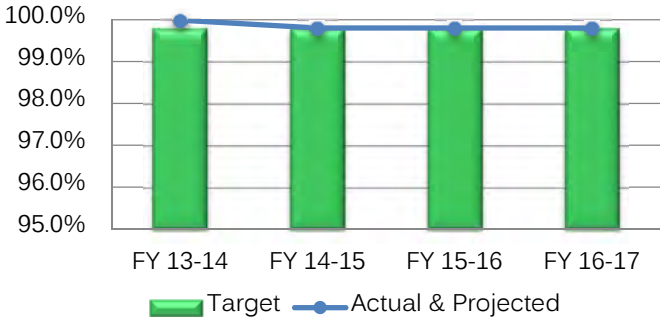
Billing Accuracy

Number of correct bills issued

Balanced Scorecard
Financial

Target
No less than 99.80% per quarter in a year

Measurement Method
Number of correct bills/Number of total bills



Strategic Plan – Finance

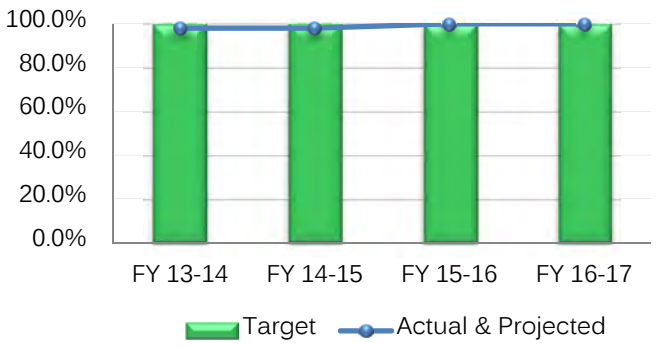
Overtime Percentage

Comparison of actual overtime to budgeted overtime

Balance Scorecard
Financial

Target
Less than 100% of the budgeted overtime in a year

Measurement Method
Actual overtime costs (including comp time)



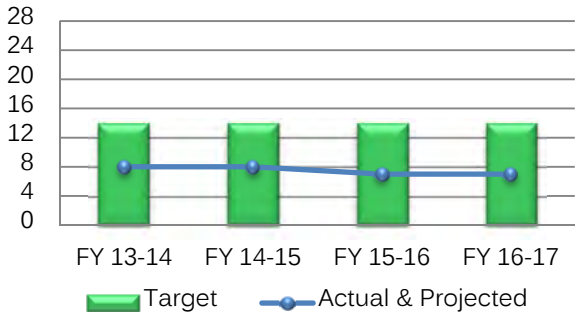
Sewer Rate Ranking

District's average sewer bill as compared to other agencies in San Diego County

Balance Scorecard
Financial

Target
Bottom 50 percentile for the 28 sewer service providers in San Diego

Measurement Method
Otay percentage ranking for the average bill for sewer among regional agencies



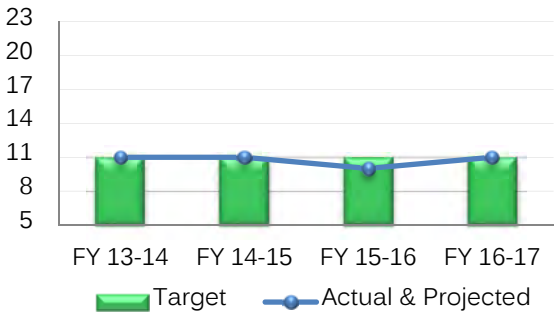
Water Rate Ranking

District's average customer bill as compared to other agencies in San Diego County

Balance Scorecard
Financial

Target
Bottom 50 percentile for the 22 member agencies in San Diego

Measurement Method
Otay percentage ranking among regional agencies



Strategic Plan – Finance

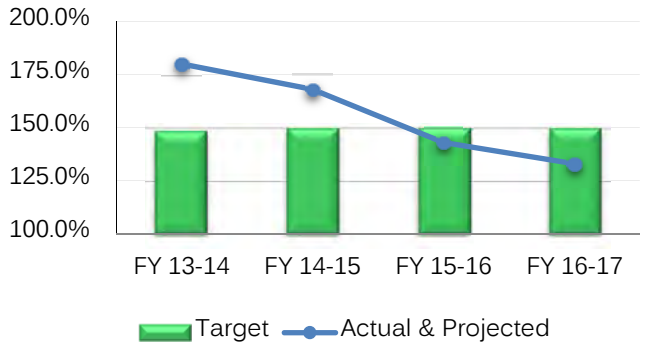
Debt Coverage Ratio

Measures level of debt coverage ratio (ability to pay debt)

Balance Scorecard
Financial

Target
150% excluding growth revenue

Measurement Method
Qualified net operating revenues/Debt service requirements



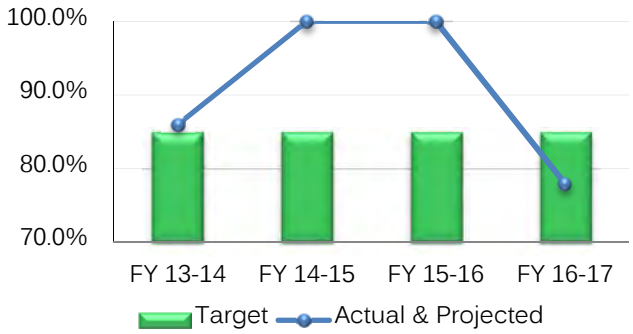
Reserve Level

Measures the District's reserves against the Board adopted Reserve Policy levels

Balance Scorecard
Financial

Target
85%

Measurement Method
Number of reserve funds that meet or exceed fund target levels/Total number of reserve funds



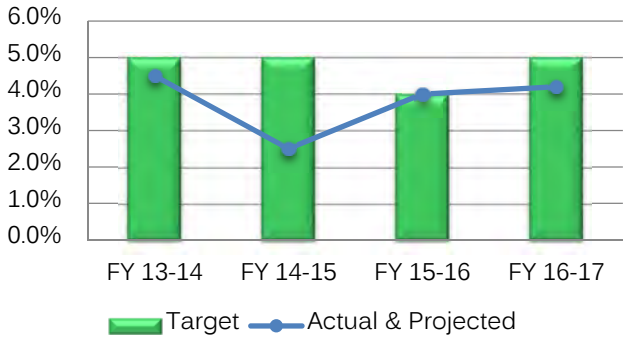
Distribution System Loss

Percentage for unaccounted water

Balance Scorecard
Financial

Target
Less than 5% in a year

Measurement Method
100 [Volume purchased – (volume sold + volume used) /Volume purchased]



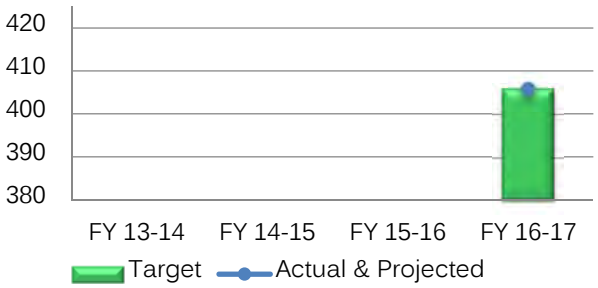
Strategic Plan – Finance

Accounts per Full-Time Employee (FTE)[1]

Balance Scorecard
Financial

Target
406 accounts per FTE

Measurement Method
Potable + Recycled + Sewer Accounts/ Number of full time employees



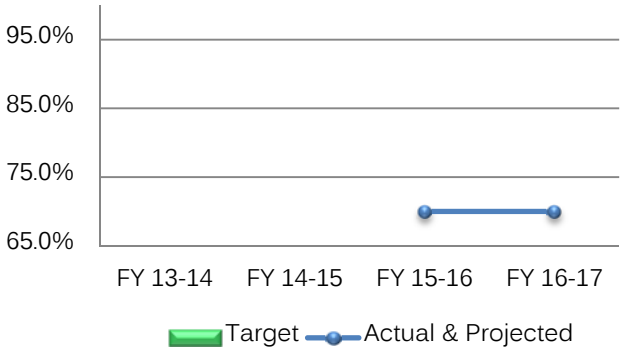
Percent of Customers Paying Bills Electronically[2]

Payments received via website, IVR over the phone, pay stations, and direct transfers from banks

Balanced Scorecard
Financial

Target
In development

Measurement Method
Number of customers paying bills electronically/Total number of customers



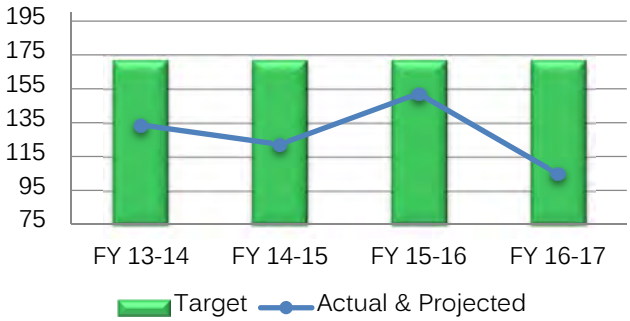
Gallons Per Capita per Day

Department of Water Resources and California Urban Water Council targets for per capita use of potable water

Balance Scorecard
Customer

Target
Below 172 gallons per day

Measurement Method
Total potable water purchased/ Population (from San Diego Association of Governments (SANDAG))/Number of days through the end of the reporting period (fiscal year)



(1) FY 2016-2017 is the first year for this performance measure

(2) FY 2015-2016 is the first year for this performance measure

Strategic Plan – Water Operations

Objectives

Balanced Scorecard: Customer

Goal Improve and expand communications

Objectives Evaluate requirements for future emergency communication system

Balanced Scorecard: Financial

Goal Improve financial information and systems

Objectives

- Electric power and fuel management practices
- Enhance management control of non-inventory items

Balanced Scorecard: Business Processes

Goal Actively manage water supply as well as support for water and sewer services

Objectives

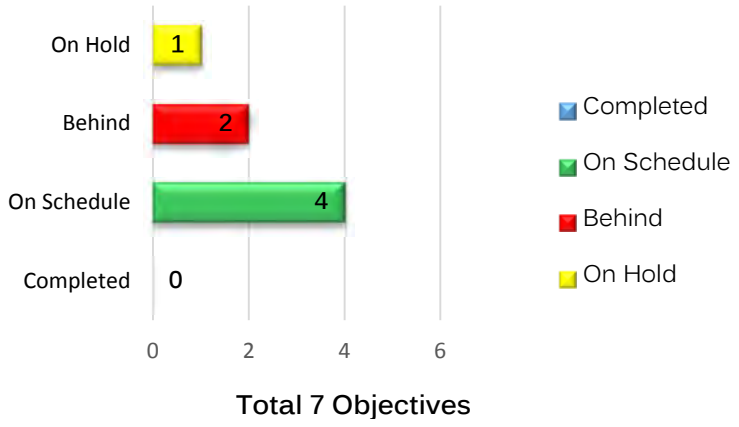
- Leak detection and repair program
- Pressure vessel maintenance program

Goal Identify and evaluate improvements to enterprise and departmental business processes

Objectives

- Operations workflow process evaluation
- Streamline input of operations data

Fiscal Year 2016 Year End Results



PERFORMANCE MEASURES

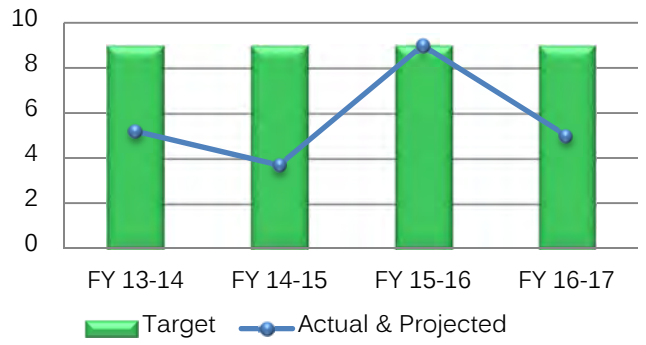
Technical Quality Complaint

Complaint rate related to core utility services

Balance Scorecard
Customer

Target
No more than 9 complaints per 1000 customer accounts in a year

Measurement Method
1000 (Number of technical quality complaints)]/Number of active customer accounts per reporting period



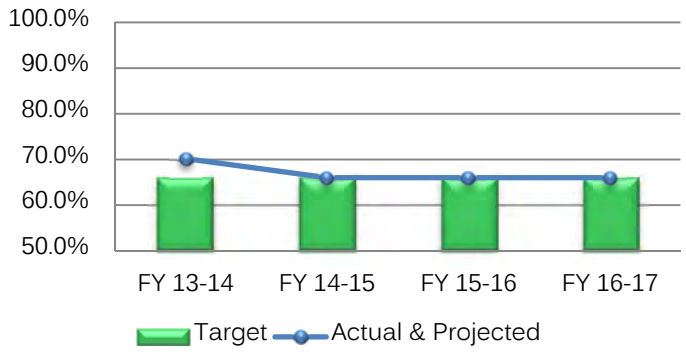
Planned Potable Water Maintenance Ratio in $

Planned maintenance costs compared to combined planned and corrective maintenance costs

Balanced Scorecard
Financial

Target
66% of labor dollars spent on preventive maintenance per quarter in a year

Measurement Method
Total planned maintenance cost/Total maintenance cost



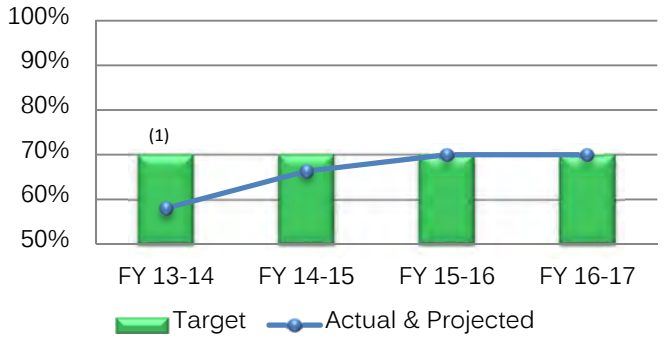
Planned Recycled Maintenance Ratio in $

Planned maintenance costs compared to combined planned and corrective maintenance costs

Balanced Scorecard
Financial

Target
70% of labor dollars spent on preventive maintenance per quarter in a year

Measurement Method
Total planned maintenance cost/Total maintenance cost



(1) In FY 2013-2014 the target was not met due to the repairs needed to the 927/944 pressure regulating valves at the Use Area

Strategic Plan – Water Operations

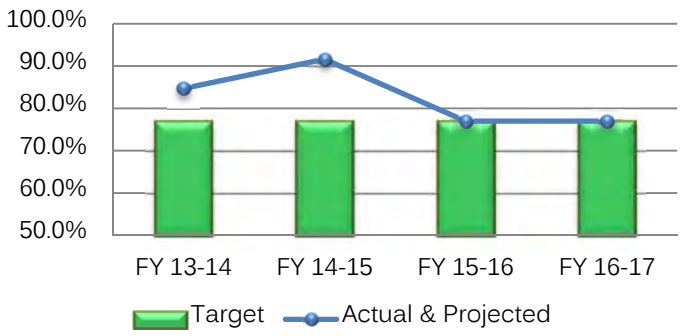
Planned Wastewater Maintenance Ratio in $

Planned maintenance costs compared to combined planned and corrective maintenance costs

Balanced Scorecard
Financial

Target
77% of labor dollars spent on preventive maintenance per quarter in a year

Measurement Method
Total planned maintenance cost/Total maintenance cost



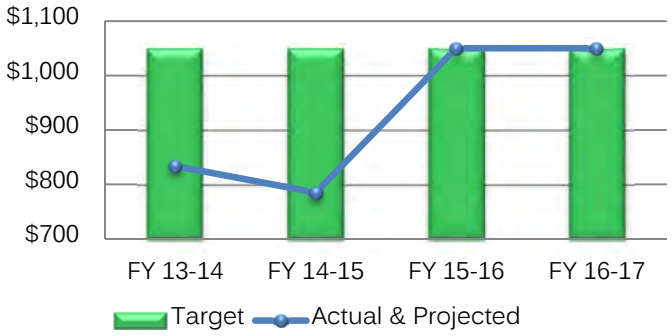
Direct Cost of Treatment per MGD

Does not include staff overhead or fringe benefits, but it does include staff salaries

Balanced Scorecard
Financial

Target
No more than $1050 per MG spent on wastewater treatment in a year

Measurement Method
Total O&M costs directly attributable to sewer treatment /Total volume (in MGD)



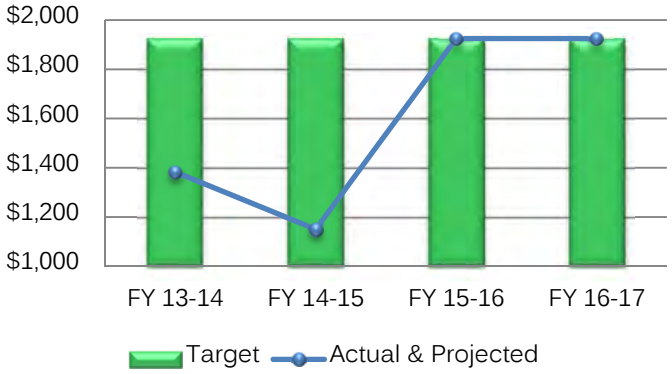
O&M Cost per MGP - Wastewater

Includes staff overhead or fringe benefits, but it does not include staff salaries

Balanced Scorecard
Financial

Target
No more than $1925 per MG spent on O&M for wastewater treatment in a year

Measurement Method
Total O&M cost (less depreciation)/Volume in MG processed



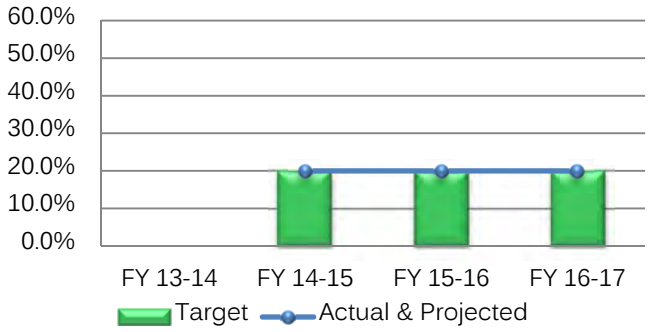
Leak Detection Program[2]

Percentage of Potable and Recycled Distribution systems surveyed for leaks

Balanced Scorecard
Financial

Target
20% by the end of the year

Measurement Method
Percentage distribution system surveyed for leaks



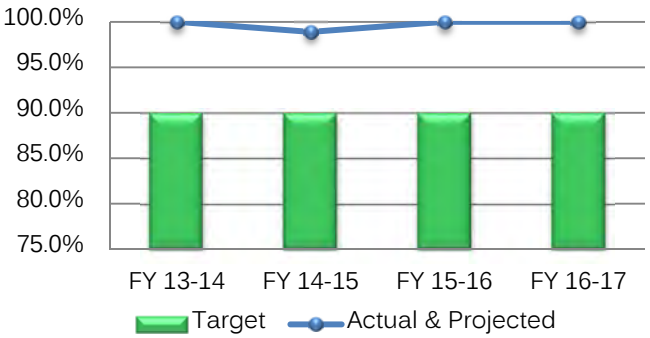
Percent of Preventative Maintenance Completed – Fleet Shop

Preventative Maintenance includes vehicle services, pump station emissions tests, etc.

Balanced Scorecard
Business Processes

Target
90% each quarter in a year

Measurement Method
Number of PM's completed/Number of PM's scheduled to be completed



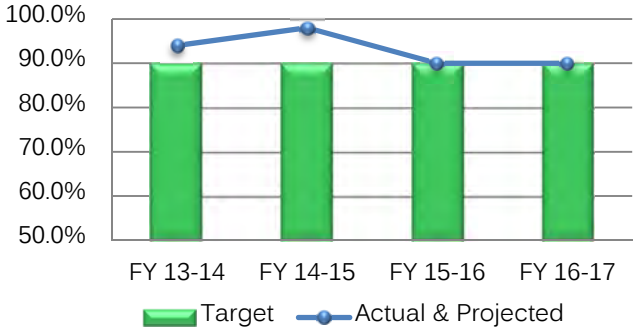
Percent of Preventative Maintenance Completed – Reclamation Plant

Preventative maintenance includes exercising standby equipment, changing oil on equipment, etc.

Balanced Scorecard
Business Processes

Target
90% each quarter in a year

Measurement Method
Number of PM's completed/Number of PM's scheduled to be completed



[1] FY 2014-2015 is the first year for this performance measure

Strategic Plan – Water Operations

Percent of Preventative Maintenance Completed – Pump/Electric

Preventative maintenance includes pump motor oil changes, vibration tests, etc.

Balanced Scorecard

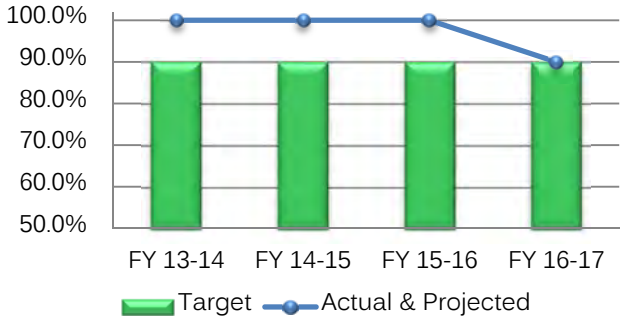
Business Processes

Target

90% each quarter in a year

Measurement Method

Number of PM's completed/Number of PM's scheduled to be completed



System Valve Exercising Program

Valves exercised per year for maintenance to ensure minimal interruption of water delivery to customers

Balanced Scorecard

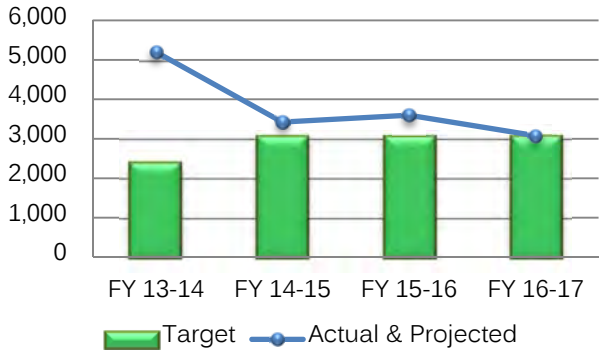
Business Processes

Target

770 valves per quarter/3080 valves in a year

Measurement Method

Actual number of valves exercised



Potable Water Distribution System Integrity

Number of leaks and breaks per 100 miles of potable distribution system

Balanced Scorecard

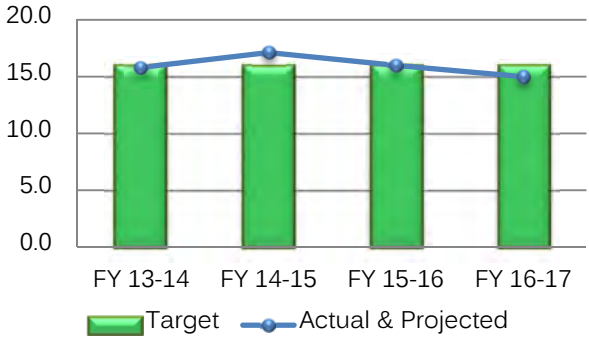
Business Processes

Target

16 leaks or breaks per 100 miles of distribution piping in a year

Measurement Method

100 (Annual total number of leaks or breaks)] / Total miles of distribution pipes



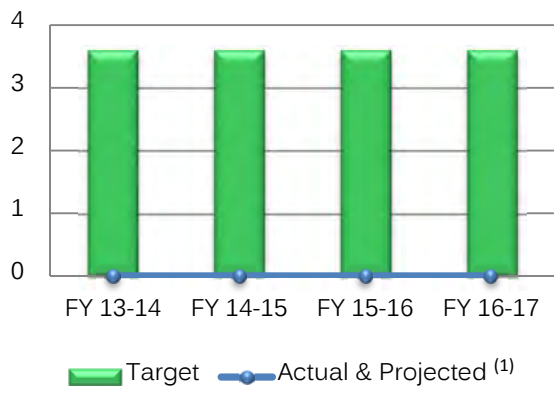
Collection System Integrity

Number of wastewater collection system failures per 100 miles of collection system pipeline

Balanced Scorecard
Business Processes

Target
No more than 3.6 system failures per 100 miles of collection system pipeline in a year

Measurement Method
[100 (Collection system failure)] /Total miles of collection system piping



Recycled Water System Integrity

Number of leaks or breaks per 100 miles of recycled distribution system

Balanced Scorecard
Business Processes

Target
No more than 6.6 leaks or breaks per 100 miles of recycled distribution system in a year

Measurement Method
[100 (Number of leaks or breaks)]/Total miles of distribution system

(1) The actual and projected number of system failures for FY 2014-2017 is zero

(2) FY 2014-2015 there was one break/leak on the recycled water system

Strategic Plan – Water Operations

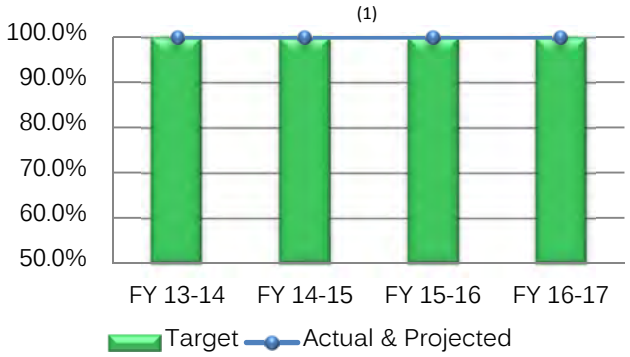
Potable Water Compliance Rate

Compliance rate primary health related drinking water standards are met

Balanced Scorecard
Business Processes

Target
100% each quarter in a year

Measurement Method
All primary health regulations are met



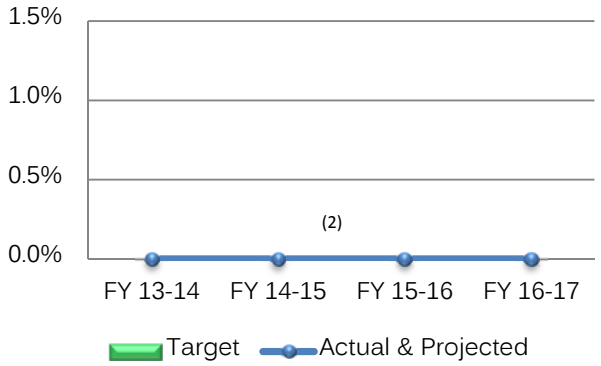
Sewer Overflow Rate

The wastewater collection system pipeline condition and the effectiveness of planned maintenance

Balanced Scorecard
Business Processes

Target
0 overflows per quarter in a year

Measurement Method
[100 (Total number of sewer overflows)]/Total miles of pipe in the sewage collection system



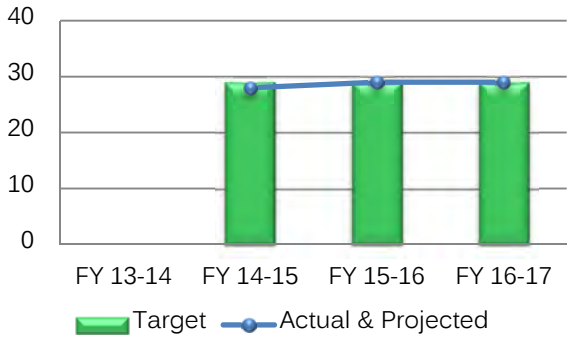
Emergency Facility Power Testing[3]

Test facilities equipped with emergency generators for a loss of power

Balanced Scorecard
Business Processes

Target
100% of the District's facilities tested per year

Measurement Method
Number of facilities and generators tested/Total facilities



(1) Both actual/projected and target are at 100%

(2) Both actual/projected and target are at 0.0%

(3) FY 2014-2015 is the first year for this performance measure

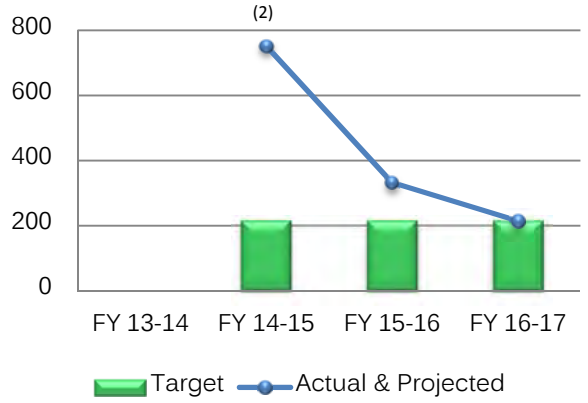
Main Flushing and Hydrant Maintenance[1]

215 is comprised of 165 hydrants maintained and 50 mains flushed

Balanced Scorecard
Business Processes

Target
215 or more mains flushed and fire hydrants maintained in a single year

Measurement Method
Number of mains flushed and fire hydrants maintained



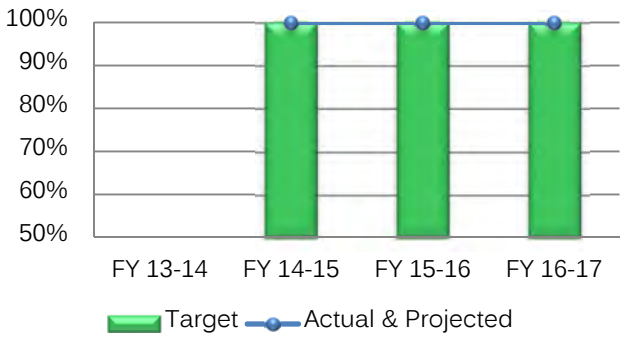
Critical Valve Exercising

Valves exercised per year for maintenance to ensure minimal interruption of water delivery to hospitals, convalescent facilities, schools, and major shopping centers, as well as valves on large transmission mains

Balanced Scorecard
Business Processes

Target
100% of identified critical valves exercised in a year

Measurement Method
Cumulative number of mains flushed plus hydrants maintained



(1) FY 2014-2015 is the first year for this performance measure

(2) In FY 2014-2015, fire hydrant maintenance was the focus for the valve crew. For FY 2015-2016, main flushing was completed on a reactive basis

Strategic Plan – Engineering

Objectives

Balanced Scorecard: Business Processes

Goal Actively manage water supply as well as support for water and sewer services

Objectives

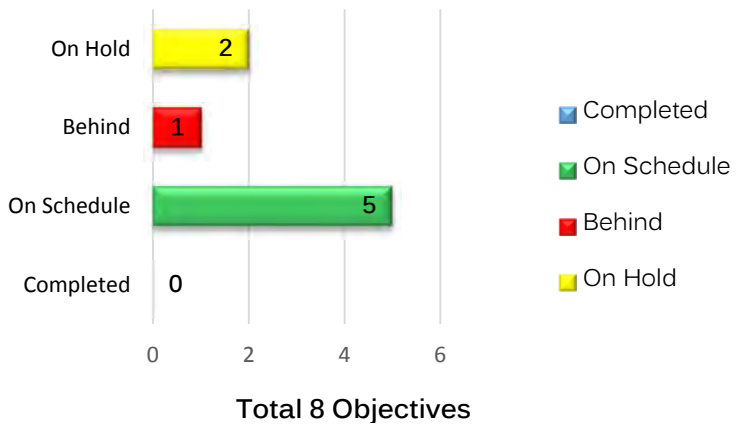
- Evaluate City of San Diego's pure water program planning/implementation
- Address dependency of imported water
- Sewer system business evaluation
- Evaluate the viability of implementing an indirect potable reuse program

Goal Identify and evaluate improvements to enterprise and departmental business processes.

Objectives

- Evaluate efficiencies for delivering capital assets
- Streamline work processes in four strategic areas including departmental synergies, technology, procurements, and alignment of business practices
- Revise business practices by modifying the master recycled water permit
- Implement a habitat conservation plan that will streamline O&M within District easements

Fiscal Year 2016 Year End Results



PERFORMANCE MEASURES

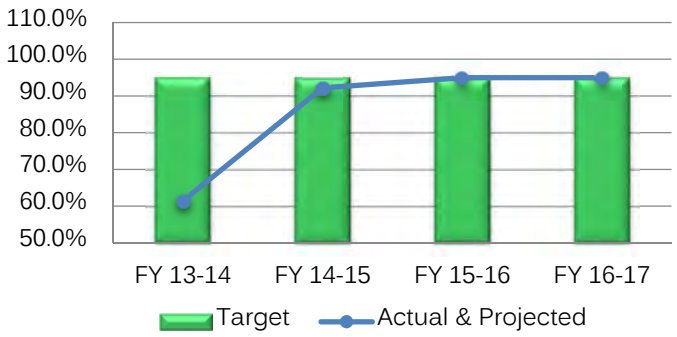
CIP Project Expenditures vs. Budget

Compares CIP expenditures with budget

Balanced Scorecard
Financial

Target
95% of budget but not to exceed 100%

Measurement Method
Actual quarterly expenditures/Annual budget



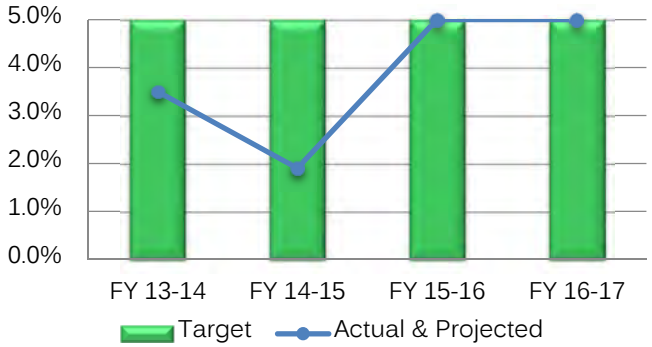
Construction Change Order Incidence

Rate of Change Orders for CIP projects under construction

Balanced Scorecard
Financial

Target
No more than 5% per quarter in a year

Measurement Method
Total cost of change orders (not including allowances)/Total original construction contract amount (not including allowances)



Strategic Plan – Engineering

Mark-out Accuracy

Percentage of mark-outs performed without an at fault hit, which is damage to a District facility that results from a missing or erroneous mark-out

Balanced Scorecard

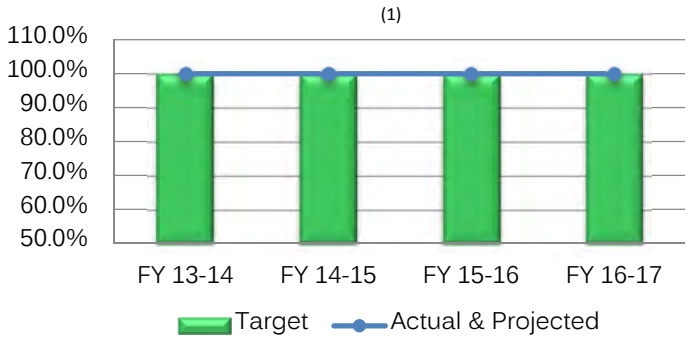
Business Processes

Target

No less than 100% every quarter in a single year

Measurement Method

Number of mark-outs performed without an at-fault hit/Total number of mark-outs performed



Project Closeout Time

Average time between the issuance of a Notice of Substantial Completion (NSOC) and a Notice of Completion (NOC) for CIP projects in construction

Balanced Scorecard

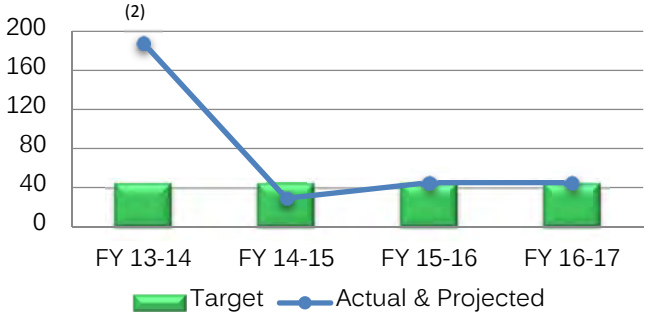
Business Processes

Target

No more than a 45 day average per quarter in a year

Measurement Method

Number of Days between NOSC and NOC for all construction projects within the quarter/Number of construction projects



(1) Both actual/projected and targets are 100%

(2) The FY 2013-2014 results for the above performance measure was highly influenced by contractor performance issues on the R2091 project which delayed contract closeout

Annual Recycled Water Site Inspections[1]

Annual inspection of recycled water sites as required by the Department of Environmental Health (DEH)

Balanced Scorecard

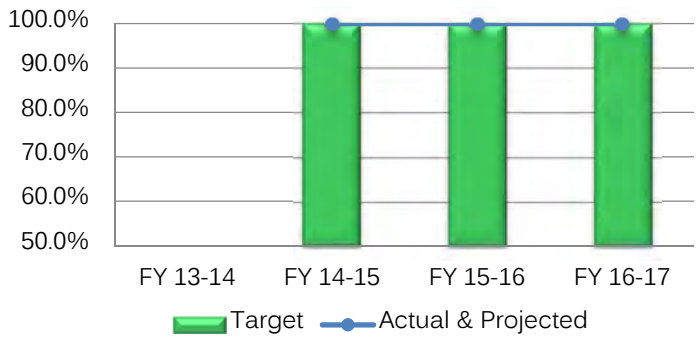
Business Processes

Target

100% of recycled sites inspected in a year

Measurement Method

Percentage of recycled sites inspected per year of those required by department of environmental health (DEH)



Recycled Water Shutdown Testing[1]

Quadrennial shutdown testing of recycled water sites

Balanced Scorecard

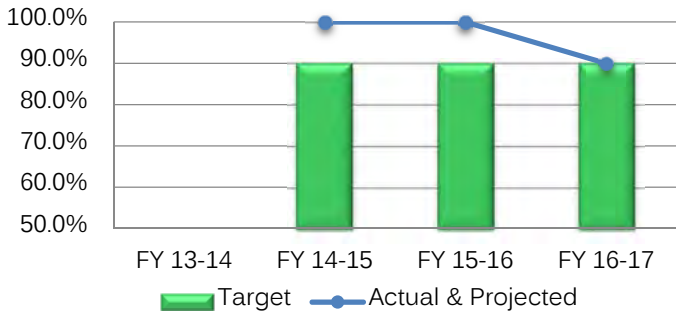
Business Processes

Target

90% of recycled site shut down tests in a year

Measurement Method

Percentage of recycled water use sites per year compared to those scheduled



(1) FY 2014-2015 is the first year for this performance measure

Budget Summary

The FY 2017 Operating Budget is summarized and presented in the *Operating Budget Summary- General Fund* on pages 59-60. This schedule presents the District's overall revenues and expenditures by type. Also included in this section is the *Operating Budget Summary by System* on page 61 which presents the General Fund budget in the business segments of Potable, Recycled, and Sewer. Additional schedules provided in this section are the General Fund Revenues, Expenditures and Transfers; Fund Balance Summary by Fund; Revenues and Expenditures by Fund; and Revenues and Expenditures by Type - All Funds; are presented on pages 62-66.

For Fiscal Year 2017, the Board has approved an increase in water rates primarily to pass-through cost increases from water suppliers. The Board also approved an increase in sewer rates for the rehabilitation of the aging sewer system. Neighboring agencies are experiencing similar cost increases and most are encountering similar rate increases.

The Operating Budget for Fiscal Year 2017 is $91.7 million in comparison to the previous fiscal year budget of $89.2 million. The $2.5 million increase is a result of water supply rate increases of 4.0% from MWD, 5.9% from CWA and 216.3% from the City of San Diego. CWA's increase is due to the water sales uncertainty due to long-term impacts of state water regulations.

General Fund Revenues

Potable Water Sales

Potable water sales revenue collected from the sale of water including: system charges, energy charges, and penalties account for 78.2% of the District's operating revenues. It is estimated that 24,809.2 acre-feet of potable water will be sold during FY 2017, which is a decrease of 2,059.5 from FY 2016. Budgeted revenues from water sales are projected to be $72.2 million, an increase of 3.5% compared to FY 2016. Schedules relating to potable water sales are included in the Potable Revenues and Expenditures section of this budget.

Recycled Water Sales

Recycled water is not subject to the State Water Resources Control Board's drought mandates. However, the District's recycled sales were adversely impacted by the mandate. Recycled water sales revenue is generated from the sale of 3,955.7 acre-feet of recycled water. The recycled rate is 15.0% less than the potable irrigation rate. The FY 2017 sales revenue budget is $8.9 million which is a decrease of $215,700 from FY 2016 and includes the incentive credits provided by MWD and CWA.

Sewer Revenues

Sewer charges are the monthly fees collected and represents 99% of the District's sewer revenue. The remaining 1.0% of revenue is derived from penalties. The monthly fees are determined by volume of flow and the strength of solids discharged into the sewer system. The FY 2017 Sewer Revenues are projected to be $2.9 million which is a decrease from the prior year of $287,400.

Meter Fees

Meter fees are charges collected for new water service connections. Fees vary depending upon meter size and the type of service. The FY 2017 revenue from meter fees remains unchanged at $66,200 compared to the FY 2016 budget. The costs associated with meter installations are included in the Operating Expenses section.

Capacity Fee Revenues

These fees are earned by the General Fund for the Engineering Department's support for expansion functions. The FY 2017 capacity fee revenue of $1.3 million is an increase of $113,400 compared to FY 2016.

Betterment Fees for Maintenance

In May 2015, the Board took action to discontinue the collection of these fees beginning in FY 2016.

Tax Revenues

The District receives 1% property tax revenues and availability fees on properties within the District's boundaries. These revenues are collected by the County of San Diego via the Property Tax Roll and are remitted to the District annually. Based on the historical collections from the County of San Diego, the District's projected tax revenues of $4.0 million which is an increase of $135,200 compared to FY 2016.

Spending limits for the District are governed by the 1979 passage of California Proposition 4, Limitations of Government Appropriations (Article XIII B of the California Constitution, commonly known as the GANN limit). Proposition 4 places an appropriations limit on most spending from tax proceeds. The following table shows that the District is below the Gann Limit.

Otay Water District Appropriations Limit (in thousands)						
Fiscal Year	2011	2012	2013	2014	2015	2016
Gann Limit	$ 3,787	$ 3,917	$ 4,120	$ 4,392	$4,454	$4,673
Appropriations subject to the limit	$ 2,924	$ 2,890	$ 2,892	$ 2,968	$3,134	$3,323

Non-Operating Revenues

Non-operating revenues are revenues that are not directly related to the operation of a water or sewer utility and include such items as District property rentals and leases, and billing services for the City of Chula Vista. The District projected $2.2 million in revenues for FY 2017 which is a decrease of $305,700 compared to FY 2016.

Interest

Interest is earned by each fund that has a positive balance and is paid by each fund with a negative balance. Interest income on General Fund balances is considered general use revenue. Interest revenue is projected to be $156,900 in FY 2016 which is $600 less than in FY 2016.

Budget Summary

General Fund Expenditures

Potable Water Purchases

Water purchases are the expenses of purchasing 25,912.3 acre-feet for the District's potable water supply. A provision has been made to allow 1,103.1 acre-feet of water for District usage, leakage, and evaporation. Total Potable Water Purchases are projected to be $31.3 million in FY 2017 which is a decrease of $1.0 million compared to FY 2016.

Recycled Water Purchases

Recycled water purchases are the expenses of purchasing 2,459.6 acre-feet for the District's recycled water supply which is a decrease of 446.8 compared to Fiscal Year 2017. In addition to the purchases there is a contractual Take-or-Pay payment budgeted for 2,302.4 acre-feet which is 391.6 acre-feet more than FY 2016. Total Recycled Purchases are projected to be $3.6 million in FY 2017 which is an increase of $1,910,100 compared to FY 2016.

Infrastructure Access Charge

This charge was established in FY 1999 by CWA and is imposed on member agencies as a condition of maintaining connections to the CWA facilities. It is apportioned based on water meters within each member agency. Infrastructure access charges are projected at $2.0 million in FY 2017 which is a slight increase of $45,000 compared to FY 2016.

Customer Service Charge

This charge was established in FY 2004 by CWA as a fixed charge. The Customer Service Charge is set to recover costs that are necessary to support the functioning of the CWA. The customer service charge is allocated among the member agencies on the basis of each agency's three-year rolling average of member agency supply purchases from the CWA. The District's customer service charges are projected to be $1.7 million in FY 2017 which is a slight decrease of $63,600 compared to FY 2016.

Supply Reliability Charge

This charge was established in FY 2016 by CWA as a fixed charge and became effective January 2016. The Supply Reliability Charge is set to recover a portion of the fixed costs associated with the CWA's highly reliable water supplies, such as desalinated water (Carlsbad Desalination Plant) and IID water transfer costs. Allocation of this charge is based upon member agencies share of the rolling five-year average M&I deliveries (agricultural deliveries are not included). The reliability charge is projected to be $1.9 for FY 2017.

Emergency Storage Charge

The Emergency Storage Charge was established by CWA in calendar year 2003, to recover costs associated with non-agricultural water deliveries and is allocated based on each member agency's share of deliveries. The emergency storage charge is projected to remain at $4.6 million in FY 2017.

Budget Summary

Capacity Reservation Charge

This charge was established in FY 2002 by the MWD, as a fixed charge on a member agency's requested maximum daily capacity. The Capacity Reservation Charge is a charge per cubic-foot-second (cfs) and is applied to the amount of capacity (daily flow) a member agency expects to use during the peak period from May through September. Capacity reservation charges are projected to be $988,800 which is an increase of $182,400 compared to FY 2016.

Readiness-to-Serve Charge

This charge was established in FY 1996 by MWD, to recover the principal and interest payments on non-tax supported debt service used to fund the capital improvements necessary to meet the continuing reliability and quality needs associated with current demands. These costs are offset by standby charges collected by MWD on the tax bills of District customers. These charges are projected to be $1.4 million in FY 2017, which is a decrease of $370,800 compared to FY 2016.

Power Costs

Power costs are expenses associated with the transmission and distribution of water to customers. The pumping costs to distribute water vary with elevation and will increase as water sales increase. Power costs are projected to be $2.9 million, which is a decrease of $174,800 compared to FY 2016.

Labor and Benefits

Labor and benefits are the wages and fringe benefits for FY 2017 Full-time Equivalent (FTE) employees. Labor costs are reduced by the number of hours that are charged to non-operating Capital Improvement Program (CIP) and developer deposit projects. The detail of actual personnel and payroll related expenses is included in the Departmental Operating Budget section. Labor and benefits are projected to be $20.9 million, which is an increase of $518,900 compared to FY 2016.

Administrative Expenses

Administrative expenses are costs incurred by various departments that are directly related to District operations. Administrative expenses are projected to be $5.2 million in FY 2017, which is a decrease of $237,200 compared to FY 2016. Additional details are supplied in the Departmental Operating Budget section.

Materials and Maintenance Expenses

Materials and maintenance expenses are costs associated with the operation and maintenance of District facilities. Materials and maintenance expenses are projected to be $3.5 million in FY 2016, which is a decrease of $156,500 compared to FY 2016. Additional details are supplied in the Departmental Operating Budget section.

Budget Summary

General Fund Reserves

Expansion Reserves

These reserves are established to fund expansion needs including project costs, existing debt payments, and new debt that will be issued in the future to fund expansion. For FY 2017, these reserves will be funded with $3.6 million from Potable Water and $455,600 Recycled Water for a total of $4.1 million.

Betterment Reserves

These reserves are established to fund the betterment needs of facilities including project costs, existing debt payments, and new debt that will be issued in the future to fund betterment. For FY 2017, these reserves will be funded with $2.3 million from Potable Water, $835,200 from Recycled Water and $351.200 from Sewer funds for a total of $3.5 million.

Replacement Reserves

These reserves are established to fund the replacement needs including project costs, existing debt payments, and new debt that will be issued in the future to fund replacement. For FY 2017, these reserves will be funded with $464,500 from Potable Water.

New Water Supply Reserves

These reserves are established to fund new water supply needs including project costs, existing debt payments, and new debt that will be issued in the future to fund expansion. For FY 2017, this reserve will be funded with $35,000 from Recycled Water.

Fund Transfers

Fund transfers are necessary to ensure that each fund pays its fair share of costs, or to achieve required fund balances per the District's policy.

Transfer to OPEB Trust

For FY 2017, the General Fund is budgeted to fund the OPEB Trust $961,000 for retiree health liabilities.

Transfer to General Fund Reserve

For FY 2017, the General Fund Reserve will be funded with $1.3 million from Potable Water, $1.4 million from Recycled Water and $196,100 from Sewer.

Budget Summary

Other Financial Schedules/Presentations

Operating Budget Summary by System

The Budget Summary by System schedule reflects the separation of operating revenues and expenses among potable water, recycled water, and sewer. This is provided as information but is necessary to ensure sufficient revenue is collected from sewer customers versus water customers.

General Fund – Revenue, Expenditures, and Transfers

This schedule shows the General Fund's total revenues, expenditures, and transfers showing the prior year's actuals, the prior year's budget and unaudited actuals, the current year's budget, along with the variance from the prior year's budget.

Fund Balance Summary by Fund

This schedule shows each fund's balance at June 30, 2016, and the projected balance for June 30, 2017. These balances are based on the results of the budget and rate model. This includes transfers between funds made to meet target levels as outlined in the Reserve Policy.

Revenues and Expenditures by Fund

The Revenues and Expenditures by Fund schedule reflects each fund's revenues and expenditures by business line, where appropriate. This schedule is reconciled to the Fund Balance Summary and excludes transfers between funds.

Revenues and Expenditures by Type – All Funds

This is a consolidated schedule of revenues and expenditures, including sources and uses of funds but excluding fund transfers.

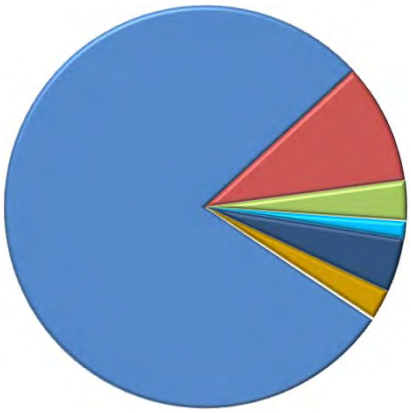
Operating Budget Summary - General Fund

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual *	Budget	$	%
Revenues						
Potable Water Sales	$ 70,281,989	$ 69,783,700	$ 65,413,157	$ 72,238,600	$ 2,454,900	3.5%
Recycled Water Sales	8,853,010	9,116,000	8,527,042	8,900,300	(215,700)	(2.4%)
Sewer Revenues	3,009,634	3,206,300	3,149,295	2,918,900	(287,400)	(9.0%)
Meter Fees	90,246	66,200	78,568	66,200	-	-
Capacity Fee Revenues	1,312,108	1,134,800	1,517,128	1,248,200	113,400	10.0%
Betterment Fees for Maintenance	188,123	-	-	-	-	-
Tax Revenues	3,814,516	3,897,900	3,970,202	4,033,100	135,200	3.5%
Non-operating Revenues	2,404,375	1,873,600	2,434,865	2,179,300	305,700	16.3%
Interest	128,599	157,500	124,502	156,900	(600)	(0.4%)
Transfer from Potable General Fund	553,800	-	-	-	-	-
Total Revenues	90,636,400	89,236,000	85,214,759	91,741,500	2,505,500	2.8%
Expenditures						
Potable Water Purchases	33,952,017	32,332,100	29,409,666	31,271,300	(1,060,800)	(3.3%)
Recycled Water Purchases	1,360,807	1,705,800	2,642,437	3,615,900	1,910,100	112.0%
CWA - Infrastructure Access Charge	1,900,266	1,931,400	1,930,848	1,976,400	45,000	2.3%
CWA - Customer Service Charge	1,796,853	1,777,800	1,778,197	1,714,200	(63,600)	(3.6%)
CWA - Reliability Charge	-	950,400	950,052	1,848,000	897,600	94.4%
CWA - Emergency Storage Charge	4,720,701	4,681,800	4,681,673	4,579,800	(102,000)	(2.2%)
MWD - Capacity Reservation Charge	701,976	806,400	883,203	988,800	182,400	22.6%
MWD - Net RTS and Standby Charge	1,817,339	1,798,800	1,587,254	1,428,000	(370,800)	(20.6%)
Subtotal - Water Costs	46,249,959	45,984,500	43,863,330	47,422,400	1,437,900	3.1%
Power	3,048,335	3,112,800	2,697,915	2,938,000	(174,800)	(5.6%)
Labor and Benefits	19,406,815	20,381,000	20,337,890	20,899,900	518,900	2.5%
Administrative Expenses	4,503,990	5,387,800	4,510,379	5,150,100	(237,700)	(4.4%)
Materials and Maintenance	3,339,777	3,612,800	3,103,175	3,456,300	(156,500)	(4.3%)
Subtotal - Operations Costs	30,298,917	32,494,400	30,649,359	32,444,300	(50,100)	(0.2%)
Transfer to General Fund Reserve	-	-	-	2,854,300	2,854,300	100.0%
Expansion Reserve	2,538,900	2,695,800	2,695,800	4,093,600	1,397,800	51.9%
Betterment Reserve	3,530,000	2,400,000	2,400,000	3,466,400	1,066,400	44.4%
Replacement Reserve	3,270,200	3,421,000	3,421,000	464,500	(2,956,500)	(86.4%)
Transfer to Sewer General Fund	553,800	-	-	-	-	-
OPEB Trust	647,100	1,006,000	1,006,000	961,000	(45,000)	(4.5%)
Potable General Fund	1,583,800	-	-	-	-	-
Sewer Replacement	127,000	1,199,300	1,199,300	-	(1,199,300)	(100.0%)
New Supply Reserve	705,000	35,000	35,000	35,000	-	-
Subtotal - Reserve Funding	12,955,800	10,757,100	10,757,100	11,874,800	1,117,700	10.4%
Total Expenditures	89,504,676	89,236,000	85,269,789	91,741,500	2,505,500	2.8%
Excess Revenues (Expenditures)	$ 1,131,724	$ -	$ (55,030)	$ -	$ -	-

* Actual unaudited

Operating Budget Summary - General Fund

FY 2017 Operating Revenues



Potable Water Sales	$ 72,238,600	78.7%
Recycled Water Sales	8,900,300	9.7%
Sewer Revenues	2,918,900	3.2%
Meter Fees	66,200	0.1%
Capacity Fee Revenues	1,248,200	1.4%
Tax Revenues	4,033,100	4.4%
Non-operating Revenues	2,179,300	2.3%
Interest	156,900	0.2%
	$ 91,741,500	100.0%

FY 2017 Operating Expenditures

Potable Water Purchases	$ 43,806,500	47.8%
Recycled Water Purchases	3,615,900	3.9%
Power	2,938,000	3.2%
Labor and Benefits	20,899,900	22.8%
Administrative Expenses	5,150,100	5.6%
Materials & Maintenance	3,456,300	3.8%
Reserve Funding	11,874,800	12.9%
	$ 91,741,500	100.0%

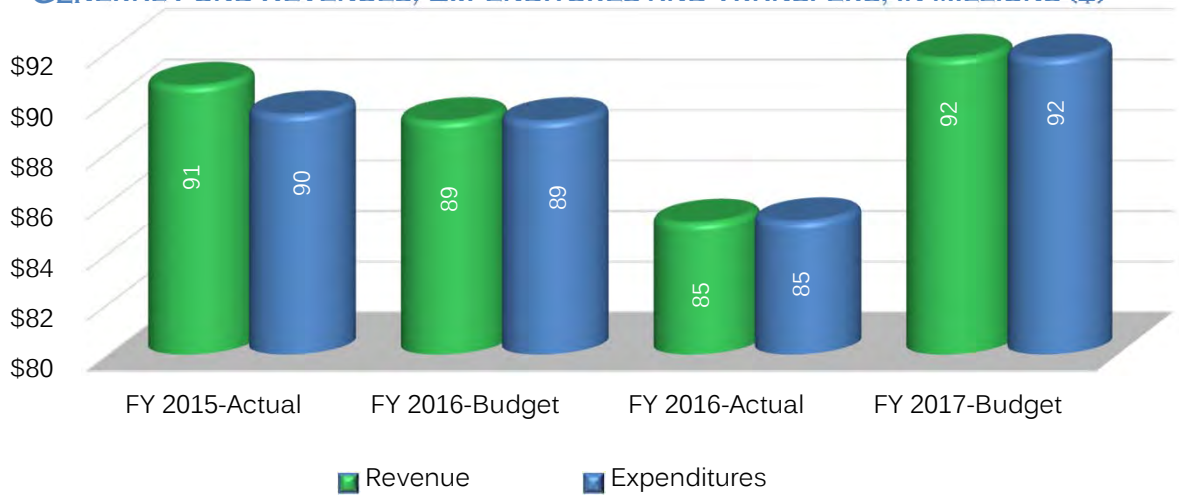
FY 2017 Operating Budget Summary by System

	Potable	Recycled	Sewer	Total
Revenues				
Water Sales	$ 72,238,600	$ -	$ -	$ 72,238,600
Recycled Water Sales	-	8,900,300	2,918,900	11,819,200
Meter Fees	65,800	400	-	66,200
Capacity Fee Revenues	1,248,200	-	-	1,248,200
Tax Revenues	3,981,500	-	51,600	4,033,100
Non-operating Revenues	2,143,800	-	35,500	2,179,300
Interest	144,300	8,300	4,300	156,900
Total Revenues	79,822,200	8,909,000	3,010,300	91,741,500
Expenditures				
Water Purchases	31,271,300	3,615,900	-	34,887,200
CWA - Infrastructure Access Charge	1,976,400	-	-	1,976,400
CWA - Customer Service Charge	1,714,200	-	-	1,714,200
CWA - Reliability Charge	1,848,000	-	-	1,848,000
CWA - Emergency Storage Charge	4,579,800	-	-	4,579,800
MWD - Capacity Reservation Charge	988,800	-	-	988,800
MWD - Net RTS and Standby Charges	1,428,000	-	-	1,428,000
Subtotal - Water Costs	43,806,500	3,615,900	-	47,422,400
Power	2,194,700	568,900	174,400	2,938,000
Labor and Benefits	18,581,400	1,339,200	979,300	20,899,900
Administrative Expenses	4,589,800	331,200	229,100	5,150,100
Materials and Maintenance	2,108,600	305,000	1,042,700	3,456,300
Subtotal - Operations Costs	27,474,500	2,544,300	2,425,500	32,444,300
Reserve Funding				
Transfer to General Fund Reserve	1,286,400	1,371,800	196,100	2,854,300
Expansion Reserve	3,638,000	455,600	-	4,093,600
Betterment Reserve	2,280,000	835,200	351,200	3,466,400
Replacement Reserve	464,500	-	-	464,500
OPEB Trust	872,300	51,200	37,500	961,000
New Supply Reserve	-	35,000	-	35,000
Subtotal - Reserve Funding	8,541,200	2,748,800	584,800	11,874,800
Total Expenditures	79,822,200	8,909,000	3,010,300	91,741,500
Excess Revenue (Expenditures)	$ -	$ -	$ -	$ -

General Fund - Revenues, Expenditures and Transfers

	FY 2015	FY 2016		FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Revenues and Fund Sources						
Potable Water Sales	$ 70,281,989	$ 69,783,700	$ 65,413,157	$ 72,238,600	$ 2,454,900	3.5%
Recycled Water Sales	8,853,010	9,116,000	8,527,042	8,900,300	(215,700)	(2.4%)
Sewer Revenues	3,009,634	3,206,300	3,149,295	2,918,900	(287,400)	(9.0%)
Meter Fees	90,246	66,200	78,568	66,200	-	-
Capacity Fee Revenues	1,312,108	1,134,800	1,517,128	1,248,200	113,400	10.0%
Betterment Fee Revenues	188,123	-	-	-	-	-
Tax Revenues	3,814,516	3,897,900	3,970,202	4,033,100	135,200	3.5%
Non-Operating Revenues	2,404,375	1,873,600	2,434,865	2,179,300	305,700	16.3%
Interest	128,599	157,500	124,502	156,900	(600)	(0.4%)
Transfers	553,800	-	-	-	-	-
Total Revenues and **Fund Sources**	90,636,400	89,236,000	85,214,759	91,741,500	2,505,500	2.8%
Expenditures and Fund Uses						
Potable Water Purchases	33,952,017	32,332,100	29,409,666	31,271,300	(1,060,800)	(3.3%)
Recycled Water Purchases	1,360,807	1,705,800	2,642,437	3,615,900	1,910,100	112.0%
Fixed Charges	10,937,135	11,946,600	11,811,227	12,535,200	588,600	4.9%
Power	3,048,335	3,112,800	2,697,915	2,938,000	(174,800)	(5.6%)
Labor and Benefits	19,406,815	20,381,000	20,337,890	20,899,900	518,900	2.5%
Administrative Expenses	4,503,990	5,387,800	4,510,379	5,150,100	(237,700)	(4.4%)
Materials and Maintenance	3,339,777	3,612,800	3,103,175	3,456,300	(156,500)	(4.3%)
Transfers	12,955,800	10,757,100	10,757,100	11,874,800	1,117,700	10.4%
Total Expenditures and Fund Uses	89,504,676	89,236,000	85,269,789	91,741,500	2,505,500	2.8%
Excess Revenues/(Expenditures)	$ 1,131,724	$ -	$ (55,030)	$ -	$ -	-

General Fund Revenues, Expenditures and Transfers, in millions ($)



*Actual unaudited

Fund Balance Summary by Fund

	Actual* Balance	Fiscal Year 2017 Budget			Projected Balance	
	June 30, 2016	Revenues	Expenditures	Interfund Transfers [1]	June 30, 2017	
General Fund						
Potable	$ 22,165,151	$ 79,822,200	$ 79,822,200	$ -	$ 22,165,151	
Recycled	1,380,004	8,909,000	8,909,000	-	1,380,004	
Sewer	11,743	3,010,300	3,010,300	-	11,743	
Total General Fund	23,556,898	91,741,500	91,741,500	-	23,556,898	
Expansion Fund						
Potable and Recycled [2]	3,272,004	2,596,700	5,224,300	4,359,600	5,004,004	
Sewer	1,376,532	-	-	-	1,376,532	
Total Expansion Fund	4,648,536	2,596,700	5,224,300	4,359,600	6,380,536	(3)
Betterment Fund						
Potable	(78,388)	795,600	2,224,800	2,280,000	772,412	
Recycled	783,442	14,000	1,526,400	835,200	106,242	
Sewer	-	36,900	26,000	384,000	394,900	
Total Betterment Fund	705,054	846,500	3,777,200	3,499,200	1,273,554	(3)
Replacement Fund						
Potable	37,606,194	2,271,900	8,440,700	464,500	31,901,894	
Recycled	13,266,524	99,400	198,000	(232,900)	12,935,024	
Sewer	(5,046,196)	101,700	1,585,000	(32,800)	(6,562,296)	
Total Replacement Fund	45,826,522	2,473,000	10,223,700	198,800	38,274,622	
New Supply Fund						
Potable	617,463	361,800	57,500	-	921,763	
Recycled	-	8,900	4,800	35,000	39,100	
Sewer	5,025,373	-	-	-	5,025,373	
Total New Supply Fund	5,642,836	370,700	62,300	35,000	5,986,236	(3)
OPEB Fund	-	962,100	961,000	-	1,100	(4)
Debt Service Fund	-	680,600	784,800	-	(104,200)	
Total	$ 80,379,846	$ 99,671,100	$ 112,774,800	$ 8,092,600	$ 75,368,746	

[1] The total for interfund transfers does not net to $0 because some transfers are already reflected in the Operating Revenues and Expenditures for General Fund as follows:

Expansion Reserve	$ (4,126,700)
Betterment Reserve	(3,466,400)
Replacement Reserve	(464,500)
New Supply Reserve	(35,000)
Total	$ (8,092,600)

[2] Potable and Recycled funds are combined for expansion purposes.

