



# OPERATING AND CAPITAL BUDGET

FISCAL YEAR 2016–2017

Napa Sanitation District

Napa, California

CLEAN WATER. HEALTHY COMMUNITY.



# **Napa Sanitation District**

## **Budget Acknowledgements**

### **Board of Directors**

Jill Techel, Chair  
Keith Caldwell, Vice-Chair  
Peter Mott, Director  
Charles Gravett, III, Director  
David Graves, Director  
Mark Luce, Alternate Director  
Mary Luros, Alternate Director

### **Executive Officer**

Tim Healy, General Manager/District Engineer

### **Management Team**

#### ***Operations Services***

James Keller, Treatment Plant Manager  
Frank Ziliotto, Treatment Plant Operations Supervisor  
Mark Egan, Treatment Plant Maintenance Supervisor  
David Martin, Reclamation Systems Manager  
Nick Becker, Collection System Manager

#### ***Technical Services***

Andrew Damron, Capital Program Manager  
Mark Koekemoer, Laboratory Supervisor

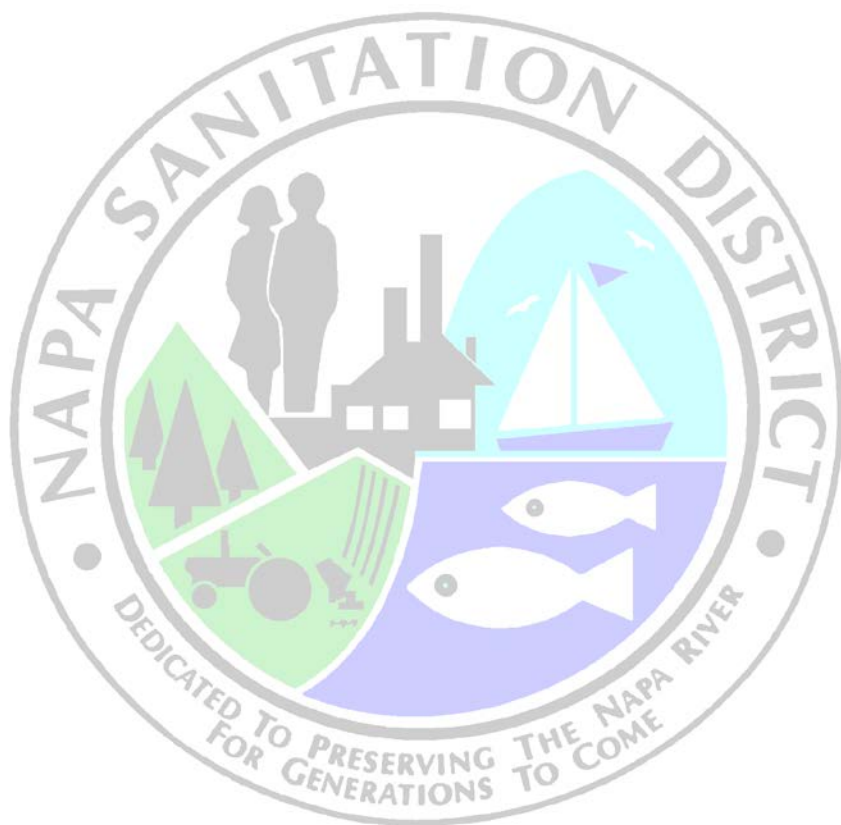
#### ***Administrative Services***

Jeff Tucker, Administrative Services Director / Chief Financial Officer  
Cheryl Schuh, Human Resources Officer / Clerk of the Board  
Cyndi Bolden, Senior Accountant



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## NAPA SANITATION DISTRICT

*Dedicated to Preserving the Napa River for Generations to Come*

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**DATE:** June 1, 2016

**TO:** Honorable Board of Directors and  
Customers served by the Napa Sanitation District

**FROM:** Tim Healy, General Manager/District Engineer  
Jeff Tucker, Director of Administrative Services/Chief Financial Officer

**SUBJECT:** FY 2016/17 Operating and Capital Budget

On behalf of the entire Executive and Management Team, we are pleased to present to you the Proposed FY 2016/17 Napa Sanitation District Operating and Capital Budget. This Budget is the financial plan for the coming year and serves as a source of information about the District and its programs.

### Economic Condition

Napa County and the City of Napa have seen solid economic growth recently, with no indication that the economy will slow in the short term. The unemployment rate in Napa was at 4.8% in January 2016, significantly below the 5.8% from a year ago, and lower than the statewide average of 5.7%.<sup>1</sup> Approximately 7.8% of the city population is at or below the poverty line, compared to 16.4% statewide.<sup>2</sup> Hotel occupancy in the County is up, reaching 71% in 2015, with hotel revenues up 14.8% over a year ago, both significant indicators of local economic activity in the wine and hospitality industries.<sup>3</sup>

In FY 2015/16, activity in planning referrals and the review of development plans for building permits increased from prior years, indicating that increased construction is anticipated in FY 2016/17. These projects will have an impact on the District, both in the receipt of capacity charges as well as growing the base of sewer service charges. These projects include new hotels, single and multi-family housing developments, new and expanded restaurants, and other developments.

The FY 2016/17 Napa Sanitation District Operating and Capital Budget was developed with recognition of the improving local economy, incorporating known development projects, but not assuming rapid growth in any specific areas of the economy.

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<sup>1</sup> [www.centerforjobs.org](http://www.centerforjobs.org)

<sup>2</sup> U. S. Census Bureau's 2014 American Community Survey, 1-Year.

<sup>3</sup> Napa Valley Register, January 16, 2016.

### **Budget Priorities and Direction**

The proposed budget represents a measured effort to increase the service levels provided by the District. There are two additional employees budgeted in the Collections Department focused in increased maintenance and sewer rehabilitation, and the 10-year capital program shows an increased investment in sewer rehabilitation and inflow & infiltration projects. The budget also allocates resources toward activities that implement the goals and objectives established by the Board of Directors in its Strategic Plan, including maintaining a focus on quality customer service, preventive maintenance, and investments in staff and infrastructure that improve efficiency, effectiveness and safety.

The proposed budget addresses the following challenges facing the District and the community, with budget priorities and direction developed to address these challenges:

**Sewer Service Charges and Proposition 218 Hearing.** For the past decade, the District has maintained a priority of sewer rate affordability by striving to keep rate growth to no more than the Consumer Price Index (CPI). This has been challenging, as the District's operating expenses (wages, health care, retirement, electricity, chemicals, etc.) tend to increase faster than CPI. This has been done by investing in capital projects and processes that reduce operating expenses. Recently, this has meant accepting fats, oil and grease (FOG) into the plant for use in creating biogas used to generate heat and electricity and offset the purchase of electricity from PG&E, and replacing the flocculating clarifier with a Dissolved Air Floatation (DAF) clarifier which decreases the amount of chemicals needed to treat the wastewater and saves the District over \$100,000 annually. The District has partnered with private companies to develop a 1 MW photo-voltaic solar array and a 1 MW stationary storage system, both designed to significantly reduce the District's electricity costs and demand charges. The decreases in operating expenses and growth in sewer service charges by CPI, however, have not been sufficient to meet all of the projected capital needs of the District.

As part of its Proposition 218 Hearing process in early 2016, the District Board identified the need to increase investments in its sewer infrastructure (noted below) and voted to set the maximum rate for sewer service charges for the next five years based on a plan of increasing the renewal and replacement investments and to finance the Browns Valley Road Sewer Interceptor project. The rates will increase 15% in Fiscal Year 2016/17, with future maximums set as described in the Budget Summary section of the budget.

**Respond to Drought Conditions.** FY 2016/17 begins with California entering its fifth year of lower than normal rain and snowfall. The District is facing this problem head on with its continued focus on expanding recycled water into the community. Last year, the District completed almost \$50 million dollars in community investment in expanding the recycled water distribution system to the Los Carneros and MST areas, effectively doubling the capacity of the District to produce and distribute recycled water. This budget year, the District will continue to partner with Napa County to extend the MST recycled water distribution pipeline to additional customers to reduce reliance on groundwater as well as offset potable water use. The budget also continues rebate programs that incentives residents

to purchase high-efficiency washers and to replace inefficient toilets with more efficient models.

**Maintain Assets for Future Generations.** The bulk of the sewer system in the District was built from the 1950s through 1970s. These assets, along with those already in service prior to the Second World War, are deteriorating and reaching the end of their useful lives. It is the District's responsibility to ensure that these assets are maintained appropriately to keep them in service as long as possible, and to replace those assets when necessary to avoid system failures.

The FY 2016/17 Budget includes continued efforts to establish an Asset Management program to focus on the maintenance, rehabilitation, and replacement of existing District assets – plant, collections and recycled water. The resulting efforts will integrate into the 10-Year CIP and 10-Year Financial Plan, providing much better and more focused attention on the maintenance and longevity of our assets.

The District continues to use “pay-as-you-go” financing for the renewal and replacement of its sewers and other capital assets. The Collection System portion of the capital plan includes the continuation of annual expenses dedicated to main line sewer rehabilitation and lateral replacements, and identifies specific sewer rehabilitation and replacement projects deemed most critical. Resulting from the Proposition 218 process, the District is now planning to rehabilitate or replace on average 1.3% of its sewer assets annually for the next three years, with an increase to 2% starting thereafter, funded from increased sewer service charges.

**Position the District for Growth.** If the community of Napa is to continue to develop according to its 20-year growth projections and with the densities of use identified in its Downtown Specific Plan, the Napa Sanitation District needs to plan for and build capacity for the anticipated new users of the sewer system and the increased flows and loading in the treatment plant. The proposed budget includes several projects that are designed to accommodate the growth that is anticipated in these plans. Most notably, the plan includes design and construction of the Browns Valley Road Sewer Interceptor project. While the primary reason for this project is to divert high flows during storm events away from downtown Napa to avoid potential sewer overflows, an added benefit of the project is that several sewer mains in downtown will have added capacity. The Ten-Year Capital Improvement Plan (CIP) also includes expansion of other processes, including the aeration basins and the digester several years from now, in an effort to accommodate anticipated growth.

**Strengthen the District's Organizational Structure.** Organizationally, the District is preparing for the future by evaluating the workload of various workgroups, and reorganizing some divisions and positions to better respond to anticipated future needs. The reorganization includes the elimination of the Assistant General Manager position, creating a Technical Services Director position, and elevating the Plant Manager position to Operations Services Director. This change, first proposed last year but not implemented until now, will focus the efforts on the three function areas of the District, with high level oversight. The FY 16/17 budget also includes two additional Collection System Workers to increase the maintenance and rehabilitation efforts in that system.



**Prepare for the Next Economic Downturn.** It is inevitable that the current growth in the local economy will be followed by a period of economic slowdown. The District should plan and make decisions now that will position it for the future. The proposed budget represents both a short-term (one year) plan for spending as well as a 10-year look forward in revenues, operating expenses and capital expenditures and strives to ensure that the decisions made this year are sustainable into the foreseeable future. When making decisions regarding capital projects, a total cost of ownership approach is employed, whereby the total cost of a decision, including both the initial capital cost and the ongoing operational costs, are considered. Decisions about changing levels of service are also evaluated long-term to determine the ability to sustain those changes. The ten-year financial plan shows that the current year budget, anticipated future operating budgets, Capital Improvement Plan and revenue forecast should still result in the District fully funding its identified reserves.

**Balance the Long-Range Forecast.** Last year, the budget did not show the long-range forecast being balanced. The long-range forecast now shows the District able to meet its operational and debt service demands, both for the current year and throughout the next ten years. This is possible because of the increased sewer service charges anticipated for the next five years, set as part of the Proposition 218 process, and a restructuring of the timing of some capital projects.

### **Financial Overview**

The District maintains one fund for accounting and budgeting purposes. Within the fund there are three departments or “subfunds” that track the following: 1) operating revenues and expenses, 2) capacity charge revenue, which is a restricted revenue, and 3) capital project expenses and associated revenues, such as grants.

Operating expenses total \$15.0 million, compared to \$14.8 million in FY 2015/16, for an increase of 1.2%. Debt service expenses remained constant at \$4.8 million. Intrafund transfers from operating to capital are budgeted at \$8.9 million. The proposed capital budget of \$17.2 million is about \$16.3 million less than the FY 2015/156 approved capital budget, as very large projects from the prior year have been completed. The capital budget includes the replacement and relocation of the Sarco Creek Bridge sewer, and an extension of the MST recycled water distribution pipeline, with these projects being entirely financed by federal grants and contributions from the County of Napa and CalTRANS.

The total operating and capital budget for the District, \$36.9 million, is down 30.4% from last year. This decrease is made up from a 3.6% increase in Salaries & Benefits from prior year, 2.7% decrease in Services & Supplies, and 48.6% decrease in Capital.

In the FY 16/16 budget, it was anticipated that the District would issue bonds for the Browns Valley Road Sewer Interceptor project, and that there would be considerable bond proceeds in the Ending Fund Equity at the end of the year. These bonds were not sold, as the decision was made to apply for an SRF loan instead. Adjusting for this change, the ending fund equity for the District in FY 16/17 is anticipated to increase \$2.6 million. The operating emergency reserves, debt reserves and cash flow reserves are fully funded, per District financial policy.

### **Summary of the FY 2016/17 Budget**

#### **Revenues**

Sewer Service Charges (SSCs), the District's largest source of revenues, are collected annually as assessments on the property tax rolls. The District went through the Proposition 218 process and set the maximum charges for the next five years. The FY 2016/17 budget includes an increase in the rate of 15%, from \$482.50 per Equivalent Dwelling Unit to \$554.88. This increase, along with growth from development, will result in almost \$3 million in additional revenue.

Other revenues were projected conservatively using economic indicators and trend analysis. Economic-based revenues such as capacity charges were projected based on specific evidence of activity and known large projects, and investment earnings rates were assumed to remain flat through next year. More information on the forecast methods can be found in the "Sources of Funds/Revenues" section of the Budget Summary.

FY 2016/17 revenues from all sources are expected to be \$37,037,500, excluding intrafund transfers. Projected operating revenue, which excludes revenues associated with capital projects (capacity charges, grants, intergovernmental revenue, bond/loan proceeds and sale of capital assets), increased from just under \$21.3 million in FY 2015/16 to almost \$24.7 million this year (16.0% increase). Sewer service charges are anticipated to increase 15.3% due to the increase in rates. Recycled water sales revenues are expected to increase 89.0%, resulting from both increased rates and increased sales in the MST and LCWD areas.

Intergovernmental revenues are budgeted at \$2,250,000, associated with the Sarco Creek Bridge sewer project and the extension of the MST recycled water distribution pipeline. Capacity charge revenue is projected higher, at \$5,512,000, compared to \$2,998,000 budgeted in the prior year, based on a new large hotel project being built and the expansion of an existing hotel.

#### **Operating Expenditures**

Operating expenditures for the District are expected to be \$14,978,930 (total operating budget of \$28,651,980, minus intrafund transfers of \$8,900,000 and debt service payments of \$4,773,050). This represents an increase in budgeted operating expenditures of \$172,430 or 1.2%.

Salary and benefit expenses are proposed to increase 3.6%. Salaries are set to increase 3.8% in accordance with the Memorandum of Understanding. Changes in benefits and overtime make up the difference, with the most significant increase coming from health insurance (up 5.9%) and offsetting decrease in overtime (down 10.1%). The current Memorandum of Understanding was approved in June 2014 and sets salary and benefit levels through June 2020.

For FY 2016/17, there is an increase of 2 FTE in the Collection System division, with salary and benefits budgeted to accommodate these new positions. This change is in alignment with the Employee Master Plan completed in Spring 2015.

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June 1, 2016  
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The base budget for services and supplies in total is proposed to decrease 2.7% over the prior year's budget. The base includes \$193,150 in new chemical expenses associated with the new dissolved air floatation (DAF) clarifier. Other line items in total saw a decrease from prior year.

In addition to the base services and supplies budget, three significant changes or projects were included, projects that were either identified in the District's Strategic Plan for completion this year or are at the request of the Board:

- \$100,000 to partially fund a study on winery waste treatment options. This study will be completed once the district has developed a partnership with the winery community to complete the study.
- \$15,000 to update the Board's Strategic Plan in the spring of 2017.
- \$40,000 for potential litigation. There is a significant possibility of litigation during the next fiscal year. The budget sets aside some resources to respond to this potential need.

In total, including the base budget and the one-time projects, the services and supplies budget is decreasing 2.7% in FY 2016/17.

### **Capital Expenditures**

The District maintains a Ten-Year Capital Improvement Plan (CIP) and includes the acquisition and construction of new facilities and assets as well as the renewal and rehabilitation of existing assets, when that rehabilitation extends the useful life of those assets. The District continues to implement the strategies identified in the Collection System Master Plan, through implementation of stormwater and groundwater inflow & infiltration (I/I) reduction projects. The Wastewater Treatment Plant Master Plan was approved in March 2011, with the capital components included in the capital plan. The CIP continues projects to expand the recycled distribution system to meet increasing recycled water demand and improve the operational resiliency of the District.

The capital expenditure budget for FY 2016/17, the first year of the ten-year plan, is \$17.2 million. Two projects, the MST Recycled Water Pipeline Extension and the Sarco Creek Pipeline Replacement, are paid for by external sources.

Further details can be found in the Capital Improvement Plan chapter of this budget document.

### **Debt and Debt Service**

The District has four distinct debts for which it pays annual debt service. All of the District's debt has fixed interest rates. Total debt service for FY 2016/17 will be just under \$4.8 million.

It is anticipated that the District will enter into a Clean Water State Revolving Fund loan with the State Water Resources Control Board FY 2016/17 to pay for the Browns Valley Road Sewer Interceptor project and associated West Napa Pump Station Improvements project. The loan will be



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for the entire project amount, not to exceed \$20 million. Debt service on this loan is anticipated in FY 2018/19, as debt service on this loan does not begin until construction of the project is complete.

### **Fund Equity and Reserves**

The ending fund equity for FY 2015/16 is estimated to be \$14,510,300. This number assumes that most of the capital budget in FY 2015/16 is spent, or that any underspending is carried forward into this fiscal year.

As proposed, the ending fund equity for the District is projected to be **\$14,615,120** on June 30, 2017 and is allocated as follows:

\$2,243,000	<b>15% Operating Reserve</b> – This is 15% of the District’s budgeted operating expenditures, excluding taxes, transfers and debt service.
\$10,375,000	<b>Operating Cash Flow Reserve</b> – This amount is necessary on July 1 to cover the anticipated operating expenses of the District between the start of the fiscal year and December, when the District receives the bulk of its cash receipts from sewer service charges billed on property tax statements.
\$1,990,000	<b>Debt Service Reserve</b> – This amount is required by bond covenants for the 20109B COPs to cover annual debt service in the event of non-payment of debt service by the District. This reserve is held by a third party Trust Agent.
\$7,120	<b>Available for Use</b> – This is the projected amount of fund equity, including bond proceeds, available to the District for use on capital projects at the end of FY 2016/17.

Following is a summary table of the revenue, expenditure and intrafund transfer budgets for FY 2016/17, along with information on fund equity and reserves.

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***Budget Summary***

	<b><u>FY 15/16 Adjusted Budget</u></b>	<b><u>FY 16/17 Budget</u></b>	<b><u>Percent Change</u></b>
<b>Beginning Fund Equity</b>	<b>\$18,820,600</b>	<b>\$14,510,300</b>	<b>(22.9%)</b>
<b>Revenue – All funds, excluding transfers</b>			
Sewer Service Charges (incl. delinquencies)	\$19,534,000	22,514,000	15.3%
Capacity Charges	2,998,000	5,512,000	83.9%
Waste Hauler Fees	236,000	172,000	(27.1%)
Recycled Water Sales	507,000	658,000	89.0%
Land Leases	716,000	719,000	0.4%
Intergovernmental / Grants	21,971,100	2,250,000	(89.8%)
Interest on Invested Funds	77,000	109,000	41.6%
Construction/Building Permit Review Fees	95,000	184,500	94.2%
Penalties on Delinquent Sewer Fees	25,000	0	(100.0%)
Bond/Loan Proceeds	15,200,000	4,550,000	(70.1%)
Other Revenues	118,000	369,000	312.7%
<b>Total Revenues</b>	<b>\$61,477,100</b>	<b>\$37,037,500</b>	<b>(39.8%)</b>
<b>Expenditures – All funds, excluding transfers</b>			
Salaries & Benefits	\$9,054,200	\$9,382,370	3.6%
Services & Supplies	5,724,050	5,568,310	(2.7%)
Taxes & Other	28,250	28,250	0.0%
<b>Subtotal Operating Expenses</b>	<b>\$14,806,500</b>	<b>\$14,978,930</b>	<b>1.2%</b>
Capital Expenditures	\$33,448,000	\$17,180,700	(48.6%)
Debt Service (incl. debt administration expenses)	4,779,200	4,773,050	(0.1%)
<b>Subtotal Capital Expenses</b>	<b>\$38,227,200</b>	<b>\$21,953,750</b>	<b>(42.6%)</b>
<b>Total Expenditures</b>	<b>\$53,033,700</b>	<b>\$36,932,680</b>	<b>(30.4%)</b>
<b>Ending Fund Equity</b>	<b>\$27,264,000</b>	<b>\$14,615,120</b>	<b>(46.4%)</b>
<b>Reserves</b>			
Operating Reserve	\$2,227,000	\$2,243,000	0.7%
Debt Reserve	1,990,000	1,990,000	0.0%
Operating Cash Flow Reserve	10,987,000	10,375,000	(6.6%)
<b>Total Reserves</b>	<b>\$15,204,000</b>	<b>\$14,608,000</b>	<b>(3.9%)</b>
<b>Available for Use (Ending Fund Equity minus Reserves)</b>	<b>\$12,060,000</b>	<b>\$7,120</b>	<b>(99.9%)</b>
	<b><u>FY 15/16 Adjusted Budget</u></b>	<b><u>FY 16/17 Budget</u></b>	<b><u>Percent Change</u></b>
<b>Intrafund Transfers</b>			
Transfer from Operations to Capital Projects	\$7,900,000	\$8,900,000	12.7%
Transfer from Expansion to Capital Projects	2,998,000	5,512,000	83.9%
Transfer from Debt Proceeds to Capital Projects	1,350,000	0	(100.0%)
<b>Total Intrafund Transfers</b>	<b>\$12,248,000</b>	<b>\$14,412,000</b>	<b>17.6%</b>

### **Ten-Year Budget Projections**

The District has been able to weather low levels of SSC growth and decreases in non-SSC revenues in recent years through prudent control of its expenditures. The reduction of capacity charge revenue, as a result of reduced demand for new connections to the system requires special emphasis and attention be placed on the ongoing review of the Capital Improvement Plan by District management and the Board. As a result of the Board's action to increase sewer service charges, the Ten-Year Financial Plan is balanced, and additional resources will be available to increase the District's investment in asset renewal and replacement.

The cost of employee benefits continues to rise for the District. Specifically the cost of health and retirement benefits is a major contributor to increased operating costs over the foreseeable future.

The solar project and the stationary storage project will help to contain and control future electricity costs. Chemical costs will likely rise over the next ten years and require regular monitoring by staff. The costs associated with increased demand for recycled water anticipated for the next few fiscal years will be offset by the additional revenue generation.

The forecast assumes annual increases in sewer service charges for the next five years based on the amounts set during the Proposition 218 process, with modest annual increases starting in year six of the forecast. Annual increases in capacity charge rates (by CPI) are projected, as are significant increases in development (particularly hotels), and annual increases for recycled water fees (by CPI). Further detailed information regarding the District's Ten-Year Financial Plan can be found in the budget document.

### **Identified Areas of Potential Significant Variability in Forecast**

The Ten-Year Financial Forecast includes various assumptions about the rates of increase for revenues and expenditures. There are two assumptions in the forecast that have significant risk or variability associated with them. If these assumptions do not materialize as projected, it will be necessary for the District to reevaluate its operating and capital budgets and make adjustments.

The first major assumption is in the forecast for recycled water usage. As part of the fee setting process in FY 2011/12 to set the recycled water fee for 2016 and beyond, the District assumed that recycled water sales would be 2,400 acre feet. Sales for next year are estimated at approximately 2,100 acre feet. The projected increases assumes that Napa State Hospital switches over to recycled water (200 AF), that the MST and LCWD areas takes water as planned, that the Somky property as part of the development of the Montelcino Resort is completed (300 AF), and that the resort development on Stanly Ranch is completed (200 AF). It is also assumed that if these projects do not take water, that water would be available for other users, such as the Los Carneros Water District. The assumptions seem reasonable given recent construction and development activity, but if these use targets are not met, there will be insufficient sales to meet the revenue projections.

The second major assumption is in capacity charge revenues. The current forecast assumes the sale of 395 EDU in capacity charges in FY 2016/17 from two significant hotel projects, plus 200 EDU from other sources, with additional large developments anticipated in FY 18/19, FY 19/20 and in FY 20/21. If economic development does not increase by these levels, there will be lower than



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anticipated revenues to pay for capital projects, and lower than anticipated sewer service charges to pay for ongoing operations.

### Acknowledgments

The General Manager's Office and the Administrative Services Department staff sincerely appreciate the direction offered by the District's Finance Committee, Long Term Planning Committee and Board of Directors, and the cooperation and assistance of District staff, in developing a responsible and thoughtful budget for FY 2016/17. Many people throughout the organization have put a great deal of effort and skill into producing this document and the proposed budget.

Finally, as always, we look forward to your comments and suggestions so that we may continue to refine the document and make it as readable and useful as possible to the District Board, its customers, and the community at large.

Respectfully submitted,



Timothy Healy  
General Manager



Jeff Tucker  
Director of Administrative Services/  
Chief Financial Officer

## RESOLUTION NO. \_\_\_\_\_

### RESOLUTION OF THE NAPA SANITATION DISTRICT ADOPTING A BUDGET AND CAPITAL IMPROVEMENT PROGRAM FOR FISCAL YEAR 2016/17

**WHEREAS**, the Board of Directors of the Napa Sanitation District is charged with the duty of adopting an annual budget; and,

**WHEREAS**, the Board of Directors of the Napa Sanitation District has studied and considered in detail a Preliminary Operating Budget and Capital Improvement Program for FY 2016/17; and,

**WHEREAS**, the Final Budget (Operating and Capital Improvement Program Expenditures, Revenues and Reserves) has been submitted to the Board of Directors (copy attached); and,

**NOW, THEREFORE BE IT RESOLVED** that the Board of Directors, as the governing body of the Napa Sanitation District, has determined that the attached Final Budget, describing:

- Operating Budget Appropriation of \$19,751,980, plus intrafund transfer of \$8,900,000 to support Capital Projects, for a total of \$28,651,980; and,
- Expansion Appropriation of \$5,512,000 in intrafund transfer to support Capital Projects; and,
- Capital Projects Appropriation of \$17,180,700; and,
- Full-Time Equivalent (FTE) Employee authorization of 53 employees, plus 5 Board Directors in accordance with the attached position control roster; and,
- Sewer Service Charge of \$554.88 per EDU;

be hereby adopted as the Final Budget and Sewer Service Charges for FY 2016/17.

I hereby certify that the foregoing Resolution was duly and regularly adopted by the Board of Directors of the Napa Sanitation District, at its regularly scheduled meeting on the 1<sup>st</sup> day of June, 2016, by the following vote:

AYES:

NOES:

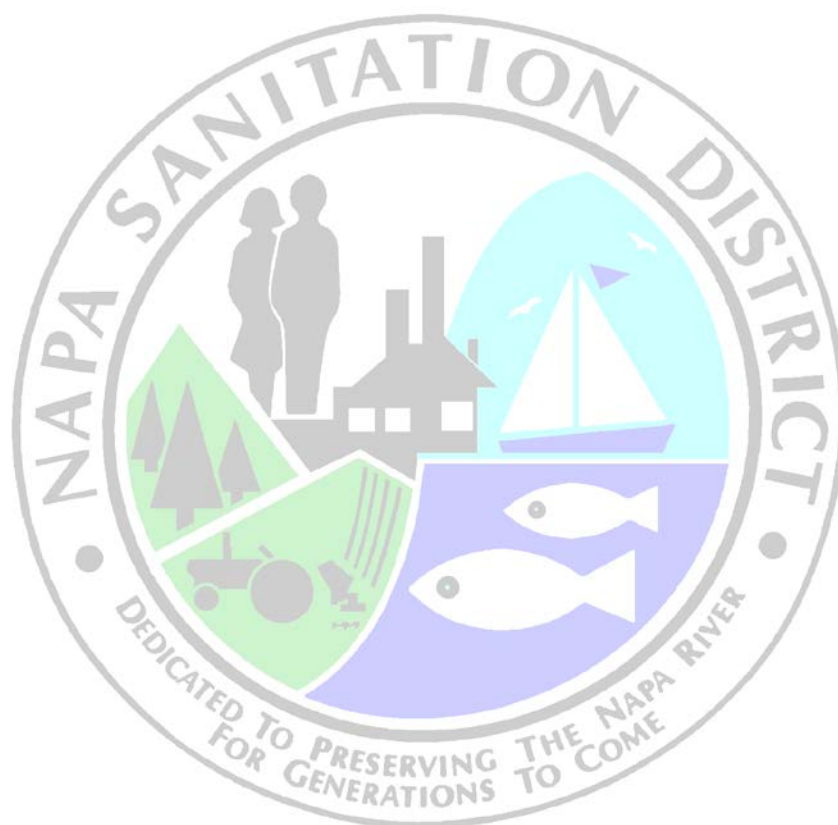
ABSENT:

ABSTAIN:

\_\_\_\_\_  
Chair, Board of Directors

ATTEST:

\_\_\_\_\_  
Secretary, Board of Directors



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## Napa Sanitation District Overview

### *Mission*

It is the mission of the Napa Sanitation District to collect, treat, beneficially reuse, and dispose of wastewater in an effective and economical manner that respects the environment, maintains the public's health and meets or exceeds all local, state and federal regulations.

### *History*

Napa Sanitation District, located in the Napa Valley in Northern California, has been serving the public since it was organized under the California Health and Safety Code in November 1945.



*Soscol Water Recycling Facility*

The District provides wastewater collection, treatment and disposal services to the residents and businesses in the City of Napa and surrounding unincorporated areas of Napa County. As a special district, the Napa Sanitation District is an independent local agency governed by a Board of Directors made up of three elected officials from the City and County and two public appointees.

Until 1998, wastewater was processed at both the Imola Treatment Plant located north of Imola Avenue and west of Soscol Avenue, and the Soscol Water Recycling Facility (SWRF) near Napa County Airport. In 1998, all wastewater treatment activities were shifted to the SWRF. The Imola Avenue treatment facility was demolished in 2002 after completion of the Napa County Flood Control District Project relocating the railroad tracks onto the District's Imola property. The District's Administration, Engineering and Collection System offices were relocated to the SWRF in 2013.

### *Public Services*

There are approximately 36,800 connections within the District's service area of approximately 21 square miles of service area. Through a network of approximately 270 miles of underground sewer mains, assisted by a system of three lift stations, the sewage makes its way to the SWRF for treatment. (Additional demographics are available in Appendix B – Statistics and Economic Data.)

The SWRF is a secondary and tertiary biological physical-chemical treatment facility that treats a mixture of domestic and industrial wastewater. The District wastewater processes include primary treatment, activated sludge facilities, oxidation ponds, clarifiers, sludge digestion and solids de-watering facilities.

The SWRF has a dry weather treatment design capacity of 15.4 million gallons per day (MGD). The wastewater is treated and discharged in various manners, depending on the source of the wastewater and the time of year.

The District's regulating body, the Regional Water Quality Control Board, permits discharge to the Napa River from November 1 through April 30 (the wet season period). The District provides full secondary treatment at its wastewater facility whenever discharging to the Napa River.



*Soscol Water Recycling Facility at sunrise*

From May 1 through October 31 (the dry season period) discharge to the Napa River is prohibited and wastewater is either stored in stabilization ponds or treated and beneficially reused for landscape irrigation in industrial parks, golf courses, parks, pasturelands and vineyards. This high quality "Title 22 Unrestricted Use" recycled water is provided to all recycled water users.

The daily average flow of wastewater into the SWRF was approximately 7.7 MGD last year.

## ***Performance Measurement***

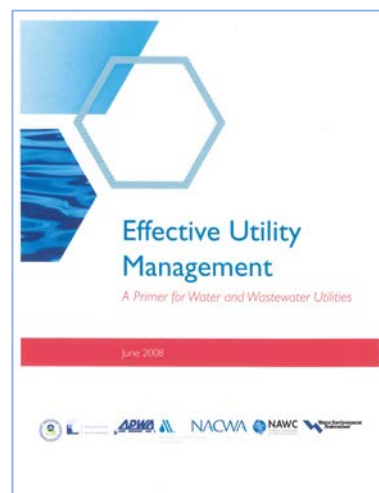
The District created and issued its Performance Measurement Report for Calendar Year 2015 in April 2016. The report identifies 63 performance measures that, when taken as a whole, should give the reader a sense of how well the utility is performing and being managed.

The report uses the Effective Utility Management (EUM) framework for presenting the performance information. EUM was developed in 2009 by six major water and wastewater associations and the United States Environmental Protection Agency to help utility managers make practical, systematic changes to achieve excellence in utility performance.

This framework is specific to water and wastewater utilities and provides for the possibility of comparing the District to other wastewater utilities once more providers begin using EUM for measuring and reporting on performance.

The performance measures are organized into EUM's Ten Attributes of Effectively Managed Water Sector Utilities:

1. Product Quality
2. Customer Service
3. Employee and Leadership Development
4. Operational Optimization
5. Financial Viability
6. Infrastructure Stability
7. Operational Resiliency
8. Community Sustainability
9. Water Resource Adequacy
10. Stakeholder Understanding & Support



The District rates “**satisfactory**” in 51 measures (81%). These measures include, among many others, meeting NPDES discharge limits for BOD and total suspended solids, having fewer sewer overflows than the state and regional average, lower than average worker injury rates, operational efficiencies, and proactive practices on preventive maintenance.

The District rates “**watch**” on seven measures (11%). A “watch” designation signifies that the District is in danger of not meeting its goals, that the trend is indeterminate, or that there is insufficient data to make an assessment. Measures in this category include asset inventory, service call response times, sewer main condition assessments, online safety training hours, long-term recycled water supply adequacy, rates based on life-cycle cost, and the comparative ranking of the District’s sewer service charge rate.

The District rates “**unsatisfactory**” on two measures (3%). “Unsatisfactory” signifies that the District has not met its goals or that the trend is negative. This rating was for the revenue-to-expenditure ratio and insurance claims.

Several of the performance measures have been identified as “Key Performance Indicators” (KPIs) for determining whether the District is meeting its Strategic Goals. Those KPIs have been identified below in the Strategic Planning Goals and Objectives section.

Most of the performance measures in the Performance Measure Report have also been included in the narratives of the “Expenditure by Department” section of this budget document.

A complete copy of the Performance Measurement Report for Calendar Year 2015 can be found in Appendix E of this budget.

## Strategic Planning Goals and Objectives

In April 2015, the Board of Directors updated its Strategic Plan, articulating the long-term goals, objectives and priorities of the District. The following are excerpts from the Strategic Plan.

The Strategic Plan provides detail on these goals and specific objectives, a copy of which can be found in Appendix C of this document. On a quarterly basis, progress on these goals and objectives is reported to the Board of Directors and posted on the District's website.



## Mission

The mission of the District is to collect, treat, beneficially reuse and dispose of wastewater in an effective and fiscally responsible manner that respects the environment, maintains the public's health and meets or exceeds all local, state and federal regulations.

## Goal 1 - Infrastructure Reliability

The goal is to build, maintain and operate a cost-effective and reliable wastewater treatment system for the District's service area. Systematic replacement of the District's aging infrastructure is priority number one. A long term capital facilities plan is needed, drawing on accurate information about current facility conditions and projects of future service area needs: five, ten or more years from now. The District must ensure that treatment capacity will be in place to address current and projected future needs.

### Key Performance Indicators

Indicator	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Target 2016	Target 2017	Target Met?
Renewal & Replacement of Assets	3.0%	2.6%	8.8%	10.2%	2% - 4%	2% - 4%	Yes
Sewer Main Renewal & Replacement	0.7%	0.0%	1.8%	2.6%	1%	1%	Yes
Public Sewer Lateral Renewal & Replacement	0.6%	0.2%	0.9%	2.2%	1%	1%	Yes
Collection System Failures	0	1	1	0	0	0	Yes
Plant Planned Maintenance Ratio (Hours)	64%	58%	66%	66%	> 60%	> 60%	Yes
Collections Planned Maintenance Ratio (hours)	90%	88%	88%	87%	> 85%	> 85%	Yes
Uptime for Cogeneration Engine	84%	96%	96%	98%	> 85%	> 95%	Yes
Uptime for Pumps at Influent Pump Station	81%	79%	99%	100%	> 98%	> 98%	Yes

(Indicators are hyperlinked to Performance Measurement Report in Appendix E.)

### Strategic Objectives:

### Completion:

1A:	Implement Treatment Plant Master Plan critical projects, including pond aeration, recycled water equalization and filters and DAF clarifier, and replacement of the influent pump station	March 2016
1B:	Complete cost/benefit analysis of wet weather inflow/infiltration	Dec. 2016
1C:	Determine target for renewal and replacement of sewers	June 2016
1D:	Develop an asset management program	June 2020
1E:	Design and construct the Browns Valley Road Interceptor	Dec. 2019
1F:	Amend the Collection System Master Plan	June 2017
1G:	Study whether to implement a Private Lateral Program	Dec. 2017

**Related Department Objectives:**

- Rehabilitate 60 public laterals annually (Collection System)
- Work to eliminate higher maintenance sewer mains by replacing or repairing them (Collection System)
- Enhance and organize inventory system to reduce down time (Plant Maintenance)
- Continue design of the Browns Valley Road Interceptor Project (Engineering)
- Begin implementation of a formal asset management plan (Engineering)
- Plan for and complete renewal & replacement capital projects (Capital Improvement Plan)
- Design and construction I/I pilot projects (Capital Improvement Plan)
- Evaluate the effectiveness of I&I projects
- Install new aerator diffusers and automation of air control (Capital Improvement Plan)
- Line recycled water reservoirs, increasing storage capacity (Capital Improvement Plan)

**Goal 2: Financial Stability**

The goal is to ensure adequate fiscal resources to fulfill the District's mission. The District Board has a fiduciary responsibility to ensure that adequate financial resources are in place to operate the District and carry out its mission.