[3] The fund balance is anticipated to change more than 10% due to the Districts ongoing current year CIP expenditures fund by current years revenues and prior years debt issuance proceeds, as well as transfers made in accordance with the Reserve Policy found on pages 197-226.

[4] This is a planned reduction of this reserve to fund the PERS OPEB trust in accordance with the actuarial analysis, as well as fund salary and benefit cost in accordance with the Memorandum of Understanding with the labor union.

*Actual unaudited

Revenues and Expenditures by Fund

	FY 2015	FY 2016		FY 2017
	Actual	Budget	Actual*	Budget
Revenues				
General Fund				
Potable	$ 78,106,717	$ 76,810,000	$ 72,575,946	$ 79,822,200
Recycled	8,871,699	9,122,700	8,529,451	8,909,000
Sewer	3,657,984	3,303,300	4,109,364	3,010,300
Total General Fund	90,636,400	89,236,000	85,214,761	91,741,500
Expansion Fund				
Potable	2,024,914	1,712,500	2,137,632	2,483,300
Recycled	186,149	103,300	145,516	113,400
Sewer	150	100	12,531	-
Total Expansion Fund	2,211,213	1,815,900	2,295,679	2,596,700
Betterment Fund				
Potable	1,131,615	805,500	405,789	795,600
Recycled	5,615	6,900	69,189	14,000
Sewer	36,137	34,000	-	36,900
Total Betterment Fund	1,173,367	846,400	474,978	846,500
Replacement Fund				
Potable	2,184,797	3,304,300	4,218,081	2,271,900
Recycled	229,351	48,500	157,197	99,400
Sewer	100,357	89,800	110,157	101,700
Total Replacement Fund	2,514,505	3,442,600	4,485,435	2,473,000
New Supply Fund				
Potable	383,063	259,900	446,575	361,800
Recycled	37,198	1,400	1,500	8,900
Sewer	-	-	218,925	-
Total New Supply Fund	420,261	261,300	667,000	370,700
OPEB Fund	551,486	914,200	921,217	962,100
Debt Service Fund	730,154	757,100	741,226	680,600
Total Revenues	$ 98,237,386	$ 97,273,500	94,800,296	$ 99,671,100

*Actual unaudited

Revenues and Expenditures by Fund

	FY 2015	FY 2016		FY 2017
	Actual	Budget	Actual*	Budget
Expenditures				
General Fund				
Potable	$ 77,332,582	$ 76,810,000	$ 71,591,041	$ 79,822,200
Recycled	8,871,699	9,122,700	8,529,451	8,909,000
Sewer	3,657,984	3,303,300	4,109,364	3,010,300
Total General Fund	89,862,265	89,236,000	84,229,856	91,741,500
Expansion Fund				
Potable	4,541,070	4,469,300	4,659,221	4,112,200
Recycled	1,078,373	1,274,900	4,528	1,112,100
Sewer	7,510	-	395,319	-
Total Expansion Fund	5,626,953	5,744,200	5,059,068	5,224,300
Betterment Fund				
Potable	2,594,998	3,759,500	3,740,543	2,224,800
Recycled	518,356	753,400	255,762	1,526,400
Sewer	214,301	251,000	-	26,000
Total Betterment Fund	3,327,655	4,763,900	3,996,305	3,777,200
Replacement Fund				
Potable	6,879,734	7,175,800	7,112,872	8,440,700
Recycled	523,696	870,100	912,094	198,000
Sewer	1,376,978	1,520,000	1,072,335	1,585,000
Total Replacement Fund	8,780,408	9,565,900	9,097,301	10,223,700
New Supply Fund				
Potable	350,165	177,500	152,213	57,500
Recycled	89,055	4,800	-	4,800
Sewer	-	-	735,874	-
Total New Supply Fund	439,220	182,300	888,087	62,300
OPEB Fund	831,057	914,100	826,291	961,000
Debt Reserve Fund	13,650,886	750,100	749,263	784,800
Total Expenditures	122,518,444	111,156,500	104,846,171	112,774,800
Surplus/(Deficit)	$ (24,281,058)	$ (13,883,000)	(10,045,875)	$ (13,103,700)

*Actual unaudited

Revenues and Expenditures by Type - All Funds

	FY 2015	FY 2016		FY 2017
	Actual	Budget	Actual*	Budget
Revenues and Fund Sources				
Water Sales	$ 79,134,999	$ 78,899,700	$ 73,940,199	$ 81,138,900
Sewer Revenues	3,009,634	3,206,300	3,149,295	2,918,900
Meter Fees	90,246	66,200	78,568	66,200
Capacity Fee Revenues	1,312,108	1,134,800	1,517,128	1,248,200
Betterment Fee Revenues	309,510	-	-	-
Capacity Fees for Maintenance	4,346,177	2,862,000	4,975,067	4,261,200
Betterment Fees for Maintenance	188,123	-	-	-
Tax Revenues	3,814,516	3,897,900	3,970,202	4,033,100
Availability Fees	477,137	473,000	114,940	484,200
Non-Operating Revenues	2,404,375	1,873,600	2,434,865	2,179,300
GO Bond Debt Tax Revenues	1,453,756	722,800	1,475,424	640,400
Sewer Debt Tax Revenues	-	1,000	-	1,000
COPs Proceeds	770,400	770,200	770,200	828,100
CALTRANS Reimbursement	-	1,845,100	1,510,976	255,000
Interest	131,875	162,800	128,015	654,500
Interfund Transfer	653,279	1,006,100	1,013,414	962,100
Total Revenue and Fund Sources	98,096,135	96,921,500	95,078,293	99,671,100
Expenditures and Fund Uses				
Water Purchases	46,249,959	45,984,500	43,863,330	47,422,400
Power	3,048,335	3,112,800	2,697,915	2,938,000
Labor Expenses	19,406,815	20,381,000	20,337,890	20,899,900
Administrative Expenses	4,503,990	5,387,800	4,510,379	5,150,100
Materials and Maintenance	3,339,777	3,612,800	3,103,175	3,456,300
CIP Expenses	11,051,731	12,505,000	12,198,933	12,033,100
Debt Service	7,701,000	8,532,000	7,744,576	8,039,200
OPEB Retiree Health Expenses	929,113	1,006,000	909,415	961,000
Interfund Transfers	12,955,800	10,757,100	10,757,100	11,874,800
Total Expenditures and Fund Uses	109,186,520	111,279,000	106,122,713	112,774,800
Surplus/(Deficit)	$ (11,090,385)	$ (14,357,500)	$ (11,044,420)	$ (13,103,700)

Note: Consistent with the District's financing plan, the 2010 debt proceeds along with District reserves have been used to fund capital projects, resulting in the expected deficits in Fiscal Years 2015 and 2016 shown above.

*Actual unaudited

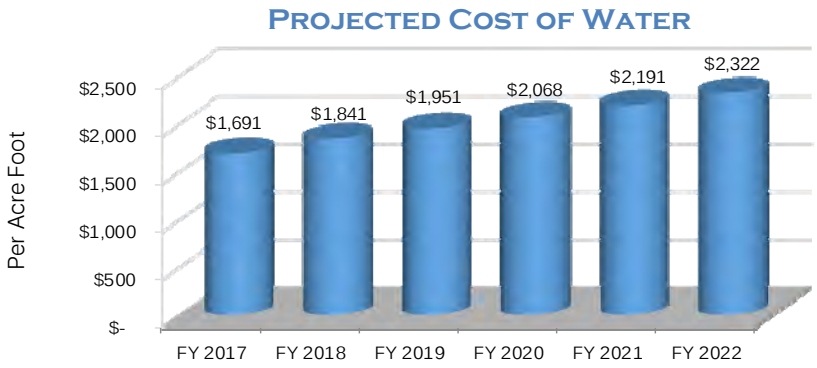
Five-Year Forecast – FY 2018 through FY 2022

The District updates its Rate Model to build the budget for the upcoming fiscal year and to forecast the five subsequent years. This financial forecast is designed to provide a general understanding of how revenues and expenditures are expected to influence the District and is reviewed in relation to its effect on funding capital projects and reserve levels. Estimates for growth, water costs, and others such as rainfall, and average water consumption per customer, are used throughout the Rate Model to calculate various revenue and expense amounts in each year. The Engineering Department is primarily responsible for the growth estimates as described in the budget overview on page 10. Water cost estimates are obtained from District water suppliers, CWA and MWD, and power cost inflators from San Diego Gas and Electric, the District power supplier. Labor and benefit cost inflators are based on the Memorandum of Understanding with the District's labor union, estimates from the District's health providers, as well as actuarial reports from the District's pension providers. Other general inflators are derived from statistical data from consumer price indexes for the region.

The District must look at building new infrastructure to service the needs of its customers. The CIP Master Plan looks at the service needs of all customers over the next six years and at the betterment and expansion needs from now until ultimate build-out. The capital projects and the funding for them are reviewed annually by the Engineering Department. As new capital assets are brought into service, they are managed by a GIS-centric Asset Management System, CityWorks, which is crucial to tracking and maintaining the history of 726 miles of potable pipelines, 102 miles of recycled pipelines, 88 miles of sewer mains, 40 potable and 4 recycled reservoirs, 21 potable and 3 recycled pump stations, and a 1.3 million gallons per day reclamation plant. Utilizing an integrated database from the Geographic Information System (GIS) provides real-time work order planning, execution, and consolidation of all maintenance history. These systems are also integrated with financial software to allow asset tracking and management information. As the systems are further developed, the District will be able to better anticipate operating costs associated with the capital projects. The impact of the CIPs on the Operating Budget is addressed in the CIP section of this budget.

Projected Cost of Water

The projected cost of water is based on CWA's Rate Modeling Program. This CWA program evaluates many options of the Regional Water Facilities Master Plan, which determines the most feasible projects for water resources and incorporates these decisions into CWA's Capital Improvement Program. This cost is also based on CWA's estimated water cost for purchases from MWD and the Imperial Irrigation District (IID).



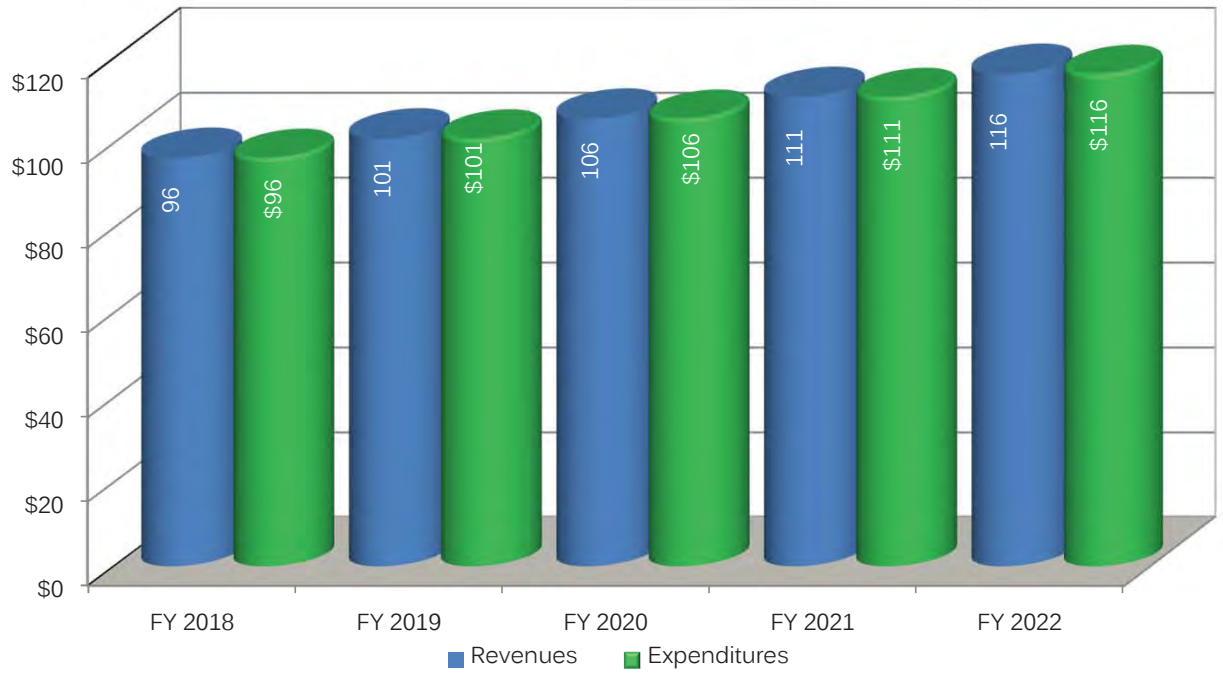
General Fund Forecast - FY 2018 Through FY 2022

This forecast incorporates both cost increases for expenditures and rate increases for revenues, as well as growth projections.

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Revenues	Revenues				
Water/Sewer Rates	$ 88,571,900	$ 93,172,600	$ 97,691,700	$ 102,641,300	$ 107,891,800
Meter Fees	70,200	73,400	75,400	78,500	82,000
Capacity Fee Revenues	1,254,400	1,266,900	1,279,600	1,292,400	1,305,300
Non-operating Revenues	2,203,100	2,023,200	2,045,100	2,073,500	2,102,400
Tax Revenues	4,104,200	4,178,300	4,256,300	4,337,500	4,420,500
Interest Income	204,500	258,500	294,300	333,800	377,100
Total Revenues	96,408,300	100,972,900	105,642,400	110,757,000	116,179,100

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Expenditures	Expenditures and Transfers				
Water Cost	51,707,100	55,094,200	58,881,400	63,211,400	67,866,400
Power	3,080,200	3,217,300	3,371,500	3,543,900	3,729,200
Labor and Benefits	21,260,300	21,627,700	21,974,600	22,306,600	22,645,300
Administrative Expenses	4,989,500	5,145,100	5,395,500	5,486,500	5,644,300
Materials & Maintenance	3,538,400	3,681,800	3,831,000	3,986,300	4,148,100
Net Reserve Funding	11,832,800	12,206,800	12,188,400	12,222,300	12,145,800
Total Expenditures and Transfers	96,408,300	100,972,900	105,642,400	110,757,000	116,179,100
Excess Revenues (Expenditures)	$ -	$ -	$ -	$ -	$ -

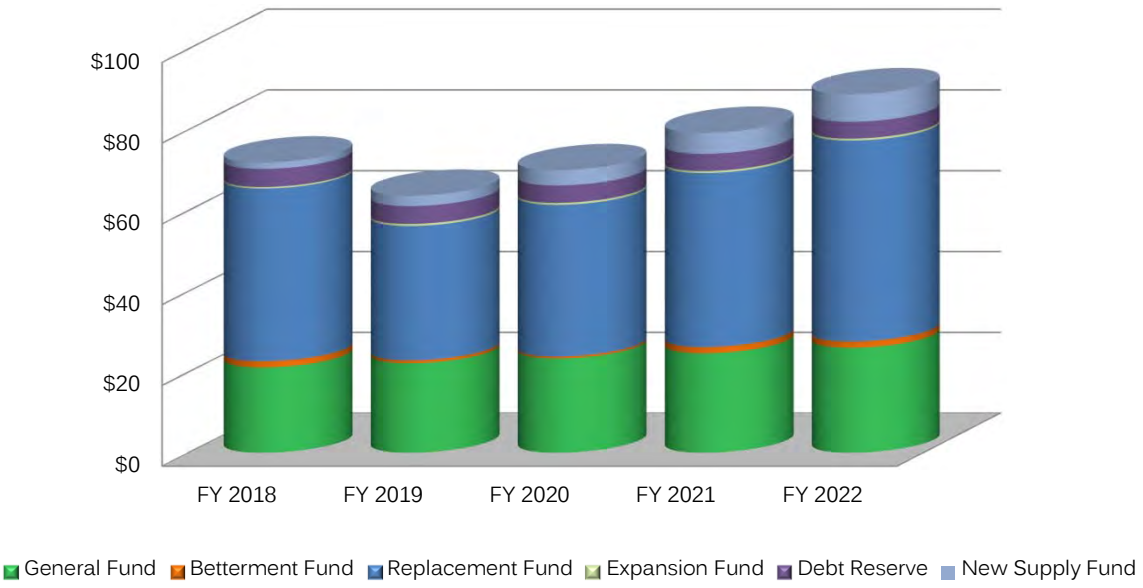
Revenues and Expenditures Forecast, in millions ($)



Fund Balances - FY 2018 Through FY 2022

Fund Balance	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Fund Balances by Fund				
General Fund	$ 21,148,800	$ 22,199,600	$ 23,374,200	$ 24,647,500	$ 26,020,700
Betterment Fund	1,541,300	701,800	464,800	1,552,500	1,552,700
Replacement Fund	42,732,300	33,255,300	37,543,900	43,057,200	49,715,000
Expansion Fund	388,500	526,400	494,900	502,300	504,100
New Supply Fund	1,574,800	2,546,100	3,774,900	5,190,400	6,805,400
Debt Reserve	4,477,600	4,410,900	4,320,900	4,256,400	4,162,400
Total Fund Balance	$ 71,863,300	$ 63,640,100	$ 69,973,600	$ 79,206,300	$ 88,760,300

Fund Balances Forecast, in millions ($)



Debt Management

The District has been successful in financing capital improvements through a combination of long-term and short-term financing plans. Financial tools used include General Obligation Bonds, Certificates of Participation (COPs), Build America Bonds (BABs), developer fees, and pay-as-you-go funding.

The District's primary debt management objective is to keep the level of indebtedness within available resources and within limits that will allow the District to meet the debt service coverage ratios required by the bond covenant. Bonds have been and will be used to improve existing facilities and to build the projects in the Capital Improvement Program (CIP). The District's debt service obligations have a significant effect upon the District's current and future water rates. All efforts that minimize the cost of debt have a corresponding effect that reduces water rates.

In April, 2016, Standard & Poor's (S&P) affirmed the District's AA rating and stable outlook. The rating was based on the broad and diverse service area, strong financial risk profile, and good operational management policies and practices.

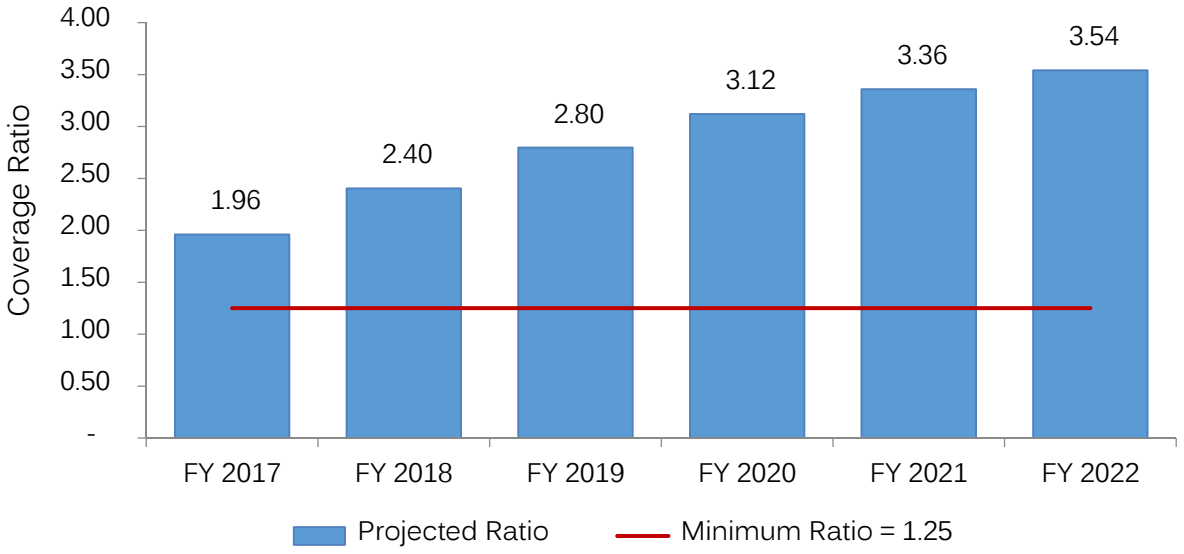
711-1 Reservoir (3.1 MG) – Exterior Wrapping

Debt Management

The District achieved a 171% actual debt coverage ratio, including growth revenues, for fiscal year 2016, which exceeded the debt covenant minimum ratio of 125%. To meet the bond indebtedness obligation and maintain stable rates, the rate model is used to forecast revenues and operating requirements. In the next six years, the District does not anticipate the need to issue new debt and expects the District's financial performance to yield strong levels prior to any debt issued. The chart below shows the District's projected debt coverage ratio from FY 2017 through FY 2022. The debt coverage ratios are growing as rates are set to ensure adequate funding of the reserves.

The District's Board of Directors believes that a strong debt coverage ratio will benefit the ratepayers as it reduces the cost of water infrastructure; and therefore have been willing to support this with necessary rate increases. The District has projected a schedule of rate increases designed to generate sufficient revenue to pay off existing and planned future debt issues. See the Policies section of the budget for the District's complete Debt Policy.

Projected Debt Coverage Ratio

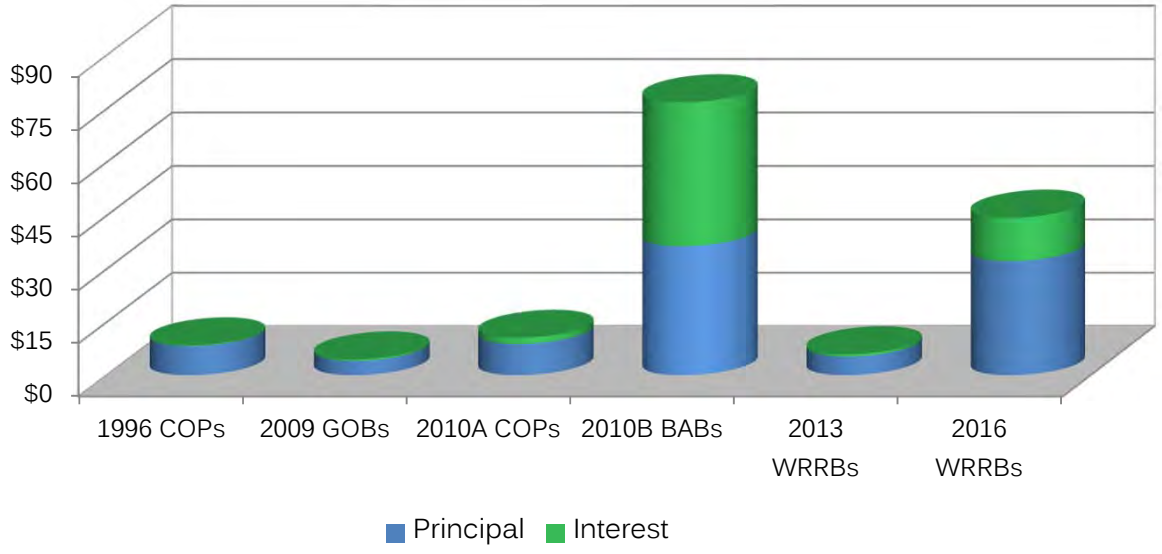


Schedule of Outstanding Debt

#	Year Incurred	Description	Maturity Date	Original Amount	Outstanding Balance 6/30/2017
1	1996	Certificates of Participation (COPs)	September 1, 2026	$ 15,400,000	$ 8,200,000
2	2009	General Obligation (GO) Bonds	August 31, 2022	7,780,000	3,995,000
3	2010	Certificates of Participation Series A (COPs)	September 1, 2024	13,840,000	8,820,000
4	2010	Build America Bonds Series B (BABs)	September 1, 2040	36,355,000	36,355,000
5	2013	Water Revenue Refunding Bonds [1]	September 1, 2023	7,735,000	5,220,000
6	2016	Water Revenue Refunding Bonds [2]	September 1, 2036	33,385,000	32,185,000
Total Outstanding Debt				$ 114,495,000	$ 94,775,000

	All Debts	GO Bonds
Total Assessed Valuation - FY 2016	$ 26,057,698,553	$ 11,904,159,221
Percentage of Original Debt to Assessed Valuation	0.44%	0.07%
Debt Limit per District Debt Policy (% of Assessed Valuation)	15.00%	15.00%

Total Outstanding Debt, in millions ($)



[1] The 2013 Water Revenue Refunding Bonds were an advanced refunding of the 2004 COPs, which was a refunding of the 1993 COPs.

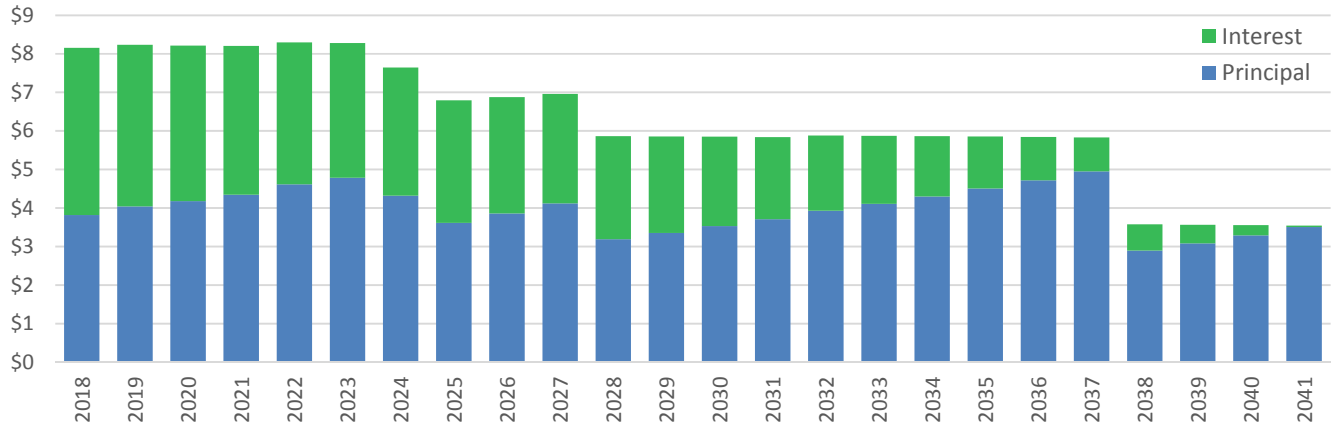
[2] The 2016 Water Revenue Refunding Bonds were an advanced refunding of the 2007 COPs.

Note: The accounting for debt proceeds and payments is described in the District's Reserve Policy found on pages 197-224.

Projected Principal Payments by Debt Issuance

FY	1996 COPs	2009 GOBs	2010A COPs	2010B BABs	2013 WRRBs[1]	2016 WRRBs[2]	Total
2018	$ 600,000	$ 605,000	$ 940,000	$ -	$ 660,000	$ 1,015,000	$ 3,820,000
2019	700,000	635,000	975,000	-	685,000	1,045,000	4,040,000
2020	700,000	650,000	1,015,000	-	715,000	1,100,000	4,180,000
2021	700,000	680,000	1,065,000	-	745,000	1,155,000	4,345,000
2022	800,000	705,000	1,120,000	-	775,000	1,215,000	4,615,000
2023	800,000	720,000	1,175,000	-	805,000	1,285,000	4,785,000
2024	900,000	-	1,235,000	-	835,000	1,350,000	4,320,000
2025	900,000	-	1,295,000	-	-	1,420,000	3,615,000
2026	1,000,000	-	-	1,365,000	-	1,495,000	3,860,000
2027	1,100,000	-	-	1,450,000	-	1,570,000	4,120,000
2028	-	-	-	1,545,000	-	1,645,000	3,190,000
2029	-	-	-	1,640,000	-	1,715,000	3,355,000
2030	-	-	-	1,745,000	-	1,785,000	3,530,000
2031	-	-	-	1,855,000	-	1,855,000	3,710,000
2032	-	-	-	1,975,000	-	1,955,000	3,930,000
2033	-	-	-	2,105,000	-	2,005,000	4,110,000
2034	-	-	-	2,245,000	-	2,055,000	4,300,000
2035	-	-	-	2,390,000	-	2,115,000	4,505,000
2036	-	-	-	2,550,000	-	2,170,000	4,720,000
2037	-	-	-	2,715,000	-	2,235,000	4,950,000
2038	-	-	-	2,895,000	-	-	2,895,000
2039	-	-	-	3,085,000	-	-	3,085,000
2040	-	-	-	3,290,000	-	-	3,290,000
2041	-	-	-	3,505,000	-	-	3,505,000
Total	$ 8,200,000	$ 3,995,000	$ 8,820,000	$ 36,355,000	$ 5,220,000	$ 32,185,000	$ 94,775,000

Combined Debt Service through Maturity, in millions ($)



[1] The 2013 Water Revenue Refunding Bonds were an advanced refunding of the 2004 COPs, which was a refunding of the 1993 COPs.

[2] The 2016 Water Revenue Refunding Bonds were an advanced refunding of the 2007 COPs.

Projected Interest Payments by Debt Issuance

FY	1996 COPs [1]	2009 GOBs	2010A COPs	2010B BABs	2013 WRRBs[2]	2016 WRRBs[3]	Total
2018	$ 38,500	$ 139,633	$ 393,754	$ 2,371,868	$ 186,800	$ 1,204,656	$ 4,335,211
2019	35,083	114,433	354,988	2,371,868	159,567	1,156,040	4,191,979
2020	31,583	88,533	306,196	2,371,868	131,167	1,101,498	4,030,845
2021	28,083	61,533	253,363	2,371,868	101,567	1,044,206	3,860,620
2022	24,167	33,500	197,821	2,371,868	70,767	983,956	3,682,079
2023	20,167	4,800	139,529	2,371,868	38,767	920,290	3,495,421
2024	15,750	-	78,279	2,371,868	5,567	853,331	3,324,795
2025	11,250	-	11,331	2,371,868	-	782,915	3,177,364
2026	6,333	-	-	2,299,330	-	708,790	3,014,453
2027	917	-	-	2,207,767	-	630,915	2,839,599
2028	-	-	-	2,110,252	-	562,998	2,673,250
2029	-	-	-	2,006,679	-	494,865	2,501,544
2030	-	-	-	1,896,516	-	423,931	2,320,447
2031	-	-	-	1,779,392	-	350,198	2,129,590
2032	-	-	-	1,651,430	-	297,102	1,948,532
2033	-	-	-	1,514,409	-	247,185	1,761,594
2034	-	-	-	1,368,290	-	193,878	1,562,168
2035	-	-	-	1,212,689	-	136,419	1,349,108
2036	-	-	-	1,046,730	-	76,996	1,123,726
2037	-	-	-	869,973	-	11,175	881,148
2038	-	-	-	681,541	-	-	681,541
2039	-	-	-	480,724	-	-	480,724
2040	-	-	-	266,587	-	-	266,587
2041	-	-	-	38,421	-	-	38,421
Total	$ 211,833	$ 442,432	$ 1,735,261	$ 40,405,674	$ 694,202	$ 12,181,344	$ 55,670,746

[1] Interest on the 1996 Certificates of Participation is variable and is projected using an interest rate of .5%.

[2] The 2013 Water Revenue Refunding Bonds were an advanced refunding of the 2004 COPs, which was a refunding of the 1993 COPs.

[3] The 2016 Water Revenue Refunding Bonds were an advanced refunding of the 2007 COPs.

Potable Revenues and Expenditures

Potable Revenues

The District will provide water service to approximately 49,496 potable customers by the end of Fiscal Year 2017. Ninety-one percent of the potable customers are residential and the remaining nine percent are comprised of multi-residential, publicly-owned, commercial, agricultural, landscaping, and construction. With the decline in residential developments in recent years, the District expects only nominal growth of 0.33% for Fiscal Year 2017. Unit sales are anticipated to decrease 7.7% compared to the previous year's budget, and increase by 3.8% versus the previous year's actual unit sales.

Water rates vary among the customer classifications. The water rates for all customers are based on an accelerated block structure; as more units are consumed, a higher unit rate is charged on units sold in the top tiers. These unit sales represent approximately 61.4% of the water sales budget. Other revenue sources include: system charges, energy charges, penalties, and other pass-through charges from the San Diego County Water Authority (CWA) and the Metropolitan Water District (MWD).

944-1 (0.3 MG) Reservoir - Jamul, California

All customers are required to pay fixed monthly fees, the MWD and CWA fixed charge, and the District system fee. These fixed charges are based on meter size. These fees recover 30% of the potable water sales revenue. Water rates, energy fees, and penalties recover the remaining 70% of revenues necessary to fund operations. (Note: When potable and recycled revenues are combined the fixed fees do not exceed 30% of the total revenues.)

Energy charges are based on the quantity of water used and the elevation to which the water has been lifted to provide service. Energy charges are set so as to recover the power costs associated with pumping. This charge is adjusted based on an annual review of these costs to ensure that sufficient revenue is collected to offset pumping costs.

Penalties are charged to the District customer accounts when payments are delinquent. These penalty revenues are budgeted based on historical trends.

Potable Revenues and Expenditures

Potable Expenditures

In Fiscal Year 2017, the District estimates to purchase 29,912.3 acre-feet of potable water, sufficient to meet the demands of its customers. Provisions have been made for District usage, leakage, and evaporation in the amount of 1,103.1 acre-feet.

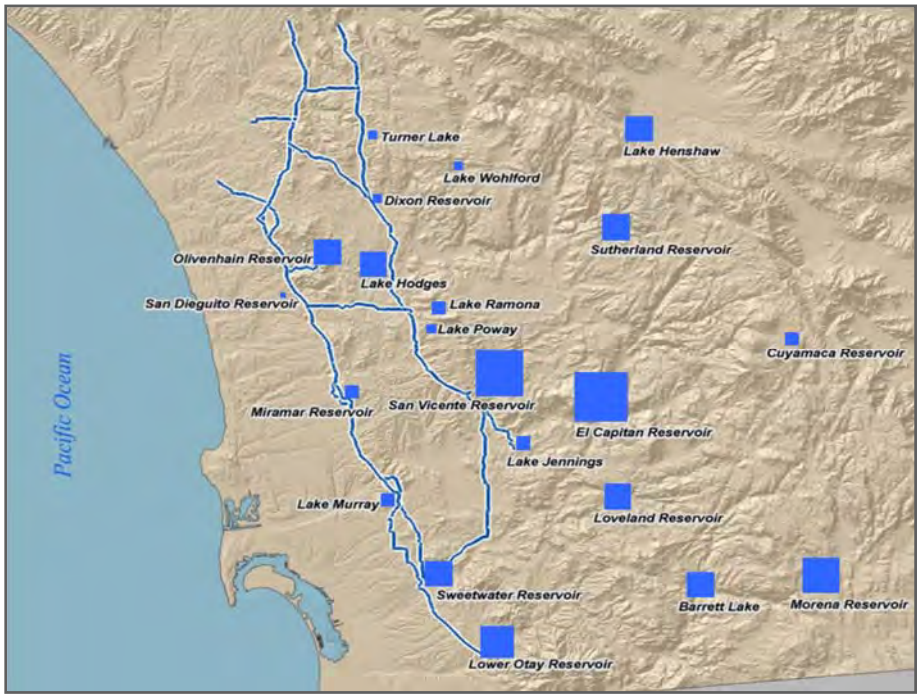
711-1 Reservoir (3.1 MG) – Remove and replace deteriorating reservoir coating

Today, the District purchases 100% of its potable water from the San Diego County Water Authority; however, in the past the District purchased only treated water through the CWA's treated water pipeline. In 2006, to diversify the water supply and to become less reliant on treated water from outside the region, Otay entered an agreement to purchase 10,000 acre-feet of raw water treated by neighboring Helix Water District at their Levy Water Treatment Plant. This raw water comes into the region through a CWA raw water pipeline which gives the District redundancy in water supply. The reliability is necessary to ensure water deliveries can continue in an emergency situation such as earthquakes or other natural disasters. The District's agreement also brings regional water treatment closer to our customers, which reduces dependence on water treatment facilities located outside of San Diego County. Flow Control Facility No. 14 connects the Helix Water District to Otay Water District through approximately 5 miles of 36" pipeline.

Although the District does not own a direct water supply reservoir that captures surface water, there are cooperative agreements between CWA and the other member agencies to manage water demands and supply the region in times of need.

The reservoirs of member agencies and CWA serve multiple functions including: surface water capture, seasonal shift water storage, carryover storage, local sources of emergency water supplies, system capacity buffers during peak demand periods, and adds a level of security for short and long-term emergency situations. The location of each reservoir, as shown on page 60, effects the extent to which it can perform the various functions, as does the individual agencies' operational plan implemented at each location.

Potable Revenues and Expenditures



The San Diego County Water Authority purchases water for the County of San Diego from MWD and the Imperial Irrigation District (IID). Any cost increases by CWA, MWD, or IID impacts the District's water purchases and directly affects the District's fees, rates, and service charges. The Carlsbad Desalination Plant began commercial operations in December 2015 and is the largest seawater desalination plant in the nation. It is anticipated to meet 7-10% of the region's water demand.

2011-2015
Five-Year Average
Water Supply

Operating Budget Summary - Potable

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual *	Budget	$	%
Revenues						
Water Sales	$ 70,281,989	$ 69,783,700	$ 65,413,157	$ 72,238,600	$ 2,454,900	3.5%
Meter Fees	86,165	65,800	76,366	65,800	-	-
Capacity Fee Revenues	1,304,598	1,134,800	1,512,600	1,248,200	113,400	10.0%
Betterment Fees for Maintenance	188,123	-	-	-	-	-
Tax Revenues	3,769,963	3,846,300	3,897,734	3,981,500	135,200	3.5%
Non-operating Revenues	2,370,615	1,836,400	1,553,316	2,143,800	307,400	16.7%
Interest	105,264	143,000	122,772	144,300	1,300	0.9%
Total Revenues	78,106,717	76,810,000	72,575,945	79,822,200	3,012,200	3.9%
Expenditures						
Potable Water Purchases	33,952,017	32,332,100	29,409,666	31,271,300	(1,060,800)	(3.3%)
CWA - Infrastructure Access Charge	1,900,266	1,931,400	1,930,848	1,976,400	45,000	2.3%
CWA - Customer Service Charge	1,796,853	1,777,800	1,778,197	1,714,200	(63,600)	(3.6%)
CWA - Reliability Charge	-	950,400	950,052	1,848,000	897,600	94.4%
CWA - Emergency Storage Charge	4,720,701	4,681,800	4,681,673	4,579,800	(102,000)	(2.2%)
MWD - Capacity Reservation Charge	701,976	806,400	883,203	988,800	182,400	22.6%
MWD-Net RTS and Standby Charges	1,817,339	1,798,800	1,587,254	1,428,000	(370,800)	(20.6%)
Subtotal - Water Costs	44,889,152	44,278,700	41,220,893	43,806,500	(472,200)	(1.1%)
Power	2,280,061	2,372,400	2,017,258	2,194,700	(177,700)	(7.5%)
Labor and Benefits	17,383,737	18,518,100	18,165,431	18,581,400	63,300	0.3%
Administrative Expenses	4,040,636	4,865,200	3,903,470	4,589,800	(275,400)	(5.7%)
Materials and Maintenance	1,743,396	2,168,300	1,676,689	2,108,600	(59,700)	(2.8%)
Subtotal - Operations Costs	25,447,830	27,924,000	25,762,848	27,474,500	(449,500)	(1.6%)
Transfer to General Fund Reserve	-	-	-	1,286,400	1,286,400	100.0%
Expansion Reserve	-	-	-	3,638,000	3,638,000	100.0%
Betterment Reserve	2,805,000	-	-	2,280,000	2,280,000	100.0%
Replacement Reserve	675,000	2,493,900	2,493,900	464,500	(2,029,400)	(81.4%)
Transfer to Sewer General Fund	553,800	-	-	-	-	-
Transfer to OPEB	546,000	914,100	914,100	872,300	(41,800)	(4.6%)
Transfer to Potable General Fund	1,583,800	-	-		-	-
Transfer to Sewer Replacement	127,000	1,199,300	1,199,300	-	(1,199,300)	(100.0%)
Transfer to New Supply Fund	705,000	-	-	-	-	-
Subtotal - Reserve Funding	6,995,600	4,607,300	4,607,300	8,541,200	3,933,900	85.4%
Total Expenditures	77,332,582	76,810,000	71,591,041	79,822,200	3,012,200	3.9%
Excess Revenues (Expenditures)	$ 774,135	$ -	$ 984,904	$ -	$ -	-

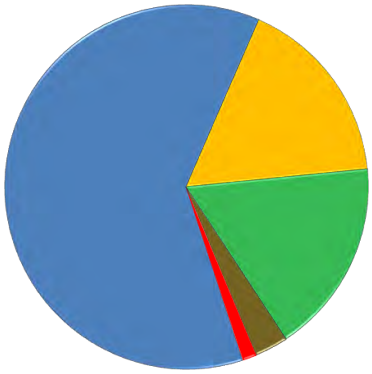
* Actual unaudited

Classification of Water Sales - Potable

	FY 2015	FY 2016		FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Water Sales	$ 44,025,774	$ 41,344,900	$ 37,243,504	$ 44,450,600	$ 3,105,700	7.5%
System Fees	12,380,370	13,292,300	13,391,005	12,204,600	(1,087,700)	-8.2%
Energy Fees	2,134,865	2,311,300	2,151,538	2,164,200	(147,100)	-6.4%
MWD and CWA Fixed Fees	10,846,411	11,946,600	11,850,407	12,535,200	588,600	4.9%
Penalties	894,569	888,600	776,703	884,000	(4,600)	-0.5%
Total Water Sales	$ 70,281,989	$ 69,783,700	$ 65,413,157	$ 72,238,600	$ 2,454,900	3.5%

FY 2017 Classification of Water Sales

Water Sales	$ 44,450,600	61.4%
System Fees	12,204,600	16.9%
Energy Fees	2,164,200	3.0%
MWD and CWA Fixed Fees	12,535,200	17.4%
Penalties	884,000	1.3%
Total Water Sales	$ 72,238,600	100.0%



Water Sales: Water rates vary among classes of service and are charged per unit of water. A unit of water is equal to 100 cubic feet of water. On January 1, 2009, the District implemented a tiered rate structure for all customer types to encourage conservation and bring equity among the classes.

System Fees: Each water service customer pays a monthly system charge for water system replacement, maintenance, and operation expenses. The charge is based on the size of the meter.

Energy Fees: The energy pumping fee is $ .044 per 100 cubic feet of water for each 100 feet of lift above the elevation of 450 feet. All water customers are in one of 29 zones based on elevation.

MWD and CWA Fixed Fees: These pass-through charges are calculated to recover the MWD's and CWA's fixed annual costs including the construction, operation and maintenance of aqueducts, and emergency storage projects. These fixed charges are based on the size of the meter.

Penalties: Charges and penalties are imposed on customer accounts for late payments and returned checks.

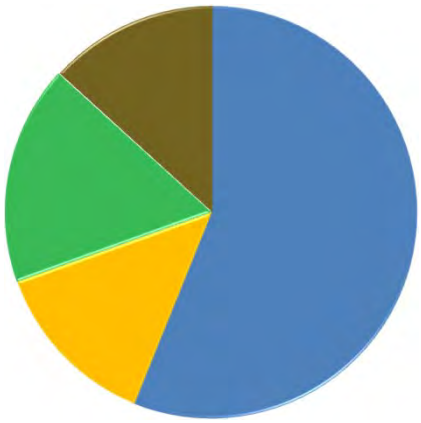
*Actual unaudited

Water Sales Summary by Service Class - Potable

	Water Rates			FY 2017	
	Current	Approved [1]	Accounts	Unit Sales	Budget
Residential			45,102	6,064,600	$ 23,445,900
Conservation Tier (< 5 hcf)	$ 2.13	$ 2.53			
6 - 10	3.32	3.95			
11 - 22	4.32	5.13			
over 23 hcf	6.65	7.90			
Multi-Residential			822	1,449,400	6,016,400
0 - 4	3.28	3.90			
5 - 9	4.25	5.05			
over 10 hcf	6.56	7.80			
Public and Commercial			1,459	1,860,400	7,152,100
Tier I	3.51	4.17			
Tier II	3.56	4.23			
Tier III	3.62	4.30			
Agriculture, Landscaping, and Construction			1,350	1,432,600	7,430,000
Tier I	4.78	5.68			
Tier II	4.83	5.74			
Tier III	4.89	5.81			
Total			48,733	10,807,000	$ 44,044,400
Government Fee	0.37	0.41	-	-	406,200
Total Water Sales			48,733	10,807,000	$ 44,450,600

FY 2017 Unit Sales by Service Class

	Units	%
Residential	6,064,600	60.0%
Multi-Residential	1,449,400	10.0%
Public and Commercial	1,860,400	20.0%
Agricultural, Landscaping & Construction	1,432,600	10.0%
Total Water Sales	10,807,000	100.0%



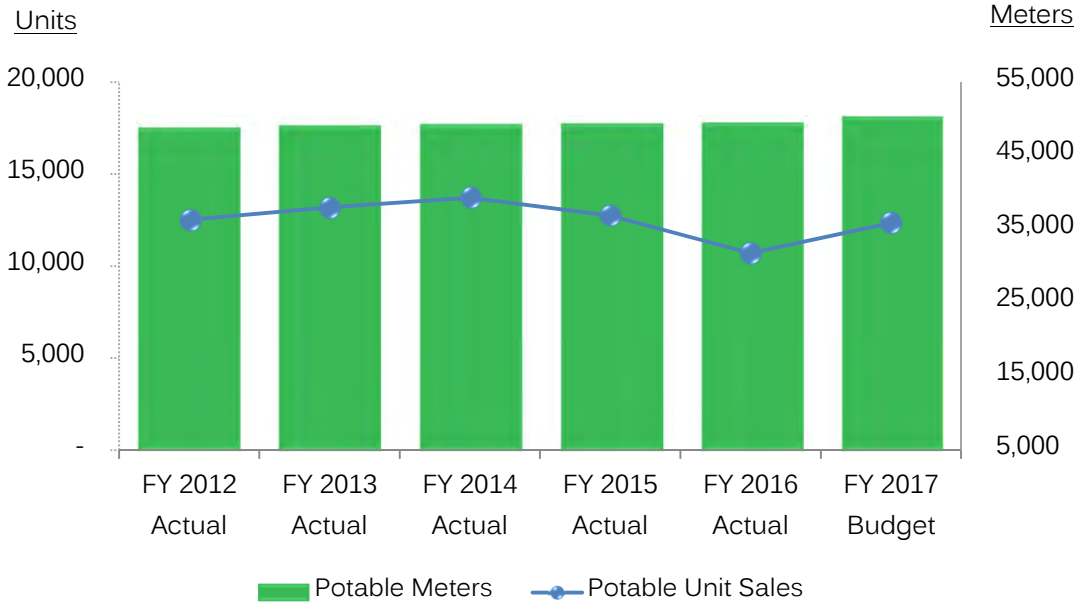
(1) Approved rates for water billed beginning in January 2017.

Unit Sales History and Meter Count by Customer Class - Potable

	FY 2013	FY 2014	FY 2015	FY 2016		FY 2017
	Actual			Budget	Actual	Budget
Residential	7,836,873	8,050,828	7,248,930	6,954,400	5,832,549	6,064,600
Multi-Residential	1,495,057	1,536,902	1,482,502	1,326,700	1,417,211	1,449,400
Public and Commercial	2,031,253	2,056,075	2,049,294	1,802,500	1,827,965	1,860,400
Agricultural and Landscaping	1,723,839	1,931,856	1,795,230	1,529,900	1,221,929	1,278,200
Temporary and Fire Services	102,020	144,458	168,469	90,600	175,636	154,400
Total Unit Sales	13,189,042	13,720,119	12,744,425	11,704,100	10,475,290	10,807,000

	FY 2013	FY 2014	FY 2015	FY 2016		FY 2017
	Actual			Budget	Actual	Budget
Residential	44,670	44,826	44,941	45,025	45,038	45,102
Multi-Residential	800	798	806	862	817	822
Public and Commercial	1,493	1,449	1,453	1,470	1,455	1,459
Agricultural and Landscaping	1,227	1,229	1,227	1,228	1,231	1,231
Temporary and Fire Services	772	846	881	869	884	882
Total Meter Count	48,962	49,148	49,308	49,454	49,425	49,496

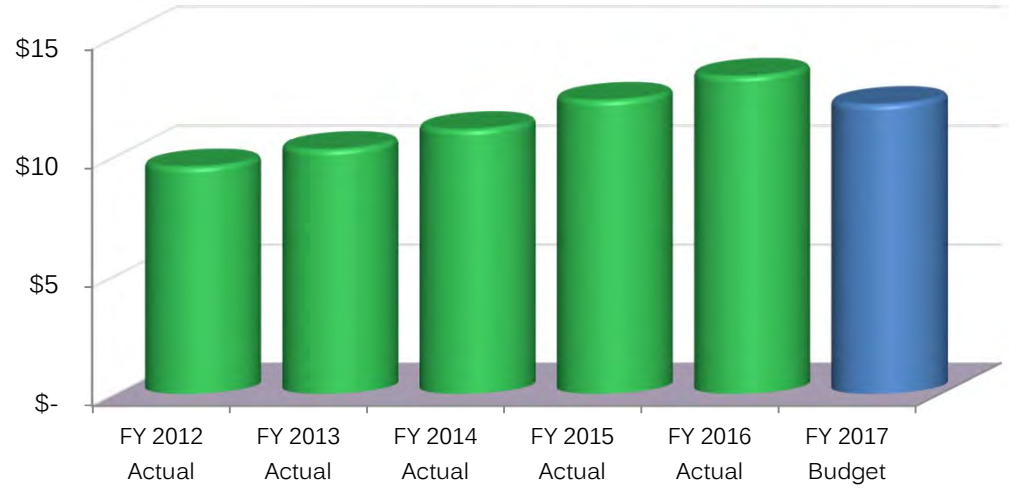
Unit Sales in thousands and Meter Count Trends



System Fees - Potable

	FY 2017	System Fees		FY 2016	FY 2017	Budget to Budget Variance	
Meter Size	Count	Current	Approved[1]	Budget	Budget	$	%
All Service Types							
0.75	43,788	$ 18.91	$ 15.91	$ 10,046,600	$ 9,138,300	$ (908,300)	-9.0%
1.00	2,595	26.71	22.47	789,800	765,700	(24,100)	-3.1%
1.50	948	46.22	38.88	527,800	483,800	(44,000)	-8.3%
2.00	1,097	69.61	58.55	915,400	839,900	(75,500)	-8.2%
3.00	80	132.02	111.04	118,800	115,300	(3,500)	-2.9%
4.00	197	202.24	170.10	450,000	434,700	(15,300)	-3.4%
6.00	20	397.31	334.18	77,300	87,800	10,500	13.6%
8.00	3	631.37	531.05	23,000	20,900	(2,100)	-9.1%
10.00	5	904.44	760.72	55,000	50,000	(5,000)	-9.1%
Sub-total	48,733			13,003,700	11,936,400	(1,067,300)	-8.2%
Fire Services							
0.63	709	24.69	20.77	207,300	193,400	(13,900)	-6.7%
0.75	12	24.69	20.77	2,700	3,300	600	22.2%
1.00	26	24.69	20.77	7,800	7,100	(700)	-9.0%
2.00	16	24.69	20.77	4,800	4,400	(400)	-8.3%
3.00	-	24.69	20.77	-	-	-	
4.00	-	33.27	27.98	-	-	-	
10.00	-	33.27	27.98	-	-	-	
Sub-total	763			222,600	208,200	(14,400)	-6.5%
Turn Over Fees		10.00	10.00	66,000	60,000	(6,000)	
Total	49,496			$ 13,292,300	$ 12,204,600	$ (1,087,700)	-8.2%

Historical System Fees, in millions ($)

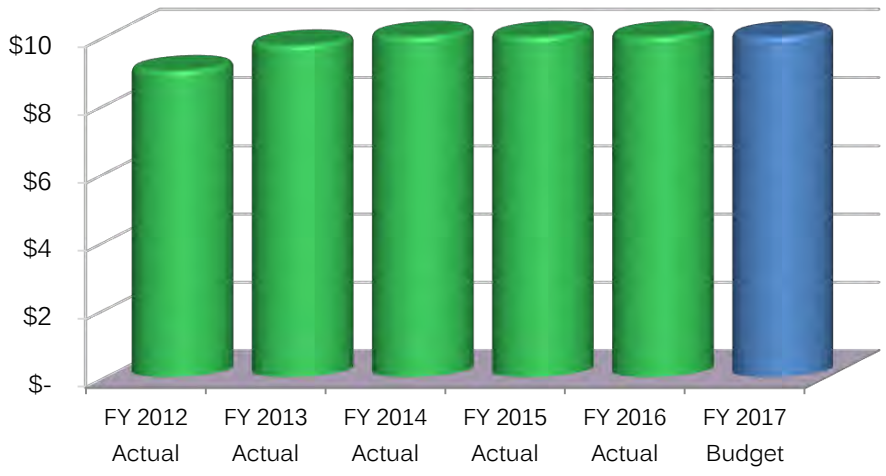


[1] Approved rates for water billed beginning in January 2017.

MWD and CWA Fixed Fees (Pass-Through) - Potable

	FY 2017	MWD and CWA Fixed Fees		FY 2016	FY 2017	Budget to Budget Variance	
Meter Size	Count[1]	Current	Approved[2]	Budget	Budget	$	%
0.75	43,781	$ 16.84	$ 15.00	$ 8,004,300	$ 8,356,300	$ 352,000	4.4%
1.00	2,587	31.24	27.84	873,300	917,000	43,700	5.0%
1.50	943	70.66	62.96	717,800	755,600	37,800	5.3%
2.00	1,095	120.17	107.08	1,414,600	1,486,600	72,000	5.1%
3.00	80	255.60	227.75	208,800	229,300	20,500	9.8%
4.00	102	409.32	364.72	432,200	462,700	30,500	7.1%
6.00	18	837.89	746.59	145,700	171,100	25,400	17.4%
8.00	3	1,353.09	1,205.65	44,100	46,100	2,000	4.5%
10.00	5	1,947.62	1,735.39	105,800	110,500	4,700	4.4%
Total	48,614			$11,946,600	$12,535,200	$ 588,600	4.9%

Historical MWD and CWA Fixed Fees, in millions ($)



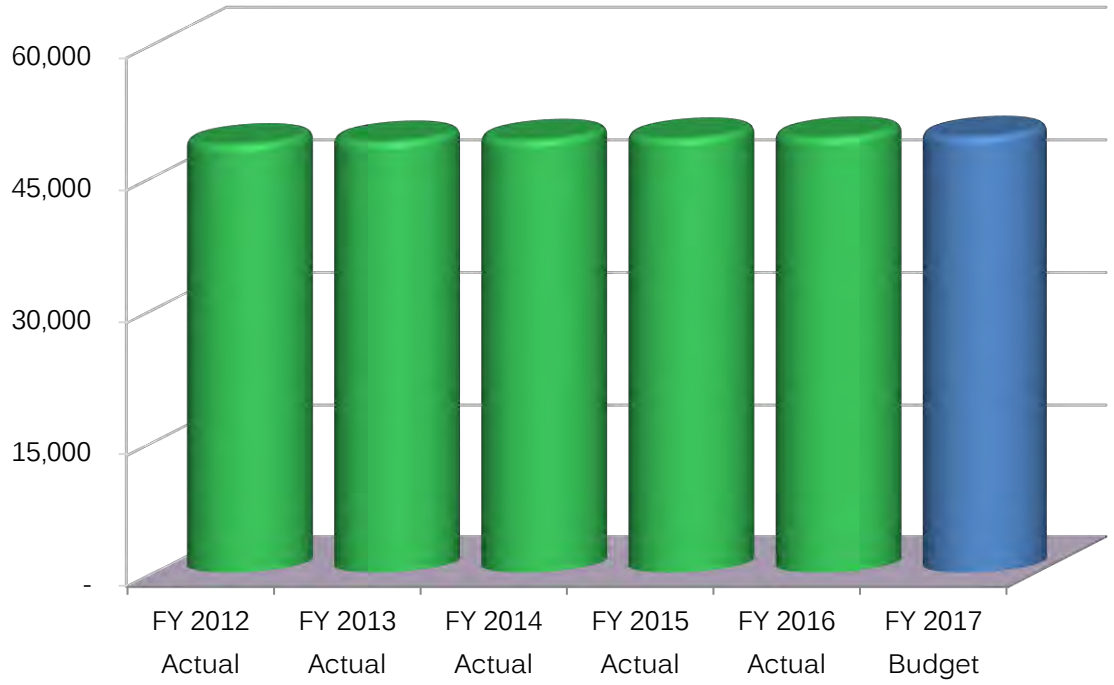
[1] Construction Meters, Fire Services, and Recycled Meters are exempt from MWD and CWA Fixed Fees.

[2] Approved rates for water billed beginning in January 2017.

Meter Fees - Potable

	FY 2017				
Meter Size	Meter Sales	Installation Fee	Meter Fee	Total Fees	Budget
0.75	97	$ 103.90	$ 218.94	$ 322.84	$ 31,300
1.00	-	103.90	282.52	386.42	-
1.50	1	103.90	459.21	563.11	600
2.00	10	103.90	658.00	761.90	7,600
3.00	2	625.55	2,050.60	2,676.15	5,400
4.00	5	625.55	3,561.56	4,187.11	20,900
6.00	-	988.10	6,151.79	7,139.89	-
8.00	-	1,515.16	7,686.20	9,201.36	-
10.00	-	1,515.16	11,054.19	12,569.35	-
Total	115				$ 65,800

Historical Meter Count

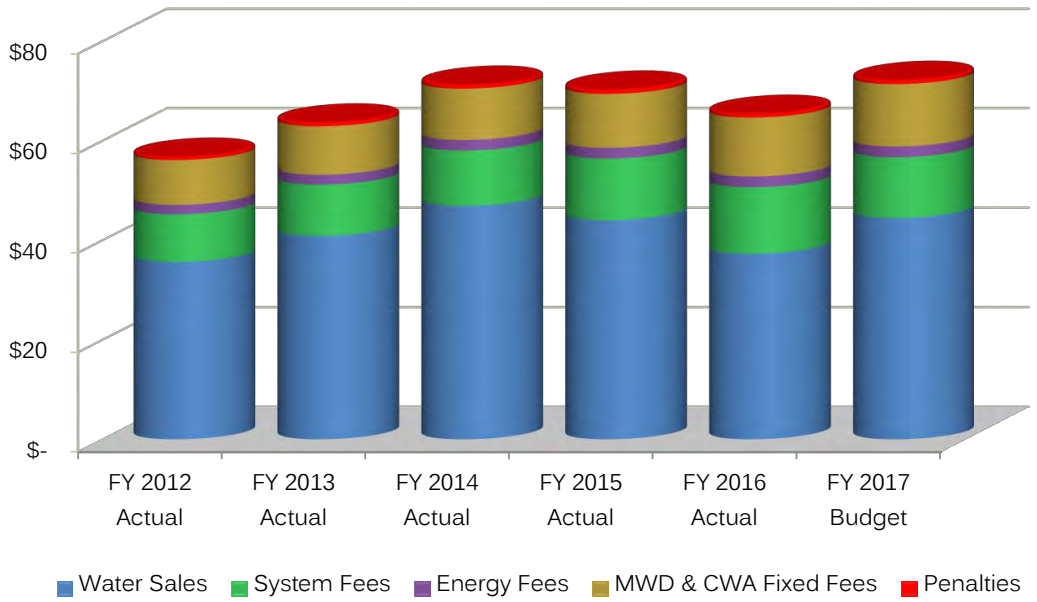


Meter Fees: Charges collected for new water service connections. Fees vary depending upon meter size and type of service. The costs associated with meter installations are included in the Operating Expenses section of the budget. These charges are funded by developers.

Revenue History - Potable

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016*	FY 2017
	Actual					Budget
Water Sales	$ 35,615,558	$ 40,845,630	$ 46,856,253	$ 44,025,774	$ 37,243,504	$ 44,450,600
System Fees	9,583,563	10,315,199	11,152,291	12,380,370	13,391,005	12,204,600
Energy Fees	1,881,776	1,964,062	2,114,844	2,134,865	2,151,538	2,164,200
MWD and CWA Fixed Fees	9,000,267	9,747,977	10,309,983	10,846,411	11,850,407	12,535,200
Penalties	703,081	796,426	839,025	894,569	776,703	884,000
Total Potable Revenues	$ 56,784,245	$ 63,669,294	$ 71,272,396	$ 70,281,989	$ 65,413,157	$ 72,238,600

Revenue History - Potable, in millions ($)

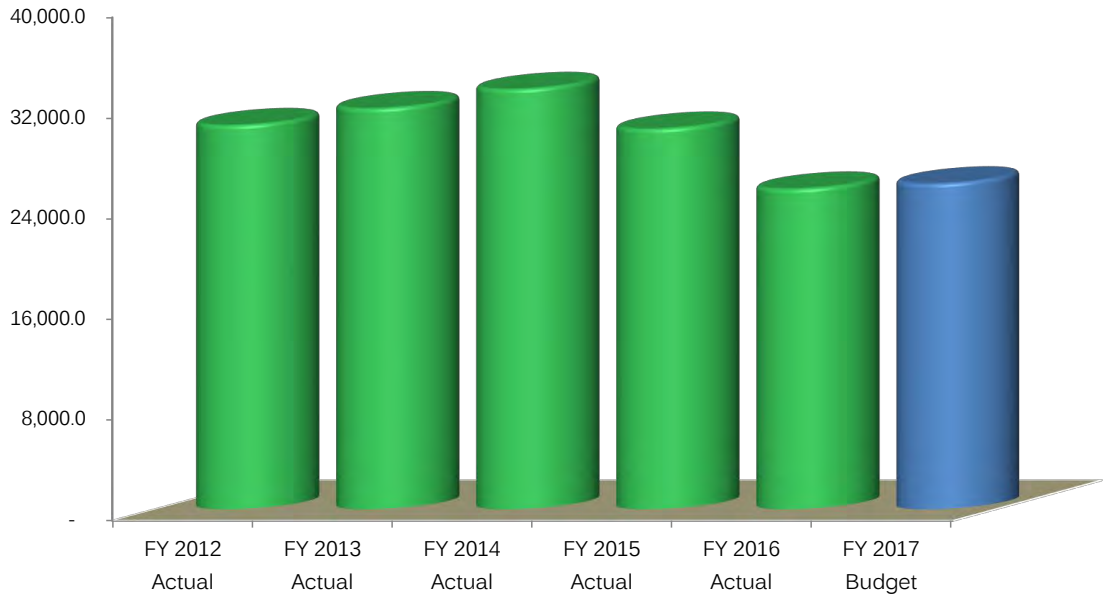


*Actual unaudited

Water Purchases and Related Costs - Potable

	FY 2016		FY 2017	FY 2016		FY 2017	Budget to Budget Variance	
	Acre Feet			Purchase Costs				
	Budget	Actual	Budget	Budget	Actual*	Budget	$	%
Potable Water Purchases (CWA):								
Rate Effective January				**$ 1,165.00**	**$ 1,165.00**	**$ 1,255.00**	**$ 90**	**7.7%**
Budgeted Sales	26,868.7	24,048.2	24,809.2	$ 30,968,000	27,755,198	$29,940,200	$ (1,027,800)	-3.3%
District & Unbilled Usage**	61.2	75.6	66.6	70,800	87,254	80,200	9,400	13.3%
Water Loss	1,122.1	1,376.9	1,036.5	1,293,300	1,567,214	1,250,900	(42,400)	-3.3%
Total Variable Charges	28,052.0	25,500.7	25,912.3	$ 32,332,100	$ 29,409,666	$ 31,271,300	(1,060,800)	-3.3%
CWA and MWD Fixed Charges:								
CWA - Infrastructure Access Charge				$ 1,931,400	$ 1,930,848	$ 1,976,400	$ 45,000	2.3%
CWA - Customer Service Charge				1,777,800	1,778,197	1,714,200	(63,600)	-3.6%
CWA - Emergency Storage Charge				4,681,800	4,681,673	4,579,800	(102,000)	-2.2%
CWA - Reliability Fixed Charge				950,400	950,052	1,848,000	897,600	94.4%
MWD - Capacity Reservation Charge				806,400	883,203	988,800	182,400	22.6%
MWD - Readiness-to-Serve Charge				1,798,800	1,587,254	1,428,000	(370,800)	-20.6%
Total Fixed Charges				$ 11,946,600	$ 11,811,227	$12,535,200	$ 588,600	4.9%
Total Variable and Fixed Charges				$ 44,278,700	$ 41,220,893	$43,806,500	$ (472,200)	-1.1%
Average Cost Per Acre-Foot				$ 1,578	$ 1,616	$ 1,691		

Historical Potable Water Purchases, in acre-feet



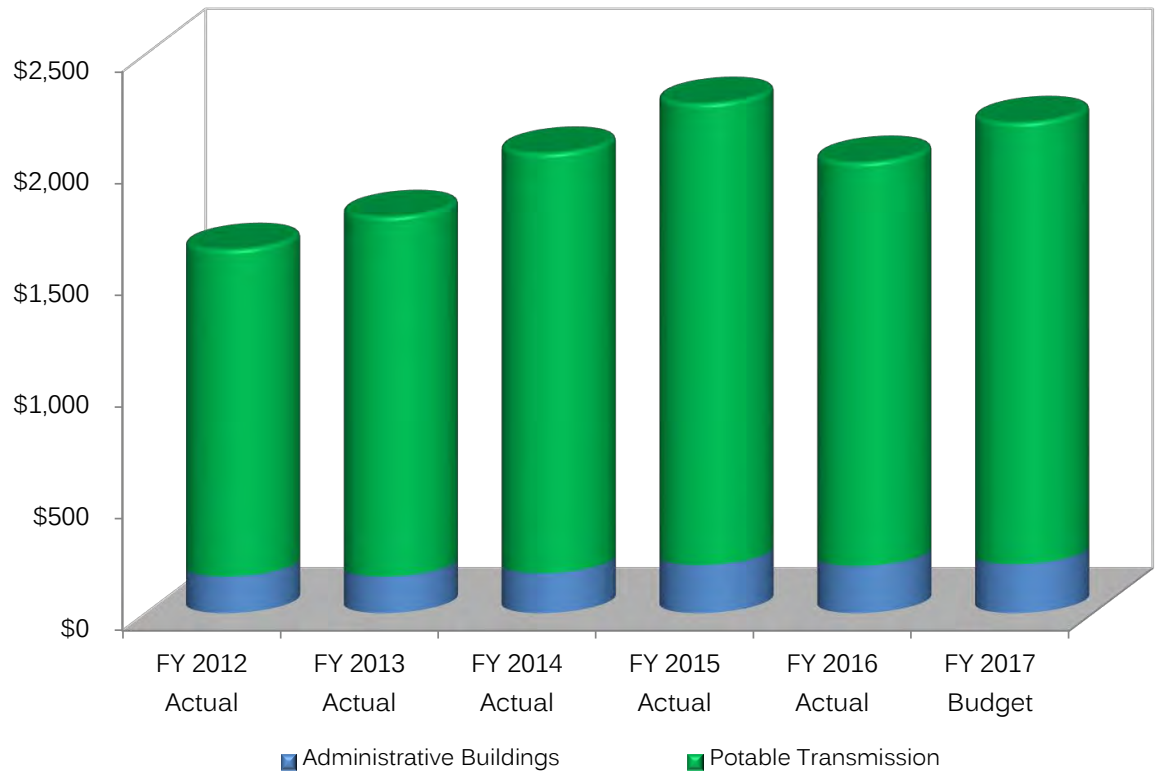
*Actual unaudited

** Excludes potable supplement to recycled system.

Power Costs - Potable

	FY 2013	FY 2014	FY 2015	FY 2016		FY 2017	Budget to Budget Variance	
	Actual			Budget	Actual*	Budget	$	%
Administrative Buildings	$ 164,785	$ 179,919	$ 216,744	$ 225,700	$ 212,448	$ 220,600	$ (5,100)	-2.3%
Potable Transmission	1,610,428	1,878,026	2,063,318	2,146,700	1,804,810	1,974,100	(172,600)	-8.0%
Total Power Costs	$ 1,775,213	$ 2,057,945	$ 2,280,062	$ 2,372,400	$ 2,017,258	$ 2,194,700	$ (177,700)	-7.5%

Historical Power Costs, in thousands ($)

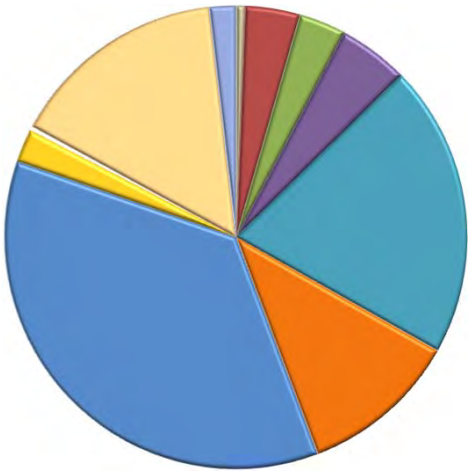


*Actual unaudited

Administrative Expenditures - Potable

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Administrative Expenditures						
Directors' Fees	$ 20,382	$ 30,000	$ 22,100	$ 33,000	$ 3,000	10.0%
Travel and Meetings	158,205	214,400	164,590	208,600	(5,800)	(2.7%)
Conservation and Outreach	144,026	176,900	150,060	177,400	500	0.3%
General Office Expense	257,756	284,700	236,868	265,500	(19,200)	(6.7%)
Equipment	1,230,413	1,106,500	1,060,303	1,109,300	2,800	0.3%
Fees	481,243	470,900	480,869	600,600	129,700	27.5%
Services	1,526,937	2,224,600	1,526,302	1,952,500	(272,100)	(12.2%)
Training	77,232	99,000	68,007	126,000	27,000	27.3%
Utilities	14,184	14,900	26,445	14,900	-	-
General Expenses	821,303	836,000	827,274	825,000	(11,000)	(1.3%)
Bad Debt Expense	91,269	148,000	107,112	99,800	(48,200)	(32.6%)
Subtotal before Overhead	4,822,950	5,605,900	4,669,930	5,412,600	(193,300)	(3.4%)
Less: Overhead Allocation	(782,314)	(740,700)	(766,460)	(822,800)	(82,100)	-
Total Expenditures	$ 4,040,636	$ 4,865,200	$ 3,903,470	$ 4,589,800	$ (275,400)	(5.7%)

FY 2017 Administrative Expenditures - Potable



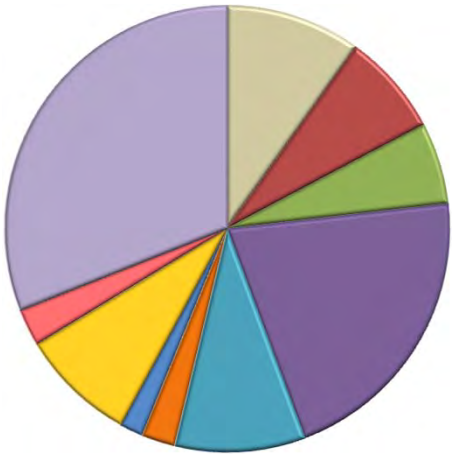
Directors' Fees	$ 33,000	0.6%
Travel and Meetings	208,600	3.9%
Conservation and Outreach	177,400	3.3%
General Office Expense	265,500	4.9%
Equipment	1,109,300	20.5%
Fees	600,600	11.1%
Services	1,952,500	36.1%
Training	126,000	2.3%
Utilities	14,900	0.3%
General Expenses	825,000	15.2%
Bad Debt Expense	99,800	1.8%
Subtotal	5,412,600	100.0%
Less: Overhead Allocation	(822,800)	
Total Administrative Expenses	$ 4,589,800	

* Actual unaudited

Materials and Maintenance Expenditures - Potable

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Materials and Maintenance						
Fuel and Oil	$ 184,027	$ 235,600	$ 129,898	207,500	$ (28,100)	(11.9%)
Meters and Materials	110,956	113,100	172,175	156,700	43,600	38.5%
Fleet Parts and Equipment	118,367	127,400	115,288	124,800	(2,600)	(2.0%)
Infrastructure Equipment & Supplies	358,197	433,500	339,849	445,700	12,200	2.8%
Chemicals	190,169	225,500	151,647	199,600	(25,900)	(11.5%)
Safety Equipment	39,343	126,300	79,156	51,000	(75,300)	(59.6%)
Laboratory Equipment and Supplies	34,655	31,000	31,458	36,300	5,300	17.1%
Other Materials and Supplies	173,865	185,200	158,587	177,200	(8,000)	(4.3%)
Building and Grounds Materials	55,375	47,900	56,663	56,000	8,100	16.9%
Contracted Services	478,442	642,800	441,968	653,800	11,000	1.7%
Total Expenditures	$ 1,743,396	$ 2,168,300	$ 1,676,689	$ 2,108,600	$ (59,700)	(2.8%)

FY 2017 Materials and Maintenance Expenditures - Potable

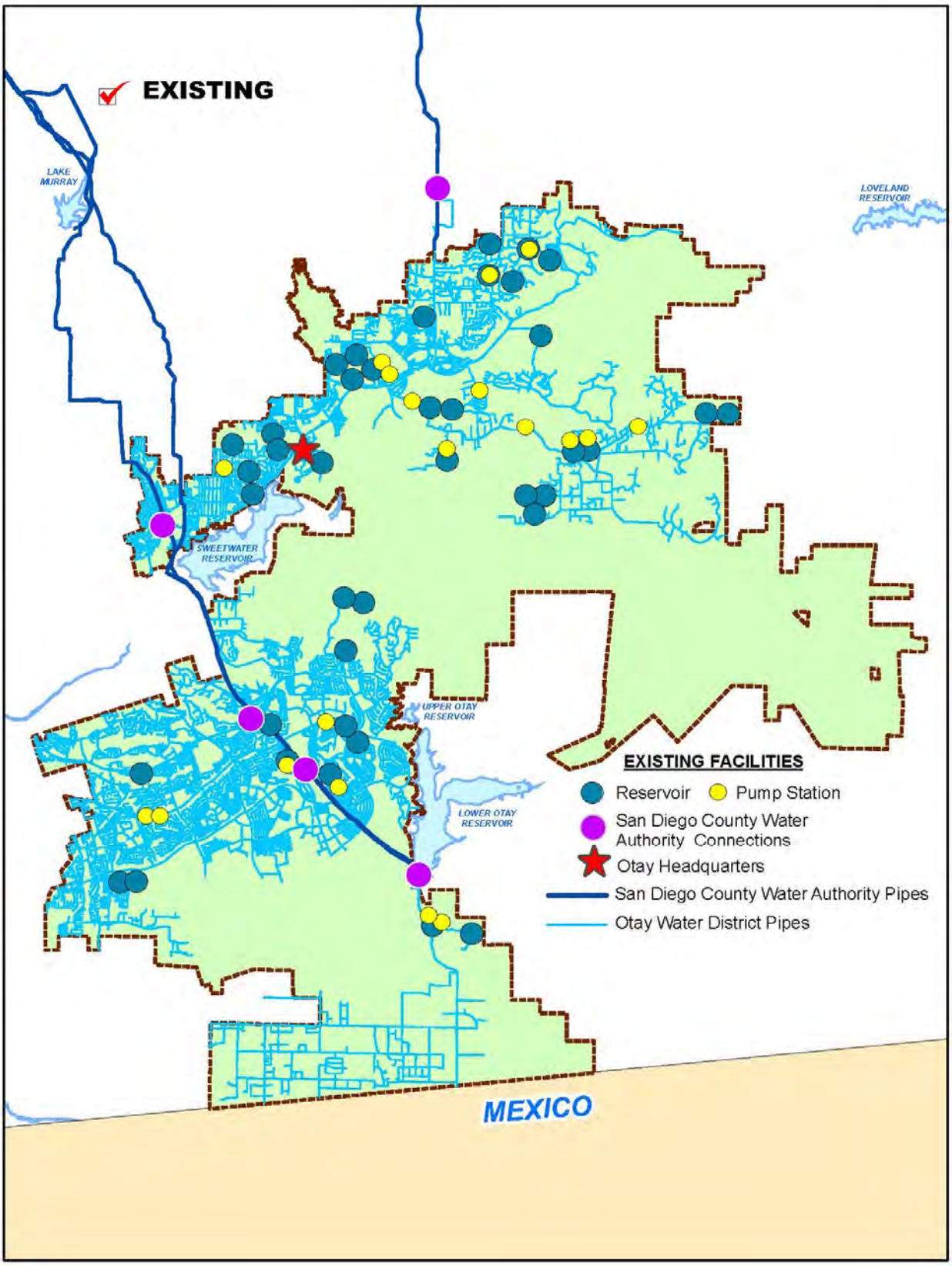


Fuel and Oil	$ 207,500	9.9%
Meters and Materials	156,700	7.4%
Fleet Parts and Equipment	124,800	5.9%
Infrastructure Equipment and Supplies	445,700	21.1%
Chemicals	199,600	9.5%
Safety Equipment	51,000	2.4%
Laboratory Equipment and Supplies	36,300	1.7%
Other Materials and Supplies	177,200	8.4%
Building and Grounds Materials	56,000	2.7%
Contracted Services	653,800	31.0%
	$ 2,108,600	100.0%

* Actuals unaudited

Intentionally Left Blank

Potable Water Service Area

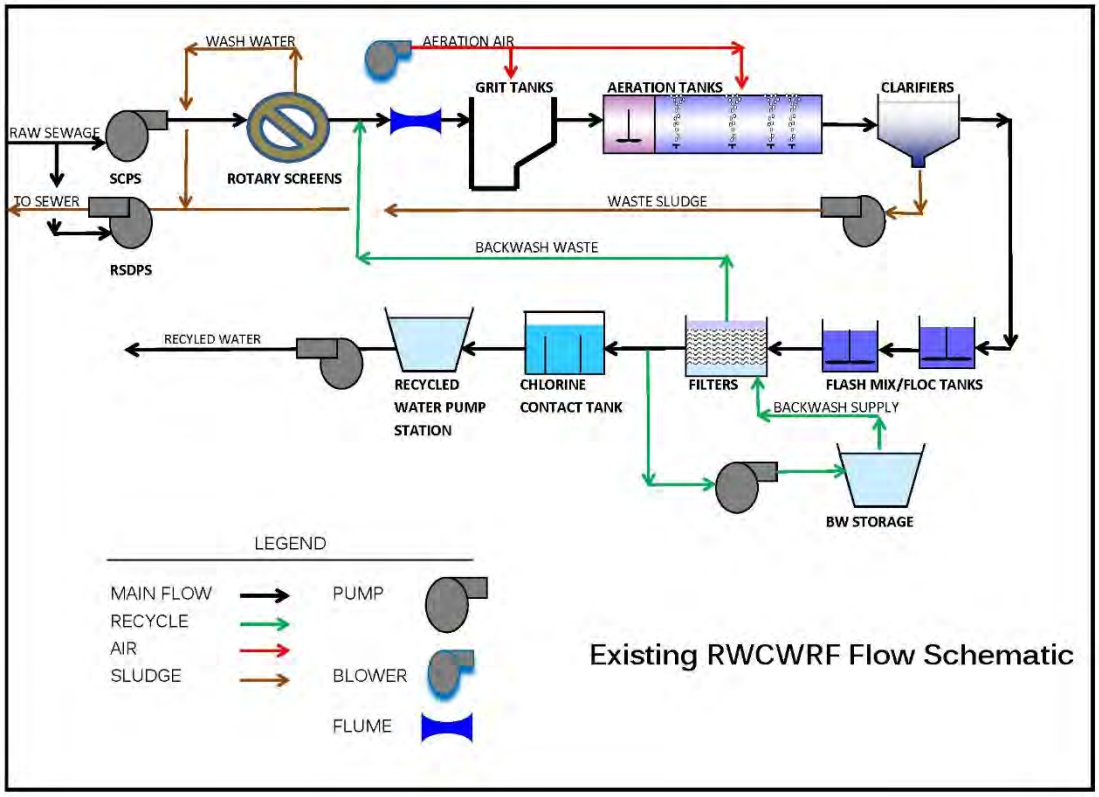


Intentionally Left Blank

Recycled Revenues and Expenditures

In 1980, the District began operation of the Ralph W. Chapman Water Recycling Facility (RWCWRF). The RWCWRF plant is capable of recycling wastewater at the rate of 1.3 million gallons per day (MGD) to augment water supplies for irrigation purposes only. The treatment process consists of primary, secondary, and tertiary treatment. The facility's conversion time to treat raw sewage to full Title 22 recycled water is approximately 20 hours.

The steps of the water recycling process are as follows:



Primary Treatment

The raw sewage flows in at the rotary screen, also known as the "headworks" which removes a large amount of coarse organic and inorganic material that is either floating or in suspension. This is followed by a grit chamber, which removes the heavy settled material.

Secondary Treatment

This is where the biological treatment begins. The first step takes place in the aeration tanks, also known as reactors or sedimentation basins, which contain bacteria that feed on the organic material in sewage. These bacteria are aerobic, and therefore require a great quantity of pumped-in air to help them thrive. The second step in the process is clarification where the sludge from the aeration tanks is allowed to settle to the bottom and the clear liquid, or secondary effluent, flows out over weirs at the surface. Some of the settled sludge is disposed of and some is returned to the aeration

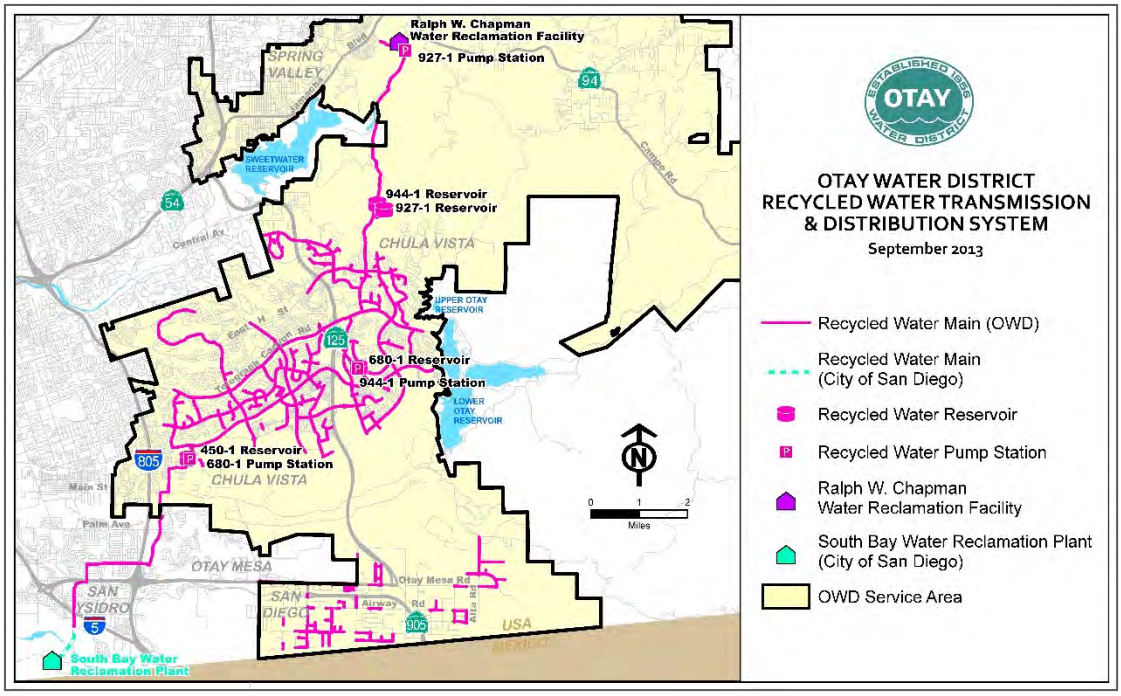
tanks to keep the process in balance. The secondary effluent flowing over the weirs is now ready for the next step. Sludge is discharged to the City of San Diego Metropolitan Wastewater (Metro) system.

Tertiary Treatment

Just before filtration, a small amount of coagulant is added as a filter aid which helps suspended material in the secondary effluent "clump" on the surface of the filters. The filters consist of a layer of sand with a layer of anthracite coal on top. As the fluid moves through the filters, the flow goes through a chlorine contact chamber where disinfection takes place, completing the process of recycling wastewater into recycled water.

The District entered an agreement with the City of San Diego in October 2003, to purchase up to six million gallons a day of recycled water from their South Bay Water Reclamation Plant (SBWRP). To bring this plan to fruition, the District constructed a 30-inch six mile pipeline, a 12 million gallon reservoir, and a pump station to bring this new source of recycled water into the District's system. These projects were completed in spring 2007 which eliminated the need for a potable supplement into the recycled system. The benefits of this to the region as a whole are great, as less demand on the potable system will be made, reducing future capacity and storage requirements. The $42 million investment in capital outlay results in a significant reduction of water purchase costs and an increase in system reliability. The District expects that 12.0% of its total water demand will be met using recycled water.

Both the RWCWRF plant, owned and operated by the District, and the SBWRP plant, owned and operated by the City of San Diego, supply the District's recycled distribution system, as shown in the diagram below.



Recycled Revenues and Expenditures

The District operates the largest recycled water distribution system in San Diego County and will supply approximately 2,459.6 acre-feet of recycled water to 710 landscaping and construction customers by the end of Fiscal Year 2017. The recycled water customer base consists primarily of irrigation at golf courses, schools, parks, and open space. The geographic area of this water use includes Eastlake, Otay Ranch, Rancho Del Rey, and other areas of eastern Chula Vista.

On January 1, 2016 the City of San Diego increased the cost of recycled water the District purchases under the 2003 agreement from $0.80 per hcf to $1.73 per hcf, which was a 116% increase and is the main reason recycled water purchases have increased $1.9 million versus the prior year budget.

Producing and distributing recycled water is costly. To help offset the costs of supplying alternative water sources, both CWA and MWD offer incentive programs. In Fiscal Year 1991, the District signed agreements with CWA and MWD to take advantage of the programs they offered. A second agreement was signed in 2000. In 2005, the District agreed to terminate both agreements and entered into a new agreement which allows the District to maximize its ability to earn incentives and to simplify the grant requirements. Currently, the District receives $200 from CWA and $185 from MWD for every acre-foot (AF) of recycled water sold.

RWCWRF – Replace 3 Return Activated Sludge (RAS) Pumps Replacement

Operating Budget Summary - Recycled

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual *	Budget	$	%
Revenues						
Recycled Water Sales	$ 8,853,010	$ 9,116,000	$ 8,527,042	$ 8,900,300	$ (215,700)	(2.4%)
Meter Fees	4,081	400	2,202	400	-	-
Interest	14,608	6,300	207	8,300	2,000	31.7%
Total Revenues	8,871,699	9,122,700	8,529,451	8,909,000	(213,700)	(2.3%)
Expenditures						
Recycled Water Purchases	1,360,807	1,705,800	2,642,437	3,615,900	1,910,100	112.0%
Power	600,799	563,600	526,842	568,900	5,300	0.9%
Labor and Benefits	1,258,945	1,181,600	1,287,606	1,339,200	157,600	13.3%
Administrative Expenses	290,362	321,800	382,368	331,200	9,400	2.9%
Materials and Maintenance	270,990	287,800	219,952	305,000	17,200	6.0%
Subtotal - Operations Costs	3,781,903	4,060,600	5,059,205	6,160,200	2,099,600	51.7%
Transfer to GF Reserve	-	-	-	1,371,800	1,371,800	100.0%
Expansion Reserve	2,538,900	2,695,800	2,695,800	455,600	(2,240,200)	(83.1%)
Betterment Reserve	725,000	1,945,000	1,945,000	835,200	(1,109,800)	(57.1%)
Replacement Reserve	1,679,000	328,000	328,000	-	(328,000)	(100.0%)
Transfer to OPEB	57,300	58,300	58,300	51,200	(7,100)	(12.2%)
Transfer to New Supply Fund	-	35,000	35,000	35,000	-	-
Subtotal - Reserve Funding	5,000,200	5,062,100	5,062,100	2,748,800	(2,313,300)	(45.7%)
Total Expenditures	8,782,103	9,122,700	10,121,305	8,909,000	(213,700)	(2.3%)
Excess Revenues/Expenditure	$ 89,596	$ -	$ (1,591,854)	$ -	$ -	-

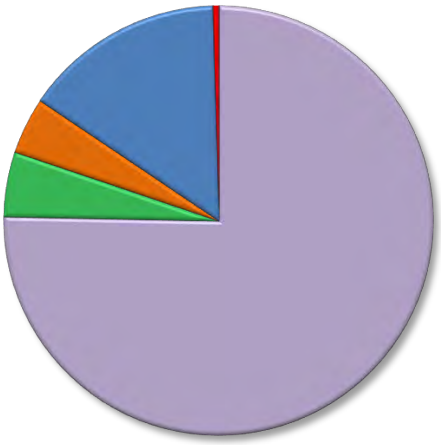
* Actual unaudited

Classification of Water Sales - Recycled

	FY 2015	FY 2016		FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Water Sales	$ 6,412,122	$ 6,694,500	$ 6,240,661	$ 6,702,300	$ 7,800	0.1%
System Fees	431,121	464,300	471,962	432,800	(31,500)	-6.8%
Energy Fees	369,302	399,200	379,026	379,100	(20,100)	-5.0%
MWD and CWA Rebates	1,611,764	1,522,900	1,396,472	1,351,000	(171,900)	-11.3%
Penalties	28,701	35,100	38,921	35,100	-	0.0%
Total Recycled Water Sales	$ 8,853,010	$ 9,116,000	$ 8,527,042	$ 8,900,300	$ (215,700)	-2.4%

FY 2017 Classification of Water Sales

Water Sales	$ 6,702,300	75.4%
System Fees	432,800	4.9%
Energy Fees	379,100	4.3%
MWD and CWA Rebates	1,351,000	15.2%
Penalties	35,100	0.2%
	$ 8,900,300	100.0%



Water Sales: Water rates vary among classes of service and are charged per unit of water. A unit of water is equal to 100 cubic feet of water. On January 1, 2009, the District implemented a tiered rate structure for all customer types to encourage conservation and bring equity among the classes.

System Fees: Each water service customer pays a monthly system charge for water system replacement, maintenance, and operation expenses. The charge is based on the size of the meter.

Energy Fees: The energy pumping fee is $ .044 per 100 cubic feet of water for each 100 feet of lift above the elevation of 450 feet. All water customers are in one of 29 zones based on elevation.

MWD and CWA Rebates: Incentive from MWD and CWA for providing recycled water. The District receives $200 from CWA and $185 from MWD for every acre-foot (AF) of recycled water sold.

Penalties: Charges and penalties are imposed on customer accounts for late payments and returned checks.

*Actual unaudited

Water Sales Summary by Meter Size - Recycled

	Water Rates		FY 2017		
	Current	Approved [1]	Accounts	Unit Sales	Budget
Recycled .75" and 1.0" Meter			102	47,600	$ 209,200
0 - 32 units	$ 4.08	$ 4.85			
33 - 75 units	4.14	4.92			
over 76 units	4.20	4.99			
Recycled 1.5" and 2.0" Meter			590	1,044,700	4,607,500
0 - 130 units	4.08	4.85			
131 - 325 units	4.14	4.92			
over 326 units	4.20	4.99			
Recycled 3.0" and 4.0" Meter			11	81,000	358,300
0 - 440 units	4.08	4.85			
441 - 1,050 units	4.14	4.92			
over 1,051 units	4.20	4.99			
Recycled more than 6.0" Meter			1	53,700	236,500
0 - 4,000 units	4.08	4.85			
4,001 - 10,000 units	4.14	4.92			
over 10,000 units	4.20	4.99			
Recycled Temporary 3.0" and 4.0" Meter				40,000	177,600
0 - 440 units	4.08	4.85	3		
441 - 1,050 units	4.14	4.92			
over 1,051 units	4.20	4.99			
Recycled Temporary more than 6.0" Meter			1	19,300	85,700
0 - 4,000 units	4.08	4.85			
4,001 - 10,000 units	4.14	4.92			
over 10,000 units	4.20	4.99			
Recycled Commercial <10" Meter			1	108,100	357,800
0 - 173 units	2.97	3.53			
174 - 831 units	3.03	3.60			
over 832 units	3.07	3.65			
Recycled Commercial >10" Meter			1	134,100	432,200
0 - 7,426 units	2.97	3.53			
7,427 - 14,616 units	3.03	3.60			
over 14,617 units	3.07	3.65			
Total			710	1,528,500	$ 6,464,800
Government Fee	0.37	0.41	-	-	237,500
Total Water Sales			710	1,528,500	$ 6,702,300

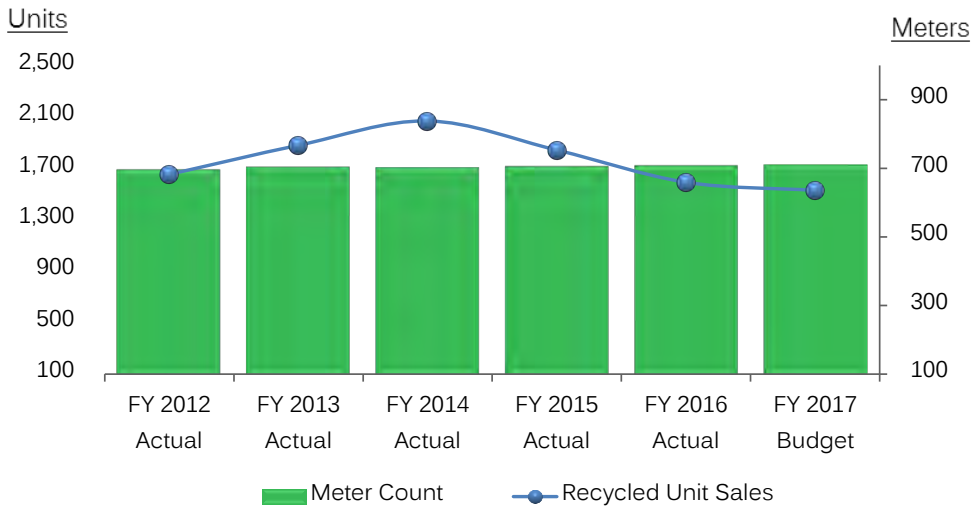
[1] Approved rates for water billed beginning in January 2017.

Unit Sales History and Meter Count by Customer Class - Recycled

	FY 2013	FY 2014	FY 2015	FY 2016		FY 2017
	Actual			Budget	Actual	Budget
Recycled .75" & 1.0" Meter	59,698	68,523	63,142	49,300	52,258	47,600
Recycled 1.5" & 2.0" Meter	1,366,238	1,474,879	1,365,116	1,253,400	1,067,391	1,044,700
Recycled 3.0" & 4.0" Meter	100,991	115,794	103,125	87,100	91,711	81,000
Recycled > 6.0" Meter	352,023	363,760	192,003	214,700	50,140	53,700
Recycled-Temp 3" & 4" Meter	-	18,592	-	-	56,376	40,000
Recycled-Temp > 6" Meter	-	26,782	-	-	39,471	19,300
Recycled Commercial <10" Meter	-	-	67,010	67,000	100,000	108,100
Recycled Commercial >10" Meter	-	-	51,560	51,600	134,330	134,100
Total Unit Sales	1,878,950	2,068,330	1,841,956	1,723,100	1,591,677	1,528,500

	FY 2013	FY 2014	FY 2015	FY 2016		FY 2017
	Actual			Budget	Actual	Budget
Recycled .75" & 1.0" Meter	103	100	101	101	102	102
Recycled 1.5" & 2.0" Meter	587	588	590	591	588	590
Recycled 3.0" & 4.0" Meter	11	11	11	11	11	11
Recycled > 6.0" Meter	3	1	1	1	1	1
Recycled-Temp 3" & 4" Meter	-	1	-	-	3	3
Recycled-Temp > 6" Meter	-	1	-	-	1	1
Recycled Commercial <10" Meter	-	-	1	1	1	1
Recycled Commercial >10" Meter	-	-	1	1	1	1
Total Meter Count	704	702	705	706	708	710

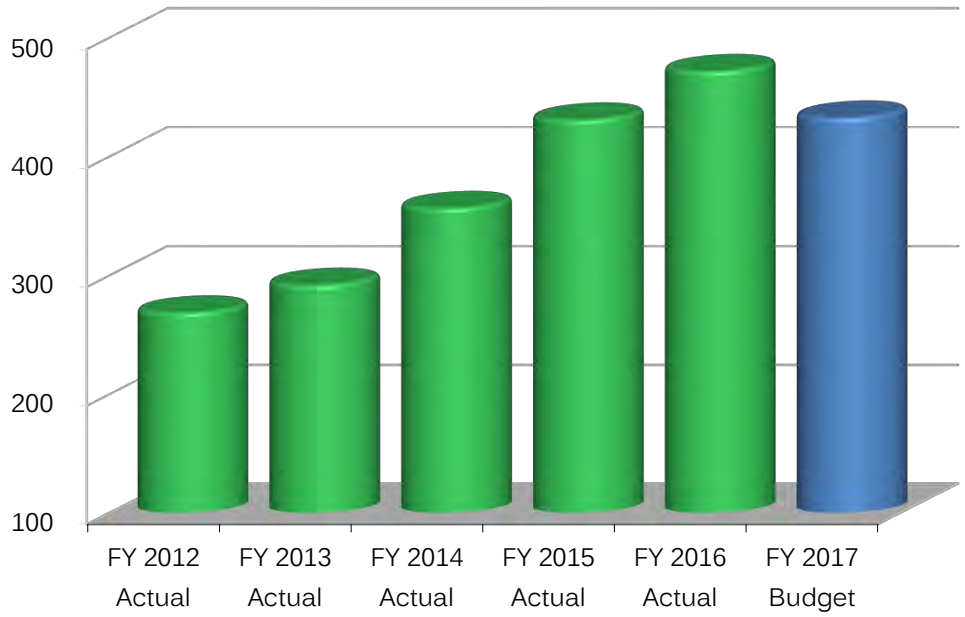
Unit Sales in thousands ($) and Meter Count Trends



System Fees - Recycled

	FY 2017	System Fees		FY 2016	FY 2017	Budget to Budget Variance	
Meter Size	Meter Count	Current	Approved[1]	Budget	Budget	$	%
0.75	2	$ 18.91	$ 15.91	$ 500	$ 400	$ (100)	-20.0%
1.00	100	26.71	22.47	32,100	29,500	(2,600)	-8.1%
1.50	395	46.22	38.88	222,400	201,700	(20,700)	-9.3%
2.00	195	69.61	58.55	165,000	149,900	(15,100)	-9.2%
3.00	4	132.02	111.04	6,400	5,800	(600)	-9.4%
4.00	10	202.24	170.10	17,200	22,300	5,100	29.7%
6.00	3	397.31	334.18	9,700	13,200	3,500	36.1%
8.00	-	631.37	531.05	-	-	-	0.0%
10.00	1	904.44	760.72	11,000	10,000	(1,000)	-9.1%
Total	710			$ 464,300	$ 432,800	$ (31,500)	-6.8%

Historical System Fees, in thousands ($)

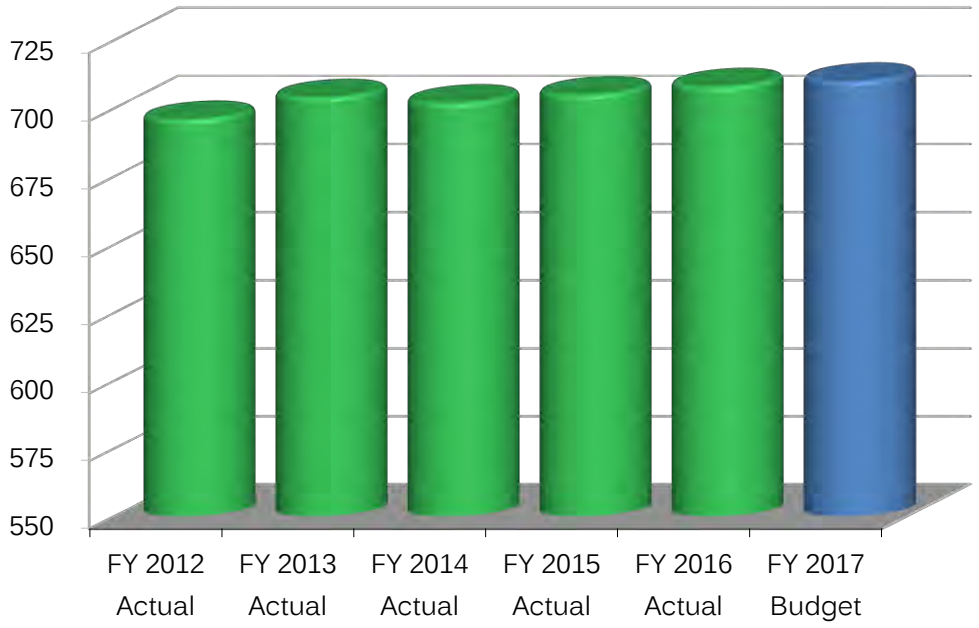


[1] Approved rates for water billed beginning in January 2017.

Meter Fees - Recycled

	FY 2017				
Meter Size	Meter Sales	Installation Fee	Meter Fee	Total Fees	Budget
0.75	-	$ 103.90	$ 218.94	$ 322.84	$ -
1.00	1	103.90	282.52	386.42	400
1.50	-	103.90	459.21	563.11	-
2.00	-	103.90	658.00	761.90	-
3.00	-	625.55	2,050.60	2,676.15	-
4.00	-	625.55	3,561.56	4,187.11	-
6.00	-	988.10	6,151.79	7,139.89	-
8.00	-	1,515.16	7,686.20	9,201.36	-
10.00	-	1,515.16	11,054.19	12,569.35	-
Total	1				$ 400

Historical Meter Count

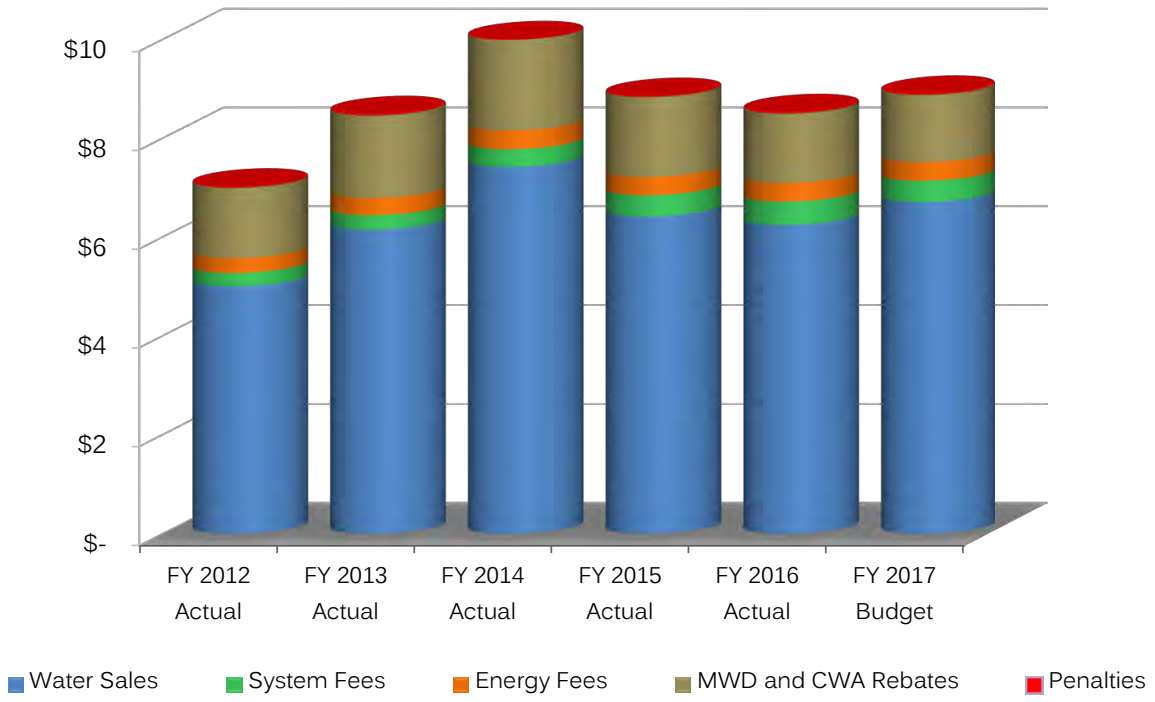


Meter Fees: Charges collected for new water service connections. Fees vary depending upon meter size and type of service. The costs associated with meter installations are included in the Operating Expenses section of the budget. These charges are funded by developers.

Revenue History - Recycled

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016*	FY 2017
	Actual					Budget
Water Sales	$ 4,999,441	$ 6,148,619	$ 7,416,631	$ 6,412,122	$ 6,240,661	$ 6,702,300
System Fees	268,937	292,201	356,806	431,121	471,962	432,800
Energy Fees	303,867	346,064	383,513	369,302	379,026	379,100
MWD and CWA Rebates	1,413,335	1,660,736	1,828,134	1,611,764	1,396,472	1,351,000
Penalties	33,323	40,867	29,682	28,701	38,921	35,100
Total Recycled Revenues	$ 7,018,903	$ 8,488,487	$ 10,014,766	$ 8,853,010	$ 8,527,042	$ 8,900,300

Revenue History - Recycled, in millions ($)

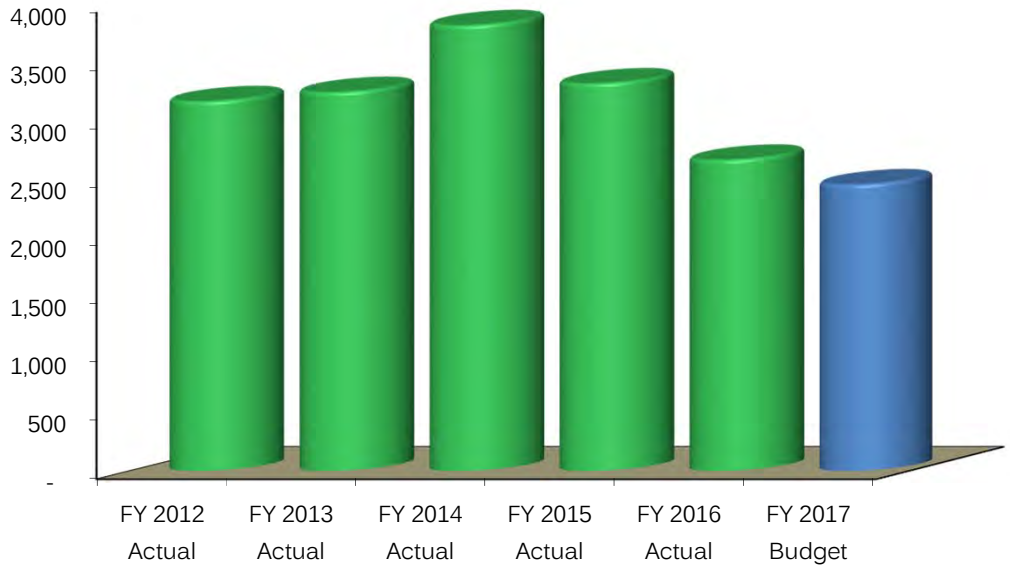


*Actual unaudited

Water Purchases - Recycled

	FY 2016		FY 2017	FY 2016		FY 2017	Budget to Budget	
	Acre Feet			Purchase Costs			Variance	
	Budget	Actual	Budget	Budget	Actual*	Budget	$	%
Rate Per Acre Feet				**$ 348.00**	**$ 487.74**	**$ 756.00**	**$ 408.00**	**117.2%**
Recycled Water Purchases	2,906.4	2,670.2	2,459.6	$ 949,900	$ 1,417,576	$ 1,859,300	$ 909,400	95.7%
Meter Fee $1,333.75 monthly				19,800	17,841	16,000	(3,800)	-19.2%
Take-or-pay contract [1]	1,910.8	1,804.0	2,302.4	736,100	1,176,358	1,740,600	1,004,500	136.5%
Potable Supplement	-	26.8	-	-	30,662	-	-	-
Total	4,817.2	4,501.0	4,762.0	$ 1,705,800	$ 2,642,437	$ 3,615,900	$ 1,910,100	112.0%
Average Cost Per Acre-Foot (Effective Rate)				$ 586.91	$ 989.62	$ 1,470.10		

HISTORICAL RECYCLED WATER PURCHASES, IN ACRE-FEET



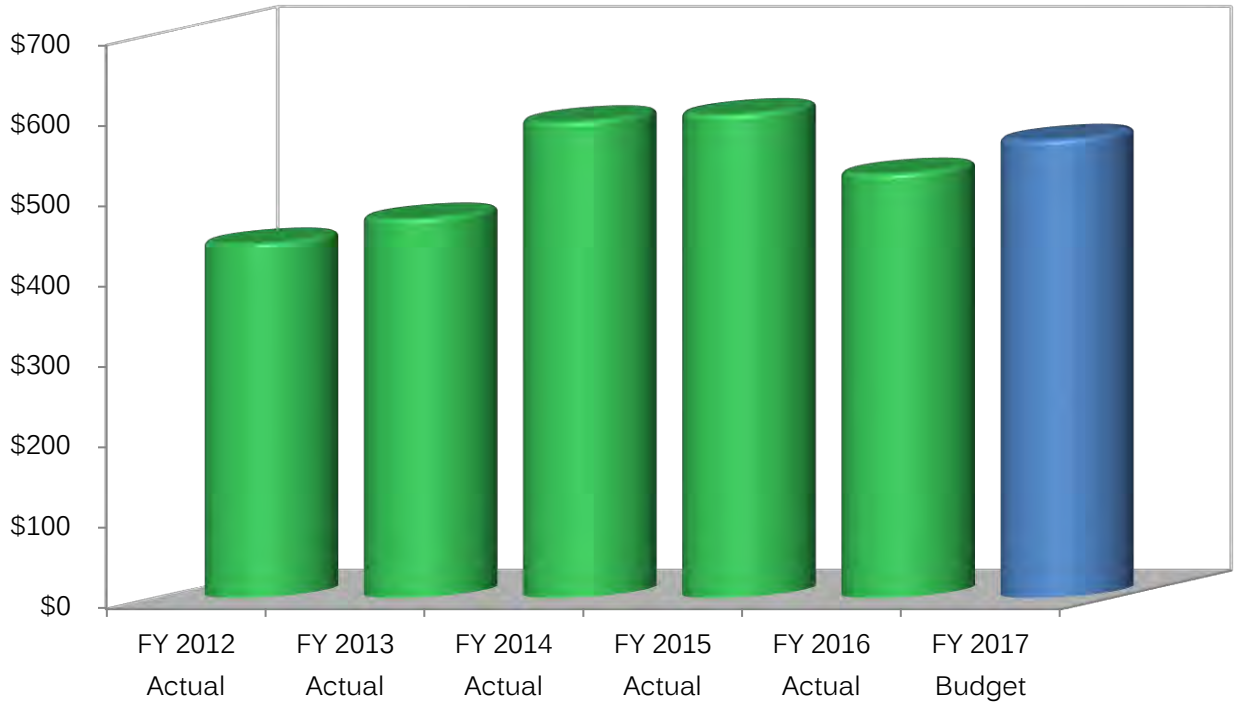
[1] This is the anticipated take-or-pay amount to be paid to the City of San Diego. The contract requires the purchase of a minimum volume of water. The District does not anticipate meeting the minimum therefore, a payment would be due the City of San Diego.

*Actual unaudited

Power Costs - Recycled

	FY 2013	FY 2014	FY 2015	FY 2016		FY 2017	Budget to Budget Variance	
	Actual			Budget	Actual*	Budget	$	%
Total Power Cost	$ 471,139	$ 591,883	$ 600,799	$ 563,600	$ 526,842	$ 568,900	$ 5,300	0.9%

Historical Power Costs, in thousands ($)

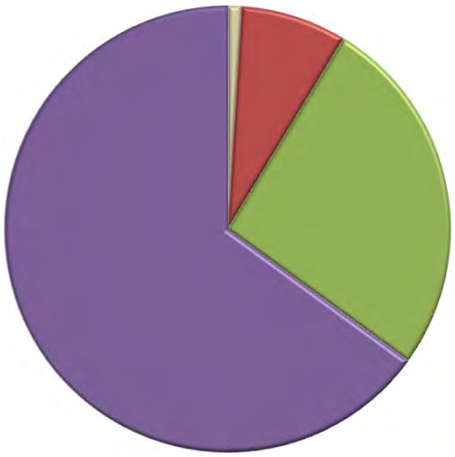


*Actual unaudited

Administrative Expenditures - Recycled

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Administrative Expenditures						
Equipment	$ -	$ 1,300	$ 2,286	$ 3,300	$ 2,000	153.8%
Fees	25,587	25,600	24,347	25,500	(100)	(0.4%)
Services	57,491	105,200	144,308	87,200	(18,000)	(17.1%)
Subtotal before Overhead	83,078	132,100	170,941	116,000	(16,100)	(12.2%)
Add: Overhead Allocation	207,284	189,700	211,427	215,200	25,500	13.4%
Total Expenditures	$ 290,362	$ 321,800	$ 382,368	$ 331,200	$ 9,400	2.9%

FY 2017 Administrative Expenditures - Recycled



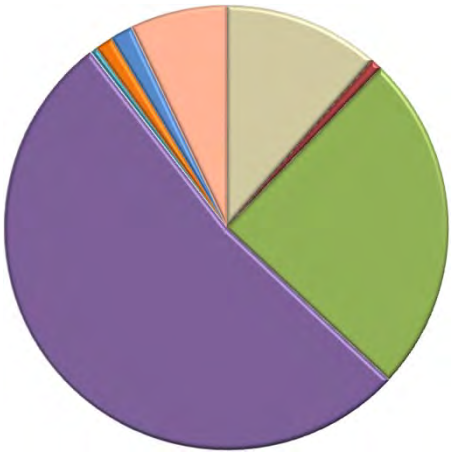
Equipment	$ 3,300	1.0%
Fees	25,500	7.7%
Services	87,200	26.3%
Overhead Allocation	215,200	65.0%
	$ 331,200	100.0%

* Actual unaudited

Materials and Maintenance Expenditures - Recycled

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Materials and Maintenance						
Fuel and Oil	$ 12,370	$ 15,000	$ 11,921	$ 34,800	$ 19,800	132.0%
Meters and Materials	865	700	3,927	2,500	1,800	257.1%
Infrastructure Equipment & Supplies	81,933	72,000	66,601	75,400	3,400	4.7%
Chemicals	154,979	170,600	112,514	160,200	(10,400)	(6.1%)
Safety Equipment	1,386	1,000	1,999	1,500	500	50.0%
Laboratory Equipment and Supplies	3,971	4,000	3,667	4,000	-	-
Other Materials and Supplies	3,439	5,200	2,519	5,000	(200)	(3.8%)
Contracted Services	12,047	19,300	16,804	21,600	2,300	11.9%
Total Expenditures	$ 270,990	$ 287,800	$ 219,952	$305,000	$ 17,200	6.0%

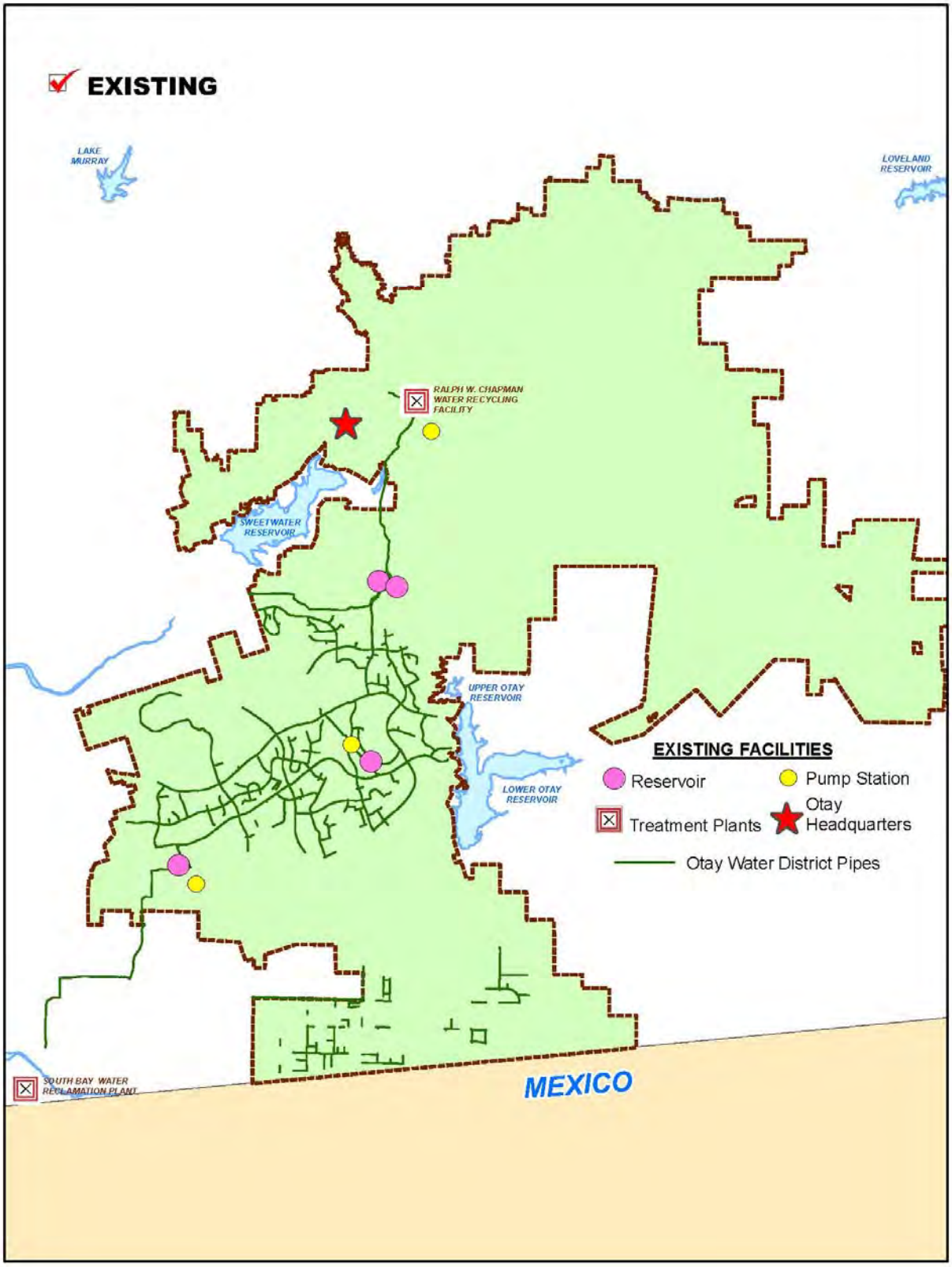
FY 2017 Materials and Maintenance Expenditures - Recycled



Fuel and Oil	$ 34,800	11.4%
Meters and Materials	2,500	0.8%
Infrastructure Equipment & Supplies	75,400	24.7%
Chemicals	160,200	52.6%
Safety Equipment	1,500	0.5%
Laboratory Equipment and Supplies	4,000	1.3%
Other Materials and Supplies	5,000	1.6%
Contracted Services	21,600	7.1%
	$ 305,000	100.0%

* Actual unaudited

Recycled Water Service Area



Intentionally Left Blank

Sewer Revenues and Expenditures

The District provides sewer service to approximately 15,200 customers through 4,677 accounts located in the northern section of the District. The District operates and maintains the sewage collection system serving Rancho San Diego, Singing Hills, and portions of Mount Helix, all within the Upper Sweetwater River Basin. This basin is also known as the Jamacha Basin. Residential customers comprise 98.4% of the customer base. Modest growth of 0.33% is anticipated in Fiscal Year 2017.

Wastewater collection within the Jamacha Basin is provided by two agencies: the Otay Water District and the County of San Diego, (formerly the Spring Valley Sanitation District). Customers in the basin, not served by either agency, dispose of their sewage through septic tanks. After the sewage has been collected, it is sent to the District's Ralph W. Chapman Water Recycling Facility (RWCWRF) treatment plant where the District produces recycled water, see page 93 outlining the sewer process. The by-product of the treatment process is called sludge and it is discharged through County's transmission system into the City of San Diego Metropolitan Wastewater (Metro) systems.

The District is a member of Metro Wastewater Joint Powers Authority and shares in the use of the City of San Diego's regional wastewater facilities. A significant amount of the sewer operation costs is for sewer service charges from the Metro Wastewater JPA which is budgeted at $655,000 for Fiscal Year 2017. Additionally, the District Is budgeted to pay $180,200 for its share of the operation and maintenance cost of the Rancho San Diego Outfall and the Spring Valley Outfall to transport sewage to Metro for Fiscal Year 2017.

To meet State of California requirements, customers must pay their fair share of sewer costs. The District is required to set sewer rates in accordance with the State's Revenue Program Guidelines. During Fiscal Year 2013, the District performed a Cost of Service Study and Rate Study (i.e. reviewed rates, fees, charges, costs, and the usage structure) and determined that increases in rates, fees, and charges were necessary in order to recover sufficient revenues to operate and maintain the public sewer system.

Sewer bills are based on the rate of discharge and the strength. Due to their higher discharge and strength, non-residential customers (comprising 1.6% of the customer base) comprise 12.0% of the total sewer charges. The formula for sewer rates is shown on pages 117-118.

Operating Budget Summary - Sewer

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual *	Budget	$	%
Revenues						
Sewer Revenues	$ 3,009,634	$ 3,206,300	$ 3,149,295	$ 2,918,900	$ (287,400)	(9.0%)
Capacity Fee Revenues	7,510	-	4,528	-	-	-
Tax Revenues	44,553	51,600	72,469	51,600	-	-
Non-operating Revenues	33,760	37,200	881,549	35,500	(1,700)	(4.6%)
Interest	8,727	8,200	1,523	4,300	(3,900)	(47.6%)
Transfer from Potable General Fund	553,800	-	-	-	-	-
Total Revenue	3,657,984	3,303,300	4,109,364	3,010,300	(293,000)	(8.9%)
Expenditures						
Power	167,475	176,800	153,815	174,400	(2,400)	(1.4%)
Labor and Benefits	764,133	681,300	884,853	979,300	298,000	43.7%
Administrative Expenses	172,992	200,800	224,541	229,100	28,300	14.1%
Materials and Maintenance	1,325,391	1,156,700	1,206,534	1,042,700	(114,000)	(9.9%)
Subtotal - Operations Costs	2,429,991	2,215,600	2,469,743	2,425,500	209,900	9.5%
Transfer to General Fund Reserve	-	-		196,100	196,100	100.0%
Betterment Reserve	-	455,000	455,000	351,200	(103,800)	(22.8%)
Replacement Reserve	916,200	599,100	599,100	-	(599,100)	(100.0%)
Transfer to OPEB	43,800	33,600	33,600	37,500	3,900	11.6%
Subtotal - Reserve Funding	960,000	1,087,700	1,087,700	584,800	(502,900)	(46.2%)
Total Expenditures	3,389,991	3,303,300	3,557,443	3,010,300	(293,000)	(8.9%)
Excess Revenue/(Expenditures)	$ 267,993	$ -	$ 551,921	$ -	$ -	-

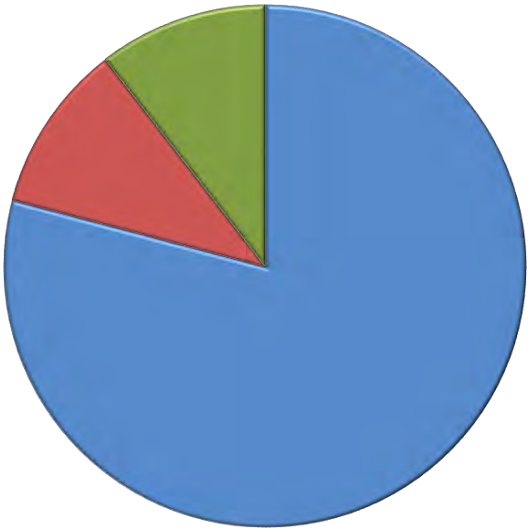
* Actual unaudited

Charges Summary by Service Class - Sewer

	FY 2017	Usage Fee		FY 2016		FY 2017	Budget to Budget Variance	
	Accounts	Current	Approved[1]	Budget	Actual*	Budget	$	%
Residential	4,552	$ 2.46	$ 2.58	$ 1,572,800	$ 1,648,752	$ 1,429,300	$ (143,500)	-9.1%
Multi-Residential	50	2.46	2.58	187,700	220,491	188,600	900	0.5%
Commercial								
Low Strength	45	2.46	2.58	53,300	13,063	48,400	(4,900)	-9.2%
Medium Strength	13	3.53	3.70	33,600	43,739	15,400	(18,200)	-54.2%
High Strength	7	5.63	5.90	17,500	22,878	30,200	12,700	72.6%
Schools	6	2.46	2.58	109,900	167,240	84,600	(25,300)	-23.0%
Churches	4	2.46	2.58	8,500	9,944	10,400	1,900	22.4%
Subtotal Commercial	75			222,800	256,864	189,000	(33,800)	-15.2%
Total Sewer Charges	4,677			$ 1,983,300	$ 2,126,107	$ 1,806,900	$ (176,400)	-8.9%

FY 2017 Charges Summary by Service Class

Single-Family	$ 1,429,300	79.1%
Multi-Family	188,600	10.4%
Commercial	189,000	10.5%
	$ 1,806,900	100.0%



[1] Approved rates for sewer service beginning in January 2017.

* Actual unaudited

System Fees - Sewer

	FY 2017	Current	Approved [1]	FY 2016		FY 2017	Budget to Budget Variance	
Meter Size	Accounts	Rates	Rates	Budget	Actual*	Budget	$	%
Residential	4,552	$ 17.19	$ 15.89	$ 824,900	$ 829,120	$ 903,400	$ 78,500	9.5%
Multi-Residential/Commercial								
0.75	22	27.07	28.37	6,700	6,497	7,300	600	9.0%
1.00	6	39.89	41.80	2,800	2,393	2,900	100	3.6%
1.50	20	71.82	75.27	16,800	16,375	17,600	800	4.8%
2.00	63	110.17	115.46	81,400	80,644	85,300	3,900	4.8%
3.00	6	199.66	209.24	14,000	14,376	14,800	800	5.7%
4.00	6	327.51	343.23	23,000	23,581	24,200	1,200	5.2%
6.00	1	647.12	678.18	7,600	7,765	8,000	400	5.3%
8.00	-	1,030.67	1,080.14	-	-	-	-	
10.00	1	1,478.12	1,549.07	17,300	17,737	18,200	900	5.2%
Total System Fee	4,677			$ 994,500	$ 998,488	$ 1,081,700	$ 87,200	

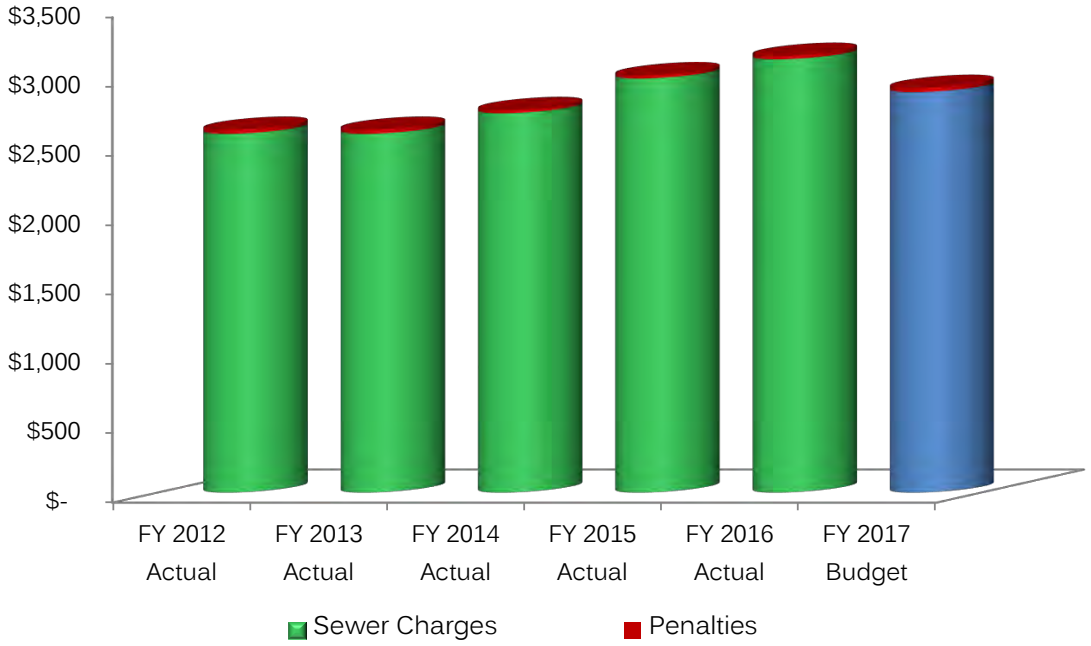
[1] Approved rates for system fees beginning in January 2017.