**Key Performance Indicators**

Indicator	Actual FY 11/12	Actual FY 12/13	Actual FY 13/14	Actual FY 14/15	Estimate FY 15/16	Target FY 16/17	Target Met?
Bond Rating	AA-	AA-	AA-	AA-	AA-	AA-	Yes
Debt Service Coverage Ratio	325%	247%	276%	226%	195%	> 125%	Yes
Revenue-to-Expenditure Ratio	0.00	0.79	(0.24)	(0.35)	(0.35)	> 0	No
Sewer Bill Affordability	0.64%	0.66%	0.68%	0.66%	0.68%	< 1%	Yes

(Indicators are hyperlinked to Performance Measurement Report in Appendix E.)

**Strategic Objectives:****Completion:**

2A:	Develop non-rate, revenue-generating opportunities that fit within the District's mission, either on its own or through private/public investment	Ongoing
2B:	Complete a study of plan check/inspection fees and methodology options for calculating and assessing capacity charges, and make recommendations	Sept. 2015
2C:	Conduct a Sewer Service Charge fee study prior to the next Proposition 218 hearing	March 2016
2D:	Develop financing plan for Browns Valley Road project, and implement	Dec. 2016

**Related Department Objectives:**

- Conduct a study to update the District's Capacity Charges (Administrative Services)
- Analyze assumptions in long-range plans for sensitivity to economic or regulatory changes (Administrative Services)



Stationary storage batteries used to store energy during the night for use during the day, decreasing energy demand charges

- Review cash flow and emergency reserves for adequacy (Administrative Services)
- Maintain and adjust ten-year plan for fleet sustainment, acquisition, rehabilitation and attrition (Safety, Training and Fleet Maintenance)
- Continue to implement an effective life cycle equipment replacement schedule for better budgetary expense projections (Plant Maintenance)
- Develop and utilize capital program management system to monitor and report progress of active capital projects (Engineering)



### Goal 3: Operational Capability

The goal is to implement and maintain effective operational practices. The District Board wants to operate the District at or above best practices, utilizing proven technology. Customers, ratepayers and internal staff all deserve high quality service.

#### Key Performance Indicators

Indicator	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Target 2016	Target 2017	Target Met?
Compliance with NPDES Permit	100%	100%	100%	100%	100%	100%	Yes
Sanitary Sewer Overflows (Cat. 1) per 100 miles of main	1.11	0.0	4.81	0.0	0.0	0.0	Yes
Self-Generated Electricity	23.3%	33.7%	32.6%	38.4%	> 25%	> 25%	Yes
Electricity Consumption Efficiency (MWh per million gallons-summer)	4.9	5.7	5.9	6.3	< 7.0	< 7.0	Yes
Chemical Consumption (gallons hypochlorite per MG treated-summer)	155	207	204	211	< 225	< 225	Yes
Recycled Water Service Availability	100%	100%	100%	100%	100%	100%	Yes

(Indicators are hyperlinked to Performance Measurement Report in Appendix E.)

#### Strategic Objectives:

#### Completion:

3A:	Partner with winery industry to research and develop a mutually beneficial alternative to treating winery waste	June 2017
3B:	Negotiate a new 5-year NPDES permit	Dec. 2016

#### Related Department Objectives:

- Continue to respond to the needs of the community in a timely and professional manner within 30 minutes, while trying to reduce the number of emergency service calls (Collection System)
- Continue to maintain efficiency of preventive maintenance operations, cleaning at least 40% of the District sewer mains per year (Collection System)
- Video inspect 10% of the sewer mains in the District's system (Collection System)
- Root foam four miles of sewer main, including related laterals and manholes, to reduce the root intrusion into these facilities (Collection System)
- Continual process optimization of the plant control systems to achieve a reduction in chemical and energy costs (Plant Operations)
- Install additional online instrumentation, reducing the amount of chemicals needed for treatment and reducing on-call operator time (Plant Operations)
- Continue producing an effluent that meets the NPDES permit requirements (Plant Operations)
- Implement the new Environmental Laboratory Accreditation Program (ELAP) certification requirements (Plant Laboratory)
- Review and update operational data sampling and analysis management for an efficient process control operational strategy (Plant Laboratory)

Review and return development plans within 30 days of submittal to District (Engineering)

- Develop performance goals for increased and improved inspection of non-categorical dischargers (Pollution Prevention)
- Continue the conversion of facilities in the Gateway Business Park and Napa Airport Centre to recycled water (Water & Biosolids Reclamation)



Training on Arc Flash protective equipment

## Goal 4: Employee Development

The goal is to maintain a dynamic and skilled workforce through employee engagement, professional development and opportunities for advancement. The District Board wants to create a positive and respectful working environment that encourages all employees to do the best job possible for the ratepayers of the District.

### Key Performance Indicators

Indicator	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Target 2016	Target 2017	Target Met?
Safety Training Completed On-Time	79%	99%	99%	84%	> 98%	> 98%	No
Employee Survey: Supervisor supports career growth	na	na	3.95	na	> 3.0	> 3.0	Yes
Employee Survey: Adequate resources to do job	na	na	3.83	na	> 3.0	> 3.0	Yes
Employee Survey: Received training to work efficiently	na	na	3.74	na	> 3.0	> 3.0	Yes
Employee Survey: High job performance is rewarded	na	na	3.26	na	> 3.0	> 3.0	Yes

(Survey: 1=Unfavorable to 5=Very Favorable)

(Indicators are hyperlinked to Performance Measurement Report in Appendix E.)

### Strategic Objectives:

### Completion:

4A:	Promote NSD as a progressive, professional organization to foster a reputation regionally and state-wide as a great place to work	Ongoing
4B:	Conduct Employee Survey in Fall 2017	Feb. 2018
4C:	Implement Employee Master Plan recommendations	Dec. 2016
4D:	Participate in programs to develop qualified and trained operators	Ongoing

### Related Department Objectives:

- Continue to provide direction to all departments, aligning efforts to promote and be consistent with the District's goals and policy directives (General Manager's Office)
- Complete an update of the District's Employee Job Descriptions (Administrative Services)
- Develop and implement periodic review plan for District safety policies and programs (Safety, Training and Fleet Maintenance)
- Complete and coordinate the safety review conducted by CSRMA, the District's worker's compensation insurance carrier (Safety, Training and Fleet Maintenance)
- Gather, store and disseminate asset and work information in an economical way with completeness and accuracy, including sharing with other departments in the District and others as needed (Collection System)
- Continue to develop and implement an analyst educational outreach training program (Plant Laboratory)

## Goal 5: Community Outreach and Communication

The goal is to provide ratepayers with the information they need to understand the District's mission, operations, finances and rate structures. The District Board wants to ensure that the District operates in a transparent manner and serves as a resource to all ratepayers of the service area.

### Key Performance Indicators

Indicator	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Target 2016	Target 2017	Target Met?
Media Coverage Quantity	22	31	31	33	> 20	> 20	Yes
Media Coverage Accuracy	86%	90%	97%	100%	> 85%	> 85%	Yes
Customer Satisfaction-Plug Ups (percent "good" or "excellent")	99.5%	100%	99.5%	99.1%	> 95%	> 95%	Yes
Customer Satisfaction-Cleanouts (percent "good" or "excellent")	94.3%	97.9%	100%	98.2%	> 95%	> 95%	Yes

(Indicators are hyperlinked to Performance Measurement Report in Appendix E.)

**Strategic Objectives:****Completion:**

5A:	Be proactive in developing partnerships with local businesses and other public agencies to achieve common goals	Ongoing
5B:	Create a communications plan to address NSD outreach and public information needs	Sept. 2016

**Related Department Objectives:**

- Develop and implement a communications master plan (General Manager's Office and Pollution Prevention)
- Complete the District's seventh Performance Measurement Report (Administrative Services)
- Respond to requests for information from the general public and other local agencies within three working days of request (Engineering)
- Partner with local agencies for collection of unwanted medications from drop-off sites (Pollution Prevention)
- Conduct plant tours and make public presentations (Pollution Prevention)
- Promote and deliver classroom presentations targeting elementary school students (Pollution Prevention)
- Develop and disseminate to stakeholders pollution prevention BMPs as necessary (Pollution Prevention)
- Complete activities necessary to achieve "Fish Friendly Certification" at the reuse sites (Water & Biosolids Reclamation)

**Goal 6: Resource Recovery**

The goal is to implement policies and technologies to recover resources from wastewater for beneficial reuse. The District Board wants to recover resources for reuse when economically viable and a market exists for their beneficial reuse. The District must also use the resources available to ensure a reliable energy supply during emergency conditions as well as during normal times.

**Key Performance Indicators**

Indicator	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Target 2016	Target 2017	Target Met?
Recycled Water Reused on Non-District Property	62%	72%	75%	78%	> 60%	> 90%	Yes
Biosolids Beneficially Reused	100%	100%	100%	100%	> 95%	> 95%	Yes
Digester Gas Beneficial Reuse	91%	98%	95%	96%	> 90%	> 90%	Yes

(Indicators are hyperlinked to Performance Measurement Report in Appendix E.)

**Strategic Objectives:****Completion:**

6A:	Implement capital projects in partnership with local agencies for the distribution of recycled water	June 2016
6B:	Participate with local partners on long-term opportunities for water reuse	Dec. 2017
6C:	Study and develop pathway to become energy independent	Ongoing

**Related Department Objectives:**

- Work with private sector partners to develop partnerships for solar energy, energy storage and other technologies, lowering the District's electricity costs and providing non-rate revenues (Administrative Services)
- Continue to receive fats, oil and grease (FOG) collected from siphon to the FOG receiving station at SWRF (Plant Operations)
- Optimize production of biogas in digester resulting from FOG receiving program (Plant Operations)
- With the City of Napa, promote the Recycle More Program that provides curbside collection of used cooking oil for use as biofuel (Pollution Prevention)
- Put 100% of the biosolids applied to District land to beneficial reuse, through active agricultural practices on the land (growing crops, grazing sheep, etc.) (Water & Biosolids Reclamation)
- Continue planning efforts within the North Bay Water Reuse Project for future development of recycled water programs and EIR/EIS documentation (Capital Improvement Program)

### ***Financial Policies Summary***

The District maintains, and regularly reviews and revises, a comprehensive set of Financial Policies to govern the overall financial management and health of the District.

Policy areas include:

- Reserves
- Revenue
- Budgeting and Capital Asset Management
- Debt Issuance and Management
- Investments
- Financial Reporting
- Accounting

Several of the Financial Policies have direct impact on the construction of the budget:

- **Balanced Budget** – the District maintains a balanced budget and does not use long-term debt to fund short-term or operational expenses.
- **Operating Reserves** – the District maintains an operating reserve at least equal to 15% of budgeted annual operating expenses, excluding debt service and transfers.
- **Liquidity** – the District maintains a liquidity reserve to ensure adequate cash is on hand to cover expenses in those months where expenses outpace revenues. The majority of the District’s revenues are received in December and in April through property assessments.
- **Revenues** – the District estimates revenues conservatively and does not use one-time or unpredictable revenues to fund ongoing expenses.
- **Maintenance** – the District protects its investment in its capital assets by budgeting for their adequate maintenance as a priority.
- **Debt** – the District will not issue debt unless it can pay the debt service and still meet its other obligations from current revenues.

A complete copy of the Financial Policies can be found in Appendix D of this document.

### ***Compliance with Financial Policies***

The District is in full compliance with the Financial Policies adopted in May 2012, as described above and provided in their entirety in Appendix D.

Specifically, the District has taken the following actions to ensure compliance with the Financial Policies:

- The annual operational expenditures for the District, including debt service, are less than the annual operating revenue forecasted to be received, meeting the requirement for a balanced budget.
- The District has designated an Operating Reserve of 15% of budgeted operating revenues (\$2,243,000) and a Cash Flow/Liquidity Reserve of \$10,375,000. These reserves meet the minimum requirements established in the Financial Policies.
- The District has estimated revenues conservatively for the current fiscal year. Additionally, one-time revenue sources have not been used to balance the operating budget, and there are no “unpredictable” revenues forecast in the budget or used to balance the budget.
- The District has adequately budgeted to meet all of its debt service requirements, and has maintained its debt service coverage ratio at a level higher than is required by bond covenants.
- There are adequate revenues available to transfer to the Capital Projects Fund to meet the near-term needs in the Capital Improvement Plan.

<b>Financial Policy Compliance</b>		
<b>NSD Policy</b>	<b>Target</b>	<b>FY 16/17</b>
Balanced Budget	Operating revenues minus operating expenditures > \$0	\$9,657,520
Operating Reserve	15% of Operating Budget	15.0%
Cash Flow Reserve	As necessary	\$10,375,000
Debt Coverage Ratio	> 1.25x coverage	3.20x

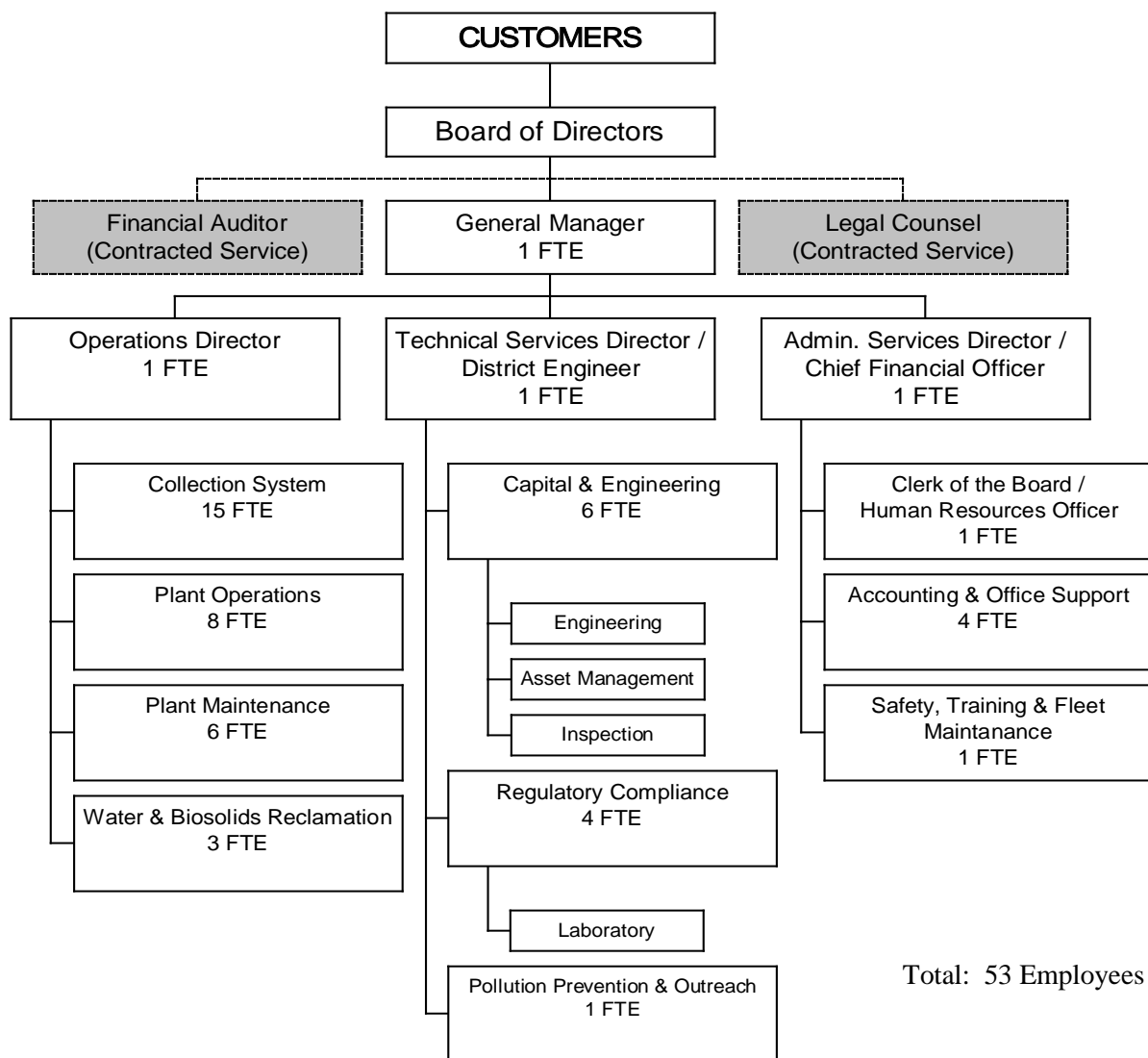
## Organization

The Napa Sanitation District is governed by a Board of Directors. Two directors are members of the Napa City Council. One director is a member of the Napa County Board of Supervisors. Two directors are citizen appointees, one appointed by the City and one by the County. The District is managed by a General Manager.

The Financial Auditor and the Legal Counsel for the District are contracted services. These functions report directly to the Board. All other functions report to the General Manager. The District is organized into three departments, Operations Services, Technical Services and Administrative Services, each headed by a Director. Under each Director, there are several departments, as described below.

- **Operations Services** includes those divisions associated with operations and maintenance. They include the following functions:
  - **Collection System Maintenance:** includes preventive and corrective maintenance and operation of the sewer system. This Division includes “Collection System Maintenance” in the Expenditure Budgets by Division section of this budget document.
  - **Wastewater Treatment Plant Operations:** includes operation of the wastewater treatment plant and lift stations. This Department includes “Treatment Plant Operations,” in the Expenditure Budgets by Division section of this budget document.
  - **Wastewater Treatment Plant Maintenance:** includes mechanical and electrical maintenance of the wastewater treatment plant and lift stations. This Department includes “Treatment Plant Maintenance” in the Expenditure Budgets by Division section of this budget document.
  - **Water and Biosolids Reclamation:** includes recycled water system management and disposal of biosolids through land application. This Department includes “Water & Biosolids Reclamation” in the Expenditure Budgets by Division section of this budget document.
- **Technical Services** includes those divisions associated with planning and implementing capital projects and asset management, construction inspection and overseeing regulatory compliance functions. They include the following functions:
  - **Capital & Engineering:** includes development review, capital project management, project design/engineering and inspection. This Division includes “Engineering” in the Expenditure Budgets by Division section of this budget document.
  - **Regulatory Compliance:** includes all regulatory compliance and reporting functions, including the Laboratory, Pretreatment, Pollution Prevention, and Outreach activities. This Division includes “Treatment Plant Laboratory” and “Pollution Prevention” in the Expenditure Budgets by Division section of this budget document.
- **Administrative Services:** includes finance and accounting services, human resources, risk management, safety and training, fleet management, and general administrative services. This Department includes “Board of Directors,” “General Manager’s Office,” “Administrative Services,” “Safety, Training & Fleet Maintenance,” and “Non-Departmental Expenses” in the Expenditure Budgets by Division section of this budget document.

## Organization Chart





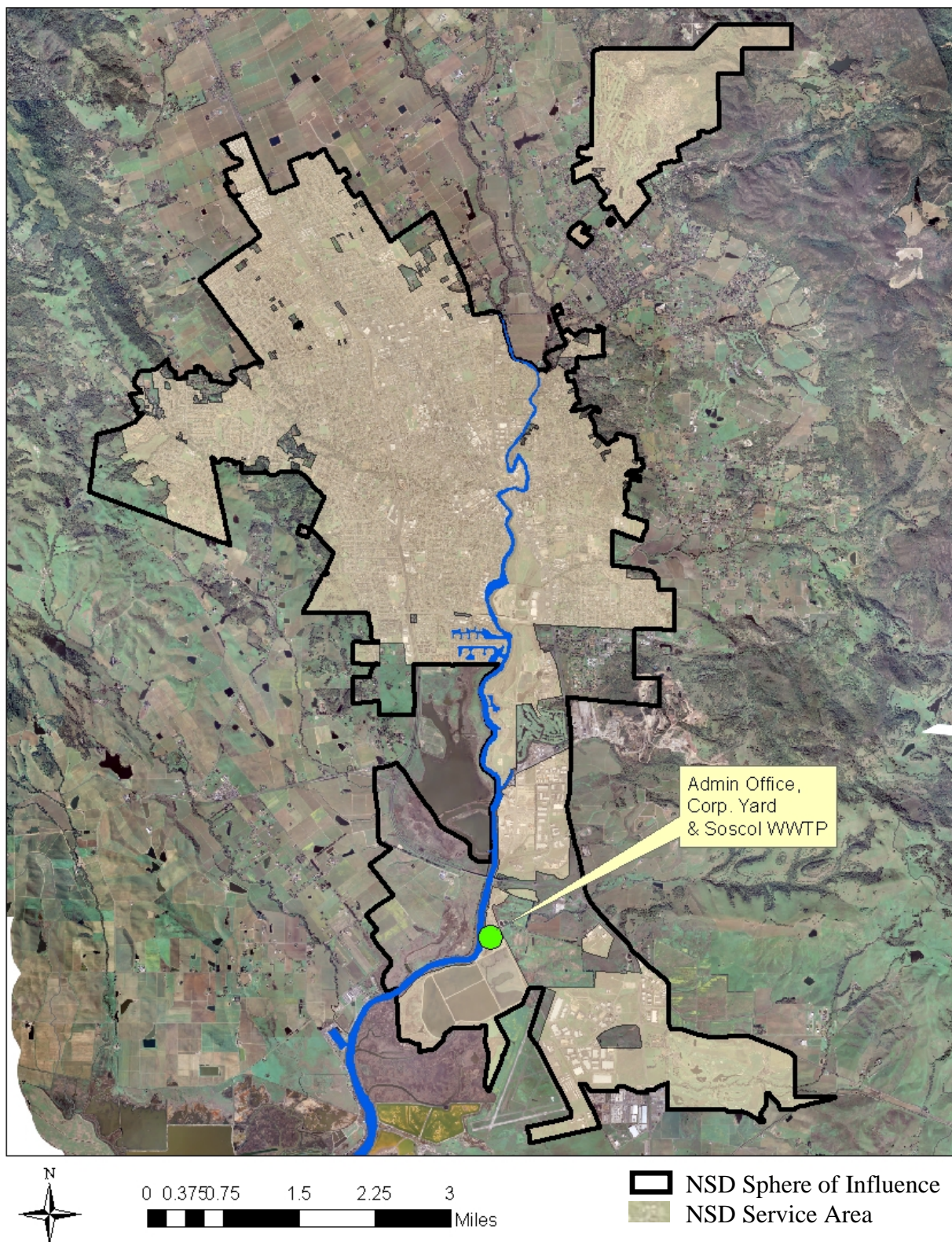
**Napa Sanitation District  
Position Control Roster**

As adopted on July 1

<b>Position Series (excluding Board Members)</b>	<b>FY 13/14 Adopted</b>	<b>FY 14/15 Adopted</b>	<b>FY 15/16 Adopted</b>	<b>FY 16/17 Proposed</b>
<b>General Manager's Office</b>				
General Manager	1	1	1	1
Assistant General Manager	1	1	-	-
<b>Administrative Services</b>				
Director of Administrative Services/Chief Financial Officer	1	1	1	1
<b>Human Resources</b>				
Clerk to the Board/Human Resources Officer	1	1	1	1
<b>Accounting</b>				
Senior Accountant	1	1	1	1
Accountant	1	1	1	1
Senior Office Assistant	1	-	-	-
Office Assistant	1	-	-	-
Administrative Assistant I/II	-	2	2	2
Management Analyst & Outreach Coordinator	1	1	-	-
<b>Safety, Training and Fleet Maintenance</b>				
Safety, Training & Fleet Maintenance Officer	1	1	1	1
<b>Operations Services</b>				
Director of Operations Services	-	-	1	1
<b>Collections System Maintenance</b>				
Collection System Manager	1	1	1	1
Collection System Supervisor	1	1	1	1
Collection System Technician	1	1	1	1
Collection System Worker III	1	1	2	2
Collection System Worker IT/I/II	9	9	8	10
<b>Treatment Plant Operations</b>				
Plant Manager	1	1	-	-
Plant Operations Supervisor	1	1	1	1
Operator OIT/I/II/III	7	7	7	7
<b>Treatment Plant Maintenance</b>				
Plant Maintenance Supervisor	1	1	1	1
Equipment Maintenance Specialist I/II	3	3	4	4
Plant Attendant	1	1	1	1
<b>Water &amp; Biosolids Reclamation</b>				
Reclamation Systems Manager	1	1	1	1
Reclamation Maintenance Worker I/II	3	3	2	2
<b>Technical Services</b>				
Director of Technical Services	-	-	1	1
<b>Engineering</b>				
Capital Projects Manager/Senior Civil Engineer	1	1	1	1
Junior/Assistant/Associate Engineer	3	3	2	2
Asset Management Analyst	-	-	1	1
District Inspector I/II	2	2	2	2
<b>Regulatory Compliance</b>				
Regulatory Compliance Manager	-	-	1	1
Lab Supervisor	1	1	-	-
Laboratory Technician I/II	3	3	3	3
<b>Pollution Prevention and Outreach</b>				
Pollution Prevention and Outreach Specialist	-	-	1	1
<b>Totals</b>	<b>51</b>	<b>51</b>	<b>51</b>	<b>53</b>

## Napa Sanitation District

## Map of NSD Service Area





## Budget Summary

### *Fund Structure*

The District has one fund. This fund includes all District revenues, including restricted revenues. The fund also includes all District expenditures, including operating expenditures, debt service and capital expenditures. Under this structure, restricted revenues (including associated interest earnings) are still accounted for separately and discretely, as required by state law.

### *Basis of Accounting*

The Basis of Accounting refers to the specific time and method at which revenues and expenses are recognized in the accounts and reported in the financial statements. The Basis of Accounting for the District in its financial statements is full accrual. However, the budget is adopted on a modified accrual basis of accounting consistent with Generally Accepted Accounting Principles (GAAP). Under the modified accrual basis, revenues are recognized when they are susceptible to accrual, i.e., when they become both measurable and available. “Measurable” means the amount can be determined and “available” means collectible within the current period or soon enough thereafter to be used to pay liabilities of the current period.

Expenditures are recorded when the related liability is incurred. Capital expenditures and debt principal payments are included in the annual adopted budget and used as a limit on expenditures, but these expenses are removed when recorded in the financial statements to conform to GAAP.

### *Basis of Budgeting*

The District’s budgetary procedures conform to state regulations and Generally Accepted Accounting Principles. While the District uses full accrual accounting in its annual financial statements, the District uses a modified accrual basis of accounting for budgeting and reporting on budgeted versus actual expenditures in its monthly and quarterly reports. The following are some of the differences between the way the District budgets and the way it accounts for revenues and expenses in its financial statements:

- Grant revenues are budgeted on a modified cash basis rather than an accrual basis;

- Fixed assets are depreciated for some financial reporting, but are fully expensed in the year acquired for budgetary purposes; and
- Capital expenditures and debt principal payments are budgeted as expenses for budget authority and compliance purposes but are removed in annual financial reporting.

The District budgets this way so that it is easier for rate payers and stakeholders to see and track different types of expenses within the budget.

### *Budget Appropriation*

Budgets are adopted for all expenditures of the District. Total operating expenses and total capital expenses are adopted as separate appropriations. The General Manager is authorized to transfer an unlimited amount of appropriation between operating departments so long as the total operating expense appropriation does not increase. The General Manager is also authorized to transfer appropriation between capital projects as long as the total capital appropriation does not increase.

Only the Board of Directors can increase the total allowable operating and capital appropriations. The General Manager is authorized to hire regular employees up to the number approved by the Board of Directors, in accordance with the Position Control Roster.

Budget appropriations lapse at the end of the fiscal year. Unspent amounts on specific capital and operations projects may be carried forward to the following fiscal year only with the authorization of the Board of Directors.

### *Budget Development Process*

The budget process begins each year with a review of current expenditures, to determine how well the budget plan is working. Unanticipated expenses are identified, and revenue and expenditure patterns are analyzed. This information is presented to the Finance Committee, a subcommittee of the full Board of Directors. With this information, the Finance Committee, the General Manager and the Chief Financial Officer develop recommendations on assumptions and policy direction for the next budget year. These recommendations are brought to the full Board of Directors for input and approval.

With this direction, department managers develop line item proposals. At the same time, the Capital Program Manager works with department managers

to update the Ten-Year Capital Improvement Plan (CIP). Proposals are made to the Chief Financial Officer and General Manager, who review the proposals and make changes, as appropriate.

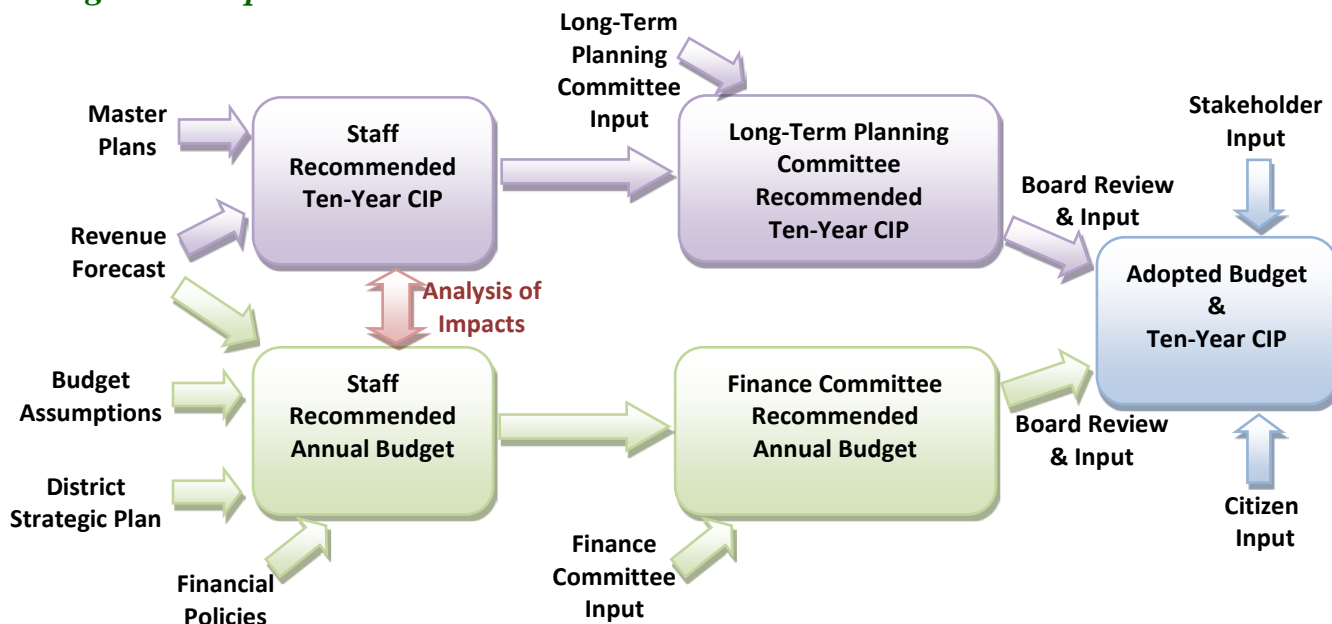
The proposed Operating Budget is provided to the Finance Committee, a subcommittee of the Board of Directors, who reviews the budget for consistency with the Board's budget direction and to ensure that there are adequate resources aligned to meet Board priorities. The proposed CIP is provided to the Long Term Planning Committee, a subcommittee of the Board of Directors, to review the CIP. Both committees make reports and recommendations to the full Board of Directors.

The proposed budget and CIP are presented to the Board of Directors, and meetings are held to seek input from interested stakeholders and the general public. The Board can direct staff to make changes to the proposed budget. All of the changes are then compiled and presented to the Board for final adoption of the budget and CIP.

### ***Budget Amendment Process***

During the year, the budget can be increased through a budget amendment resolution, voted on and approved by a majority of the Board of Directors during a regular board meeting. There is no legal restriction on the amount or frequency that the budget can be amended.

### ***Budget Development Process***



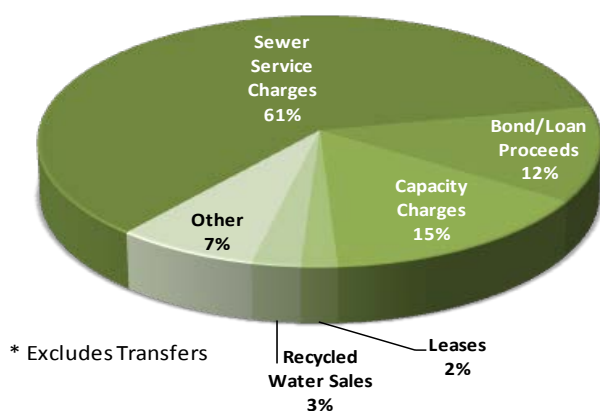
### ***Budget Calendar for FY 2016/17***

<b>Jan. 11, 2016</b>	Finance Committee meeting, to discuss budget development calendar, assumptions for next year, and policy direction.
<b>Feb. 3, 2016</b>	Budget direction and assumptions confirmed with Board of Directors.
<b>Jan. to March</b>	Staff develops proposed budget and Ten-Year CIP.
<b>March 16, 2016</b>	Proposition 218 Hearing for Sewer Service Charge increase.
<b>April 11, 2016</b>	Finance Committee makes recommendations.
<b>April 12, 2016</b>	Long Term Planning Committee reviews Ten-Year CIP and makes recommendations.
<b>May 4, 2016</b>	Board of Directors receives and discusses the Proposed Operating Budget for FY 2016/17.
<b>May 18, 2016</b>	Board of Directors receives and discusses the Ten-Year CIP for FY 2016/17 through FY 2025/26.
<b>June 1, 2016</b>	Board of Directors adopts the FY 2016/17 Operating and Capital Budget and Ten-Year CIP.

## Sources of Funds/Revenues

The District has a stable revenue foundation, with 61% of the District's operating revenues coming from sewer service charges collected as assessments on property tax bills (excluding grants, intergovernmental revenue and loan proceeds, the number is closer to 75%). Other significant revenue sources include capacity charges, recycled water sales, waste hauler fees, land leases, and interest earnings.

### Sources of Funds Total\* = \$37,042,500



**Sewer service charges (SSC's)** are the fees charged to residences and businesses for sewer use. For most residences and businesses, these fees are paid annually as assessments on property tax bills. Some industrial and commercial customers are charged monthly, rather than annually, based either on water usage or actual sewer flows.

Sewer service charges are a highly distributed revenue source for the District. The top ten sewer service customers represent only 9.4% of revenue from this category. This lack of concentration equates to a more stable revenue stream and is less susceptible to fluctuations in the economy or local business climate.

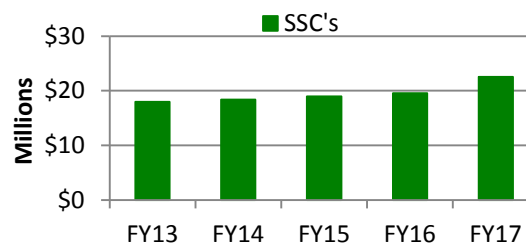
Sewer service charges are subject to California's Proposition 218, which requires that increases to the fee be noticed to all property owners, with the opportunity to protest the increase through letters and statements at a public hearing. If there is a majority of the property owners in protest of the fee increase, the increase cannot proceed.

The District followed the Proposition 218 process in 2016, providing the necessary notices and holding public hearings. At that time, the fee was set to increase annually. The fee is set to increase in FY 2016/17 from \$482.50 to \$554.88 per Equivalent Dwelling Unit (EDU). For the following years, the rate can increase up to the maximum amounts shown in the chart below, but the actual amounts will be set by the Board annually.

### Sewer Service Charges History and Projection

	Charge per EDU	% Increase
FY 11/12	\$435.44	1.5%
FY 12/13	\$448.06	2.9%
FY 13/14	\$457.92	2.2%
FY 14/15	\$469.82	2.6%
FY 15/16	\$482.50	2.7%
<b>FY 16/17</b>	<b>\$554.88</b>	<b>15.0%</b>
FY 17/18	\$638.10	15.0%
FY 18/19	\$676.39	6.0%
FY 19/20	\$710.21	5.0%
FY 20/21	\$738.62	4.0%

Sewer service charges revenue is forecasted for FY 2016/17 based on the estimated number of EDUs and the sewer service charge fee of \$554.88 per EDU. The total budgeted revenue is adjusted by a small percentage to account for delinquencies and non-payments.

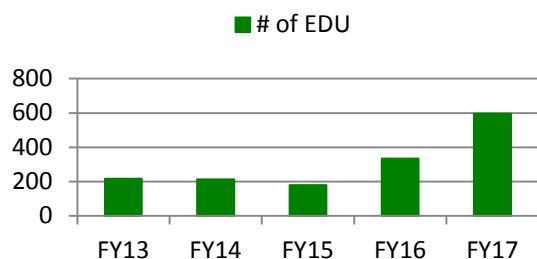


**Grants and intergovernmental** revenues are those revenues that are paid to the District by another government, specifically for performing some specific task. In FY 2016/17, the District will receive reimbursement from CalTRANS for construction of a new sewer line in conjunction with improvements on Sarco Bridge.

**Capacity charges**, sometimes referred to as "connection fees" or "impact fees," are fees paid by developers to pay for expanded capacity in the sewer collection and treatment systems to convey and treat wastewater. They are also paid by

commercial or industrial customers who expand the use of sewer services at their facilities.

Capacity charges are forecasted for the next year based on the cost per EDU and an assumed growth rate of 595 EDU being developed during the fiscal year. The growth was projected to be higher than the average of the last several years based on the significant hotel projects (395 EDU) that are in the planning phase and expected to pay fees in FY17.



In September 2010, the Board of Directors approved a phased-in increase to the capacity charges. Prior to that date, the fee had not increased since 1995. The annual capacity charge fee increase is now based on the Engineering News Record Construction Cost Index for San Francisco (February-to-February). For February 2016, there was a 0.0% increase to the index compared to prior year, so this fee will not increase in FY 2016/17.