*Actual unaudited

Revenue History - Sewer

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016*	FY 2017
	Actual					Budget
Sewer Charges	$ 2,368,192	$ 2,588,991	$ 2,736,867	$ 2,986,734	$ 3,124,595	$ 2,888,600
Penalties	27,173	29,300	21,000	22,900	24,700	30,300
Total	$ 2,395,365	$ 2,618,291	$ 2,757,867	$ 3,009,634	$ 3,149,295	$ 2,918,900

Revenue History - Sewer, in thousands ($)

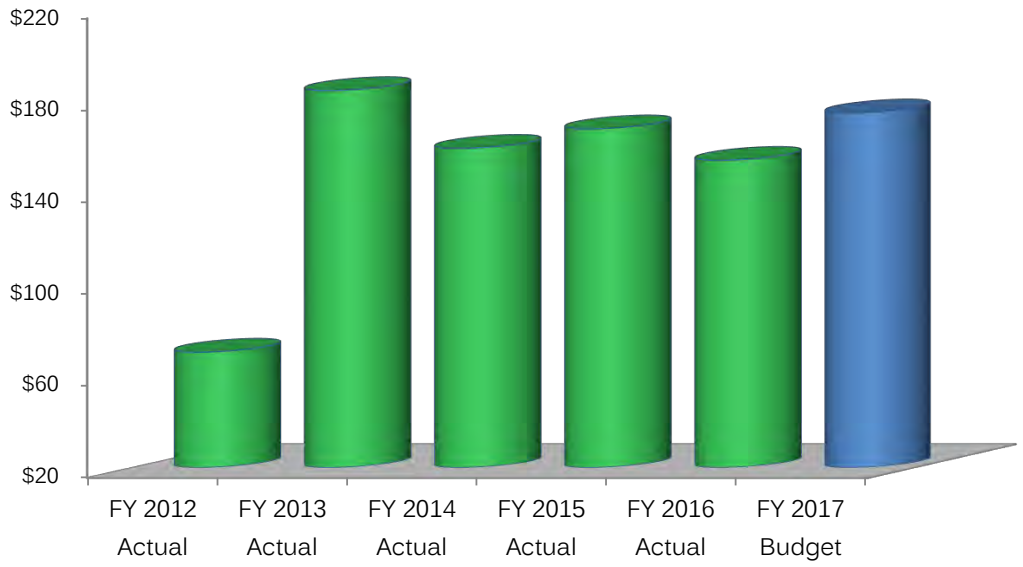


*Actual unaudited

Power Costs - Sewer

	FY 2013	FY 2014	FY 2015	FY 2016		FY 2017	Budget to Budget Variance	
	Actual			Budget	Actual*	Budget	$	%
Total Power Cost	$ 184,108	$ 159,018	$ 167,475	$ 176,800	$ 153,815	$ 174,400	$ (2,400)	-1.4%

Historical Power Costs, in thousands ($)

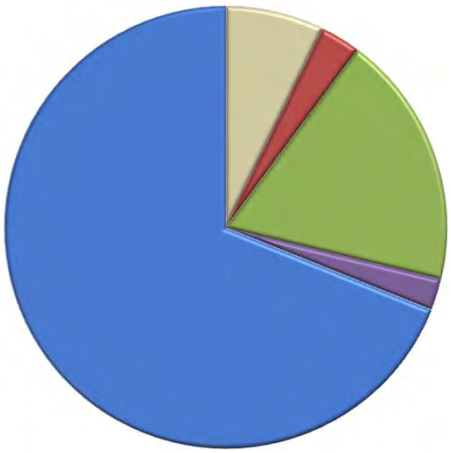


*Actual unaudited

Administrative Expenditures - Sewer

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Administrative Expenditures						
Equipment	$ 3,575	$ 4,500	$ 86	$ 16,500	$ 12,000	266.7%
Fees	6,715	2,500	4,067	6,700	4,200	168.0%
Services	35,508	80,000	65,142	42,700	(37,300)	(46.6%)
Bad Debt Expense	2,222	7,000	7,108	5,200	(1,800)	(25.7%)
Total	48,020	94,000	76,403	71,100	(22,900)	(24.4%)
Add: Overhead Allocation	124,972	106,800	148,138	158,000	51,200	47.9%
Total Expenditures	$ 172,992	$ 200,800	$ 224,541	$ 229,100	$ 28,300	14.1%

FY 2017 Administrative Expenditures - Sewer



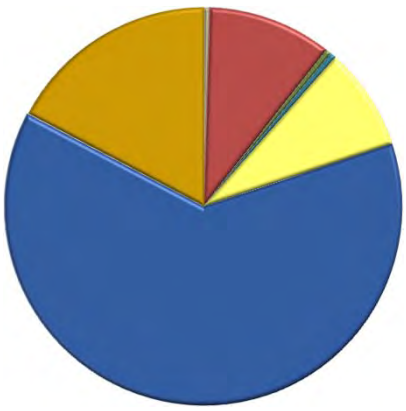
Equipment	$ 16,500	7.2%
Fees	6,700	2.9%
Services	42,700	18.6%
Bad Debt Expense	5,200	2.3%
Overhead Allocation	158,000	69.0%
	$ 229,100	100.0%

* Actual unaudited

Materials and Maintenance Expenditures - Sewer

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Materials and Maintenance						
Fleet Parts and Equipment	$ 4,689	$ 1,500	$ 7,504	$ 5,000	$ 3,500	233.3%
Infrastructure Equipment & Supplies	72,609	115,800	99,019	105,600	(10,200)	(8.8%)
Chemicals	4,507	4,500	4,519	4,500	-	-
Safety Equipment	44	-	-	-	-	-
Laboratory Equipment and Supplies	5,221	5,000	4,852	5,000	-	-
Other Materials and Supplies	2,884	100	123	100	-	-
Contracted Services	26,924	33,400	59,350	87,300	53,900	161.4%
Subtotal Materials and Maintenance	116,878	160,300	175,367	207,500	47,200	29.4%
Sewer Charges						
Metro O&M Costs	1,020,276	815,000	812,536	655,000	(160,000)	(19.6%)
Spring Valley Sewer Charge	188,237	181,400	218,631	180,200	(1,200)	(0.7%)
Subtotal Sewer Charges	1,208,513	996,400	1,031,167	835,200	(161,200)	(16.2%)
Total Expenditures	$ 1,325,391	$ 1,156,700	$1,206,534	$1,042,700	$ (114,000)	(9.9%)

FY 2017 Materials and Maintenance Expenditures - Sewer



Fleet Parts and Equipment	$ 5,000	0.5%
Infrastructure Equipment & Supplies	105,600	10.1%
Chemicals	4,500	0.4%
Laboratory Equipment & Supplies [1]	5,100	0.5%
Contracted Services	87,300	8.4%
Metro O&M Costs	655,000	62.8%
Spring Valley Sewer Charge	180,200	17.3%
	$ 1,042,700	100.0%

[1] Includes Other Materials & Supplies.

* Actual unaudited

Formula for Sewer Rates

To meet State of California requirements, customers must pay their fair share of sewer costs. The District is required to set sewer rates in accordance with the State's Revenue Program Guidelines.

Residential and Multi-Residential Sewer Service

To estimate sewer use, the District averages metered water use for the winter months of January through April. A "winter average" is the basis of the sewer charges for the entire year. The winter months are the best time to average water use because less water is used outdoors and most of the water used flows to the sewer system. The District gives customers a 15.0% usage discount to acknowledge that not all water purchased goes to the sewer system. The maximum consumption charge is based on 30 units.

The following is the sewer bill formula for residential and multi-residential customers:

(Winter Average x 85% x Usage Fee) + System Fee

The current usage fee and system fee for single-family residential customers $2.46 and $17.19, respectively. Effective January 1, 2017 the usage fee and system fee will be $2.58 and $15.89, respectfully.

The current usage fee for multi-residential customers is $2.46 and will increase to $2.58 for the calendar year 2017. The system fee for multi-residential is based on meter size and is shown on page 112.

Commercial and Industrial Sewer Service

To estimate sewer use, the District averages metered water use. An "average annual consumption" is the basis of the sewer charges for the entire year. The average annual consumption is defined as the units of water billed from January through December of the previous year. The District gives customers a 15.0% usage discount to acknowledge that not all water purchased goes to the sewer system.

The following is the sewer bill formula for commercial and industrial customers:

(Average Annual Consumption x 85% x Usage Fee x Strength Factor) + System Fee

The District calculates the monthly bill based on the customer's water use, sewer strength and the size of the customer's water meter which is more equitable among customer classes. The rates and charges by meter size are shown on page 112.

The District is required to determine sewer rates in accordance with the State's Revenue Program Guidelines. The State Water Resources Control Board (SWRCB) has grouped commercial customers

Formula for Sewer Rates

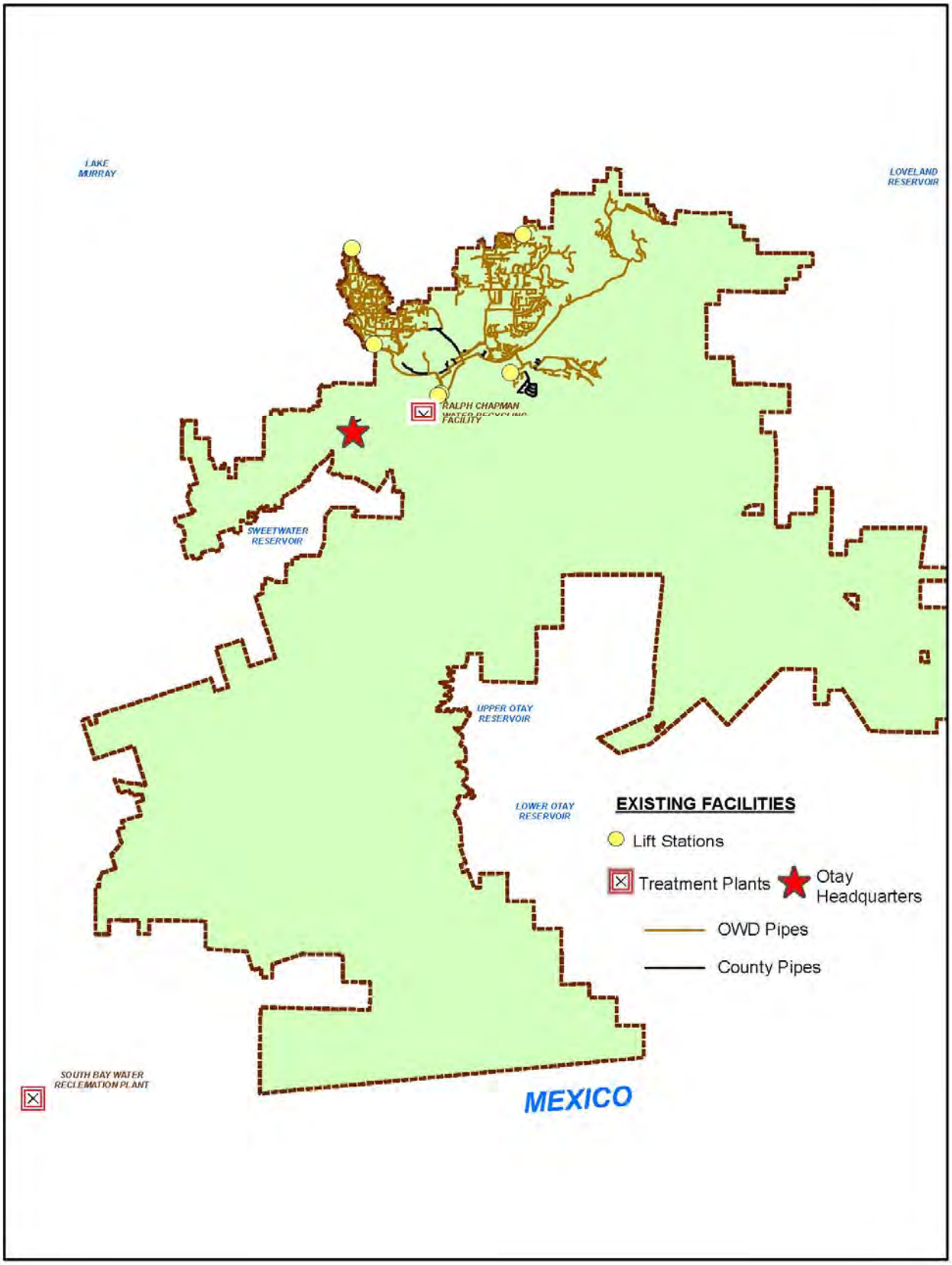
The District is required to determine sewer rates in accordance with the State's Revenue Program Guidelines. The State Water Resources Control Board (SWRCB) has grouped commercial customers into various categories and has identified Strength Factors for each of these business categories. The standard of measure for Strength Factors is the typical sewer strength of a single-family residence (SFR). The Strength Factors established by the SWRCB are listed below and are used by the District in the calculation of commercial sewer rates. These factors are in terms of the strength relative to a SFR, with a SFR having a strength factor of 1.

The following are the Strength Factors:

Description	Strength Factor	Fee, Effective 1/1/2017
Low-Strength Commercial *	1.000	$ 2.58
Medium-Strength Commercial	2.000	$ 3.70
High-Strength Commercial	4.000	$ 5.90

*Schools and churches are categorized as Low-Strength Commercial customers.

Sewer Service Area



Intentionally Left Blank

General Revenues and Expenses

The District's revenues and expenses in this section are not directly related to the services delivered to potable, recycled, or sewer customers, yet they are operating expenses or revenues.

General Revenues

Capacity fees are restricted for the purpose of funding the District facilities. When collected these fees may cover costs including but not limited to planning, design, construction, and financing associated with facilities. The District uses a portion of capacity fee revenues to provide general expansion planning and developer support. These fees reimburse the General Fund for the cost of providing these services. For FY 2017, capacity fees are projected to be $1,248,200 which is $113,400 more than the FY 2016 budget.

Annexation fees are collected when developers buy into the District's potable or recycled water facilities. The fee ensures that future users fund the portion of the facilities that were sized and built for their future use by prior customers. Prior to FY 2010, annexation fees were unrestricted and therefore included in the General Fund revenues. With the new fee methodology, these fees are now restricted for the purpose of capital improvements.

The 1% property tax is a result of Proposition 13 that was approved in 1978, which limited the general levy property tax rate for all taxing authorities to a total rate of 1% of the assessed value. Subsequent legislation, AB8, established that the receipts from the 1% levy were to be distributed to taxing agencies according to approximately the same proportions received prior to Proposition 13. These general use funds are currently being used as a source of operating revenue. Property Tax Revenues are projected to increase versus FY 2015 budget by $141,800 to $3,354,800.

The District levies availability charges each year in developed areas to be used for upgrades and betterment and in undeveloped areas to provide funding for planning, mapping, and preliminary design of facilities to meet future development. Current legislation provides that any availability charge in excess of $10.00 per parcel or acre shall be used only for the benefit of the improvement district in which it is assessed. Availability fees are projected to be $678,300.

Included in the General Revenues are a variety of Non-Operating Revenues. These revenues include lease revenue, set-up fees, sewer billing fees, grants, and miscellaneous revenues. Lease revenues make up a large portion of general revenues and are mainly from the lease of cell-sites on District property. When the District enters a new lease there is a one-time fee charged with the set-up of each cell-site. The District incurs expenses related to these leases and the purpose of the fee is to recover the cost to set up the lease.

In addition to the cell-site leases, the District leases land to the Highlands Golf Co., LLC. The lease terms include a minimum annual rent guarantee plus a percentage of sales. This lease has a 36-year term.

General Revenues and Expenses

For most of the District's water customers in the City of Chula Vista (CCV), the City of Chula Vista provides the sewer services. The CCV sewer fees are based on water consumption. Because of the shared customer base, the CCV contracts with the District for the billing of their sewer customers who live within the District.

General Expenses

The expenses in this section are general operating costs not associated with an individual department. These include legal costs, insurance premiums, changes in accrued employee leave balances, and miscellaneous interest. These expenditures represent 7.8% of the total Departmental Budget.

Legal expenditures are viewed as a District-wide general cost because they benefit all departments and usually are not attributed to any one department. The District retains outside legal services instead of in-house counsel.

Insurance premiums are also viewed as District-wide general cost because it benefits all departments and cannot be attributed to any one department. The District participates in a program where it can reduce its premium by implementing training sessions to reduce on-the-job accidents and injuries.

Some employee benefits are charged to the General Expense Department because they are not entirely attributable to a specific department or fiscal year in which they are incurred. For example, when a pay rate increase occurs for an employee, his/her leave balances increase in value due to this change. In this case, the cost is charged to the General Expense Department.

General Revenues

General Revenues[1]

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual *	Budget	$	%
Fee Revenues						
Capacity Fee Revenues	$ 1,312,108	$ 1,134,800	$ 1,517,128	$ 1,248,200	$ 113,400	10.0%
Betterment Fees	188,123	-	-	-	-	0.0%
Subtotal Fee Revenues	1,500,231	1,134,800	1,517,128	1,248,200	113,400	10.0%
Tax Revenues						
1% General Tax	3,128,961	3,213,000	3,353,611	3,354,800	141,800	4.4%
Availability Fees	685,555	684,900	616,591	678,300	(6,600)	(1.0%)
Subtotal Tax Revenues	3,814,516	3,897,900	3,970,202	4,033,100	135,200	3.5%
General Revenue	$ 5,314,747	$ 5,032,700	$ 5,487,331	$ 5,281,300	$ 248,600	4.9%

Non-Operating Revenues[1]

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual *	Budget	$	%
Property Rental	$ 1,232,920	$ 1,269,800	$ 1,281,150	$ 1,310,300	40,500	3.2%
Sewer Billing Fees	375,741	375,500	381,550	383,100	7,600	2.0%
Set-up Fee for Lease Site	24,500	-	9,000	-	-	0.0%
Revenue from Shared Facility	33,760	37,200	25,241	35,500	(1,700)	(4.6%)
Miscellaneous	737,454	191,100	737,924	450,400	259,300	135.7%
Non-Operating Revenue	$ 2,404,375	$ 1,873,600	$ 2,434,865	$ 2,179,300	$ 305,700	16.3%

General and Non-Operating Revenues by Business[1]

	FY 2017			
	Potable	Recycled	Sewer	Total
Capacity Fee Revenues	$ 1,248,200	$ -	$ -	$ 1,248,200
1% General Tax	3,354,800	-	-	3,354,800
Availability Fees	626,700	-	51,600	678,300
Property Rental	1,310,300	-	-	1,310,300
Sewer Billing Fees	383,100	-	-	383,100
Revenue from Shared Facility	-	-	35,500	35,500
Miscellaneous	450,400	-	-	450,400
Total General and Non-Operating Revenue	$ 7,373,500	$ -	$ 87,100	$ 7,460,600

[1] For General and Non-Operating Revenues, the Potable Fund serves as the District's General Fund for accounting purposes.

* Actuals unaudited

General Expense

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
General Expense						
Labor and Benefits [1]	$ 1,487,720	$ 1,183,400	$ 1,359,311	$ 1,181,400	$ (2,000)	(0.2%)
Legal Fees	174,636	$ 250,000	250,074	250,000	-	0.0%
General Insurance	645,410	586,000	577,200	575,000	(11,000)	(1.9%)
Services	1,257	-	-	-	-	0.0%
Total General Expense	$ 2,309,023	$ 2,019,400	$ 2,186,585	$ 2,006,400	$ (13,000)	(0.6%)

[1] Benefits include District-wide labor and benefit costs not attributable to any one department, such as the effect of cost of living raises on accrued leave liabilities or the Other Post Employment Benefit (OPEB) costs. These costs are netted against the District's anticipated Vacancy Factor. The Vacancy Factor for FY 2016 and FY 2017 is $338,300 and $198,600, respectively. Additionally, the labor and benefits shown on this schedule are those related to operating costs and does not include CIP labor and benefit costs.

* Actuals unaudited

Departmental Operating Budget

Labor and Benefits

Labor and Benefits represent 22.8% of the total Operating Budget. District personnel are assigned to work in five departments: General Manager, Administrative Services, Finance, Water Operations, and Engineering. The departments are further categorized by functions into divisions. The Fiscal Year 2017 Budget includes funding for labor and benefits for 135 full-time equivalent (FTE) employees.

The staffing level for Fiscal Year 2017 had a decrease of three (3) FTE employees from Fiscal Year 2016. The District has chosen to eliminate vacant positions in areas that have experienced a reduction of workload requirements. Since 2007, the District has reduced FTEs by 22.7% due to slowed growth and by focusing on efficiencies and automation. Efficiencies have been achieved by strategic planning, goal setting, outsourcing, and leveraging advancements in technology.

A projected 7.8% of the labor and benefits costs will be charged to projects included in the Capital Improvement Program (CIP) and Developer Deposits. These labor and benefit costs totaling $ 1,824,100 are not considered operating costs and therefore are not included in the Operating Budget.

Administrative Expenses

Administrative Expenses include such items as memberships, office supplies, staff training, Directors' fees, water conservation programs, safety expenses, and regulatory agencies' fees. Some of the administrative expenses are less discretionary than others. The safety needs of the District's customers and employees, and compliance with regulatory agencies are of utmost importance and are considered necessary. The District is better able to control expenses such as training or business meetings.

Overall administrative expenses decreased by $237,700 or (4.4%) compared to FY 2016 and is shown on page 132. Decreases are anticipated in services by 13.6% or $327,400, bad debt expense by 32.3% or $50,000, general office expense by 6.7% or $19,200, general expenses by 1.3% or $11,000 and travel and meetings by 2.7% or $5,800. The decrease in services is primarily due to the removal of drought related outreach in FY 2016. Staff has reduced the District's bad debt expense budget to be more in line with the recent trends. General office expenses have decreased primarily due to electronic mailing of correspondence and e-billing. General expenses consist primarily of District insurance, legal expenses and District-wide labor and benefit costs. For FY 2017, the District's general insurance premium decreased by 1.9% or $11,000. Travel and meeting budgets has decreased due to less employee travel and meetings.

These decreases are offset by increases in fees by 20.1% or $105,700, training by 27.3% or $27,000, equipment by 1.5% or $16,800, director's fees by 10.0% or $3,000, and conservation and outreach by 0.3% or $500. Fees increased primarily to cover election expenses and increases in the recycled water fees. For FY 2017, the District increased the training budget to provide mandated management training. Equipment costs increased primarily due to the addition of water absorbent materials for landfill disposal.

Materials and Maintenance

Like all costs included by the District, the materials and maintenance expenses allow the District to provide reliable, high-quality products, services, and support to its customers. As the District continues to grow and technology and regulations change, maintenance and services will be adjusted, as needed.

For Fiscal Year 2017, overall materials and maintenance expenses decreased by 4.3%, or $156,500. Decreases were recognized in sewer charges by 16.2% or $161,200, safety equipment by 58.8% or $74,800, chemicals by 9.1% or $36,300, fuel and oil by 3.3% or $8,300, and other materials and supplies by 4.3% or $8,200. Sewer charges decreased by 19.6% or $160,000 compared to FY 2016 because the District's share of costs based on total flow, suspended solids and chemical oxygen, decreased. Safety equipment decreased due to the removal of one time funding for first responders kits in FY 2016. The budget for chemicals was reduced because staff anticipates less chemical usage due to reduced water usage as a result of the conservation efforts. Fuel and oil was decreased to reflect the lower cost per gallon of fuel. Other materials and supplies has been decreased based on the needs of the leak detection program.

These decreases are offset by increases in contracted services by 9.7% or $67,200, meters and materials by 39.9% or $45,400, building and grounds materials by 16.9% or $8,100, infrastructure equipment and supplies by .9%, or $5,400, laboratory equipment and supplies by 13.3% or $5,300 and fleet parts and materials by .7% or $900. Contracted services and infrastructure equipment and supply costs increased primarily to provide for the needs of landfill hauling. Meters and materials costs have increased based on the increased residential construction in the Otay Ranch area. Building and grounds materials costs increased to provide for facilities maintenance.

Departmental Operating Budget

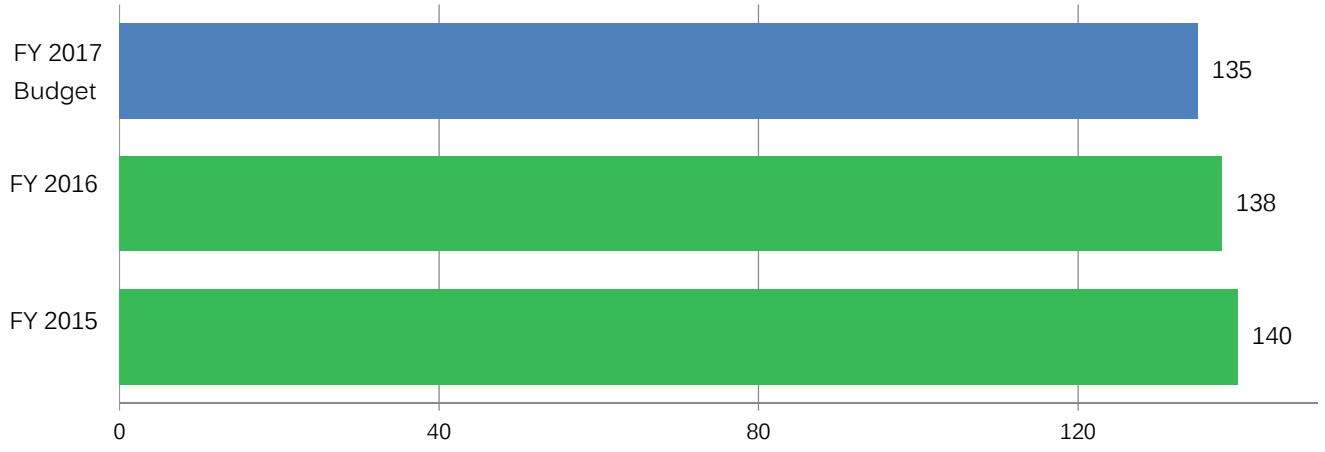
Board of Directors	$ 120,300	0.4%
General Manager	1,737,600	5.7%
General Expense	2,006,400	6.5%
Administrative Services	6,324,900	20.6%
Finance	5,858,600	19.1%
Water Operations	11,316,700	36.8%
Engineering	3,361,700	10.9%
	$ 30,726,200	100.0%

Total FY 2017 Departmental Operating Budget
$30,726,200

Labor and Benefits

	FY 2015	FY 2016		FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Labor Costs	$ 11,177,926	$ 11,487,900	$ 11,383,709	$ 11,645,000	$ 157,100	1.4%
Benefits						
Pension	3,575,595	3,885,300	3,854,533	4,161,600	276,300	7.1%
Employee Assistance Program	3,755	4,000	3,744	4,200	200	5.0%
Workers' Compensation	261,821	260,000	251,014	265,900	5,900	2.3%
Health/Dental/Life Insurance/OPEB	3,611,579	4,012,200	3,800,813	4,072,500	60,300	1.5%
Social Security/Medicare	927,579	948,200	947,970	962,700	14,500	1.5%
Salary Continuation Insurance	56,144	67,800	60,272	89,500	21,700	32.0%
State Unemployment Insurance	9,998	30,000	11,375	30,000	-	0.0%
Vacation/Sick/Holiday/Other Leave	2,277,556	2,195,300	2,326,667	2,262,900	67,600	3.1%
Total Benefits	10,724,027	11,402,800	11,256,389	11,849,300	446,500	3.9%
Total Labor and Benefits	21,901,953	22,890,700	22,640,098	23,494,300	603,600	2.6%
Less: Non-Operating Labor and Benefits						
Labor Costs	1,062,022	1,048,100	960,168	1,060,800	12,700	1.2%
Benefits Allocation	661,849	700,500	644,741	763,300	62,800	9.0%
Total Non-Operating Labor and Benefits	1,723,871	1,748,600	1,604,910	1,824,100	75,500	4.3%
Operating Labor & Benefits	20,178,082	21,142,100	21,035,189	21,670,200	528,100	2.5%
Overhead Allocation (115% of labor costs)	1,221,325	1,205,300	1,104,194	1,219,900	14,600	1.2%
Admin Overhead (36.85%)	450,058	444,200	406,895	449,500	5,300	1.2%
Personnel Overhead (63.15%)	771,267	761,100	697,299	770,400	9,300	1.2%
Net Operating Labor and Benefits	$ 19,406,815	$ 20,381,000	$ 20,337,890	$ 20,899,800	$ 518,800	2.5%

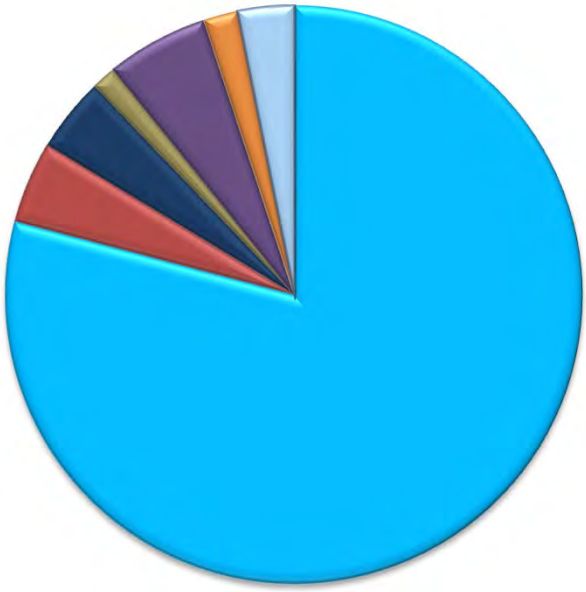
Full - Time Equivalent (FTE)



* Actual unaudited

Labor and Benefits by Fund - Fiscal Year 2017

	Potable	Recycled	Sewer	Developer Reimbursed-CIP	Total
Operating Labor Costs	$ 9,703,500	$ 507,700	$ 373,000	$ -	$ 10,584,200
Benefits	10,287,900	462,800	335,300	-	11,086,000
Overhead Allocation-Personnel	(1,410,100)	368,700	271,000	-	(770,400)
Total Operating Labor and Benefits	18,581,300	1,339,200	979,300	-	20,899,800
CIP Labor Costs	441,400	186,300	135,800	297,300	1,060,800
Benefits	315,100	132,800	86,300	229,100	763,300
Overhead Allocation-Personnel	320,600	135,300	98,600	215,900	770,400
Total CIP Labor and Benefits	1,077,100	454,400	320,700	742,300	2,594,500
Total Labor and Benefits	$ 19,658,400	$ 1,793,600	$ 1,300,000	$ 742,300	$ 23,494,300



Potable-Operating	$ 18,581,300	79.1%
Potable-CIP	1,077,100	4.6%
Sewer-Operating	979,300	4.2%
Sewer-CIP	320,700	1.4%
Recycle-Operating	1,339,200	5.7%
Recycle-CIP	454,400	1.9%
Develeper Reimbursed-CIP	742,300	3.1%
	$ 23,494,300	100.0%

Position Count by Department

	FY 2015	FY 2016	FY 2017	
General Manager	5	5	6	(1)
Total FTE - General Manager	**5**	**5**	**6**	
Administrative Services				
Administrative Services Management	3	3	3	
Human Resources	3	3	3	
Purchasing	7	6	5	(2)
Safety	1	1	1	
IT Services	8	9	7	(2)
Geographic Information System (GIS)	4	4	4	(2)
Total FTE - Administrative Services	**26**	**26**	**23**	
Finance				
Financial Management	3	3	3	
Controller and Budgetary Services	5	5	5	
Treasury and Accounting Services	6	6	6	
Customer Service	15	13	12	(1), (2)
Conservation	1	1	1	
Meter Maintenance	4	4	4	
Total FTE - Finance	**34**	**32**	**31**	
Operations				
Operations Management	2	3	3	(1)
Water System Operations	21	19	16	(1)
Utility Maintenance/Construction	26	27	27	(1)
Total FTE - Operations	**56**	**56**	**51**	
Engineering				
Engineering Management	3	3	3	
Engineering	16	16	21	
Total FTE - Engineering	**19**	**19**	**24**	(1)
District Total Position Count	**140**	**138**	**135**	

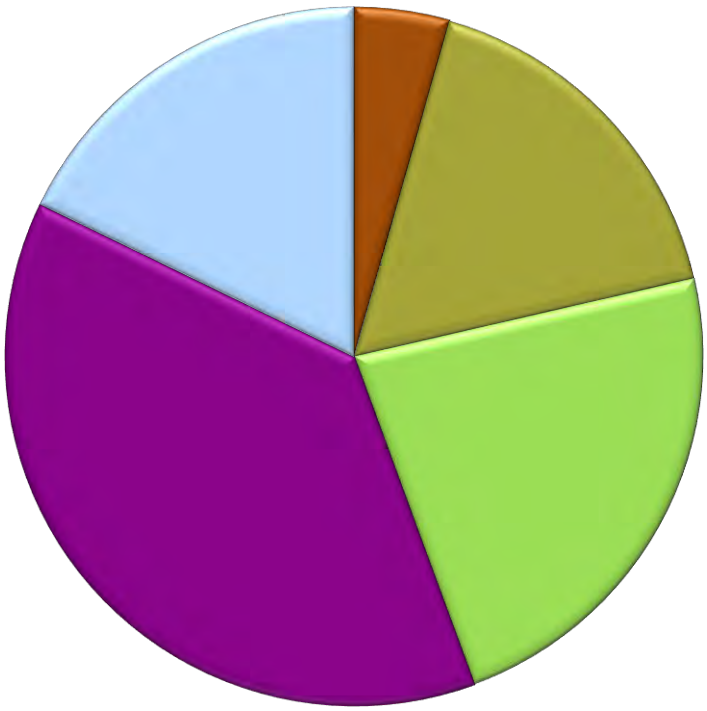
(1) Positions were re-classified and/or transferred as part of streamlining the District's organizational structure.

(2) The District's strategic planning efforts of streamlining business processes enabled the District to be more efficient and provided an opportunity to reduce staffing.

Contract / Temporary Employees

	FY 2015	FY 2016	FY 2017	
Lab Intern	0	0	1	
Senior Civil Engineer	1	0	0	(1), (2)
Total Contract/Temporary Employees	**1**	**0**	**1**	

FY 2017 Position Count by Department



General Manager	6.00	4.4%
Administrative Services	23.00	17.0%
Finance	31.00	23.0%
Operations	51.00	37.8%
Engineering	24.00	17.8%
Total	135.00	100.0%

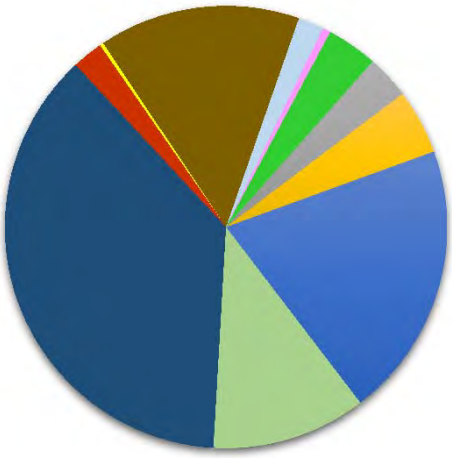
(1) Positions were re-classified and/or transferred as part of streamlining the District's organizational structure.

(2) The District's strategic planning efforts of streamlining business processes enabled the District to be more efficient and provided an opportunity to reduce staffing.

Administrative Expenditures - Total

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Administrative Expenditures						
Directors' Fees	$ 20,382	$ 30,000	$ 22,100	$ 33,000	$ 3,000	10.0%
Travel and Meetings	158,205	214,400	164,590	208,600	(5,800)	(2.7%)
Conservation and Outreach	144,026	176,900	150,060	177,400	500	0.3%
General Office Expense	257,756	284,700	236,868	265,500	(19,200)	(6.7%)
Equipment	1,233,988	1,112,300	1,062,675	1,129,100	16,800	1.5%
Fees	513,545	499,000	509,283	632,800	133,800	26.8%
Services	1,619,936	2,409,800	1,735,752	2,082,400	(327,400)	(13.6%)
Training	77,232	99,000	68,007	126,000	27,000	27.3%
Utilities	14,184	14,900	26,445	14,900	-	-
General Expenses	821,303	836,000	827,274	825,000	(11,000)	(1.3%)
Bad Debt Expense	93,491	155,000	114,220	105,000	(50,000)	(32.3%)
Subtotal before Overhead	4,954,048	5,832,000	4,917,274	5,599,700	(232,300)	(4.0%)
Less: Overhead Allocation	(450,058)	(444,200)	(406,895)	(449,600)	(5,400)	-
Total Expenditures	$ 4,503,990	$ 5,387,800	$ 4,510,379	$ 5,150,100	$ (237,700)	(4.4%)

FY 2017 Total Administrative Expenditures, in thousands ($)



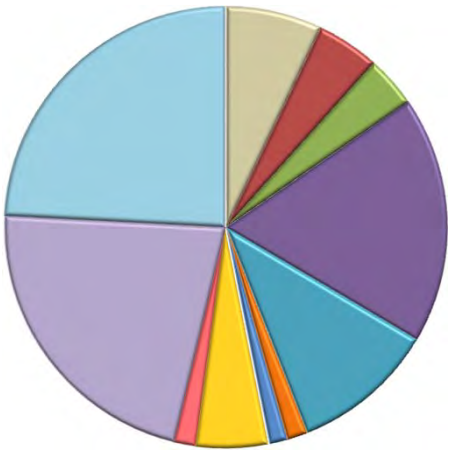
Directors' Fees	$ 33,000	0.6%
Travel and Meetings	208,600	3.7%
Conservation & Outreach	177,400	3.2%
General Office Expense	265,500	4.7%
Equipment	1,129,100	20.1%
Fees	632,800	11.3%
Services	2,082,400	37.2%
Training	126,000	2.3%
Utilities	14,900	0.3%
General Expense	825,000	14.7%
Bad Debt Expense	105,000	1.9%
	5,599,700	100.0%
Less: Overhead Allocation	(449,600)	
Total Administrative Expenses	$ 5,150,100	

* Actual unaudited

Materials and Maintenance Expenditures - Total

	FY 2015	FY 2016	FY 2016	FY 2017	Budget to Budget Variance	
	Actual	Budget	Actual*	Budget	$	%
Materials and Maintenance						
Fuel and Oil	$ 196,397	$ 250,600	$ 141,819	$ 242,300	$ (8,300)	(3.3%)
Meters and Materials	111,821	113,800	176,102	159,200	45,400	39.9%
Fleet Parts and Equipment	123,056	128,900	122,792	129,800	900	0.7%
Infrastructure Equipment & Supplies	512,739	621,300	505,469	626,700	5,400	0.9%
Chemicals	349,655	400,600	268,680	364,300	(36,300)	(9.1%)
Safety Equipment	40,773	127,300	81,155	52,500	(74,800)	(58.8%)
Laboratory Equipment and Supplies	43,847	40,000	39,977	45,300	5,300	13.3%
Other Materials and Supplies	180,188	190,500	161,229	182,300	(8,200)	(4.3%)
Building and Grounds Materials	55,375	47,900	56,663	56,000	8,100	16.9%
Contracted Services	517,413	695,500	518,122	762,700	67,200	9.7%
Subtotal Materials and Maintenance	2,131,264	2,616,400	2,072,008	2,621,100	4,700	0.2%
Sewer Charges						
Metro O&M Costs	1,020,276	815,000	812,536	655,000	(160,000)	(19.6%)
Spring Valley Sewer Charge	188,237	181,400	218,631	180,200	(1,200)	(0.7%)
Subtotal Sewer Charges	1,208,513	996,400	1,031,167	835,200	(161,200)	(16.2%)
Total Expenditures	$ 3,339,777	$ 3,612,800	$ 3,103,175	$ 3,456,300	$ (156,500)	(4.3%)

FY 2017 Materials and Maintenance Expenditures



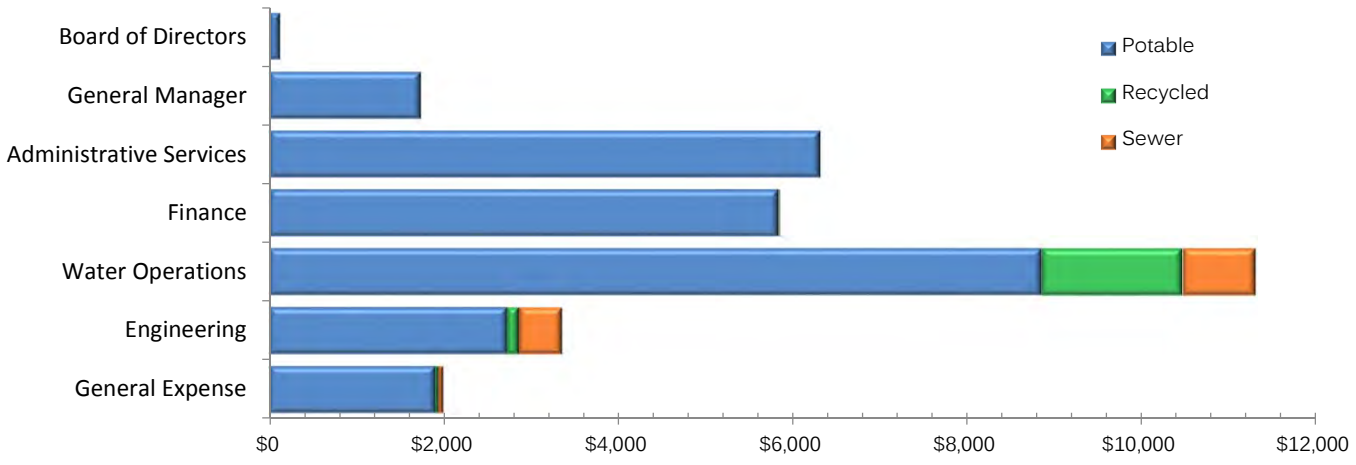
Fuel and Oil	$ 242,300	7.0%
Meters and Materials	159,200	4.6%
Fleet Parts and Equipment	129,800	3.8%
Infrastructure Equipment and Supplies	626,700	18.2%
Chemicals	364,300	10.5%
Safety Equipment	52,500	1.5%
Laboratory Equipment and Supplies	45,300	1.2%
Other Materials and Supplies	182,300	5.3%
Building and Grounds Materials	56,000	1.6%
Contracted Services	762,700	22.1%
Sewer Charges	835,200	24.2%
	$ 3,456,300	100.0%

* Actual unaudited

Operating Expenditures by Department

	FY 2015 Actual	FY 2016 Budget	FY 2016 Actual*	FY 2017 Budget	Budget to Budget Variance
Departmental Expenditures					
Board of Directors	$ 95,949	$ 107,100	$ 94,910	$ 120,300	$ 13,200
General Manager	1,386,637	1,605,900	1,613,499	1,737,600	131,700
General Expense	2,309,023	2,019,400	2,186,585	2,006,400	(13,000)
Administrative Services	6,338,873	6,681,800	6,020,287	6,324,900	(356,900)
Finance	5,496,511	6,128,400	5,603,691	5,858,600	(269,800)
Water Operations	9,991,323	10,911,400	10,383,742	11,316,700	405,300
Engineering	2,853,591	3,132,900	3,152,924	3,361,700	228,800
Total Departmental Expenditures	28,471,907	30,586,900	29,055,638	30,726,200	139,300
Less: Overhead Allocation	(1,221,325)	(1,205,300)	(1,104,194)	(1,219,900)	(14,600)
Net Departmental Expenditures	27,250,582	29,381,600	27,951,444	29,506,300	124,700
Non-Departmental Expenditures					
Water Purchases	46,249,959	45,984,500	43,863,330	47,422,400	1,437,900
Power	3,048,335	3,112,800	2,697,915	2,938,000	(174,800)
Transfer to General Fund Reserve	-	-	-	2,854,300	2,854,300
Expansion Reserve	2,538,900	2,695,800	2,695,800	4,093,600	1,397,800
Betterment Reserve	3,530,000	2,400,000	2,400,000	3,466,400	1,066,400
Replacement Reserve	3,270,200	3,421,000	3,421,000	464,500	(2,956,500)
Transfer to Sewer General Fund	553,800	-	-	-	-
Transfer to Potable General Fund	1,583,800	-	-	-	-
Transfer to Sewer Replacement	127,000	1,199,300	1,199,300	-	(1,199,300)
Transfer to OPEB	647,100	1,006,000	1,006,000	961,000	(45,000)
Transfer to New Supply Reserve	705,000	35,000	35,000	35,000	-
Total Non-Departmental Expenditure	62,254,094	59,854,400	57,318,345	62,235,200	2,380,800
Total Operating Expenditures	$ 89,504,676	$ 89,236,000	$ 85,269,789	$ 91,741,500	$ 2,505,500

FY 2017 Funding Source by Department, in Millions ($)



* Actual unaudited

Operating Expenditures by Object

	FY 2015 Actual	FY 2016 Budget	FY 2016 Actual*	FY 2017 Budget	Budget to Budget Variance
Departmental Expenditures					
Labor and Benefits	$ 20,178,082	$ 21,142,100	$ 21,035,189	$ 21,670,200	$ 528,100
Director's Fees	20,382	30,000	22,100	33,000	3,000
Travel and Meetings	158,205	214,400	164,590	208,600	(5,800)
Conservation and Outreach	144,026	176,900	150,060	177,400	500
General Office Expense	257,756	284,700	236,868	265,500	(19,200)
Equipment	1,233,988	1,112,300	1,062,675	1,129,100	16,800
Fees	1,334,848	1,335,000	1,336,557	1,457,800	122,800
Services	1,619,936	2,409,800	1,735,752	2,082,400	(327,400)
Training	77,232	99,000	68,007	126,000	27,000
Materials & Maintenance	2,131,264	2,616,400	2,072,008	2,621,100	4,700
Power and Utilities	14,184	14,900	26,445	14,900	-
Sewer Charges	1,208,513	996,400	1,031,167	835,200	(161,200)
Bad Debt Expense	93,491	155,000	114,220	105,000	(50,000)
Total Departmental Expenditures	28,471,907	30,586,900	29,055,638	30,726,200	139,300
Less: Overhead Allocation	(1,221,325)	(1,205,300)	(1,104,194)	(1,219,900)	(14,600)
Net Departmental Expenditures	27,250,582	29,381,600	27,951,444	29,506,300	124,700
Non-Departmental Expenditures					
Water Purchases	46,249,959	45,984,500	43,863,330	47,422,400	1,437,900
Power	3,048,335	3,112,800	2,697,915	2,938,000	(174,800)
Transfer to General Fund Reserve	-	-	-	2,854,300	2,854,300
Expansion Reserve	2,538,900	2,695,800	2,695,800	4,093,600	1,397,800
Betterment Reserve	3,530,000	2,400,000	2,400,000	3,466,400	1,066,400
Replacement Reserve	3,270,200	3,421,000	3,421,000	464,500	(2,956,500)
Transfer to Sewer General Fund	553,800	-	-	-	-
Transfer to General Fund Reserve	1,583,800	-	-	-	-
Transfer to Sewer Replacement	127,000	1,199,300	1,199,300	-	(1,199,300)
Transfer to OPEB	647,100	1,006,000	1,006,000	961,000	(45,000)
Transfer to New Supply Fund	705,000	35,000	35,000	35,000	-
Total Non-Departmental Expenditures	62,254,094	59,854,400	57,318,345	62,235,200	2,380,800
Total Operating Expenditures	$ 89,504,676	$ 89,236,000	$ 85,269,789	$ 91,741,500	$ 2,505,500

* Actual unaudited

Intentionally Left Blank

Board of Directors

Jose Lopez
President
Division 4

Mitchell Thompson
Vice President
Division 2

Mark Robak
Treasurer
Division 5

Tim Smith
Division 1

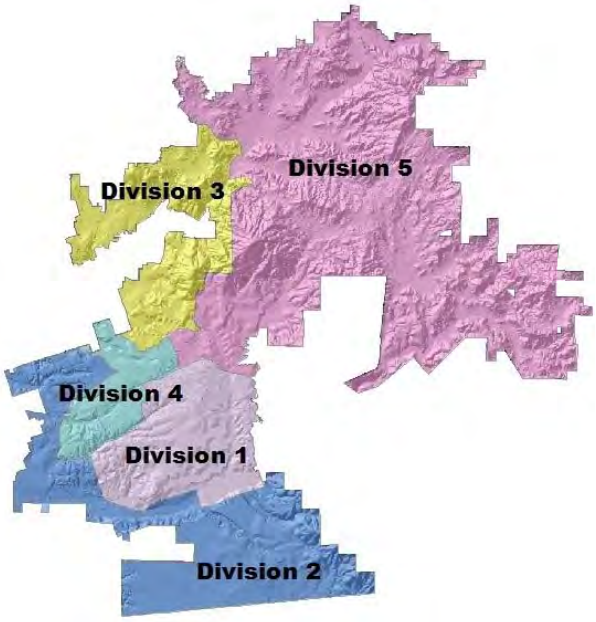
Gary Croucher
Division 3

Board of Directors

The Otay Water District is a revenue-neutral public agency established in accordance with the California Water Code. This not-for-profit status means Otay has no private shareholders, pays no dividends and therefore does not report to, nor answer to the California Public Utilities Commission. The District does, however, answer to the public through a five-member Board of Directors. Each Director is elected by voters within their respective division boundaries to represent the public's interest with regard to rates for service, taxes, policies, ordinances, and other matters related to the management and operation of the Otay Water District. Directors serve four-year, alternating terms on the Board.

Mission Statement

To provide safe, reliable water, recycled water, and wastewater services to our community in an innovative, cost efficient, water-wise, and environmentally responsible manner.

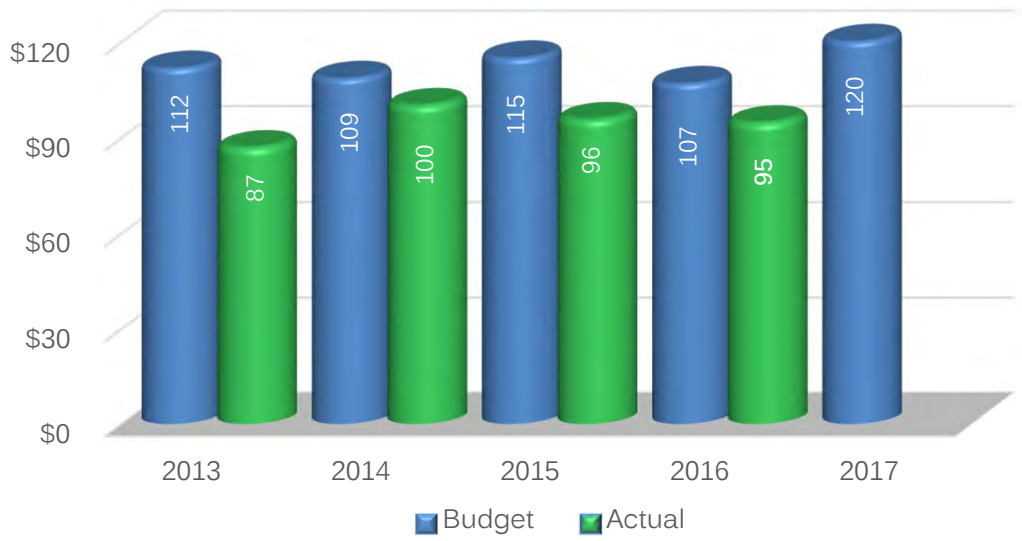


Board of Directors - Expenses

Department	FY 2015 Actual	FY 2016 Budget	FY 2016 Actual*	FY 2017 Budget
Board of Directors	$ 95,949	$ 107,100	$ 94,910	$ 120,300
Total Expenses	95,949	107,100	94,910	120,300

Object	FY 2015 Actual	FY 2016 Budget	FY 2016 Actual*	FY 2017 Budget
Benefits	69,094	61,600	67,338	71,800
Director's Fees	20,382	30,000	22,100	33,000
Travel and Meetings	6,473	15,500	5,472	15,500
Total Expenses	$ 95,949	$ 107,100	$ 94,910	$ 120,300

Budget vs. Actual, in thousands ($)



* Actual unaudited

Director's Division Boundaries

Intentionally Left Blank

General Manager

Mission

To provide high value water and wastewater services to the customers of the Otay Water District, in a professional, effective, and efficient manner.

General Manager's Vision

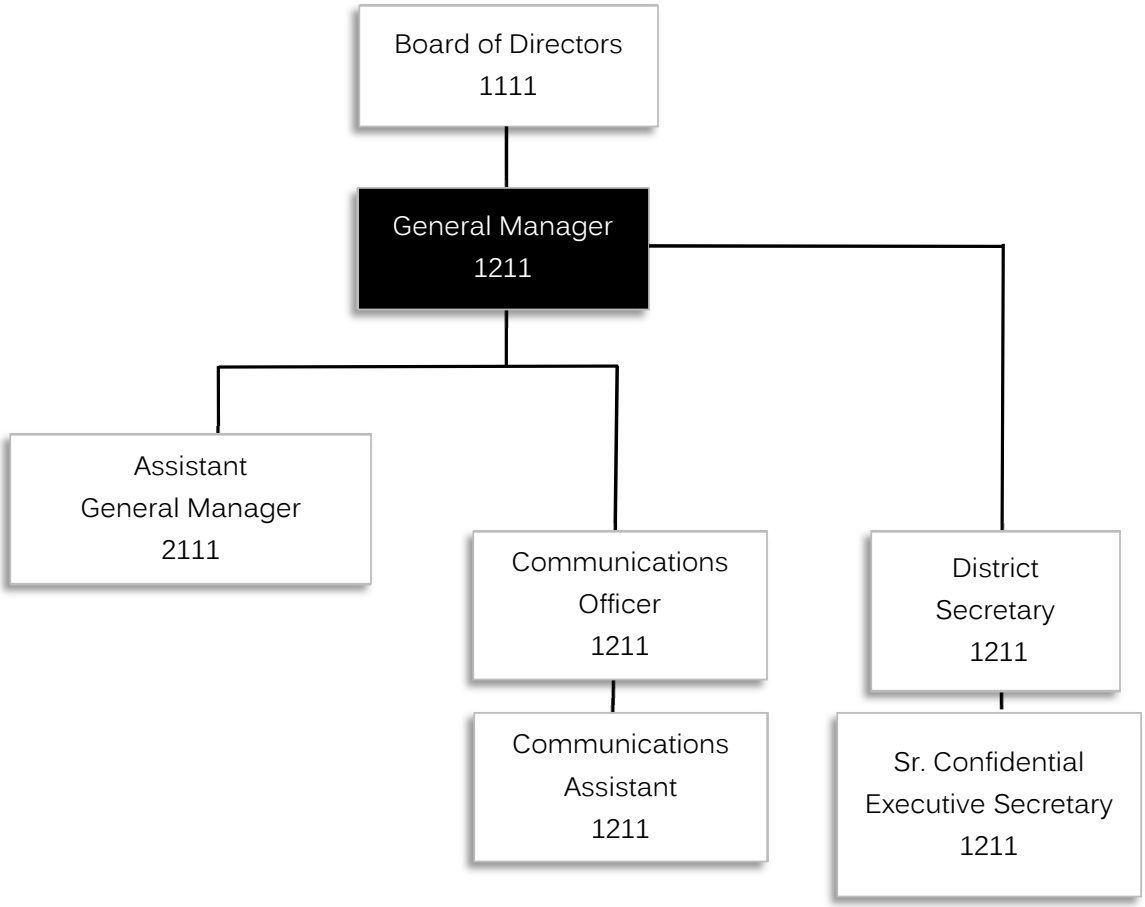
"A District that is at the forefront in innovations to provide water services at affordable rates, with a reputation for outstanding customer service."

Key Challenge

Our key challenge, as District staff, is to quantify and demonstrate our commitment and the ability to optimize our resources, business processes, and technology to achieve the strategic plan goals. We, as a team, commit to regularly assess and document how our decisions and work practices accomplish our goals and objectives.

General Manager - Position Count

District Position Count - 135
General Manager Department - (6 Positions)



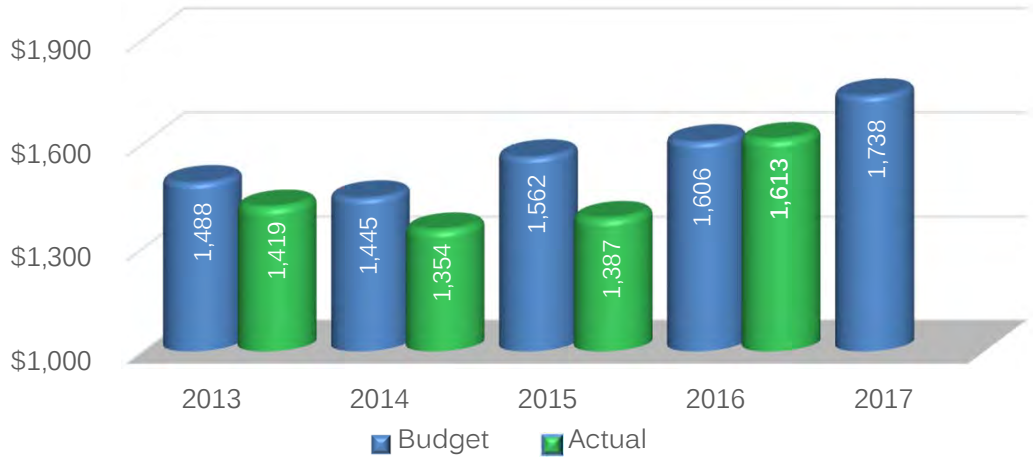
Position Title	FY 2015	FY 2016	FY 2017
General Manager	1	1	1
Assistant General Manager	1	1	1
District Secretary	1	1	1
Sr. Confidential Executive Secretary	1	1	1
Communications Officer	1	1	1
Communications Assistant	0	0	1
Total	5	5	6

General Manager - Expenses

Department	FY 2015 Actual	FY 2016 Budget	FY 2016 Actual*	FY 2017 Budget
General Manager	$ 1,061,445	$ 1,263,300	$ 1,277,007	$ 1,384,800
Assistant General Manager	325,192	342,600	336,492	352,800
Total Expenses	1,386,637	1,605,900	1,613,499	1,737,600

Object	FY 2015 Actual	FY 2016 Budget	FY 2016 Actual*	FY 2017 Budget
Labor and Benefits	1,152,471	1,199,600	1,203,379	1,349,200
Travel and Meetings	44,127	54,600	48,983	54,700
Conservation and Outreach	4,061	6,000	7,914	6,000
General Office Expense	2,449	1,700	1,243	1,700
Equipment	2,400	3,000	4,896	3,000
Fees	57,930	48,000	49,181	81,000
Services	123,049	193,000	266,675	122,000
Materials & Maintenance	-	100,000	31,123	120,000
Miscellaneous	150	-	105	-
Total Expenses	$ 1,386,637	$ 1,605,900	$ 1,613,499	$ 1,737,600

Budget vs. Actual, in thousands ($)



* Actual unaudited

General Manager

Services We Provide

The General Manager's office provides leadership and direction for all District services and operations including potable, recycled, and the treatment plant. As head of the agency, the General Manager interacts with the Board of Directors to set policies and strategic direction and ensures that all applicable laws and regulations are met. The General Manager oversees, coordinates, and directs the development and execution of annual plans and the operating and capital improvement projects. The General Manager represents the District in establishing and maintaining relationships with member agencies and external organizations. The General Manager is also focused on executing the District's mission, Strategic Plan and Board priorities.

Accomplishments – Fiscal Year 2015-2016

- Otay Water District continues to be one of the lower cost water service providers of San Diego County's 22 public water agencies.
- The District completed the 2015 Urban Water Management Plan and updated the 2015 Integrated Water Resources Plan. The Urban Water Management Plan was filed with the State Department of Water Resources. This plan addresses the requirements of the California Water Code; provides useful information to the public about the District's water supplies and water management programs; and provides a framework for water planning to minimize the negative effects of potential water shortages. The purpose of the Integrated Water Resources Plan is to identify and conceptually develop a diverse range of water supply projects to meet long-range water supply needs.
- The District completed phase two of the FY 2015-2018 Strategic Plan, which focused on the successful implementation and rapid adoption of new business systems and technology solutions, allowing the District to improve efficiencies and streamline work processes. This helps the District to sustain a growing customer base with a reduced work force.
- In FY 2016, the District successfully refinanced its 2007 Certificates of Participation (COPs), saving its customers more than $5.6 million.
- The District completed the draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS), in conjunction with the U.S. State Department, for the Otay Mesa Conveyance and Disinfection System Project. The EIR/EIS was submitted for its 45-day public review period. This document looks at the environmental effects of a proposed pipeline to convey desalinated water, produced at a desalination plant in Rosarito, Mexico, across the U.S./Mexico border to the District's Roll Reservoir. Completion of this document is a requirement for obtaining a Presidential Permit for receiving water across the border.
- The District responded to more than 500 reports of water waste that resulted in more efficient and effective water conservation efforts.
- The District successfully responded to the state's drought emergency and reduced potable usage by 19.0% over 2013 levels.

General Manager

- The District maintained a 100 percent compliance with both the rate of water quality parameters and the goal of zero sanitary sewer overflows.
- In FY 2016, the District decreased labor costs by $254,000. It reduced two full-time equivalent (FTE) positions by instituting efficiency programs, which helps minimize the impact of higher water costs from wholesalers. Since FY 2007, the District has experienced a reduction of 36.75 FTEs, or 21.0%. In the same timeframe, the number of customers served per FTE has grown from 301 to 396, an increase of 31.6%. From FY 2007 to FY 2016, staffing reductions have resulted in a cumulative savings of $24,136,200. These savings have helped to lessen the impact of higher wholesale water costs to the District's ratepayers.
- The District enhanced its otaywater.gov website. The enhancements included improved visual appeal, navigation, and search functionality. Improvements also included embedding an eProcurement BidSync System to enable the District to efficiently conduct business and manage contracts.
- As part of the District's successful Leak Detection and Repair Program, staff surveyed 150 miles of potable pipelines. The survey focused on pipelines that were installed in 1985 and earlier. District staff found and repaired four leaks in its distribution system.
- A $425,000 Water Conservation Plan Grant was secured from the Pio Pico Energy Center and will support the District's Leak Detection and Leak Repair Program for FY 2017 and FY 2018.
- The District certified the Final Environmental Impact Report as part of the Otay Interconnect Pipeline. The project will increase the District's potable water supply flexibility and reliability.
- For the last four years, the District received the "*Distinguished Owner Honoree"* award from the Construction Management Association of America – San Diego Chapter.
- For the twelfth consecutive year, the District was awarded the *Certificate of Achievement for Excellence in Financial Reporting* by the Government Finance Officers Association (GFOA), for its Comprehensive Annual Financial Report (CAFR).
- For the twelfth consecutive year, the District has met nationally recognized guidelines and was awarded the *Distinguished Budget Presentation* award for the Fiscal Year 2015-2016 Budget by the Government Finance Officers Association.
- For the tenth consecutive year, the District was awarded the *Operating Budget Excellence Award* for the Fiscal Year 2015-2016 Budget by the California Society of Municipal Finance Officers (CSMFO).
- For the eleventh consecutive year, the CSMFO awarded the District the *Capital Budgeting Excellence Award* for the Fiscal Year 2015-2016 Capital Improvement Program Budget.
- The District received the Target Solutions Milestone Award for using the online training system to train and keep District employees safe since 2000.