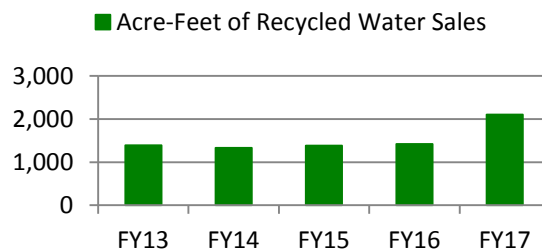
#### Capacity Charges Fee Schedule

1995 - 2011	\$5,660 per EDU
Jan. 1, 2012	Increase to \$6,000 per EDU
July 1, 2012	Increase to \$7,000 per EDU
July 1, 2013	Increase to \$8,300 per EDU
July 1, 2014	Increase to \$8,723 per EDU
July 1, 2015	Increase to \$8,950 per EDU
July 1, 2016	No Change - \$8,950 per EDU

**Recycled Water Sales** are collected from customers who purchase recycled water from the District. Most recycled water is used for landscape irrigation or agriculture. The demand for recycled water is almost exclusively during the May to October period.

Recycled water sales are forecast to be about 2,100 acre-feet (684 million gallons), which includes an increase of recycled water usage compared to historical averages due to the completion of both the MST and Los Carneros Water District Recycled

Water Pipeline projects.

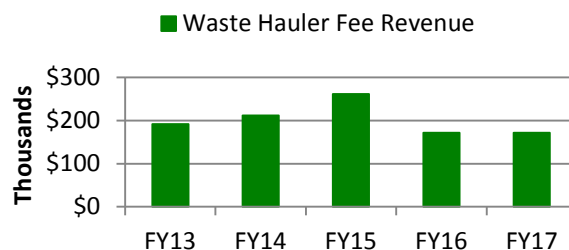


In 2016, the rates increased to \$1.57 per 1,000 gallons in the peak demand period, with lower rates for off-peak use and for those customers that enter long-term contracts for significant water use. In 2017, the rate is estimated to increase to \$1.61 per 1,000 gallons.

Recycled water sales are affected by the weather. Cooler, wetter spring and summer months result in less need to irrigate and therefore lower volumes of water are sold.

As a result of the drought, recycled water sales have increased in FY15 and FY16. However, FY17 assumes a “typical” year for weather.

**Waste Hauler Fees** are fees collected from private companies who have been permitted to collect septage from private residences and companies not connected to the District’s sewerage works and dispose of that waste at the wastewater treatment plant. In FY 2012/13, the District started accepting Fats, Oil and Grease (FOG) waste generated at food service establishments.



Revenues are forecasted based on trends experienced the prior year. Forecast fee revenues for FY 2016/17 are flat for septage and FOG haulers, based on monthly trends seen the past year.

**Land Leases** generate revenue for the District. The District currently leases a couple of parcels of land. One lease has an inflation factor identified within it, while the other does not. The revenue forecast is set based on these lease contracts.

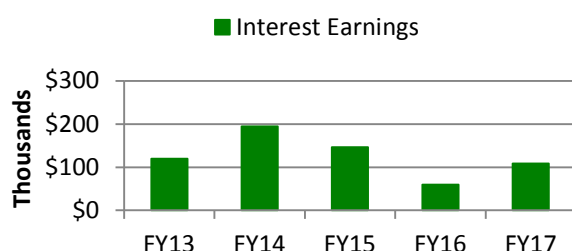


<b>REVENUE - ALL SOURCES</b>						
<b>Account Description</b>	<b>Actual FY 13/14</b>	<b>Actual FY 14/15</b>	<b>Budget FY 15/16</b>	<b>Estimated FY 15/16</b>	<b>Proposed FY 16/17</b>	<b>Percent Change</b>
<b><u>780 - Operations</u></b>						
Interest: Invested Funds	99,944	129,206	50,000	50,000	75,000	50.0%
Rent - Building/Land	728,825	712,553	716,000	716,000	719,000	0.4%
Construction/Bldg Permit Review Svcs	29,753	25,196	95,000	180,000	184,500	94.2%
Hauler Fees	212,042	261,593	236,000	172,000	172,000	(27.1%)
Sewer Usage Fees	18,665,200	19,190,534	19,534,000	19,734,000	22,514,000	15.3%
Penalties on Delinquent Sewer Fees	37,796	41,439	25,000	-	-	(100.0%)
Recycled Water Sales	396,802	415,797	507,000	507,000	958,000	89.0%
Forfeitures and Penalties	11,733	(5,334)	-	-	-	-
Miscellaneous	92,784	113,208	118,000	67,000	69,000	(41.5%)
<b>Total - Operations</b>	<b>20,274,878</b>	<b>20,884,192</b>	<b>21,281,000</b>	<b>21,426,000</b>	<b>24,691,500</b>	<b>16.0%</b>
<b><u>781 - Capital Improvement Projects</u></b>						
Interest: Invested Funds	146,358	17,635	27,000	10,000	34,000	25.9%
Federal Grants - USBR	2,245,400	3,586,966	4,838,700	4,838,700	300,000	(93.8%)
Other Government Agencies	505,406	7,794,763	17,132,400	17,132,400	1,950,000	(88.6%)
Miscellaneous	98,332	38,064	-	-	-	-
Bond/Loan Proceeds	-	-	15,200,000	-	4,550,000	(70.1%)
Sale of Capital Assets	2,848,164	21,518	-	-	-	-
Interfund Transfers In	-	-	-	-	-	-
Intrafund Transfers In	18,070,283	17,848,830	12,248,000	-	14,412,000	17.7%
<b>Total - Capital Improvement Projects</b>	<b>23,913,943</b>	<b>29,307,776</b>	<b>49,446,100</b>	<b>21,981,100</b>	<b>21,246,000</b>	<b>(57.0%)</b>
<b><u>782 - Expansion</u></b>						
Interest: Invested Funds	154	200	-	-	-	-
Capacity Charges	1,774,081	1,568,328	2,998,000	2,998,000	5,512,000	83.9%
<b>Total - Expansion</b>	<b>1,774,235</b>	<b>1,568,528</b>	<b>2,998,000</b>	<b>2,998,000</b>	<b>5,512,000</b>	<b>83.9%</b>
<b>Total - All Departments</b>	<b>45,963,057</b>	<b>51,760,496</b>	<b>73,725,100</b>	<b>46,405,100</b>	<b>51,449,500</b>	<b>(30.2%)</b>

**Interest Earnings** is the revenue the District receives on idle cash and reserves that it maintains in its accounts. Cash is invested by the County of Napa Treasurer on the District's behalf and in accordance with state law, and posted to the District's funds quarterly. For most of the past five years, the Federal Funds rate was between 0.07%-0.16%. This is the rate to

which most allowable investments trend. These rates have equated to an investment rate for the District of approximately 0.5%, depending on liquidity needs and the specific investments made. The Federal Reserve increase rates in fall 2015 by 0.25%, but are not expected to raise rates again for some time.

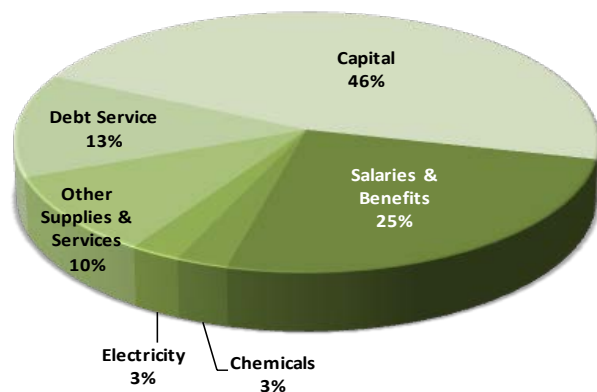
For FY 2016/17, the District has assumed an earnings rate of 0.75% for the entire year. The overall revenue this year is high because of the increased rate and additional cash balances at certain times of the year.



## Uses of Funds/Expenditures

The District expenses can be described in four major categories: salaries and benefits, services and supplies, capital expenses and debt service.

### Uses of Funds Total\* = \$37,042,500



\* Excludes Transfers

**Salaries and benefits** are those expenses related to payroll and staffing. They include salary and wages of employees, overtime, payroll taxes such as Medicare, health insurance benefits, and retirement benefits. This category also includes expenses for funding the District's OPEB ("Other Post Employment Benefits") liability.

New labor agreements went into effect on July 1, 2014, and will expire on June 30, 2020. Salaries will increase 2.5% for a cost of living adjustment per the new agreements. Individual salaries were also adjusted, with some employees moving up steps within their current classification, and vacancies budgeted at the bottom step. There are also two new Collection System Worker positions included in the

budget. Overall, salaries are budgeted to increase 3.8% over prior year.

Health benefits are known for the first two quarters in FY 2016/17. The budget assumes a 7% increase in employer costs for the last two quarters.

Retirement benefits are budgeted based on a percentage of budgeted salary. That percentage is determined by CalPERS based on actuarial assumptions regarding retirement rates and investment earnings. Prior to the new MOUs, the District paid both the employer and employee contribution for retirement benefits. In the new MOUs, the employees will pick up 3% of the employee contribution for FY 2016/17. The retirement cost budget is expected to increase by 2.0%.

Payments in lieu of health benefits are expected to increase by 4.0%. A decrease per person eligible is built into the projections, but in the prior year the District saw an increase in the number of employees who opted out of health insurance, thus increasing the in lieu payments overall. The net impact is a savings to the District.

Workers' compensation insurance costs are higher than prior year by 5.5%, due to an increase in the Experience Modification Rate from 0.84 to 0.89.

In total, salaries and benefits increase 3.6% over the prior fiscal year.

**Services and supplies** include the purchase of supplies and equipment to maintain and operate the various systems in the District. It also includes a number of service contracts and professional contracts. In the pie chart in this section, this category has been further broken down into chemicals and electricity, as these are the two largest supply expenses.

**EXPENSES - OPERATING AND CAPITAL**

<b>Account Description</b>	<b>Actual FY 13/14</b>	<b>Actual FY 14/15</b>	<b>Adj. Budget FY 15/16</b>	<b>Estimated FY 15/16</b>	<b>Proposed FY 16/17</b>	<b>Percent Change</b>
Salaries & Benefits	\$7,808,764	\$8,122,300	\$9,054,200	\$7,816,135	\$9,382,370	3.6%
Services & Supplies	4,956,172	4,676,433	5,724,050	5,417,036	5,568,307	(2.7%)
Capital Expenses	20,120,117	38,619,401	33,448,000	32,048,000	16,755,700	(49.9%)
Debt Service	4,769,367	4,550,460	4,779,200	4,779,200	4,773,050	(0.1%)
Taxes & Assessments	24,022	25,160	28,250	25,006	28,250	-
Transfers	1,657,000	6,887,500	7,900,000	7,900,000	8,900,000	12.7%
<b>Total All Expenses</b>	<b>\$39,335,441</b>	<b>\$62,881,254</b>	<b>\$60,933,700</b>	<b>\$57,985,378</b>	<b>\$45,407,677</b>	<b>(25.5%)</b>
<b>Total w/o Transfers</b>	<b>\$37,678,441</b>	<b>\$55,993,754</b>	<b>\$53,033,700</b>	<b>\$50,085,378</b>	<b>\$36,507,677</b>	<b>(31.2%)</b>

Total services and supplies for FY 2016/17 are budgeted to be 2.7% lower than the prior fiscal year. One-time only projects in the prior year were removed, lowering the overall budget. Electricity remained flat, even with expanded recycled water distribution expected in FY 2016/17, because of anticipated savings from the solar and stationary storage projects. The chemicals budget is anticipated to increase almost 25% to account for increases in both unit costs and usage.

**Capital expenses** include expenses to build or acquire any capital asset, or to rehabilitate and extend the useful life of existing assets. Details of these expenses can be found in the Ten-Year Capital Improvement Plan (CIP), later in this budget document. Significant projects in the FY 2016/17 capital plan include the Basin L – I&I Reduction Project 5, the ACP mains rehabilitation project, the Browns Valley Trunk Sewer Interceptor project and related improvements at West Napa Pump Station, a project to line the recycled water reservoirs, and replacement of the aeration basin diffusers and associated installation of instrumentation and controls. The plan also includes the replacement of the sewer across Sarco Bridge, and an extension of recycled water pipeline on Coombsville Road in the MST, both of which are paid by other agencies.

**Debt service** includes the principal and interest payments for all of the District's outstanding loans. Debt service is approximately \$4.8 million and is anticipated to remain at that level until FY 2018/19, when the debt service for the Browns Valley Road

Sewer Interceptor project begins. More details on this new debt issuance can be found in the Debt section of this budget document.

**Transfers Out** represent the following intrafund transfers:

- from Operations into the Capital Projects account (\$8,900,000)
- from Expansion into the Capital Projects account (\$5,512,000)

These intrafund transfers are between accounts that are segregated for accounting or legal purposes, and they have no positive or negative impact on the overall financial position of the District.

### **Fund Equity**

Fund equity, for the basis of the District's budgeting and financial planning purposes, is defined as current assets including restricted assets, less current liabilities excluding capital-related liabilities. This number is meant to represent the amount of cash that the District has available to commit to operating or capital expenses now or in the future, and is comparable to Fund Balance in governmental-type funds. For FY 2016/17, the estimated Ending Fund Equity is \$104,820 higher than the Beginning Fund Equity for the fiscal year.

## Financial Overview

	<b>FY 13/14 Actuals</b>	<b>FY 14/15 Actuals</b>	<b>FY 15/16 Budget</b>	<b>FY 15/16 Estimate</b>	<b>FY 16/17 Budget</b>
<b>Beginning Fund Equity</b>	<b>\$46,516,757</b>	<b>\$37,082,086</b>	<b>\$18,820,600</b>	<b>\$18,820,600</b>	<b>\$14,510,300</b>
<b>Revenues</b>					
Use of Money/Property	\$975,283	\$859,594	\$793,000	\$776,000	\$828,000
Charges for Services	21,127,447	21,497,554	23,370,000	23,591,000	29,340,500
Intergovernmental	2,769,935	11,453,896	21,971,100	21,971,100	2,250,000
Bond Proceeds	0	0	15,200,000	0	4,550,000
Sale of assets	2,848,164	21,518	0	0	0
Miscellaneous Revenues	170,110	79,103	143,000	67,000	69,000
<b>Total Revenues</b>	<b>\$27,890,939</b>	<b>\$33,911,665</b>	<b>\$61,477,100</b>	<b>\$46,405,100</b>	<b>\$37,037,500</b>
<b>Operating Expenditures</b>					
Salaries and Benefits	\$6,966,672	\$6,955,714	\$9,054,200	\$7,867,360	\$9,382,370
Services and Supplies	4,956,175	4,676,836	5,724,050	5,418,880	5,568,310
Taxes and Assessments	24,022	25,160	28,250	25,010	28,250
Debt Service	4,769,367	4,772,926	4,779,200	4,779,200	4,773,050
<b>Total Operating Expenditures</b>	<b>\$16,716,236</b>	<b>\$16,430,636</b>	<b>\$19,585,700</b>	<b>\$18,090,450</b>	<b>\$19,751,980</b>
Capital Expenditures	\$20,120,117	\$38,619,401	\$33,448,000	\$32,625,000	\$17,180,700
GAAP Adjustments	489,257	(2,876,886)	0	0	0
<b>Total Expenditures</b>	<b>\$37,325,610</b>	<b>\$52,173,151</b>	<b>\$53,033,700</b>	<b>\$50,715,450</b>	<b>\$36,932,680</b>
<b>Ending Fund Equity</b>	<b>\$37,082,086</b>	<b>\$18,820,600</b>	<b>\$27,264,000</b>	<b>\$14,510,250</b>	<b>\$14,615,120</b>
Operating Reserve	\$2,056,000	\$2,085,000	\$2,227,000	\$2,227,000	\$2,243,000
Debt Reserve	1,990,000	1,990,000	1,990,000	1,990,000	1,990,000
Operating Cash Flow Reserve	8,000,000	8,240,000	10,987,000	10,987,000	10,375,000
<b>Total Reseves</b>	<b>\$12,046,000</b>	<b>\$12,315,000</b>	<b>\$15,204,000</b>	<b>\$15,204,000</b>	<b>\$14,608,000</b>
<b>Available for Use</b>	<b>\$25,036,086</b>	<b>\$6,505,600</b>	<b>\$12,060,000</b>	<b>(\$693,750)</b>	<b>\$7,120</b>
(Fund Equity minus Reserves)					

*The numbers above are net of transfers in and out.*

## Reserves

The District manages three distinct reserves. The first reserve is an **operating reserve** designed to assist the District during emergencies. This reserve is maintained at 15% of annual operating expenses, excluding debt service and transfers.

The second reserve is an **operating cash flow reserve**. This reserve is the amount of cash necessary for the District to have on hand on July 1 to cover its anticipated expenses through the summer and fall until the District receives the bulk of its operating revenues (sewer services charges collected as property assessments) in December.

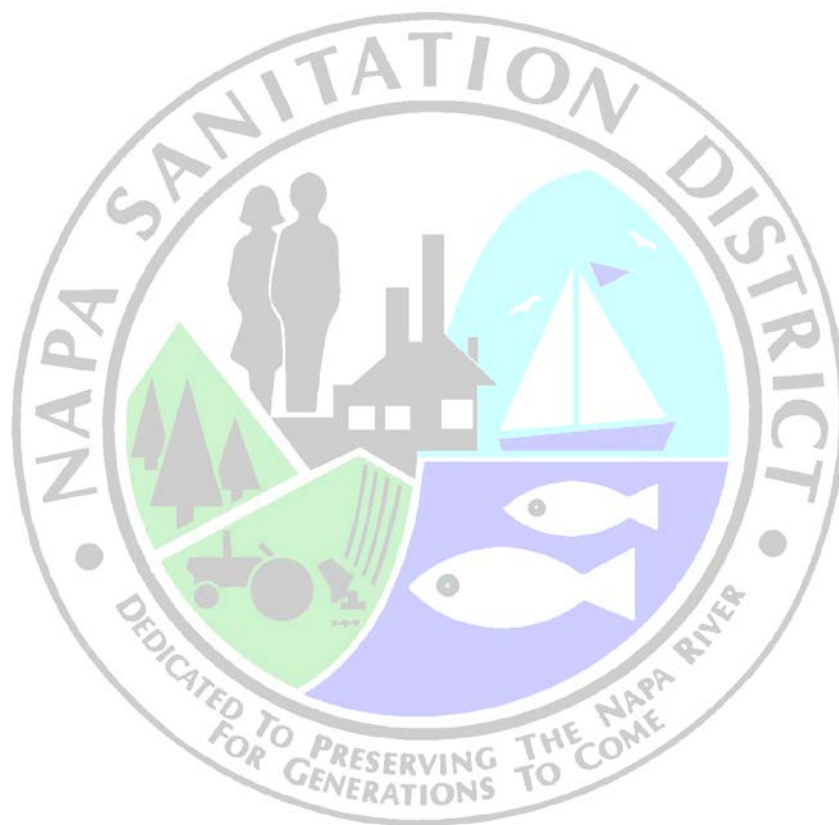
The third reserve is a **debt reserve** held in trust by a third party. This reserve is a requirement of bond covenants and is used to ensure that debt service payments will be made in full and on time.

## GFOA Budget Award

The Government Finance Officers Association of the United States and Canada (GFOA) presented the Distinguished Budget Presentation Award to Napa Sanitation District, California for its annual budget for the fiscal year beginning July 1, 2015. 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. District staff believes that this current FY 2016/17 budget continues to conform to program requirements and will be submitting it to GFOA to determine its eligibility for another award.





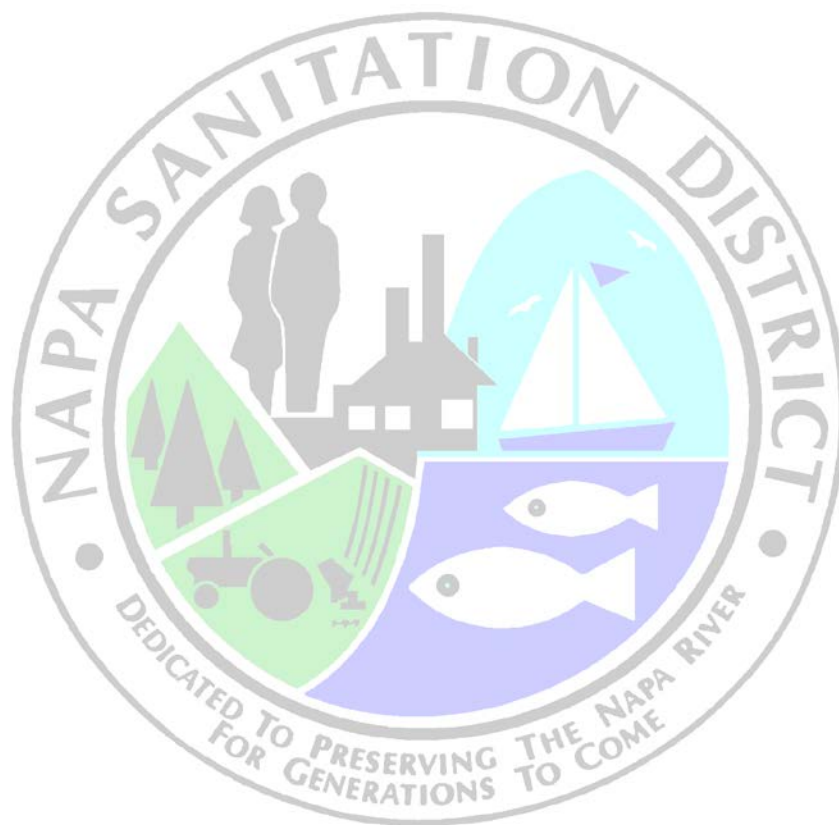
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## Detailed Tables of Revenues and Operating Expenditures



*Recycled Water Pump Station – Soscol Water Recycling Facility*



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**Napa Sanitation District  
FY 2016/17 Proposed Budget**

**REVENUE - ALL SOURCES**

<b>Account Description</b>	<b>Actual FY 13/14</b>	<b>Actual FY 14/15</b>	<b>Budget FY 15/16</b>	<b>Estimated FY 15/16</b>	<b>Proposed FY 16/17</b>	<b>Percent Change</b>
<b><u>780 - Operations</u></b>						
Interest: Invested Funds	99,944	129,206	50,000	50,000	75,000	50.0%
Rent - Building/Land	728,825	712,553	716,000	716,000	719,000	0.4%
Construction/Bldg Permit Review Svcs	29,753	25,196	95,000	180,000	184,500	94.2%
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Miscellaneous	92,784	113,208	118,000	67,000	69,000	(41.5%)
<b>Total - Operations</b>	<b>20,274,878</b>	<b>20,884,192</b>	<b>21,281,000</b>	<b>21,426,000</b>	<b>24,691,500</b>	<b>16.0%</b>
<b><u>781 - Capital Improvement Projects</u></b>						
Interest: Invested Funds	146,358	17,635	27,000	10,000	34,000	25.9%
Federal Grants - USBR	2,245,400	3,586,966	4,838,700	4,838,700	300,000	(93.8%)
Other Government Agencies	505,406	7,794,763	17,132,400	17,132,400	1,950,000	(88.6%)
Miscellaneous	98,332	38,064	-	-	-	-
Bond/Loan Proceeds	-	-	15,200,000	-	4,550,000	(70.1%)
Sale of Capital Assets	2,848,164	21,518	-	-	-	-
Interfund Transfers In	-	-	-	-	-	-
Intrafund Transfers In	18,070,283	17,848,830	12,248,000	-	14,412,000	17.7%
<b>Total - Capital Improvement Projects</b>	<b>23,913,943</b>	<b>29,307,776</b>	<b>49,446,100</b>	<b>21,981,100</b>	<b>21,246,000</b>	<b>(57.0%)</b>
<b><u>782 - Expansion</u></b>						
Interest: Invested Funds	154	200	-	-	-	-
Capacity Charges	1,774,081	1,568,328	2,998,000	2,998,000	5,512,000	83.9%
<b>Total - Expansion</b>	<b>1,774,235</b>	<b>1,568,528</b>	<b>2,998,000</b>	<b>2,998,000</b>	<b>5,512,000</b>	<b>83.9%</b>
<b>Total - All Departments</b>	<b>45,963,057</b>	<b>51,760,496</b>	<b>73,725,100</b>	<b>46,405,100</b>	<b>51,449,500</b>	<b>(30.2%)</b>

**Napa Sanitation District  
FY 2016/17 Budget**

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**OPERATING EXPENDITURES - ALL ACCOUNTS**

Account	Account Description	Actual FY 13/14	Actual FY 14/15	Budget FY 15/16	Adjust- ments	Adj. Budget FY 15/16	Estimated 15/16	Proposed FY 16/17	Percent Change
51100	Salaries and Wages	4,369,312	4,421,747	4,852,080	-	4,852,080	4,285,980	5,038,060	3.8%
51115	Overtime	213,788	208,330	204,050	-	212,550	190,240	191,000	(10.1%)
51120	Holiday Pay	9,075	10,063	9,050	-	9,050	6,950	9,000	(0.6%)
51130	Vacation Payout	20	39,466	-	-	-	500	9,300	-
51200	457B Employer Contribution	-	72,658	81,000	-	81,000	80,400	85,200	5.2%
51205	Cell Phone Allowance	3,615	5,928	7,340	-	7,340	6,580	8,800	19.9%
51210	Director Pay	27,070	29,392	23,200	-	23,200	19,850	23,200	0.0%
51300	Medicare	68,089	69,828	70,710	-	70,710	65,640	73,480	3.9%
51305	F.I.C.A. / Social Security	1,678	1,822	1,400	-	1,400	920	1,400	0.0%
51400	Employee Insurance - Premiums	1,222,107	1,202,750	1,438,580	-	1,438,580	1,226,250	1,523,610	5.9%
51405	Workers Compensation	85,623	128,653	131,150	-	131,150	79,590	138,420	5.5%
51410	Unemployment Compensation	-	-	-	-	-	-	-	-
51600	Retirement	1,498,798	1,593,363	1,835,650	-	1,835,650	1,531,410	1,873,270	2.0%
51605	Other Post Employment Benefits	192,894	214,454	290,450	-	290,450	243,560	302,510	4.2%
51990	Other Employee Benefits	116,695	123,847	101,040	-	101,040	129,490	105,120	4.0%
<b>Subtotal Salaries &amp; Benefits</b>		<b>\$7,808,764</b>	<b>\$8,122,300</b>	<b>\$9,045,700</b>	<b>-</b>	<b>\$9,054,200</b>	<b>\$7,867,360</b>	<b>\$9,382,370</b>	<b>3.6%</b>
52115	Property Tax/Assessment Admin	12,191	12,215	12,500	-	12,500	12,240	12,500	0.0%
52125	Accounting/Auditing Services	62,242	61,844	70,000	-	70,000	64,000	66,000	(5.7%)
52130	Information Technology Services	285,605	332,120	342,100	-	342,100	342,100	337,007	(1.5%)
52140	Legal Services	120,023	88,610	207,500	-	207,500	158,370	251,350	21.1%
52145	Engineer Services	-	52,127	-	17,500	17,500	17,500	-	(100.0%)
52150	Temporary/Contract Help	60,522	73,621	70,700	-	70,700	95,040	82,550	16.8%
52205	Actuarial Services	3,600	2,550	8,000	-	8,000	8,000	3,000	(62.5%)
52220	Medical/Laboratory Services	62,769	29,841	38,850	-	38,850	37,350	39,453	1.6%
52305	Training Services	15,998	11,895	19,500	-	19,500	12,030	23,450	20.3%
52310	Consulting Services	147,112	188,644	611,200	18,000	629,200	311,150	224,200	(64.4%)
52325	Waste Disposal Services	40,631	40,088	46,750	-	46,750	53,100	46,900	0.3%
52330	Hazardous Waste Disposal Services	4,322	3,783	5,000	-	5,000	5,000	5,000	0.0%
52335	Security Services	12,598	12,861	12,100	-	12,100	12,800	12,800	5.8%
52340	Landscaping Services	6,500	8,250	19,200	-	19,200	19,800	40,100	108.9%
52345	Janitorial Services	56,549	58,132	59,650	-	59,650	60,000	61,200	2.6%
52490	Other Professional Services	296,461	176,562	390,850	60,300	451,150	327,430	391,600	(13.2%)
52500	Maintenance - Equipment	165,093	106,517	174,800	15,600	190,400	192,960	167,800	(11.9%)
52505	Maintenance - Bldgs/Improvements	82,100	65,333	89,900	-	89,900	102,700	89,450	(0.5%)
52515	Maintenance - Software	56,719	59,543	58,350	15,000	73,350	73,150	65,950	(10.1%)
52520	Maintenance - Vehicles	95,174	140,201	82,400	-	82,400	86,760	90,950	10.4%
52600	Rents and Leases - Equipment	64,202	64,961	65,000	-	65,000	73,960	80,750	24.2%
52605	Rents and Leases - Buildings/Land	1,139	1,157	1,400	-	1,400	1,400	1,400	0.0%
52705	Insurance - Premiums	181,177	176,615	177,050	-	177,050	182,050	182,050	2.8%
52710	Insurance - Claims	11,137	11,730	15,000	-	15,000	7,500	15,000	0.0%
52800	Communications/Telephone	36,454	35,821	36,800	-	36,800	42,330	44,500	20.9%
52810	Advertising/Marketing	30,146	9,370	38,450	-	38,450	25,500	37,150	(3.4%)
52820	Printing and Binding	1,544	3,116	6,000	-	6,000	11,000	3,500	(41.7%)
52825	Bank Charges	683	795	1,200	-	1,200	1,200	1,200	0.0%
52830	Publications and Legal Notices	2,931	6,713	7,200	-	7,200	4,960	7,050	(2.1%)
52840	Permits/License Fees	121,609	138,270	141,250	-	141,250	131,050	159,250	12.7%
52900	Training/Conference Expenses	63,090	64,397	97,450	-	97,450	70,650	115,500	18.5%
52905	Business Travel/Mileage (Meetings)	1,337	1,393	1,550	-	1,550	1,600	2,300	48.4%
53100	Office Supplies	20,395	21,399	17,650	-	17,650	19,830	18,600	5.4%
53105	Office Supplies - Furniture/Fixtures	13,522	-	300	-	300	10,950	6,900	2200.0%
53110	Freight/Postage	12,928	12,886	16,500	-	16,500	17,300	17,300	4.8%
53115	Books/Media/Subscriptions	2,156	2,341	2,750	-	2,750	3,610	3,900	41.8%
53120	Memberships/Certifications	66,386	67,604	73,250	-	73,250	75,130	80,000	9.2%
53200	Utilities - Gas	18,950	18,767	26,900	-	26,900	26,900	19,900	(26.0%)
53205	Utilities - Electric	782,016	761,485	951,850	-	951,850	1,129,330	947,200	(0.5%)
53215	Utilities - Fire Suppression Systems	833	2,164	2,300	-	2,300	2,300	3,700	60.9%
53220	Utilities - Water	200,151	3,682	4,650	-	4,650	3,900	4,650	0.0%
53250	Fuel	137,216	109,203	124,200	-	124,200	80,230	112,900	(9.1%)

**OPERATING EXPENDITURES - ALL ACCOUNTS**

Account	Account Description	Actual FY 13/14	Actual FY 14/15	Budget FY 15/16	Adjust- ments	Adj. Budget FY 15/16	Estimated 15/16	Proposed FY 16/17	Percent Change
53300	Clothing and Personal Supplies	27,205	32,837	39,000	-	39,000	36,110	41,750	7.1%
53315	Medical/Laboratory Supplies	64,889	69,961	71,750	-	71,750	76,310	75,500	5.2%
53320	Safety Supplies	32,290	31,808	28,300	-	28,300	21,720	32,100	13.4%
53330	Janitorial Supplies	17,855	15,373	17,300	-	17,300	17,750	18,250	5.5%
53340	Chemicals	1,012,159	882,076	779,600	-	779,600	881,410	972,750	24.8%
53350	Maintenance Supplies	329,815	507,409	412,650	9,850	422,500	355,000	403,350	(4.5%)
53360	Infrastructure Repair Supplies	14,014	10,330	12,350	-	12,350	13,550	12,850	4.0%
53400	Minor Equipment/Small Tools	44,969	32,039	43,100	-	43,100	41,800	52,600	22.0%
53410	Computer Equipment/Accessories	8,059	1,022	-	-	-	2,180	3,500	-
53415	Computer Software/Licensing Fees	1,071	682	800	-	800	3,600	1,600	100.0%
53600	Special Department Expense	30,676	37,158	31,100	-	31,100	32,700	46,000	47.9%
53635	Service Awards	7,584	7,879	12,300	-	12,300	9,100	12,300	0.0%
53650	Business Related Meals/Supplies	356	1,194	1,300	-	1,300	1,450	1,650	26.9%
53665	Wellness Reimbursement	8,860	8,058	10,200	-	10,200	10,340	15,150	48.5%
53670	Education Reimbursement	164	-	-	-	-	1,700	3,000	-
<b>Subtotal Services &amp; Supplies</b>		<b>\$4,956,172</b>	<b>\$4,676,433</b>	<b>\$5,587,800</b>	<b>\$136,250</b>	<b>\$5,724,050</b>	<b>\$5,418,880</b>	<b>\$5,568,310</b>	<b>(2.7%)</b>
54100	Principal on Bonds/COPs	2,341,712	2,614,186	2,731,750	-	2,731,750	2,731,750	2,834,350	3.8%
54310	Interest on Bonds/COPs	2,425,830	1,931,414	2,042,350	-	2,042,350	2,042,350	1,933,600	(5.3%)
54320	Administration on Bonds/COPs	1,825	4,860	5,100	-	5,100	5,100	5,100	-
54500	Taxes and Assessments	24,022	25,160	28,250	-	28,250	25,010	28,250	-
57900	Intrafund Expenditures	1,657,000	6,887,500	7,900,000	-	7,900,000	7,900,000	8,900,000	12.7%
<b>Subtotal Other</b>		<b>\$6,450,388</b>	<b>\$11,463,120</b>	<b>\$12,707,450</b>	<b>-</b>	<b>\$12,707,450</b>	<b>\$12,704,210</b>	<b>\$13,701,300</b>	<b>7.8%</b>
<b>TOTALS</b>		<b>\$19,215,324</b>	<b>\$24,261,853</b>	<b>\$27,340,950</b>	<b>\$136,250</b>	<b>\$27,485,700</b>	<b>\$25,990,450</b>	<b>\$28,651,980</b>	<b>4.2%</b>

**Napa Sanitation District  
FY 2016/17 Budget**

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**OPERATING EXPENDITURES - BY MAJOR EXPENSE CATEGORY**

	<b>Actual FY 13/14</b>	<b>Actual FY 14/15</b>	<b>Adj. Budget FY 15/16</b>	<b>Estimated FY 15/16</b>	<b>Proposed FY 16/17</b>	<b>Percent Change</b>
<b>Salaries &amp; Benefits</b>						
Board of Directors	29,753	34,616	25,500	21,460	25,480	(0.1%)
General Manager's Office	366,714	385,339	395,770	345,410	403,570	2.0%
Administrative Services	1,140,922	1,087,687	1,113,610	1,009,700	1,148,040	3.1%
Safety, Training & Fleet Maintenance	155,983	129,953	144,360	141,240	161,560	11.9%
Collection System	1,849,318	2,011,189	2,106,520	1,909,820	2,369,250	12.5%
Treatment Plant Operations	1,386,706	1,514,444	1,625,510	1,425,370	1,644,360	1.2%
Treatment Plant Maintenance	773,446	804,775	1,017,050	845,770	1,045,500	2.8%
Treatment Plant Laboratory	635,666	661,638	699,800	637,180	724,050	3.5%
Engineering	955,789	990,043	1,273,690	993,460	1,253,920	(1.6%)
Pollution Prevention	17,058	17,611	144,510	100,440	135,920	(5.9%)
Water & Biosolids Reclamation	497,409	485,005	507,880	437,510	470,720	(7.3%)
Non-Departmental Expenses	-	-	-	-	-	-
<b>Subtotal Salaries &amp; Benefits</b>	<b>\$7,808,764</b>	<b>\$8,122,300</b>	<b>\$9,054,200</b>	<b>\$7,867,360</b>	<b>\$9,382,370</b>	<b>3.6%</b>
<b>Services &amp; Supplies</b>						
Board of Directors	172,443	144,646	288,850	212,530	350,200	21.2%
General Manager's Office	72,377	145,067	289,900	276,760	164,650	(43.2%)
Administrative Services	475,039	527,329	591,200	569,700	565,910	(4.3%)
Safety, Training & Fleet Maintenance	74,630	73,332	84,950	69,670	102,550	20.7%
Collection System	337,669	361,343	416,200	401,660	406,150	(2.4%)
Treatment Plant Operations	2,332,858	2,076,021	2,142,700	2,408,630	2,211,700	3.2%
Treatment Plant Maintenance	691,508	625,060	784,500	712,230	829,050	5.7%
Treatment Plant Laboratory	181,422	144,462	155,250	174,050	177,750	14.5%
Engineering	91,842	69,604	331,200	67,630	98,200	(70.4%)
Pollution Prevention	68,346	63,877	84,850	89,890	96,300	13.5%
Water & Biosolids Reclamation	188,281	205,908	307,700	187,060	309,250	0.5%
Non-Departmental Expenses	269,757	239,785	246,750	249,070	256,600	4.0%
<b>Subtotal Services &amp; Supplies</b>	<b>\$4,956,172</b>	<b>\$4,676,433</b>	<b>\$5,724,050</b>	<b>\$5,418,880</b>	<b>\$5,568,310</b>	<b>(2.7%)</b>
<b>Other</b>						
Administrative Services	36	18	50	30	50	-
Treatment Plant Operations	190	196	200	200	200	-
Water & Biosolids Reclamation	23,796	24,946	28,000	24,780	28,000	-
Non-Departmental Expenses	6,426,367	11,437,960	12,679,200	12,679,200	13,673,050	7.8%
<b>Subtotal Other</b>	<b>\$6,450,388</b>	<b>\$11,463,120</b>	<b>\$12,707,450</b>	<b>\$12,704,210</b>	<b>\$13,701,300</b>	<b>7.8%</b>
<b>Total</b>	<b>\$19,215,324</b>	<b>\$24,261,853</b>	<b>\$27,485,700</b>	<b>\$25,990,450</b>	<b>\$28,651,980</b>	<b>4.2%</b>

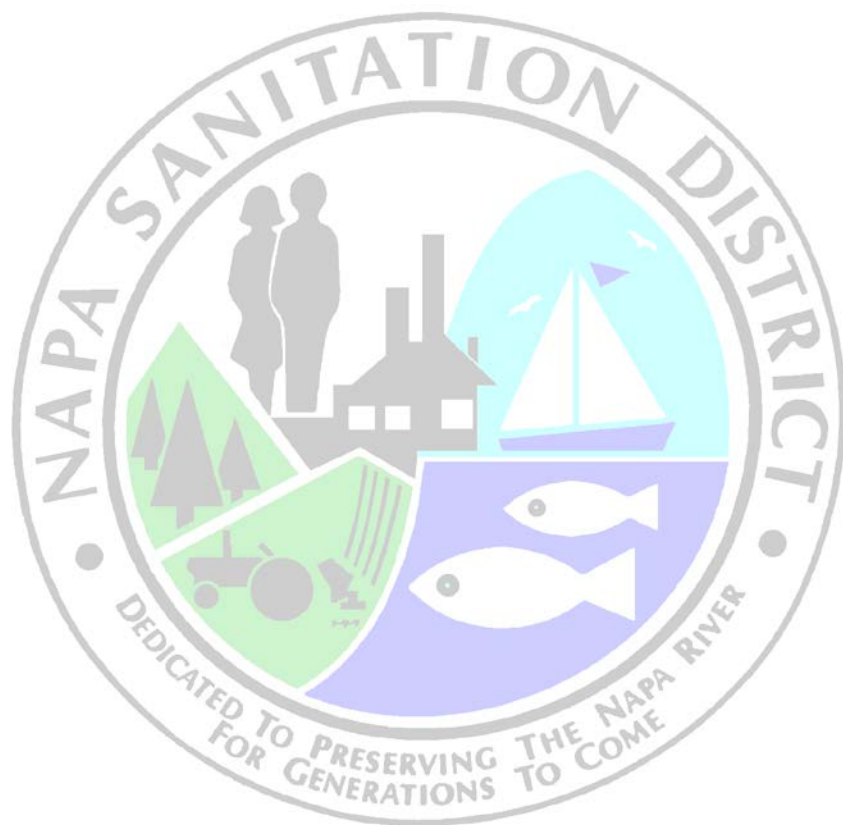


**Napa Sanitation District  
FY 2016/17 Budget**

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**OPERATING EXPENDITURES - BY DEPARTMENT**

Department	Category	Actual FY 13/14	Actual FY 14/15	Adj. Budget FY 15/16	Proposed FY 16/17	Percent Change
<b>Board of Directors</b>	Salaries & Benefits	29,753	34,616	25,500	25,480	(0.1%)
	Services & Supplies	172,443	144,646	288,850	350,200	21.2%
	<b>Total</b>	202,195	179,262	314,350	375,680	19.5%
<b>General Manager's Office</b>	Salaries & Benefits	366,714	385,339	395,770	403,570	2.0%
	Services & Supplies	72,377	145,067	289,900	164,650	(43.2%)
	<b>Total</b>	439,091	530,406	685,670	568,220	(17.1%)
<b>Administrative Services</b>	Salaries & Benefits	1,140,922	1,087,687	1,113,610	1,148,040	3.1%
	Services & Supplies	475,039	527,329	591,200	565,910	(4.3%)
	Other	36	18	50	50	-
	<b>Total</b>	1,615,996	1,615,034	1,704,860	1,714,000	0.5%
<b>Safety, Training &amp; Fleet Maintenance</b>	Salaries & Benefits	155,983	129,953	144,360	161,560	11.9%
	Services & Supplies	74,630	73,332	84,950	102,550	20.7%
	<b>Total</b>	230,614	203,285	229,310	264,110	15.2%
<b>Collection System</b>	Salaries & Benefits	1,849,318	2,011,189	2,106,520	2,369,250	12.5%
	Services & Supplies	337,669	361,343	416,200	406,150	(2.4%)
	<b>Total</b>	2,186,987	2,372,532	2,522,720	2,775,400	10.1%
<b>Treatment Plant Operations</b>	Salaries & Benefits	1,386,706	1,514,444	1,625,510	1,644,360	1.2%
	Services & Supplies	2,332,858	2,076,021	2,142,700	2,211,700	3.2%
	Other	190	196	200	200	-
	<b>Total</b>	3,719,753	3,590,660	3,768,410	3,856,260	2.3%
<b>Treatment Plant Maintenance</b>	Salaries & Benefits	773,446	804,775	1,017,050	1,045,500	2.8%
	Services & Supplies	691,508	625,060	784,500	829,050	5.7%
	<b>Total</b>	1,464,954	1,429,835	1,801,550	1,874,550	8.5%
<b>Treatment Plant Laboratory</b>	Salaries & Benefits	635,666	661,638	699,800	724,050	3.5%
	Services & Supplies	181,422	144,462	155,250	177,750	14.5%
	<b>Total</b>	817,088	806,100	855,050	901,800	18.0%
<b>Engineering</b>	Salaries & Benefits	955,789	990,043	1,273,690	1,253,920	(1.6%)
	Services & Supplies	91,842	69,604	331,200	98,200	(70.4%)
	<b>Total</b>	1,047,632	1,059,646	1,604,890	1,352,120	(71.9%)
<b>Pollution Prevention</b>	Salaries & Benefits	17,058	17,611	144,510	135,920	(5.9%)
	Services & Supplies	68,346	63,877	84,850	96,300	13.5%
	<b>Total</b>	85,404	81,488	229,360	232,220	7.6%
<b>Water &amp; Biosolids Reclamation</b>	Salaries & Benefits	497,409	485,005	507,880	470,720	(7.3%)
	Services & Supplies	188,281	205,908	307,700	309,250	0.5%
	Other	23,796	24,946	28,000	28,000	-
	<b>Total</b>	709,486	715,859	843,580	807,970	(4.2%)
<b>Non-Departmental Expenses</b>	Services & Supplies	269,757	239,785	246,750	256,600	4.0%
	Debt Service	4,769,367	4,779,200	4,779,200	4,773,050	(0.1%)
	Transfers	1,657,000	7,900,000	7,900,000	8,900,000	12.7%
	<b>Total</b>	6,696,124	12,918,985	12,925,950	13,929,650	7.8%
<b>Total Operating Expenditures</b>		<b>\$19,215,324</b>	<b>\$25,503,093</b>	<b>\$27,485,700</b>	<b>\$28,651,980</b>	<b>4.2%</b>



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## Expenditure Budgets by Division



*Dissolved air floatation (DAF) clarifier, Soscol Water Recycling Facility*

## Board of Directors

### *Description*

The Board of Directors is the policy making body that determines the overall direction of the District and services provided to the customers. The rules for connecting and discharging to the system, and the rates and charges for services, are set by the Board.

The Board of Directors comprises two directors who are members of the Napa City Council, one director who is a member of the Napa County Board of Supervisors, and two citizen appointees, one appointed by the city and one by the county. The Board of Directors hires the General Manager and contracts for the District Legal Counsel and the annual financial audit.

The Board adopts the annual Operating Budget, Ten-Year Capital Improvement Plan, Ten-Year Financial Plan and sets the priorities for the District.

### *Link to District Goals in Strategic Plan*

The Board of Directors establishes the Strategic Plan's long-term goals, objectives and priorities.

### *Department Goals*

**Goal:** The Board of Directors Department goal is to articulate the short and long-term policy direction for the District to ensure:

- infrastructure reliability
- financial stability
- operational capability
- employee development
- community outreach and communication
- resource recovery

### *Related Department Objectives*

- Oversee the policy and strategic direction of the District and set levels of service for its customers.
- Provide policy direction regarding levels of service.
- Work with senior management and consultant to provide direction regarding rates and fees.
- Provide policy guidance regarding alternative methods for treatment of winery waste.
- Adopt, revise and monitor a long-term policy document for prioritizing the delivery of recycled water outside the current service areas.

- Provide direction to staff on efforts to increase non-rate revenues and decrease the District's reliance on non-green energy sources.

### *Changes from FY 2015/16 Service Levels*

- The Board of Directors budget includes the District's expenses for legal services and audit services, as these functions report directly to the Board.
- The FY 16/17 budget includes an additional \$40,000 in Legal Services to accommodate anticipated support.
- The FY 16/17 budget includes an additional \$15,000 in Consulting Services in anticipation of updating the strategic plan in spring 2017.
- The FY 16/17 budget includes \$5,000 for scholarship support.

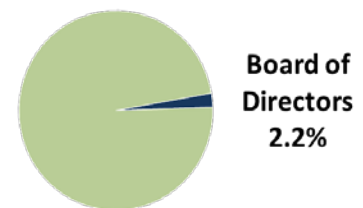


*Stationary storage system stores energy created at night for use during the day.*



*Cogeneration engine meets 40% of NSD's electricity from biogas.*

### Percent of Operating Budget



### Proposed Budget

	Actual FY 13/14	Actual FY 14/15	Adj. Budget FY 15/16	Estimated FY 15/16	Proposed FY 16/17	Percent Change
Salaries & Benefits	\$ 29,753	\$ 34,616	\$ 25,500	\$ 21,460	\$ 25,480	(0.1%)
Services & Supplies	\$ 172,443	\$ 144,646	\$ 288,850	\$ 212,530	\$ 350,200	21.2%
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 202,195</b>	<b>\$ 179,262</b>	<b>\$ 314,350</b>	<b>\$ 233,990</b>	<b>\$ 375,680</b>	<b>19.5%</b>

### Position Authorizations

Position Series	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Director-Member of Napa City Council (CC)	2	2	2	2
Director-Member of Napa Board of Supervisors (BOS)	1	1	1	1
Director-Public Representative Appointed by BOS	1	1	1	1
Director-Public Representative Appointed by CC	1	1	1	1
<b>Totals</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>



## General Manager's Office

### Description

The General Manager is responsible to the Board of Directors for all aspects of the administration, operation and planning activities of the staff of the District. The General Manager is the hiring authority for all positions.

### Link to District Goals in Strategic Plan

The General Manager's Office is responsible to ensure that all of the departments and respective management are performing toward the District's established goals. As part of the Quarterly Report to the Board of Directors, the General Manager reports on the status of each District goal, objective, and the specific projects outlined in the Strategic Plan.

The General Manager's Office is specifically responsible for conducting the study of plan check/inspection fees and capacity charge methodology (**Goal Two: Financial Stability, Objective 2B**), overseeing the next employee survey in Fall 2017 (**Goal Four: Employee Development, Objective 4B**), implementing the Employee Master Plan recommendations (**Goal Four: Employee Development, Objective 4C**), partnering with winery industry to develop alternative methods for treating winery waste (**Goal Three: Operational Capability, Objective 3A**), promoting the District as a progressive, professional organization as a great place to work (**Goal Four: Employee Development, Objective 4A**), working with partners on long-term water reuse opportunities (**Goal Six: Resource Recovery, Objective 6B**) and developing partnerships with stakeholders to achieve common goals (**Goal Five: Community Outreach and Communications, Objective 5A**).

### Department Goals

**Goal:** Implement the policy direction of the Board of Directors.

#### Related Department Objectives

- Oversee the development of a Communications Plan for the District.
- Represent the District at the North Bay Water Reuse Authority, specifically working to bring federal money to the District for Recycled Water projects.
- Oversee the negotiation and implementation of a new NPDES permit.

- Work with the community to find better ways to serve residential, commercial and industrial wastewater treatment needs.

**Goal:** Provide leadership and management throughout the District.

#### Related Department Objectives

- Provide direction to all departments, aligning efforts to promote and be consistent with the District's goals and policy directives.
- Provide overall direction to the engineering staff regarding significant capital projects, including Browns Valley Road Sewer Interceptor, West Napa Pump Station Improvements, I&I projects, recycled water reservoir liner, and aeration basin diffuser replacement.
- Oversee the implementation of the Employee Master Plan.

### Changes from FY 2015/16 Service Levels

- The budget includes a one-time expense of \$100,000 to contribute toward a winery waste treatment options study.
- The Budget removed a one-time expense of \$50,000 for assistance in negotiated a new NPDES permit.
- The budget removed a one-time expense of \$90,000 in the prior year related to Proposition 218 and the study of sewer service charge rates.



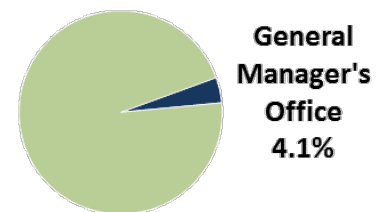


NSD Booth at annual Earth Day event



NSD booth at the annual Ag Expo in Napa

## Percent of Operating Budget

Proposed Budget

	Actual FY 13/14	Actual FY 14/15	Adjusted FY 15/16	Estimated FY 15/16	Proposed FY 16/17	Percent Change
Salaries & Benefits	\$ 366,714	\$ 385,339	\$ 395,770	\$ 345,410	\$ 403,570	2.0%
Services & Supplies	\$ 72,377	\$ 145,067	\$ 289,900	\$ 276,760	\$ 164,650	(43.2%)
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 439,091</b>	<b>\$ 530,406</b>	<b>\$ 685,670</b>	<b>\$ 622,170</b>	<b>\$ 568,220</b>	<b>(17.1%)</b>

Position Authorizations

Position Series	FY 13/14	FY 14/15	FY 15/16	FY 16/17
General Manager	1	1	1	1
Assistant General Manager/District Engineer	1	1	1	0
<b>Totals</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>

## Administrative Services

### Description

Administrative Services provides administrative and financial support for all other departments of the District. The division includes accounting, payroll, budget and financial planning, human resources and risk management. The division also includes duties in support of the Board of Directors, responding to public inquiries, records management, and general administrative support.

### Link to District Goals in Strategic Plan

The Administrative Services Department supports the District's "Goal Two: Financial Stability." This Department is responsible for developing non-rate, revenue-generating or expense minimizing ideas for the District (**Objective 2A**). This department will also be responsible for completing a study on plan check/inspection fees and capacity charge methodologies (**Objective 2B**) and conducting a Sewer Service Charge fee study prior to the next Proposition 218 hearing (**Objective 2C**). This department will also develop the financing plan for Browns Valley Road project (**Objective 2D**).

### Department Goals

**Goal:** Provide financial information for managers and Board to maintain financial viability of the District.

#### Revenue-to-Expense Ratio

(positive number is goal)

11/12	12/13	13/14	14/15	15/16	16/17
0.00	0.79	-0.24	-0.35	-0.50	0.00

#### Debt Service Coverage Ratio

(greater than 125% is required)

11/12	12/13	13/14	14/15	15/16	16/17
325%	247%	276%	226%	220%	260%

#### Sewer Service Charge Bill Affordability

(goal is to remain under 1.0% per EPA guidance)

11/12	12/13	13/14	14/15	15/16	16/17
0.64%	0.66%	0.68%	0.66%	0.66%	0.70%

#### Related Department Objectives

- Review cash flow and emergency reserves for adequacy.
- Conduct a study of the District's Capacity Charges.
- Complete the seventh year's Performance Measurement Report.

- Work with private sector partners to implement partnerships for solar energy, energy storage and other technologies, lowering the District's electricity costs and providing non-rate revenues.
- Continue to provide financial support to managers, supervisors and staff, in support of District activities.
- Analyze assumptions in long-range plans for sensitivity to economic or regulatory change.

**Goal:** Provide time sensitive and necessary Human Resources support throughout the District.

#### Experience Turnover Rate

(Lower is better)

2012	2013	2014	2015	2016	2017
5.7%	0.0%	4.3%	0.0%	5.0%	5.0%

**Employee Survey Results** – These are the average score of employees who rated the following statement:  
(1=strongly disagree / 5=strongly agree)

**"The forms and process used for annual employee performance evaluations are user friendly."**

2012	2013	2014	2015	2016	2017
na	na	3.48	na	na	3.5

#### Related Department Objectives

- Implement the Employee Master Plan recommendations.
- Complete an update of the District's Employee Job Descriptions.
- Continue to provide human resource support to managers, supervisors and staff, in support of District activities.

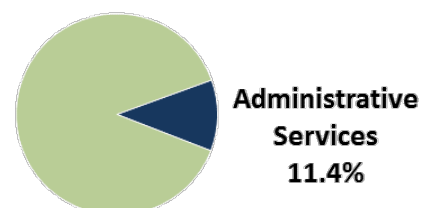
**Goal:** Provide general administrative support to employees and serve the requests of the general public.

#### Related Department Objectives

- Continue to provide general administrative support to managers, supervisors and staff, in support of District activities.

***Changes from FY 2015/16 Service Levels***

- No significant changes in the budget from prior year.

*NSD Administrative Services staff***Percent of Operating Budget****Proposed Budget**

	Actual FY 13/14	Actual FY 14/15	Adjusted FY 15/16	Estimated FY 15/16	Proposed FY 16/17	Percent Change
Salaries & Benefits	\$ 1,140,922	\$ 1,087,687	\$ 1,113,610	\$ 1,009,700	\$ 1,148,040	3.1%
Services & Supplies	\$ 475,039	\$ 527,329	\$ 591,200	\$ 569,700	\$ 565,910	(4.3%)
Other	\$ 36	\$ 18	\$ 50	\$ 30	\$ 50	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 1,615,996</b>	<b>\$ 1,615,034</b>	<b>\$ 1,704,860</b>	<b>\$ 1,579,430</b>	<b>\$ 1,714,000</b>	<b>0.5%</b>

**Position Authorizations**

Position Series	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Director of Admin Services/Chief Financial Officer	1	1	1	1
Clerk to the Board/Human Resources Officer	1	1	1	1
Senior Accountant	1	1	1	1
Accountant	1	1	1	1
Management Analyst and Outreach Coordinator	1	1	0	0
Administrative Assistant I/II	2	2	2	2
<b>Totals</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>6</b>

## Safety, Training and Fleet Maintenance

### Description

Many of the District's activities are inherently dangerous, as they involve work in heavy traffic, repairs and installations of pipe in deep trenches susceptible to collapse, and entrance into confined spaces that potentially contain toxic gases or other hazardous conditions. This program oversees workplace safety and provides safety training for all staff to ensure safe working practices and compliance with safety regulations. This includes reviews of contractor safety programs to ensure that the District's contractors also work and operate safely.

This program also includes maintenance and management of the District's fleet vehicles, communications management and general safety and security protocols.

### Link to District Goals in Strategic Plan

This Department supports the District's value of safety, along with all of the goals of other departments by ensuring that the workplace is safe and employees are adequately trained.

### Department Goals

**Goal:** Implement programs that result in improved safety and lower accidents and incidents rates

#### District's Experience Modification (XMOD) Rate

(lower is better; NSD is compared to the CSRMA risk pool member average)

	11/12	12/13	13/14	14/15	15/16	16/17
NSD	63	66	66	84	89	85
Avg	80	85	94	94	x	x

#### Total Recordable Incidence Rate

(Injuries and illnesses per 200,000 hours worked; NSD is compared to the wastewater industry average)

	2012	2013	2014	2015	2016	2017
NSD	4.27	10.69	0	2.10	0	0
Avg	4.2	3.4	5.3	na	na	na

#### Number of Insurance Claims

(number of claims per 200,000 hours of work)

	11/12	12/13	13/14	14/15	15/16	16/17
	8.55	14.95	8.60	18.85	5.00	5.00

#### Severity of Insurance Claims

(cost of claims per 200,000 hours of work)

	11/12	12/13	13/14	14/15	15/16	16/17
	\$16k	\$33k	\$6k	\$104k	\$15k	\$15k

#### Online Safety Training Hours Completed by Staff

	2012	2013	2014	2015	2016	2017
	91.6%	99.1%	99.2%	100%	99%	99%

#### Related Department Objectives

- Develop and implement periodic review plan for District safety policies and programs.
- Complete and coordinate the safety review requested by CSRMA, the District's workers compensation insurance carrier.
- Continue on five-year plan to fully implement the lockout-tagout Standard Operating Procedures (SOP) development and revision project, in conjunction with plant maintenance staff.

**Goal:** Facilitate proper management of fleet vehicles to ensure they are safe and reach their intended useful lifespan

#### Related Department Objectives

- Maintain and adjust ten-year plan for fleet sustainment, acquisition, rehabilitation and attrition.
- Determine right combination of mission essential vehicle types to ensure District operational effectiveness, while increasing efficiency and reducing overall cost.
- Oversee the District's Fleet Committee to determine proper general purpose fleet sizing to meet the goal of a "common fleet" approach; cross utilization of assets, increasing economy and efficiency while reducing cost.

***Changes from FY 2015/16 Service Levels***

- The FY 16/17 budget includes training for several district-wide classes that are required once every three years (\$3,950).
- The budget includes \$11,000 to implement a radio communication system.
- The budget includes \$2,500 to replace the SCBA bottles (required every 15 years).
- The budget removes \$5,500 for one-time training for the new employee that was completed last fiscal year.

*District staff training on fire extinguisher use***Percent of Operating Budget****Proposed Budget**

	Actual FY 13/14	Actual FY 14/15	Adjusted FY 15/16	Estimated FY 15/16	Proposed FY 16/17	Percent Change
Salaries & Benefits	\$ 155,983	\$ 129,953	\$ 144,360	\$ 141,240	\$ 161,560	11.9%
Services & Supplies	\$ 74,630	\$ 73,332	\$ 84,950	\$ 69,670	\$ 102,550	20.7%
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 230,614</b>	<b>\$ 203,285</b>	<b>\$ 229,310</b>	<b>\$ 210,910</b>	<b>\$ 264,110</b>	<b>15.2%</b>

**Position Authorizations**

Position Series	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Safety, Training & Fleet Maintenance Officer	1	1	1	1
<b>Totals</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>



## Collection System

### Description

The purpose of the Collection System Department is to clean and maintain, inspect, repair, replace or rehabilitate sanitary sewer lines, manholes and other related facilities to assure the structural integrity of the District's sewer system in a manner that results in the most economical operation while maintaining regulatory compliance.

### Link to District Goals in Strategic Plan

The Collection System Department supports the District's "Goal One: Infrastructure Reliability" by taking both preventive and corrective actions to maintain the infrastructure of the sewer system, and by assisting the Engineering staff in the design of capital projects. Specifically, the Department provides maintenance data and analysis in support of the wet weather inflow/infiltration analysis (**Objective 1B**), development of an Asset Management program (**Objective 1D**), design of the Browns Valley Road Interceptor (**Objective 1E**), and the amendment to the Collection System Master Plan (**Objective 1F**).

### Department Goals

**Goal:** To prevent sanitary sewer overflows (SSO's). Especially important is to prevent Category 1 overflows that are defined as an SSO that reached a drainage channel and/or surface water or; an SSO that reached a storm drain pipe that was not fully recovered and returned to the sanitary sewer system.

#### Category 1 Sewer Overflows per 100 miles of mains (NSD compared to California average)

	2012	2013	2014	2015	2016	2017
NSD	0.37	0.0	4.81	0.0	0.0	0.0
CA	3.94	3.79	5.09	3.94	na	na

#### Category 1 Sewer Overflows per 100 miles of laterals (NSD compared to California average)

	2012	2013	2014	2015	2016	2017
NSD	0.0	0.0	1.4	1.4	0.0	0.0
CA	15.9	5.2	53.1	2.4	na	na

#### Category 1 Gallons of Spilled Sewage from Mains per 1,000 capita

(NSD compared to California average)

	2012	2013	2014	2015	2016	2017
NSD	9	0	1,095	0	0	0
CA	1,258	1,301	1,294	1,574	na	na

#### Category 1 Gallons of Spilled Sewage from Laterals per 1,000 capita

(NSD compared to California average)

	2012	2013	2014	2015	2016	2017
NSD	0	0	3.6	6.7	0	0
CA	104.2	12.5	5.9	3.5	na	na

**Goal:** To provide quality customer service by responding to customer requests for service and being on site within 30 minutes of receiving the call.

#### Average Number of Minutes to Respond

	2012	2013	2014	2015	2016	2017
	27	31	29	32	30	30

#### Service Calls for District Plugged Laterals

	2012	2013	2014	2015	2016	2017
	221	247	302	230	225	225

#### Related Department Objectives

- Continue to respond to the needs of the community in a timely and professional manner within 30 minutes, while trying to reduce the number of emergency service calls.

**Goal:** To insure infrastructure stability by performing preventive maintenance on the Collection System. This includes inspection and cleaning of the sewer system.

#### Sewer Main Condition Assessment

(% of sewer mains video inspected)

(Goal is 10% per year)

	2012	2013	2014	2015	2016	2017
	9.9%	7.4%	10.3%	8.5%	10%	10%

#### Percent of Main Lines Cleaned

(Goal is 40%)

	2012	2013	2014	2015	2016	2017
	45.8%	47.6%	47.6%	42.3%	40%	40%

#### Planned Maintenance as Ratio of Total Maintenance

(Goal is 90%)

	2012	2013	2014	2015	2016	2017
	90.4%	87.6%	87.5%	86.7%	88%	88%

#### Number of Public Laterals Replaced or Rehabilitated

(Goal is 60 per year)

	2012	2013	2014	2015	2016	2017
	44	51	52	72	60	60

#### Related Department Objectives

- Maintain the sewer lateral preventive maintenance program at current service levels.



- Video inspect 10% of the sewer mains in the District's system
- Clean at least 40% of District sewer mains per year.
- Root foam 4 miles of sewer main, including related laterals and manholes, to reduce the root intrusion into these facilities.
- Work to eliminate higher maintenance sewer mains by replacing or repairing them.
- Replace or rehabilitate 60 public laterals.
- Move forward in gathering, storing and disseminating asset and work information in an economical way with completeness and accuracy, including sharing with other departments in the District and others as needed.

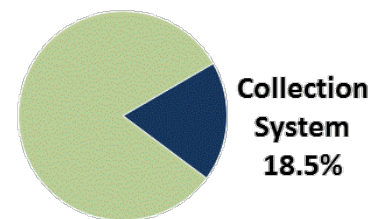


*Collection system workers excavate a sewer lateral to make repairs*

### ***Changes from FY 2015/16 Service Levels***

- FY 16/17 budget includes two new Collection System Worker positions, and associated materials, uniforms, equipment and training for these new positions.
- FY 16/17 budget removes \$16,600 in maintenance supplies that were already captured in the CIP budget.
- FY 16/17 budget removes \$8,000 in waste hauling, with savings coming from self-hauling to the transfer station.
- FY 16/17 removes \$2,650 for one-time software update in prior fiscal year.

### **Percent of Operating Budget**



#### **Proposed Budget**

	Actual FY 13/14	Actual FY 14/15	Adjusted FY 15/16	Estimated FY 15/16	Proposed FY 16/17	Percent Change
Salaries & Benefits	\$ 1,849,318	\$ 2,011,189	\$ 2,106,520	\$ 1,909,820	\$ 2,369,250	12.5%
Services & Supplies	\$ 337,669	\$ 361,343	\$ 416,200	\$ 401,660	\$ 406,150	(2.4%)
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 2,186,987</b>	<b>\$ 2,372,532</b>	<b>\$ 2,522,720</b>	<b>\$ 2,311,480</b>	<b>\$ 2,775,400</b>	<b>10.0%</b>

#### **Position Authorizations**

Position Series	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Collection System Manager	1	1	1	1
Collection System Supervisor	1	1	1	1
Collection System Technician	1	1	1	1
Collection System Worker III	1	1	2	2
Collection System Worker IT/I/II	9	9	8	10
<b>Totals</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>15</b>

## Treatment Plant Operations

### Description

The Treatment Plant Operations Department receives, treats and distributes wastewater and solids conveyed to the treatment plant in an environmentally sound and cost effective manner. This is done with a strong ethical foundation of protecting public health and the environment, while meeting our responsibilities to the rate payers.

The department operates the plant, performs some basic preventive maintenance of plant equipment and structures, recommends improvements in plant process, assists with engineering and special studies, and prepares all regulatory reports applicable to the treatment plant.

### Link to District Goals in Strategic Plan

The Treatment Plant Operations Department supports the District's "Goal One: Infrastructure Reliability" by providing support to the Engineering Department's work on implementing the Treatment Plant Master Plan critical projects (**Objective 1A**) and development an Asset Management program (**Objective 1D**).

The Department will directly support the District's efforts to negotiate and obtain a new NPDES permit (**Goal Three: Operational Capability, Objective 3B**).

To support "Goal Six: Resource Recovery," this Department will provide technical analysis when setting the targets for the percentage of electricity that is self-generated and will take the lead on determining strategies for the beneficial reuse of algae (**Objective 6C**).

### Department Goals

**Goal:** Adhere to all federal, state and local guidelines, permits and regulations in the operation of the treatment plant.

#### Treatment for BOD and TSS Removal

(Must be higher than 85% - winter monthly average)

	2012	2013	2014	2015	2016	2017
BOD	97.3%	97.9%	97.7%	98.1%	97%	97%
TSS	97.2%	97.2%	96.7%	96.2%	97%	97%

#### Total Allowable BOD and TSS

(Must be lower than 30 mg/L - winter monthly average)

	2012	2013	2014	2015	2016	2017
BOD	5.6	5.3	4.9	4.6	5.0	5.0
TSS	6.2	7.6	7.4	9.8	9.0	9.0

#### Related Department Objectives

- Continue producing an effluent that meets the NPDES permit requirements.

**Goal:** Effectively and efficiently operate the treatment plant.

#### Polymer per MG processed – Winter and Summer

	2012	2013	2014	2015	2016	2017
Wnt	35.1	52.7	33.4	28.8	35	35
Smr	68.5	79.0	50.6	103.1	85	85

#### Hypochlorite per MG processed

	2012	2013	2014	2015	2016	2017
Wnt	71.9	113.3	102.9	124.3	110	110
Smr	155.0	206.6	203.7	211.9	200	200

#### Percent Electricity Produced by Cogen Engine

	2012	2013	2014	2015	2016	2017
	23.3%	33.7%	32.6%	35%	38%	38%

#### Electricity Consumed per Million Gallons Treated

(Megawatt-hours per MG processed)

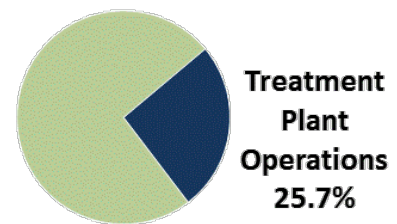
	2012	2013	2014	2015	2016	2017
Wnt	1.3	2.0	1.7	2.2	1.7	1.7
Smr	4.9	5.7	5.9	7.2	6.0	6.0

#### Related Department Objectives

- Continuous process optimization of the plant control systems to achieve a reduction in chemical and energy costs, to match or exceed the targets noted in performance measures above.
- Continue installation of additional online instrumentation.
- Continue to receive fats, oil and grease (FOG) collected from siphon to the FOG receiving station.
- Continue to optimize production of biogas in digester resulting from FOG receiving program.
- Assist Engineering in the construction and design of new Aeration diffusers and automation of air control.

***Changes from FY 2016/17 Service Levels***

- FY 16/17 budget moves \$65,100 from Plant Operations to Plant Maintenance for SCADA equipment and software.
- FY 16/17 budget adds \$173,900 in chemicals, predominantly for polymer related to DAF operations.
- FY 16/17 budget includes an additional \$15,000 for anticipated increases in NPDES and Regional Monitoring Program fees.
- FY 16/17 budget removes \$25,000 for a one-time document scanning project.

*Overseeing plant operations via SCADA interface***Percent of Operating Budget****Proposed Budget**

	Actual FY 13/14	Actual FY 14/15	Adjusted FY 15/16	Estimated FY 15/16	Proposed FY 16/17	Percent Change
Salaries & Benefits	\$ 1,386,706	\$ 1,514,444	\$ 1,625,510	\$ 1,425,370	\$ 1,644,360	1.2%
Services & Supplies	\$ 2,332,858	\$ 2,076,021	\$ 2,142,700	\$ 2,408,630	\$ 2,211,700	3.2%
Other	\$ 190	\$ 196	\$ 200	\$ 200	\$ 200	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 3,719,753</b>	<b>\$ 3,590,660</b>	<b>\$ 3,768,410</b>	<b>\$ 3,834,200</b>	<b>\$ 3,856,260</b>	<b>2.3%</b>

**Position Authorizations**

Position Series	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Plant Manager	1	1	1	1
Operations Supervisor	1	1	1	1
Operator OIT/I/II/III	7	7	7	7
<b>Totals</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>

## Treatment Plant Maintenance

### Description

The Treatment Plant Maintenance Department provides corrective and preventive maintenance and equipment installation at the wastewater treatment plant and recycled water facilities, lift stations and other assigned areas.

Priorities are set through consultation with Treatment Plant Operations staff to ensure plant reliability and permit compliance.

### Link to District Goals in Strategic Plan

The Treatment Plant Maintenance Department supports the District's "**Goal One: Infrastructure Reliability**" by providing technical assistance on major plant infrastructure projects (**Objective 1A**) and Asset Management implementation (**Objective 1D**).

### Department Goals

**Goal:** Provide corrective and preventive maintenance safely, cost effectively and efficiently.

### Planned Maintenance Ratio of Hours Worked

*(Planned maintenance as a percentage of total maintenance measures the proactive nature of activity in the department and is more efficient than corrective or emergency maintenance. A higher percentage is better.)*

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
63.7%	58.0%	65.8%	65.8%	68%	68%

### Number of work orders completed

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
1,191	1,372	1,351	1,314	1,400	1,400

### Related Department Objectives:

- Continue to implement an effective life cycle equipment replacement schedule for better budgetary expense projections.
- Expand equipment data base and associated task of Maintenance Program.
- Complete phase II, replacement of Stationary Gas Monitors At Treatment Plant and Lift Stations
- Implement Infrared Imaging PM program for all electrical switchgear and motor control centers
- Rebuild cogeneration engine bottom end and refurbish generator

**Goal:** Maintain critical operational systems so that there is reliability and operational resiliency.

### Uptime for Cogeneration Engine

*(The Cogeneration Engine is critical for effective management of biogas through the generation of heat and electricity needed by the wastewater treatment plant to operate.)*

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
84%	96%	96%	98%	85%	95%

### Related Department Objectives:

- Implement PM program for Telemetry System testing for reliability
- Continue enhancement and organization of the inventory system to reduce down time.

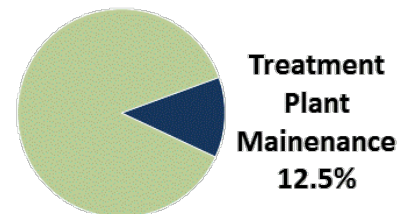
### *Changes from FY 2015/16 Service Levels*

- FY 16/17 budget includes SCADA software and maintenance that was moved from Plan Operations (\$65,200), plus \$5,000 for one-time switch monitoring equipment.
- FY 16/17 budget removes the one-time budget for digester painting (\$49,200).
- FY 16/17 includes \$20,000 in landscape services, budgets that were moved from Reclamation and Operations departments, plus an additional level of effort for new areas around plant.
- FY 16/17 includes \$20,000 to install an air/fuel controller upgrade to the cogeneration engine, to increase reliability.
- FY 16/17 includes an additional \$10,000 for instrumentation parts to be replaced.
- FY 16/17 budget removes \$20,000 for one-time VFD installations in the prior year budget.



*NSD's cogeneration engine burns biogas from the digester to create heat and electricity*

### Percent of Operating Budget



#### Proposed Budget

	Actual FY 13/14	Actual FY 14/15	Adjusted FY 15/16	Estimated FY 15/16	Proposed FY 16/17	Percent Change
Salaries & Benefits	\$ 773,446	\$ 804,775	\$ 1,017,050	\$ 845,770	\$ 1,045,500	2.8%
Services & Supplies	\$ 691,508	\$ 625,060	\$ 784,500	\$ 712,230	\$ 829,050	5.7%
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 1,464,954</b>	<b>\$ 1,429,835</b>	<b>\$ 1,801,550</b>	<b>\$ 1,558,000</b>	<b>\$ 1,874,550</b>	<b>4.1%</b>

#### Position Authorizations

Position Series	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Plant Maintenance Supervisor	1	1	1	1
Equipment Maintenance Specialist I/II	3	3	4	4
Plant Attendant	1	1	1	1
<b>Totals</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>6</b>



## Water & Biosolids Reclamation

### Description

This department is responsible for the effective and efficient distribution of recycled water and management of biosolids in a manner that respects the environment, maintains public health and conforms to local, state and federal regulations.

After the treatment of wastewater, the District generates recycled water known as “Title 22 Unrestricted Use” which is permitted under State of California Regulations for almost any use except potable (drinking water) reuse. The District delivers this water to vineyards, golf courses, cemeteries, parks and athletic fields, and for landscape irrigation purposes.

Biosolids are managed by this department through land application. This method avoids expensive off-site hauling and disposal of biosolids, with significant savings to the ratepayers.

### Link to District Goals in Strategic Plan

The Water & Biosolids Reclamation Department supports the District’s “**Goal Six: Resource Recovery**” through its support of local partners and the Engineering Department’s projects to construct distribution systems for recycled water (**Objective 6A**) and providing technical assistance regarding expanding water reuse (**Objective 6B**).

### Department Goals

**Goal:** Dispose of recycled water during the summer months through sales to customers and on District-owned property.

#### Recycled Water Service Availability

(% of time RW is available to customers – May to Oct.)

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
100%	100%	100%	100%	100%	100%

#### Recycled Water Reuse by Customers

(% of recycled water sold to customers – May to Oct.)

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
62.3%	71.5%	75.2%	78.3%	85%	90%

#### Related Department Objectives

- Maintain Recycled Water availability at 100% during the non-discharge period.

- Distribute up to 650 million gallons (2,000 acre feet) recycled water, with 85% sold to customers.
- Complete annual recycled water user site inspections, issuing no Notices of Non-compliance.
- Gateway Business Park facilities using recycled water for irrigation achieved 100 % conversion.
- Napa Airport Centre initiated conversion to recycled water for irrigation of two facilities. Additional conversions in progress during FY 15/16 and anticipated 100% conversion in FY 16/17.
- Facilitate conversion activities of MST and Los Carneros Water District customers.
- Complete activities necessary to achieve “Fish Friendly Certification” at Fegundes Ranch, with certification anticipated in FY 16/17.

**Goal:** Dispose of 100% of biosolids through land application on District-owned property.

#### Biosolids Put to Beneficial Reuse

(% of biosolids applied to seeded & harvested acres)

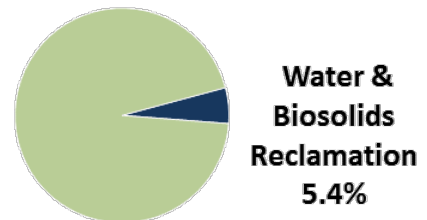
<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
100%	100%	100%	100%	100%	100%

#### Related Department Objectives

- Apply approximately 1,200 dry tons of dewatered biosolids on District land.
- Put 100% of the biosolids applied to District land to beneficial reuse, through active agricultural practices on the land (growing crops, grazing sheep, etc.).