Intentionally Left Blank

Administrative Services - General

Mission Statement

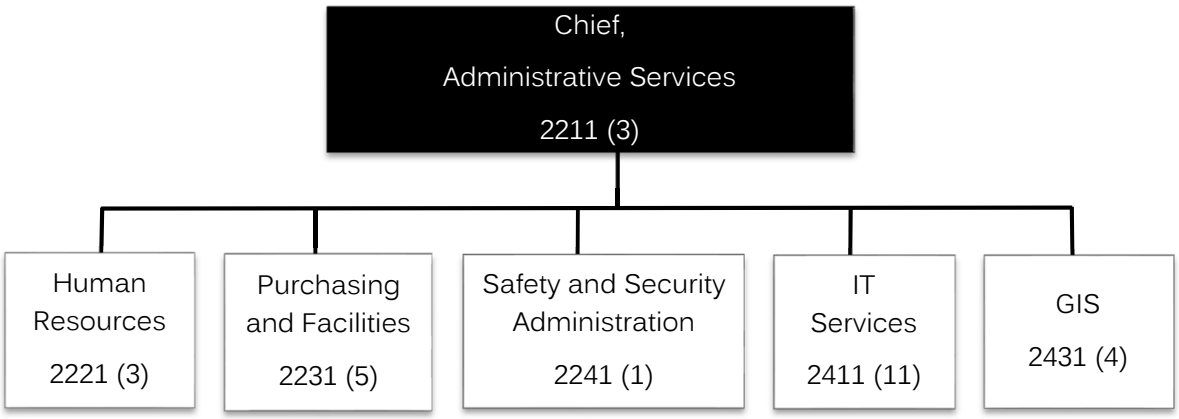
To provide support to the Board of Directors, the General Manager, and District staff by identifying and meeting objectives to satisfy the needs of our customers by providing, through best management practices, the full range of employer and employee services, administrative services, risk management, safety and security, and emergency preparedness and response, and strategic planning.

Department Responsibilities

The Administrative Services Department, under the general direction of the Assistant General Manager and Chief of Administrative Services, provides the following support services: Human Resources, Purchasing, Facilities Maintenance, and Safety and Security Administration, Information Technology, and Strategic Planning. The department also coordinates assigned activities with other departments and outside agencies, and provides highly responsible and complex administrative support to the District, Board of Directors, and General Manager.

Administrative Services - Position Count

District Position Count - 135
Administrative Services Department - (23 Positions)



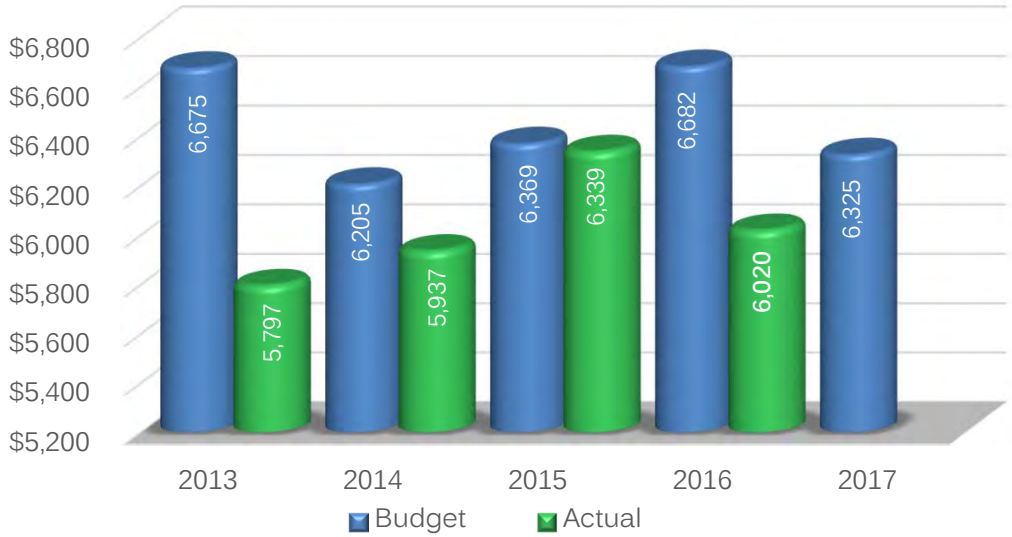
Position Title	FY 2015	FY 2016	FY 2017
Chief, Administrative Services	1	0	1
Assistant Chief, Administrative Services	0	1	0
Confidential Executive Secretary	1	1	1
Confidential Secretary	1	1	1
Human Resources Manager	1	1	1
Senior Human Resources Analyst	1	1	1
Human Resources Analyst	1	1	1
Purchasing & Facilities Manager	1	1	1
Senior Buyer	1	1	1
Assistant Buyer	1	1	0
Senior Warehouse Worker	0	0	1
Lead Warehouse/Facilities Worker	1	0	0
Warehouse/Delivery Worker	1	1	0
Facilities Maintenance Technician	2	2	2
Safety & Security Specialist	1	1	1
Chief Information Officer	1	1	0
IT Manager	1	1	1
GIS Manager	1	1	1
GIS Programmer/Analyst	1	1	1
GIS Analyst	1	1	1
GIS Technician	1	1	1
Network Engineer	1	1	1
Database Administrator	1	1	1
Data Systems Technician	0	1	1
Lead Business System Analyst	1	0	0
System Support Analyst	0	1	1
Business System Analyst I and II	2	2	2
Network Analyst	1	1	0
Total	26	26	23

Administrative Services - Expenses

Department	FY 2015 Actual [1]	FY 2016 Budget [1]	FY 2016 Actual*	FY 2017 Budget
Administrative Chief	$ 1,397,196	$ 816,300	$ 850,853	$ 555,800
Human Resources	694,264	730,000	661,366	824,900
Purchasing and Facilities	1,221,411	1,416,600	1,311,242	1,321,600
Safety and Security	362,389	412,900	303,123	361,300
IT Services	1,738,011	2,376,400	1,999,749	2,276,000
Geographic Information System (GIS)	925,602	929,600	893,954	985,300
Total Expenses	6,338,873	6,681,800	6,020,287	6,324,900

Object	FY 2015 Actual [1]	FY 2016 Budget [1]	FY 2016 Actual*	FY 2017 Budget
Labor and Benefits	4,043,199	4,392,600	4,050,829	4,074,300
Travel and Meetings	43,021	50,000	41,086	52,100
General Office Expense	101,102	107,400	76,620	94,000
Equipment	1,199,608	1,065,300	1,024,550	1,064,800
Fees	750	-	977	-
Services	522,412	541,600	353,922	552,000
Training	63,592	77,000	53,299	103,000
Materials & Maintenance	351,005	433,000	392,559	369,800
Power and Utilities	14,184	14,900	26,445	14,900
Total Expenses	$ 6,338,873	$ 6,681,800	$ 6,020,287	$ 6,324,900

Budget vs. Actual, in thousands ($)



[1] In FY 2017, IT and Strategic Planning was consolidated into Administrative Services. Prior year budget and actuals have been adjusted for comparative purposes.

* Actual unaudited

Administrative Services – Human Resources

Services We Provide

Human Resources, under the direction of the Chief of Administrative Services, provides the following support services: recruits, selects and ensures the retention of qualified employees; develops, implements and administers policies, procedures, collective bargaining contracts and employee programs; ensures up-to-date classification plans and a competitive compensation program; manages benefits programs for employees and retirees; manages the Workers' Compensation program; oversees employee performance through staff management to include employee training and development; recognition and incentives; performance evaluation process and employee discipline; ensures legal compliance; and implements work/life balance initiatives to include a wellness program.

Accomplishments – Fiscal Year 2015-2016

- Decreased labor costs by participating with other departments to reduce three (3) full-time positions by instituting efficiency programs, which minimize the impact of higher water costs from wholesalers, resulting in District-wide annual cost-savings of approximately $479,000.
- Collaborated with Third Party Administrator to implement and file required individual and IRS tax reporting (1095-C and 1094-C) related to Health Care Reform.
- Planned and developed Request for Proposal for benefit consulting services. Oversaw and participated in the bidding interviews to select and negotiate a new three-year benefit consultant contract.
- Coordinated and received credit for the Special District Risk Management Authority's (SDRMA) Credit Incentive Program. The District received a combined credit of approximately $160,700, which was applied towards the Property/Liability and Workers' Compensation premiums. This credit includes CIP, longevity distribution, and a 5% multi-program discount. In addition to this credit, the District received a high-volume discount in the amount of approximately $273,100.
- Developed and/or updated various policies, procedures and programs to include Drug Free Workplace; Department of Transportation Drug & Alcohol Testing; Smoking, Tobacco and Nicotine Free Campus; and Use of Information Technology Resources and Telecommunications Systems.
- Implemented additional Emergency Preparedness practices with the Safety and Security Specialist and members of the Emergency Operations Center to be further prepared for disasters or emergencies.

Administrative Services – Purchasing and Facilities

Services We Provide

The Purchasing Division, under general direction of the Chief of Administrative, oversees the general purchasing standards used within the District; purchases and oversees the procurement of supplies, equipment, and services; controls and administers the District's standard materials inventory; disposes of surplus materials, equipment, and supplies; assists in the acquisition and disposal of non-infrastructure related real estate; performs non-structural facility maintenance work; and administers and manages outsourced facility maintenance service contracts. Also, as needed, provides complex purchasing related analysis and consultation to the District and General Manager.

Accomplishments – Fiscal Year 2015-2016

- Facilities staff made changes to the Operations and Administrative HVAC systems, thermostats and Trane building management software to fine-tune schedules and to idle unoccupied rooms in order to capture greater energy savings.
- For transparent, standardized and efficient procurement processes, Purchasing implemented an online eProcurement system, BidSync, to source suppliers, manage solicitations and award agreements for goods, services and public works.
- Purchasing staff was able to eliminate one position, the Assistant Buyer, by leveraging changes in technology and procedures. This was also achieved without a layoff when the Assistant Buyer transferred to an open Warehouse position.
- Migrated the District's legacy ground loop fuel authorization and management system to a modern Orpak wireless system that provides greater reliability and enhanced reporting.
- Facilities staff began a District-wide security gate upgrade program replacing double panel gates, mechanical lift rods, chains and combination locks with single swing gates, electromechanical locks and access by key FOB credentials. Access security is improved through ID authorizations and the elimination of chains and combination locks. Personal injuries are reduced by removing lift rods and eliminating pinch points.

Administrative Services – Safety and Security

Services We Provide

Safety and Security, under the direction of the Chief of Administrative, provides the following: assesses the occupational exposure to risk; evaluates hazards and mitigation of safety hazards and risk to injury; directs and supervises accident investigations relating to occupational injuries, fleet incidents and/or damage to, or theft of District property; develops hazardous materials business plans, community right-to-know, Risk Management Prevention and Process Safety Management plans; develops and implements procedures to ensure compliance with safe work practices and determines training needs to address issues; develops, implements and manages safety programs; manages the District's security program; implements, schedules and coordinates recurring safety training; coordinates the Department of Transportation (DOT), the District's Drug Free Workplace, and DMV Pull-Notice Programs; and plans and coordinates the District's emergency preparedness program.

Accomplishments – Fiscal Year 2015-2016

- Chaired the District completion of the emergency preparedness monthly WebEOC exercises hosted/sponsored by the SDWA and County of San Diego OES. These exercises further prepare the District with response, management, and cooperation of incidents ranging from local to state-wide emergency events.
- Completed the second phase of a District-wide program to standardize and modernize physical security, access control, and monitoring and video systems. This project further prepares the District for implementation of the DMP "ENTRE" access control and security management enterprise platform.
- The District received the Target Solutions Milestone Award for using its online training platform to train and keep employees safe.
- Evaluated regulatory fall protection requirements and improved existing personal protective equipment (PPE) and District practices in use. Provided refresher training to affected staff. Procured updated PPE, replaced the use of 6' lanyards with self-retracting lifelines, and added guardrail systems for protection of open vaults and manhole lids.
- Developed and created an electronic online chemical safety data sheet program. This program is available on the District's intranet, is accessible on-line and is broken down by sections with a District-wide main folder.
- Developed the following in-house occupational health and safety regulatory training and certification programs: crane operator, Bill Jax, and Genie aerial lifts and forklift.
- Trained Facilities and Fleet Shop staff on regulatory requirements for Hazardous Waste Operations.
- Provided confined space refresher training for all affected District staff using the District's revised Confined Space (CS) Entry Procedures Program, which included practical hands-on training/instruction on the setup and use of entry and retrieval equipment; CS fall protection requirements; setting up of CS perimeter guardrail protection; harness inspections before use

and donning/doffing; and duties and responsibilities of CS entry crew, supervisor, attendant and entrant; CS entry protocols; and practical exercises.

- Supported Operations and Engineering staff with the following District environmental programs: California Accidental Release Program (CalARP), Hazardous Materials Business Plans (HMBP's), Spill Prevention Control and Countermeasure (SPCC). Participated in related meetings, inspections and related program review.
- Reviewed OSHA logs and calculations on District loss time/incident rates and provided Human Resources with tracking options for the Strategic Plan measure.
- Worked with SDRMA's safety consultant to ensure the District was in compliance with safety regulations noted during the assessment of our facilities.

Administrative Services – Strategic Planning

Services We Provide

The Information Technology and Strategic Planning Department provides the following support services: development and implementation of information technology; the District's Strategic Planning process including the development of long-term strategic initiatives and defining performance measurement metrics; and information system support to the District. The department also provides highly responsible and complex administrative and technical support to the District, General Manager, and Board of Directors.

Accomplishments – Fiscal Year 2015-2016

- Completed the implementation of the new enterprise workflow automation solution, Nintex. This solution will provide enhancements to business processes and will continue to streamline the essential workflow of business forms that are used throughout the District, which are tied to the enterprise portal, SharePoint. In addition, the solution will also aid in the management of existing District documentation, content lifecycle management, record keeping requirements, and future online service requests. Lastly, Nintex will enable users to now approve and manage desktop forms via their mobile device.
- Completed the implementation of a new backflow prevention management solution, XC2. This solution will manage and administer the District's backflow prevention program by providing new and enhanced analysis and reporting in support of contamination prevention of potable water services throughout the District. This accomplishment is the first in a series of phased deployments to leverage the Cityworks asset management platform coupled with the District's overall asset management initiatives.

Administrative Services – IT Services

Services We Provide

IT Operations is responsible for day-to-day support of the District's data center; enterprise business systems network and desktop hardware/software; disaster recovery; telecommunications; mobile and wireless networks; website; and help desk. IT Operations has collateral responsibilities for access control security systems.

Accomplishments – Fiscal Year 2015-2016

- Completed the re-engineering of business critical systems backup and recovery services. The new backup and recovery landscape entails the co-location of business critical backup systems to an off-site redundant data center. In the event of a major service interruption at the District's Administrative facilities, the new landscape ensures the continuity of business critical systems by redirecting access to the off-site data center. Other key benefits with this specific accomplishment is reduction of on-site operating costs and technology produced carbon footprint.
- Completed the deployment of the District's new enterprise Cisco Unified Computing System (UCS). The new UCS is the platform for all District enterprise server and business applications. The UCS platform provides new and enhanced management features, increased application performance, reliability, redundancy, security, and scalability. Lastly, the new UCS platform will enable IT staff to quickly respond to future system requests with on-demand virtual machine creation of new server or application environments.

Administrative Services – Geographic Information System

Services We Provide

The GIS group is responsible for the technical and administrative support of the District's GIS/AM/FM and CAD systems. It is also responsible for the data collection and data QA/QC of the District's facility data and land-based data. In addition, it provides technical support in designing, developing, documenting and maintaining the District's database systems and creates database structures that consolidate the conceptual, logical and physical models of data.

Accomplishments – Fiscal Year 2015-2016

- Completed the redesign of the District's enterprise GIS system architecture. Staff redesigned the GIS architecture to leverage the many benefits of the new Unified Computing System and virtual server technology. The new design provides enhanced availability, performance, security, and scalability for future GIS service requirements.
- Completed the development of the new Pipe Isolation Trace application. In the event of a required water shutdown or service interruption to a specific area, the application provides data about the affected customers, which Customer Service staff can use to prepare information or respond to customers. The application has also automated multiple workflows for emergency shutdown or preventive maintenance use. This application will significantly minimize the time required to gather affected customer information and timely deployment of notifications.
- Completed the deployment of a new mobile data collection solution, which complements the District's field valve exercising Wachs Machines. The Wachs mobile solution automates record valve exercising functions such as turns and high torque information, and electronically collects the associated data. This is a key tool in the valve exercising program and will also support the District's enterprise asset management goals.
- At the annual Esri Water User Conference, the District's GIS team was recognized by peers across the nation for their presentation titled "Using GIS to Improve Water Distribution Integrity." The District's GIS design and representation of pipeline assets is considered an industry best practice.

Finance – General

Mission Statement

To provide timely, accurate, and clear information that optimizes service to the District's staff and ratepayers. Through continuous improvement, professional service, and effective fiscal policies the Finance Department will ensure that financial resources are collected, recorded, protected, and expended in a fiscally responsible manner.

Meter Maintenance

Finance

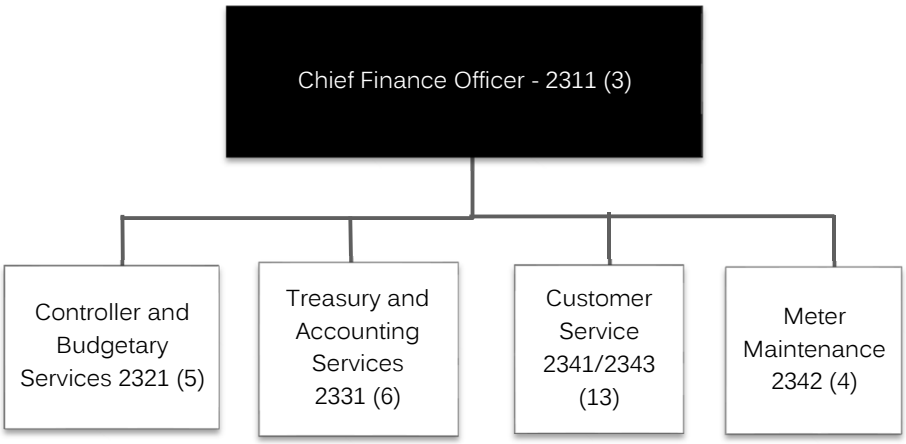
Customer Service

Department Responsibilities

The Finance Department, under the general direction of the Chief Financial Officer, provides the following support services: Controller and Budgetary Services, Treasury and Accounting Services, Payroll and Accounts Payable, and Customer Service. The Department ensures the District's conformance with modern finance, accounting theory and practices, and compliance with applicable state and federal laws. In addition, it provides customer support, meter reading and maintenance, and water conservation outreach programs. The Finance staff provides highly responsible and complex administrative and technical support to the District, General Manager, and Board of Directors.

Finance - Position Count

District Position Count - 135
Finance Department - (31 Positions)



Position Title	FY 2015	FY 2016	FY 2017
Chief Financial Officer	1	1	1
Executive Secretary	1	1	1
Secretary	1	1	1
Finance Manager, Treasury and Accounting	1	1	1
Finance Manager, Controller and Budget	1	1	1
Senior Accountant	4	4	4
Accountant	3	3	3
Accounting Technician	2	2	2
Customer Service Manager	2	2	1
Customer Service Supervisor	0	0	1
Lead Customer Service Representative	2	2	1
Customer Service Representative I, II and III	7	6	6
Lead Customer Service Field Representative	1	1	1
Customer Service Field Representative I and II	3	2	2
Lead Cross Connection/Meter Maintenance Worker	1	1	1
Meter Maintenance Worker I & II [1]	3	3	3
Senior Conservation Specialist	1	1	1
Total	34	32	31

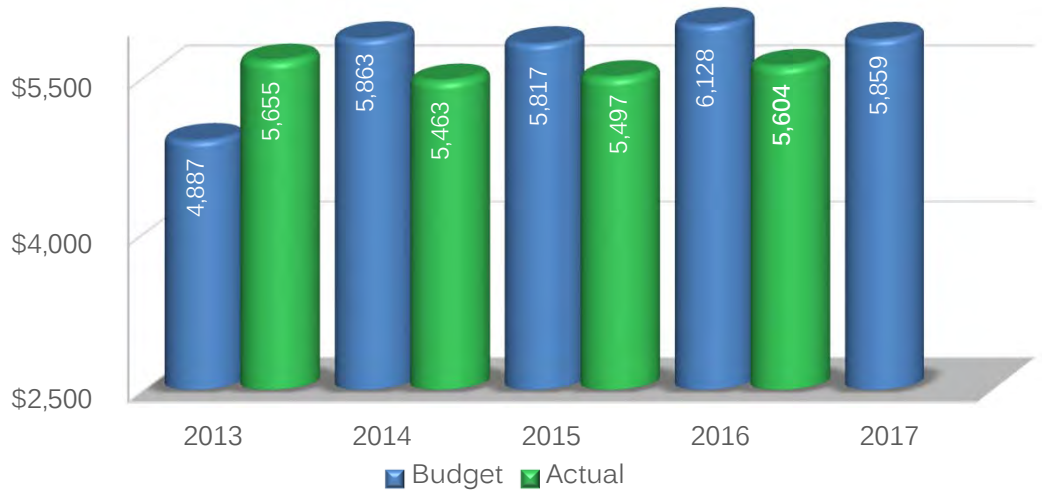
[1] Beginning in FY 2015, Meter Maintenance was moved from Water Operations.

Finance - Expenses

Department	FY 2015 Actual	FY 2016 Budget	FY 2016 Actual*	FY 2017 Budget
Finance Chief	$ 524,447	$ 544,600	$ 547,874	$ 563,700
Controller and Budgetary Services	830,236	883,300	832,787	911,800
Treasury and Accounting Services	1,289,188	1,364,700	1,372,201	1,410,500
Customer Service	1,964,999	2,115,600	1,868,278	1,938,900
Meter Shop	601,735	626,100	656,403	687,600
Water Conservation	285,906	594,100	326,148	346,100
Total Expenses	5,496,511	6,128,400	5,603,691	5,858,600

Object	FY 2015 Actual	FY 2016 Budget	FY 2016 Actual*	FY 2017 Budget
Labor and Benefits	4,475,530	4,687,100	4,450,470	4,654,200
Travel and Meetings	17,611	26,100	17,795	25,600
Conservation and Outreach	139,965	170,900	142,146	171,400
General Office Expense	153,875	167,800	151,896	167,800
Fees	354,813	351,600	355,925	363,900
Services	123,313	432,500	188,468	190,400
Training	-	500	180	500
Materials & Maintenance	138,063	136,900	182,696	179,800
Bad Debt Expense	93,341	155,000	114,115	105,000
Total Expenses	$ 5,496,511	$ 6,128,400	$ 5,603,691	$ 5,858,600

Budget vs. Actual, in thousands ($)



* Actual unaudited

Finance – Controller and Budgetary Services

Services We Provide

The Controller and Budgetary Services Division is responsible for developing and publishing the annual operating and capital budgets as well as preparing the six-year financial plan and proposing rate changes. Staff prepares monthly and annual reports, monitors budget variances, and coordinates interactions with outside agencies. This division is also responsible for the bi-weekly payroll of 138 full-time and temporary employees using the District's Eden System. Timesheets and pay stubs are collected and distributed electronically. Benefits and deductions are processed bi-weekly. Federal and state tax returns are filed on a quarterly basis and W2s are filed annually.

Accomplishments – Fiscal Year 2015-2016

- For the twelfth consecutive year the District has met nationally recognized guidelines and has been awarded the *Distinguished Budget Presentation* award for the Fiscal Year 2015-2016 Budget by the Government Finance Officers Association. To receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, a financial plan, an operations guide and a communications device. This is a significant achievement and is the highest form of recognition in governmental budgeting.
- The District has been awarded the *Operating Budget Excellence Award* for the Fiscal Year 2015-2016 Budget by the California Society of Municipal Finance Officers (CSMFO). This is the tenth consecutive year the District has been recognized as having prepared a budget document or a communication tool that meets certain standards.
- The CSMFO has awarded the District the *Capital Budgeting Excellence Award* for the Fiscal Year 2015-2016 Capital Improvement Program Budget. This award recognizes agencies that have prepared a Capital Improvement Budget document or a communication tool that meets certain standards. This is the eleventh consecutive year the District has received this award.

Finance – Treasury and Accounting Services

Services We Provide

The Treasury and Accounting Services Division coordinates and directs the activities of the general ledger accounting, audit; banking and cash management; investments and treasury functions, debt financing; job costing, cost accounting, fixed assets, and contract review. The division is responsible for the accounts payable process which pays approximately 750 invoices on a monthly basis. It is also responsible for completing the District's annual financial audit and publishing of the Comprehensive Annual Financial Report (CAFR). The division conducts an annual review of the District's Investment Policy, as required by law, with approval by the Board of Directors. It provides financial analysis and review of staff projects and operational business proposals. It also assists in the preparation of the District's annual operating and capital budgets, along with updating the rate model and the six-year financial plan.

Accomplishments – Fiscal Year 2015-2016

- The District has been awarded the *Certificate of Achievement for Excellence in Financial Reporting* by the Government Finance Officers Association (GFOA), for the Comprehensive Annual Financial Report (CAFR) for fiscal year ending June 30, 2015. This is the twelfth consecutive year the District has received this award which is the highest form of recognition in the area of governmental accounting and financial reporting. It clearly demonstrates how the District takes great care in maintaining high financial standards.

Finance – Customer Services

Services We Provide

The Customer Service Division is responsible for providing billing, receipting, collections, and customer care for water and sewer services in addition to assisting with water conservation. The billing and customer care teams handle the coordination of billing and receipting of approximately 49,000 accounts per month. Customers have the choice of receiving either a paper bill or an electronic bill. Various payment options include ACH, web, IVR (telephone), and the convenience of multiple locations for walk-in payments. The District has an automated phone system and web portal which give customers access to their account information 24/7. If they desire more personal service, the customer care team handles an average of 5,000 customer calls per month. The water conservation staff promotes and conducts residential and large landscape surveys, promotes the Water Conservation Garden as a resource, participates in outreach events throughout the community, helps fund and promote a variety of incentive and other programs available to its customers, and manages the District's Water Shortage Response Plan as well as its water waste reporting program.

The Meter Shop is responsible for the installation and maintenance of all meters in the District. They manage the District's backflow/cross-connection prevention which includes annual testing of devices and water meters to ensure the continued safety of the potable water system. Staff responds to customer issues regarding meter accuracy, conducts site audits, and maintains records as required by various regulatory agencies. The Meter Reading team reads approximately 49,000 potable, recycled, and District meters a month using automatic meter reading technology.

Accomplishments – Fiscal Year 2015-2016

- With ongoing process improvements, the Customer Service department has gained greater efficiency. After the retirement of a Customer Service Manager in August 2015, a reorganization took place that reduced staff by one FTE.
- Customer Service staff responded to more than 500 reports of water waste, resulting in more efficient and effective water conservation efforts.
- Replaced the collection agency used for secondary collection services on unpaid water bills. The change in agencies will allow the District to keep an additional 15% on all collectables.
- The District's large meter testing program aims to test all meters 3" or larger at least once every three years. This year staff tested over 120 large meters and repaired or replaced 25 failing meters. The testing and repair process ensures the District's largest users are billed for all water used.
- Meter Shop staff has implemented a new backflow program tracking system. This new system will allow greater administrative flexibility in entering backflow test reports.

Water Operations - General

Mission Statement

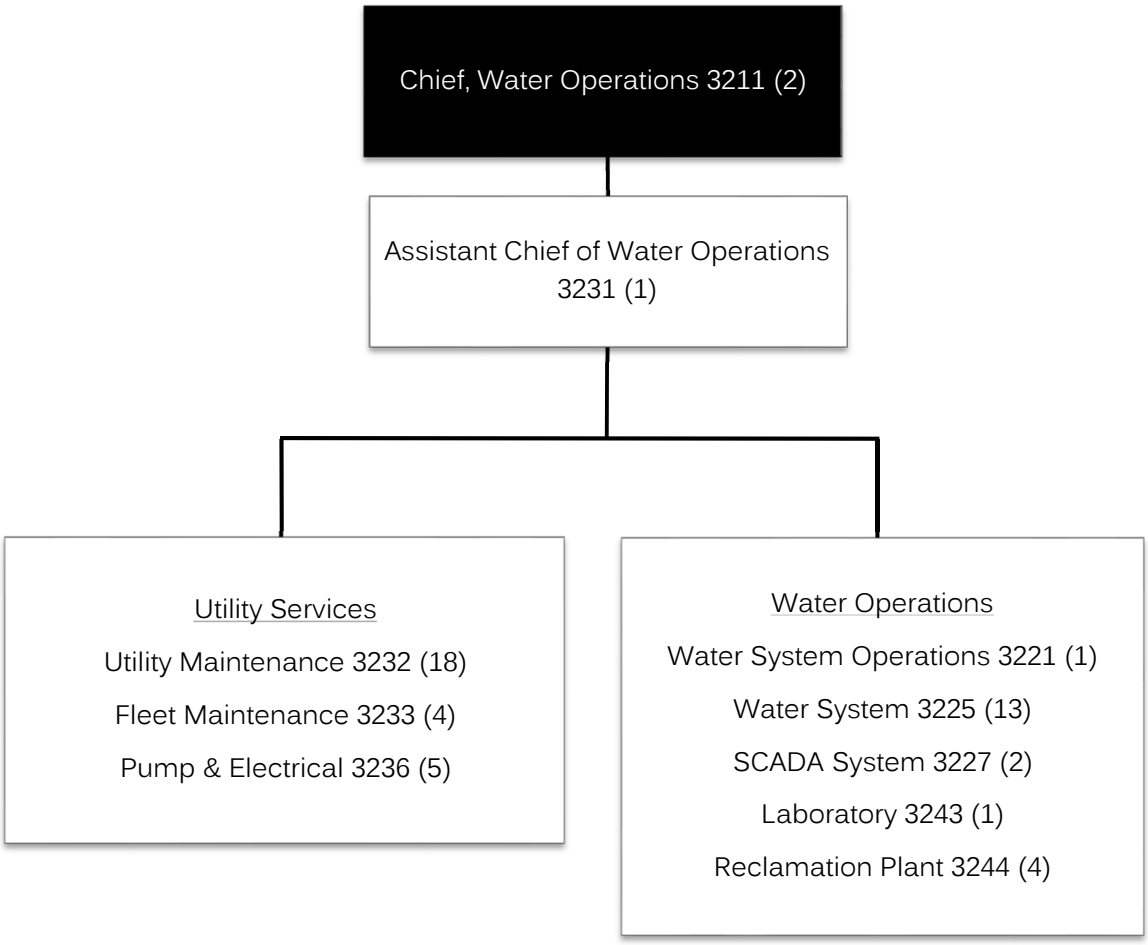
To provide all operations and maintenance service in the most efficient, safe, and cost effective manner to all internal and external customers, and to strive to continually improve the level of service.

Department Responsibilities

The Water Operations Department, under the general direction of the Chief of Water Operations, provides the following support services: Potable and Recycled Water System Operations, Construction Maintenance, Sewer Collection, and Wastewater Treatment. The department provides highly responsible and complex technical and administrative support to the District, General Manager, and Board of Directors.

Water Operations - Position Count

District Position Count - 135
Water Operations Department - (51 Positions)



Water Operations - Position Count

District Postion Count - 138
Water Operations Department - (51 Positions)

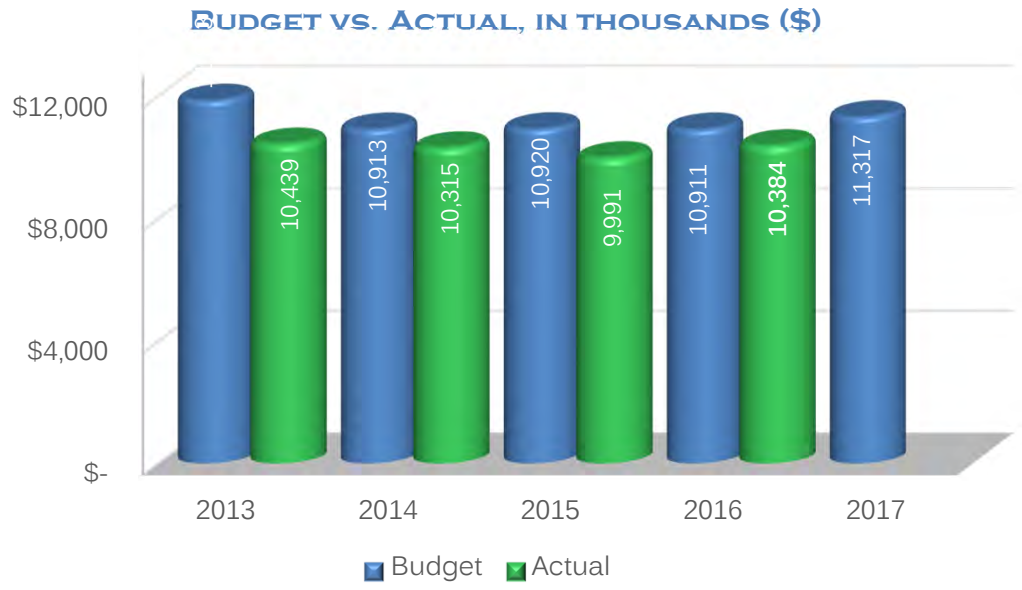
Position Title	FY 2015	FY 2016	FY 2017
Chief, Water Operations	1	1	1
Assistant Chief, Water Operations	0	1	1
Executive Secretary	1	1	1
System Operations Manager	1	1	1
Water Systems Supervisor	1	1	1
Recycled Water Systems Supervisor	1	1	0
Lead Water Systems Operator	2	2	2
Water Systems Operator I, II, and III	9	8	8
Valve Maintenance Worker	1	0	0
Senior SCADA Instrumentation Technician	1	2	2
Sr. Disinfection Technician	2	2	2
SCADA Instrumentation Technician	1	0	0
Recycled Water Distribution Operator	4	4	0
Utility Services Manager	1	0	0
Utility Maintenance Supervisor	2	2	2
Utility Crew Leader	3	3	3
Utility Workers I and II	8	8	8
Senior Utility/Equiment Operator	3	3	3
Valve Maintenance Worker	0	2	2
Pump Electric Supervisor	1	1	1
Electrician I and II	2	2	2
Pump Mechanic I and II	2	2	2
Fleet Maintenance Supervisor	1	1	1
Meter Maintenance Worker I & II [1]	0	0	0
Equipment Mechanic I and II	3	3	3
Reclamation Plant Supervisor	1	1	1
Lead Reclamation Plant Operator	1	1	1
Reclamation Plant Operator I, II, III	2	2	2
Laboratory Analysts	1	1	1
Total	56	56	51

[1] Beginning in FY 2015, Meter Maintenance was moved to Finance.

Water Operations - Expenses

Department	FY 2015 Actual [2]	FY 2016 Budget [2]	FY 2016 Actual*	FY 2017 Budget
Water Operations Chief	$ 440,401	$ 450,300	$ 438,881	$ 461,600
Water Systems	5,194,910	5,363,700	5,182,548	5,512,300
Construction Maintenance	4,356,012	5,097,400	4,762,313	5,342,800
Total Expenses	9,991,323	10,911,400	10,383,742	11,316,700

Object	FY 2015 Actual [2]	FY 2016 Budget [2]	FY 2016 Actual*	FY 2017 Budget
Labor and Benefits [1]	6,753,648	7,264,900	7,428,812	7,821,700
Travel and Meetings	29,911	48,800	35,709	42,400
General Office Expense	-	300	666	300
Equipment	32,096	44,000	33,104	61,300
Fees	71,241	61,400	74,347	149,900
Services	243,149	540,100	309,794	445,400
Training	10,680	9,000	4,873	9,000
Materials & Maintenance	1,642,085	1,946,500	1,465,270	1,951,500
Sewer Charges	1,208,513	996,400	1,031,167	835,200
Total Expenses	$ 9,991,323	$ 10,911,400	$ 10,383,742	$ 11,316,700



[1] Excludes CIP labor and benefits.

[2] In FY 2017, the Recycled Division's responsibilities have been reorganized between the Operations and Engineering Departments. Prior year budget and actuals have been adjusted for comparative purposes.

* Actual unaudited

Water Operations – Water System Operations

Services We Provide

The Water Systems Operations Division encompasses five sections which are responsible for operations and monitoring of the potable and recycled water distribution systems as well as the Ralph W. Chapman Water Recycling Facility. The water system operators monitor and operate the water distribution system to ensure it provides safe, reliable drinking water to the District's customers. The SCADA staff performs installations, maintenance, updates, and modifications to the SCADA control system and related communications equipment, both for existing facilities as well as CIP projects. The treatment plant staff maintains and operates the District's sewer treatment plant in order to produce high-quality recycled water to the District's recycled water customers. The recycled system operators monitor and operate the recycled water distribution system to ensure it provides adequate supply to the District's recycled water customers and periodically conduct cross-connection tests to ensure that the potable distribution system is completely isolated from the recycled water system. Laboratory staff ensures all regulatory-required sampling, analyses, and reporting is done to meet the requirements from the State Water Resources Control Board for potable water and the Regional Water Quality Control Board for recycled water and the reclamation plant treatment process. Laboratory staff works closely with the water system operators and disinfection staff to monitor and optimize the water quality in the distribution system. They also perform bacteriological sampling and analyses for Utility Maintenance and Engineering to ensure proper disinfection was performed after maintenance or new construction.

Accomplishments – Fiscal Year 2015-2016

- Staff prepared for and completed a 10-day full treated water shutdown of San Diego County Water Authority's Pipeline No. 4 from March 20, 2016 to March 26, 2016. Flows from the City of San Diego via the Lower Otay Pump Station and District water storage was used for the South District's water demands for the duration of this planned shutdown.
- The State Water Resources Control Board (SWRCB) determined that special lead and copper testing was required to be performed in areas of potable water distribution systems that typically contain a blend of water produced at the Carlsbad Desalination Plant. Staff prepared a monitoring plan for the areas that receive this water blend. The plan includes sampling dates that meet the deadlines put forth by the State.
- The District's FY 2016 leak detection campaign occurred from February 3, 2016 to March 14, 2016. A total of 150 miles of potable pipelines were surveyed. The survey focused on pipelines that were installed in 1985 and earlier. A total of four leaks were found in the District's distribution system and were repaired by staff.
- Completed improvements to the Ralph W. Chapman Water Reclamation Facility to meet new regulations on industrial discharges of storm water.
- Maintained a 100% compliance rate of water quality parameters and a goal of zero sanitary sewer overflows.

Water Operations – Water System Operations

- The County of San Diego held inspections at all four District sites that are under the California Accidental Release Prevention (CalARP) program with no significant issues reported by the County.
- With assistance from the District's Environmental Compliance Specialist, successfully updated the Spill Prevention Control and Countermeasures (SPCC) plans for the five District sites that are required to have them.
- Converted from the existing Supervisory Control and Data Acquisition (SCADA) system to the new iFix SCADA system as the primary means for system control in the potable, recycled and treatment plant.
- Successfully transitioned the responsibilities of operating the recycled water distribution system from Engineering to Water Systems staff.

Water Operations – Utility Services Maintenance

Services We Provide

The Utility Maintenance and Construction Division has three sections which provide vital maintenance functions to ensure continuity of the drinking water, recycled water, and wastewater services to District customers while adhering to all applicable regulatory compliance requirements. Utility Maintenance staff maintains all collection and potable distribution and recycled distribution systems, including regular inspection and cleaning of the wastewater collection system. They also exercise valves, install and/or repair main pipelines and service lines expediently, while following all established safety rules and regulations. The Fleet Maintenance staff implements active preventative maintenance practices and repairs on all District vehicles and equipment to ensure optimum performance while establishing fuel efficient operational practices and emissions compliance. Pump and Electrical staff performs preventative, predictive and corrective maintenance on all pumps, motors, switchgear, and control valves in the District and assists with electrical maintenance and installation throughout the District.

Accomplishments – Fiscal Year 2015-2016

- Repaired a 12-inch emergency water main break on Hillsdale Road in El Cajon on October 7, 2015.
- Repaired an 18-inch emergency water main break on Campo Road in Spring Valley on June 8, 2016.
- Leveraged the GIS based iWater program to streamline the documentation of maintenance completed on potable, recycled, and collection appurtenances.
- Coordinated with the Purchasing Manager to implement the electronic procurement software (BidSync) for the quotes and bids, throughout the department, to streamline the procurement process for goods and services.
- Staff continues to effectively manage the As Needed Paving Contract resulting in a cost savings of 64% over the previous 7 years.
- Tested, procured, and deployed a replacement valve-exercise machine that automates data entry into the GIS database increasing valve exercise production and efficiency.
- A qualified inspector completed the external inspection of all the District's pressure vessels (surge and hydro pneumatic tanks), with no significant issues noted, as part of the District's newly established maintenance program.
- As a result of gained efficiencies within the Division, Operations staff have assumed the task of inspection of the recycled force main from Engineering. The cost to complete this task without requiring additional staff has been reduced by approximately 20%.
- A new emergency general contractor was used by the District for the first time in more than 15 years to complete an emergency repair, thereby, providing the District additional redundancy and flexibility in restoring and maintaining water supply to District customers.

Intentionally Left Blank

Engineering - General

Mission Statement

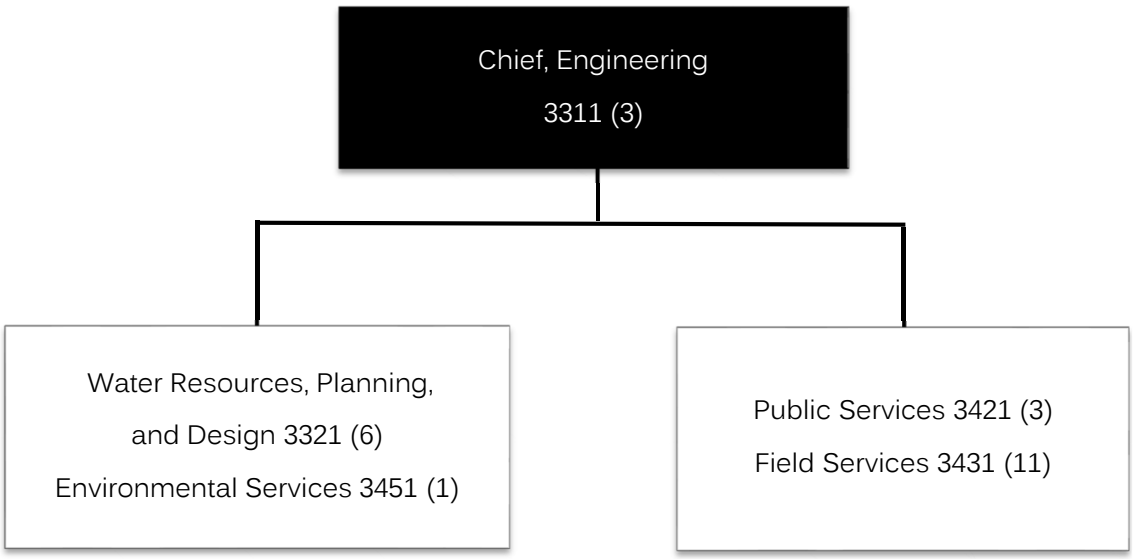
To provide Engineering, Construction, and Environmental services for the District and for the development community, quality control of future District assets, and expediting of the permitting process, through the use of our dedicated employees and innovative technology with the goal of attaining excellent customer satisfaction.

Departmental Responsibilities

The Engineering Department, under the general direction of the Chief of Engineering, provides the following support services: Planning, Design, Construction Management, Inspection Project Management, Surveying, and Public Services of all District facilities. The department is responsible for strategic planning; the capital budget; water resources planning; support facilities planning; environmental services; quality control; construction; developer designed and constructed facilities; along with coordinating assigned activities with other District departments and outside agencies. It provides highly responsible and complex administrative and technical support to the District, General Manager, and the Board of Directors.

Engineering - Position Count

District Position Count - 135
Engineering Department - (24 Positions)



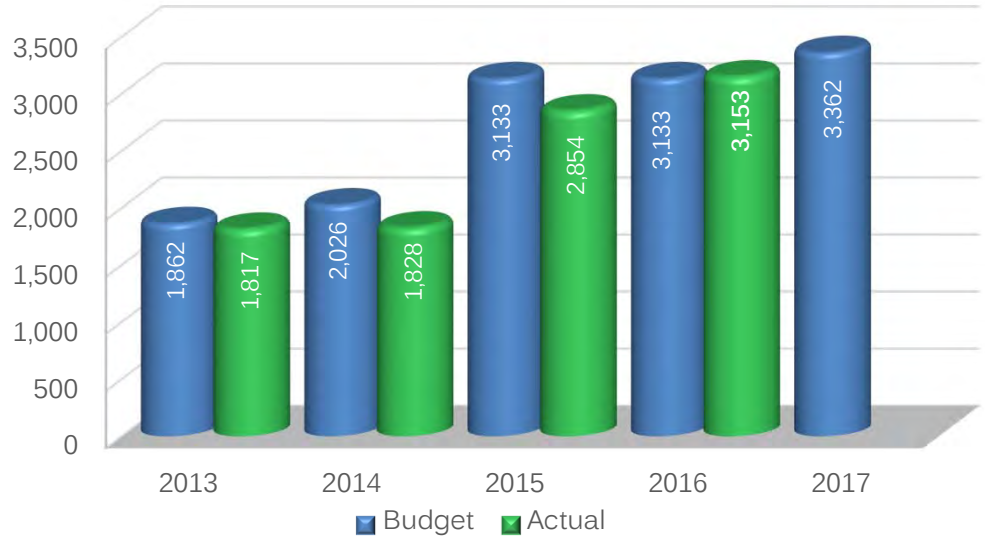
Position Title	FY 2015	FY 2016	FY 2017
Chief, Engineering	1	1	1
Executive Secretary	1	1	1
Secretary	1	1	1
Engineering Manager	2	2	2
Senior Civil Engineer	2	2	2
Associate Civil Engineer	0	1	1
Construction Management Specialist	0	0	0
Assistant Civil Engineer I and II	1	0	0
Environmental Compliance Specialist	1	1	1
Permit Technicians	2	2	2
Senior Engineering Technician	2	2	2
Inspection Supervisor	1	0	1
Lead Construction Inspector	0	1	0
Construction Inspectors I and II	3	2	3
Supervising Land Surveyor	1	1	1
Assistant Survey Technician	1	1	1
Field Services Manager	0	1	1
Recycled Water Systems Supervisor	0	0	1
Recycled Water Distreibution Operator	0	0	3
Total	19	19	24

Engineering - Expenses

Department	FY 2015 Actual [4]	FY 2016 Budget [4]	FY 2016 Actual*	FY 2017 Budget
Engineering Chief	$ 338,021	$ 390,700	$ 440,056	$ 594,100
Engineering Services [1]	728,167	808,500	825,865	721,200
Public Services [2]	1,652,289	1,767,800	1,708,742	1,753,300
Environmental Services	135,114	165,900	178,261	293,100
Total Expenses	2,853,591	3,132,900	3,152,924	3,361,700

Object	FY 2015 Actual [4]	FY 2016 Budget [4]	FY 2016 Actual*	FY 2017 Budget
Labor and Benefits [3]	2,196,415	2,352,900	2,475,049	2,517,600
Travel and Meetings	17,062	19,400	15,545	18,300
General Office Expense	330	7,500	6,443	1,700
Equipment	-	-	486	-
Fees	30,068	38,000	28,853	38,000
Services	606,756	702,600	616,893	772,600
Training	2,960	12,500	9,655	13,500
Total Expenses	$ 2,853,591	$ 3,132,900	$ 3,152,924	$ 3,361,700

Budget vs. Actual, in thousands ($)



[1] Engineering Services includes Planning, Design, and Water Resources.

[2] Public Services includes Public, Construction and Survey Services.

[3] Excludes CIP labor and benefits.

[4] In FY 2017, the Recycled Division's responsibilities have been reorganized between the Operations and Engineering Departments. Prior year budget and actuals have been adjusted for comparative purposes.

* Actual unaudited

Engineering – Water Resources, Planning, Design, and Environmental Services

Services We Provide

The Planning, Design, Environmental, and Water Resources Divisions provide a variety of services directly related to potable water, recycled water, and sewer services. Water resources staff identifies, negotiates, and develops additional potable and recycled water supplies. Planning staff develops the preliminary design of a project in order to facilitate final design and ultimately construction of the facility. Planning staff also coordinates the review of planning documents related to potential new development. Design staff prepares the design of facilities and advertises projects for bid. Environmental staff coordinates and tracks the project through the construction stage and for a period after construction, if long-term mitigation is required. In addition, staff assists the Operations Department on special design projects related to maintenance of existing facilities including the Ralph W. Chapman Water Reclamation Facility. Additionally, Water Resources staff coordinates with other agencies on regional issues and is responsible for obtaining grants, loans, and cost-sharing opportunities.

Accomplishments – Fiscal Year 2015-2016

- Completed the design and construction of interior and exterior coating and upgrades to the 944-1, 944-2, 458-2, 850-3, 711-1 reservoirs. By maintaining reservoirs, the District is improving the water reliability and preserving the useful life of these reservoirs for another 20 years.
- Completed construction of State Route 11 (SR-11) Potable Water Utility Relocations – Sequence 1 project. This project relocated three (3) separate District water mains of various sizes and materials to clear the right-of-way for SR-11.
- Completed construction of the State Routes 11/125/905 Connector Ramps Blow Off Relocation project. This project relocated an existing 6-inch potable water blow off to clear the right of way for a future bridge across Otay Lakes Road.
- Completed design and construction of two (2) new potable water pressure reducing stations in the 624 pressure zone and improvements to an existing recycled water pressure reducing station located in the 944 recycled water pressure zone. The two (2) new potable water pressure reducing stations have improved fire flow and enhanced system reliability. Improvements to the recycled water pressure reducing station have reduced the risk of filling the vault with rain water and associated damage to equipment.
- Completed the design and replacement of three (3) aging return activated sludge pumps, motors, and variable frequency drives at the Ralph W. Chapman Water Reclamation Facility, including related electrical and waste sludge piping work, to increase reliability and serviceability to provide increased capacity for meeting waste and treatment process requirements..

Engineering – Water Resources, Planning, Design, and Environmental Services

- Completed the design and construction of the expansion of the Operations Yard parking lot, which added over 27,000 square feet of space. The lot will provide a separate parking area for employee vehicles, equipment storage, and a staging area for emergency events.
- Completed the design and construction of fire shields and safety measures to increase fire resistance capacity to beyond three (3) hours to the underside of the existing Sweetwater River Trestle that conveys the 14-inch recycled water transmission line over the Sweetwater River.
- With Helix Water District taking the lead, both agencies finalized plans, agreements, and constructed improvements to two (2) emergency interconnections at Blossom Lane and Ivy Street. Both agencies have benefited by having interconnections between the two (2) districts for emergencies. The interconnections provide increased reliability and flexibility during power outages and other disruptions in service.
- Completed design and obtained permits from the County of San Diego and Caltrans to approve traffic control plans for the air-vacuum replacement on the 36-inch La Presa Pipeline starting from District headquarters on Jamacha Boulevard to the Regulatory site. These repairs will preserve the useful life of this pipeline for another 30-40 years.
- Completed chlorine storage improvements to the 450-1 Disinfection Facility.
- Worked closely with staff and representatives from NSC Agua to ensure compliance with the California Water Resources Control Board Drinking Water Program regulatory requirements. To meet these requirements, NSC Agua continued source water testing at the power plant intake and outlet structures. The objective of this source water quality testing is to determine the type of constituents in the ocean water and then to ensure that the appropriate treatment will be performed and that the produced desalinated water will meet the California water quality standards.
- Completed the 2015 Urban Water Management Plan and filed the plan with the State's Department of Water Resources. This plan will address the requirements of the California Water Code, provide useful information to the public about the District's water supplies and water management programs, and provides a framework for water planning to minimize the negative effects of potential water shortages.
- Completed the 2015 Integrated Water Resources Plan Update and held a workshop with the Board to go over the elements of the plan update. The purpose of the plan is to identify and conceptually develop a diverse range of water supply projects to meet long-range water supply needs.
- Completed the final design and bid phases for the 14-inch Recycled Water Force Main Improvements project. The project will replace blow offs and rehabilitate the cathodic protection system to maintain the life expectancy of the existing facility. The project will also provide a new flow meter vault to improve system reliability and

reduce the risk of a recycled water spill within the San Diego National Wildlife Refuge/Sweetwater Authority watershed.

- Acquired pump station sites for the Otay Interconnect Pipeline (also known as North District – South District Interconnection) project. The two (2) parcels will provide a site for a future booster pump station.
- Certified Final Environmental Impact Report as part of the Otay Interconnect Pipeline (also known as North District – South District Interconnection) project. The Project includes a 5-mile long, 30-inch diameter pipeline and associated booster pump station that would enable the District to convey potable water from the North District's 640 pressure zone to the South District's 624 pressure zone and vice versa. The Project will increase the District's potable water supply flexibility and reliability.
- Completed the design and environmental report for the Campo Road Sewer Replacement project. The Final Mitigated Negative Declaration/Initial Study and Environmental Checklist was approved by the Board on November 4, 2015. The sewer design received permit approval from Caltrans on May 5, 2016.
- Completed the draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) in conjunction with the U.S. State Department for the Otay Mesa Conveyance and Disinfection System Project and submitted the document for its 45-day public review period. This document looks at the environmental effects of a proposed pipeline to convey desalinated water produced at a desalination plant in Rosarito, Mexico, across the US/Mexico border to the District's Roll Reservoir. Completion of this document is a requirement for obtaining a Presidential Permit for receiving water across the border.
- Received the *"2016 Distinguished Owner Honoree"* award from the Construction Management Association of America – San Diego Chapter.

Engineering – Public Services and Field Services

Services We Provide

The Public Services, Survey, Inspection, and Construction Divisions assist the public by responding to customer visits, phone calls, and inquiries regarding permits, plan-checking fees, filing procedures, permit status, meter sales, meter costs, and lateral costs. Staff administers all plan-checking submittals for potable water, recycled water, and sewer applications for approval, cellular lease agreements, fire service, and backflow inspections, project deposits, and invoicing. Staff also provides inspections to private developer funded projects and the District's Capital Improvement Projects, easement and encroachment enforcements, and survey and utility mark-outs of District facilities and GPS plots. Once bid, the Construction staff provides construction management for the projects.

Accomplishments – Fiscal Year 2015-2016

- Secured a $425,000 Water Conservation Plan grant from the Pio Pico Energy Center, which will support the District's Leak Detection and Leak Repair efforts for FY 2017 and FY 2018.
- Sales of 118 meters totaled $4.28 Million and equated to 423.5 Equivalent Dwelling Units.
- Completed disposal of three (3) properties owned by the District and declared surplus by the Board with a net value of $147,592.20.
- Increased revenue by 4.6% from FY 2015 cell site leases in excess of $1.24 Million and maintained 33 cell site leases.
- Accepted developer water main projects with fixed assets valued at $2.03 Million.
- Completed 3,550 USA Mark-out tickets with an accuracy rate of 100%. Also, completed 34 surveys related to various projects included in the FY 2016 CIP.
- Performed QA/QC on 25,484 linear feet of pipeline. Also, performed 120 meter sets, rehabbed 3 tanks, and reviewed 45 plan checks that consisted of fire services, backflows, and developer pipeline projects as part of the delivery of the FY 2016 CIP and active developer projects.
- Successfully completed the transition of Recycled Operations over to Engineering Field Services. Worked closely with Operations for the transition of recycled water systems operation within FY 2016. This has resulted in the pulling back in-house of District's new irrigation inspection of projects and has reduced the District's demand for outside services.

Intentionally Left Blank

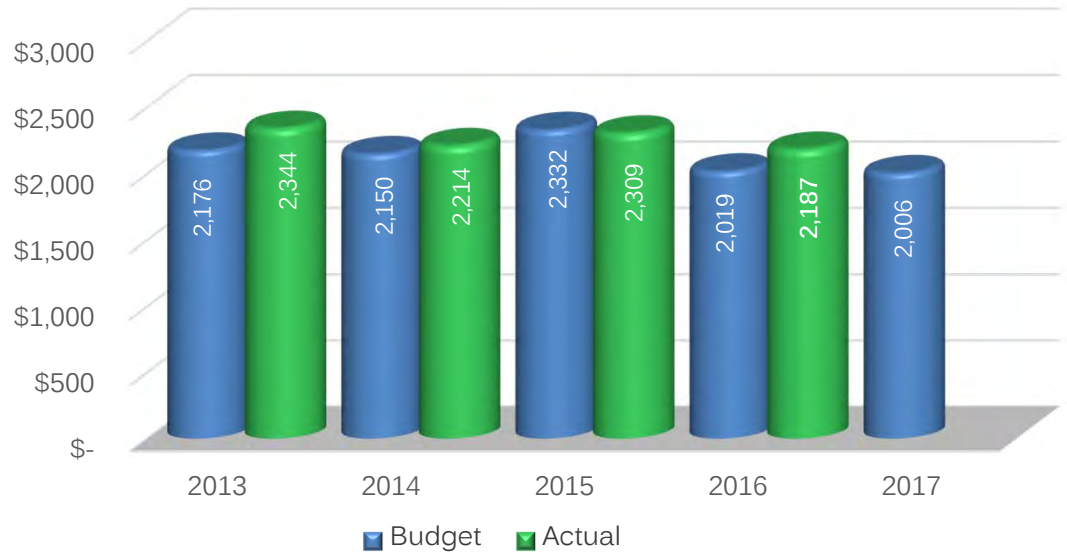
General Expense

The expenditures in this section are general operating costs not associated with an individual department. The expenditures include: legal costs, insurance premiums, changes in accrued employee leave balances and miscellaneous interest. These expenditures represent 6.5% of the total Department Budget.

Department	FY 2015 Actual	FY 2016 Budget	FY 2016 Actual*	FY 2017 Budget
General Expense	$ 2,309,023	$ 2,019,400	$ 2,186,585	$ 2,006,400
Total Expenses	2,309,023	2,019,400	2,186,585	2,006,400

Object	FY 2015 Actual	FY 2016 Budget	FY 2016 Actual*	FY 2017 Budget
Labor and Benefits [1]	1,487,720	1,183,400	1,359,311	1,181,400
Fees	820,046	836,000	827,274	825,000
Services	1,257	-	-	-
Total Expenses	$ 2,309,023	$ 2,019,400	$ 2,186,585	$ 2,006,400

Budget vs. Actual, in thousands ($)



[1] Benefits include District-wide labor and benefit costs not attributable to any one department, such as the effect of cost of living raises on accrued leave liabilities or the Other Post Employment Benefit (OPEB) costs. These costs are netted against the District's anticipated Vacancy Factor. The Vacancy Factor for FY 2016 and FY 2017 is $338,300 and $198,600, respectively. Additionally, the labor and benefits shown on this schedule are those related to operating costs and does not include CIP labor and benefit costs.

* Actual unaudited

Intentionally Left Blank

Capital Improvement Program

The District provides water service to a population of approximately 220,000 which is expected to ultimately increase to 308,000 by the year 2050. This growth as well as the maintenance of existing assets requires long-term capital planning. The process is dynamic, due to the evolving needs of the community, the water supply issues, and changing regulations. As such, capital planning is part of the District's overall strategic planning. The capital planning process involves identifying current needs, future needs, and prioritizing them based on certain operating assumptions. The primary objective of this planning effort is to support an orderly and efficient program of expansion, new water supply, replacement, and betterment, while maintaining a stable long-range financial plan.

To accommodate growth requires that the District invest $283 million in capital assets through ultimate build-out. The Fiscal Year 2017 Capital Budget is $10.7 million and the six-year Capital Improvement Program (CIP) totals $89.8 million. A separate CIP Budget document contains the descriptions, justifications, expenditures, and funding for all the identified projects to ultimate build-out.

Assumptions and Criteria

The CIP is developed based on the District's Water Resources Master Plan, incorporating historical data, growth, developers' input, SANDAG projections, and long-term economic outlook.

The Water Resources Master Plan was built using several major assumptions and design criteria as follows:

1. Utilizing historical water demands for each land use type in the District to calculate future demands.
2. Using maximum day peaking factors that vary with demand level.
3. Utilizing land use as planned by the City of Chula Vista.
4. Providing ten days of emergency water supply through a maximum of five days in covered reservoirs and a minimum of five days from interconnections with adjacent agencies.
5. Inclusion of emergency operational storage to meet the five-day covered storage requirement into the ten-day outage supply requirement.

CIP Justification and Impact on Operating Budget

The justification for each project is determined by whether it is required due to growth (Expansion), new water sources (New Supply), improvements or upgrades (Betterment), or to replace an existing asset (Replacement). As these projects are completed and placed into service, there may be an impact on the Operating Budget by increasing costs in the areas of maintenance, energy, or chemicals as shown on the justification and impact pages in this section.

Capital Improvement Program

Capital Purchases and Facilities

All capital expenditures are in the CIP. This includes capital facilities and capital purchases. Capital purchases are non-recurring operating expenditures for assets that cost more than $10,000 each and have an estimated useful life of two years or more. The Capital Purchase Projects include Vehicles, Office Equipment, Furniture, and Field Equipment purchases. The details of these purchases can be found on page 194. Capital Facility Projects are items that exceed $10,000 or $20,000 for infrastructure related items (as defined under Capital Equipment on page 260 of the Glossary) and have a useful life of at least two years.

The CIP projects are identified and are prioritized based on the following criteria:

1. Safety, restoration of service, immediate obligation, Board directed, or critical system need.
2. System upgrades or requirements to maintain system reliability in the next few fiscal years.
3. Need to meet the future growth of the system.
4. Project requirement may be reduced in capacity or may have low probability of need in the future.

The following are the four categories of CIP projects:

Expansion

Facilities required to support new or future users are funded from capacity fees or user rates.

Betterment

Facilities required because of inadequate capacity or new requirements that benefit existing users are funded from availability, betterment fees, or rates.

Replacement

Facilities required to renew or replace existing facilities that have deteriorated or have exceeded their useful life are funded from user rates.

New Water Supply

Facilities required to support new sources of water are funded from new supply fees or user rates.