***Changes from FY 2015/16 Service Levels***

- FY 16/17 budget adds \$12,000 for water truck rental for summer 2016, prior to purchase which is planned in CIP.
- FY 16/17 budget includes an additional \$7,000 for cathodic protection testing for new recycled water lines in LCWD and MST areas.
- FY 16/17 budget moves \$3,000 from this budget to the Plant Maintenance budget for marsh weed maintenance.
- FY 16/17 budget removes \$4,000 from electricity to match actual spending, associated with recycled water application at Jameson Ranch property.

*Irrigating Somky Ranch with recycled water**Loading the biosolids spreader at Jameson Ranch***Percent of Operating Budget****Proposed Budget**

	Actual FY 13/14	Actual FY 14/15	Adjusted FY 15/16	Estimated FY 15/16	Proposed FY 16/17	Percent Change
Salaries & Benefits	\$ 497,409	\$ 485,005	\$ 507,880	\$ 437,510	\$ 470,720	(7.3%)
Services & Supplies	\$ 188,281	\$ 205,908	\$ 307,700	\$ 187,060	\$ 309,250	0.5%
Other	\$ 23,796	\$ 24,946	\$ 28,000	\$ 24,780	\$ 28,000	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 709,486</b>	<b>\$ 715,859</b>	<b>\$ 843,580</b>	<b>\$ 649,350</b>	<b>\$ 807,970</b>	<b>(4.2%)</b>

**Position Authorizations**

Position Series	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Reclamation Systems Director	1	1	1	1
Reclamation Maintenance Worker I/II	3	3	2	2
Plant Attendant	-	-	-	-
<b>Totals</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>

## Engineering

### Description

Engineering provides technical assistance to the operational departments within the District. The group is responsible for managing most of the District's capital projects and prepares project charters for projects that are included in the District's Ten-Year Capital Improvement Plan.

Engineering is responsible for reviewing development plans for conformance with District standards and inspection of sanitary sewer facilities. In some cases, the group prepares the design plans and specifications and provides construction management and inspection for collection system projects.

### Link to District Goals in Strategic Plan

The Engineering Department supports the District's "Goal One: Infrastructure Reliability" and "Goal Six: Resource Recovery" by providing project management and leadership on all of the infrastructure projects identified:

- Treatment Plant Master Plan projects, such as pond aeration, recycled water equalization and filters, and influent pump station (**Objective 1A**)
- Conduct wet weather inflow/infiltration cost/benefit analysis (**Objective 1B**)
- Determine target for renewal and replacement of sewer assets (**Objective 1C**)
- Develop and Asset Management Plan (**Objective 1D**)
- Design and construct Browns Valley Road Interceptor (**Objective 1E**)
- Update the Collection System Master Plan (**Objective 1F**)
- Study whether to implement a private lateral program (**Objective 1G**)
- Working with local partners in the distribution of recycled water (**Objective 6A**)
- Study and develop pathway to become energy independent (**Objective 6C**)

### Department Goals

**Goal:** Plan and implement the Ten-Year Capital Improvement Plan.

#### Percent of Annual Capital Plan Expended

11/12	12/13	13/14	14/15	15/16	16/17
67.5%	63.8%	62.8%	83.2%	85%	85%

#### Capital Expenses as Percent of Operating Expenses

11/12	12/13	13/14	14/15	15/16	16/17
71%	106%	168%	322%	180%	75%

#### Related Department Objectives

- Initiate capital projects that are scheduled to begin within the fiscal year and finalize those projects that are scheduled to be completed within the fiscal year.
- Develop and utilize capital program management system to monitor and report progress of active capital projects.
- Continue design of the Browns Valley Road Interceptor Project.

**Goal:** Plan projects to ensure that the renewal or replacement of existing assets is completed according to condition assessments and estimated useful lives of assets.

#### Renewal & Replacement of Assets

(as a % of asset net worth – 2% minimum, 4% goal)

11/12	12/13	13/14	14/15	15/16	16/17
3.0%	2.6%	8.8%	10.2%	3%	3%

#### Related Department Objectives

- Plan for and complete renewal & replacement capital projects that impact at least 2% and up to 4% of the District's total assets annually.
- Initiate in-house design of the Summer 2017 I/I project to reduce peak wet-weather flow.
- Complete construction management of the Basin L Rehabilitation Project 5.
- Construction of the Aeration Basin diffuser replacement project.
- Begin implementation of a formal asset management plan
- Design, construct, and evaluate effectiveness of I/I pilot projects.

**Goal:** Complete the first review of development plans submitted for District approval within 30 calendar days.

#### Development Review Response Time

(% of applications where 30-day goal is met)

2012	2013	2014	2015	2016	2017
97.5%	96.1%	97.5%	94.4%	95%	95%

**Number of development plans reviewed**

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
135	191	190	289	275	275

**Number of construction inspections**

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
520	1,043	352	594	650	650

**Related Department Objectives**

- Review and return development plans within 30 days of submittal to District.
- Respond to requests for information from the general public and other local agencies within three working days of request.
- Responded to an estimated 800 phone requests and 225 counter requests for development related information.
- Conduct an estimated 650 activities related to construction inspection of NSD collection system facilities, include locating sewers, permit processing, preconstruction meetings, inspections, and updating record drawings.

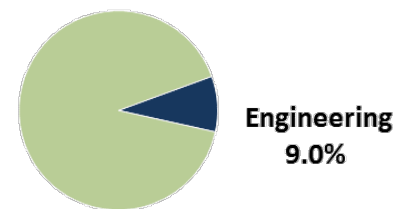
**Changes from FY 2015/16 Service Levels**

- FY 16/17 budget includes \$10,000 for summer college intern.



*District engineers review development plans for conformance to standard specifications*

- FY 2016/17 budget removes \$250,000 for one-time asset management implementation expenses that were in prior year budget (unspent money from FY 15/16 will be requested carried forward to FY 16/17 to continue implementation).
- FY 2015/16 budget subtracts \$4,900 for the one-time purchase of storage container for retention of documents.

**Percent of Operating Budget****Proposed Budget**

	<u>Actual FY 13/14</u>	<u>Actual FY 14/15</u>	<u>Adjusted FY 15/16</u>	<u>Estimated FY 15/16</u>	<u>Proposed FY 16/17</u>	<u>Percent Change</u>
Salaries & Benefits	\$ 955,789	\$ 990,043	\$ 1,273,690	\$ 993,460	\$ 1,253,920	(1.6%)
Services & Supplies	\$ 91,842	\$ 69,604	\$ 331,200	\$ 67,630	\$ 98,200	(70.4%)
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 1,047,632</b>	<b>\$ 1,059,646</b>	<b>\$ 1,604,890</b>	<b>\$ 1,061,090</b>	<b>\$ 1,352,120</b>	<b>(15.7%)</b>

**Position Authorizations**

<u>Position Series</u>	<u>FY 13/14</u>	<u>FY 14/15</u>	<u>FY 15/16</u>	<u>FY 16/17</u>
<b>Technical Services Director</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
Senior Civil Engineer	1	1	1	1
Junior/Assistant/Associate Engineer	3	3	3	3
Senior Engineering Technician	-	-	-	-
District Inspector I/II	2	2	2	2
Senior Construction Inspector	0	0	0	0
Construction Inspector	0	0	0	0
<b>Totals</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>7</b>

## Treatment Plant Laboratory

### Description

The Treatment Plant Laboratory provides support to Plant Operations with consistently high quality analytical laboratory services.

Laboratory analyses fall into one of three categories:

- 1) Required for regulatory compliance within District's operating permits;
- 2) Needed for operational control of the complex treatment processes; or
- 3) Requested by staff or contracted consultants in support of special studies.

### Link to District Goals in Strategic Plan

The Treatment Plant Laboratory Department supports the District's goals in the Strategic Plan through its support of the Plant Operations, Plant Maintenance, and Engineering Departments, and the Pollution Prevention Program. There are no specific objectives in the Strategic Plan that this department is responsible for completing.

### Department Goals

**Goal:** Provide laboratory services efficiently and reliably, while abiding by the protocols and policies of the Quality Assurance Manual, Standard Operating Procedures and laboratory safety program.

#### Number of regulatory analyses processed

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
4,498	4,644	5,030	4,670	5,000	5,000

#### Number of Process Control analyses processed

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
11,522	14,155	15,259	12,827	13,000	13,000

#### Number of special request analyses processed

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
1,280	94	196	1,885	2,500	2,500

#### Number of Quality Control/Assurance analyses processed

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
1,422	4,355	5,380	2,434	2,500	2,500

### Related Department Objectives

- Implement new Environmental Laboratory Accreditation Program (ELAP) certification requirements.
- NPDES Permit Renewal and Implementation of updated NPDES limits, monitoring and reporting requirements.
- Pretreatment Program Assessment and Implementation
- Successful development and implementation of a Method Detection Limit program.
- Begin an updated assessment of the Napa Sanitation's collection system raw waste stream.
- Conduct a Local Limit's Assessment for NPDES permit reporting compliance.
- Continue to develop and implement an analyst educational outreach training program.
- Continue to review and update operational data sampling and analysis management for an efficient process control operational strategy.



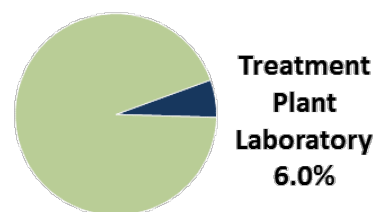
### *Changes from FY 2015/16 Service Levels*

- FY 16/17 budget includes expenses related to new ELAP certification requirements, including \$2,100 for additional certification fees, \$1,200 for additional training requirements, \$650 for certification material subscriptions, and \$4,000 in chemicals to increase certification inspections from once to twice annually.
- FY 16/17 budget includes \$6,500 for an additional LIMS user interface.
- FY16/17 budget includes \$3,750 additional in consumables for additional chlorides monitoring and additional sampling anticipated with new NDPES permit.



*NSD Lab Technicians run thousands of regulatory and process control analyses annually*

### Percent of Operating Budget



### Proposed Budget

	Actual FY 13/14	Actual FY 14/15	Adjusted FY 15/16	Estimated FY 15/16	Proposed FY 16/17	Percent Change
Salaries & Benefits	\$ 635,666	\$ 661,638	\$ 699,800	\$ 637,180	\$ 724,050	3.5%
Services & Supplies	\$ 181,422	\$ 144,462	\$ 155,250	\$ 174,050	\$ 177,750	14.5%
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 817,088</b>	<b>\$ 806,100</b>	<b>\$ 855,050</b>	<b>\$ 811,230</b>	<b>\$ 901,800</b>	<b>5.5%</b>

### Position Authorizations

Position Series	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Regulatory Compliance Manager	0	0	0	1
Lab Supervisor	1	1	1	0
Lab Technician I/II	3	3	3	3
<b>Totals</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>

## Pollution Prevention

### Description

The Pollution Prevention Program is a cross-departmental program designed to ensure that discharges to the collection system and treatment plant are in compliance with the District's Sewer Use Ordinance and will not pose a hazard to the public, District employees or District facilities and treatment processes.

The District's Pretreatment Program controls the amount of pollutants that are discharged to the sanitary sewer system through active regulation of numerous industrial and commercial businesses in Napa. Program activities include periodic on-site inspections, permit writing and administration, sampling of various discharges, and enforcement when necessary. The Program supports increased water recycling and reuse, as well as wastewater treatment prior to discharge to the sanitary sewer to reduce pollutant loadings to the treatment facility.

The Pollution Prevention Program also supports education and outreach through school programs, community events and treatment plant tours.

### Link to District Goals in Strategic Plan

This program supports the Strategic Plan, specifically “**Goal Three: Operational Capability**” in the outreach to develop alternative methods for treating winery waste (**Objective 3A**) and “**Goal Five: Community Outreach and Communication**” in the development of a communications plan to address NSD outreach and public information needs (**Objective 5B**).

### Program Goals

**Goal:** Decrease Fats, Oil and Grease (FOG) deposited in the Collection System, thus reducing maintenance expenses and reducing the risk of Sanitary Sewer Overflows (SSOs).

#### Restaurant Inspections (Fats, Oil & Grease)

(goal is every food service establishment annually is inspected)

2012	2013	2014	2015	2016	2017
43%	100%	100%	100%	100%	100%

#### Lateral Overflows or Backups Due to FOG

(goal is zero)

2012	2013	2014	2015	2016	2017
7	6	2	1	0	0

#### Main Line Sanitary Sewer Overflows Due to FOG (goal is zero)

2012	2013	2014	2015	2016	2017
4	1	3	1	0	0

#### Related Department Objectives

- With the City of Napa, promote the Recycle More Program which provides curbside collection of used cooking oil.
- Continue the inspection program for Fats, Oil and Grease (FOG).
- Continue public outreach on proper disposal of FOG.

**Goal:** Prevent pollutants from being discharged into the sewer system through active regulation, promotion of Best Management Practices, and outreach to the public.

#### Plant Tours Conducted and Presentations Made

2012	2013	2014	2015	2016	2017
14	17	31	14	25	25

#### Pounds of Unwanted Pharmaceuticals Diverted

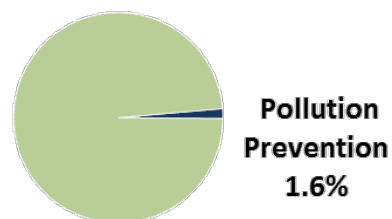
2012	2013	2014	2015	2016	2017
2,577	3,464	2,910	3,126	3,200	3,200

#### Related Department Objectives

- Work with General Manager's Office to develop a Communications Plan.
- Partner with local agencies for collection of unwanted medications from drop-off sites.
- Conduct plant tours and make public presentations.
- Develop and disseminate to stakeholders pollution prevention BMPs as necessary
- Promote classroom presentations targeting elementary school students.
- Develop Spanish language outreach for pollution prevention messages.
- Develop a wastewater treatment plant video for use online, in classrooms, and for community organizations.
- Develop performance goals for increased and improved inspection of non-categorical dischargers.
- Continue monitoring, sampling, reporting, and billing for all categorical dischargers.

***Changes from FY 2015/16 Service Levels***

- FY 16/17 budget includes \$6,000 to partner with local agencies to pay for the pickup and disposal of unwanted medications from drop-off locations.
- FY 16/17 budget includes \$4,400 more than prior year in the Toilet Retrofit program, based on significantly increased demand in the prior year.

*School tour of the Treatment Plant Headworks***Percent of Operating Budget****Proposed Budget**

	Actual FY 13/14	Actual FY 14/15	Adjusted FY 15/16	Estimated FY 15/16	Proposed FY 16/17	Percent Change
Salaries & Benefits	\$ 17,058	\$ 17,611	\$ 144,510	\$ 100,440	\$ 135,920	(5.9%)
Services & Supplies	\$ 68,346	\$ 63,877	\$ 84,850	\$ 89,890	\$ 96,300	13.5%
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 85,404</b>	<b>\$ 81,488</b>	<b>\$ 229,360</b>	<b>\$ 190,330</b>	<b>\$ 232,220</b>	<b>1.2%</b>

**Position Authorizations**

Position Series	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Pollution Prevention and Outreach Specialist	-	-	1	1
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>

## Non-Departmental Expenses

### Description

These expenses are not directly attributable to a specific department or program. They include expenses that are allocated at the District level, such as District memberships in organizations and associations, liability insurance, refunds of sewer service charges, debt service payments, and interfund transfers.

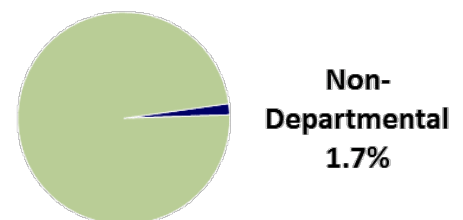
### Changes from FY 2015/16 Service Levels

- There is an increase in the FY 2016/17 budget of \$5,000 for liability insurance related to new facilities (IPS, PW pump station, etc.).
- There is an increase in the FY 2016/17 budget for memberships related to increased BACWA fees (\$4,850).
- There is an increase in the FY 2016/17 budget for debt service related to the issuance of new debt for the Browns Valley Road Sewer Interceptor project.



*Treatment plant biogas holder (left) and digester (right)*

### Percent of Operating Budget



### Proposed Budget

	Actual FY 13/14	Actual FY 14/15	Adjusted FY 15/16	Estimated FY 15/16	Proposed FY 16/17	Percent Change
Salaries & Benefits	-	-	-	-	-	-
Services & Supplies	\$ 269,757	\$ 239,785	\$ 246,750	\$ 249,070	\$ 256,600	4.0%
<b>Total Operating Expenditures</b>	<b>\$ 269,757</b>	<b>\$ 239,785</b>	<b>\$ 246,750</b>	<b>\$ 249,070</b>	<b>\$ 256,600</b>	<b>4.0%</b>
Debt Service, Transfers and Taxes	\$ 6,426,367	\$ 11,437,960	\$ 12,679,200	\$ 12,679,200	\$ 13,673,050	7.8%
<b>TOTAL EXPENDITURES</b>	<b>\$ 6,696,124</b>	<b>\$ 11,677,745</b>	<b>\$ 12,925,950</b>	<b>\$ 12,928,270</b>	<b>\$ 13,929,650</b>	<b>7.8%</b>

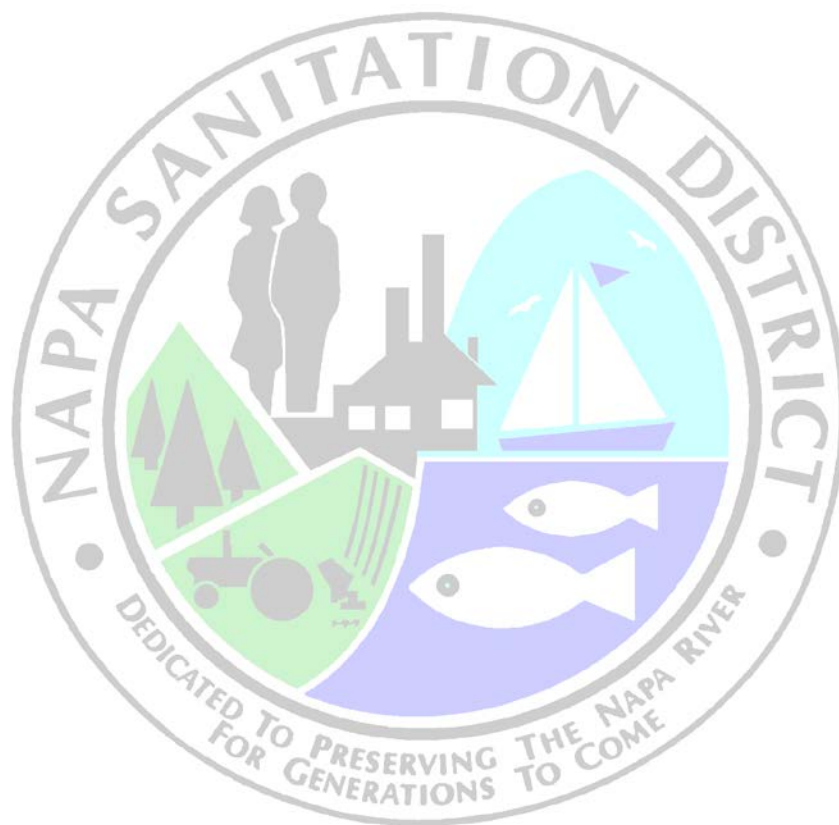


## Capital Improvement Plan



*Installation of recycled water pipeline in the Los Carneros Water District area*





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## Capital Improvement Plan

### *Program Description*

The Capital Improvement Plan (CIP) is designed to identify capital expenditures for the next ten years and to plan appropriately for how to complete those projects within projected revenues and staffing capacity. The plan includes the replacement and rehabilitation of existing capital assets as well as the acquisition or construction of new capital assets.

### *Definition of Capital Expenditures*

Capital expenditures, or capital outlays, are cash outlays by the District that result in the acquisition or construction of a capital asset. A capital asset is any asset of significant value (over \$5,000) that has a useful life of over one year. Examples include land, buildings, machinery, vehicles and equipment. All capital assets acquired or constructed are included in the Capital Improvement Plan. Land is always considered a capital asset, regardless of value.

### *Capital Plan Development Process*

Annually, the District updates its Ten-Year Capital Improvement Plan. The plan undergoes several levels of review and alteration. First, a project is individually evaluated to determine whether it is necessary to do the project, or if a less expensive alternative is available. If the project is still the best alternative, then an evaluation is done to determine when the project should be done, based on the condition of the existing assets or the operational and maintenance needs for the project.

Management and supervisory staff also are provided an opportunity to identify new capital projects through the Project Charter process. New projects are proposed to the Capital Program Manager and the District Engineer who evaluate the projects and determine their need and level of priority. Once vetted through this process, new projects are added to the CIP as funding allows.

### *Vehicle Replacement Guidelines*

The District maintains a fleet of vehicles used solely for purposes related to the direct maintenance and operations of the District. When a vehicle is purchased, it is identified at that time how long that vehicle should continue to serve its intended function, provided that the vehicle is maintained properly. The replacement of that vehicle is then scheduled in the Capital Improvement Plan, to

ensure that the District has adequately planned for the replacement costs associated with the vehicle.

Every year, a team of District staff reviews the list of vehicles owned by the District and the replacement schedule. The team makes the following recommendations:

- Move vehicles back or forward on the replacement schedule based on the maintenance history of the vehicle and any current maintenance problems;
- Move vehicles back or forward on the schedule based on regulatory requirements (such as CARB requirements for diesel engines);
- Move vehicles between organizational units when the use of the vehicle changes;
- Identify whether a vehicle scheduled for replacement should be recommended for surplus, or when it could still be used effectively by another department; and
- Identify when service needs have changed that could necessitate that a vehicle be replaced by a different type of vehicle or not at all.

Senior management reviews the recommendations of the Fleet Team, accepts or rejects recommendations, and incorporates accepted changes into the Ten-Year Capital Improvement Plan. All decisions to declare a vehicle surplus and replace the vehicle are brought to the NSD Board of Directors for approval, in accordance with District procurement policy.

The replacement of fleet vehicles represents almost \$5.5 million, or 3.0% of the entire Ten-Year Capital Improvement Plan. All revenues collected from the sale of any vehicles declared surplus is used to offset the cost of new vehicles.



*The Dystor cover, which serves as the biogas holder, was replaced in FY 2013/14 due to a rip in the inner membrane.*

## *Sources of Capital Expenditure Funding*

There are several sources of funding for capital projects. The District collects capacity charges on new development to pay for its share of expanding the collection and treatment systems. The District also collects sewer service charges revenue in excess of operational needs to pay for replacement and rehabilitation projects. The fees collected as part of development plan review are used for capital projects, as well as grant and intergovernmental revenue.

### *Use of Capacity Charges for Expansion*

The District imposes a capacity charge on new development (see the Budget Summary section, page 32, for more information on this revenue source).

In August 2009, the District completed a study of capacity charges. The study determined that from FY 1995/96 to FY 2007/08, there was significantly more money spent to provide new capacity (expansion) than there was capacity charge revenue collected. As of July 1, 2008, the expansion fund (capacity charges) was in deficit to existing ratepayers and the capital projects fund by \$12.6 million.

As new projects are completed, their benefit to existing users and to new development is evaluated, and a split of expenses between the two is assigned. At the end of the fiscal year, the deficit is adjusted based on the amount of revenue received in capacity charges and the amount of capital expenditure for expansion projects. The following represents a summary of this accounting:

#### FY 2008/09 Actual

Beginning Deficit (7/1/08)	(\$12,607,167)
Revenues	1,387,193
Expansion Projects	1,663,801

#### FY 2009/10 Actual

Beginning Deficit	(\$12,883,775)
Revenues	600,664
Expansion Projects	2,191,370

#### FY 2010/11 Actual

Beginning Deficit	(\$14,474,480)
Revenues	2,183,802
Expansion Projects	2,811,161

#### FY 2011/12 Actual

Beginning Deficit	(\$15,101,839)
Revenues	3,330,418
Expansion Projects	4,208,445

#### FY 2012/13 Actual

Beginning Deficit	(\$15,979,866)
Revenues	2,693,047
Expansion Projects	2,171,064

#### FY 2013/14 Actual

Beginning Deficit	(\$15,457,883)
Revenues	3,635,826
Expansion Projects	7,447,155

#### FY 2014/15 Actual

Beginning Deficit	(\$19,269,211)
Revenues	3,341,297
Expansion Projects	10,657,234

#### FY 2015/16 Estimated

Beginning Deficit	(\$26,585,149)
Revenues	2,998,000
Expansion Projects	3,328,700

#### FY 2016/17 Budget

Beginning Deficit	(\$26,915,849)
Revenues	5,512,000
Expansion Projects	2,438,200
Ending Deficit	(23,842,049)

A budget deficit and situation where expenses on expansion projects exceeds revenues means that the current ratepayers in the system are paying more than their allocated share of capital expenses, as the deficit is made up using sewer service charges and other revenues from operational sources.

A copy of the Capacity Charges Report for Fiscal Year 2014/15 can be found in Appendix F of this budget document.

### *Changes from Prior CIP*

The CIP was amended by the Board several times during FY 2015/16, after initial adoption. The following is a summary of the significant changes made to the CIP during the last fiscal year, not counting carry forwards of uncompleted capital projects from the prior year:

- Established a new project for the replacement of the North Napa Siphon Cover to address odor issues (CIP #16718) with a budget of \$75,000.

- Decreased the budget for the Basin L I&I Reduction Project #4 (CIP 14701) by \$1,423,400 to match the final scope of work and to recognize lower than anticipated bids.
- Increased the budget for the I&I Reduction Program (CIP #13705) by \$17,000.
- Increased the budget for the Sarco Creek Pipeline Replacement being reimbursed by CalTRANS (CIP #15703) by \$205,000 based on bids received.
- Reduced the budget for the ACP CIPP Lining Project #1 (CIP #15721) by \$343,500 to match the final scope of work and bids received.
- Incorporated the Collection System Master Plan Amendment (CIP #16702) into the Browns Valley Road Sewer Interceptor project (CIP #14703).
- Created a new project for Manhole Portable Flowmeters (CIP #16720) as part of the I&I related projects that have an impact on chloride levels in recycled water (\$15,000).
- Increased the Phase 1 Recycled Water Expansion project (CIP #13714) by \$115,000 to meet estimated project costs.
- Increased the budget for the Aeration Basin Instrumentation and Control project (CIP #15713) by \$126,000.
- Created a new project for replacement of tractor tracks (CIP #16719) for \$20,000 and the purchase of a tractor attachment (CIP #16721) for \$7,000, related to biosolids application.

The net impact of the adjustments to the CIP was neutral; there was no increase or decrease in the total capital budget for FY 15/16.

### **Summary of FY 2016/17 Capital Projects**

The following is a summary of FY 2016/17 capital projects. **Dollar amounts noted are the amount budgeted for FY 2016/17, and not the entire amount of the project.** For complete financial information, see the table of projects that follows, starting on page 83.

**Collection System** – Collection System projects represent routine replacement or rehabilitation of existing pipeline or equipment. These projects are designed to replace or improve assets to extend their useful lives or to improve their function by reducing how rainwater and groundwater can enter the collection system. Major projects beginning or continuing this year include the Browns Valley

Sewer Interceptor project, the fifth I&I Reduction project in Basin , an I&I reduction project in Basin G (Browns Valley), an ACP CIPP Lining project, and several smaller rehabilitation projects.

Collection system projects for the fiscal year total \$8,991,600.

**Collection System Equipment** – The Collection Department will be replacing its water truck and one of its cleaning eels. Total replacement cost is \$213,300.

**Lift Stations** – Lift stations are pump stations within the sewer collection system. FY 2016/17 includes the beginning of improvements to the West Napa Pump Station, which is associated with the Browns Valley Road Sewer Interceptor project. Cost is \$1,750,000.

**Treatment** – FY 2016/17 includes work to replace odor control equipment in the headworks and primary clarifiers. Capital costs in this area total \$20,000 for this fiscal year.

**Treatment – Equipment** – These projects include a number of equipment replacements, most notable of which are replacement of the aeration basin panels and implementation and control replacements (\$1,200,000), stationary gas detectors (\$140,000), and overhaul of the cogeneration engine's bottom end (\$75,000) and the purchase and installation of a new strain press as part of the Fats, Oil and Grease (FOG) system (\$200,000). The total FY 2016/17 expenditure is \$2,096,800.

**Treatment Plant – Structures** – There are a few projects associated with the structures at the treatment plant. The most significant are the two roof repair projects. The total FY 2016/17 expenditure is \$195,000.

#### **Ten-Year CIP Summary**

	<b><u>FY 2016/17</u></b>	<b><u>10-Year CIP</u></b>
Collection System	\$8,991,600	\$81,493,400
Collection System Equipment	213,300	3,476,500
Lift Stations	1,750,000	3,356,900
Treatment	20,000	5,722,700
Treatment Equipment	2,096,800	8,051,500
Treatment Structures	195,000	24,936,800
SCADA	0	1,073,700
Recycling-District	1,637,200	5,262,100
Recycling-Expansion	2,045,000	42,775,400
Other	231,800	5,655,900
<b>Total</b>	<b>\$17,180,700</b>	<b>\$181,804,900</b>



**SCADA** – SCADA is the hardware and software that is used to operate the treatment plant. In FY 2016/17, there are no SCADA projects.

**Recycling-District** – This section includes projects and equipment necessary for the District to maintain its fields, distribute recycled water, and land apply biosolids. FY 2016/17 includes lining the existing two recycled water reservoirs to increase their holding capacity (\$1,320,000) and replacement of a tractor (\$200,000) among other projects. The total FY 2016/17 expenditure is \$1,637,200.

**Recycling-Expansion** – This section includes projects to expand the recycled water distribution system into the community, or expand the treatment capabilities at the plant. Expenses here include continued efforts through the North Bay Water Reuse Project to apply for and manage federal and state grants (\$845,000) and the extension of the recycled water distribution pipeline into the MST (\$1,200,000).

**Other** – Development technical support (\$231,800) is the capitalization of staff time spent reviewing the plans and inspections associated with contributed capital.

### ***Partner-Funded Projects***

The District has partnered with a company to develop a 1.0 Megawatt photo-voltaic (PV) solar power system. The District has entered into a Power Purchase Agreement whereby the solar provider will build, operate and maintain the PV solar system on District-owned property. The provider will sell electricity to the District at a rate lower than its current rate for grid power. The project is expected to save the District over \$2.8 million NPV over 25 years. As part of the project, the District has negotiated to retain ownership of the environmental attributes of the project. The District has the option to purchase the PV solar system in the 6<sup>th</sup> year of the agreement. The construction for this project is expected to be completed in September 2016.

### ***Unfunded or Delayed Projects***

The Capital Improvement Plan includes projects that have been clearly identified and programmed. It also includes some “placeholder” projects, where the specific project has not been identified but there is money allocated nonetheless. These placeholders are included in the plan to recognize that there is the

need to plan for future replacement and rehabilitation projects, even though the specific projects have not yet been scoped and planned. Providing a placeholder for these future projects will ensure that there are adequate resources to pay for these projects once they are known.

A number of projects that were slated to begin in FY 2016/17 in last year’s CIP have been pushed out to begin in future years. This was done after it was determined that only critical CIP project would be started in FY 2016/17, based on the sewer service charge increase set as part of the Proposition 218 process and the 10-Year Financial Forecast. These delays allowed the District to present a capital budget for FY 2016/17 that did not exceed available resources. They include:

- Deferred replacement of Collection System Asset Management Software by one year
- Deferred replacement of a Collection System maintenance truck by two years
- Deferred installation of a redundant 12kV electrical line to the recycled water pump station by two years
- Deferred correction of the transfer structure between Pond 2 and Pond 4 by two years
- Deferred installation of variable frequency drives (VFDs) at the Jameson recycled water pump station by two years
- Deferred replacement of the pull flair chopper used for biosolids incorporation by one year
- Deferred replacement of the pipe dolly by five years

Staff believes that these delays will not result in deferred maintenance scenarios, nor will they delays pose an unreasonable risk for system failure or permit violation.

### ***Impact of Projects on Operating Budget***

Many of the capital projects planned for FY 2016/17 are replacements and rehabilitations of existing capital assets, so it is not expected that these capital projects will have an impact on future operating budgets. However, some the FY 2016/17 capital projects will have a significant impact on the current and future operations and maintenance budgets of the District.

The I&I Reduction projects in the Collection System (Basin L #5 and Basin G #1) are designed to decrease the amount of rainwater and groundwater



that get into the system. This reduces future costs by reducing the need to build bigger pipes as well as reduces the amount of influent that the plant needs to treat. It also reduces the need for cleaning and root removal maintenance activities. The immediate, short-term savings have not been calculated, but should have a positive effect on the operating budget.

The Browns Valley Trunk Sewer Interceptor project (CIP #14703) will increase the amount of sewer main that will need to be maintained in the Collection System. However, it is not significant enough in size to impact the staffing levels or other direct expenses in the Collection System operating budget.

The Odor Control VFD (CIP #17717) and the LED Pole/Arm Mounted Fixtures (CIP #17718) are both energy projects that will result in increased energy efficiency in the treatment plant. An audit by PG&E estimated the savings from these projects at \$14,100 annually for CIP #17717 and \$10,400 for CIP #17718.

Lining the existing recycled water reservoirs (CIP #16716) will increase the operating efficiency of the recycled water system and allow more water to be stored. However, there are no increased or decreased operating costs expected with this project.

The new FOG strain press (SIP #17716) will increase electricity consumption, but not significantly. The increased quality of FOG into the digester will offset these costs through increased energy generation in the cogeneration engine.

The expansion of the MST recycled water pipeline (CIP #17737) will lead to increased maintenance and operating costs for those pipelines over time. These costs, including rehabilitation projects for all of the recycled water pipelines, are expected in future years and included in the CIP. The operating budget for

this project once completed in FY 17/18 will need to recognize an additional \$22,000 in treatment costs, although these costs will be offset by increased recycled water sales revenue.

The project to replace the aeration basin diffusers and install better instrumentation and controls to manage dissolved oxygen levels (CIP #15713) is estimated by PG&E to save the District \$27,400 once fully operational.

#### Impacts of Capital Projects on Operating Budget

<u>CIP #</u>	<u>2016/17</u>	<u>2017/18</u>	<u>2018/19</u>
17717	(7,000)	(14,500)	(14,900)
17718	(5,200)	(11,700)	(12,100)
17737	0	22,000	22,600
14727	0	(28,200)	(29,100)
<b>Total</b>	<b>(\$12,200)</b>	<b>(\$34,400)</b>	<b>(\$33,500)</b>



*New Administration Building under construction in 2013*

**FY 2016/17**  
**CIP Project Descriptions**

**COLLECTION SYSTEM**

<b>13701</b>	<b>Mainline Sewer Rehabilitation</b>		<b>FY 2016/17:</b>	<b>\$88,700</b>
	<i>Ongoing program to conduct spot repairs to damaged sewer lines using NSD crews or an outside contractor, extending the useful life of these assets.</i>			
<b>13702</b>	<b>Manhole Raising / Rehabilitation</b>		<b>FY 2016/17:</b>	<b>\$198,900</b>
	<i>Ongoing program to fund the raising of manhole rims in streets that have been resurfaced. NSD crews replace damaged manholes in this program.</i>			
<b>13703</b>	<b>Lateral Replacement / Rehabilitation</b>		<b>FY 2016/17:</b>	<b>\$72,000</b>
	<i>Ongoing program to rehabilitate street laterals as required using NSD crews or an outside contractor.</i>			
<b>13704</b>	<b>Cleanout Installation / Rehabilitation</b>		<b>FY 2016/17:</b>	<b>\$87,000</b>
	<i>Ongoing program using NSD crews to install lateral clean-outs at the property line where one does not exist.</i>			
<b>13705</b>	<b>Inflow &amp; Infiltration (I&amp;I) Reduction Program</b>		<b>FY 2016/17:</b>	<b>\$200,000</b>
	<i>This program conducts smoke testing and flow monitoring for I&amp;I reduction projects. A consultant will conduct an analysis to evaluate the effectiveness of the I&amp;I reduction projects.</i>			
<b>16701</b>	<b>Basin L - I&amp;I Reduction Project 5</b>	<b>Project Total: \$2,200,000</b>	<b>FY 2016/17:</b>	<b>\$1,400,000</b>
	<i>Project 5 will be designed and constructed to reduce I&amp;I in Basin L (north of Imola Avenue, south of Napa Creek, and west of the Napa River).</i>			
<b>17701</b>	<b>ACP CIPP Lining Project #2</b>	<b>Project Total: \$1,200,000</b>	<b>FY 2016/17:</b>	<b>\$350,000</b>
	<i>The project will rehabilitate existing asbestos cement pipes (ACP). The ACP mains are degrading and were determined to be in immediate need of rehabilitation.</i>			
<b>17702</b>	<b>Upper Lateral Rehabilitation - Basin L (Pilot #2)</b>	<b>Project Total: \$160,300</b>	<b>FY 2016/17:</b>	<b>\$5,000</b>
	<i>This pilot project will replace residential private sewer lateral pipes in a portion of Basin L.</i>			
<b>17703</b>	<b>Manhole Rehab - Nipak</b>	<b>Project Total: \$90,000</b>	<b>FY 2016/17:</b>	<b>\$90,000</b>
	<i>The project will rehabilitate existing manholes to decrease groundwater infiltration into the collection system.</i>			
<b>17704</b>	<b>Infiltration Rehab - SSMH and Pipelines (CI-)</b>	<b>Project Total: \$400,000</b>	<b>FY 2016/17:</b>	<b>\$400,000</b>
	<i>The project will rehabilitate existing pipelines and manholes to decrease infiltration of groundwater with high salt content.</i>			
<b>17705</b>	<b>Soscol Ave (8th to Oil Company Road)</b>	<b>Project Total: \$1,017,500</b>	<b>FY 2016/17:</b>	<b>\$500,000</b>
	<i>The project will rehabilitate existing large diameter reinforced concrete pipe that is degraded and nearing the end of its useful life.</i>			
<b>15703</b>	<b>Sarco Creek Pipeline Replacement - CalTRANS</b>	<b>Project Total: \$1,151,850</b>	<b>FY 2016/17:</b>	<b>\$1,050,000</b>
	<i>This project, funded by CalTRANS, will relocate sewer main pipe adjacent to Silverado Trail that crosses Sarco creek. The relocation is needed for a CalTRANS bridge project.</i>			
<b>14703</b>	<b>Browns Valley Truck Interceptor</b>	<b>Project Total: \$15,488,450</b>	<b>FY 2016/17:</b>	<b>\$2,800,000</b>
	<i>The project will intercept sewage from the Browns Valley area and bypass it around the downtown area. The project goal is to convey increased flows in the sewer system to decrease the potential for overflows.</i>			

**FY 2016/17**  
**CIP Project Descriptions**

**17706 Rehab - Ranch De Los Robles** **Project Total: \$1,600,000** **FY 2016/17: \$400,000**  
*This collection system rehabilitation project will be designed and constructed to reduce I&I in Basin L (north of Imola Avenue, south of Napa Creek, and west of the Napa River).*

**17707 66-inch Trunk CCTV Inspection** **Project Total: \$150,000** **FY 2016/17: \$150,000**  
*This project will evaluation the condition of the existing trunk main from Oil Company Road to the treatment plant.*

**17708 Basin G - I&I Reduction Project 1** **Project Total: \$2,442,000** **FY 2016/17: \$1,200,000**  
*This collection system rehabilitation project will be designed and constructed to reduce I&I in Basin G (Browns Valley Area).*

**COLLECTION SYSTEM EQUIPMENT**

**17709 Eel Replacement 1** **Project Total: \$5,400** **FY 2016/17: \$5,400**  
*This project will replace the old and outdated eel used in Collections to clean laterals and to remove debris.*

**17710 Vehicle 510 - Water Truck** **Project Total: \$207,900** **FY 2016/17: \$207,900**  
*This project will purchase a new water truck. The existing water truck will be transferred to the Recycling department for use at Jameson Ranch for dust control.*

**LIFT STATIONS**

**17711 West Napa PS-Rehab** **Project Total: \$3,050,000** **FY 2016/17: \$1,750,000**  
*The project will rehabilitate existing assets at the pump station and increase the firm capacity to convey peak wet-weather flows.*

**TREATMENT**

**17712 Headworks & Primary - Odor Control** **Project Total: \$20,000** **FY 2016/17: \$20,000**  
*The project will replace existing odor control blower unit shrouds, screens, and seismic pedestals that are rusted and corroded.*

**TREATMENT - EQUIPMENT**

**13741 Secondary PS Pump Rebuild (3)** **Project Total: \$111,300** **FY 2016/17: \$37,500**  
*This equipment is at the end of its useful life and needs to be replaced.*

**17713 Secondary PS VFD Replacement (3)** **Project Total: \$166,400** **FY 2016/17: \$53,600**  
*This equipment is at the end of its useful life and needs to be replaced.*

**17714 WWTP MP - 3W System Improvements** **Project Total: \$441,700** **FY 2016/17: \$60,000**  
*Replace valves and address corrosion in the 3W system at the treatment plant.*

**17715 Turbidimeters (7) Tertiary Replacements** **Project Total: \$11,800** **FY 2016/17: \$11,800**  
*This equipment is at the end of its useful life and needs to be replaced.*

**17716 FOG - Strain Press** **Project Total: \$200,000** **FY 2016/17: \$200,000**  
*Purchase and install equipment that will remove blockage causing debris at the FOG receiving station.*

**17717 Energy Audit - Odor Control VFD** **Project Total: \$51,700** **FY 2016/17: \$51,700**  
*Purchase and install a VFD for the primary clarifier exhaust fans that will result in annual energy savings.*

**FY 2016/17**  
**CIP Project Descriptions**

<b>17718</b>	<b>Energy Audit - LED Pole/Arm Mounted Fixtures</b> <i>Replace LED pole/arm mounted fixtures that will result in annual energy savings.</i>	<b>Project Total:</b>	<b>\$78,100</b>	<b>FY 2016/17:</b>	<b>\$78,100</b>
<b>17719</b>	<b>Lab - Sampler 4700 - Pretreatment</b> <i>This equipment is at the end of its useful life and needs to be replaced.</i>	<b>Project Total:</b>	<b>\$7,500</b>	<b>FY 2016/17:</b>	<b>\$7,500</b>
<b>17720</b>	<b>Lab - Sampler 4700 - Pretreatment</b> <i>This equipment is at the end of its useful life and needs to be replaced.</i>	<b>Project Total:</b>	<b>\$7,500</b>	<b>FY 2016/17:</b>	<b>\$7,500</b>
<b>17721</b>	<b>Lab - Chlorophyll A Analyzer - Pond Water</b> <i>Purchase equipment needed for receiving water and pond monitoring.</i>	<b>Project Total:</b>	<b>\$5,400</b>	<b>FY 2016/17:</b>	<b>\$5,400</b>
<b>17722</b>	<b>Main - Stationary Gas Detector Replacement Ph 2</b> <i>Stationary gas detectors are required in the treatment plant to sense hydrogen sulfide and explosive limits of combustible gases which provide for a safe working environment. Existing gas monitoring equipment is old and requires frequent replacement of parts. This project will replace existing equipment.</i>	<b>Project Total:</b>	<b>\$140,000</b>	<b>FY 2016/17:</b>	<b>\$140,000</b>
<b>17723</b>	<b>Main - Rotork Actuator Replacement</b> <i>This project will replace existing valves actuators in the treatment plant.</i>	<b>Project Total:</b>	<b>\$88,700</b>	<b>FY 2016/17:</b>	<b>\$88,700</b>
<b>15712</b>	<b>Main - Rehab Pond 1 Storage Structure</b> <i>Repair the existing storage structure near Pond 1 at the treatment plant to create a storage area for spare parts and equipment that is protected from the weather.</i>	<b>Project Total:</b>	<b>\$30,000</b>	<b>FY 2016/17:</b>	<b>\$25,000</b>
<b>17724</b>	<b>Main - Primary Clarifier Exhaust Fan Replacement</b> <i>This equipment is at the end of its useful life and needs to be replaced.</i>	<b>Project Total:</b>	<b>\$5,000</b>	<b>FY 2016/17:</b>	<b>\$5,000</b>
<b>15713</b>	<b>Main - AB Diffusers/Instrumentation and Control</b> <i>Replace the existing diffusers panels in the aeration basins and install instrumentation and control improvements to create annual energy savings.</i>	<b>Project Total:</b>	<b>\$1,249,850</b>	<b>FY 2016/17:</b>	<b>\$1,200,000</b>
<b>16713</b>	<b>Main - Buried Metallic Pipe Evaluation and Rehab</b> <i>This project will rehabilitate existing piping within the Plant. The work in FY16/17 will assess existing damage and scope a future rehabilitation project.</i>	<b>Project Total:</b>	<b>\$250,000</b>	<b>FY 2016/17:</b>	<b>\$40,000</b>
<b>16715</b>	<b>Main - Cogen Bottom End Overhaul</b> <i>This is a major maintenance project that is necessary to extend the useful life of the cogeneration engine used to produce electricity and heat for the plant.</i>	<b>Project Total:</b>	<b>\$225,000</b>	<b>FY 2016/17:</b>	<b>\$75,000</b>
<b>17725</b>	<b>Main - Sump #3 Modification</b> <i>Modify drainage pumping in the gallery area of the treatment plant to address existing inefficiency.</i>	<b>Project Total:</b>	<b>\$10,000</b>	<b>FY 2016/17:</b>	<b>\$10,000</b>
<b><u>TREATMENT - STRUCTURES</u></b>					
<b>17726</b>	<b>Headworks Equipment Rehab/Replacement</b> <i>Purchase and install equipment for the headworks building to replace equipment that is at the end of its useful life.</i>	<b>Project Total:</b>	<b>\$544,100</b>	<b>FY 2016/17:</b>	<b>\$10,000</b>
<b>17727</b>	<b>Roof Replacement - Digester 2nd Floor</b> <i>Replace existing roof that is leaking and at the end of its useful life.</i>	<b>Project Total:</b>	<b>\$125,000</b>	<b>FY 2016/17:</b>	<b>\$125,000</b>

**FY 2016/17**  
**CIP Project Descriptions**

<b>17728 Roof Replacement - AB/Blower Building</b> <i>Replace existing roof that is leaking and at the end of its useful life.</i>	<b>Project Total:</b>	<b>\$40,000</b>	<b>FY 2016/17:</b>	<b>\$40,000</b>
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<b>17729 DAF Access Opening</b> <i>Modify access to the DAF and DAF pad for safety and operations benefits.</i>	<b>Project Total:</b>	<b>\$20,000</b>	<b>FY 2016/17:</b>	<b>\$20,000</b>
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**SCADA**

*There are no SCADA projects in FY 2016/17*

**RECYCLING - DISTRICT**

<b>16716 Line Recycled Water Reservoirs</b> <i>This project will install a non-permeable liner on the bottom of the existing recycled water reservoirs used for daily storage and equalization. The project will increase the storage capacity of the existing ponds by approximately 50%.</i>	<b>Project Total:</b>	<b>\$1,365,000</b>	<b>FY 2016/17:</b>	<b>\$1,320,000</b>
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<b>15717 Isolation Valve on Kirkland Line (Devlin Road)</b> <i>Install an inline valve to create an additional isolation point for operational benefits of the south pipeline.</i>	<b>Project Total:</b>	<b>\$63,850</b>	<b>FY 2016/17:</b>	<b>\$49,200</b>
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<b>17730 Jameson Solids Pad Dump Bay</b> <i>Install a concrete pad at Jameson Ranch for biosolids management and processing.</i>	<b>Project Total:</b>	<b>\$15,000</b>	<b>FY 2016/17:</b>	<b>\$15,000</b>
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<b>17731 Jameson Office Trailer Replacement</b> <i>Replace the existing office trailer that is at the end of its useful life.</i>	<b>Project Total:</b>	<b>\$25,000</b>	<b>FY 2016/17:</b>	<b>\$25,000</b>
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<b>17732 Vehicle 710 - 8830 Tractor</b> <i>Replace existing tractor that is at the end of its useful life.</i>	<b>Project Total:</b>	<b>\$200,000</b>	<b>FY 2016/17:</b>	<b>\$200,000</b>
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<b>17733 Vehicle 172 - Ford F150</b> <i>Replace existing truck that is at the end of its useful life.</i>	<b>Project Total:</b>	<b>\$28,000</b>	<b>FY 2016/17:</b>	<b>\$28,000</b>
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**RECYCLING - EXPANSION**

<b>13727 North Bay Water Reuse Project</b> <i>This is the cost of program development , project management, and environmental analysis associated with the expansion of recycled water production and delivery, and seeking federal and state grant revenues in support of recycled water.</i>			<b>FY 2016/17:</b>	<b>\$845,000</b>
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<b>17734 MST RW Pipeline Extension</b> <i>This project, financed by Napa County through WaterSmart grants and an SRF loan, will design and construct a recycled water pipeline in Coombsville Road from 2nd Avenue to Terrace Drive.</i>	<b>Project Total:</b>	<b>\$1,900,000</b>	<b>FY 2016/17:</b>	<b>\$1,200,000</b>
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**OTHER**

<b>13729 Development Technical Support</b> <i>District staff reviews and comments on development plans involving sewer and recycled water facilities and contributed capital.</i>			<b>FY 2016/17:</b>	<b>\$231,800</b>
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**FY 2016/17 Capital Project Schedule**  
**Allocation of Capacity Charges**

#	Name	FY 16/17	% Funded by Capacity Charges	% Funded by Other Revenue	Total Capacity Charges	Total Other Revenue
<b><u>COLLECTION SYSTEM</u></b>						
13701	Main Line Sewer Rehab	88,700		100.0%	-	88,700
13702	Manhole Raising/Rehab	198,900		100.0%	-	198,900
13703	Lateral Replacement/Rehab	72,000		100.0%	-	72,000
13704	Cleanouts Installation/Rehab	87,000		100.0%	-	87,000
13705	I&I Reduction Program	200,000	39.4%	60.6%	78,800	121,200
14703	Browns Valley Rd & First St	2,800,000	39.4%	60.6%	1,103,200	1,696,800
15703	Sarco Creek Pipeline Replacement - CalTRANS	1,050,000		100.0%	-	1,050,000
16701	Basin L - I&I Reduction Project 5	1,400,000	39.4%	60.6%	551,600	848,400
17701	ACP CIPP Lining Project #2	350,000		100.0%	-	350,000
17702	Upper Lateral Rehabilitation - Basin L (Pilot #2)	5,000		100.0%	-	5,000
17703	Manhole Rehab - Nipak	90,000		100.0%	-	90,000
17704	Infiltration Rehab - SSMH and Pipelines (CI-)	400,000		100.0%	-	400,000
17705	Soscol Ave (8th to Oil Company Road)	500,000		100.0%	-	500,000
17706	Rehab - Ranch De Los Robles	400,000		100.0%	-	400,000
17707	66-inch Trunk CCTV Inspection	150,000		100.0%	-	150,000
17708	Basin G - I&I Reduction Project #1	1,200,000	39.4%	60.6%	472,800	727,200
<b><u>COLLECTION SYSTEM - EQUIPMENT</u></b>						
17709	Eel Replacment 1	5,400		100.0%	-	5,400
17710	Vehicle 510 - Water Truck	207,900		100.0%	-	207,900
<b><u>LIFT STATIONS</u></b>						
17711	West Napa PS - Rehab	1,750,000		100.0%	-	1,750,000
<b><u>TREATMENT</u></b>						
17712	Headworks & Primary - Odor Control	20,000		100.0%	-	20,000
<b><u>TREATMENT - EQUIPMENT</u></b>						
13741	Secondary PS Pump Rebuild (3)	37,500		100.0%	-	37,500
15712	Rehabilitate Pond 1 Storage Structure	25,000		100.0%	-	25,000
15713	Aeration Basin Instrumentation and Control	1,200,000		100.0%	-	1,200,000
16713	Buried Metallic Piping (eval/rehab)	40,000		100.0%	-	40,000
16715	Cogen Bottom End Overhaul	75,000		100.0%	-	75,000
17713	Secondary PS VFD Replacement (3)	53,600		100.0%	-	53,600
17714	WWTP MP - 3W System Improvements	60,000		100.0%	-	60,000
17716	FOG - Strain Press	200,000		100.0%	-	200,000
17717	Energy Audit - Odor Control VFD	51,700		100.0%	-	51,700
17718	Energy Audit - LED Pole/Arm Mounted Fixtures	78,100		100.0%	-	78,100
17719	Lab - Smpler 4700 - Pretreatment	7,500		100.0%	-	7,500
17720	Lab - Smpler 4700 - Pretreatment	7,500		100.0%	-	7,500
17721	Lab - Chlorophyll A Analyzer - Pond Water	5,400		100.0%	-	5,400
17722	Main - Stationary Gas Detector Replacment Ph 2	140,000		100.0%	-	140,000
17723	Main - Rotork Actuator Replacment	88,700		100.0%	-	88,700
17724	Main - Primary Clarifier Exhaust Fan Replacment	5,000		100.0%	-	5,000
17725	Main - Sump #3 Modification	10,000		100.0%	-	10,000
<b><u>TREATMENT - STRUCTURES</u></b>						
17726	Headworks Equipment Rehab/Replacment	10,000		100.0%	-	10,000
17727	Roof Replacement - Digester 2nd Floor	125,000		100.0%	-	125,000
17728	Roof Replacement - AB/Blower Building	40,000		100.0%	-	40,000
17729	DAF Access Opening	20,000		100.0%	-	20,000
<b><u>RECYCLING - DISTRICT</u></b>						
15717	Isolation Valve on Kirkland Line (Devlin Rd)	49,200		100.0%	-	49,200
16716	Line Recycled Water Reservoir	1,320,000		100.0%	-	1,320,000
17730	Jameson Solids Pad Dump Bay	15,000		100.0%	-	15,000
17731	Jameson Office Trailer Replacment	25,000		100.0%	-	25,000
17732	Vehicle 710 - 8830 Tractor	200,000		100.0%	-	200,000
17733	Vehicle 172 - Ford F150	28,000		100.0%	-	28,000
<b><u>RECYCLING - EXPANSION</u></b>						
13727	North Bay Wate Reuse Project	845,000		100.0%	-	845,000
17734	MST RW Pipeline Extension	1,200,000		100.0%	-	1,200,000
<b><u>OTHER</u></b>						
13729	Development Technical Support	231,800	100.0%	0.0%	231,800	-
<b>TOTAL</b>		<b>17,180,700</b>			<b>\$2,438,200</b>	<b>\$14,742,500</b>

Napa Sanitation District  
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#	Name	FY 16/17 Proposed	FY 17/18 Projected	FY 18/19 Projected	FY 19/20 Projected	FY 20/21 Projected	FY 21/22 Projected	FY 22/23 Projected	FY 23/24 Projected	FY 24/25 Projected	FY 25/26 Projected
<b>COLLECTION SYSTEM</b>											
1	13701 Mainline Sewer Rehab	88,700	91,800	95,000	98,300	101,800	105,300	109,000	112,900	116,800	120,900
2	13702 Manhole Raising / Rehab	198,900	205,900	213,100	220,500	228,200	236,200	244,500	253,100	261,900	271,100
3	13703 Lateral Replacement / Rehab	72,000	74,500	77,100	79,800	82,600	85,500	88,500	91,600	94,800	98,100
4	13704 Cleanout Installation / Rehab	87,000	90,000	93,200	96,500	99,800	103,300	106,900	110,700	114,600	118,600
5	13705 I&I Reduction Program	200,000	207,000	-	-	-	-	-	-	-	-
6	16701 Basin L - I&I Reduction Project 5	1,400,000	-	-	-	-	-	-	-	-	-
7	Collection System Master Plan	-	-	860,600	-	-	-	-	-	-	-
8	Collection System Asset Management Software	-	100,000	-	-	-	-	-	-	-	-
9	ACP CIPP Lining Project #2	350,000	500,000	350,000	-	-	-	-	-	-	-
10	Upper Lateral Rehab - Basin L (Pilot) #2	5,000	155,300	-	-	-	-	-	-	-	-
11	Upper Lateral Rehab - Basin L (Pilot) #3	-	5,000	160,700	-	-	-	-	-	-	-
12	Manhole Rehab - Nipak	90,000	-	-	-	-	-	-	-	-	-
13	Infiltration Rehab - SSMH and Pipelines (CI-)	400,000	-	-	-	-	-	-	-	-	-
14	Soscol Ave (8th to Oil Company Rd)	500,000	517,500	-	-	-	-	-	-	-	-
15	15703 Sarco Creek Pipeline Replacement - Caltrans	1,050,000	-	-	-	-	-	-	-	-	-
16	14703 Browns Valley Trunk	2,800,000	9,237,000	2,049,000	-	-	-	-	-	-	-
17	Rehab - Rancho De Los Robles	400,000	1,200,000	-	-	-	-	-	-	-	-
18	66-inch Trunk CCTV Inspection	150,000	1,242,000	-	-	-	-	-	-	-	-
19	Basin G - I&I Reduction Project 1	1,200,000	1,759,500	1,821,100	-	-	-	-	-	-	-
20	Sewer System Inflow/Infiltration 2018	-	-	10,000	1,053,300	-	-	-	-	-	-
21	Sewer System Rehab/Replacement 2019	-	-	1,821,100	1,884,800	-	-	-	-	-	-
22	Sewer System Inflow/Infiltration 2019	-	-	-	1,053,300	1,090,100	-	-	-	-	-
23	Sewer System Rehab/Replacement 2020	-	-	-	1,884,800	1,950,800	-	-	-	-	-
24	Sewer System Inflow/Infiltration 2020	-	-	-	1,053,300	1,090,100	1,128,300	-	-	-	-
25	Sewer System Rehab/Replacement 2021	-	-	-	1,884,800	1,950,800	2,019,100	-	-	-	-
26	Sewer System Inflow/Infiltration 2021	-	-	-	-	1,090,100	1,128,300	-	-	-	-
27	Sewer System Rehab/Replacement 2022	-	-	-	-	1,950,800	2,019,100	-	-	-	-
28	Sewer System Inflow/Infiltration 2022	-	-	-	-	-	2,019,100	1,167,800	-	-	-
29	Sewer System Inflow/Infiltration 2023	-	-	-	-	-	2,089,700	2,089,700	1,208,700	-	-
30	Sewer System Rehab/Replacement 2023	-	-	-	-	-	1,167,800	-	-	-	-
31	Sewer System Inflow/Infiltration 2024	-	-	-	-	-	-	2,089,700	2,162,900	-	-
32	Sewer System Rehab/Replacement 2024	-	-	-	-	-	-	-	1,208,700	1,251,000	-
33	Sewer System Inflow/Infiltration 2024	-	-	-	-	-	-	-	2,162,900	2,238,600	-
34	Sewer System Rehab/Replacement 2025	-	-	-	-	-	-	-	-	1,251,000	1,294,800
35	Sewer System Inflow/Infiltration 2025	-	-	-	-	-	-	-	-	2,316,900	2,316,900
36	Sewer System Rehab/Replacement 2026	-	-	-	-	-	-	-	-	1,294,800	-
37	Sewer System Inflow/Infiltration 2026	-	-	-	-	-	-	-	-	2,316,900	-
<b>COLLECTION SYSTEM - EQUIPMENT</b>											
38	16706 Locatable Mini-Camera #1 Replacement	-	-	-	-	-	-	-	13,600	-	-
39	Locatable Mini-Camera #2 Replacement	-	11,100	-	-	-	-	-	-	-	14,600
40	Locatable Mini-Camera #3 Replacement	-	-	-	11,900	-	-	-	-	-	-
41	Locatable Mini-Camera #4 Replacement	-	-	-	-	-	12,700	-	-	-	-
42	Eel Replacement #1	5,400	-	-	-	-	-	-	-	7,100	-
43	Eel Replacement #2	-	-	-	5,900	-	-	-	-	-	-
44	Eel Replacement #3	-	-	-	-	-	-	6,600	-	-	-
45	Eel Replacement #4	-	-	-	-	-	-	-	-	-	-
46	Vehicle 711 - Kubota	-	-	-	-	-	-	-	50,800	-	7,300
47	13711 Vehicle 173 - Plugup Truck - Secondary	-	-	-	-	-	-	-	-	-	-
48	Vehicle 185 - Plugup Truck - Primary	-	-	-	-	-	-	-	-	81,800	-
49	Vehicle 180 - Ford Ranger	-	-	-	-	-	34,100	-	-	-	74,400
50	Vehicle 154 - Ford Ranger	-	-	-	-	-	-	-	-	-	-
51	Vehicle 015 - Water Trailer	-	-	-	-	-	-	-	-	44,300	-
52	Vehicle 166 - Ford F-350	-	-	-	-	10,500	-	-	-	-	-
53	Vehicle 706 - 410 Backhoe	-	-	39,700	-	-	-	-	-	-	-
54	Vehicle 510 - Water Truck	-	-	-	-	-	195,000	-	-	-	-
55		207,900	-	-	-	-	-	-	-	-	-

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56	Vehicle 175 - Hybrid Escape	-	-	-	37,600	-	-	-	-	-	-
57	Vehicle 504 - TV Truck	-	250,000	-	-	-	-	-	-	-	-
58	Vehicle 100 - Backhoe Trailer	-	-	-	-	25,300	-	-	500,000	-	-
59	Vehicle 512 - Rodder	-	-	-	180,000	-	-	-	-	-	-
60	Vehicle 18 - Cement Trailer	-	-	-	34,900	-	-	-	-	-	-
61	Vehicle 16 - 18ft. Trailer	-	-	9,400	-	-	-	-	-	-	-
62	Vehicle 205 - Forklift	-	-	-	-	40,300	-	-	-	-	-
63	Vehicle 179 - Mini-Dump	-	-	-	-	-	62,000	-	-	-	-
64	Vehicle 182 - Mini-Dump	-	-	-	-	-	62,000	-	-	-	-
65	Vehicle 514 - 10 Yard Dump	-	-	-	-	-	-	-	-	-	252,600
66	Vehicle 528 - Mini-Vactor	-	-	-	-	-	-	528,900	-	-	-
67	Vehicle 529 - Vactor	-	-	-	-	-	592,100	-	-	-	-
68	Vehicle 183 - Repair Truck	-	-	-	-	-	-	66,700	-	-	-
69	<b>LIFT STATIONS</b>										
70	West Napa PS - Rehab	1,750,000	1,300,000	-	-	-	-	-	-	-	-
71	Main - Stonecrest Pump Rebuild	-	-	45,000	-	-	-	-	-	-	-
72	Lift Station Equipment Renewal & Replacement	-	-	-	40,000	-	-	-	-	-	-
73	Lift Station Equipment Renewal & Replacement	-	-	-	-	41,400	-	-	-	-	-
74	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	42,800	-	-	-	-
75	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	-	44,300	-	-	-
76	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	-	-	45,900	-	-
77	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	-	-	-	47,500	-
78	<b>TREATMENT</b>										
79	13745 Pond 1 Dredge	-	598,700	2,993,500	-	-	-	-	-	-	-
80	WWTP Master Plan	-	-	-	1,781,500	-	-	-	-	-	-
81	Siloxane Filter - Venturi	-	-	214,200	-	-	-	-	-	-	-
82	Headworks & Primary - Odor Control	20,000	-	-	-	-	-	-	-	-	-
83	Headworks - Biofilter	-	-	-	-	114,800	-	-	-	-	-
84	<b>TREATMENT - EQUIPMENT</b>										
85	13735 Dual Fuel Boiler Burner	-	-	-	-	-	-	-	-	-	109,500
86	13741 Secondary PS Pump Rebuild (3)	37,500	38,800	-	-	-	-	-	-	-	-
87	Secondary PS VFD Replacement (3)	53,600	55,400	57,400	-	-	-	-	-	-	-
88	13743 Residual Analyzers (Deox) Replacements	-	-	-	71,300	-	-	-	-	-	87,600
89	15707 DAFT Overflow Pumps (2) Cornell	-	11,100	11,500	-	-	-	-	-	-	-
90	3W Pipeline - Soscol PS to Plant - Rehab	-	33,300	-	-	-	-	-	-	-	-
91	3W Strainer	-	83,200	-	-	-	-	-	-	-	-
92	WWTP MP - 3W System Improvements	60,000	381,700	-	-	-	-	-	-	-	-
93	15708 Turbidimeters (7) Tertiary Replacements	11,800	-	-	-	-	-	-	-	-	-
94	MLE Recirculation Pumps (2) - Nutrient Opt	-	-	-	237,500	-	-	-	-	-	-
95	Portable Pumps 10" (2)	-	-	172,100	-	-	-	-	-	-	-
96	Sodium Bisulfite Tank #2	-	-	68,900	-	-	-	-	-	-	-
97	Marsh-to-Pond Pump Station Upgrade	-	-	-	88,700	-	-	-	-	-	-
98	FOG - Strain Press	200,000	-	-	-	-	-	-	-	-	-
99	Energy Audit - Odor Control VFD	51,700	-	-	-	-	-	-	-	-	-
100	Energy Audit - LED Pole/Arm Mounted Fixtures	78,100	-	-	-	-	-	-	-	-	-
101	Ops - SBS Flash Mixers	-	-	85,700	-	-	-	-	-	-	-
102	Ops - RAS System Flow Meter	-	-	-	11,100	-	-	-	-	-	-
103	Lab - Upgrade Project	-	-	-	-	-	477,100	-	-	-	-
104	Lab - Lab Grade Dishwasher Replacement	-	-	-	-	-	-	-	-	12,700	-
105	Lab - Refrigerator/Freezer Replacement	-	-	5,500	-	-	-	-	-	-	7,300
106	15710 Lab - Amperometric Titrator Replacement	-	-	-	53,000	-	-	-	-	-	-
107	Lab - Microscope Replacement	-	-	-	-	-	-	-	-	-	-
108	14731 Lab - Balance Replacement	-	-	-	-	-	-	-	-	-	22,700
109	Lab - Autoclave Replacement	-	-	-	-	-	-	11,000	-	-	-
110	Lab - UV Spectrophotometer Replacement	-	25,000	-	-	-	-	-	-	-	-

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111	Lab - BOD Incubator Replacement	-	-	-	-	9,300	-	-	-	-	-
112	Lab - BOD System Replacement	-	-	-	-	-	53,400	-	-	-	-
113	Lab - Sampler 4700 Replacement	-	-	-	-	-	-	8,000	-	-	-
114	Lab - Sampler 4700 Replacement	-	-	-	-	-	-	8,000	-	-	-
115	Lab - Sampler 4700 Replacement	-	-	-	-	-	-	8,000	-	-	-
116	Lab - Sampler 4700 Replacement	-	-	-	-	-	-	-	8,300	-	-
117	Lab - Sampler 4700 Replacement	-	-	-	-	-	-	-	8,300	-	-
118	Lab - Sampler 4700 - Pretreatment	7,500	-	-	-	-	-	-	-	-	-
119	Lab - Sampler 4700 - Pretreatment	7,500	-	-	-	-	-	-	-	-	-
120	Lab - Centrifuge Replacement	-	-	-	-	-	-	7,500	-	-	-
121	Lab - ICP OES	-	-	114,800	-	-	-	-	-	-	-
122	Lab - FIA IC Unit	-	-	-	106,900	-	-	-	-	-	-
123	Lab - Chlorophyll A Analyzer - Pond Water	5,400	-	-	-	-	-	-	-	-	-
124	Lab - Liquid ID Station	-	-	-	94,200	-	-	-	-	-	-
125	Main - Stationary Gas Detector Replacement Ph 2	140,000	-	-	-	-	-	-	-	-	-
126	Main - Rotork Actuator Replacement	88,700	-	-	-	-	-	-	-	-	-
127	Main - Rotork Actuator Replacement	-	91,800	-	-	-	-	-	-	-	-
128	Main - Rotork Actuator Replacement	-	-	95,000	-	-	-	-	-	-	-
129	Main - Rotork Actuator Replacement	-	-	-	-	-	-	-	-	-	-
130	Main - Rotork Actuator Replacement	-	-	-	-	101,800	-	-	-	-	-
131	Main - Rotork Actuator Replacement	-	-	-	-	-	-	-	-	116,800	-
132	15712 Main - Rehab Pond 1 Storage Structure	25,000	-	-	-	-	-	-	-	-	-
133	Main - Septage Pump & Motor Replacement	-	26,800	-	-	-	-	-	-	-	-
134	Main - Septage Card Reader Replacement	-	21,400	-	-	-	-	-	-	-	-
135	16712 Main - Primary Clarifier Mech/Struct Rehabilitation	-	150,000	312,900	323,800	-	-	-	-	-	-
136	Main - Primary Clarifier Exhaust Fan Replacement	5,000	-	-	-	-	-	-	-	-	-
137	Main - Secondary Clarifier Mech/Struct Rehabilitation	-	-	-	-	175,000	175,000	-	-	-	-
138	Main - Flocc Clarifier Recoating	-	-	-	118,800	-	-	-	-	-	-
139	15713 Main - AB Diffusers/Instrumentation and Control	1,200,000	-	-	-	-	-	-	-	-	-
140	Main - Polymer Tanks (3) replacement	-	150,000	-	-	-	-	-	-	-	-
141	16713 Main - Buried Metallic Piping (eval/rehab)	40,000	200,000	-	-	-	-	-	-	-	-
142	Main - 12KV Redundant Line (to RW sta)	-	53,600	-	-	-	-	-	-	-	-
143	16715 Main - Cogen Bottom End Overhaul	75,000	-	-	-	-	-	-	-	-	-
144	Main - Sump #3 Modification	10,000	-	-	-	-	-	-	-	-	-
145	Main - Filter Flow Control - Rotork Valves	-	-	-	33,300	-	-	-	-	-	-
146	Main - Magmeter Replacement (5)	-	-	32,100	-	-	-	-	-	-	-
147	Main - Dewatering Polymer Injection Mixers - Relocatic	-	-	-	-	-	-	-	-	-	-
148	Main - Plant Door Replacement - Phase 1	-	-	-	33,300	-	-	-	-	-	-
149	Main - Plant Door Replacement - Phase 2	-	-	-	22,200	-	-	-	-	-	-
150	Main - Plant Door Replacement - Phase 3	-	-	-	-	-	-	-	-	-	-
151	Main - Plant Door Replacement - Phase 4	-	-	-	-	23,000	23,800	-	-	-	-
152	Main - Plant Door Replacement - Phase 5	-	-	-	-	-	-	-	-	-	-
153	13722 Vehicle 132 - Ford F-150	-	-	-	-	-	-	24,600	25,400	-	-
154	14723 Vehicle 162 - Ford F-250 Diesel (replace with F-150)	-	-	35,600	-	-	-	-	-	42,800	-
155	Vehicle 165 - Ford F-350	-	-	-	57,800	-	-	-	-	-	-
156	Vehicle 178 - Ford F-350 SRW	-	-	-	-	-	49,000	-	-	-	-
157	Vehicle 158 - Ford F-250 Diesel	-	-	-	61,400	-	-	-	-	-	-
158	Vehicle 176 - Escape Hybrid	-	-	-	37,600	-	-	-	-	-	-
159	Vehicle 28-39 - Electric Truck	-	-	-	17,100	-	-	-	-	-	-
160	Vehicle 204 - Forklift	-	-	-	41,700	-	-	-	-	-	-
161	Vehicle 513 - 10 Yard Dump	-	-	-	-	-	178,100	-	-	-	-
162	Vehicle 206 - Forklift TH103	-	-	-	-	188,800	-	-	-	-	-
163	Vehicle 184 - Ford F-550 EM Truck	-	-	-	-	-	-	66,700	-	-	-
164	Vehicle 131 - Ford F-250	-	-	-	-	-	-	48,400	-	-	-
165	Vehicle 302 - Boat	-	-	-	-	-	6,400	-	-	-	-

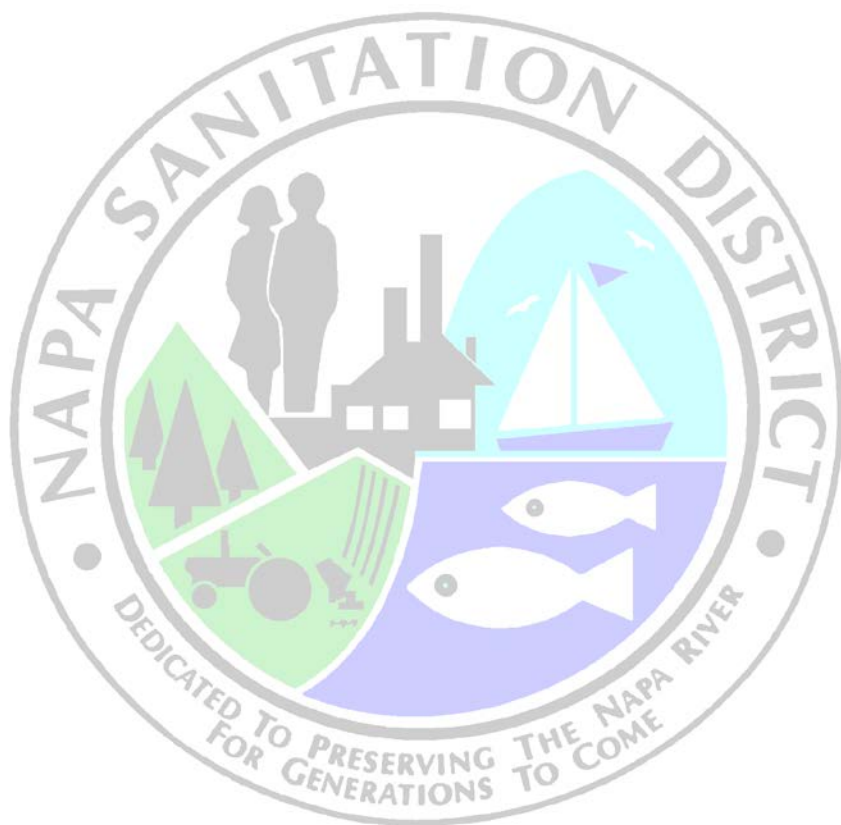
Napa Sanitation District  
FY 2016/17 Budget