Major CIP Projects

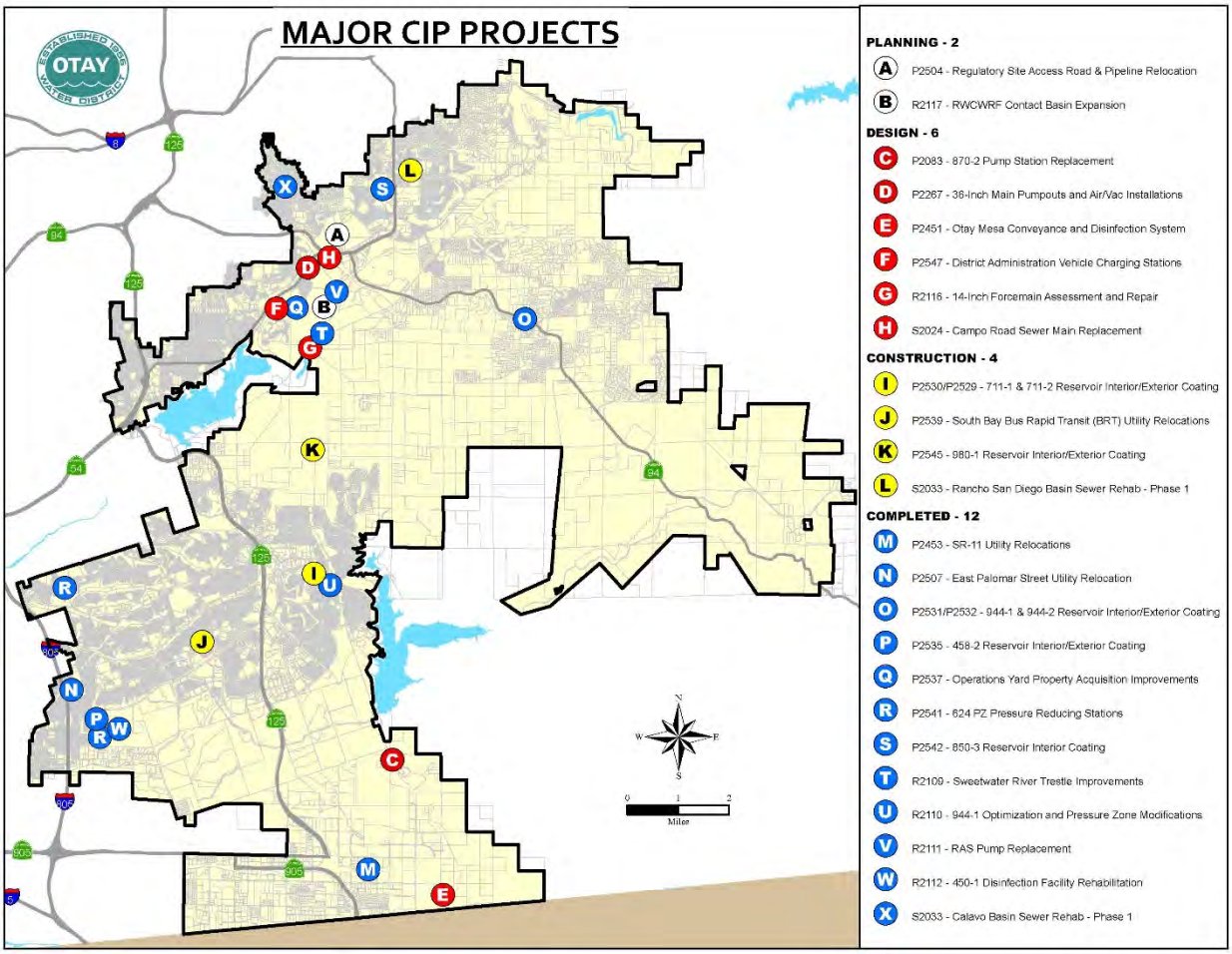
Capital Improvement Projects

The Fiscal Year 2017 CIP Budget contains 107 projects. The cost of the work planned for 89 of these projects fall within Fiscal Year 2017 and total $10.7 million. Of the 89 projects planned for Fiscal Year 2017, three are designated as a reimbursable project with an estimated cost totaling $14,000. These projects are built by developers and reimbursed by the District.

The following shows how the $10.7 million of projects are broken down into four categories:

1. Capital facility projects $ 3.8 million
2. Replacement or renewal projects $ 5.9 million
3. Capital purchase projects $ 1 million
4. Developer reimbursement projects $ 14 thousand

The Six-Year CIP and Fiscal Year 2017 Capital Budget are consistent with the District's Water Resources Master Plan, current capacity fees, and the District's strategic financial objectives.



CIP Projects in Construction

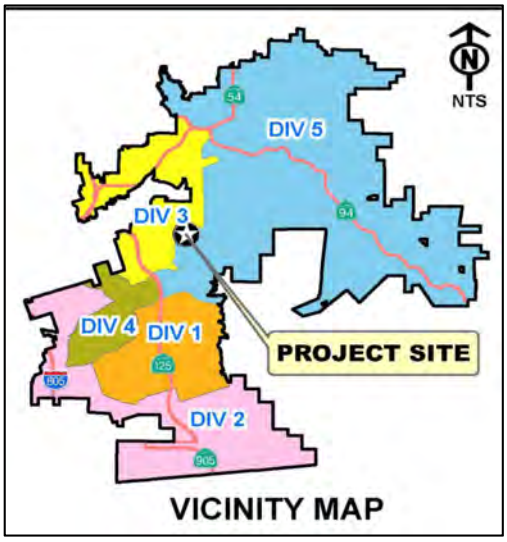
Project: 980-1 Reservoir Interior/Exterior Coating and Upgrades (P2545)

Location: North End of Salt Creek Golf Course, Hunte Parkway, Chula Vista

Director Division: 5

Project Description:

- Remove and Replace Deteriorating Reservoir Coatings
- Structural Modifications to Increase Service Life
- $1.50M Budget
- Start: February 2016
- Estimated Completion: August 2016



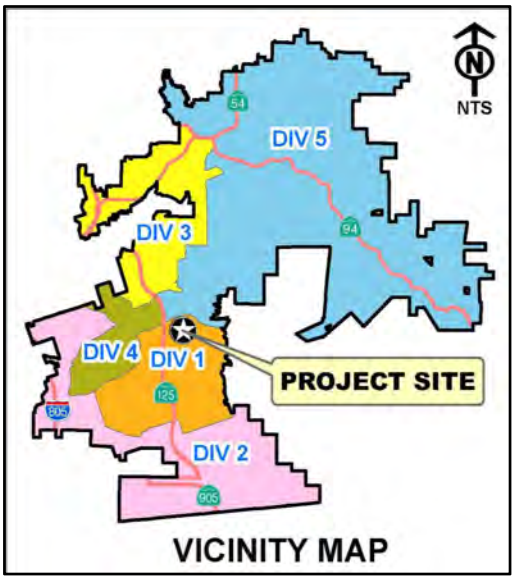
980-1 Reservoir (5.0 MG) – Exterior Containment and Sandblasting

CIP Projects in Construction

Project: 711-1 and 711-2 Reservoir Interior/Exterior Coating and Upgrades (P2545)

Location: Park Meadows Road, Chula Vista. Adjacent to East Lake County Club Golf Course

Director Division: 1



Project Description:

- Remove and Replace Deteriorating Reservoir Coatings
- Structural modifications to increase service life
- $1.88M Budget
- Start: November 2015
- Estimated Completion: September 2016

711-2 Reservoir (2.3 MG) – Exterior Scaffold Installation

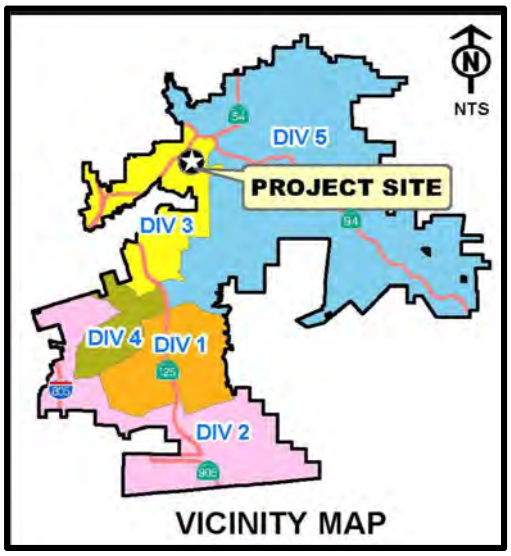
Project: Operations Yard Property Acquisition Improvements (P2537)

Location: Sweetwater Springs Boulevard, Spring Valley. Adjacent to District Operations Yard

Director Division: 3

Project Description:

- Provide parking to separate employee vehicles from District equipment
- Will serve as emergency staging area
- $0.78M Budget
- Start: January 2016
- Estimated Completion: June 2016



Operations Yard Property Acquisition Improvements – Asphalt Concrete Paving

CIP Projects in Construction

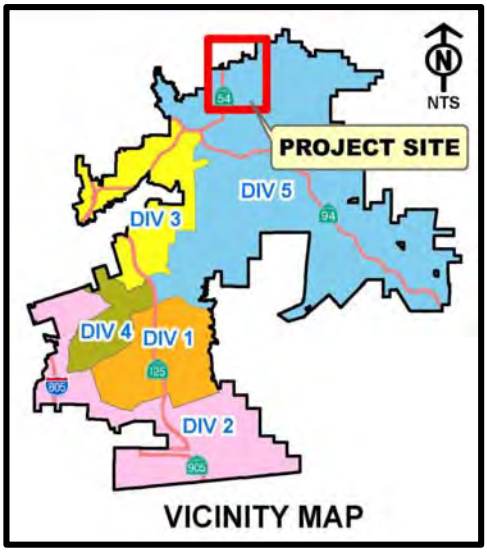
Project: Rancho San Diego Basin Sewer Rehabilitation – Phase I (S2033-003103)

Location: 14 locations including Hillsdale Road, Donahue Drive, Juliana Street, Vista Grande Road, and Sundale Road.

Director Division: 5

Project Description:

- Sewer system repairs at 14 locations
- 3,250 LF of 8-inch sewer
- 4 new sewer manholes
- $3.00M Budget
- Start: March 2016
- Estimated Completion: November 2016



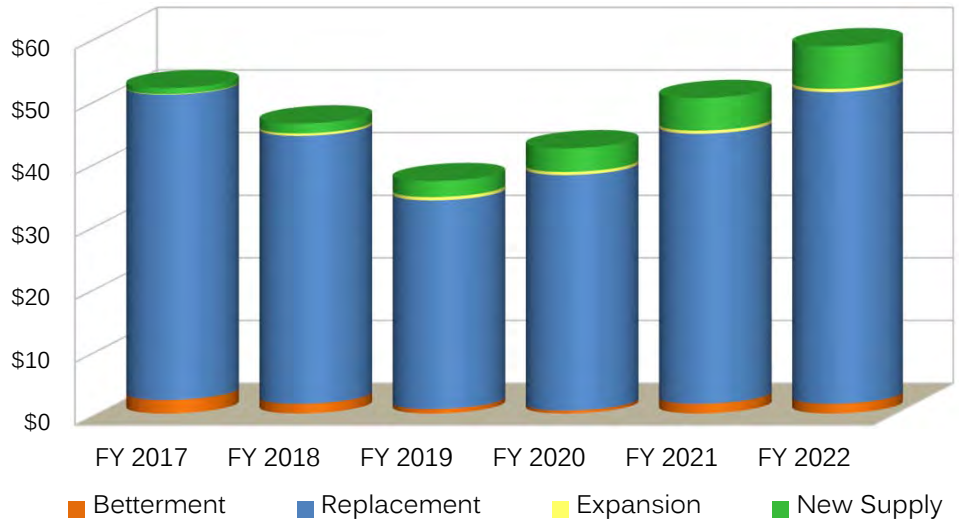
Trench Restoration in Singing Hills Mobile Estates Easement

CIP Reserve Funds

The CIP Reserve Funds presentation, shown on the following pages, is designed to provide an understanding of how the funding of CIPs is expected to financially influence the District over the next six years. The financial impacts are based on CIPs and their funding sources, including fund transfers in accordance with the District's Reserve Policy, and planned debt issuances. This data is captured in the District's Rate Model on an annual basis in order to make these projections.

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total
	CIP Reserve Funds, in Thousands ($)						
Beginning Balance	$ 56,804	$ 51,914	$ 46,556	$ 38,859	$ 45,067	$ 51,367	$ 56,804
Sources							
Capacity Fees	3,176	6,004	8,881	11,292	12,781	14,361	56,495
Debt financing [1]	-	3,000	-	-	-	-	3,000
Grants	255	505	500	500	500	133	2,393
Interest	458	477	495	510	641	808	3,389
Temporary Meters	739	744	750	759	770	781	4,543
Availability (Betterment Portion)	484	503	522	542	563	585	3,199
New Supply Fee	346	661	986	1,227	1,397	1,565	6,182
COPS 2010B Reimbursement	828	828	828	828	828	828	4,968
Transfer from General Fund	8,060	10,617	11,075	10,897	10,788	10,571	62,008
Interfund Transfers	33	39	47	51	55	58	283
Total Sources	14,379	23,378	24,084	26,606	28,323	29,690	146,460
Uses							
CIP Projects	10,733	20,023	22,874	11,371	12,995	11,832	89,828
Debt Service	7,288	7,459	7,640	7,747	7,736	7,828	45,698
Developer Services	1,248	1,254	1,267	1,280	1,292	1,305	7,646
Total Uses	19,269	28,736	31,781	20,398	22,023	20,965	143,172
Net Sources (Uses)	(4,890)	(5,358)	(7,697)	6,208	6,300	8,725	3,288
Ending Balance	$ 51,914	$ 46,556	$ 38,859	$ 45,067	$ 51,367	$ 60,092	$ 60,092

CIP Reserve Fund Balances, in thousands ($)

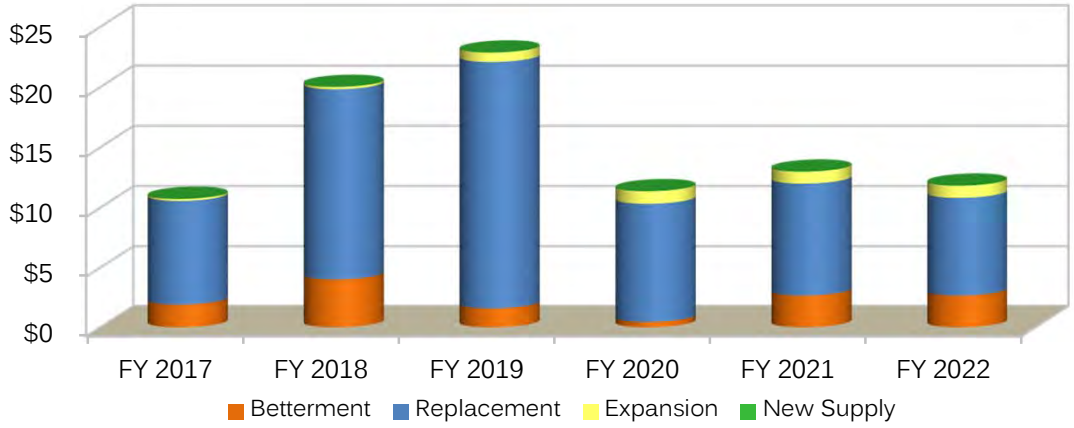


[1] Proposed State Revolving Loan Funds for Campo Road Sewer Main Replacement

Six-Year CIP Funding by Source

Source	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total
	CIP Funding Source						
Expansion	$ 157	$ 186	$ 775	$ 1,035	$ 985	$ 1,000	$ 4,138
Betterment	1,899	4,002	1,569	441	2,651	2,651	13,213
Replacement	8,657	15,815	20,510	9,875	9,339	8,161	72,357
New Supply	20	20	20	20	20	20	120
Total	$10,733	$20,023	$22,874	$11,371	$12,995	$11,832	$ 89,828

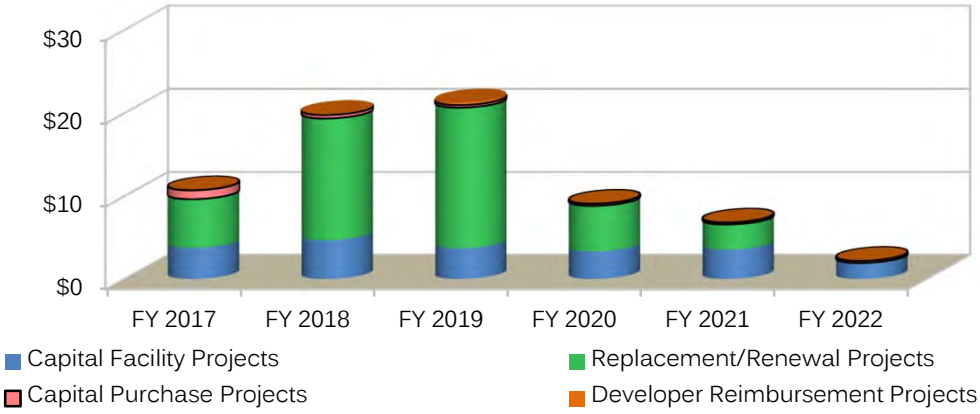
Six-Year CIP Funding by Source, in thousands ($)



Six-Year CIP Funding by Category

Category	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total
	CIP Category						
Capital Facility Projects	$ 3,745	$ 4,683	$ 3,706	$ 3,329	$ 3,540	$ 1,834	$ 20,837
Replacement/Renewal Projects	5,904	14,691	16,970	5,517	3,049	105	46,236
Capital Purchase Projects	1,070	410	305	250	236	253	2,524
Developer Reimbursement Projects	14	139	315	-	-	-	468
Total	$10,733	$20,023	$22,874	$11,371	$12,995	$11,832	$ 89,828

Six-Year CIP by Category, in thousands ($)



Six-year CIP Projects by Category ($1,000s)

The 2017 Fiscal Year CIP Budget contains 107 projects. The costs for the work planned for Fiscal Year 2017 are $10.7 million. Of the 89 projects planned for Fiscal Year 2017, four are designated as reimbursable projects with an estimated cost of $14,000. These reimbursable projects are built by a developer and reimbursed by the District.

Capital Facility Projects

CIP No	Description	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total
P2040	Res - 1655-1 Reservoir 0.5 MG	$ 20	$ 80	$ 450	$ 1,025	$ 825	$ 500	$ 2,900
P2267	36-Inch Main Pumpouts and Air/Vacuum Ventilation	220	55	-	-	-	-	275
P2382	Safety and Security Improvements	250	-	-	-	-	-	250
P2405	PL - 624/340 PRS, Paseo Ranchero and Otay Valley Road	5	5	5	5	50	500	570
P2451	Otay Mesa Desalination Conveyance and Disinfection	50	50	50	50	50	50	300
P2453	SR-11 Utility Relocations	250	500	500	500	500	133	2,383
P2460	I.D. 7 Trestle and Pipeline Demolition	50	5	5	5	530	-	595
P2466	Regional Training Facility	6	-	-	-	-	-	6
P2485	SCADA Communication System and Software Replacement	85	85	85	85	24	-	364
P2486	Asset Management - Info Master Water Implementation	25	20	-	-	-	-	45
P2494	Multiple Species Conservation Plan	48	20	-	-	-	-	68
P2496	Otay Lakes Road Utility Relocations	5	20	-	-	-	-	25
P2504	Regulatory Site Access Road and Pipeline Relocation	20	330	120	100	-	-	570
P2516	PL - 12-Inch, 640 Zone, Jamacha Road - Darby/Osage	-	-	-	75	100	625	800
P2520	Motorola Mobile Radio Upgrade	30	-	-	-	-	-	30
P2521	Large Meter Vault Upgrade Program	100	100	100	100	-	-	400
P2537	Operations Yard Property Acquisition Improvements	10	-	-	-	-	-	10
P2541	624 Pressure Zone PRSs	10	-	-	-	-	-	10
P2547	District Administration Vehicle Charging Stations	85	20	-	-	-	-	105
P2550	Fuel Island Upgrade	112	-	-	-	-	-	112
P2551	Blossom Lane Helix WD and Otay WD Interconnection	20	-	-	-	-	-	20
P2552	South Barcelona Helix WD and Otay WD Interconnection	20	-	-	-	-	-	20
P2553	Heritage Road Bridge Replacement and Utility Relocation	100	380	685	260	-	-	1,425
P2564	Administration Carpet Replacement Program	5	210	-	-	-	-	215
P2568	Technology Business Processes Improvement	100	-	-	-	-	-	100
P2569	Metro Ethernet Implementation/ District Facilities - Pilot	45	-	-	-	-	-	45
P2570	SCADA Equipment & Infrastructure Enhancement	100	100	100	-	-	-	300
P2571	Datacenter Network Enhancement & Replacement of Infrastructure Componets	-	-	100	100	-	-	200
P2572	Enterprise Resource Planning (ERP) Replacement	-	-	-	-	250	250	500
P2584	Res - 657-1 and 657-2 Reservoir Demolitions	-	-	-	-	70	650	720
R2077	RecPL - 24-Inch, 860 Zone, Alta Road - Alta Gate/Airway	20	20	-	-	-	-	40
R2079	RecPL - 6-Inch, 450 Zone, Otay Valley Road - Otay Valley/Entertainment	10	10	10	10	110	-	150
R2109	Sweetwater River Wooden Trestle Improvement for the Recycled Water Forcemain	10	5	-	-	-	-	15
R2110	RecPS - 944-1 Optimization and Pressure Zone	5	67	-	-	-	-	72
R2116	RecPL - 14-Inch, 927 Zone, Force Main Improvements	1,000	900	10	-	-	-	1,910
R2117	RWCWRF Disinfection System Improvements	10	50	50	150	1,000	150	1,410
R2118	Steele Canyon Sewer PS Large Solids Handling	68	-	-	-	-	-	68
R2119	RWCWRF Automation & Security Upgrades	95	50	130	-	-	-	275
R2120	RWCWRF Filtered Water Storage Tank Improvements	250	245	-	-	-	-	495
R2122	Emergency Recycled Water Fire Hydrant Installations	15	-	-	-	-	-	15

Six-year CIP Projects by Category ($1,000s)

CIP No	Description	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total
	Capital Facility Projects, continued							
R2123	Repurpose Otay Mesa Recycled Water Lines	35	5	5	5	150	150	350
R2124	RecPS - 927-1 Pump 5 Replacement	55	-	-	-	-	-	55
S2012	San Diego County Sanitation District Outfall and RSD Outfall Replacement	150	150	200	250	300	350	1,400
S2027	Rancho San Diego Pump Station Rehabilitation	50	1,200	1,200	783	-	-	3,233
S2033	Sewer System Rehabilitation	200	-	-	-	-	-	200
S2043	RWCWRF Sludge Handling System	1	1	1	1	1	1	6
S2047	Asset Management - Info Master Sewer Implementation	-	30	28	-	-	-	58
47	**Total Capital Facility Projects**	$ 3,745	$ 4,713	$ 3,834	$ 3,504	$ 3,960	$ 3,359	$ 23,115
	Replacement/Renewal Projects							
P2083	PS - 870-2 Pump Station Replacement	$ 390	$ 3,500	$10,800	$ 500	$ 50	$ 50	$ 15,290
P2174	PS - 1090-1 Pump Station Replacement (400 gpm)	1	150	200	1,149	-	-	1,500
P2400	PL - 20-Inch Pipeline Replacement, 711 Zone, Otay Lakes Road - at Santa Paula	-	-	-	150	350	1,500	2,000
P2493	624-2 Reservoir Interior/Exterior Coating	60	60	-	-	-	-	120
P2507	East Palomar Street Utility Relocation	120	100	-	-	-	-	220
P2508	Pipeline Cathodic Protection Replacement Program	300	100	96	-	-	-	496
P2518	803-3 Reservoir Interior/Exterior Coating	40	20	-	-	-	-	60
P2519	832-2 Reservoir Interior/Exterior Coating	65	20	-	-	-	-	85
P2529	711-2 Reservoir Interior & Exterior Coating	360	25	50	-	-	-	435
P2530	711-1 Reservoir Interior & Exterior Coating	90	50	50	-	-	-	190
P2531	944-1 Reservoir Interior & Exterior Coating	50	50	-	-	-	-	100
P2532	944-2 Reservoir Interior & Exterior Coating	50	50	-	-	-	-	100
P2533	1200-1 Reservoir Interior & Exterior Coating	10	700	50	50	-	-	810
P2534	978-1 Reservoir Interior & Exterior Coating	615	50	50	-	-	-	715
P2535	458-2 Reservoir Interior & Exterior Coating & Upgrades	50	50	-	-	-	-	100
P2538	Administration and Operations Building Fire Sprinkler Replacement Program	10	-	-	-	-	-	10
P2539	South Bay Bus Rapid Transit (BRT) Utility Relocations	100	100	40	-	-	-	240
P2542	850-3 Reservoir Interior Coating	50	50	-	-	-	-	100
P2543	850-1 Reservoir Interior/Exterior Coating	10	645	120	50	50	-	875
P2544	850-2 Reservoir Interior/Exterior Coating	835	135	50	50	-	-	1,070
P2545	980-1 Reservoir Interior Exterior Coating	330	50	50	-	-	-	430
P2546	980-2 Reservoir Interior/Exterior Coating	-	20	1,330	50	50	-	1,450
P2555	Administration and Operations Parking Lot Improvements	275	185	-	-	-	-	460
P2557	520 Res Recirculation Pipeline Chemical Supply and Analyzer Feed Replacement Project	50	35	5	-	-	-	90
P2559	Pressure Vessel Repair and Replacement Program	65	125	125	125	125	55	620
P2561	Res - 711-3 Reservoir Cover/Liner Replacement	1	4	95	1,700	-	-	1,800
P2562	Res - 571-1 Reservoir Cover/Liner Replacement	90	2,500	5	5	-	-	2,600
P2563	Res - 870-1 Reservoir Cover/Liner Replacement	1	1	9	90	899	-	1,000
P2565	803-2 Reservoir Interior/Exterior Coating & Upgrades	-	-	20	820	50	50	940
P2566	520-2 Reservoir Interior/Exterior Coating & Upgrades	-	-	-	20	1,380	100	1,500
P2567	1004-2 Reservoir Interior/Exterior Coating & Upgrades	-	-	-	-	20	885	905
P2573	PL - 12-Inch Pipeline Replacement, 803 Zone, Hillsdale Road	160	225	1,365	-	-	-	1,750

Six-year CIP Projects by Category ($1,000s)

CIP No	Description	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total
	Replacement/Renewal Projects, continued							
P2574	PL - 12-Inch and 14-inch Pipeline Replacement, 803 and 978 Zone, Vista Grande, Pence Drive	50	100	275	400	1,925	-	2,750
P2578	PS - 711-2 (PS 711-1 Replacement and Expansion) - 14,000	-	-	-	350	3,200	3,050	6,600
P2579	Temporary Lower Otay Pump Station Improvements	140	-	-	-	-	-	140
P2592	East H Street Bike Lane Utility Coordination	50	-	-	-	-	-	50
P2593	458-1 Reservoir Interior/Exterior Coating & Upgrades	-	-	-	-	10	830	840
P2594	Large Meter Replacement	240	150	95	-	-	-	485
R2111	RWCWRF - RAS Pump Replacement	10	5	-	-	-	-	15
R2112	450-1 Disinfection Facility Rehabilitation	25	25	-	-	-	-	50
R2121	Res - 944-1 Reservoir Cover/Liner Replacement	1	1	30	1,348	-	-	1380
S2024	Campo Road Sewer Main Replacement	50	4,750	2,500	-	-	-	7300
S2044	Trenchless Sewer Rehabilitation	600	50	-	-	-	-	650
S2045	Fuerte Drive Sewer Relocation	190	10	-	-	-	-	200
S2046	RWCWRF - Aeration Panels Replacement	250	100	100	-	-	-	450
S2048	Hillsdale Road Sewer Repairs	100	390	10	-	-	-	500
S2049	Calavo Basin Sewer Rehabilitation - Phase 2	20	130	800	50	-	-	1000
S2050	Rancho San Diego Basin Sewer Rehabilitation - Phase 2	-	-	-	-	50	250	300
S2051	RWCWRF - Headworks Improvements	-	50	100	600	-	-	750
S2052	RWCWRF - Access Roads Repaving	-	-	-	50	400	300	750
S2053	RWCWRF - Sedimentation Basins Refurbishment	-	-	-	60	140	400	600
S2054	Calavo Basin Sewer Rehabilitation - Phase 3	-	-	-	-	50	250	300
52	**Total Replacements and Renewal Projects**	$ 5,904	$ 14,761	$18,420	$ 7,617	$ 8,749	$ 7,720	$ 63,171
	Capital Purchase Projects							
P2282	Vehicle Capital Purchases	$ 197	$ 290	$ 240	$ 187	$ 236	$ 253	$ 1,403
P2285	Office Equipment and Furniture Capital Purchases	15	15	15	8	-	-	53
P2286	Field Equipment Capital Purchases	38	105	50	55	-	-	248
P2366	APCD Engine Replacements and Retrofits	820	-	-	-	-	-	820
4	**Total Capital Purchase**	$1,070	$410	$305	$250	$236	$253	$2,524
	Developer Reimbursement Projects							
P2325	PL-10" to 12" Oversize, 1296 Zone, PB Road-Rolling Hills Hydro PS/PB Bndy	$ 3	$ -	$ -	$ -	$ -	$ -	$ 3
P2403	PL - 12-inch, 624 Zone, Heritage Road - Olympic/Otay Valley	-	-	-	-	50	500	550
P2556	HWY 94 Upsized Utility Relocations at Melody Lane	1	99	-	-	-	-	100
R2084	RecPL - 20-Inch, 680 Zone, Village 2 - Heritage/La Media	10	40	315	-	-	-	365
4	**Total Reimbursement Projects**	$14	$139	$315	$0	$50	$500	$1,018

Summary

CIP No	Description	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total
89	Total - FY 2017 Projects	$10,733	$ 19,923	$21,296	$ 9,096	$ 6,825	$ 2,192	$ 70,065
18	Total - FY 2018 through FY 2022 Projects	-	100	1,578	2,275	6,170	9,640	19,763
107	**Grand Totals**	$10,733	$ 20,023	$22,874	$11,371	$ 12,995	$ 11,832	$ 89,828

CIP Justification and Impact on Operating Budget

The following schedule shows anticipated operating costs associated with each project in the CIP. Below is a summary of each category of new costs that will be impacted. No additional revenues are associated with the individual projects, as revenues are linked more directly to growth in water sales and capacity fee revenues.

Projected Incremental Operating Expenditures [1]

CIP#	Description	Cost Cat. [2]	Funding Source [3]	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total
P2040	Res - 1655-1 Reservoir 0.5 MG	M	E	$ -	$ -	$ 50	$ 51	$ 52	$ 52	$ 205
P2466	Regional Training Facility	M	B/E	1,000	1,000	1,000	-	-	-	3,000
P2537	Operations Yard Property Acquisition Improvements	M/E	B	700	725	750	776	800	800	4,551
P2547	District Administration Vehicle Charging Stations	M/E	B/E	700	700	700	700	700	700	4,200
R2084	RecPL - 20-Inch, 680 Zone, Village 2 - Heritage/La Media	M	E	-	-	1,900	1,900	1,900	1,900	7,600
S2043	RWCWRF Sludge Handling System	M/E/C	B	-	-	-	-	30,000	30,000	60,000
				2,400	2,425	4,400	3,427	33,452	33,452	79,556

Cost Category	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total
Maintenance (M)	1,200	1,200	3,150	2,152	12,152	12,152	32,006
Energy (E)	1,200	1,225	1,250	1,275	11,300	11,300	27,550
Chemical (C)	-	-	-	-	10,000	10,000	20,000
Total Operating Budget Cost Impact	$ 2,400	$ 2,425	$ 4,400	$ 3,427	$ 33,452	$ 33,452	$ 79,556

(1) Projected Incremental Operating Expenditures (operating cost) or O&M includes labor, benefits, materials, and overhead.

O&M cost for pipes: Total annual operating cost divided by the number of feet of pipe in the system = O&M cost to maintain a foot of pipe. This rate is then multiplied by the number of feet in new pipeline, and is increased annually for inflation.

O&M cost for a pump station: Total annual operating cost divided by the number of million of gallons a day (MGD) capacity in the system = O&M cost per MGD. This rate is then multiplied by the MGD capacity of the new pump station. Similarly, power cost per MGD for transmission is calculated and applied to the MGD of the new pump station. Chemical expenses are incurred for pumping at the well sites. All estimated costs are increased annually for inflation.

O&M cost for a reservoir: Total annual operating cost divided by the number of million gallons (MG) of storage capacity in the system. This rate per MG is then multiplied by the MG capacity of the new reservoir. Reservoirs require chemical treatment; therefore, the chemical cost per MG is estimated and applied to the future operating cost. Both O&M and chemical costs are increased annually for inflation.

Each of the capital purchases and other types of assets has its own unique O&M cost.

(2) Cost Category - Indicates maintenance cost (M), energy cost (E), or chemical cost (C), based on the project type and Engineer's estimates.

(3) Funding Source - Some projects have multiple funding sources as indicated by a slash (/):

E - Expansion B - Betterment R - Replacement N - New Supply

Note: See pages 190-192 for complete description of CIP projects.

FY 2017 Capital Purchases

Capital purchases are non-recurring operating expense items for District-wide use that cost more than $10,000 each and have an estimated useful life of two years or more. The Capital Purchase Projects include vehicles, office equipment and furniture, field equipment and APCD engine replacements and retrofits.

Quantity	Description	Amount
Vehicles		
1	1/2 Ton Pick-up for the Inspection Services Section.	$ 34,000
1	All Wheel Drive SUV Replacement for Inspection Services Field Manager.	30,000
1	3/4 Ton Pick-up with Utility Body for Disinfection Technician.	44,000
1	1/2 Ton Pick-up for Water System Operations Section.	34,000
1	Class 5 Dump Truck with 2-3 Yard Dump Body.	55,000
	Total Vehicles	**197,000**
Office Equipment and Furniture		
various	Districtwide office equipment and furniture items.	15,000
	Total Office equipment and furniture	**15,000**
Field Equipment		
1	40kw Critically Silenced Genset.	38,000
	Total Field equipment	**38,000**
APCD Engine Replacements and Retrofits		
2	Two replacement portable gensets.	300,000
2	Two emergency stand-by portable pumps.	520,000
	Total APCD engine replacements and retrofits	**820,000**
	Grand Total :	**$ 1,070,000**

Summary by Project

P2282 Vehicles	$ 197,000
P2285 Office equipment and furniture	15,000
P2286 Field equipment	38,000
P2366 APCD Engine replacements and retrofits	820,000
Grand Total:	**$ 1,070,000**

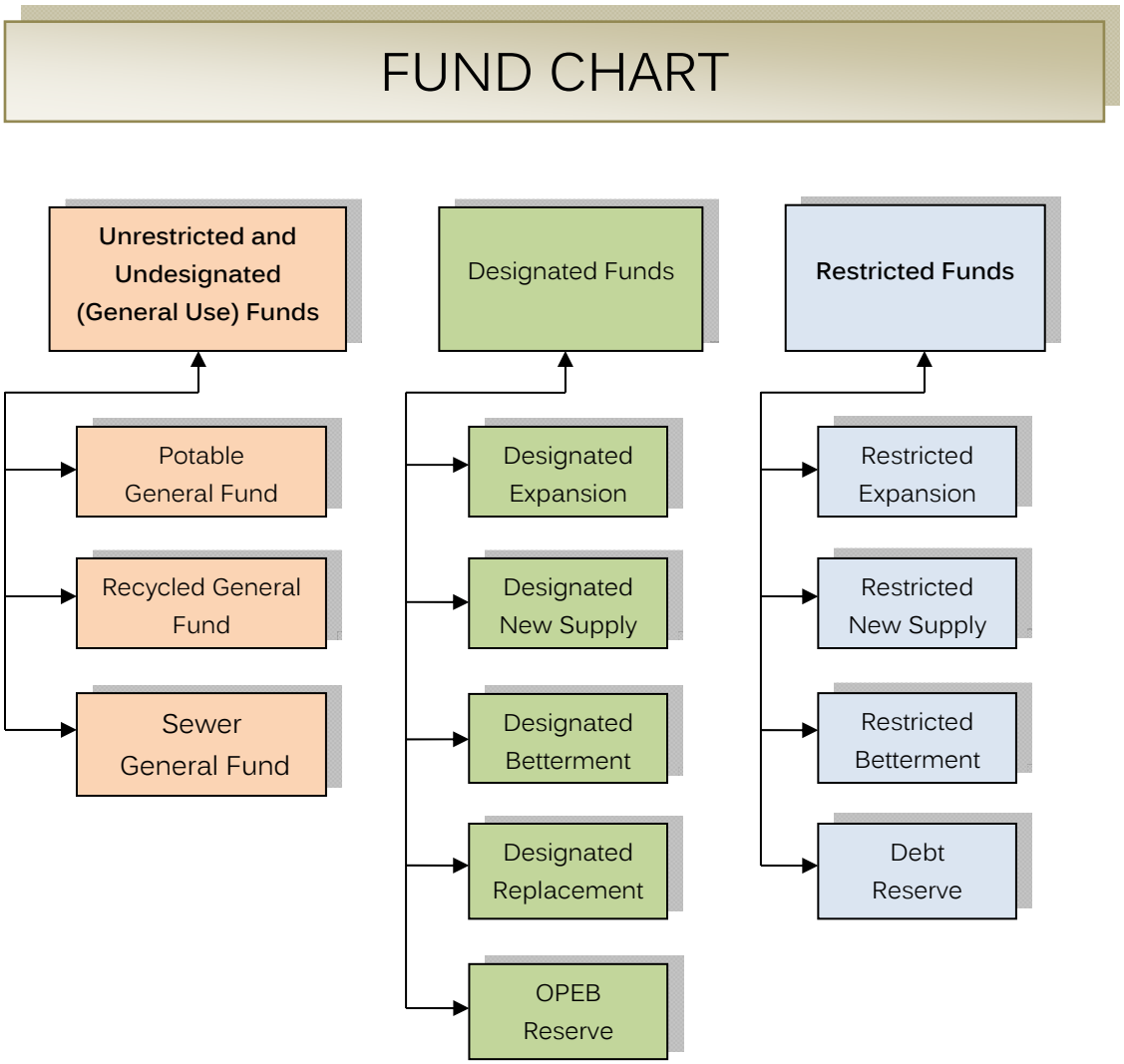
Summary of Financial Policies

Introduction

This section includes a brief synopsis of the District's Reserve Policy, Investment Policy, and Debt Policy.

The Reserve Policy is a comprehensive policy which explains how the District is operated, including the distinction of business segments to ensure the various users pay their fair share of costs. It explains how fees are collected and what they are used for. It also explains the difference between funds, as well as how transfers shall be made, and defines each reserve target funding level. This policy was adopted by the Board in November 2010. The District periodically reviews the policy to ensure it reflects current policies and financial practices. The Reserve Policy was updated and adopted by the Board in November 2014.

The following chart depicts the detailed flow of funds that may be useful in understanding the Reserve Policy.



Summary of Financial Policies

The Investment Policy is a guideline for the prudent investment of cash. It outlines government code as well as authority granted by the Board of Directors. The primary objectives, in order of significance, are to invest safely, with adequate liquidity, and to achieve a return on investments. In August 2007, the District received a Certification of Excellence Award from the Association of Public Treasurers of the United States and Canada (APT US&C) for this policy. The Investment Policy was updated and adopted by the Board in May 2015.

The Debt Policy establishes that debt financing will only be used for Capital Improvement Projects (CIP), which have an extended useful life for ten years or longer, and that exceed the District's ability to be funded with current resources such as annual cash flow, fund balances, or reserves. Additionally, the life of a project is expected to exceed the term of the financing. The District strives to maintain the highest possible credit ratings for all categories of long-term debt that can be achieved without compromising delivery of basic services and the achievement of district policy objectives. In August 2007, the District received a Certification of Excellence award from the Association of Public Treasurers of the United States and Canada (APT US&C) for this policy. The Debt Policy was updated and adopted by the Board in September 2013.

Reserve Policy

1.0 The District

The Otay Water District is a California municipal water district, authorized in 1956 by the State Legislature under the provisions of the Municipal Water District Act of 1911. The District is a "revenue neutral" public agency; meaning each end user pays their fair share of the District's costs of water acquisition, construction of infrastructure, and the operation and maintenance of the public water facilities.

The District provides water service within its boundaries, and provides sewer and recycled water service within certain portions of the District. As such, the District operates three distinct business segments:

- Potable water
- Recycled water
- Sewer

Each of these business segments has an identifiable customer base. In addition, the developer community, large and small, makes up a significant class of customer for each business segment. As a result, the District has four distinct customer service types:

- Developers
- Potable water users
- Recycled water users
- Sewer users

The District has established practices and developed computer systems that have enabled the District to maintain a clear separation between the service costs relating to each of its four customer service types. Regardless of customer class, financial principles regarding cost allocation and fund accounting are fundamental to the District's Reserve Policy. These principles are derived from the statements of the Governmental Accounting Standards Board (GASB), and from oversight and advisory bodies such as the California State Auditor, the Little Hoover Commission, and the Government Finance Officers Association (GFOA). These have significant impacts on how the finances of the District are organized and how financial processes work within the organization.

1.1 The District's Use of Financial Resources

All of the District's expenditures fall into two broad categories: operating costs and capital expenditures. The operating costs include costs relating to the purchase and delivery of potable and recycled water, and the transportation and treatment of sewage. The capital expenditures support the construction of infrastructure necessary to deliver services. The District uses various funds to support the operating and capital efforts. Operations and maintenance is financed only by rates and charges, also called pay-as-you-go, while capital infrastructure is financed using two financing methods: pay-as-you-go and debt issuance (requiring annual debt service). The Capital Improvement Program (CIP) and the two funding methods support the

construction, betterment, and replacement of infrastructure in all three business areas: potable, recycled, and sewer.

The District establishes different funds to track revenues allocated to different activities. Once established, each fund receives financial resources up to the levels defined in this policy. Every year, as a part of the annual budget process, the District's rate model is updated for each fund with the current fund balances and the estimated revenues and expenditures for the next six years. The expenditure requirements and financial resources are then evaluated to ensure that the existing fund balances and additional revenues are sufficient within the current budget cycle and for the next five years to maintain target fund levels. If a deficit is identified, then options for transfers, shifting CIP projects, debt, cost saving measures, and/or rate increases are evaluated.

1.2 The District's Capital Improvement Program (CIP)

The planning, design, and construction costs of all capital facilities within the three business segments are allocated to four cost types and corresponding fund categories: New Water Supply, Expansion, Replacement, and/or Betterment. The allocation to these four cost types is defined in the District's Capital Improvement Program (CIP) and is determined by an engineering analysis that identifies which type of customer will benefit from each facility, planned or existing. The costs of the capital improvements are borne by either existing users or by the developing areas, or by a combination of the two, as applicable.

This Reserve Policy protects both the existing users and the developing areas from incurring unwarranted costs. Developing areas are not required to finance facilities that are replacement or betterment and established areas are not required to replace facilities before they are worn out because of new development. However, to ensure a fair allocation of costs, each facility has the potential to be classified into any or all of the four cost types. In addition to these cost types there are occasional CIPs that may be billable to a third party, if for example a third party requires a District facility be relocated. Paragraphs a through d below, describe how the costs of capital facilities are financed through various fees.

a. New Water Supply

The portion of a new supply project that benefits new users is financed from the reserves in the New Water Supply Fund category. These reserves are primarily derived from proceeds of the new water supply fee. The New Water Supply Fund is restricted, meaning the amounts credited to this fund are accounted for separately and are used solely for the planning, design, and construction of the new water supply expansion facilities. Debt financing may also be a temporary financial resource to finance new water supply projects. The District has a Debt Policy (Policy No. 45) that guides the debt issuance process. Any debt proceeds used for this purpose would be restricted in nature and tracked separately. General use reserves may also be placed in the Designated New Water Supply Fund and used for water supply projects.

b. Expansion

The portion of a CIP project that benefits new users is financed from the reserves in the Expansion Fund category. These reserves are primarily derived from proceeds of the "incremental" portion of the capacity fees collected within developing areas. Capacity fees are accounted for separately and

used for the planning, design, and construction of expansion facilities. Additionally, expansion may be financed by the "buy-in" portion of the capacity fee which is restricted for CIP purposes, but not specifically for expansion. Debt financing may also be a temporary financial resource for expansion projects. General use reserves may also be placed in the Designated Expansion Fund and used for expansion projects.

c. Replacement

The portion of a CIP project that benefits existing users by replacing an existing facility is financed from the reserves in the Replacement Fund category. Replacement of facilities may be financed with proceeds of the "buy-in" portion of the capacity fees, general use reserves held in the Designated Replacement Fund, and debt proceeds. The various funding sources available for replacement projects is anticipated to provide the necessary flexibility to begin projects while any necessary debt financing is being obtained.

d. Betterment

Facilities that improve reliability, meet new regulations, or create increased levels of service are considered betterment facilities that benefit existing users. The reserves in the Betterment Fund category are used to finance these projects or portions of projects. Proceeds of the "buy-in" portion of the capacity fees may also be used to finance betterment projects. General use reserves may be placed in the Designated Betterment Fund and used for betterment projects.

1.21 Relocations

Occasionally, relocation of a District facility is required by a third party. If the District has a superior easement the relocation cost will be paid by the third party, but only to the extent that the District does not benefit from the relocation. When relocation is required, a CIP project may be created which is wholly or partially financed by a third party. On occasion, the District will require that its own facilities be relocated. Depending on the nature of the facilities, the financial resources for these projects could be from new water supply, expansion, replacement, betterment or third party financing. Each project is individually negotiated with the third party based on the facts and circumstances of the relocation. Occasionally, the District will improve the facilities that are being relocated. When determining how to allocate costs to various funds the following guideline is suggested: if a project has more than five years of useful life remaining, an incremental cost view should be considered; if the project has less than five years of useful life remaining, a pro-rata cost approach should be considered. Also, the likelihood the District will benefit from an asset's life extension should be evaluated prior to allocating costs.

1.22 Oversizing

If deemed reasonable by the District, in connection with the construction of backbone facilities, a developer may be required to oversize new facilities for future development. The developer is reimbursed for incremental oversizing costs as per Policy No. 26. These reimbursements are not available for the distribution system within a development which is an obligation of the developer.

1.23 Exclusion of Developed Areas from Expansion Costs

Developed areas are assumed to have sufficient supply and capacity to meet their current requirements as provided by the developers. In addition, they are considered to have borne capital financial costs that are at least proportionate to the benefits they have received from capital facilities. Accordingly, no regional capital financing costs are allocated to these areas so that they will not incur any costs for newly developing areas, except for capital projects that produce district-wide benefit or cost savings.

1.24 Improvement Districts (IDs)

Improvement Districts (IDs) are established to facilitate the financing of particular improvements by the specific beneficiaries. The District has a number of improvement districts that were established for General Obligation (GO) debt repayment. Most GO debt has been paid off and it is unlikely that the District will issue additional GO debt. Improvement districts continue to be used for other purposes: 1) to distinguish sewer customers from water customers on the county tax roll; or 2) to place parcels on the county tax roll for the collection of availability fees.

Over the years, the District moved to a district-wide perspective of financing improvements. This philosophy is evident by the district-wide capacity and annexation fees. The District also uses district-wide water rates. As time goes on, it is expected that IDs will continue to outgrow their purpose and their use will diminish.

1.3 The Purpose of the Policy

Public entities accumulate and maintain reserves to ensure both financial stability and continuous availability of services. Financial stability and the resulting improved credit quality allow the public entity to weather times of uncertainty and the impact of negative events, both major and minor. Reserves allow for the ongoing maintenance of property and timely payment of expenses even when such expenses exceed money available from a single fiscal period. In the final analysis, the type and level of reserves are driven by the type and magnitude of uncertainty faced by the public entity.

A “reserve” has a number of meanings, as follows:

- Working capital is required to insure timely payment of obligations.
- A buffer against volatility in revenues.
- Liquidity is required to obtain other goods and services (e.g., bank services).
- Designated money to protect creditors.
- Money set aside to replace assets at the end of their useful lives.
- Money set aside to repair or replace assets damaged or destroyed at unanticipated times.

It is important to note that reserves, fund balance, and net assets are not the same. Fund balance and net assets are accounting terms and may not always be in the form of cash or liquid investments. Fund

balances and net assets may not always be reserves unless a designation of all or a portion of fund balance is made. In addition, the term fund balance was replaced by net assets as codified by the Governmental Accounting Standards Board (GASB).

In short, reserves are the liquid assets of the District, accumulated and maintained for application to finance contingent future activities, whether known or unanticipated, operating or capital in nature. The District's Reserve Policy governs the management and use of these financial resources. Few policies have a more significant impact on the financial health and stability of the District. This policy explains several key financial concepts used by the District and provides some background information to the overall strategies and practices utilized. The District has a fiduciary obligation to its customers, to manage and direct the use of public funds for the purpose of providing water and sewer services in an efficient and financially sound manner.

1.4 Policy Guidelines

In 2000, the Little Hoover Commission reviewed the levels of reserve funds for special districts in California and prepared a report reflecting that special districts were accumulating unreasonable levels of funds. As a proactive response, the California Special Districts Association (CSDA) prepared Reserve Guidelines for its members. The Reserve Guidelines were significant in noting that reserve levels need to be in context of the organization's overall business model and capital improvement plan.

There are a number of potential events which the District should consider in the development of reserves:

- Economic Uncertainty - performance of the regional economy and the impact of that performance on demand for water.
- Weather - the amount of rainfall and the impact of weather on the availability and the cost of water as well as the demand for water.
- Government Mandates - the impact of federal and state regulation, particularly environmental regulation.
- Tax Changes - limitations on the District's taxing and spending powers through the passage of a voter referendum, the impound of District property taxes or the removal of the District's power to levy property taxes, further increases to Educational Revenue Augmentation Fund (ERAF) contributions or changes in calculation methodology.
- Operating Costs - increases in operating and maintenance costs because of inflation, labor agreement or other modification.
- Force Majeure - unanticipated expenditures resulting from natural disasters or intentional acts.
- Emergency Maintenance - unanticipated expenditures resulting from unexpected failure of assets (*e.g.*, rupture in the primary transmission system).
- Unexpected Variation in Cash Flow - the incidence of additional costs or decreased revenues that require short-term borrowing in the absence of sufficient financial resources.

Reserve Policy

The California State Auditor has, in its oversight role, offered a number of quality recommendations for the development of reserve policies as outlined in its report entitled, "California's Independent Water Districts: Reserve Amounts Are Not Always Sufficiently Justified, and Some Expenses and Contract Decisions Are Questionable," dated June 2004, Report No. 2003-137. All of these recommendations have been incorporated into this policy in an effort to address key issues surrounding the management and use of District reserves. The detailed objectives as identified by the State Auditor are as follows:

- Distinguish between restricted and unrestricted reserves.
- Establish distinct purposes for all reserves.
- Set target levels, including minimums and maximums, for the accumulation of reserves.
- Identify the events or conditions that prompt the use of reserves.
- Conform to plans to acquire or build capital assets.
- Receive Board approval and that it is in writing.
- Require periodic review of reserve balances and rationale for maintaining them.

Yet, the State Auditor's report acknowledges that the California Constitution (Article XIII B, Section 5) is vague in its provisions governing the accumulation and use of reserves. [1]

Specifically, the Constitution states that "each entity of the government can establish contingency, emergency, unemployment, reserve, sinking fund, or similar funds as it shall deem reasonable and proper." [2] Similarly, the State's Water Code does not impose any requirements as to specific or recommended reserve fund levels. As a result, the public finance community as a whole has yet to settle on any real objective standards for the level of reserve funds appropriate for governmental enterprises. This lack of consensus as to specific standards is indicative of the wide variance of the financial and operations context for different districts and different contingencies justifying reserves.

The Government Finance Officers Association (GFOA) in its "Recommended Practice on Appropriate Level of Unreserved Fund Balance in the General Fund" (2002) states that in establishing a policy governing the level of unreserved fund balance in the general fund, a government should consider a variety of factors.

[1] California State Auditor, Bureau of State Audits, "California's Independent Water Districts: Reserve Amounts Are Not Always Sufficiently Justified, and Some Expenses and Contract Decisions Are Questionable," dated June 2004, 2003-137; p. 8.
[2] California Constitution, Article XIII B, Section 5.

These include:

- The predictability of its revenues and the volatility of its expenditures (*i.e.*, higher levels of the unreserved fund balances may be needed if significant revenue sources are subject to unpredictable fluctuations or if operating expenditures are highly volatile).
- The availability of resources in other funds as well as the potential drain upon general fund resources from other funds (*i.e.*, the availability of resources in other funds may reduce the amount of the unreserved fund balance needed in the general fund, just as deficits in other funds may require that a higher level of unreserved fund balance be maintained in the general fund).
- Liquidity (*i.e.*, a disparity between when financial resources actually become available to make payments and the average maturity of related liabilities may require that a higher level of resources be maintained).
- Designations (*i.e.*, governments may wish to maintain higher levels of the unreserved fund balance to compensate for any portion of unreserved fund balance already designated for a specific purpose).

In the preparation of this policy, each of the CSDA guidelines and the GFOA recommendations has been considered. In addition, all seven objectives provided by the State Auditor are specifically addressed for each reserve. The District wholly supports the State Auditor's efforts to bring a high-level of quality to reserve governance and establishing a standard of performance.

The District recognizes that the customer pays for services provided. Quality management requires that periodic valuations be performed so that fees and charges can be set at appropriate levels to recover the cost of service. The District's Reserve Policy has been drafted with consideration of the GFOA, CSDA, and State Auditor's general guidelines as provided above. In addition, the District has adopted the following principles in the management of its financial resources:

- Reserves are held and used only for the purpose for which they are collected. This is done to maintain equity among customers.
- Each of the service types is tracked separately so that expenditures and revenues can be monitored and evaluated for each customer type. This provides the District with the necessary information to appropriately charge for each of the services.
- Separation of operations and maintenance from capital expenditures occurs within each of the service types. This is done because the financing of these expenditures is often on different timelines or use different reserves.
- The District will hold its reserves at responsible and prudent levels. This policy sets minimum, maximum, and target levels for each of the various funds. This has been done so that the District can maintain reserves to meet the purpose for which the funds were established. The levels are set

by reference to line items in the District's financial statements and approved budgets. This allows reserve levels to adjust to the District's changing financial circumstances.

- Debt financing of facilities provides intergenerational equity and maintains rates at reasonable levels. This equity is accomplished with long-term financing which spreads the cost of facilities over the life of the facilities. The burden to pay for facilities is then paid by those who use them. The District could amass significant reserves by pre-collecting financial resources in a Replacement Reserve Fund allowing the District to cash finance all replacements. However, this would require significant rate increases burdening the current customers and creating reserve levels difficult to defend to the ratepayers or other oversight entities.

These concepts are fundamental to the way the District manages its funds and have a direct impact on the way rates and charges are set. The District performs annual budget evaluations and updates its rate model on an annual basis to monitor and adjust the various funds and revenue sources. The separation, tracking, and projecting of the various funds and expenditures create the essential information necessary for the equitable rate structure maintained by the District. The annual review preserves the balance between services provided and the fees charged. This review also insures that reserves will be available to continue to serve the District's customers.

Financial Sources

2.0 Developers

a. Meter Installation Charges (General Use)

Meter fees are charges collected for new water service connections. Fees vary depending upon meter size and type of service. The costs associated with meter installations are included in the Operating Expenses section of the budget. These charges are financed by developers.

b. Developer Deposits (General Use)

These deposits are for the engineering and operations services provided to developers. They are tracked separately for each developer and any excess amount is returned to the developer.

c. Water Annexation Fees (General Use)

Annexation fees[3] are collected as a condition of annexing into the District's potable or recycled water facilities. Since the existing facilities have been built and maintained by developers or customers within the District, the annexation fee is calculated based on the present value of all property taxes (1% property tax and availability fees) paid by existing and prior customers. The annexation fee reimburses existing customers for past contributions so that all customers have contributed more equally to water facilities. Proceeds of annexation fees are unrestricted and may be used for any general fund purpose.

[3] Code of Ordinances, Section 9.

d. Sewer Annexation Fees (General Use)

A sewer annexation fee is collected when property is annexed into an improvement district. Since the existing facilities have been built and maintained by developers or customers within a sewer IDs, the annexation fee is calculated based on the present value of all availability fees paid by existing and prior customers. The annexation fee reimburses existing customers for past contributions so that all customers have contributed more equally to sewer facilities. Proceeds of the annexation fees are unrestricted and may be used for any general fund purpose.

e. New Water Supply Fee (Restricted)

New water supply fees[4] are based on the cost of the expansion portion of new water supply projects divided by the number of future equivalent dwelling units (EDU). The new water supply fee covers the cost of planning, design, construction, and financing associated with facilities for the District's new supply needs. These fees are paid by developers. The proceeds of this fee may be used only for new potable or recycled water supply projects. Although the fees collected are not restricted separately, one portion for potable and the other for recycled, they are tracked separately.

f. Water Capacity Fees (Restricted)

Water capacity fees[4] are based on the value of existing and future facilities divided by the number of existing and future equivalent dwelling units. This method of calculating capacity fees is called the combined method, where the "buy-in" portion of the capacity fee covers costs to repay existing customers for the facilities that they have built, and where the "incremental" portion of the capacity fee covers the cost of future expansion facilities. The "buy-in" portion of the capacity fee is restricted to pay for planning, design, construction, and financing associated with expansion, replacement or betterment facilities. The "buy-in" portion may be shifted back and forth between expansion, betterment or replacement as the financing needs change. The "incremental" portion of the capacity fee is limited to planning, design, construction, and financing exclusively for expansion facilities (excluding new water supply expansion).

g. Sewer Capacity Fees (Restricted)

Sewer capacity fees are based on the value of existing and future facilities divided by the number of existing and future equivalent dwelling units. This method of calculating capacity fees is called the combined method, where the "buy-in" portion of the capacity fee covers cost to repay existing customers for the facilities that they have built, and where the "incremental" portion of the capacity fee covers the cost of future expansion facilities. The "buy-in" portion of the capacity fee is restricted to pay for planning, design, construction, and financing associated with expansion, replacement or betterment facilities. The "buy-in" portion may be shifted back and forth between expansion, betterment or replacement as the financing needs change. The "incremental" portion of the capacity fee is limited to planning, design, construction, and financing exclusively for expansion facilities. For parcels within a sewer ID the calculation excludes the tax debt already paid by these customers therefore, producing a lower fee than for parcels outside of a sewer ID. The capacity fees are restricted to pay for planning, design, construction, and financing associated with the expansion, replacement, or betterment of facilities.

[4] Code of Ordinances, Section 28.

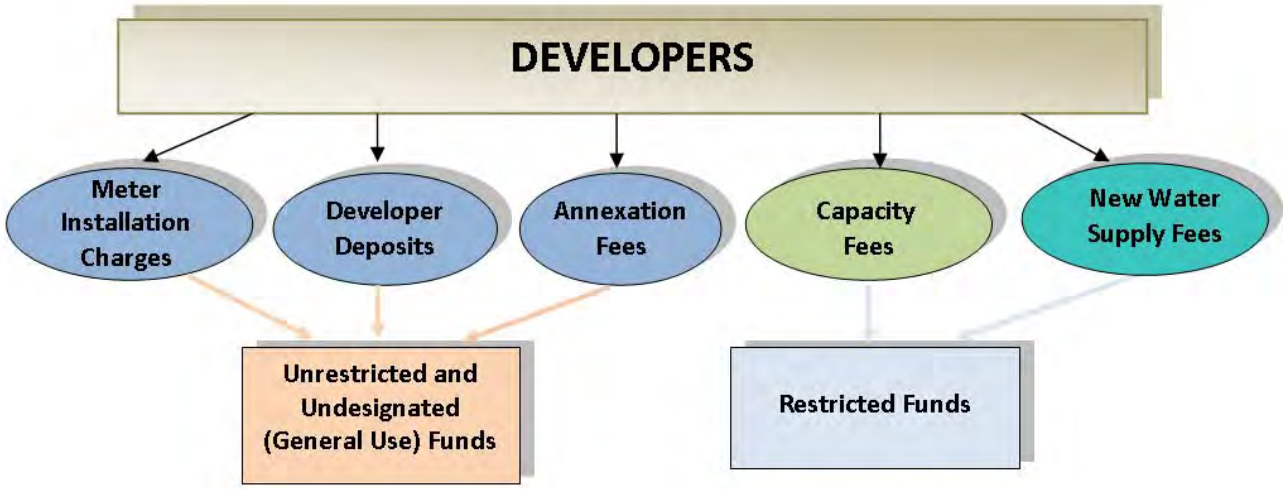
Reserve Policy

Facility needs are based on projected land use planning. Changes in anticipated future land use occur and can alter projected facility requirements. Thus, both the anticipated facilities needs and their projected costs change over time as regulatory agencies make changes to land use. The District periodically reviews the capacity fee calculation to accommodate such variations. These fees are paid by developers.

The District's construction of infrastructure occurs prior to the addition of EDUs. This sequence serves two purposes: one it ensures that the District can serve the pending construction as it is completed; and two, it is more efficient to oversize many facilities at the outset rather than build for the current need and then reconstruct when the future need is realized. As a result of this strategy, the District has financed construction with bond financing as the existing expansion reserves are depleted.

The water capacity fee is calculated based on the combined recycled and potable water systems' needs. This methodology is used because the two water systems work hand-in-hand. All capacity fees can be used for either potable or recycled but must be tracked to distinguish between the "buy-in" and "incremental" portions as described above. So, while capacity fees are not restricted separately by potable and recycled, they are tracked separately.

Diagram 2.0: Flow of Funds - Developer Sources



2.1 Customers/Users

a. Uniform Rates and Charges (General Use)

Charges to users for water, sewer, and recycled water are uniform throughout the District for similar customer types.

b. Monthly System Fees (General Use)

This is a fixed revenue source that is charged monthly. The amount of the charge is based on the meter size.

c. Energy Charges (General Use)

The energy pumping fee is a charge per Unit of water for each 100 feet of lift, or fraction thereof, above the base elevation of 450 feet. This charge is placed on the monthly water bills of all water customers.

d. Penalties (General Use)

Penalties are added to the monthly water and sewer bills for late charges, locks, etc.

e. Pass-through Fixed Charges (General Use)

A fixed monthly charge to the District's customers intended to collect sufficient funds to pass-through the increased fixed costs from the County Water Authority (CWA) and the Metropolitan Water District (MWD).

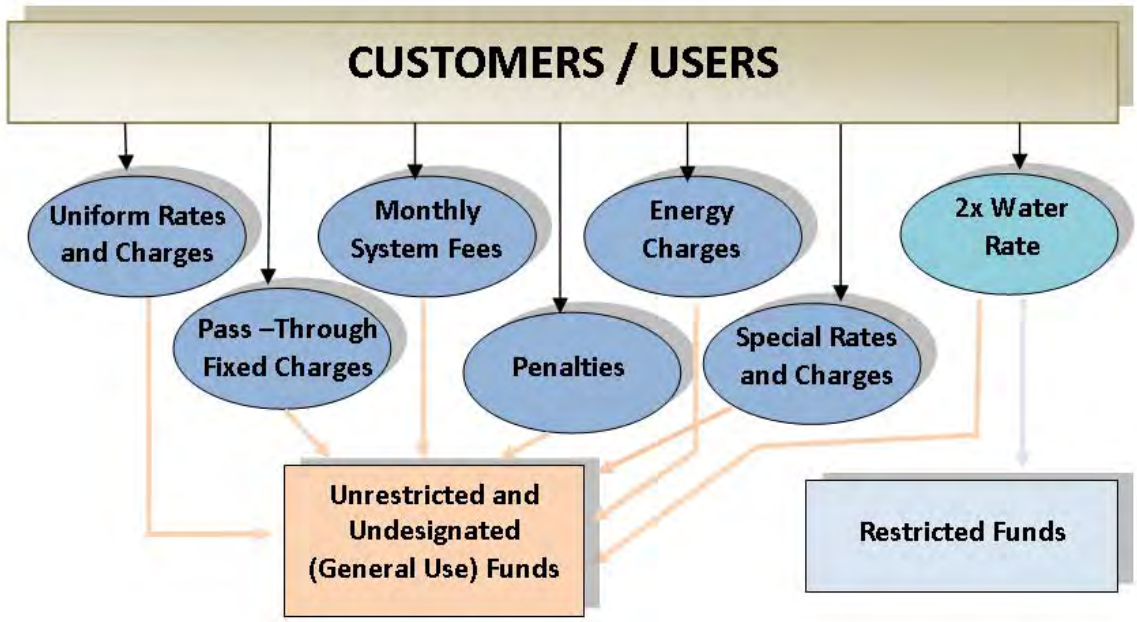
f. Special Rates and Charges (General Use)

In addition to the uniform water and sewer charges, the District has a special sewer rate for the Russell Square lift station. The Russell Square fee is for construction, installation, maintenance or repair of the Russell Square lift station. This fee is collected in accordance with the Russell Square sewer charge (see Code of Ordinances Section 53.03B).

g. Temporary Meter Fees (General Use/Restricted)

Water charges, in lieu of capacity fees, are charged on temporary meters. This is done because temporary meters use system capacity but they are not charged a capacity fee. Temporary water use is charged at two times the water rate with the added charge placed in the Restricted Expansion Fund. The primary users of these temporary meters are developers; however, general customers also use these for various purposes.

Diagram 2.1: Flow of Funds - Customer Sources



2.2 County-Collected Taxes and Fees

a. General Levy Property Tax Receipts (1% Property Tax) (General Use)

In 1978, Proposition 13 limited the levy of ad valorem property taxes on real property to one percent of the assessed value of such property. Subsequent legislation, AB 8, established that the receipts from the one percent levy were to be distributed to taxing agencies proportionate to each agency's general levy receipts prior to Proposition 13. Taxes received are for general use. Spending limits for the District are governed by the 1979 passage of California Proposition 4, Limitations of Government Appropriations (GANN limit). Proposition 4 places an appropriation limit on most spending from tax proceeds.

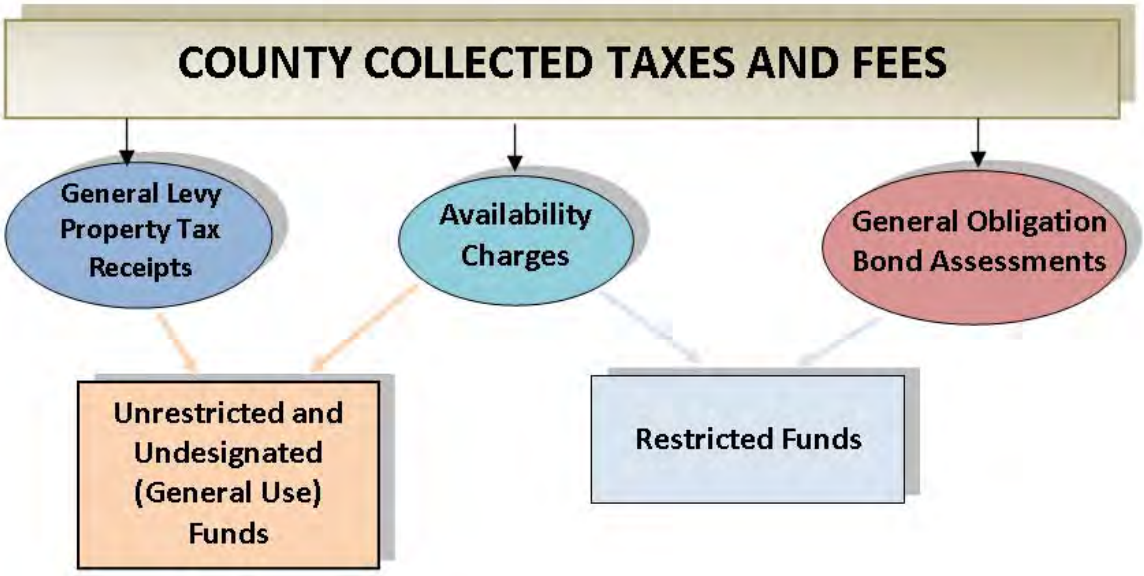
b. Availability Charges (General Use/Restricted)

The District levies availability charges each year in developed and undeveloped areas. Current legislation provides that any amount up to $10 per parcel is general use and any amount over $10 per parcel is restricted to be expended in and for the improvement district (ID) within which it is collected. Accordingly, the District may use availability charges in excess of $10 toward costs of water and sewer facilities which are either, expansion, betterment, or replacement of facilities consistent with the purpose of the ID in which they are collected. This portion of the proceeds of availability charges is geographically restricted and restricted by purpose. As costs are incurred on these projects the respective IDs are charged, reducing the reserves. To the extent that availability charges are not used for the purpose for which they are collected, they must be returned to the property owners that paid them. The District has historically used these reserves for betterment capital facilities thus, the restricted reserves are accounted for in "sub-funds" of the Betterment Fund (See 2.1 f.).

c. Improvement District General Obligation (GO) Bond Assessments (Restricted)

The District has historically issued general obligation (GO) debt and establishes an improvement district for the repayment of that debt. When this financing method is used, the county tax roll can be used to collect special taxes or assessments within the ID to pay the debt obligation. The proceeds of the debt are restricted for the purpose as defined in the bond documents.

Diagram 2.2: Flow of Funds – County Collection Sources



2.3 Miscellaneous Income

a. Miscellaneous Rents and Leases (General Use)

Revenues received from the rental and lease of District property are general use revenues. Not only are they periodic revenues, but there is also a one-time fee charged with the setup of each new lease. The District incurs expenses related to these rents and leases. The one-time fees are calculated to recover the costs to setup the leases.

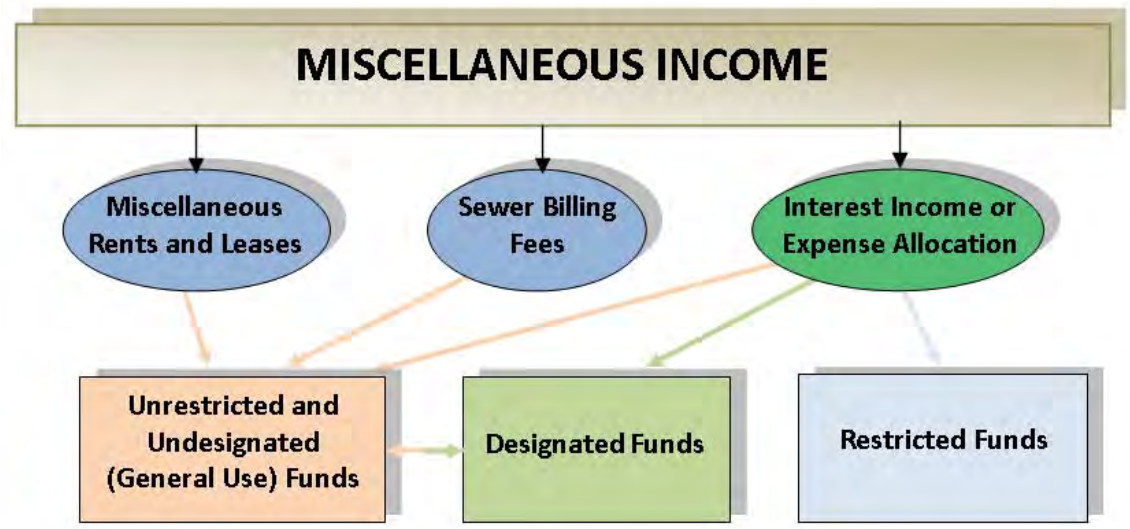
b. Sewer Billing Fees (General Use)

Sewer billing fees are general use revenues. The District provides processing and billing services to the City of Chula Vista to bill and collect from their customers for sewer service. These fees are to recover the cost the District incurs to provide this service.

c. Interest Income or Expense Allocation (General Use, Designated, and Restricted)

Interest income (expense) will be allocated every month based upon each fund's month-ending balance. In this way, each fund receives credit for interest earned by that fund and each fund with a negative balance is charged for the use of the other fund's reserves.

Diagram 2.3: Flow of Funds – Miscellaneous Income Sources



2.4 Debt Issuance

a. Loans (General/Restricted Use)

As the District determines that additional financing is required for a particular purpose, the option of borrowing is considered. The determination to borrow is made as a part of the annual rate model update and is evaluated in accordance with the Debt Policy before it is recommended to the Board for action. As an option to bond indebtedness, loans are available to satisfy short-term financing needs. These loans may or may not be contractually restricted for a particular purpose.

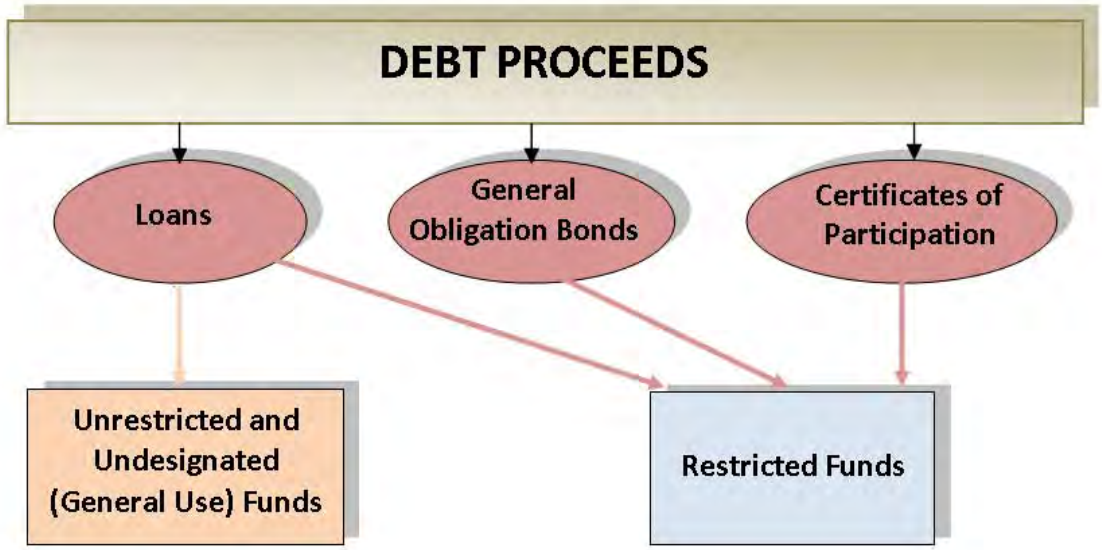
b. General Obligation (GO) Bonds (Restricted)

As the District becomes more developed it becomes less likely that general obligation debt will be used as it requires a vote of the public to be approved. Bond proceeds are restricted for the construction of those facilities identified in the GO bond issuance. Occasionally, specific portions of bond proceeds may be allocated for the repayment of the principal and interest, also called debt service, on these bonds. As the District determines that additional financing is required for a particular purpose, the option of debt issuance is considered. The determination to issue debt is made as a part of the annual rate model update and is evaluated in accordance with the Debt Policy before it is recommended to the Board for action.

c. Certificates of Participation (COPs) (Restricted)

General revenues of the District are pledged as security for Certificates of Participation (COPs) indebtedness. If the District determines that additional financing is required for a particular purpose, the option of debt issuance is considered. The determination to issue debt is made as a part of the annual rate model update and is evaluated in accordance with the Debt Policy before it is recommended to the Board for action. This form of financing has become the industry's preferred form of financing as it does not require a vote of the general public.

Diagram 2.4: Flow of Funds – Debt Issuance Sources



2.5 Inter-fund Transfers

Each year in the budgeting process, future fund levels are projected for the next six years. Based on these projections transfers are recommended. Reserves may be transferred between Unrestricted or Designated Funds and the General Fund (see 4.0 "Funding Levels" and 4.1 "Fund Transfers"). Reserves may not be transferred to or from any of the restricted funds unless it is between two restricted funds with a shared purpose.

Fund Types and Categories

3.0 General Funds

a. Purpose

The General Fund is neither restricted nor designated. The District maintains one General Fund for each business segment (water, sewer, and recycled). This fund holds the working capital and emergency operating reserves. While the General Fund has a short-term focus to finance the District's annual operations, it is supported by the six-year rate model. This fund is primarily used to finance the operations of the District; however, it can be used for any District purpose.

This fund can be used to supplement the District's rates and charges and be a temporary source of revenue to balance the Operating Budget. This fund can also be used to avoid spikes in the rates or significant and abrupt increases. It is an industry practice to have a fund that can be used to stabilize rates. This would only occur if there was a temporary need for reserves that would smooth out a rate spike or to ramp up what would otherwise be a dramatic rate increase.

The General Fund also plays a role in the debt planning of the District. This fund is viewed by the debt markets as a commitment by the District to ensure financial stability of the rates and charges of

the District. The District is anticipated to need a number of debt issuances over the years and this fund will help the District not only to stabilize rate fluctuations but also to access low cost financing for future projects.

b. Sources

Meter installation charges, temporary meter fees, uniform rates and charges, monthly system fees, energy charges, penalties, pass-through fixed charges, general levy property tax receipts, water annexation fees, availability charges, miscellaneous rents and leases, sewer billing fees, interest income or expense allocation, loans, and a portion of the temporary water sales.

The sewer general fund receives sewer charges, penalties, availability charges, sewer annexation fees, and interest income or expense allocation.

c. Funding Levels

I. **Minimum Level** – The minimum reserve level for each business segment of the General Fund is three months of operating budget expenses (evaluated separately for each segment).

II. **Maximum Level** – The maximum reserve level for the General Fund is nine months of operating budget expenses. In the event that this fund exceeds the seven month level, the excess will be evaluated or transferred to one or more of the designated funds.

III. **Target Level** – The target level of reserves is three months of operating budget expenses. In the event that the fund drops below the target level, rate increases or fund transfers would be considered.

3.1 Designated Other Post Employment Benefits (OPEB) Fund

a. Purpose

Designated Other Post Employment Benefits (OPEB) reserves are "general use" reserves that have been set apart by Board action to finance the medical benefits of qualified retirees as outlined in the District's benefits plan. This fund is available to hold any Board designated OPEB funds. The District also has a trust at CalPERS and is restricted for the purpose of financing the OPEB liability. Money held in the CalPERS trust restricts the funds from any use other than OPEB. The two funds are considered jointly when looking at target reserve levels. Every two years, an actuarial study is performed to update the annual financing requirements. Changes in the actuarial valuation may result from changes in benefit levels, employee population, health insurance costs, or general market conditions.

b. Sources

The OPEB liability may be financed by general use reserves coming from user rates and charges, either from an operating budget expenditure or from interfund transfers. Transfers of unrestricted reserves may come from the various designated funds or from the General Fund. As a part of the normal budget process, annual operating revenues have been sufficient to finance the ongoing

needs of this designated fund. While debt financing is also an option, the District has only used user rates and charges to finance this fund.

c. Funding Levels

I. **Minimum Level** – The minimum reserve level for this fund is equal to the District's OPEB liability as determined by the actuarial study. When considering the reserve level of this fund, both the District held OPEB reserves and CalPERS held OPEB reserves must be considered jointly.

II. **Maximum Level** – The maximum reserve level for this fund is equal to the District's OPEB liability as determined by the actuarial study. In the event that the two funds, as described above, exceed the OPEB liability, the District will reduce the annual funding levels as defined by the actuarial study.

III. **Target Level** – The target reserve level for this fund is equal to the District's OPEB liability as determined by the actuarial study. In the event that the two funds, as described above, fall below the OPEB liability, the District will increase the annual funding levels as defined by the actuarial study.

3.2 NEW WATER SUPPLY FUND CATEGORY

a. Purpose

The New Water Supply Fund category is to finance the expansion portion of new water supply projects and is therefore to be paid by developers. When considering the reserve level of the New Water Supply category; the New Water Supply Fund, the New Water Supply Debt Fund, and the Designated New Water Supply Fund all work in concert and must be considered jointly.

b. Sources

The New Water Supply Fund receives reserves only from the new water supply fee. Other funds within the new water supply category of funds receive debt proceeds and general use reserves through a designation to this category.

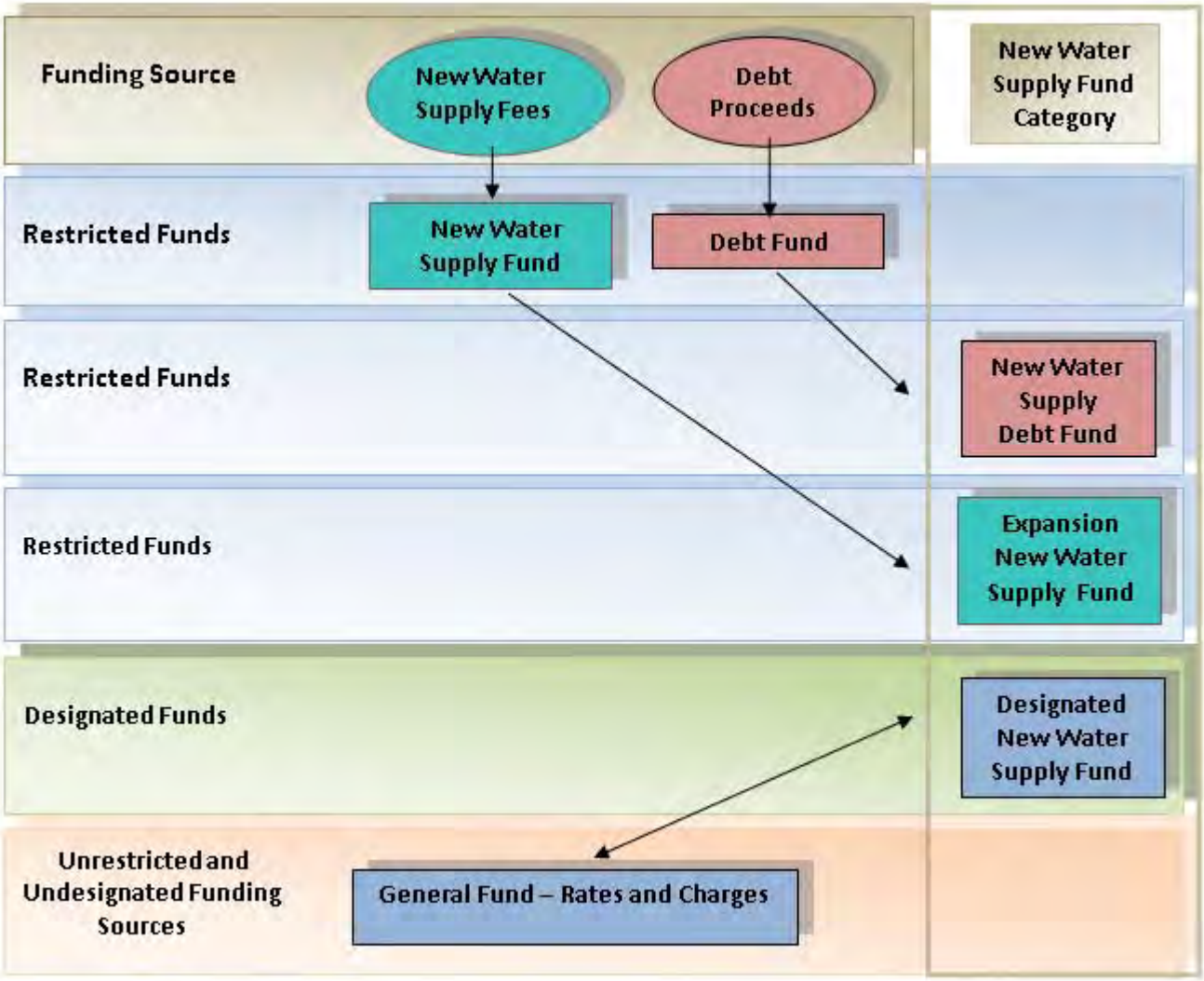
c. Funding Levels

I. **Minimum Level** – As the District matures the CIP will move to purely replacement projects. As the District moves through its lifecycle the need for new water supply reserves will decrease and may be reduced to zero.

II. **Maximum Level** – The maximum reserve level for the new water supply category of funds is limited to five years of the unfinanced new water supply facilities as described in the District's CIP Budget. To determine the unfinanced amount, the total new water supply financing needs must be reduced by the projected new water supply revenues, general fund designations, and bond financing. If the combined new water supply reserves exceed the target level, the District should consider transferring designated reserves to meet other purposes, reduce the new water supply fee, or change the timing of the new water supply projects.

III. **Target Level** – In order to facilitate debt financing of the new water supply, it is important that the various new water supply funds retain an overall reserve level of six months, prior to any attempt to obtain debt financing. This reserve level allows the District the time necessary to issue additional debt without depleting new water supply reserves. If the combined new water supply reserve levels drop below six months of expenditures, this would trigger a transfer of general use reserves, a bond sale, or a change in the timing of new water supply projects. Bond proceeds would be placed in the Restricted New Water Supply Debt Fund while transfers would be placed in the Designated New Water Supply Fund.

Diagram 3.2: New Water Supply Fund Category



3.3 Expansion Fund Category

a. Purpose

The Expansion Fund category is to finance the expansion portion of capital projects and therefore is to be paid for by developers. When considering the reserve levels of the expansion category, the following funds work in concert and must be considered jointly: the Expansion Fund, Expansion Debt Fund, Capital Improvement Fund, and the Designated Expansion Fund. Potable and recycled reserves are considered jointly while sewer is evaluated separately.

b. Sources

The Expansion Fund is financed by water charges in lieu of capacity fees (for temporary meters) and the "incremental" portion of the capacity fee. The other funds in this category may also be financed by debt proceeds, the "buy-in" portion of the capacity fee, and the general fund through a designation of reserves.

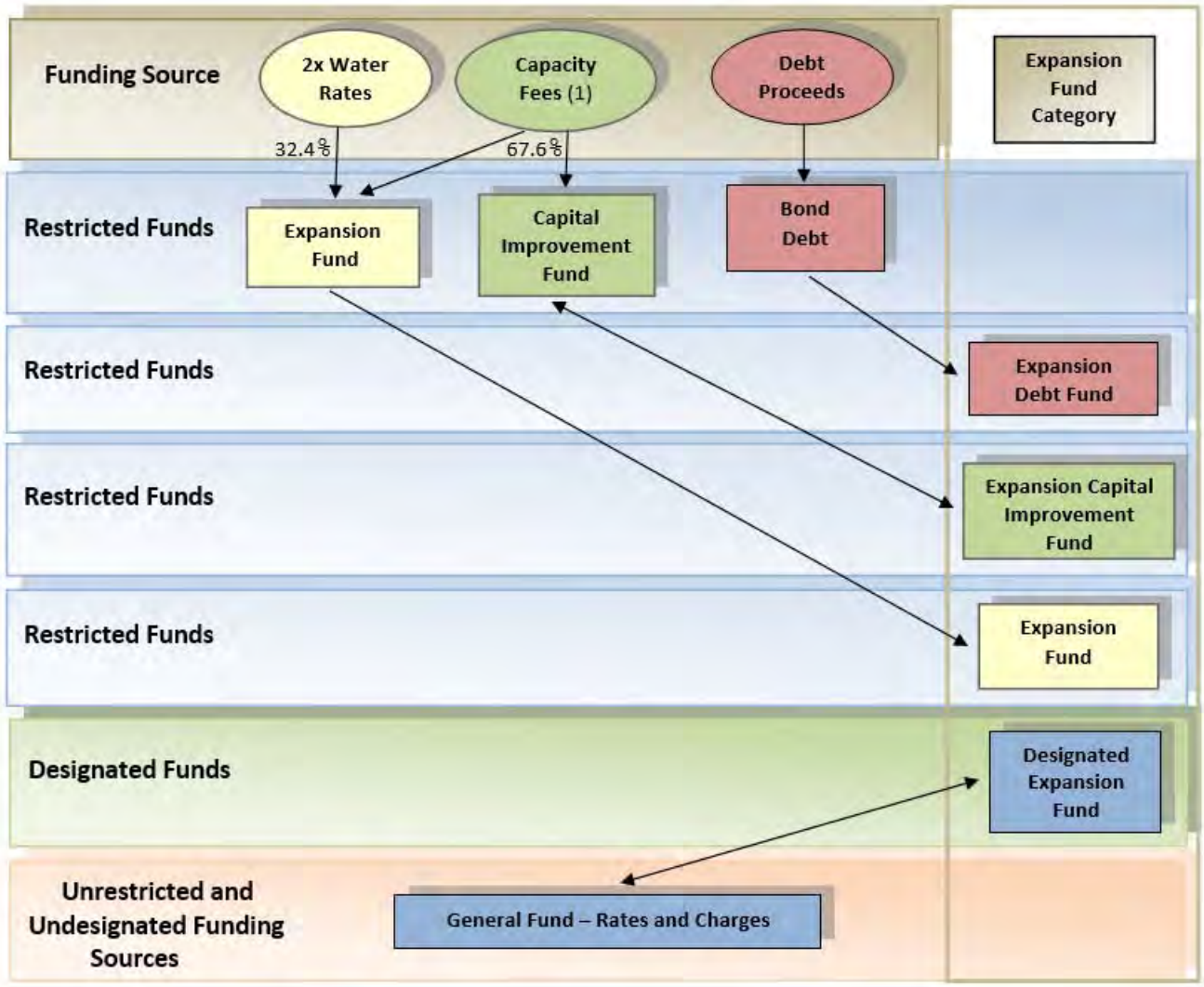
c. Funding Levels

I. **Minimum Level –** As the District matures the CIP will move to purely replacement and betterment projects. As the District moves through this lifecycle the need for expansion reserves will decrease and may be reduced to zero.

II. **Maximum Level** – The maximum reserve level for the expansion category of funds is limited to five years of unfinanced expansion facilities as described in the District's CIP Budget. To determine the unfinanced amount, the total financing needs must be reduced by the projected expansion revenues, bond financing, and any restricted or general fund revenues allocated to this fund category. If the combined expansion reserves exceed target levels, the District should consider reducing capacity fees, reallocating restricted or designated funds to meet other purposes, or shifting the timing of expansion projects.

III. **Target Level –** The target level is six months of expansion expenditures. It is important that the expansion reserves remain at a minimum of six months of expansion expenditures. This reserve level allows the District the time necessary to issue additional debt without depleting expansion reserves. If the combined expansion reserves drop below six months of expenditures this would trigger a transfer of general use reserves, a bond sale, an adjustment to the timing of expansion projects, or a reallocation of restricted reserves. Bond proceeds would be placed in the Restricted Bond Fund, transfers of general use reserves would be placed in the Designated Expansion Fund, and transfers of restricted reserves would be placed in the Expansion Capital Improvement Fund.

Diagram 3.3: Expansion Fund Category



(1) For Water Capacity Fees 32.4% goes into the Expansion fund and 67.6% goes into the Capital Improvement Fund. For Sewer Capacity Fees 100% goes to the Capital Improvement Fund.

3.4 Replacement Fund Category

a. Purpose

The Replacement Fund category is to finance replacement projects. When considering the reserve levels of the replacement category of funds, the following funds work in concert and must be considered jointly: the Debt Fund, Capital Improvement Fund, and the Designated Replacement Fund. The purpose of these reserves is to pay for the replacement of capital infrastructure and capital purchases. These reserves are not to be used for the replacement of non-capital items.

With the District's development of its financial systems and the greater need and ability to separate and track reserves, the replacement reserves have been separated into three funds: water, recycled, and sewer.

Projects undertaken solely for the purpose of replacing major capital equipment or facilities, *i.e.*, where the cost exceeds $10,000 for capital purchases or $20,000 for infrastructure items, generally these are not considered normal maintenance. When the cost is below $10,000, the costs are financed annually as operational maintenance. As charges are incurred on replacement projects the reserves are deducted from the respective Replacement Funds on a monthly basis.

b. Sources

The various funds in this category are financed by debt proceeds, the "buy-in" portion of the capacity fee, and general fund designations.

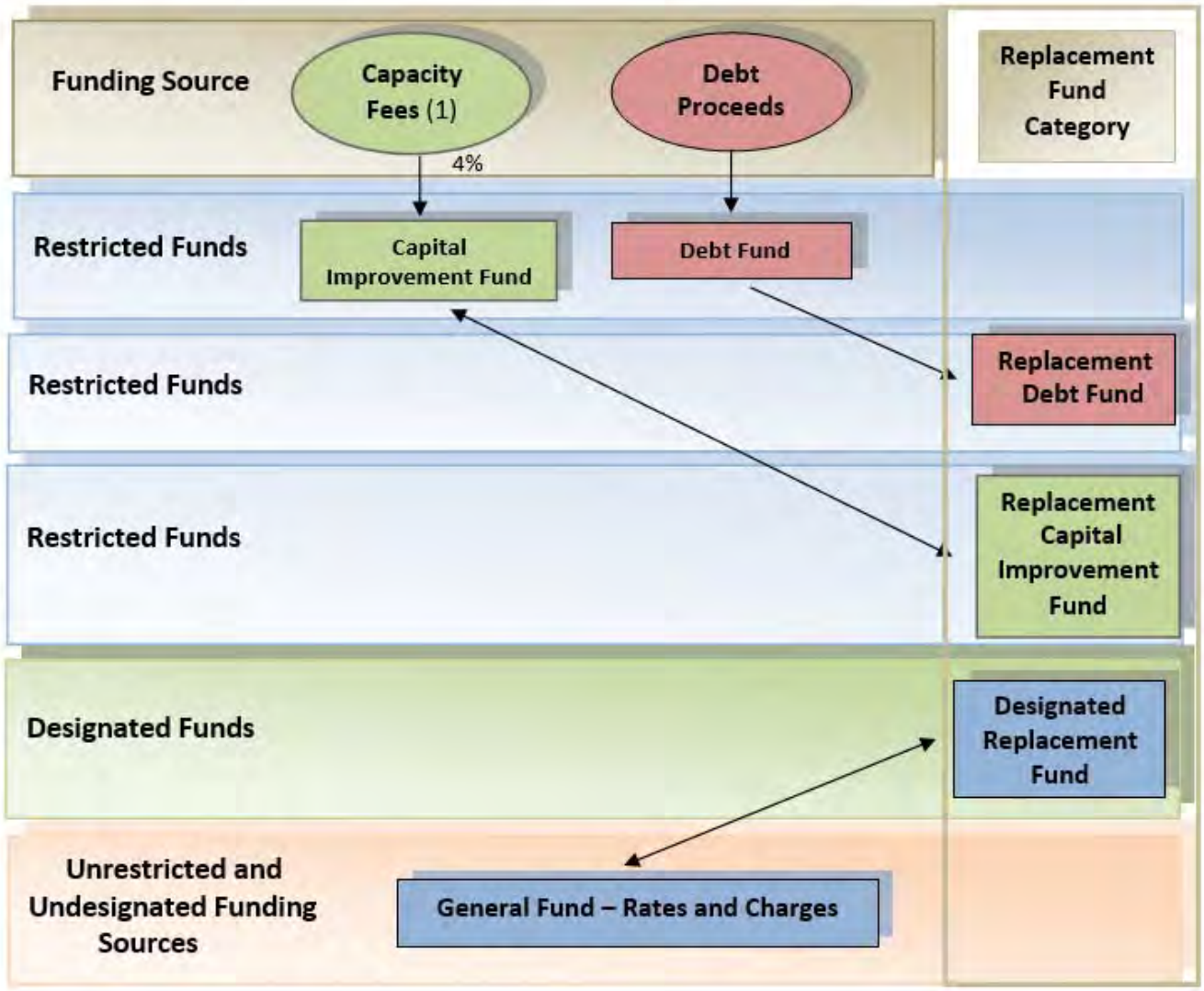
c. Funding Levels

I. **Minimum Level** – The minimum reserve level of this category of funds is 3% of the historical value of existing assets as identified in the District's current financial statements. Potable, recycled, and sewer replacement are evaluated separately.

II. **Maximum Level** – The maximum reserve level of this category of funds is 6% of existing assets. If the combined replacement reserves exceed target levels, the District should consider transferring the "buy-in" portion of the capacity fee to meet other purposes. Another consideration would be to shift the timing of replacement projects.

III. **Target Level** – The target reserve level of this category of funds is 4% of existing assets. In the event that the reserves fall below the recommended target level, the District should consider transferring the "buy-in" portion of the capacity fee. The District should also consider shifting the timing of replacement projects or issuing debt to support the planned level of facility replacement. The District will act based on the annual six-year rate model, to insure that at the end of that planning horizon the reserves exceed the minimum level and is approaching the target level.

Diagram 3.4: Replacement Fund Category



3.5 Betterment Fund Category

a. Purpose

The Betterment Fund category is to finance the betterment portion of capital projects with a portion going to maintenance of the potable, recycled, and sewer systems. The District maintains separate Betterment Fund categories, one for each improvement district. An improvement district is a legally defined geographic area usually established for the purpose of bond financing of facilities. The betterment reserves within these funds are restricted by law for use within the improvement district in which the fees were collected (Water Code 71631.6). However, the legal restriction of this reserve depends upon the particular revenue source. (See Section 2.2 b. for a review of the availability fees).

When considering the reserve levels of the betterment category of funds, the following funds work in concert and must be considered jointly: the Betterment Fund, Debt Fund, Capital Improvement Fund, and Designated Betterment Fund.

b. **Sources**

The Betterment Fund category receives restricted revenues by improvement district from availability fees (the first $10 is unrestricted, while amounts over $10 are restricted) collected through the county tax roll. Betterment may also be financed by debt proceeds, the "buy-in" portion of the capacity fee, as well as the general fund through a designation of reserves.

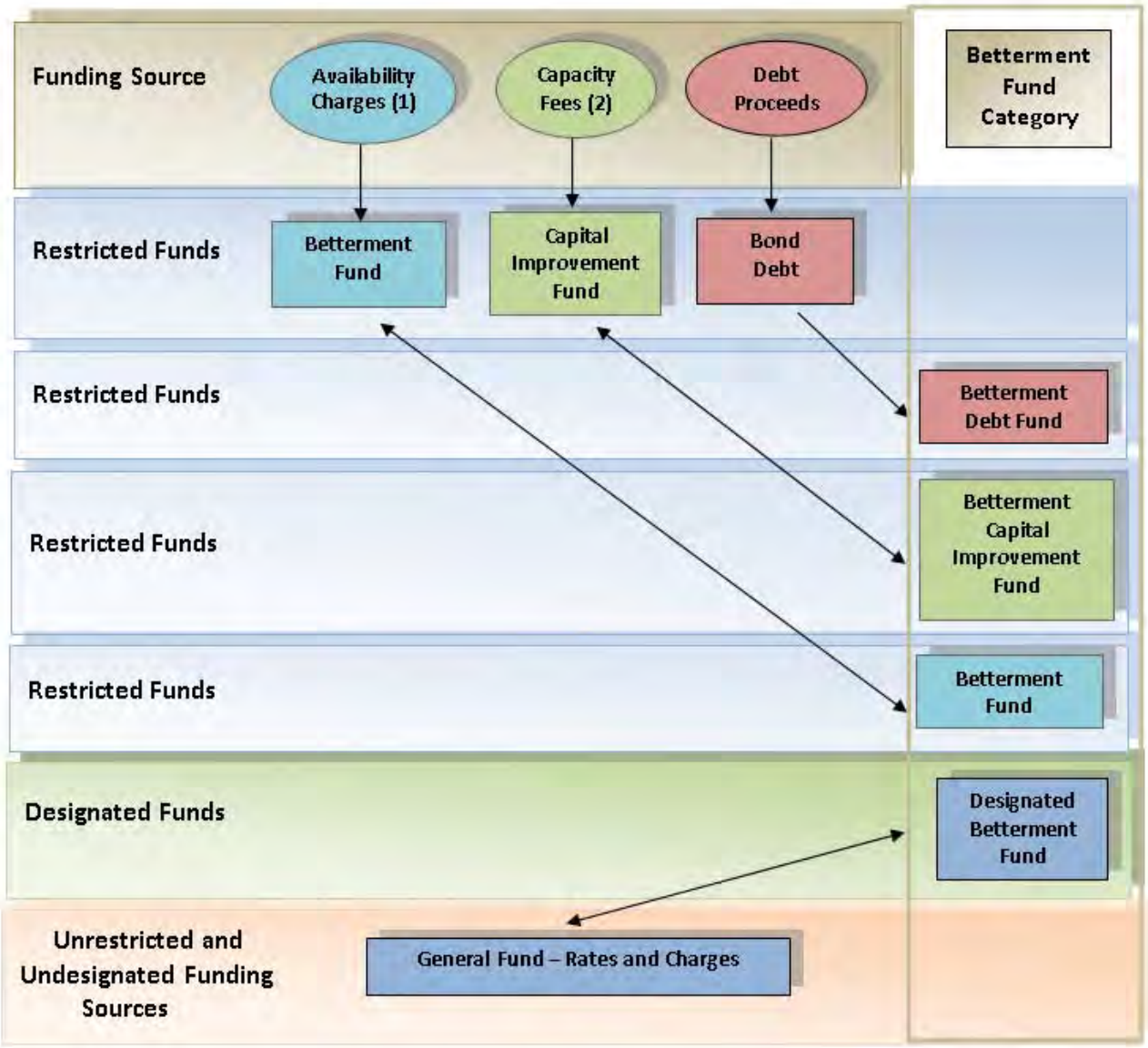
c. **Funding Levels**

I. **Minimum Level** – As the District matures the CIP will move to purely replacement projects. As the District moves through this lifecycle the need for betterment reserves will decrease and may be reduced to zero.

II. **Maximum Level** – The maximum reserve level for the betterment category of funds is limited to five years of unfinanced betterment facilities as described in the District's CIP Budget. To determine the unfinanced amount, the total financing need must be reduced by the projected betterment revenues, bond financing, and general fund designations. If this maximum is exceeded, then the District should evaluate reductions in the special water rates and availability fees, transferring designated reserves to meet other purposes, or shifting the timing of betterment projects.

III. **Target Level** – The target is six months of betterment expenditures. It is important that the betterment reserves remain at a minimum of six months of betterment expenditures. This reserve level allows the District the time necessary to issue additional debt without depleting betterment reserves. If the combined betterment reserves drop below six months of expenditures this would trigger a transfer of general use reserves, a bond sale, or an adjustment to the timing of betterment projects. Bond proceeds would be placed in the Betterment Bond Fund while transfers would be placed in the Designated Betterment Fund.

Diagram 3.5: Betterment Fund Category



(1) The portion of charges over $10 per parcel is restricted.

(2) For Water Capacity Fees 67.6% goes into the Capital Improvement Fund. For Sewer Capacity Fees 100% goes into the Capital Improvement Fund.

Reserve Policy

Diagram 3.6: Fund Targets

Fund or Fund Category	Actions to Consider if below Target	Target	Maximum
New Supply Fund Category	New supply fee increase, bond financing, or transfer to designated or CIF Funds	Total of all funds in fund category = six months of capital expenditures	Nexus of cost to fee
Expansion Fund Category	Capacity fee increase, bond financing, or transfer to designated or CIF Funds	Total of all funds in fund category = six months of capital expenditures	Nexus of cost to fee
Replacement Fund Category	Bond financing, or transfer to designated or CIF Funds	Total of all funds in fund category = 4% of infrastructure	Nexus of cost to fee
Betterment Fund Category	Bond financing, or transfer to designated or CIF Funds	Total of all funds in fund category = six months of capital expenditures	5 years unfunded needs
Debt Reserve Fund	Increase tax collection or rates	One semi-annual payment	Two semi-annual payments
OPEB Fund	Fund transfers	Full funding	Full funding
General Fund	Rate increase or fund transfers	Three months of operating budget expenses	Nine months of operating budget expenses

Additional Restricted Funds

4.0 Capital Improvement Fund

a. Purpose

The "Capital Improvement Fund's sole purpose is to track the "buy-in" portion of the capacity fee and to ensure these fees are expended solely for the purpose for which they were collected. In this case it is to pay for facilities that were in existence at the time this fee was established. These fees may be used for expansion, replacement, or betterment projects or any debt related to these categories. The water capacity fees may also be used for either the potable or the recycled systems. As capacity fees are collected, the "buy-in" portion of the fee is allocated as needed to one of three capital improvement funds, one in each of the Expansion, Replacement, and Betterment Fund categories. These reserves are used to pay debt or offset any negative balance within these three categories of funds. For sewer, these fees fund the Expansion, Replacement, or Betterment Fund categories.

These fees may not be used to finance the New Water Supply category, as there were no new water supply facilities in existence at the time the new methodology for capacity fees was established.

b. Sources

The "buy-in" portion of the capacity fee collected after June 30, 2010 or after September 30, 2014 for sewer.

c. Funding Levels

There are no minimums, maximums, or target levels for these reserves on an individual basis. The allocation of this fee to the various capital improvement funds is dependent on the overall reserve levels within each fund category.

4.1 Debt Reserve Fund

a. Purpose

The Debt Reserve Fund is established to hold the proceeds from the various debt issuances. There are two types of debt, General Obligation bonds and Certificates of Participation bonds. The proceeds are transferred to the New Water Supply, Expansion, Replacement, or Betterment Debt Funds as they are expended for various facilities within those fund categories. As repayment of the debt occurs, the balances within these individual funds are reduced so that the financial impact of issuing debt is tracked within the category for which the debt was issued.

b. Sources

Debt proceeds.

c. Uses

There are no minimums, maximums, or target levels for this fund on an individual basis. This fund is available on an as needed basis to fund CIP projects for new water supply, expansion, replacement, or betterment. From a funding level perspective, these reserves are evaluated in the context of all the various funds within each fund category.

Fund Transfers

5.0 Funding Levels

As described in the preceding sections, the District maintains reserves for its operating and capital activities. These reserves can be of three types: 1) undesignated or general use reserves, 2) designated, and 3) restricted for a specific purpose. The restricted reserves can be restricted geographically and/or by purpose. The District maintains various funds to track the various designations and restrictions. The source of the money for each fund was discussed along with the purpose, source of funds, and levels. Key characteristics of these funds are the target levels, minimums, and maximums. The funding levels must be viewed in the context of the economic environment, political environment, and in light of the District's rate model. The District's six-year rate model not only shows the current balance but also shows the trend of the fund balances. Often the trend of the fund is a greater indicator of financial stability than is the current balance.

Reserve Policy

The rate model is updated each year with the budget process and evaluates each fund over the next six years. The rate model will take into account the general economic environment, looking at the development rate, supply rate increases, the possibility of raising rates, capital infrastructure spending, and strategic plan initiatives. The fund balances may at times be over or under the target amount. This is not only acceptable but expected. The rate model provides an empirical estimate of the conformance between the projected District's financial activities and the guidelines of this policy.

5.1 Fund Transfers

Reserves within the District's various designated funds come from interfund transfers of unrestricted general use reserves. It is important to note that the District has the ability to use general use reserves for any business purpose. General use reserves may be transferred to and from any unrestricted fund for any business need. Designated reserves are general use reserves which have been set aside for a specific purpose by Board action. These reserves can only be used for the purpose they were designated, or with Board action they may be used for any other business purpose. While general use reserves may be used for any restricted purpose they may not be transferred to Restricted Funds due to the sensitivity of the tracking of restricted reserves. If reserves are needed for a restricted purpose they are transferred to a Designated Fund within the fund category with that particular purpose. Reserves restricted to a fund category may only be used within that category and may not be transferred to another category. For example, the new water supply fee and the "incremental" portion of the capacity fee are restricted reserves for a specific purpose, and may not be transferred to another category as no other category has the same purpose. However, the "buy-in" portion of the capacity fees are restricted for purposes that are shared by more than one category of funds and may therefore be transferred to a restricted fund within another fund category as long as it shares the same purpose.

In many situations reserve transfers are expected as some fund categories will exceed their maximums or drop below their minimums. Only fund categories that are below the stated target are eligible to receive transferred reserves. Fund categories that exceed their maximums are first to be considered for transfers out, followed by funds that exceed their targets. Funds that exceed their minimums are also available for reserve transfers out, but only when other options are not available.

The rationale for prioritizing reserve transfers is based on the immediacy of the need and the availability of reserves from other funding sources. For example, the General Fund is first to receive reserves when it drops below its target or minimum levels. This is because of the immediate and ongoing nature of the expenditures that are served by this fund. The operation of the District is first and foremost of the objectives of the District. On the other end of the spectrum, the Replacement Fund has a long-term perspective and will be used to partially finance replacement assets for many years to come. Debt financing is available to respond to this long term, foreseeable, and planned cash flow. This fund is less likely to have immediate needs and has other financing options.

When making the determination of when transfers are necessary, all funds within a fund category work as a group. The combined balance of the restricted and designated funds is looked at when determining whether the fund category requires additional funding from the Restricted Capital Improvement Fund,

Restricted Debt Fund, or the General Fund. Because the Capital Improvement Fund may finance expansion, replacement or betterment reserves may be transferred between these fund categories, but only back and forth within its own type of restricted fund.

As an example, if during the rate model update process it was determined that the Expansion Funds (designated and restricted) would drop and stay below the minimum during the six-year planning horizon, this would trigger a bond sale, a transfer of general use reserves, and/or a transfer of restricted reserves. If in the cash planning process, it was anticipated that the General Fund would remain above target during the planning horizon and that the trend did not present a problematic underfunded status, then General Fund reserves would be considered available for transfer prior to making proceeds available from a bond sale. Also, if during this period the Betterment Fund category was anticipated to exceed its maximum, then reserves from either the Designated Betterment Fund, or the Capital Improvement Fund would be transferred to the corresponding Expansion Fund prior to a bond sale. All funds are evaluated to determine which has the greatest need or availability of reserves before any reserve transfer recommendation is presented to the Board.

Glossary

The Reserve Policy contains terminology that is unique to public finance and budgeting. The following glossary provides assistance in understanding these terms.

Annexation Fees: When water service is requested for land outside the boundaries of the District, the land to be serviced must first be annexed. For sewer service the land must be annexed into an improvement district within the District.

Assets: Resources owned or held by Otay Water District that has monetary value.

Availability Fees: The District levies charges each year in developed areas to be used for upgrades, betterment, or replacement and in undeveloped areas to provide a source of funding for planning, mapping, and preliminary design of facilities to meet future development. Current legislation provides that any availability charge in excess of $10.00 per acre shall be used only for the purpose of the improvement district for which it was assessed.

Bond: A written promise to pay a sum of money on a specific date at a specified interest rate. The interest payments and the repayment of the principal are authorized in a District bond resolution. The most common types of bonds are General Obligation (GO) bonds and Certificates of Participation (COPs). These are frequently used for construction of large capital projects such as buildings, reservoirs, pipelines and pump stations.

Capital Equipment: Fixed assets such as vehicles, marine equipment, computers, furniture, technical instruments, etc. which have a life expectancy of more than two years and a value over $10,000.

Capital Improvement Program: A long-range plan of the District for the construction, rehabilitation and modernization of the District-owned and operated infrastructure.

CWA: The County Water Authority was organized in 1944 under the State County Water Authority Act for the primary purpose of importing Colorado River water to augment the local water supplies of the Authority's member agencies. The Authority purchases water from the Metropolitan Water District of Southern California (MWD) which imports water from the Colorado River and the State Water Project.

Debt Service: The District's obligation to pay the principal and interest of bonds and other debt instruments according to a predetermined payment schedule.

Expenditures/Expenses: These terms refer to the outflow of funds paid or to be paid for an asset, goods, or services obtained regardless of when actually paid for. (Note: An encumbrance is not an expenditure). An encumbrance reserves funds to be expended in a future period.

Fund: An account used to track the collection and use of monies for a specifically defined purpose.

Glossary

Fund Balance: The current funds on hand resulting from the historical collection and use of monies. The difference between assets and liabilities reported in the District's Operating Fund plus residual equities or balances and changes therein, from the results of operations.

Interest Income: Earnings from the investment portfolio. Per District Policy Number 25, interest income will be allocated to the various funds each month based upon each fund's prior month-ending balance.

Late Charges/Penalties: Charges and penalties are imposed on customer accounts for late payments, returned payments, and other infringements of the District's Code of Ordinances.

1% Property Tax: In 1978, Proposition 13 limited general levy property tax rates for all taxing authorities to a total rate of 1% of full cash value. Subsequent legislation, AB 8, established that the receipts from the 1% levy were to be distributed to taxing agencies according to approximately the same proportions received prior to Proposition 13.

Operating Budget: The portion of the budget that pertains to daily operations that provide basic governmental services. The operating budget contains appropriations for such expenditures as personnel, supplies, utilities, materials, travel and fuel, and does not include purchases of major capital plant or equipment which is budgeted for separately in the Capital Budget. The Operating Budget also identifies planned non-operating revenues and expenses.

Revenue: Monies that the District receives as income. It includes such items as water sales and sewer fees. Estimated revenues are those expected to be collected during the fiscal year.

Russell Square: A sewer lift station constructed in 1983 that serves four properties in the Russell Square Development.

System Fees: Each water service customer pays a monthly system charge for water system replacement, maintenance, and operation expenses. The charge is based on the size of the meter and class of service.

Tax Collection for Bond Debt: California Water Code Section 72091 authorizes the District, as a municipal water district, to levy ad valorem property taxes which are equal to the amount required to make annual payments for principal and interest on General Obligation bonds approved by the voters prior to July 1, 1978.

Unit: A unit of water is 100 cubic feet or 748 gallons of water.

Water Rates: Rates vary among classes of service and are measured in Units. The water rates for residential customers are based on an accelerated block structure. As more Units are consumed, a higher Unit rate is charged. Effective in 2009, all non-residential customers are charged for water based on a tiered rate structure in which water rates are based on meter size and amount of Units consumed.

Investment Policy

1.0 POLICY

It is the policy of the Otay Water District to invest public funds in a manner which will provide maximum security with the best interest return, while meeting the daily cash flow demands of the entity and conforming to all state statues governing the investment of public funds.

2.0 SCOPE

This investment policy applies to all financial assets of the Otay Water District. The District pools all cash for investment purposes. These funds are accounted for in the District's audited Comprehensive Annual Financial Report (CAFR) and include:

- 2.1) General Fund
- 2.2) Capital Project Funds
  - 2.2.1) Designated Expansion Fund
  - 2.2.2) Restricted Expansion Fund
  - 2.2.3) Designated Betterment Fund
  - 2.2.4) Restricted Betterment Fund
  - 2.2.5) Designated Replacement Fund
  - 2.2.6) Restricted New Water Supply Fund
- 2.3) Other Post Employment Benefits Fund (OPEB)
- 2.4) Debt Reserve Fund

Exceptions to the pooling of funds do exist for tax-exempt debt proceeds, debt reserves and deferred compensation funds. Funds received from the sale of general obligation bonds, certificates of participation or other tax-exempt financing vehicles are segregated from pooled investments and the investment of such funds are guided by the legal documents that govern the terms of such debt issuances.

3.0 PRUDENCE

Investments should be made with judgment and care, under current prevailing circumstances, which persons of prudence, discretion and intelligence, exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived.

The standard of prudence to be used by investment officials shall be the "Prudent Person" and/or "Prudent Investor" standard (California Government Code 53600.3) and shall be applied in the context of managing an overall portfolio. Investment officers acting in accordance with written procedures and the investment policy and exercising due diligence shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided deviations from expectations are reported in a timely fashion and appropriate action is taken to control adverse developments.

4.0 OBJECTIVE

As specified in the California Government Code 53600.5, when investing, reinvesting, purchasing, acquiring, exchanging, selling and managing public funds, the primary objectives, in priority order, of the investment activities shall be:

4.1) **Safety:** Safety of principal is the foremost objective of the investment program. Investments of the Otay Water District shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio. To attain this objective, the District will diversify its investments by investing funds among a variety of securities offering independent returns and financial institutions.

4.2) **Liquidity:** The Otay Water District's investment portfolio will remain sufficiently liquid to enable the District to meet all operating requirements which might be reasonably anticipated.

4.3) **Return on Investment:** The Otay Water District's investment portfolio shall be designed with the objective of attaining a benchmark rate of return throughout budgetary and economic cycles, commensurate with the District's investment risk constraints and the cash flow characteristics of the portfolio.

5.0 DELEGATION OF AUTHORITY

Authority to manage the Otay Water District's investment program is derived from the California Government Code, Sections 53600 through 53692. Management responsibility for the investment program is hereby delegated to the Chief Financial Officer (CFO), who shall be responsible for all transactions undertaken and shall establish a system of controls to regulate the activities of subordinate officials and their procedures in the absence of the CFO.

The CFO shall establish written investment policy procedures for the operation of the investment program consistent with this policy. Such procedures shall include explicit delegation of authority to persons responsible for investment transactions. No person may engage in an investment transaction except as provided under the terms of this policy and the procedures established by the CFO.

6.0 ETHICS AND CONFLICTS OF INTEREST

Officers and employees involved in the investment process shall refrain from personal business activity that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial investment decisions. Employees and investment officials shall disclose to the General Manager any material financial interests in financial institutions with which they conduct business. They shall further disclose any personal financial/investment positions that could be related to the

performance of the investment portfolio. Employees and officers shall refrain from undertaking personal investment transactions with the same individual with whom business is conducted on behalf of the District.

7.0 AUTHORIZED FINANCIAL DEALERS AND INSTITUTIONS

The Chief Financial Officer shall maintain a list of financial institutions authorized to provide investment services. In addition, a list will also be maintained of approved security broker/dealers who are authorized to provide investment services in the State of California. These may include "primary" dealers or regional dealers that qualify under Securities & Exchange Commission Rule 15C3-1 (Uniform Net Capital Rule). No public deposit shall be made except in a qualified public depository as established by state laws.

All financial institutions and broker/dealers who desire to become qualified bidders for investment transactions must supply the District with the following, as appropriate:

- Audited Financial Statements.
- Proof of Financial Industry Regulatory Authority (FINRA) certification.
- Proof of state registration.
- Completed broker/dealer questionnaire.
- Certification of having read the District's Investment Policy.
- Evidence of adequate insurance coverage.

An annual review of the financial condition and registrations of qualified bidders will be conducted by the CFO. A current audited financial statement is required to be on file for each financial institution and broker/dealer in which the District invests.

8.0 AUTHORIZED AND SUITABLE INVESTMENTS

From the governing body perspective, special care must be taken to ensure that the list of instruments includes only those allowed by law and those that local investment managers are trained and competent to handle. The District is governed by the California Government Code, Sections 53600 through 53692, to invest in the following types of securities, as further limited herein:

8.01) United States Treasury Bills, Bonds, Notes or those instruments for which the full faith and credit of the United States are pledged for payment of principal and interest. There is no percentage limitation of the portfolio which can be invested in this category, although a five-year maturity limitation is applicable.

8.02) Local Agency Investment Fund (LAIF), which is a State of California managed investment pool, may be used up to the maximum permitted by State Law (currently $65 million). The District may also invest bond proceeds in LAIF with the same but independent maximum limitation.

8.03) Bonds, debentures, notes and other evidence of indebtedness issued by any of the following government agency issuers:

- Federal Home Loan Bank (FHLB)
- Federal Home Loan Mortgage Corporation (FHLMC or "Freddie Mac")
- Federal National Mortgage Association (FNMA or "Fannie Mae")
- Government National Mortgage Association (GNMA or "Ginnie Mae")
- Federal Farm Credit Bank (FFCB)
- Federal Agricultural Mortgage Corporation (FAMCA or "Farmer Mac")

There is no percentage limitation of the portfolio which can be invested in this category, although a five-year maturity limitation is applicable. Government agencies whose implied guarantee has been reduced or eliminated shall require an "A" rating or higher by a nationally recognized statistical rating organization.

8.04) Interest-bearing demand deposit accounts and Certificates of Deposit (CD) will be made only in Federal Deposit Insurance Corporation (FDIC) insured accounts. For deposits in excess of the insured maximum of $250,000, approved collateral shall be required in accordance with California Government Code, Section 53652. Investments in CD's are limited to 15 percent of the District's portfolio.

8.05) Commercial paper, which is short-term, unsecured promissory notes of corporate and public entities. Purchases of eligible commercial paper may not exceed 10 percent of the outstanding paper of an issuing corporation, and maximum investment maturity will be restricted to 270 days. Investment is further limited as described in California Government Code, Section 53601(h). Purchases of commercial paper may not exceed 10 percent of the District's portfolio and no more than 10 percent of the outstanding commercial paper of any single issuer.

8.06) Medium-term notes defined as all corporate debt securities with a maximum remaining maturity of five years or less, and that meet the further requirements of California Government Code, Section 53601(k). Investments in medium-term notes are limited to 10 percent of the District's portfolio.

8.07) Money market mutual funds that invest only in Treasury securities and repurchase agreements collateralized with Treasury securities, and that meet the further requirements of California Government Code, Section 53601(l). Investments in money market mutual funds are limited to 10 percent of the District's portfolio.

8.08) The San Diego County Treasurer's Pooled Money Fund, which is a County managed investment pool, may be used by the Otay Water District to invest excess funds. There is no percentage limitation of the portfolio which can be invested in this category.

8.09) Under the provisions of California Government Code 53601.6, the Otay Water District shall not invest any funds covered by this Investment Policy in inverse floaters, range notes, interest-only strips derived from mortgage pools, or any investment that may result in a zero interest accrual if held to maturity. Also, the borrowing of funds for investment purposes, known as leveraging, is prohibited.

9.0 INVESTMENT POOLS/MUTUAL FUNDS

A thorough investigation of the pool/fund is required prior to investing, and on a continual basis. There shall be a questionnaire developed which will answer the following general questions:

- A description of eligible investment securities, and a written statement of investment policy and objectives.
- A description of interest calculations and how it is distributed, and how gains and losses are treated.
- A description of how the securities are safeguarded (including the settlement processes), and how often the securities are priced and the program audited.
- A description of who may invest in the program, how often, and what size deposits and withdrawals are allowed.
- A schedule for receiving statements and portfolio listings.
- Are reserves, retained earnings, etc., utilized by the pool/fund?
- A fee schedule, and when and how is it assessed.
- Is the pool/fund eligible for bond proceeds and/or will it accept such proceeds?

10.0 COLLATERALIZATION

Collateralization will be required on certificates of deposit exceeding the $250,000 FDIC insured maximum. In order to anticipate market changes and provide a level of security for all funds, the collateralization level will be 102% of market value of principal and accrued interest. Collateral will always be held by an independent third party with whom the entity has a current custodial agreement. A clearly marked evidence of ownership (safekeeping receipt) must be supplied to the entity and retained. The right of collateral substitution is granted.

11.0 SAFEKEEPING AND CUSTODY

All security transactions entered into by the Otay Water District shall be conducted on a delivery-versus-payment (DVP) basis. Securities will be held by a third party custodian designated by the District and evidenced by safekeeping receipts.

12.0 DIVERSIFICATION

The Otay Water District will diversify its investments by security type and institution, with limitations on the total amounts invested in each security type as detailed in Paragraph 8.0, above, so as to reduce overall

portfolio risks while attaining benchmark average rate of return. With the exception of U.S. Treasury securities, government agencies, and authorized pools, no more than 50% of the District's total investment portfolio will be invested with a single financial institution.

13.0 MAXIMUM MATURITIES

To the extent possible, the Otay Water District will attempt to match its investments with anticipated cash flow requirements. Unless matched to a specific cash flow, the District will not directly invest in securities maturing more than five years from the date of purchase. However, for time deposits with banks or savings and loan associations, investment maturities will not exceed two years. Investments in commercial paper will be restricted to 270 days.

14.0 INTERNAL CONTROL

The Chief Financial Officer shall establish an annual process of independent review by an external auditor. This review will provide internal control by assuring compliance with policies and procedures.

15.0 PERFORMANCE STANDARDS

The investment portfolio shall be designed with the objective of obtaining a rate of return throughout budgetary and economic cycles, commensurate with the investment risk constraints and the cash flow needs.

The Otay Water District's investment strategy is passive. Given this strategy, the basis used by the CFO to determine whether market yields are being achieved shall be the State of California Local Agency Investment Fund (LAIF) as a comparable benchmark.

16.0 REPORTING

The Chief Financial Officer shall provide the Board of Directors monthly investment reports which provide a clear picture of the status of the current investment portfolio. The management report should include comments on the fixed income markets and economic conditions, discussions regarding restrictions on percentage of investment by categories, possible changes in the portfolio structure going forward and thoughts on investment strategies. Schedules in the quarterly report should include the following:

- A listing of individual securities held at the end of the reporting period by authorized investment category.
- Average life and final maturity of all investments listed.
- Coupon, discount or earnings rate.
- Par value, amortized book value, and market value.
- Percentage of the portfolio represented by each investment category.

17.0 INVESTMENT POLICY ADOPTION

The Otay Water District's investment policy shall be adopted by resolution of the District's Board of Directors. The policy shall be reviewed annually by the Board and any modifications made thereto must be approved by the Board.

18.0 GLOSSARY

See Appendix A.

Appendix A: Glossary

Active Investing: Active investors will purchase investments and continuously monitor their activity, often looking at the price movements of their stocks many times a day, in order to exploit profitable conditions. Typically, active investors are seeking short term profits.

Agencies: Federal agency securities and/or Government-sponsored enterprises.

Bankers' Acceptance (BA): A draft or bill or exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill, as well as the issuer.

Benchmark: A comparative base for measuring the performance or risk tolerance of the investment portfolio. A benchmark should represent a close correlation to the level of risk and the average duration of the portfolio's investments.

Broker/Dealer: Any individual or firm in the business of buying and selling securities for itself and others. Broker/dealers must register with the SEC. When acting as a broker, a broker/dealer executes orders on behalf of his/her client. When acting as a dealer, a broker/dealer executes trades for his/her firm's own account. Securities bought for the firm's own account may be sold to clients or other firms, or become a part of the firm's holdings.

Certificate of Deposit (CD): A short or medium term, interest bearing, FDIC insured debt instrument offered by banks and savings and loans. Money removed before maturity is subject to a penalty. CDs are a low risk, low return investment, and are also known as "time deposits", because the account holder has agreed to keep the money in the account for a specified amount of time, anywhere from a few months to several years.

Collateral: Securities, evidence of deposit or other property, which a borrower pledges to secure repayment of a loan. Also refers to securities pledged by a bank to secure deposits of public monies.

Commercial Paper: An unsecured short-term promissory note, issued by corporations, with maturities ranging from 2 to 270 days.

Comprehensive Annual Financial Report (CAFR): The official annual report for the Otay Water District. It includes detailed financial information prepared in conformity with generally accepted accounting principles (GAAP). It also includes supporting schedules necessary to demonstrate compliance with finance-related legal and contractual provisions, extensive introductory material, and a detailed statistical section.

Coupon: (a) The annual rate of interest that a bond's issuer promises to pay the bondholder on the bond's face value. (b) A certificate attached to a bond evidencing interest due on a set date.

Appendix A: Glossary

Dealer: A dealer, as opposed to a broker, acts as a principal in all transactions, buying and selling for his own account.

Debenture: A bond secured only by the general credit of the issuer.

Delivery versus Payment: There are two methods of delivery of securities: delivery versus payment and delivery versus receipt. Delivery versus payment is delivery of securities with an exchange of money for the securities. Delivery versus receipt is delivery of securities with an exchange of a signed receipt for the securities.

Derivatives: (1) Financial instruments whose return profile is linked to, or derived from, the movement of one or more underlying index or security, and may include a leveraging factor, or (2) financial contracts based upon notional amounts whose value is derived from an underlying index or security (interest rates, foreign exchange rates, equities or commodities).

Discount: The difference between the cost price of a security and its maturity when quoted at lower than face value. A security selling below original offering price shortly after sale also is considered to be at a discount.

Discount Securities: Non-interest bearing money market instruments that are issued at a discount and redeemed at maturity for full face value, e.g., U.S. Treasury Bills.

Diversification: Dividing investment funds among a variety of securities offering independent returns.

Federal Credit Agencies: Agencies of the Federal government set up to supply credit to various classes of institutions and individuals, e.g., S&L's, small business firms, students, farmers, farm cooperatives, and exporters.