#	Name	FY 16/17 Proposed	FY 17/18 Projected	FY 18/19 Projected	FY 19/20 Projected	FY 20/21 Projected	FY 21/22 Projected	FY 22/23 Projected	FY 23/24 Projected	FY 24/25 Projected	FY 25/26 Projected
166	Vehicle 40 - Cushman 1200X	-	-	-	-	-	-	12,700	-	-	-
167	Vehicle 41 - Cushman 1200X	-	-	-	-	-	-	12,700	-	-	-
168	Vehicle 42 - Cushman 1200X	-	-	-	-	-	-	12,700	-	-	-
169	<b>TREATMENT - STRUCTURES</b>										
170	Headworks Equipment Rehab/Replacement	10,000	534,100	-	-	-	-	-	-	-	-
171	WWTP MP - Second Digester	-	-	-	-	693,500	2,080,500	13,869,700	-	-	-
172	WWTP MP - Aeration Basin Expansion	-	-	-	-	255,500	766,500	5,109,900	-	-	-
173	Building HVAC and Lab Ventilation	-	379,600	-	-	-	-	-	-	-	-
174	WWTP Site Paving	-	-	-	-	-	-	-	500,000	-	-
175	15714 WWTP MP - Pond Imp - Ph 2 - Trans Struct 2 to 4	-	-	5,000	229,500	-	-	-	-	-	-
176	Roof Replacement - Digester 2nd Floor	125,000	-	-	-	-	-	-	-	-	-
177	Roof Replacement - AB/Blower Building	40,000	-	-	-	-	-	-	-	-	-
178	Roof Replacement - Plant Building(s)	-	-	-	55,400	-	-	-	-	-	-
179	Roof Replacement - Plant Building(s)	-	-	-	-	57,400	59,400	-	-	-	-
180	Roof Replacement - Plant Building(s)	-	-	-	-	-	-	-	-	-	-
181	Roof Replacement - Plant Building(s)	-	-	-	-	-	-	61,500	-	-	-
182	Roof Replacement - Plant Building(s)	-	-	-	-	-	-	-	63,600	-	-
183	Oil Storage Pad Cover	-	20,700	-	-	-	-	-	-	-	-
184	DAF Access Opening	20,000	-	-	-	-	-	-	-	-	-
185	<b>SCADA</b>										
186	SCADA MP Phase 5 / Security Study	-	-	250,000	-	-	-	-	-	-	-
187	SCADA MP Project #1	-	-	-	200,000	-	-	-	-	-	-
188	SCADA MP Project #2	-	-	-	-	200,000	-	-	-	-	-
189	SCADA MP Project #3	-	-	-	-	-	200,000	-	-	-	-
192	SCADA Server Replacement	-	-	-	16,000	-	-	-	-	-	-
193	SCADA Server Replacement	-	-	-	-	-	25,000	-	-	-	-
194	SCADA Server Replacement	-	-	-	-	-	-	-	16,000	-	-
195	<b>RECYCLING - DISTRICT</b>										
196	16716 WWTP MP - Line Recycled Water Reservoir	1,320,000	-	-	-	-	-	-	-	-	-
197	Recycled Water Reservoir - Sump Pump Replacement	-	88,700	91,800	-	-	-	-	-	-	-
198	15717 Isolation Valve on Kirkland Line (Devlin Road)	49,200	-	-	-	-	-	-	-	-	-
199	Jameson 24" Flow Meter Rehab	-	6,200	-	-	-	-	-	-	-	-
200	Kirkland Recycled Water Pipeline Rehabilitation	-	-	-	-	737,600	-	-	-	-	-
201	Jameson Solids Pad Rehabilitation	-	-	-	-	36,900	-	-	-	-	-
202	Jameson Solids Pad Dump Bay	15,000	-	-	-	-	-	-	-	-	-
203	Jameson PS VFD	-	-	68,900	-	-	-	-	-	-	-
204	Jameson Office Trailer Replacement	25,000	-	-	-	-	-	-	-	-	-
205	Jameson Sprinkler Replacement - Field A	-	-	-	88,700	-	-	-	-	-	-
206	Jameson Sprinkler Replacement - Field B	-	-	-	-	91,800	95,000	-	-	-	-
207	Jameson Sprinkler Replacement - Field C	-	-	-	-	-	-	-	-	-	-
208	Jameson Sprinkler Replacement - Field D	-	-	-	-	-	-	-	-	-	-
209	Jameson Sprinkler Replacement - Field E	-	-	-	-	-	-	98,300	101,800	-	-
210	Equipment/Rehabs	-	-	-	-	-	-	-	-	-	-
211	Soscol RW Pump Replacement	-	-	-	-	150,000	200,000	-	-	-	-
212	Equipment/Rehabs	-	-	-	-	-	-	-	-	-	-
213	Soscol RW Pump Replacement	-	-	-	-	-	-	150,000	-	-	-
214	Equipment/Rehabs	-	-	-	-	-	-	-	-	-	-
215	Soscol RW Pump Replacement	-	-	-	-	-	-	-	225,000	150,000	-
216	Equipment/Rehabs	-	-	-	-	-	-	-	-	-	250,000
217	Pull Flail Chopper Replacement	-	-	-	-	-	-	-	-	-	-
218	Vehicle 710 - 8830 Tractor	200,000	31,900	-	-	-	-	-	-	-	-
219	Vehicle 172 - Ford F-150	28,000	-	-	-	-	-	-	-	-	-
220	14725 Vehicle 723 - Yanmar Tractor	-	-	-	-	-	-	-	104,400	-	-



Napa Sanitation District  
FY 2016/17 Budget

#	Name	FY 16/17 Proposed	FY 17/18 Projected	FY 18/19 Projected	FY 19/20 Projected	FY 20/21 Projected	FY 21/22 Projected	FY 22/23 Projected	FY 23/24 Projected	FY 24/25 Projected	FY 25/26 Projected
221	Vehicle 723/720 - Attachments/Implements	-	-	28,700	-	-	-	-	-	-	-
222	Vehicle 171 - Ford F-350	-	-	-	-	64,900	-	-	-	-	-
223	Vehicle 174 - Ford F-350 SB	-	-	-	105,700	-	-	-	-	-	-
224	Vehicle 311 - Kubota	-	-	-	-	23,900	-	-	-	-	-
225	Vehicle 312 - Kubota	-	-	-	-	23,900	-	-	-	-	-
226	Vehicle 721 - John Deer 8430T Tractor	-	-	-	-	334,000	-	-	-	-	-
227	Vehicle 17 - 18ft Trailer	-	-	-	-	-	-	-	-	-	11,000
229	Vehicle 720 - KubotaTractor Loader	-	-	-	-	-	-	-	-	74,500	-
230	Vehicle 013 - Pipe Dolly	-	-	-	-	-	16,300	-	-	-	-
231	<b>RECYCLING - EXPANSION</b>										
232	13729 North Bay Water Reuse Project	845,000	405,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	-
233	MST RW Pipeline Extension	1,200,000	700,000	-	-	-	-	-	-	-	-
234	NBWRA - Jameson Storage - 600 AF	-	-	-	-	-	-	346,000	1,730,000	15,224,000	-
235	NBWRA - 3rd Reservoir	-	-	-	-	-	-	58,000	290,000	2,552,000	-
236	NBWRA - RW Expansion Ph 2	-	-	-	-	-	-	44,000	220,000	1,936,000	-
237	NBWRA - MST RW Pipeline - North Loop	-	-	-	-	-	-	200,000	1,000,000	8,800,000	-
238	NBWRA - MST RW Pipeline - East Extension	-	-	-	-	-	-	76,000	380,000	3,344,000	-
239	RW Socol Pump Station Upgrade	-	-	-	-	2,375,400	-	-	-	-	-
240	<b>OTHER</b>										
241	13729 Development Technical Support	231,800	239,900	248,300	257,000	266,000	275,300	284,900	294,900	305,200	-
242	Solar Purchase Buy Out	-	-	-	-	-	2,458,500	-	-	-	-
243	Generator / Micro Fuel Cell	-	-	-	573,800	-	-	-	-	-	-
244	Vehicle 161 - Ford C-Max	-	-	-	-	-	-	-	46,500	-	-
245	Vehicle 177 - Ford Escape Hybrid	-	-	-	49,800	-	-	-	-	-	-
246	Vehicle 133 - Ford F-150	-	-	-	-	-	-	-	42,300	-	-
247	Vehicle 011 - CSFT Trailer	-	-	-	24,500	-	-	-	-	-	-
248	Vehicle 607 - Ford Taurus	-	-	-	-	24,000	-	-	-	-	-
249	Vehicle 130 - Ford F150	-	-	-	-	-	-	33,200	-	-	-
250											
251	<b>PROJECT TOTALS</b>	\$17,180,700	\$21,244,900	\$12,740,500	\$11,798,200	\$12,809,200	\$15,115,100	\$28,662,900	\$13,128,300	\$40,456,000	\$8,669,100
252	<b>Cumulative Total (FY 16/17 - FY 25/26)</b>	\$17,180,700	\$38,425,600	\$51,166,100	\$62,964,300	\$75,773,500	\$90,888,600	\$119,551,500	\$132,679,800	\$173,135,800	\$181,804,900

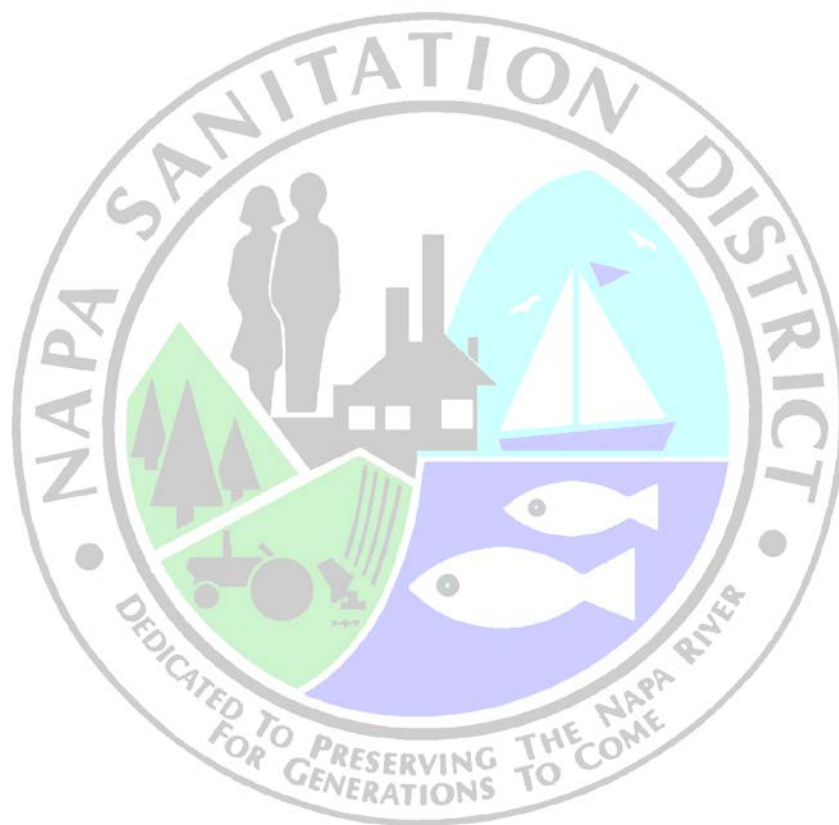


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## Ten-Year Financial Plan



*Visitors check out microorganisms in the Plant Laboratory during an Open House event.*



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## Ten-Year Financial Plan

### Plan Description

Also called a Financial Master Plan or a Ten-Year Financial Forecast, the Ten-Year Financial Plan is a projection of operating and capital expenditures, along with projections of rates and the revenues they are anticipated to generate over that time. The Ten-Year Financial Plan evaluates whether the revenues are adequate to cover the projected costs.

This Plan addresses the following questions. Over the next 10 years...

- What are the District's projected revenues, and what assumptions are used?
- What are the District's projected operating costs, and what assumptions are used?
- What are the projected capital costs for the District?
- Will the District use pay-as-you-go financing or debt financing for its capital projects?
- Are sewer service charge rates sufficient?

### Link to Strategic Plan

The District's Strategic Plan (discussed in Budget Overview on pages 19-23 and included in the Appendix of this budget) includes numerous objectives and a timeframe for completion of those projects. This Ten-Year Financial Plan makes assumption that all of the objectives in that plan are completed on time, and that any one-time or ongoing financial impact resulting from implementing the Strategic Plan are included in the Ten-Year Financial Forecast.

### Revenue Forecast

#### Sewer Service Charges

Since FY 2008/09, the District has increased the sewer service charge (SSC) annually by the local Consumer Price Index (CPI). In March 2016, the District went through the Proposition 218 process, thereby setting the maximum that the sewer service charge could increase through fiscal year 2020/21. The forecast assumes the maximum allowable SSC for that year, as follows:

Fiscal Year	Residential Annual Rate
FY 16/17	\$554.88 per EDU
FY 17/18	\$638.10 per EDU
FY 18/19	\$676.38 per EDU
FY 19/20	\$710.20 per EDU
FY 20/21	\$738.62 per EDU

Thereafter, the rate is assumed to increase 2.3% annually.

### Recycled Water Fees

Recycled water fees are becoming a more significant source of revenue for the District. These are the fees charged to users of recycled water. Fees are set by the Board of Directors through ordinance. The rates are as follows:

Rate	Description
\$1.57/kgal	Peak demand usage (April - October)
\$1.25/kgal	Large contract users
\$1.20/kgal	Off peak usage (Nov. – Feb.)
\$1.05/kgal	March

Rates will increase with CPI starting in 2017.

The forecast assumes that the District will increase recycled water sales from 1,400 acre feet in FY 15/16 to 2,100 acre feet in FY 16/17. Future customers include land owners in the MST area, the Napa State Hospital, St. Regis Resort, Los Carneros Water District and Montelcino Resort. The forecast assumes that these new customers begin taking recycled water in the coming years.

### Capacity Charges

Annually, the capacity charge rate increases with the Engineering News Record's Construction Cost Index (ENR-CCI) for San Francisco (February-to-February), an inflation measure for capital infrastructure costs. Capacity charges did not increase for FY 2016/17, staying at \$8,750 per Equivalent Dwelling Unit (EDU). Future year rates are estimated to increase 3.5% annually.

Development, especially development of hotels and restaurants, is anticipated to increase starting in FY 2016/17. The capacity charge forecast assumes that non-hotel development will remain at FY 2015/16 levels of 200 EDU, with an additional 395 EDU for hotels in FY 2016/17, 100 EDU in FY 2018/19, 300 EDU in FY 2019/20, and 100 EDU in FY 2020/21. In FY 2018/19 and beyond the base EDU is expected to increase to 290 EDU per year.

### Leases and Rents

Lease revenues include the existing lease with Eagle Vines Golf Club and the continuation of the Somky lease with new tenants. While there is still opportunity for the District to receive lease payments from other properties, the Ten-Year



Financial Plan only includes revenues for leases that have already been negotiated and executed.

### ***Other Revenues***

There are a number of other smaller revenues collected by the District. They have been forecasted based on historical collection and any anticipated increases in rates due to CPI or other factors.

### ***Operating Cost Forecast***

Operating expenses for the District includes salaries and benefits, maintenance and operations of the collection and treatment system, and the purchase of materials and supplies. The District must also fund its annual debt service.

Salaries are controlled by three Memoranda of Understanding (MOU) with employees. The MOUs were renegotiated in 2014 and are set to expire in June 2020. Salaries have been projected based on the contracted increases (2.5% annually through FY 16/17 and 2.75% through FY 19/20).

Some benefits, such as OPEB and retirement expenses, are calculated as a percentage of salary, while other benefits, such as health care, increase based on joint purchase agreements. Health care costs are assumed to increase at a 7% rate, and retirement expenses as a percentage of salary are expected to increase an additional 4-6% over the next five years, including increased employee retirement contributions over the same period. Medical in lieu payments are projected to continue per the MOU. Workers compensation insurance increased in FY 2016/17, are expected to increase again in FY 2017/18, and then expected to reduce or remain flat in future years. For the Ten-Year Financial Plan, salaries and benefits combined are projected to increase 2.8% to 3.8% annually.

Services and supplies are budgeted to increase 2.0% annually to account for increases in inflation. It is assumed that there is no change in current service levels, except those anticipated as part of capital project implementation (e.g., expanded recycled water delivery). The anticipated operating expenditure impact of planned capital projects has been included in the forecast.

### ***Capital Costs***

There are several master plans that influence the overall Ten-Year Capital Improvement Plan, including the Treatment Plant Master Plan, the Collection System Master Plan and the Recycled Water Strategic Plan. These plans serve to identify the capital improvements that should be made within each area over the next 20 years.

When all of the recommendations from the master plans are combined, there is sufficient projected revenue to pay for all of the projects within the next ten years. This assumes that the sewer service charges are implemented as projected during the Proposition 218 process, and that development occurs as projected for capacity charges.

The budget and Ten-Year Capital Improvement Plan, described in detail in the previous section of this budget document, represent the priority projects from these plans. The Ten-Year Financial Plan incorporates the Ten-Year Capital Improvement Plan.

### ***Pay-Go vs. Debt Financing***

**Debt financing** means that the District would either sell bonds or enter into a loan (such as a State Revolving Fund loan) to get money to pay for capital projects, then pay back that money over time with interest. **Pay-as-you-go financing**, also called “pay-go” means that the District needs to accumulate the money for the project and already have it prior to the work being completed.

District policy states that the District shall have a preference to finance capital improvements using pay-go financing and shall issue long-term debt only to finance capital improvements that cannot be readily financed from current revenues. Debt financed projects must be major, non-recurring improvements with a minimum of five years of useful life.

The Ten-Year Financial plan assumes that debt would be issued for specific projects, with all other projects in the CIP being financed as pay-go.

In FY 2016/17, the District intends to enter into a loan agreement with the State Water Resources Control Board for a Clean Water State Revolving Fund loan of approximately \$20 million for the Browns Valley Road Sewer Interceptor and West Napa Pump Station Improvements project. The Ten-Year Forecast shows the proceeds from the loan in

### 10-Year Financial/Cash Flow Forecast

	2016/17	2017/18	2018/19	2019/20	2020/21
<b>Beginning Fund Equity</b>	<b>\$14,510,300</b>	<b>\$14,615,100</b>	<b>\$15,050,200</b>	<b>\$16,495,100</b>	<b>\$20,280,600</b>
<b>Operating revenue</b>					
Sewer service charges	22,514,000	26,271,000	27,982,000	29,612,000	31,185,000
Capacity Charges	5,512,000	1,917,000	3,225,000	5,392,000	3,455,000
Recycled Water Sales	958,000	1,126,000	1,218,000	1,337,000	1,391,000
Development Fees	184,500	189,100	193,800	198,600	203,600
Hauler Fees	172,000	177,000	182,000	187,000	193,000
<u>Miscellaneous Revenue</u>	<u>69,000</u>	<u>71,000</u>	<u>73,000</u>	<u>75,000</u>	<u>77,000</u>
<b>Total Operating Revenue</b>	<b>29,409,500</b>	<b>29,751,100</b>	<b>32,873,800</b>	<b>36,801,600</b>	<b>36,504,600</b>
<b>Non-Operating Revenue</b>					
Interest	109,000	146,000	188,000	247,000	355,000
Rents and leases	719,000	722,000	725,000	728,000	731,000
Fed & State Grants	1,350,000	175,000	0	0	0
From Other Jurisdictions	900,000	525,000	0	0	0
<u>Proceeds - Sale of Bonds</u>	<u>4,550,000</u>	<u>10,537,000</u>	<u>2,049,000</u>	<u>0</u>	<u>0</u>
<b>Total - Non-Operating Revenue</b>	<b>7,628,000</b>	<b>12,105,000</b>	<b>2,962,000</b>	<b>975,000</b>	<b>1,086,000</b>
<b>Total Revenue</b>	<b>37,037,500</b>	<b>41,856,100</b>	<b>35,835,800</b>	<b>37,776,600</b>	<b>37,590,600</b>
<b>Operating Expense</b>					
Salaries and benefits	9,382,370	9,680,200	10,015,900	9,865,500	10,200,600
Services and supplies	5,568,310	5,691,000	5,932,900	6,426,100	6,106,000
Taxes and Other	28,250	28,900	29,600	30,300	31,000
Debt Service - Existing	4,773,050	4,776,000	4,772,000	4,771,000	4,771,000
<u>Debt Service - New/Projected</u>	<u>0</u>	<u>0</u>	<u>900,000</u>	<u>1,100,000</u>	<u>1,100,000</u>
<b>Total Operating Expense</b>	<b>19,751,980</b>	<b>20,176,100</b>	<b>21,650,400</b>	<b>22,192,900</b>	<b>22,208,600</b>
<b>Capital Projects</b>	<b>17,180,700</b>	<b>21,244,900</b>	<b>12,740,500</b>	<b>11,798,200</b>	<b>12,809,200</b>
<b>Total - All Expenses</b>	<b>36,932,680</b>	<b>41,421,000</b>	<b>34,390,900</b>	<b>33,991,100</b>	<b>35,017,800</b>
<b>Net revenue (deficit)</b>	<b>104,820</b>	<b>435,100</b>	<b>1,444,900</b>	<b>3,785,500</b>	<b>2,572,800</b>
<b>Ending combined fund equity</b>	<b>\$14,615,120</b>	<b>\$15,050,200</b>	<b>\$16,495,100</b>	<b>\$20,280,600</b>	<b>\$22,853,400</b>
RW Repair & Replacement Reserve	\$0	\$0	\$0	\$134,000	\$273,000
Bond Reserve	\$1,990,000	\$1,990,000	\$3,090,000	\$3,090,000	\$3,090,000
Operating Reserve	\$2,243,000	\$2,310,000	\$2,400,000	\$5,000,000	\$6,000,000
Cash Flow Reserve	\$10,375,000	\$10,750,000	\$11,000,000	\$11,000,000	\$11,250,000
<b>Fund Equity Available for Use</b>	<b>\$7,120</b>	<b>\$200</b>	<b>\$5,100</b>	<b>\$1,056,600</b>	<b>\$2,240,400</b>

years corresponding to expenditures for this project, as this state program is a reimbursement program.

The plan also shows that in the FY 2021/22, it will be necessary to issue debt to pay for specific capital projects, namely the construction of the second digester and a third aeration basin and secondary clarifier. The plan also anticipates that in FY 2024/25, the District will seek a Federal loan for the implementation of recycled water expansion projects.

### *Ten-Year Cash Flow*

The table here and on the next page shows the Ten-Year Financial/Cash Flow Forecast for the District. The table includes starting fund equity and ending fund equity on an annual basis, forecasts for operating and non-operating revenue and operating expenses. Because it is a cash flow model, the forecast includes expenses for capital outlay for the year it is expensed, as well as proceeds from issuing debt. Also, at the end of each year, there is an adjustment made to the ending fund equity numbers

### 10-Year Financial/Cash Flow Forecast

	2021/22	2022/23	2023/24	2024/25	2025/26
<b>Beginning Fund Equity</b>	<b>\$22,853,400</b>	<b>\$39,146,500</b>	<b>\$24,715,300</b>	<b>\$27,805,300</b>	<b>\$26,603,800</b>
<b>Operating revenue</b>					
Sewer service charges	32,147,000	33,061,000	33,999,000	34,963,000	35,954,000
Capacity Charges	2,475,000	2,562,000	2,652,000	2,744,000	2,840,000
Recycled Water Sales	1,454,000	1,516,000	1,578,000	1,648,000	1,718,000
Development Fees	208,700	213,900	219,200	224,700	230,300
Hauler Fees	199,000	205,000	211,000	217,000	224,000
<u>Miscellaneous Revenue</u>	<u>79,000</u>	<u>81,000</u>	<u>83,000</u>	<u>85,000</u>	<u>87,000</u>
<b>Total Operating Revenue</b>	<b>36,562,700</b>	<b>37,638,900</b>	<b>38,742,200</b>	<b>39,881,700</b>	<b>41,053,300</b>
<b>Non-Operating Revenue</b>					
Interest	457,000	783,000	494,000	556,000	532,000
Rents and leases	734,000	738,000	741,000	745,000	748,000
Fed & State Grants	0	134,400	672,000	5,913,600	0
From Other Jurisdictions	0	276,000	1,380,000	12,144,000	0
<u>Proceeds - Sale of Bonds</u>	<u>18,500,000</u>	<u>0</u>	<u>0</u>	<u>7,425,000</u>	<u>0</u>
<b>Total - Non-Operating Revenue</b>	<b>19,691,000</b>	<b>1,931,400</b>	<b>3,287,000</b>	<b>26,783,600</b>	<b>1,280,000</b>
<b>Total Revenue</b>	<b>56,253,700</b>	<b>39,570,300</b>	<b>42,029,200</b>	<b>66,665,300</b>	<b>42,333,300</b>
<b>Operating Expense</b>					
Salaries and benefits	10,549,800	10,913,900	11,293,700	11,690,000	12,103,700
Services and supplies	6,246,000	6,390,000	6,537,000	6,687,000	6,841,000
Taxes and Other	31,700	32,400	33,100	33,900	34,700
Debt Service - Existing	4,768,000	4,752,300	4,697,100	4,699,900	4,699,900
<u>Debt Service - New/Projected</u>	<u>3,250,000</u>	<u>3,250,000</u>	<u>3,250,000</u>	<u>4,300,000</u>	<u>4,300,000</u>
<b>Total Operating Expense</b>	<b>24,845,500</b>	<b>25,338,600</b>	<b>25,810,900</b>	<b>27,410,800</b>	<b>27,979,300</b>
<b>Capital Projects</b>	<b>15,115,100</b>	<b>28,662,900</b>	<b>13,128,300</b>	<b>40,456,000</b>	<b>8,669,100</b>
<b>Total - All Expenses</b>	<b>39,960,600</b>	<b>54,001,500</b>	<b>38,939,200</b>	<b>67,866,800</b>	<b>36,648,400</b>
<b>Net revenue (deficit)</b>	<b>16,293,100</b>	<b>(14,431,200)</b>	<b>3,090,000</b>	<b>(1,201,500)</b>	<b>5,684,900</b>
<b>Ending combined fund equity</b>	<b>\$39,146,500</b>	<b>\$24,715,300</b>	<b>\$27,805,300</b>	<b>\$26,603,800</b>	<b>\$32,288,700</b>
RW Repair & Replacement Reserve	\$418,000	\$570,000	\$728,000	\$893,000	\$1,065,000
Bond Reserve	\$5,240,000	\$5,240,000	\$5,240,000	\$6,290,000	\$6,290,000
Operating Reserve	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000
Cash Flow Reserve	\$11,600,000	\$12,900,000	\$13,100,000	\$13,400,000	\$13,700,000
<b>Fund Equity Available for Use</b>	<b>\$15,888,500</b>	<b>\$5,300</b>	<b>\$2,737,300</b>	<b>\$20,799</b>	<b>\$5,233,699</b>

to account for necessary reserves to come up with an amount of equity that is available for use.

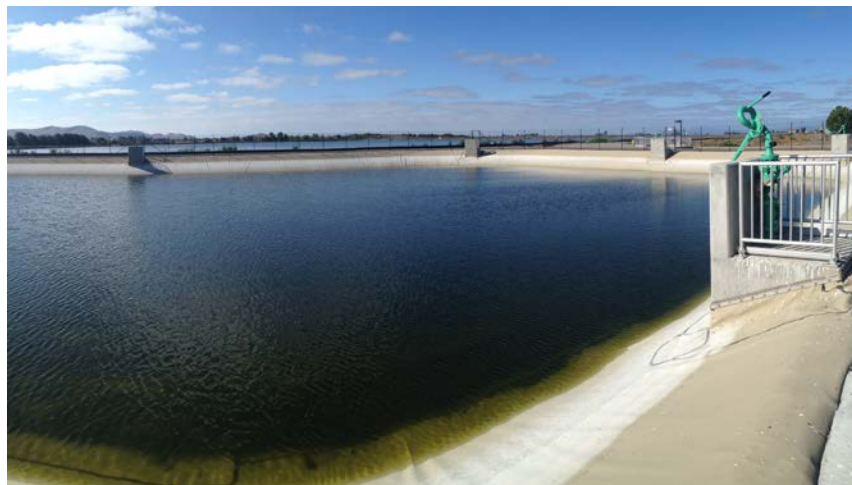
This model assumes that all fund equity available at the end of one year is rolled over for use in the following year. The model also assumes that there is

no underspending of operating expenses, although traditionally there is a small percentage of operating budget that is not spent each year.

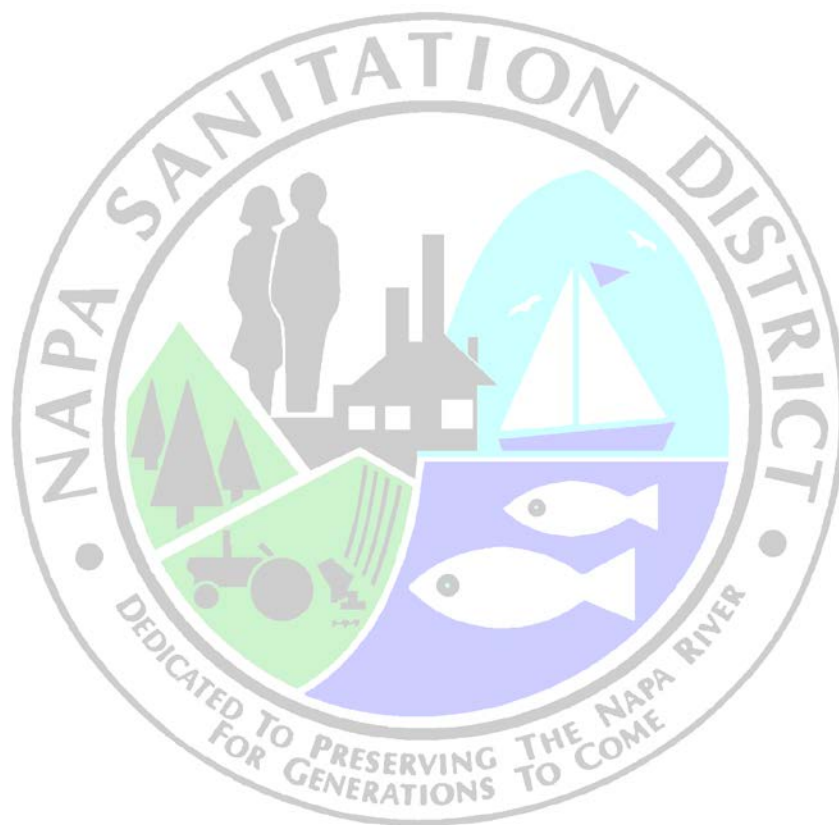
## Debt



*Construction of the secondary effluent equalization basin in 2014*



*Completed secondary effluent equalization basin*



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## Debt

The Napa Sanitation District issues long term debt for the construction of significant capital assets. Debt service is the annual or semi-annual payments the District makes to repay the principal and interest on its debt.

### Debt Policy

As a matter of policy, the District has a preference to use pay-as-you-go financing for its capital projects and only uses debt financing for improvements that it cannot readily finance from current revenues. Exceptions can be made on a case-by-case basis for no-interest and extremely-low-interest loan programs to pay for capital projects.

Debt can only be used for major, non-recurring capital items, and the debt repayment timeline cannot exceed the expected useful life of the asset being financed.

Debt can only be issued when it has been shown that the District has the ability to pay all of its current obligations from current revenues and still have available 125% of the expected debt service amount to pay the debt service.

The District's complete debt policy can be found in Appendix D, Section 5.

### Current Debt Obligations

**2003 SRF** – In 2003, the District entered into a 20-year loan with the State of California's State Water Resource Control Board Revolving Fund (SRF). The proceeds from this loan, \$901,376, were used for replacement of pipes in the collection system. The interest rate on this loan is 2.5%, with annual debt service of \$60,247. (See Debt Service Table 1.) Outstanding principal on this debt obligation is \$382,529 as of July 1, 2016.

**2008 SRF** – In 2008, the District entered into a 20-year loan with the State Water Resources Control Board. This loan, which came in two phases, was for a total of \$1,559,673 and was used to replace aging infrastructure in the collection system. This is a zero-percent interest loan; however, the annual debt service payment of \$93,581 includes a 16.667% state match and is recorded as imputed interest. (See Debt Service Tables 2 and 3.) Outstanding principal on this debt obligation is \$1,071,622 as of July 1, 2016.

**Series 2009B** – This 20-year Certificate of Participation was sold as a fixed-rate bond through competitive bid, and has a true interest cost of about 3.6%. The \$26,675,000 in proceeds was used to refinance the 1998 COPs, saving the District over \$250,000 annually in debt service payments. Annual debt service for this bond is \$1,961,254. (See Debt Service Table 4.) Outstanding principal on this debt obligation is \$20,090,000 as of July 1, 2016.

**Series 2012A** – This 20-year Certificate of Participation was delivered and executed to provide funds to repay the outstanding Adjustable Rate Refunding Revenue Certificates of Participation, Series 2009A and to finance \$33 million in new capital projects. Annual debt service for this bond is \$2,658,875. Outstanding principal on this debt obligation is \$34,000,000 as of July 1, 2016. (See Debt Service Table 5.)

### Debt Covenants

A debt covenant is a requirement imposed on the District by a debt holder. These requirements range from requirements to pay the principal and interest payments on particular days of the year, to preparing and filing audited financial statements, to very specific financial performance requirements.

There is one significant debt covenant that has a financial impact to the District. This covenant applies to all of the District's debt, and is a debt service coverage requirement. Debt service coverage is the ratio of net revenues (revenues minus operating expenses) to annual debt service requirements. The District is required by the bond covenant to maintain a debt service coverage ratio of at least 1.25. For FY 2016/17, the District's coverage ratio is budgeted to be 3.20.

### ***Debt Capacity & Debt Limitations***

Debt Capacity is the difference between the amount of debt the District has outstanding (sold and authorized) and the maximum amount of debt the District can incur within its legal, public policy and financial limitations.

The District does not issue general obligation debt, and as such, there is no legal limitation on the amount of debt it can issue. The District is limited by the debt policies that it sets for itself (described above and in Appendix D) and by financial limitations. Financial limitations include two factors: 1) willingness of the bond market to loan the District money, and 2) limitations on future debt placed on the District by current debt.

First, the amount of debt the District can issue is limited by whether there are financial and other institutions and other buyers in the market willing to purchase the bonds that the District wants to issue. In tight capital markets, or if the financial health of the District is in question, the amount of debt the District can issue under favorable terms can be limited.

Second, the debt coverage ratio imposed by existing debt holders also applies to any future debt the District may want to issue. By forecasting operating revenues and expenditures and applying the 1.25 debt coverage ratio, a debt capacity can be calculated.

Currently, the District has the capacity to issue approximately \$105 million in additional debt (3.5% TIC, 20 year term), assuming that there was a buyer for that debt in the bond market, the District could pay the debt service, and other District financial policies are maintained.

<b>Debt Coverage Ratio Calculation</b>		
	<b>Estimated FY 15/16</b>	<b>Proposed FY 16/17</b>
Revenue		
Sewer Service Charges	\$19,734,000	\$22,514,000
Capacity Charges	2,998,000	5,512,000
Recycled Water	507,000	958,000
Interest	60,000	109,000
Rents & Leases	716,000	719,000
Other Revenue (excl. sale of property and grant revenue)	419,000	425,500
<b>Operating Expenses</b>	<b>(\$13,311,250)</b>	<b>(\$14,978,930)</b>
<b>Net Revenue</b>	<b>\$11,122,750</b>	<b>\$15,258,570</b>
Parity Debt Service		
2003 SRF	\$60,250	\$60,300
2008 SRF	93,650	93,650
2009B COP	1,961,300	1,956,800
2012A COP	2,658,900	2,657,200
<b>Total Debt Service (excl. debt administration expenses)</b>	<b>\$4,774,100</b>	<b>\$4,767,950</b>
<b>Parity Debt Coverage Ratio (net revenue ÷ total debt service)</b> (must be greater than 1.25)	<b>2.33</b>	<b>3.20</b>

### ***Future Debt Issues***

The Ten-Year Capital Improvement Plan and the Ten-Year Financial Plan includes financing the Browns Valley Road Sewer Interceptor and West Napa Pump Station Improvements project. It is projected that the Clean Water State Revolving Fund (SRF) loan proceeds will be received as reimbursements during the same year the expenses are incurred, starting in FY 2016/17, with debt service payments not beginning until after the completion of construction.

The plan assumes that the District will sell Certificates of Participation in FY 2021/22 for the purpose of constructing the second digester and expansion of the aeration basins. The plan also assumes that significant expansions of the recycled water system starting in FY 2022/23 will be financed using Federal loans established for that purpose (proceeds are shown as received in FY 2024/25).