Federal Deposit Insurance Corporation (FDIC): A federal agency that insures deposits in member banks and thrifts, currently up to $100,000 per deposit.

Federal Farm Credit Bank (FFCB): The Federal Farm Credit Bank system supports agricultural loans and issues securities and bonds in financial markets backed by these loans. It has consolidated the financing programs of several related farm credit agencies and corporations.

Federal Funds Rate: The rate of interest at which Fed funds are traded. This rate is currently pegged by the Federal Reserve through open-market operations.

Appendix A: Glossary

Federal Agricultural Mortgage Corporation (FAMC or Farmer Mac): A stockholder owned, publicly-traded corporation that was established under the Agricultural Credit Act of 1987, which added a new Title VIII to the Farm Credit Act of 1971. Farmer Mac is a government sponsored enterprise, whose mission is to provide a secondary market for agricultural real estate mortgage loans, rural housing mortgage loans, and rural utility cooperative loans. The corporation is authorized to purchase and guarantee securities. Farmer Mac guarantees that all security holders will receive timely payments of principal and interest.

Federal Home Loan Bank (FHLB): Government sponsored wholesale banks (currently 12 regional banks), which lend funds and provide correspondent banking services to member commercial banks, thrift institutions, credit unions and insurance companies.

Federal Home Loan Mortgage Corporation (FHLMC or Freddie Mac): A stockholder owned, publicly traded company chartered by the United States federal government in 1970 to purchase mortgages and related securities, and then issue securities and bonds in financial markets backed by those mortgages in secondary markets. Freddie Mac, like its competitor Fannie Mae, is regulated by the United States Department of Housing and Urban Development (HUD).

Federal National Mortgage Association (FNMA or Fannie Mae): FNMA, like GNMA was chartered under the Federal National Mortgage Association Act in 1938. FNMA is a federal corporation working under the auspices of the Department of Housing and Urban Development (HUD). It is the largest single provider of residential mortgage funds in the United States. Fannie Mae is a private stockholder-owned corporation. The corporation's purchases include a variety of adjustable mortgages and second loans, in addition to fixed-rate mortgages. FNMA's securities are also highly liquid and are widely accepted. FNMA assumes and guarantees that all security holders will receive timely payment of principal and interest.

Federal Reserve System: The central bank of the United States created by Congress and consisting of a seven member Board of Governors in Washington, D.C., 12 regional banks and about 5,700 commercial banks that are members of the system.

Financial Industry Reglatory Authority, Inc. (FINRA): An independent, not-for-profit organization authorized by Congress to protect America's investors by making sure the securities industry operates fairly and honestly. It is dedicated to investor protection and market integrity through effective and efficient regulation of the securities industry. FINRA is the successor to the National Association of Securities Dealers, Inc. (NASD).

Government National Mortgage Association (GNMA or Ginnie Mae): A government owned agency which buys mortgages from lending institutions, securitizes them, and then sells them to investors. Because the payments to investors are guaranteed by the full faith and credit of the U.S. Government, they return slightly less interest than other mortgage-backed securities.

Appendix A: Glossary

Interest Only Strips: A mortgage backed instrument where the investor receives only the interest, no principal, from a pool of mortgages. Issues are highly interest rate sensitive, and cash flows vary between interest periods. Also, the maturity date may occur earlier than that stated if all loans within the pool are pre-paid. High prepayments on underlying mortgages can return less to the holder than the dollar amount invested.

Inverse Floater: A bond or note that does not earn a fixed rate of interest. Rather, the interest rate is tied to a specific interest rate index identified in the bond/note structure. The interest rate earned by the bond/note will move in the opposite direction of the index. An inverse floater increases the market rate risk and modified duration of the investment.

Leverage: Investing with borrowed money with the expectation that the interest earned on the investment will exceed the interest paid on the borrowed money.

Liquidity: A liquid asset is one that can be converted easily and rapidly into cash without a substantial loss of value. In the money market, a security is said to be liquid if the spread between bid and asked prices is narrow and reasonable size can be done at those quotes.

Local Agency Investment Fund (LAIF): The aggregate of all funds from political subdivisions that are placed in the custody of the State Treasurer for investment and reinvestment.

Market Value: The price at which a security is trading and could presumably be purchased or sold.

Master Repurchase Agreement: A written contract covering all future transactions between the parties to repurchase/reverse repurchase agreements that establish each party's rights in the transactions. A master agreement will often specify, among other things, the right of the buyer-lender to liquidate the underlying securities in the event of default by the seller borrower.

Maturity: The date upon which the principal or stated value of an investment becomes due and payable.

Money Market: The market in which short-term debt instruments (bills, commercial paper, bankers' acceptances, etc.) are issued and traded.

Mutual Funds: An open-ended fund operated by an investment company which raises money from shareholders and invests in a group of assets, in accordance with a stated set of objectives. Mutual funds raise money by selling shares of the fund to the public. Mutual funds then take the money they receive from the sale of their shares (along with any money made from previous investments) and use it to purchase various investment vehicles, such as stocks, bonds, and money market instruments.

Appendix A: Glossary

Money Market Mutual Funds: An open-end mutual fund which invests only in money markets. These funds invest in short term (one day to one year) debt obligations such as Treasury bills, certificates of deposit, and commercial paper.

National Association of Securities Dealers (NASD): A self-regulatory organization of the securities industry responsible for the operation and regulation of the NASDAQ stock market and over-the-counter markets. Its regulatory mandate includes authority over firms that distribute mutual fund shares as well as other securities.

Passive Investing: An investment strategy involving limited ongoing buying and selling actions. Passive investors will purchase investments with the intention of long term appreciation and limited maintenance, and typically don't actively attempt to profit from short term price fluctuations. Also known as a buy-and-hold strategy.

Primary Dealer: A designation given by the Federal Reserve System to commercial banks or broker/dealers who meet specific criteria, including capital requirements and participation in Treasury auctions. These dealers submit daily reports of market activity and positions and monthly financial statements to the Federal Reserve Bank of New York and are subject to its informal oversight. Primary dealers include Securities and Exchange Commission registered securities broker/dealers, banks, and a few unregulated firms.

Prudent Person Rule: An investment standard. In some states the law requires that a fiduciary, such as a trustee, may invest money only in a list of securities selected by the custody state—the so-called legal list. In other states the trustee may invest in a security if it is one which would be bought by a prudent person of discretion and intelligence who is seeking a reasonable income and preservation of capital.

Public Securities Association (PSA): A trade organization of dealers, brokers, and bankers who underwrite and trade securities offerings.

Qualified Public Depositories: A financial institution which does not claim exemption from the payment of any sales or compensating use or ad valorem taxes under the laws of this state, which has segregated for the benefit of the commission eligible collateral having a value of not less than its maximum liability and which has been approved by the Public Deposit Protection Commission to hold public deposits.

Range Note: An investment whose coupon payment varies and is dependent on whether the current benchmark falls within a pre-determined range.

Rate of Return: The yield obtainable on a security based on its purchase price or its current market price. This may be the amortized yield to maturity on a bond the current income return.

Regional Dealer: A securities broker/dealer, registered with the Securities & Exchange Commission (SEC), who meets all of the licensing requirements for buying and selling securities.

Appendix A: Glossary

Repurchase Agreement (RP OR REPO): A holder of securities sells these securities to an investor with an agreement to repurchase them at a fixed price on a fixed date. The security "buyer" in effect lends the "seller" money for the period of the agreement, and the terms of the agreement are structured to compensate him for this. Dealers use RP extensively to finance their positions. Exception: When the Fed is said to be doing RP, it is lending money that is increasing bank reserves.

Safekeeping: A service to customers rendered by banks for a fee whereby securities and valuables of all types and descriptions are held in the bank's vaults for protection.

Secondary Market: A market made for the purchase and sale of outstanding securities issues following their initial distribution.

Securities & Exchange Commission: Agency created by Congress to protect investors in securities transactions by administering securities legislation.

Sec Rule 15C3-1: See Uniform Net Capital Rule.

Structured Notes: Notes issued by Government Sponsored Enterprises (FHLB, FNMA, FAMCA, etc.), and Corporations, which have imbedded options (e.g., call features, step-up coupons, floating rate coupons, derivative-based returns) into their debt structure. Their market performance is impacted by the fluctuation of interest rates, the volatility of the imbedded options and shifts in the shape of the yield curve.

Treasury Bills: A non-interest bearing discount security issued by the U.S. Treasury to finance the national debt. Most bills are issued to mature in three months, six months, or one year.

Treasury Bonds: Long-term coupon-bearing U.S. Treasury securities issued as direct obligations of the U.S. Government and having initial maturities of more than 10 years.

Treasury Notes: Medium-term coupon-bearing U.S. Treasury securities issued as direct obligations of the U.S. Government and having initial maturities from two to 10 years.

Uniform Net Capital Rule: Securities and Exchange Commission requirement that member firms as well as nonmember broker-dealers in securities maintain a maximum ratio of indebtedness to liquid capital of 15 to 1; also called net capital rule and net capital ratio. Indebtedness covers all money owed to a firm, including margin loans and commitments to purchase securities, one reason new public issues are spread among members of underwriting syndicates. Liquid capital includes cash and assets easily converted into cash.

Yield: The rate of annual income return on an investment, expressed as a percentage. (a) INCOME YIELD is obtained by dividing the current dollar income by the current market price for the security. (b) NET YIELD or YIELD TO MATURITY is the current income yield minus any premium above par or plus any discount from par in purchase price, with the adjustment spread over the period from the date of purchase to the date of maturity of the bond.

Debt Policy

1.0: POLICY

It is the policy of the Otay Water District to finance the acquisition of high value assets that have an extended useful life through a combination of current revenues and debt financing. Regularly updated debt policies and procedures are an important tool to insure the use of the District's resources to meet its commitments, to provide the highest quality of service to the District's customers, and to maintain sound financial management practices. These guidelines are for general use and allow for exceptions as circumstances dictate.

2.0: SCOPE

This policy is enacted in an effort to standardize the issuance and management of debt by the Otay Water District. The primary objective is to establish conditions for the use of debt, to minimize the District's debt service requirements and cost of issuance, to retain the highest practical credit rating, maintain full and complete financial disclosure and reporting, and to maintain financial flexibility for the District. This policy applies to all debt issued by the District including general obligation bonds, revenue bonds, capital leases and special assessment debt.

3.0: LEGAL & REGULATORY REQUIREMENTS

The Chief Financial Officer (CFO) and the District's Legal Counsel will coordinate their activities to ensure that all securities are issued in full compliance with Federal and State law.

4.0: CAPITAL FACILITIES FUNDING

Financial Planning

The District maintains a six-year financial projection that identifies operating requirements and public facility and equipment requirements, and has developed a Rate Model for funding the District's 6-Year Capital Improvement Program (CIP). The District's CIP Budget places the capital requirements in order of priority and schedules them for funding and implementation. It identifies a full range of capital needs, provides for the ranking of the importance of such needs, and identifies all the funding sources that are available to cover the costs of the projects. In cases where the program identifies project funding through the use of debt financing, the budget should provide information needed to determine debt capacity. The Rate Model and the CIP Budget give the Board part of the data needed to make informed judgments concerning the possibility of issuing debt.

Funding Criteria

The Chief Financial Officer (CFO) will evaluate all capital project requests and develop a proposed funding plan. Priority may be given to those projects that can be funded with current resources (annual cash flow, fund balances or reserves). Those projects that cannot be funded with current resources may be deferred or

the CFO may recommend that they be funded with debt financing. However, debt financing will not be considered appropriate for any recurring purpose such as current operating and maintenance expenditures. The issuance of short-term cash-flow instruments is excluded from this limitation.

The General Manager will recommend the funding plan to the Board. The General Manager may deem it necessary or desirable in certain circumstances to convene a Finance Committee meeting to evaluate funding options presented by the Chief Financial Officer.

Funding Sources

The District's capital improvements can be classified in three categories: those related to an expansion of the system ("expansion"), those related to upgrading the existing system ("betterment") and those related to repairing or replacing existing infrastructure ("replacement"). In general, capital improvements for betterment or replacement are financed primarily through user charges, availability charges, and betterment charges. Capital improvements for expansion are financed through capacity fees. Accordingly, these fees are reviewed at least annually or more frequently as required and set at levels sufficient to ensure that new development pays its fair share of the costs of constructing necessary infrastructure. Additionally, the District will seek State and Federal grants and other forms of intergovernmental aid wherever possible.

Pay-As-You-Go Projects

The District's capacity fees are the major funding source in financing additions to the water system and the recycled water system. Over time, the fees collected and the cost to construct the capital projects should balance. However, collection of these fees is subject to significant fluctuation based on the rate of new development. Accordingly, the Chief Financial Officer, in developing the funding plan for the CIP, will determine that current revenues and adequate fund balances are available so project phasing can be accomplished. If this is not the case, the Chief Financial Officer may recommend that:

1. The project be deferred until funds are available, or
2. Based on the priority of the project, long-term debt is issued to finance the project.

Debt Financed Projects

If a project or projects are to be financed with long-term debt, the District should use the following criteria to evaluate the suitability of the financing for the particular project or projects:

1. The life of the project or asset to be financed is 10 years or longer and its useful life is expected to exceed the term of the financing.
2. Revenues available for debt service are deemed to be sufficient and reliable so that long-term financing can be marketed without jeopardizing the credit rating of the District.
3. Market conditions present favorable interest rates and demand for District financing.

4. The project is mandated by State and/or Federal requirements and current resources are insufficient or unavailable.
5. The project is immediately required to meet or relieve capacity needs and current resources are insufficient or unavailable.

5.0: DEBT STRUCTURE

General

The District will normally issue debt with a maturity of not more than 30 years. The structure should approximate level debt service for the term where it is practical or desirable. There will be no debt structures that include increasing debt service levels in subsequent years, with the first and second year of a debt payoff schedule the exception and related to projected additional income to be generated by the project to be funded. There will be no "balloon" debt repayment schedules that consist of low annual payments and one large payment of the balance due at the end of the term. There will always be at least interest paid in the first fiscal year after debt issuance and principal starting no later than the first fiscal year after the date the facility or equipment is expected to be placed in service. Capitalized interest will not be for a period of more than necessary to provide adequate security for the financing.

Limitations on the Issuance of Variable Rate Debt

The District will normally issue debt with a fixed rate of interest. The District may issue variable rate for the purpose of managing its interest costs. At the same time, the District should protect itself from too much exposure to interest rate fluctuations. In determining that it is in the District's best interest to issue certain debt at variable rates instead of fixed rates, at the time of issuing any variable rate debt, there should be at least a 10% estimated reduction in annual debt costs by issuing variable rate debt when compared to a similar issuance of fixed rate debt. If the estimated overall cost savings from issuing variable rate debt is not at least 10% at the time of issuance, relatively small fluctuations in rates could actually increase the District's financing costs over the life of the bonds compared to a similar fixed rate financing. By using this 10% factor at the time of issuance, the District can be relatively assured that its variable rate financing will be cost-effective over the term of the bonds.

The comparison will be based on the following criteria:

1. The interest rate used to estimate variable interest costs will be the higher of the 10 year average rate or the current weekly variable rate.
2. The variable rate debt costs will include an estimate for annual costs such as letter of credit fees, liquidity fees, remarketing fees, monthly draw fees and annual rating fees applicable to the letter of credit.
3. Any potential reserve fund earnings will reduce the fixed rate debt service or variable rate debt service as applicable.

Periodically, using the criteria described above, the Chief Financial Officer will compare the estimated annual debt service costs to maturity of any variable rate debt with estimated debt service if the debt was converted to fixed rates. If this analysis produces a break even in total payments over the life of the issue, the Chief Financial Officer will recommend converting such variable rate debt to fixed rate.

Variable rate debt should not represent more than 25% of the District's total debt portfolio. This level of exposure to interest rate fluctuations is considered to be manageable in an environment of increasing interest rates. At a higher ratio than this, the District might be faced with an unplanned water rate increase to meet its Rate Covenants. Rating agencies use this ratio in their analysis of the District's overall credit rating.

Further, Rate Covenants applicable to variable rate debt shall not compromise the issuance of additional debt planned by the District and variable rate debt should always contain a provision to allow conversion to a fixed rate at the District's option.

6.0: CREDIT OBJECTIVES

The Otay Water District seeks to maintain the highest possible credit ratings for all categories of long-term debt that can be achieved without compromising delivery of basic services and achievement of District policy objectives.

Factors taken into account in determining the credit rating for a financing include:

1. Diversity of the District's customer base.
2. Proven track record of completing capital projects on time and within budget.
3. Strong, professional management.
4. Adequate levels of staffing for services provided.
5. Reserves.
6. Ability to consistently meet or exceed Rate Covenants.

The District recognizes that external economic, natural, or other events may from time to time affect the creditworthiness of its debt. Nevertheless, the District is committed to ensuring that actions within its control are prudent and well planned.

7.0: COMPETITIVE AND NEGOTIATED SALE CRITERIA

Competitive Sale

The District will use a competitive bidding process in the sale of debt unless the nature of the issue or specific circumstances warrants a negotiated sale. The CFO will determine the best bid in a competitive sale by calculating the true interest cost (TIC) of each bid.

Negotiated Sale

Types of debt that would typically lend themselves to the negotiated sale format are variable rate debt and unrated debt. Circumstances that might warrant a negotiated sale may occur when the issue is of a limited size that would not attract wide-spread investor interest, during periods of high levels of issuance by other entities in the State, or during periods of market volatility or with relatively new financing techniques. In the event the District decides to use a negotiated sale, it will pay management fees only to those firms that place orders for bonds.

If the size of the District's proposed issue is not cost effective, the District may also consider issuing its debt by private placement or through any qualified Joint Power Authority (JPA) in the State of California whose principal business is issuing bonds.

8.0: REFUNDING DEBT

Purpose

Periodic reviews of all outstanding debt will be undertaken by the Chief Financial Officer to determine refunding (refinancing) opportunities. The purpose of the refinancing may be to:

1. Lower annual debt service by taking advantage of lower current interest rates.
2. Update or revise covenants on outstanding debt issue if a Rate Covenant appears to be too high, has precluded the District from implementing its financing plan, or has caused the District to increase rates to customers.
3. Restructure debt service associated with an issue to facilitate the issuance of additional debt, usually in order to smooth out peaks in total debt service which can occur frequently as one debt issue is layered on top of existing debt issues.
4. Alter bond characteristics such as call provisions or payment dates.
5. Pay for conversion costs such as funding a reserve fund or paying for credit enhancement when converting variable rate debt to fixed rate debt.

Restrictions on Refunding

Tax-exempt bonds typically have provisions that preclude early redemption of the bonds for a period of years after issuance. The number of times a tax-exempt bond can be refinanced prior to its Optional Redemption date (known as Advance Refunding) is limited by the IRS. For debt issued after 1986, issuers may only provide for Advance Refunding of obligations in advance of the Optional Redemption date one time. There is no limit by the IRS on the ability of issuers to redeem bonds early once the Optional Redemption date has been reached (known as Current Refunding).

Savings Criteria

In cases where an Advance Refunding or Current Refunding is intended to provide debt service savings, the District may commence the refinancing process if a minimum five percent (5%) present value savings net of issuance costs and any cash contributions can be demonstrated. Since interest rates may fluctuate between the time when a refinancing is authorized and when the debt is issued, beginning the process with at least a 5% savings should provide the District with some level of protection that it can achieve a minimum of three percent (3%) net present value savings of the refunding bonds when and if the debt is issued. These minimum standards are intended to protect the District staff from spending time on refinancings that become marginally cost-effective after the entire issuance process is complete.

The savings target may be waived, however, if sufficient justification for lowering the savings target can be provided by meeting one or more of the other refunding objectives described above.

9.0: SUBORDINATE LIEN DEBT

The District will issue subordinate lien debt only if it is financially beneficial to the District or consistent with creditworthiness objectives. Subordinate lien debt is structured to be payable second in priority to the District's other outstanding debt. Typically, subordinate lien debt might be issued if the District desired a more flexible Rate Covenant with respect to its new obligations and did not want to refinance all of its existing debt to obtain that less restrictive Rate Covenant.

10.0: FINANCING PARTICIPANTS

The District's purchasing guidelines provide the process for securing professional services related to individual debt issues. The solicitation and selection process include encouraging participation from qualified service providers, both local and national, and securing services at competitive prices.

Financial Advisor: The use of a Financial Advisor is necessary for the sale of debt by a competitive bid process and is desirable when issuing debt through a negotiated sale. The Financial Advisor has a fiduciary duty to the District and will seek to structure the District's debt in the manner that is saleable, yet meets the District's objectives for the financing. The Financial Advisor will advise the District on alternative structures for its debt, the cost of different debt structures and potential pricing mechanisms that can be expected from underwriters (such as call features, term bonds and premium and discount bond pricing) and, at the District's direction, will write the offering document (preliminary official statement). With respect to competitive sales, the Financial Advisor will arrange for distributing the preliminary official statement, accepting bids via an internet bidding platform, verifying the lowest bid and provide detailed instructions for the flow of funds at closing to the winning Underwriter, the Trustee and the District. In a negotiated sale, the Financial Advisor will provide independent confirmation on the Underwriter's proposed pricing to ensure that interest rates and Underwriter's compensation are appropriate for the credit quality of the issue and competitive in the overall public finance market in California.

Underwriter: The Underwriter markets the bonds for sale to investors. While the District's preference is to select the Underwriter for the debt via sale of the debt at competitive bid, there are circumstances when a negotiated issue is in the best interests of the District. Negotiated sales are preferable if the security features are particularly complex or market conditions are volatile. The Chief Financial Officer will recommend whether the method of sale is competitive or negotiated based on the type of issue and other market conditions. In the case of negotiated sales, the Underwriter will be required to demonstrate sufficient capitalization and sufficient experience related to the specific type of debt issuance.
The Underwriter will work in connection with the District's Financial Advisor on structuring the issue and offering different pricing ideas.

Bond Counsel: The District's Bond Counsel provides the primary legal documents that detail the security for the bonds and the authority under which bonds are issued. The Bond Counsel also provides an opinion to bond holders that the bonds are tax-exempt under both State and Federal law. All closing documents in connection with an issue are also prepared by Bond Counsel.

Disclosure Counsel: The District's Disclosure Counsel provides legal advice to the District regarding the adequacy of the District's disclosure of financial information or risks of investing in the District's debt issue to the investing public. The Disclosure Counsel can prepare the official statement or review the official statement and gives the District an opinion that there is no information missing from the official statement of a material nature that would be necessary for an investor to make an informed decision about investing in the District's bonds.

Trustee: The Trustee is a financial institution selected by the District to administer the collection of revenues pledged to repay the bonds and to distribute those funds to bondholders.

Letter of Credit Bank: The Letter of Credit Bank is a U.S. or foreign bank that has issued a letter of credit providing both credit enhancement (the Letter of Credit Bank will pay the debt in the event that the District defaults on the payment) and liquidity for a variable rate bond issue. These banks have their own short-term credit rating, which can be higher than the District's short-term credit rating. Liquidity is needed because variable rate bondholders are allowed to "put" their bonds back to the District if they do not like the interest rate currently being offered. The District's Remarketing Agent then finds a new buyer for those bonds, but in the event that no buyer is found, a draw is made under the letter of credit to purchase the bonds that have been "put." As soon as the bonds are remarketed to another buyer, the letter of credit is repaid. The letter of credit fees are paid annually or quarterly. Letter of credits are typically issued for not more than 3 years and must be renewed during the life of the bonds. Credit enhancement is discussed further under the heading "CREDIT ENHANCEMENT."

Municipal Bond Insurer: The Municipal Bond Insurer can be one of several insurance companies that provide municipal bond insurance policies securing payment of the District's debt. These policies provide that the Municipal Bond Insurer will pay the District's debt in the event that the District defaults on its payments. Debt which is insured carries the Municipal Bond Insurer's credit rating. The insurance premium for the bond insurance policy is paid one time at the issuance of the debt and is non-cancelable for the term

of the debt. Unlike a letter of credit, bond insurance policies do not provide liquidity and are most typically purchased for fixed rate debt.

Remarketing Agent: The Remarketing Agent is an investment bank that, each week, determines the interest rate for the District's variable rate obligations. The rate is set at the rate at which the obligations could be sold on the open market at 100% of their face value. The Remarketing Agent also finds new buyers for any of the obligations that are "put" back to the District.

Rating Agencies: Currently, there are three widely recognized rating agencies that rate municipal debt in the United States: Standard & Poor's, Moody's Investors Service, and Fitch Investors Service. Rating agencies establish objective criteria under which each type of financing undertaken by the District is to be analyzed. Upon request, a rating agency will rate the underlying strength of the District's financings, without regard to the purchase of any credit enhancement. The rating is released to the general public and thereafter, the rating agency will periodically update its analysis of a particular issue, and may raise or lower the rating if circumstances warrant. Investment-grade ratings range from "AAA" to "BBB-." A rating below "BBB-" is not investment grade. Many mutual funds cannot buy bonds that do not carry an investment grade.

Verification Agent: In a refunding, the District will deposit funds with an escrow agent (usually the trustee) in an amount sufficient, together with earnings thereon, to pay the debt service and redemption price of the debt being refunded through and including the call date. The Verification Agent verifies the mathematical accuracy of calculation of the amount to be deposited in escrow and the bond counsel relies on this verification in giving their opinion that the debt is defeased within the meaning of the indenture and that the lien of the debt on the revenues pledged to the debt being refunded is released.

11.0: CONFLICT OF INTEREST AND STANDARDS OF CONDUCT

Members of the District, the Board of Directors and its consultants, service providers and underwriters shall adhere to standards of conduct and conflict of interest rules as stipulated by the California Political Reform Act or the Municipal Securities Rulemaking Board (MSRB), as applicable. All debt financing participants shall maintain the highest standards of professional conduct at all times, in accordance with MSRB Rules, including Rule G-37. There shall be no conflict of interest with the District with any debt financing participant.

12.0: CONTINUING DISCLOSURE

The District acknowledges the responsibilities of the underwriting community and pledges to make all reasonable efforts to assist underwriters in their efforts to comply with SEC Rule 15c2-12 and MSRB Rule G-36. The District will file its official statements with the MSRB and the nationally recognized municipal securities information repositories. The District will also post copies of its comprehensive financial reports on the MSRB's Electronic Municipal Market Access (EMMA) website, and will disseminate other information that it deems pertinent to the market in a timely manner (For bonds issued after 2012, 10 days). While initial bond disclosure requirements pertain to underwriters, the District will provide financial information and

notices of material events on an ongoing basis throughout the life of the issue. Material events are defined as those events which are considered to likely reflect on the credit supporting the securities.

(a) The events considered material according to the SEC are:

1. Principal and interest payment delinquencies;
2. Unscheduled draws on debt service reserves reflecting financial difficulties;
3. Unscheduled draws on credit enhancements reflecting financial difficulties;
4. Substitution of credit or liquidity providers, or their failure to perform;
5. Adverse tax opinions or the issuance by the Internal Revenue Service of proposed or final determinations of taxability or of a Notice of Proposed Issue (IRS Form 5701-TEB);
6. Tender offers;
7. Defeasances;
8. Ratings changes; and
9. Bankruptcy, insolvency, receivership or similar proceedings.

Note: for the purposes of the event identified in subparagraph (9) above, the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for an obligated person in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person, or if such jurisdiction has been assumed by leaving the existing governmental body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the obligated person.

(b) Pursuant to the provisions of this section (b), the District shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Bonds, if material:

1. Unless described in paragraph (a) above, notices or determinations by the Internal Revenue Service with respect to the tax status of the Bonds or other material events affecting the tax status of the Bonds;
2. The consummation of a merger, consolidation or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms;
3. Appointment of a successor or additional trustee or the change of the name of a trustee;
4. Nonpayment related defaults;
5. Modifications to the rights of Owners of the Bonds;
6. Notices of redemption; and

7. Release, substitution or sale of property securing repayment of the Bonds.

Whenever the District obtains knowledge of the occurrence of a Listed Event under (b) above, the District shall as soon as possible determine if such event would be material under applicable federal securities laws.

13:0 INVESTMENT & ARBITRAGE COMPLIANCE

Tax-exempt bonds are required to meet certain provisions of the federal tax code in order to maintain their tax-exempt status. In order to prevent municipal issuers from borrowing money at tax-exempt rates solely for the purpose of investing the proceeds in higher yielding investments and making a profit ("arbitrage"), the federal tax code contains a provision that requires issuers to compare the interest earned on any bond funds held (such as a reserve fund) with interest that would theoretically be earned if the funds were invested at the yield of the bonds, and to "rebate" to the federal government any interest earned in excess of the theoretical earnings limit.

The Chief Financial Officer shall invest the bond proceeds subject to the District's Investment Policy in a timely manner, to ensure the availability of funds to meet operational requirements. In doing so, the CFO will maintain a system of record keeping and reporting to meet the arbitrage rebate compliance requirements of the federal tax code.

14.0: TYPES OF DEBT FINANCING

General Obligation Bonds

General obligation bonds are secured by a pledge of the ad-valorem taxing power of the issuer and are also known as a full faith and credit obligations. Bonds of this nature must serve a public purpose to be considered lawful taxation of the property owners within the District and require a two third's majority vote in a general election. The benefit of the improvements or assets constructed and acquired as a result of this type of bond must be generally available to all property owners.

The District can issue general obligation bonds up to but not in excess of 15% of the assessed valuation under Article XVI, Section 18 of the State constitution. An annual amount of the levy necessary to meet debt service requirements is calculated and placed on the tax roll through the County of San Diego. The District also has a policy that the ad-valorem tax to be used to pay debt service on general obligation bonds will not exceed $.10 per $100 of assessed value.

Voters within Improvement District No. 27 of the District authorized $100 million general obligation bonds in 1989. The District issued $11,500,000 general obligation bonds in 1992 and refinanced the bonds in 1998 and again in 2009. The District also has approximately $29 million in general obligation bonds authorized between 1960 and 1978 for various improvement districts throughout the District, but unissued. General obligation bonds can only be issued under these existing authorizations to the extent necessary to fund the improvements specified by each ballot measure.

General obligation bonds generally are regarded as the broadest and soundest security among tax-secured debt instruments. An unlimited-tax pledge would enable a trustee to invoke mandamus to force the District to raise the tax rate as much as necessary to pay off the bonds. General obligation bonds have other credit strengths as well: the property tax tends to be a steady and predictable revenue source, and when a vote is required to issue them, bondholders have some indication of taxpayers' willingness to pay. General obligation bonds carry the highest credit rating that a public agency can achieve and therefore, the lowest interest cost. General obligation bonds typically are issued to finance capital facilities and not for ongoing operational or maintenance costs.

The District will use an objective analytical approach to determine whether it can afford to assume new general obligation debt for the improvement districts, or in the case of projects not approved by the original ID 27 vote, prior to any submission of a general obligation bond ballot measure to voters. This process will compare generally accepted standards of affordability to the current values for the District. These standards will include debt per capita, debt as a percent of taxable value, debt service payments as a percent of current revenues and current expenditures, and the level of overlapping net debt of all local taxing jurisdictions. The process will also examine the direct costs and benefits of the proposed expenditures. The decision on whether or not to assume new debt will be based on these costs and benefits, the current conditions of the municipal bond market, and the District's ability to "afford" new debt as determined by the aforementioned standards.

Revenue Bonds

Revenue bonds are limited-liability obligations that pledge net revenues of the District to debt service. The net revenue pledge is after payment of all operating costs. Since revenue bonds are not generally secured by the full faith and credit of the District, the financial markets require coverage ratios of the pledged revenue stream and a covenant to levy rates and charges sufficient to produce net income at some level in excess of debt service (a Rate Covenant).

Also there may be a test required to demonstrate that future revenues will be sufficient to maintain debt service coverage levels after any proposed additional bonds are issued. The District will strive to meet industry and financial market standards with such ratios without impacting the current rating. Annual adjustments to the District's rate structure may be necessary to maintain these coverage ratios.

The underlying credit of revenue bonds is judged on the ability of the District's existing rates to provide sufficient net income to pay debt service and the perceived willingness of the District to raise rates and charges in accordance with its Rate Covenant. Actual past performance also plays a role in evaluating the credit quality of revenue bonds, as well as the diversity of the customer base. Revenue bonds generally carry a credit rating one or two investment grades below a general obligation bond rating.

The District may use a debt structure called "Certificates of Participation" to finance capital facilities. However, if the certificates contain a pledge of net revenues and a Rate Covenant, they are treated as essentially the same as a revenue bond.

Lease/Purchase Agreements

Over the lifetime of a lease, the total cost to the District will generally be higher than purchasing the asset outright. As a result, the use of lease/purchase agreements in the acquisition of vehicles, equipment and other capital assets will generally be avoided, particularly if smaller quantities of the capital asset(s) can be purchased on a "pay-as-you-go" basis.

The District may utilize lease-purchase agreements to acquire needed equipment and facilities. Criteria for such agreements should be that the asset life is three years or more, the minimum value of the agreement is $50,000 and interest costs must not exceed the interest rate earned by the District's portfolio for the average of the past 6 months. Lease payments of this type are considered operating expenses and would reduce net operating income available to pay any District revenue bonds. There are no coverage requirements or rate covenants associated with lease/purchase agreements.

State Water Loans

The State Water Resources Control Board makes certain funds available to water districts throughout the State. These loans typically carry a below-market rate of interest and are short term in nature. While State loans should be incorporated into the District's debt portfolio for the financing of capital improvements, the payment of the loan should not compromise the District's ability to issue other planned debt or cause the District to violate its rate covenants or make it necessary for the District to increase rates to maintain existing rate covenants.

Land Based Financing

The District may consider developer or property owner initiated applications requesting the formation of community facilities or assessment districts and the issuance of bonds to finance eligible District facilities necessary to serve newly developing commercial, industrial and/or residential projects. Facilities will be financed in accordance with the provisions of the Municipal Improvement Act of 1913 and the Improvement Bond Act of 1915, or the Mello-Roos Community Facilities Act of 1982.

Typically, the bonds issued would be used to prepay, in a lump-sum, the District's capacity fees with respect to a large tract of land under development, or to finance in-tract infrastructure that will eventually be dedicated to the District. The bonds are secured by a special tax or assessment to be levied on property within the boundaries established for the community facilities district (sometimes known as a "Mello-Roos" district) or the assessment district. If the District becomes the sponsoring public agency for such financing district and the issuance of debt, the District will be required to enter into a Funding, Construction and Acquisition agreement for any of the facilities to be dedicated to the District upon completion. This agreement governs the type of facilities to be constructed with bond proceeds and how the facilities will be accepted by the District.

In some cases, the District may not be asked to be the sponsoring agency for the formation of a financing district, rather, the developer or property owner may approach a school district or a city to be the sponsoring agency. Nonetheless, the property owner may want to include lump-sum payment of District fees in the financing or construction of certain facilities to be dedicated to the District upon completion. In this case, if the District desired to participate, the District would enter into a Joint Financing Agreement with the sponsoring agency, again governing the type of facilities to be constructed with bond proceeds and how the facilities will be accepted by the District.

On a case-by-case basis, the Board shall make the determination as to whether a proposed district will proceed under the provisions of the Assessment Acts or the Mello-Roos Community Facilities Act. The Board may confer with other consultants and the applicant to learn of any unique district requirements, such as long-term development phasing, prior to making any final determination.

All District and District consultant costs incurred in the evaluation of new development, district applications and the establishment of districts will be paid by the applicant(s) by advance deposits in those instances where a party or parties other than the District have initiated a proposed district. Expenses not legally reimbursable by the financing district will be borne by the applicant. The District may incur expenses for analyzing proposed assessment or community facilities districts where the District is the principal proponent of the formation or financing of the district.

Prior to the issuance of any land secured financing and in accordance with State law, the Board will adopt policies and procedures with criteria to be met before any special tax bonds or assessment district bonds may be issued. These criteria include the qualifications of the appraiser, the minimum value to lien ratio to be achieved prior to issuing the land secured debt and the maximum tax to be levied on different categories of property.

15.0: RATING AGENCY APPLICATIONS

The District may seek one or more ratings on all new issues that are being sold in the public market. These rating agencies include, but are not limited to, Fitch Investors Service, Moody's Investors Service, and Standard & Poor's. When applying for a rating on an issue over $1 million or more, the District shall make a formal presentation of the finances and positive developments within the District to the rating agencies. The District will report all financial information to the rating agencies upon request. This information shall include, but shall not be limited to, the District's Comprehensive Annual Financial Report (CAFR), and the Adopted Operating and Capital Budget.

16.0: USE OF CREDIT ENHANCEMENT

Credit enhancement is a generic term that means any third-party guarantee of debt service. Credit enhancement providers include municipal bond insurance companies or financial institutions. The purchase of credit enhancement allows the District's bond issue to carry the same credit rating as the credit provider. The District will seek to use credit enhancement when such credit enhancement proves cost-

effective. Selection of credit enhancement providers will be subject to a competitive bid process using the District's purchasing guidelines, if applicable.

Fixed Rate Bonds

Credit enhancement for fixed rate bonds is obtained by the purchase of bond insurance. If a commitment for bond insurance is obtained for a particular issue, the District will estimate the annual debt service for the issue based on current interest rates applicable to the credit rating of the bond insurer. If the estimated debt

service on this basis is less than or equal to estimated debt service for the issue based on interest rates for bonds with the District's underlying or stand-alone credit rating, the District will purchase the bond insurance. Any intention of the District to prepay the debt ahead of its scheduled maturity will be taken into account in the analysis. Credit enhancement may be used to improve or establish a credit rating on a District debt obligation even if such credit enhancement is not cost effective if, in the opinion of the Chief Financial Officer, the use of such credit enhancement meets the District's debt financing goals and objectives, such as, funding of a reserve fund for the bonds.

Variable Rate Bonds

Credit enhancement for variable rate bonds is comprised of two components: credit support and liquidity. The interest on variable rate bonds is based on a short-term investment rate (usually 7 days). Any investor can tender their bonds back to the District to be repurchased on short notice (usually 7 days). Because of the short-term nature of the investment, the securities that the District is "competing" with for investors are AA-rated mutual funds. Therefore, variable debt needs to have credit enhancement to achieve a comparable AA rating, as well as liquidity support to provide the District with a mechanism to purchase any bonds that are tendered before they can be remarketed to new investors. A limited number of financial institutions offer letters of credit that combine both credit support and liquidity for one fee. An alternative is to purchase bond insurance to provide credit support and enter into a separate purchase agreement with a financial institution to provide liquidity. The difference in cost between the two structures will be analyzed before either alternative is selected for variable rate debt.

17.0: GLOSSARY

Ad Valorem Tax: A tax calculated "according to the value" of property. Such a tax is based on the assessed valuation of tangible personal property. In most jurisdictions, the tax is a lien on the property enforceable by seizure and sale of the property. General restrictions, such as overall restrictions on rates, or the percent of charge allowed, sometimes apply. As a result, ad valorem taxes often function as the balancing element in local budgets.

Advance Refunding: A procedure whereby outstanding bonds are refinanced by the proceeds of a new bond issue prior to the date on which outstanding bonds become due or are callable. Typically an advance refunding is performed to take advantage of interest rates that are significantly lower than those associated

with the original bond issue. At times, however, an advance refunding is performed to remove restrictive language or debt service reserve requirements required by the original issue.

Amortization: The planned reduction of a debt obligation according to a stated maturity or redemption schedule.

Arbitrage: The gain that may be obtained by borrowing funds at a lower (often tax-exempt) rate and investing the proceeds at higher (often taxable) rates. The ability to earn arbitrage by issuing tax-exempt securities has been severely curtailed by the Tax Reform Act of 1986, as amended.

Assessed Valuation: The appraised worth of property as set by a taxing authority through assessments for purposes of ad valorem taxation.

Basis Point: One one-hundredth of one percent.

Bond: A security that represents an obligation to pay a specified amount of money on a specific date in the future, typically with periodic interest payments.

Bond Counsel: An attorney (or firm of attorneys) retained by the issuer to give a legal opinion concerning the validity of the securities. The bond counsel's opinion usually addresses the subject of tax exemption. Bond counsel may prepare, or review and advise the issuer regarding authorizing resolutions or ordinances, trust indentures, official statements, validation proceedings and litigation.

Bond Insurance: A type of credit enhancement whereby a monocline insurance company indemnifies an investor against a default by the issuer. In the event of a failure by the issuer to pay principal and interest in-full and on-time, investors may call upon the insurance company to do so. Once assigned, the municipal bond insurance policy generally is irrevocable. The insurance company receives an up-front fee, or premium, when the policy is issued.

Call Option: A contract through which the owner is given the right but is not obligated to purchase the underlying security or commodity at a fixed price within a limited time frame.

Cap: A ceiling on the interest rate that would be paid.

Capital Lease: The acquisition of a capital asset over time rather than merely paying rent for temporary use. A lease-purchase agreement, in which provision is made for transfer of ownership of the property for a nominal price at the scheduled termination of the lease, is referred to as a capital lease.

Certificate of Participation: A financial instrument representing a proportionate interest in payments such as lease payments by one party (such as the District acting as a lessee) to another party (often a trustee).

Debt Policy

CIP: Capital Improvement Program.

Competitive Sale: The sale of securities in which the securities are awarded to the bidder who offers to purchase the issue at the best price or lowest cost.

Continuing Disclosure: The requirement by the Securities and Exchange Commission for most issuers of municipal debt to provide current financial information to the informational repositories for access by the general marketplace.

Debt Service: The amount necessary to pay principal and interest requirements on outstanding bonds for a given year or series of years.

Defeasance: Providing for payment of principal of premium, if any, and interest on debt through the first call date or scheduled principal maturity in accordance with the terms and requirements of the instrument pursuant to which the debt was issued. A legal defeasance usually involves establishing an irrevocable escrow funded with only cash and U.S. Government obligations.

Derivative: A financial product that is based upon another product. Generally, derivatives are risk mitigation tools.

Discount: The difference between a bond's par value and the price for which it is sold when the latter is less than par.

Financial Advisor: A consultant who advises an issuer on matters pertinent to a debt issue, such as structure, sizing, timing, marketing, pricing, terms and bond ratings.

General Obligation Bonds: Debt that is secured by a pledge of the ad valorem taxing power of the issuer. Also known as a full faith and credit obligation.

Municipal Securities Rulemaking Board (MSRB): The MSRB, comprised of representatives from investment banking firms, dealer bank representatives, and public representatives, is entrusted with the responsibility of writing rules of conduct for the municipal securities market.

Negotiated Sale: A sale of securities in which the terms of sale are determined through negotiation between the issuer and the purchaser, typically an underwriter, without competitive bidding.

Official Statement: A document published by the issuer that discloses material information on a new issue of municipal securities including the purposes of the issue, how the securities will be repaid, and the financial, economic and social characteristics of the issuing government. Investors may use this information to evaluate the credit quality of the securities.

Option: A derivative contract. There are two primary types of options (see Put Option and Call Option). An option is considered a wasting asset because it has a stipulated life to expiration and may expire worthless. Hence, the premium could be wasted.

Optional Redemption: The redemption of an obligation prior to its stated maturity, which can only occur on dates specified in the bond indenture.

Overlapping Debt: The legal boundaries of local governments often overlap. In some cases, one unit of government is located entirely within the boundaries of another. Overlapping debt represents the proportionate share of debt that must be borne by one unit of government because another government with overlapping or underlying taxing authority issued its own bonds.

Par Value: The face value or principal amount of a security.

Pay-as-you-go: To pay for capital improvements from current resources and fund balances rather than from debt proceeds.

Put Option: A contract that grants to the purchaser the right but not the obligation to exercise.

Rate Covenant: A covenant between the District and bondholders, under which the District agrees to maintain a certain level of net income compared to its debt payments, and covenants to increase rates if net income is not sufficient to meet such level.

Refunding: A procedure whereby an issuer refinances an outstanding bond issue by issuing new bonds.

Revenue Bonds: A bond which is payable from a specific source of revenue and to which the full faith and credit of an issuer with taxing power is not pledged. Revenue bonds are payable from identified sources of revenue, and do not permit the bondholders to compel a jurisdiction to pay debt service from any other source. Pledged revenues often are derived from the operation of an enterprise. Generally, no voter approval is required prior to issuance.

Special Assessments: A charge imposed against property or parcel of land that receives a special benefit by virtue of some public improvement that is not, or cannot be enjoyed by the public at large. Special assessment debt issues are those that finance such improvements and are repaid by the assessments charged to the benefiting property owners.

Swap: A customized financial transaction between two or more counterparties who agree to make periodic payments to one another. Swaps cover interest rate, equity, commodity and currency products. They can be simple floating for fixed exchanges or complex hybrid products with multiple option features.

True Interest Cost (TIC): A method of calculating the overall cost of a financing that takes into account the time value of money. The TIC is the rate of interest that will discount all future payments so that the sum of their present value equals the issue proceeds.

Underwriter: The term used broadly in the municipal market, to refer to the firm that purchases a securities offering from a governmental issuer.

Yield Curve: Refers to the graphical or tabular representation of interest rates across different maturities. The presentation often starts with the shortest-term rates and extends towards longer maturities. It reflects the market's views about implied inflation/deflation, liquidity, economic and financial activity, and other market forces.

Intentionally Left Blank

Glossary

The Fiscal Budget contains terminology that is unique to public finance and budgeting. The following budget glossary provides assistance in understanding these terms.

ACCRUAL BASIS OF ACCOUNTING: The basis of accounting under which transactions are recognized when they occur, regardless of the timing of cash receipts and disbursements.

ACRE-FOOT: The volume of water that will cover one acre to a depth of one foot. One acre-foot equals 435.6 units or 325,850 gallons.

ADDITIONAL SYSTEMS FEES: Effective May 1, 1986, each customer receiving water service in the Improvement District 9 water service zone pays an additional monthly meter system charge of $2.00 for each meter in service.

ANNEXATION FEES: Whenever water service is requested for land outside the boundaries of the District the land must first be annexed into the District. The annexation fee for water service was set at $1,477 per EDU on July 1, 2009. Whenever sewer service is requested for land outside the boundaries of an improvement district (ID) the land must first be annexed into the ID. The fee for sewer annexation was set at $3,819 on December 16, 1998. These base rates are adjusted quarterly according to a cost of living index. The rates as of July 1, 2014 are $1,622 and $5,986 for water and sewer, respectively.

APPROPRIATION: The annual budget adopted by the District's Board appropriates funds for monitoring and control purposes, and serves as a financial plan.

ASSETS: Resources owned or held by the District that have monetary value.

AVAILABILITY FEES: The District levies charges each year in developed areas to be used for general purposes for construction of facilities. This fee is levied in undeveloped areas to provide a source of funding for planning, mapping, and preliminary design of facilities to meet future development. Current legislation provides that any availability charge in excess of $10.00 per acre shall be restricted only for the purpose of constructing facilities in the improvement district in which it was assessed.

BALANCED BUDGET: A financial plan, for a specified period of time that matches all planned revenues and expenditures with various services. This plan has sufficient sources of funds to support the planned expenditures. The District uses a fiscal year beginning July 1 and ending June 30 for budgetary and financial reporting purposes.

BETTERMENT FEES: In addition to other applicable water rates and charges, certain water customers pay a fee based on water service zone or improvement district. These are restricted for the use in the area where they are collected and may be used for the construction and maintenance of facilities.

Glossary

BETTERMENT FEES FOR MAINTENANCE: The Operating Budget earns betterment fees for maintenance work performed on infrastructure within special betterment zones. Betterment fees are collected for the construction and maintenance of these specific assets.

BOND: A written promise to pay a sum of money on a specific date at a specified interest rate. The interest payments and the repayment of the principal are authorized in a District bond resolution. The most common types of bonds are general obligation (GO) bonds and Certificates of Participation (COPs). These are frequently used for construction of large capital projects such as buildings, reservoirs, pipelines, and pump stations.

BUDGET BASIS: The budget and accounting basis for the District is recognized on an accrual basis. Accrual basis means that revenues are recognized when earned and expenses are recognized when incurred.

CAPACITY FEE: A connection fee is charged when a new water meter is placed into service. This fee is a contribution of capital to either reimburse existing customers for the available capacity in the existing system, or to help finance planned future growth-related capacity improvements.

CAPACITY FEE REVENUES: These fees are earned by the Operating Budget as the Engineering Department supports expansion functions.

CAPACITY RESERVATION CHARGE: An MWD charge passed on by CWA to individual agencies. This fee is paid based on the District's peak water demand.

CAPITAL BUDGET: The portion of the annual budget that appropriates funds for the purchase of capital equipment items and capital improvements. These expenditures are separated from regular operating items, such as salaries, utilities, and office supplies. The Capital Budget includes funds for capital equipment purchases over $10,000, such as vehicles, furniture, machinery, computer systems, and special tools. The capital budget also includes funds for infrastructure related items over $20,000 (as explained below) which are distinguished from operating items according to their value and projected useful life.

CAPITAL EQUIPMENT: Fixed assets such as vehicles, equipment, furniture, technical instruments, etc. which have a life expectancy of more than two years and a value over $10,000. This category may include items over $20,000 that are infrastructure related items (this cost may not extend useful life of the water or sewer infrastructure, but without the purchase of the item, the whole asset is rendered useless, as described in the District's Capitalization Policy).

CAPITAL IMPROVEMENT PROGRAM: A long-range plan of the District for the construction, rehabilitation and modernization of the District-owned and operated infrastructure.

Glossary

CLASS OF SERVICE: All customers are classified based on the type of service used. For example, the water rate per unit is determined by a classification such as residential versus business.

CWA: The County Water Authority was organized in 1944 under the State County Water Authority Act for the primary purpose of importing Colorado River water to augment the local water supplies of the Authority's member agencies. The Authority purchases water from MWD which imports water from the Colorado River and the State Water Project.

DEANNEXATION FEES: Each request for detachment of land from an improvement district is reviewed on a case-by-case basis. The fees are determined based on the present value of future debt service requirements.

DEBT COVERAGE RATIO: The ratio of net revenue to annual interest and principal payments on debt.

DEBT SERVICE: The District's obligation to pay the principal and interest of bonds and other debt instruments according to a predetermined payment schedule.

DEPRECIATION: An expense recorded to allocate a tangible asset's cost over its useful life.

DESALINATION: The removal of dissolved minerals (including salts) from seawater or brackish water. Engineered water desalination processes, which produce potable water from seawater or brackish water, have become important because many regions throughout the world suffer from water shortages.

ENERGY FEES: Water customers are charged an energy pumping charge based on the quantity of water used and the elevation to which the water has been lifted to provide service. The energy pumping charge rate is $.045 (decreases on January 1, 2013 to $.042) per 100 cubic feet of water for each 100 feet of lift above the base elevation of 450 feet. All water customers are in one of 29 zones based on elevation.

ENTERPRISE FUND: Fund that provides goods or services to the public for a fee that makes the entity self-supporting.

ENTERPRISE RESOURCE PLANNING: Systems with a shared database that supports multiple functions used by different business units.

EXPENDITURES/EXPENSES: These terms refer to the outflow of funds paid or to be paid for an asset, goods or services obtained regardless of when actually paid for. (Note: An encumbrance is not an expenditure). An encumbrance reserves funds to be expended in a future period.

Glossary

FIRE SERVICE: Water service is provided by the District solely for use in fire hydrants or fire sprinkler systems from lines or laterals connected to the District's water mains. The monthly system charge is $34.57 per month for each connection for fire protection service.

FISCAL YEAR: Twelve-month term designating the beginning and ending period for recording financial transactions. The District has specified July 1 to June 30 as its fiscal year.

FUND BALANCE: The current funds on hand resulting from the net historical collection and use of monies. The difference between assets and liabilities reported in the District's Operating Fund plus residual equities or balances and changes therein, from the result of operations.

GENERAL FUND: The District's general fund is an enterprise fund – one for each of the District's three business lines Potable, Recycled and Sewer services. Each is an accounting entity with a self-balancing set of accounts established to record the financial position and results that pertain to a specific activity. The activities of enterprise funds closely resemble those of ongoing businesses in which the purpose is to conserve and add to basic resources while meeting operating expenses from current revenues. Enterprise funds account for operations that provide services on a continuous basis and are substantially financed by revenues derived from user charges.

GRANTS: Contributions or gifts of cash or other assets from another governmental agency to be used or expended for a specified purpose, activity, or facility. Capital grants are restricted by the grantor for the acquisition and/or construction of fixed assets. Operating grants are restricted by the grantor for operating purposes or may be used for either capital or operating purposes at the discretion of the grantee.

INFRASTRUCTURE ACCESS CHARGE (IAC): A pass-through charge from CWA to each member agency. The charge is to finance a portion of CWA's fixed annual costs including the construction, operation and maintenance of aqueducts and emergency storage projects. The fee was adopted in January of 1999.

INTEREST INCOME: Earnings from the investment portfolio. Per District Policy Number 25, interest income will be allocated to improvement districts each month based upon each fund's prior month-ending balance.

LATE CHARGES/PENALTIES: Charges and penalties are imposed on customer accounts for late payments, returned payments, and other infringement of the District's Code of Ordinances.

METER AND LATERAL FEES: Charge includes the material costs for the meter, meter box, and the labor cost for installation to connect a new service to the distribution system.

Glossary

METROPOLITAN WATER DISTRICT (MWD) STANDBY CHARGES: Revenue generated from property taxes by MWD to cover the Readiness-to-Serve (RTS) Charge. This charge pays for the debt service for construction projects necessary to meet reliability and quality needs. The RTS Charge was adopted in 1996.

NET ASSETS: The difference between total assets and total liabilities. Increases or decreases in net assets may serve as a useful indicator of whether the financial position of the District is strengthening or weakening.

1% PROPERTY TAX: In 1978, Proposition 13 limited general levy property tax rates for all taxing authorities to a total rate of 1% of full cash value. Subsequent legislation, AB 8, established that the receipts from the 1% levy were to be distributed to taxing agencies according to approximately the same proportions received prior to Proposition 13. Funds received are to be used for facilities construction or debt service on bonds sold to build facilities.

OPERATING BUDGET: The portion of the budget that pertains to daily operations that provide basic governmental services. The operating budget contains appropriations for such expenditures as personnel, supplies, utilities, materials, travel and fuel, and does not include purchases of major capital plant or equipment which are budgeted for separately in the Capital Budget.

OTHER INCOME: Revenues that are not directly related to the business of providing water and sewer services. For example, contract billing service for the City of Chula Vista and the City of San Diego to bill their sewer customers based on water consumption.

PROPERTY RENTAL INCOME: Rent or lease agreements for the use of District property.

QUALSERVE: A voluntary quality improvement program designed exclusively for water and wastewater utilities.

RECYCLED WATER RATES: Non-potable water service provided from water produced by the District's reclamation plant and other non-potable sources. Recycled water is not used for domestic purposes and all uses must comply with federal, state and local laws and regulations regarding the use of recycled water.

RESERVE FUND: The District maintains Reserve Funds per the District's policy for both designated and restricted balances. Designated Reserve Funds are "general use" funds designated by the Board. Restricted reserves are those that are legally set aside for a particular purpose and cannot be used for any other purpose.

RESIDENTIAL CONSERVATION: The water rates for residential customers use an accelerated block structure; as more units are consumed, a higher unit rate is charged. The District has established a water conservation program to promote water conservation and planning.

Glossary

REVENUE: Monies that the District receives as income. It includes such items as water sales and sewer fees. Estimated revenues are those expected to be collected during the fiscal year.

READINESS-TO-SERVE CHARGE (RTS): Adopted by MWD in Fiscal 1996. The charge serves as a foundation of fixed revenue for MWD. It covers the new debt service for construction projects necessary to meet reliability and quality needs of current water-users as opposed to new customers.

SALE OF FIXED ASSETS: District equipment, which has been determined by the Board to be of no use, obsolete, and/or beyond the useful life and therefore, may be sold.

SET-UP FEES FOR ACCOUNTS: A charge of $10 is added for each account transferred to another customer.

SYSTEM FEES: Each water service customer pays a monthly system charge for water system replacement, maintenance and operation expenses. The charge is based on the size of the meter and class of service.

TAXES: California Water Code Section 72091 authorizes the District, as a municipal water district, to levy ad valorem property taxes which are equal to the amount required to make annual payments for principal and interest on general obligation bonds approved by the voters prior to July 1, 1978.

TEMPORARY WATER CHARGE: The rate for temporary water service is two times the rate for permanent service. The additional charge is to offset the cost of construction of expansion facilities.

TIER 2 CHARGE: An MWD charge passed on by CWA to individual agencies. This is an added charge on all water sales by CWA in excess of the District's 90% baseline water usage.

UNIT: A unit of water is 100 cubic feet or 748 gallons of water.

WATER CAPACITY FEES: Charges paid by customers to connect to a District water system for potable or recycled water service. Fees are determined by multiplying the demand factor for the meter size by the total of the District-wide capacity fee and applicable zone charge

WATER RATES: Rates vary among classes of service. The water rates for residential customers use an accelerated block structure. As more units are consumed, a higher unit rate is charged. Effective in 2009, all non-residential customers are charged for water based on a tiered rate structure in which water rates are based on meter size and amount of units consumed.

WORKING CAPITAL: A financial measure which represents available operating liquidity. The calculation is current assets minus current liabilities.

List of Acronyms

AF	Acre-Foot/Feet
AMR	Automated Meter Reader/Reading
APCD	Air Pollution Control District
APWA	American Public Works Association
ASCE	American Society of Civil Engineers
ASU	Assigned Service Unit
AWWA	American Water Works Association
BABS	Build America Bonds
BMP	Best Management Practices
BOD	Biological Oxygen Demand
CAD	Computer Aided Design
CAFR	Comprehensive Annual Financial Report
CCV	City of Chula Vista
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CIP	Capital Improvement Program
CFS	Cubic Foot Second
CMMS	Computerized Maintenance Management System
COD	Chemical Oxygen Demand
COPS	Certificates of Participation
CRC	Capacity Reservation Charge
CSC	Customer Service Charge
CSD	City of San Diego
CSDA	California Special Districts Association
CSMFO	California Society of Municipal Finance Officers
CUWCC	California Urban Water Conservation Council
CWA	County Water Authority (San Diego)
DOH	Department of Health
DOT	Department of Transportation
DVP	Delivery-versus-Payment
EBPP	Electronic Bill Pay and Presentment
EDU	Equivalent Dwelling Unit
ERP	Enterprise Resource Planning
ESC	Emergency Storage Charge
FCF	Flow Control Facility
FEMA	Federal Emergency Management Association
FTE	Full-time Equivalent

List of Acronyms

FY	Fiscal Year
GAAP	Generally Accepted Accounting Principles
GASB	Government Accounting Standards Board
GF	General Funds
GFOA	Government Finance Officers Association
GIS	Geographic Information System
GO	General Obligation (bonds)
GPCD	Gallons per Capita per Day
GPD	Gallons per Day
GPM	Gallons per Minute
GPS	Global Positioning System
HCF	Hundred Cubic Foot
HCP	Habitat Conservation Plan
HR	Human Resources
HVAC	Heating Ventilation and Air Conditioning
HWD	Helix Water District
IAC	Infrastructure Access Charge
ID	Improvement District
IID	Imperial Irrigation District
IMS	Infrastructure Management System
IRP	Integrated Water Resources Plan
IRS	Internal Revenue Service
IT	Information Technology
IVR	Interactive Voice Response
LAIF	Local Agency Investment Fund
LF	Linear Feet
MBR	Membrane Bioreactor
MG	Million Gallons
MGD	Million Gallons per Day
MND	Mitigated Negative Declaration
MOU	Memorandum of Understanding
MWD	Metropolitan Water District
NCCP	Natural Community Conservation Plan
NIMS	National Incident Management System
NOC	Notice of Completion
NOSC	Notice of Substantial Completion
O&M or O/M	Operations and Maintenance
OPEB	Other Post Employee Benefits

List of Acronyms

OWD	Otay Water District
PB	Pacific Bay
PERS	Public Employees' Retirement System
PL	Pipeline
PRS	Pressure Reducing Station
PRV	Pressure Reducing Valve
PS	Pump Station
QSA	Quantitative Settlement Agreements
RFP	Request for Proposal
RSD	Rancho San Diego
RTS	Readiness-to-Serve
RWCWRF	Ralph W. Chapman Water Recycling Facility
SAMP	Sub-Area Master Plan
SANDAG	San Diego Association of Governments
SBWRP	South Bay Water Reclamation Plant
SCADA	Supervisory Control and Data Acquisition
SDG&E	San Diego Gas & Electric
SS	Suspended Solids
SVSD	Spring Valley Sanitation District
SWRCB	State Water Resources Control Board
UML	Unified Modeling Language
USFWS	United States Fish and Wildlife Service
UWMP	Urban Water Management Plan
VFD	Variable Frequency Drive
VOIP	Voice Over Internet Protocol
WRMP	Water Resources Master Plan
WTP	Water Treatment Plant

Index

Administrative Expenditures	88,105,115,132
At-A-Glance	1
Awards	3-6
Balanced Scorecard Perspective	31
Budget Calendar	11
Budget Guide	8-9
Budget Process and Overview	10-14
Budget Summary	53-58
Capital Improvement Program Narrative	181-182
Capital Purchases	194
CIP Projects in Construction	184-187
CIP Justification and Impact on Operating Budget	193
CIP Major Projects	183
CIP Reserve Funds	188
Classification of Water Sales	79,97
Current Economic Conditions	19
Debt Management	70-71
Debt Policy	240-253
Debt Policy Glossary	253-257
Demographics	22
Department Budgets:	
Administrative Services	147-156
Board of Directors	137-138
Engineering	171-177
Finance	157-162
General Expense	179
General Manager	141-145
IT and Strategic Planning	147-154
Water Operations	163-169
Departmental Operating Budget Narrative	125-127
Director's Division Boundaries	139
Five-Year Forecast	67
Formula for Sewer Rates	117-118
Fund Balance Summary by Fund	63
Fund Balances	69
Future, The	20-21
General Fund Forecast	68
General Fund Revenues, Expenditures and Transfers	62
General Information	2
General Expense	124

Index

General Revenues	123
General Revenues and Expenses Narrative	121-122
Glossary	259-264
Investment Policy	227-233
Investment Policy Glossary	234-239
Labor and Benefits	128-129
Letter of Transmittal	iv-xi
List of Acronyms	265-267
Materials and Maintenance Expenditures	89,106,116,133
Meter Fees	84,101
MWD and CWA Fixed Fees (Pass-Through)	83
Operating Budget Summary	78,96,110
Operating Budget Summary by System	61
Operating Budget Summary – General Fund	59-60
Operating Expenditures by Department	134
Operating Expenditures by Object	135
Organization Chart	7
Past and Present	17-18
Position Count by Department	130-131
Potable Narrative	75-77
Power Costs	87,104,114
Projected Interest Payments by Debt Issuance	74
Projected Principal Payments by Debt Issuance	73
Recycled Narrative	93-95
Reserve Policy	197-224
Reserve Policy Glossary	225-226
Resolution 4302	15-16
Revenue History	85,102,113
Revenues and Expenditures by Fund	64-65
Revenues and Expenditures by Type	66
San Diego Rainfall	28
Schedule of Outstanding Debt	72
Service Area Assessed Valuation	25
Service Area Maps	91,107,119
Sewer Charges Summary by Service Class	111
Sewer Narrative	109
Sewer Rate Comparison	24
Six-Year CIP Funding by Category	189
Six-Year CIP Funding by Source	189
Six-Year CIP Projects by Category ($1,000)s	190-192

Index

Statement of Values	30
Strategic Plan	29-52
Summary of Financial Policies	195-196
System Fees	82,100,112
Table of Contents	i-iii
Ten Largest Customers	27
Ten Principal Taxpayers	26
Unit Sales History and Meter Count by Customer Class	81,99
Water Purchases - Recycled	103
Water Purchases and Related Costs - Potable	86
Water Rate Comparison	23
Water Sales Summary by Meter Size	79,98
Water Sales Summary by Service Class	80