**Napa Sanitation District**  
**Debt Service**

Table 1

Napa Sanitation District  
 2003 SWRCB Revolving Fund Loan

2.5%, 20 year term  
 \$901,376

Fiscal Year Jul 1	Annual Interest	Principal Payment	Ending Principal	Total Payment
2015/16	10,799	49,447	382,529	<b>60,247</b>
2016/17	9,563	50,683	331,845	<b>60,247</b>
2017/18	8,296	51,950	279,895	<b>60,247</b>
2018/19	6,997	53,249	226,646	<b>60,247</b>
2019/20	5,666	54,580	172,065	<b>60,247</b>
2020/21	4,302	55,945	116,121	<b>60,247</b>
2021/22	2,903	57,343	58,777	<b>60,247</b>
2022/23	1,469	58,777	-	<b>60,247</b>
2023/24	-	-	-	-
2024/25	-	-	-	-
2025/26	-	-	-	-
2026/27	-	-	-	-
2027/28	-	-	-	-
2028/29	-	-	-	-
2029/30	-	-	-	-
2030/31	-	-	-	-
2031/32	-	-	-	-
2032/33	-	-	-	-

Source: District Documents

**Napa Sanitation District  
Debt Service**

Table 2

Napa Sanitation District

2008 SWRCB Revolving Fund Loan

E. Spring St. Sewer Rehabilitation Phase I

20 year term

\$1,376,804

Fiscal Year Jul 1	Imputed Interest	Principal Payment	Ending Principal	Total Payment
2015/16	18,834	63,774	945,837	<b>82,609</b>
2016/17	17,645	64,964	880,873	<b>82,609</b>
2017/18	16,433	66,176	814,697	<b>82,609</b>
2018/19	15,198	67,410	747,287	<b>82,609</b>
2019/20	13,941	68,668	678,619	<b>82,609</b>
2020/21	12,660	69,949	608,670	<b>82,609</b>
2021/22	11,355	71,254	537,417	<b>82,609</b>
2022/23	10,026	72,583	464,834	<b>82,609</b>
2023/24	8,672	73,937	390,897	<b>82,609</b>
2024/25	7,292	75,316	315,580	<b>82,609</b>
2025/26	5,887	76,721	238,859	<b>82,609</b>
2026/27	4,456	78,153	160,706	<b>82,609</b>
2027/28	2,998	79,611	81,096	<b>82,609</b>
2028/29	1,513	81,096	-	<b>82,609</b>
2029/30	-	-	-	-
2030/31	-	-	-	-
2031/32	-	-	-	-
2032/33	-	-	-	-

Source: District Documents

**Napa Sanitation District**  
**Debt Service**

Table 3

Napa Sanitation District

2008 SWRCB Revolving Fund Loan

E. Spring St. Sewer Rehabilitation Phase II

20 year term

\$182,869

Fiscal Year Jul 1	Imputed Interest	Principal Payment	Ending Principal	Total Payment
2015/16	2,479	8,493	125,785	<b>10,972</b>
2016/17	2,323	8,650	117,136	<b>10,972</b>
2017/18	2,163	8,809	108,327	<b>10,972</b>
2018/19	2,000	8,972	99,355	<b>10,972</b>
2019/20	1,835	9,138	90,217	<b>10,972</b>
2020/21	1,666	9,306	80,911	<b>10,972</b>
2021/22	1,494	9,478	71,433	<b>10,972</b>
2022/23	1,319	9,653	61,780	<b>10,972</b>
2023/24	1,141	9,831	51,948	<b>10,972</b>
2024/25	959	10,013	41,935	<b>10,972</b>
2025/26	774	10,198	31,737	<b>10,972</b>
2026/27	586	10,386	21,351	<b>10,972</b>
2027/28	394	10,578	10,773	<b>10,972</b>
2028/29	199	10,773	-	<b>10,972</b>
2029/30	-	-	-	-
2030/31	-	-	-	-
2031/32	-	-	-	-
2032/33	-	-	-	-

Source: District Documents



**Napa Sanitation District  
Debt Service**

Table 4

Napa Sanitation District

Refunding Revenue Certificates of Participation, Series 2009B  
(1998 Refunding Project)3% to 4% Range, 3.6% True Interest Cost (TIC), 20 year term  
\$26,675,000

Fiscal Year Jul 1	Annual Interest	Principal Payment	Ending Principal	Total Payment
2015/16	741,254	1,220,000	20,090,000	<b>1,961,254</b>
2016/17	691,779	1,265,000	18,825,000	<b>1,956,779</b>
2017/18	653,229	1,305,000	17,520,000	<b>1,958,229</b>
2018/19	613,554	1,340,000	16,180,000	<b>1,953,554</b>
2019/20	572,064	1,380,000	14,800,000	<b>1,952,064</b>
2020/21	527,518	1,425,000	13,375,000	<b>1,952,518</b>
2021/22	479,371	1,470,000	11,905,000	<b>1,949,371</b>
2022/23	427,781	1,520,000	10,385,000	<b>1,947,781</b>
2023/24	372,634	1,575,000	8,810,000	<b>1,947,634</b>
2024/25	313,431	1,635,000	7,175,000	<b>1,948,431</b>
2025/26	251,087	1,690,000	5,485,000	<b>1,941,087</b>
2026/27	184,200	1,760,000	3,725,000	<b>1,944,200</b>
2027/28	112,500	1,825,000	1,900,000	<b>1,937,500</b>
2028/29	38,000	1,900,000	-	<b>1,938,000</b>
2029/30	-	-	-	-
2030/31	-	-	-	-
2031/32	-	-	-	-
2032/33	-	-	-	-

Source: 2009B Official Statement

**Napa Sanitation District  
Debt Service**

Table 5

Napa Sanitation District

Revenue Certificates of Participation, Series 2012A

2.86% True Interest Cost (TIC), 20 year term  
\$37,845,000

Fiscal Year Jul 1	Annual Interest	Principal Payment	Ending Principal	Total Payment
2015/16	1,268,875	1,390,000	34,000,000	<b>2,658,875</b>
2016/17	1,212,175	1,445,000	32,555,000	<b>2,657,175</b>
2017/18	1,153,175	1,505,000	31,050,000	<b>2,658,175</b>
2018/19	1,091,775	1,565,000	29,485,000	<b>2,656,775</b>
2019/20	1,027,975	1,625,000	27,860,000	<b>2,652,975</b>
2020/21	961,675	1,690,000	26,170,000	<b>2,651,675</b>
2021/22	892,575	1,765,000	24,405,000	<b>2,657,575</b>
2022/23	820,675	1,830,000	22,575,000	<b>2,650,675</b>
2023/24	745,875	1,910,000	20,665,000	<b>2,655,875</b>
2024/25	667,875	1,990,000	18,675,000	<b>2,657,875</b>
2025/26	586,675	2,070,000	16,605,000	<b>2,656,675</b>
2026/27	502,275	2,150,000	14,455,000	<b>2,652,275</b>
2027/28	425,825	2,230,000	12,225,000	<b>2,655,825</b>
2028/29	357,875	2,300,000	9,925,000	<b>2,657,875</b>
2029/30	287,900	2,365,000	7,560,000	<b>2,652,900</b>
2030/31	215,900	2,435,000	5,125,000	<b>2,650,900</b>
2031/32	135,275	2,520,000	2,605,000	<b>2,655,275</b>
2032/33	45,588	2,605,000	-	<b>2,650,588</b>

Source: 2012A Official Statement

**Napa Sanitation District**  
**Debt Service Summary**  
**Tables 1 - 5**

	Table 1 2003 SRF \$901,376	Table 2 2008 SRF Phase I \$1,652,171	Table 3 2008 SRF Phase II \$219,444	Table 4 Series 2009B \$26,675,000	Table 5 Series 2012A \$37,845,000	
Fiscal Year Jul 1	Total	Total	Total	Total	Total	FY Total All Debt Service
2015/16	60,247	82,609	10,972	1,961,254	2,658,875	<b>4,773,956</b>
2016/17	60,247	82,609	10,972	1,956,779	2,657,175	<b>4,767,781</b>
2017/18	60,247	82,609	10,972	1,958,229	2,658,175	<b>4,770,231</b>
2018/19	60,247	82,609	10,972	1,953,554	2,656,775	<b>4,764,156</b>
2019/20	60,247	82,609	10,972	1,952,064	2,652,975	<b>4,758,866</b>
2020/21	60,247	82,609	10,972	1,952,518	2,651,675	<b>4,758,020</b>
2021/22	60,247	82,609	10,972	1,949,371	2,657,575	<b>4,760,773</b>
2022/23	60,247	82,609	10,972	1,947,781	2,650,675	<b>4,752,283</b>
2023/24	-	82,609	10,972	1,947,634	2,655,875	<b>4,697,090</b>
2024/25	-	82,609	10,972	1,948,431	2,657,875	<b>4,699,887</b>
2025/26	-	82,609	10,972	1,941,087	2,656,675	<b>4,691,343</b>
2026/27	-	82,609	10,972	1,944,200	2,652,275	<b>4,690,056</b>
2027/28	-	82,609	10,972	1,937,500	2,655,825	<b>4,686,906</b>
2028/29	-	82,609	10,972	1,938,000	2,657,875	<b>4,689,456</b>
2029/30	-	-	-	-	2,652,900	<b>2,652,900</b>
2030/31	-	-	-	-	2,650,900	<b>2,650,900</b>
2031/32	-	-	-	-	2,655,275	<b>2,655,275</b>
2032/33	-	-	-	-	2,650,588	<b>2,650,588</b>

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## **Appendix A**

### **Glossary of Terms**

## Glossary of Terms

<b>BMPs</b>	Best Management Practices
<b>BOD</b>	Biochemical Oxygen Demand
<b>CalPERS</b>	California Public Employee Retirement System
<b>CARB</b>	California Air Resources Board
<b>CASA</b>	California Association of Sanitation Agencies
<b>COPs</b>	Certificates of Participation
<b>DAF</b>	Dissolved Air Flootation
<b>CIP</b>	Capital Improvement Plan or Capital Improvement Program
<b>CPI</b>	Consumer Price Index
<b>DAF</b>	Dissolved Air Flotation
<b>EDU</b>	Equivalent Dwelling Units
<b>EIR</b>	Environmental Impact Report
<b>EIS</b>	Environmental Impact Statement
<b>ELAP</b>	Environmental Laboratory Accreditation Program
<b>FOG</b>	Fats, Oils and Grease
<b>FTE</b>	Full-Time Equivalent
<b>FY</b>	Fiscal Year
<b>GAAP</b>	Generally Accepted Accounting Principles
<b>GFOA</b>	Government Finance Officers Association
<b>I &amp; I</b>	Inflow & Infiltration
<b>LIMS</b>	Laboratory Information Management System
<b>MGD</b>	Million Gallons per Day
<b>MST</b>	Milliken/Sarco/Tulocay Creeks area
<b>MOU</b>	Memorandum of Understanding
<b>NBWRA</b>	North Bay Water Reuse Authority
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>NSH</b>	Napa State Hospital
<b>ORP</b>	Oxygen Reduction Potential
<b>OPEB</b>	Other Post Employment Benefits

<b>POTW</b>	Publically Owned Treatment Works
<b>RAS</b>	Return Activated Sludge
<b>SCADA</b>	Supervisory Control and Data Acquisition
<b>SRF</b>	State Revolving Fund
<b>SWRF</b>	Soscol Water Recycling Facility
<b>TSS</b>	Total Suspended Solids
<b>TIC</b>	True Interest Cost
<b>USBR</b>	United States Bureau of Reclamation

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**Acre Foot** – The volume of water required to cover one acre of land to a depth of one foot. One acre foot of water equals 43,460 cubic feet, or 325,851 gallons.

**Adjusted Budget** – The adopted budget, with any changes adopted by the Board of Directors during the fiscal year.

**Adopted Budget** – Financial plan and policy statement on the operating and capital programs of the District, approved by the Board of Directors in June for the subsequent fiscal year.

**Appropriation** – An authorization made by the Board of Directors which permits officials to incur obligations against and to make expenditures of governmental resources.

**Biochemical Oxygen Demand (BOD)** - A measure of the oxygen used by microorganisms to decompose waste. If there is a large quantity of organic waste in the wastewater supply, there will also be a lot of bacteria present working to decompose this waste. In this case, the demand for oxygen will be high (due to all the bacteria) so the BOD level will be high. As the waste is consumed or dispersed through the water, BOD levels will begin to decline.

**Board of Directors** – The five public officials appointed by the City of Napa and County of Napa to set policy direction for the District.

**Bond Covenant** – A requirement placed on the District as part of a financing agreement, such as bonds.

**Bonds** – Borrowed monies allocated to pay for specific capital programs. Debt service payments are made to repay the bond holders.

**Budget Calendar** – The schedule of key dates that the District follows in preparing and adopting the budget.

**Budget Document** – The official financial spending and resource plan, adopted by the Board of Directors and made available to the public and other interested parties.

**Budget Transfer** – An appropriation for the transfer of resources from one account, department or fund to another. See also *Interfund Transfer* and *Intrafund Transfer*.

**California Air Resources Board (CARB)** – Part of the California Environmental Protection Agency, their mission is to promote public health, welfare and ecological resources through the efficient and effective reduction of air pollutants.

**California Public Employees' Retirement System (CalPERS)** – A state-wide pooled trust used by local government and state agencies to fund employee retirement benefits.

**Consumer Price Index (CPI)** – A measure of inflation maintained by the U.S. Bureau of Labor Statistics.

**Capacity Charge** – One-time fee charged to new connections, or to existing connections where a change or expansion in use will result in increased discharge, to pay for the sewer and treatment plant capacity allocated to them.

**Capacity Fee** – See *Capacity Charge*.

**Capital Assets** – Assets of significant value (over \$5,000 at the time of acquisition) that have a useful life of over one year. Examples are land, buildings, other improvements, machinery, vehicles and equipment.

**Capital Improvement Plan** – The listing of capital projects by cost and fiscal year. This is the documentation of decisions made within the Capital

Improvement Program. Capital project costs include all expenditures required to purchase, design, construct and/or repair new or existing capital assets.

**Capital Improvement Program** – The District's program for the acquisition, construction, or rehabilitation of its capital infrastructure. The program includes the board-approved set of projects that will result in the construction of new capital facilities, or the modification, upgrade or rehabilitation of existing facilities over a ten-year period.

**Capital Outlay** – Cash outlays that result in the acquisition of or additions to capital assets.

**Cash Flow** – Projected cash disbursements for a given period of time.

**Cash Flow Reserve** – The amount of cash necessary at the beginning of the fiscal year to ensure coverage of projected cash inflows and disbursements during the fiscal year.

**Certificates of Participation (COPs)** – A type of debt financing in which certificates are issued which represent an investor's participation in the stream of lease payments paid by the issuer. Certificates of Participation are secured by the lease payments. Voter approval is not required prior to issuance.

**Cogeneration** – The use of a heat engine or a power station to generate electricity and useful heat simultaneously.

**Connection Fee** – See *Capacity Charge*

**Contributed Capital** – Capital assets that are acquired or constructed by a third party and turned over to the District for operations, maintenance and eventual rehabilitation and replacement once completed. Most often, contributed capital is the lower lateral and sewer main infrastructure built by a developer as part of a development project.

**Debt Capacity** – The difference between the amount of debt the District has outstanding (sold and authorized) and the maximum amount of debt the District can incur within its legal, public policy and financial limitations.

**Debt Service** – Payment of interest and repayment of principal to holders of the District's bonds and other debt instruments.



**Debt Service Coverage** – The ratio of net revenues to debt service requirements. The District is required by bond covenants to maintain a debt service coverage ratio of at least 1.25.

**Department** – A major organizational unit with overall managerial responsibility for functional programs of the District.

**Depreciation** – An expense based on the expectation that an asset will gradually decline in value or have to be replaced. The cost of the asset is therefore spread out (depreciated) over the asset's useful life. The intent is to charge the Operation over the real time of its useful life.

**Digester** – an apparatus in which substances are softened or disintegrated by moisture, heat, chemical action, or the like. The District uses an anaerobic digester to treat and process biosolids.

**Dissolved Air Floatation (DAF)** – A method of removing solids from wastewater by attaching a minute air bubble to suspended solids and causing the solids to separate from the water in an upward direction.

**Effluent** – This is the outflow of water from the wastewater treatment plant after treatment.

**Environmental Impact Report/Environmental Impact Statement (EIR/EIS)** – A detailed report or statement describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects.

**Equivalent Dwelling Units (EDU)** – A proxy for the amount of suspended solids, biochemical oxygen demand and flow that the typical residential dwelling disposes into the sewer system in a day. This is used to determine the capacity charge and annual sewer service charge for non-residential customers of the District.

**Expenditure** – The payment of an obligation from the District's cash amounts.

**Fats, Oils and Grease (FOG)** – FOG is a problem in the sewer systems, as it can cause blockages that result in sewer overflows. FOG, when collected from its source (such as a restaurant), can be used by a wastewater treatment plant to increase the volatile organic material in its digester, resulting in more methane gas used for electricity production.

**Fiscal Year** – The 12-month period to which the annual operating budget applies and at the end of which a government determines its financial position and results of its operations. The District's fiscal year runs from July 1 to June 30 of the following year.

**Full-Time Equivalent (FTE)** – The amount of time a regular, full-time employee normally works in a year. For example, a full-time employee (1 FTE) is budgeted to work 2,080 hours per year, while a 0.5 FTE is budgeted to work 1,040 hours per year.

**Fund** – An independent fiscal and accounting entity with a self-balancing set of accounts recording cash and/or other resources together with all related liabilities, obligations, reserves and equities.

**Fund Accounting** – System of accounting popular with governments and nonprofit organizations that utilizes funds to segregate accounts and activities. There is a focus on stewardship of financial resources received and expended in compliance with legal requirements.

**Fund Equity** – Fund equity, for the basis of the District's budgeting and financial planning purposes, is defined as current assets, including restricted assets, less current liabilities, excluding capital-related liabilities. This number is meant to represent the amount of cash that the District has available to commit to operating or capital expenses now or in the future, and is comparable to Fund Balance in governmental-type funds.

**Generally Accepted Accounting Principles (GAAP)** – Uniform standards for financial accounting and reporting. They govern the form and content of the basic financial statements of an entity.

**General Manager** – The chief executive officer of the District hired by the Board of Directors.

**Government Finance Officers Association (GFOA)** – A nonprofit professional association, serving 18,000 government finance professionals through the United States and Canada. The purpose of the GFOA is to enhance and promote the professional management of governments for the public benefit by identifying and developing financial policies and practices and promoting them through education, training and leadership.  
[www.gfoa.org](http://www.gfoa.org).

**Inflow & Infiltration (I&I)** – This refers to unintended sources of water that enter the sewer system, either through unauthorized connections (such as a downspout or a sump pump) or from groundwater intrusion through cracks or gaps in the sewer line.

**Influent** – Water or wastewater entering the wastewater treatment plant, or a particular stage of the treatment process.

**Infrastructure** – The components that ensure delivery of reliable, high quality services. Typical components include pipelines, pumps, basins, filtration facilities and the like.

**Interest** – Revenues derived from the investment of idle cash and/or reserves.

**Interfund Transfer** – The transfer of resources from one fund to another. See also **Budget Transfer** and **Intrafund Transfer**.

**Intrafund Transfer** – The transfer of resources from one department or account to another within a fund. See also **Budget Transfer** and **Interfund Transfer**.

**Laboratory Information Management System (LIMS)** – A software-based laboratory and information management system that offers a set of key features, including workflow and data tracking support, flexible architecture, and smart data exchange interfaces that fully support its use in a regulated environment.

**Lost Time** – The time an employee spends not working as a result of a workplace accident.

**Memorandum of Understanding (MOU)** – A document outlining the terms and details of an agreement between parties, including the responsibilities of each party. This term is often used to describe agreements with labor groups and unions.

**Milliken/Sarco/Tulocay Creeks (MST)** – The area just to the east of the City of Napa, in unincorporated Napa County, that includes Milliken Creek, Sarco Creek and Tulocay Creek. This is an area where there is a problem with groundwater overdraft. The County of Napa and the District are working together to deliver recycled water to this area.

**Million Gallons per Day (MGD)** – One million gallons per day equals 3.07 acre feet, or about 700 gallons per minute.

**Napa State Hospital (NSH)** – The District is constructing a recycled water pipeline through the NSH property.

**National Pollutant Discharge Elimination System (NPDES)** – Permit system established by the U.S. Environmental Protection Agency to regulate discharge of treated sewage, stormwater and urban runoff. The Regional Water Quality Control Board issues the District an NPDES permit that regulates the District's discharge of treated wastewater into the Napa River.

**North Bay Water Reuse Authority (NBWRA)** – This is an organization of wastewater agencies in Napa, Sonoma and Marin Counties that have joined together to develop a regional approach to funding, producing and delivering recycled water.

**Other Post Employment Benefits (OPEB)** – These are the benefits, other than retirement pensions, that are provided to retirees of the District. Governmental Accounting Standards require that benefits that accrue to employees should be expensed when they are earned, not when they are paid out to employees. The District pays into a trust account to pay for OPEB liabilities.

**Oxygen Reduction Potential (ORP)** – In wastewater, this is the measure of how much oxygen is needed to provide adequate disinfection (disinfection is provided through the application of sodium hypochlorite). The ORP analyzers are used to determine the precise amount of chemicals needed, based on changes in oxygen demand levels. This process reduces the amount of sodium hypochlorite applied during treatment to only that which is needed and reduces the amount of sodium bisulfite used to remove excess hypochlorite in the water.

**Performance Measure** – An objective measure of efficiency or effectiveness.

**Publically Owned Treatment Works (POTW)** – For the District, this is the Soscil Water Recycling Facility (SWRF).

**Rates** – Charges for services to District customers that cover the costs of such services.

**Reserve** – A term used to indicate that a portion of fund equity is designated for a specific purpose.

**Resources** – Total dollars available for appropriations including estimated revenues and beginning fund equity.

**Return Activated Sludge (RAS)** – In the aeration process in wastewater treatment, part of the settled material, the sludge, is returned to the beginning of the aeration system to re-seed the new wastewater entering the aeration basin. The RAS Rate refers to the percentage of sludge that is returned.

**Revenues** – Monies received or earned by the District.

**Service Level** – The kind and amount of service that the District provides to its customers at a given time.

**Sewer Service Charges** – Annual or monthly fees charged to users of the District sewer works for discharges into the system.

**Soscol Water Recycling Facility (SWRF)** – This is the District's wastewater treatment plant and recycled water production facility located on Soscol Ferry Road, just north of the Napa Airport.

**Special District** – Independent unit of local government generally organized to perform a single function.

**State Revolving Fund (SRF)** – A fund administered by the state for the purpose of providing low-interest loans for investments in water and sanitation infrastructure.

**Struvite** – Ammonium magnesium phosphate ( $\text{NH}_4\text{MgPO}_4 \cdot 6\text{H}_2\text{O}$ ). Struvite is a problem in sewage and wastewater treatment, particularly after anaerobic digesters release ammonium and phosphate from waste material, as it forms a scale on lines and clogs system pipes.

**Supervisory Control and Data Acquisition (SCADA)** – The SCADA system is used at the Treatment Plant for the measurement and control of various processes of wastewater treatment. The system allows for some automation of processes and for the remote monitoring and control of these processes.

**Suspended Solids** – particulates dissolved in liquid. See also **Total Suspended Solids**.

**Taxes** – Compulsory charges levied by a government for the purpose of financing services performed for the common benefit.

**Total Suspended Solids (TSS)** – particulate weight obtained by separating particles from a water sample using a filter, usually measured as milligrams per liter (mg/l).

**True Interest Cost (TIC)** – This is the real cost of issuing a bond. It includes all ancillary fees (underwriter fees, etc.) and takes into consideration any premium payments and different interest rates paid on different bonds within a series. This number can be used to compare quotes or bids for bond issues to determine the lowest bidder.

## **Appendix B**

### **Statistics and Economic Data**

**Demographics for City of Napa<sup>(1)</sup>**

	<b>2000</b>	<b>2014</b>
Population:	72,585	78,511
Median Age:	36.1	37.5
Median Household Income:	\$49,154	\$64,058
Persons Below Poverty Level	8.9%	10.7%
Median Housing Value:	\$238,300	\$412,600
Housing Units		
Owner-Occupied	16,362	15,709
Renter-Occupied	10,616	12,767
Not Computed	-	-
Vacant	798	1,653
	<b>27,776</b>	<b>30,129</b>

Source: US Census Bureau Census Data; 2014 American Community Survey 1 Year Estimates

**General Information for Napa Sanitation District**

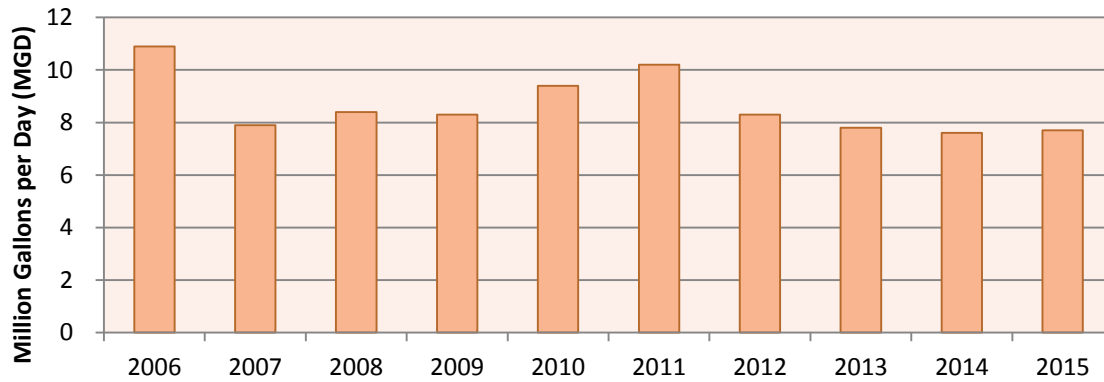
Year of Formation:	1945
Service Area (jurisdictional):	13,292 Acres
Service Population (est.):	82,700
Plant Design Capacity:	15.4 mgd <sup>(2)</sup>
Connections:	36,793
Miles of Sewer:	270 miles
Street Laterals:	33,000
Sewer Manholes:	5,565
On-plant pump stations:	1
Off-plant pump stations:	3
NPDES Permit Number:	CA0037575

Source: Napa Sanitation District

(1) Demographics are provided for the City of Napa because about 93% of the District's population resides in the City of Napa, and this data is not available specific to the District's service area.

(2) MGD = Million Gallons per Day

### Historic Average Daily Influent Flow at Wastewater Treatment Plant



### Historic Average Daily Influent Flow at Wastewater Treatment Plant

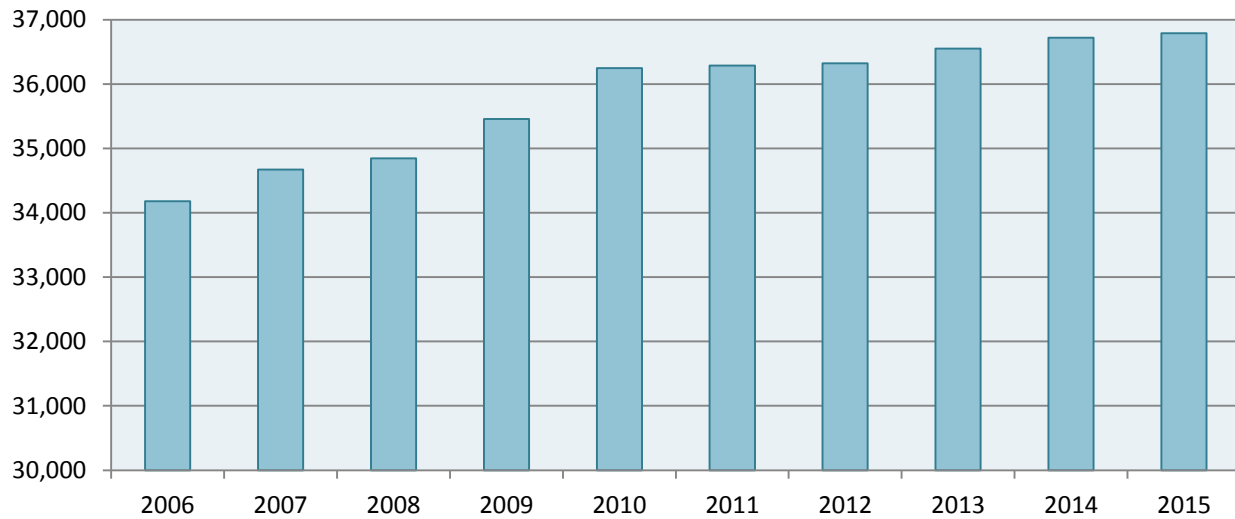
Fiscal Year Ended June 30	Daily Average Flow (MGD)	Increase/ (Decrease)
2006	10.9	-
2007	7.9	(38.0%)
2008	8.4	6.0%
2009	8.3	(1.2%)
2010	9.4	11.7%
2011	10.2	7.8%
2012	8.3	(22.9%)
2013	7.8	(6.4%)
2014	7.6	(2.6%)
2015	7.7	1.3%

Source: Napa Sanitation District

MGD = Million Gallons per Day



### Historic Sewer System Service Connections and Equivalent Dwelling Units (EDUs)

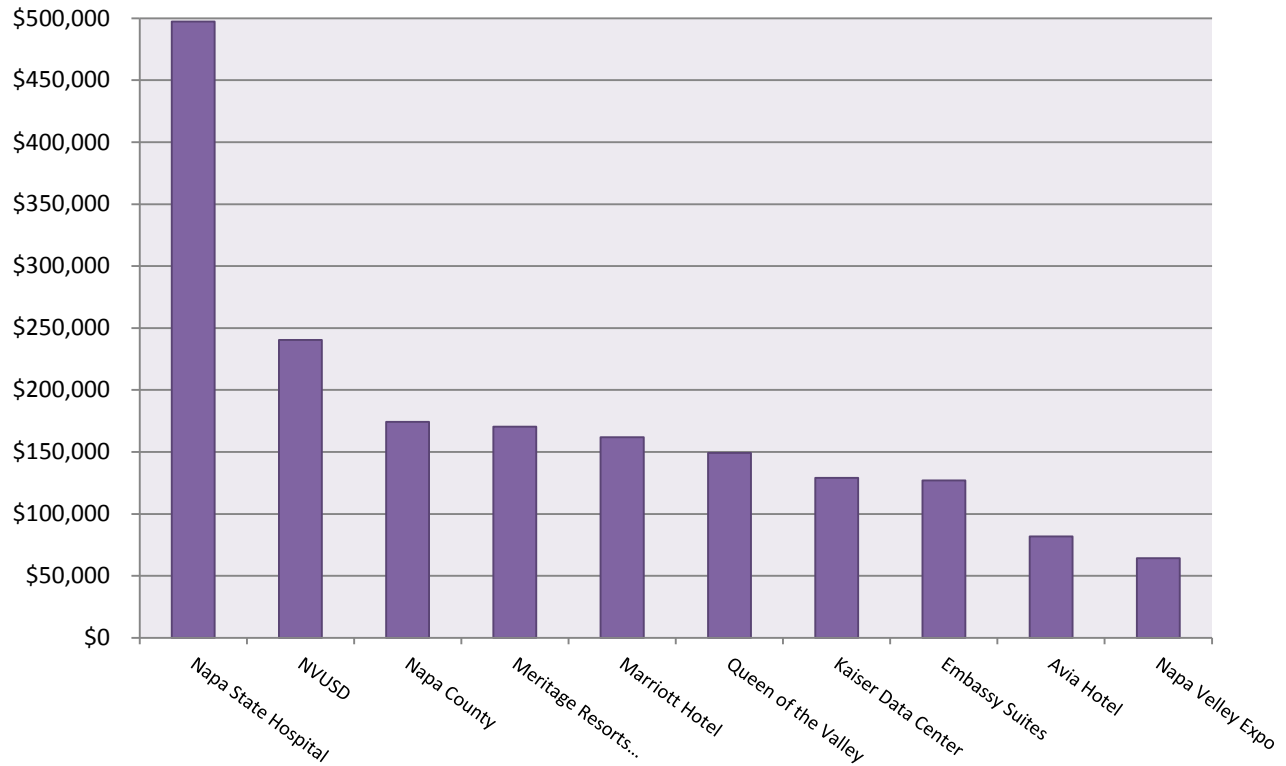


### Historic Sewer System Service Connections and Equivalent Dwelling Units (EDU's)

Fiscal Year Ended June 30	Single Family	Multifamily	Commercial/ Industrial	Total Connections	Total EDU's
2006	22,352	7,989	3,839	34,180	35,560
2007	22,598	8,066	4,011	34,675	36,305
2008	22,721	8,106	4,021	34,848	39,336
2009	23,085	8,193	4,183	35,461	40,705
2010	23,304	8,526	4,421	36,251	40,801
2011	23,368	8,482	4,439	36,289	40,254
2012	23,412	8,478	4,436	36,326	40,142
2013	23,486	8,539	4,527	36,552	40,320
2014	23,519	8,673	4,530	36,722	40,955
2015	23,573	8,668	4,550	36,791	41,178

Source: Napa Sanitation District

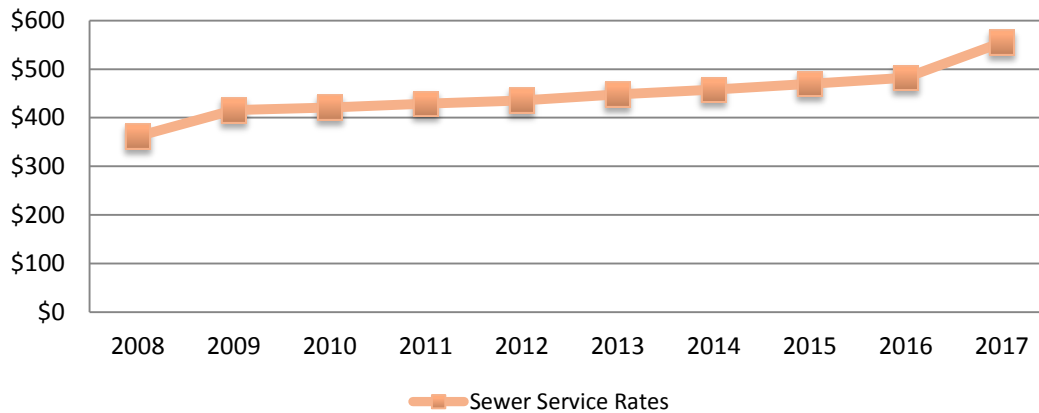
### Ten Largest Sewer Users



### FY 2014/15

	Sewer Service Charges	% of Total
Napa State Hospital	\$497,341	2.59%
NVUSD	240,501	1.25%
Napa County	174,256	0.91%
Meritage Resorts (Restaurants)	170,310	0.89%
Marriott Hotel	161,947	0.84%
Queen of the Valley	149,121	0.78%
Kaiser Data Center	129,013	0.67%
Embassy Suites	126,898	0.66%
Avia Hotel	81,937	0.43%
Napa Valley Expo	64,318	0.34%
<b>Total</b>	<b>\$1,795,641</b>	<b>9.36%</b>

### Sewer Service Rates



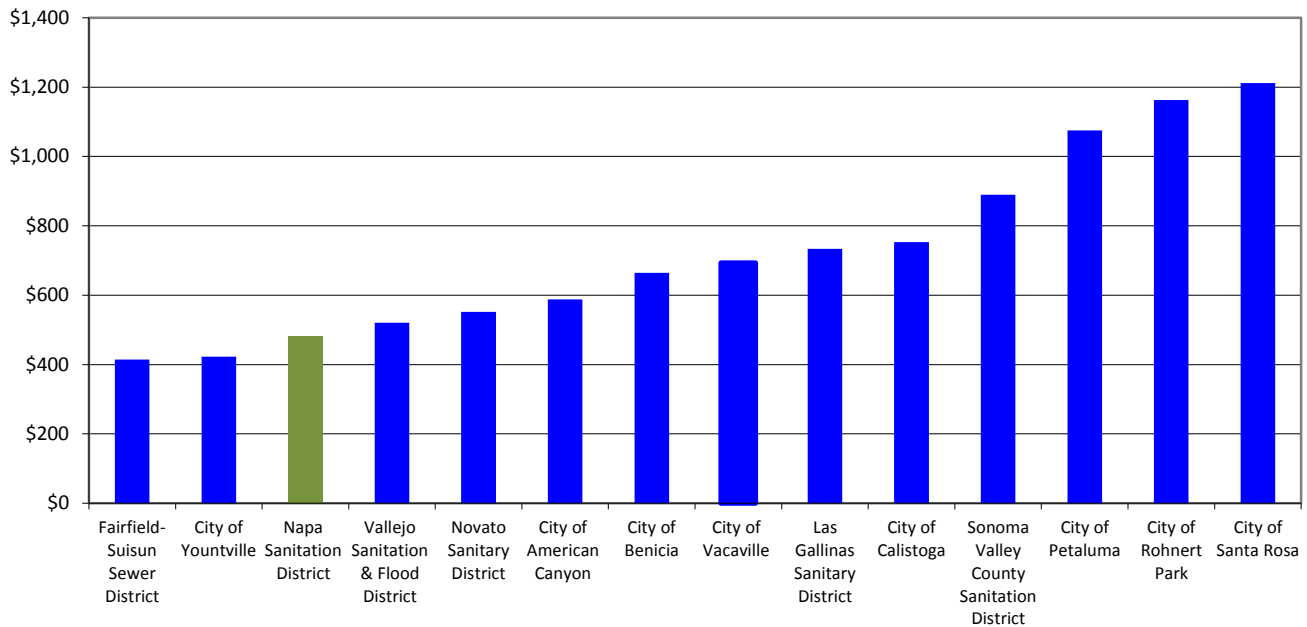
### Historic Sewer Service Rates

Fiscal Year Ended		
June 30	Sewer Service Rates	% Increase
2008	\$362.00	15.0%
2009	416.00	15.0%
2010	421.00	1.2%
2011	429.00	1.9%
2012	435.44	1.5%
2013	448.07	2.9%
2014	457.92	2.2%
2015	469.82	2.6%
2016	482.50	2.7%
2017	554.88	15.0%

In 2006, the NSD Board of Directors approved a three year phased-in increase to the sewer service rates. For FY 2007, 2008, and 2009, the District increased rates 15% per year. The rate thereafter increases with inflation.

In 2016, the Board of Directors set the maximum rate increases for the following five years. Starting in FY 2017, the approved maximum rate increases will be 15%, 15%, 6%, 5%, and 4% each year. During the preparation of the budget each fiscal year, the Board will determine the rate increase based on an evaluation of the revenue requirements for that year (up to the maximum approved rate increase).

### Sewer Service Rate for Surrounding Areas

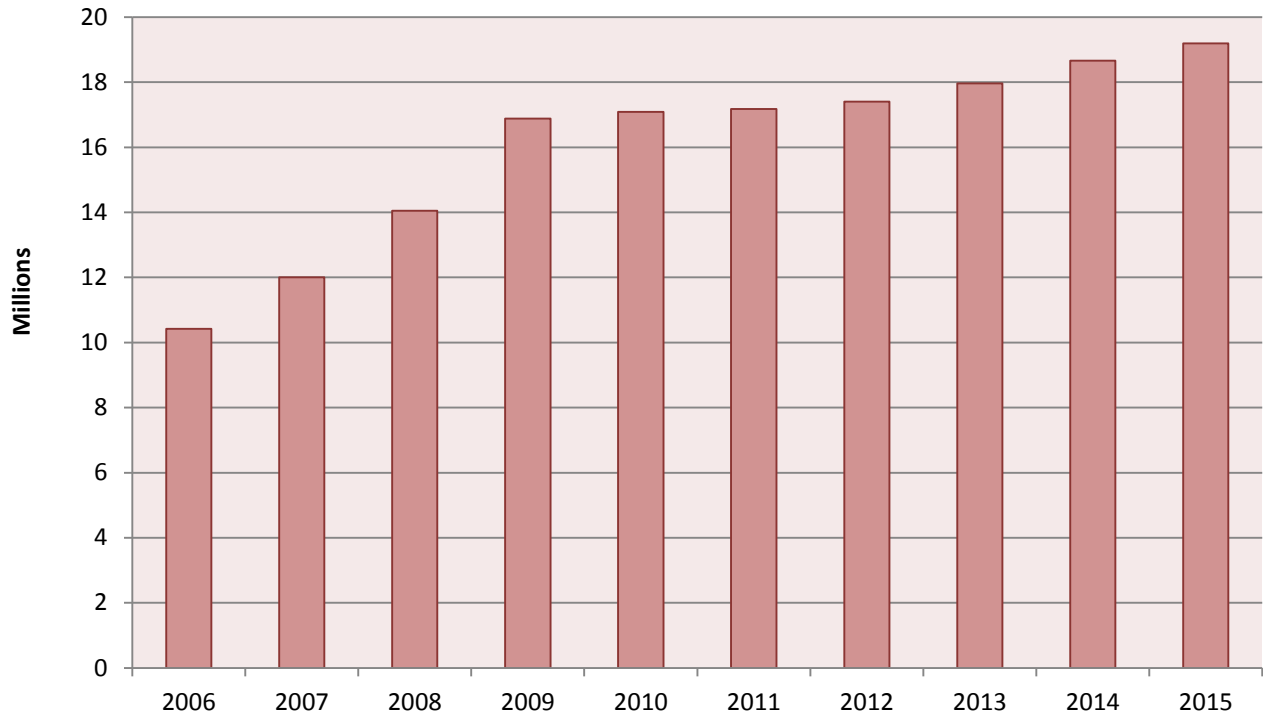


### FY 2015/16

Agency	Sewer Service Rate <sup>(1)</sup>
Fairfield-Suisun Sewer District	\$415
City of Yountville	423
Napa Sanitation District	483
Vallejo Sanitation & Flood District	520
Novato Sanitary District	552
City of American Canyon	588
City of Benicia	665
City of Vacaville	693
Las Gallinas Sanitary District	734
City of Calistoga	753
Sonoma Valley County Sanitation District	890
City of Petaluma	1,075
City of Rohnert Park	1,163
City of Santa Rosa	1,212

(1) Residential - Single Family Dwelling

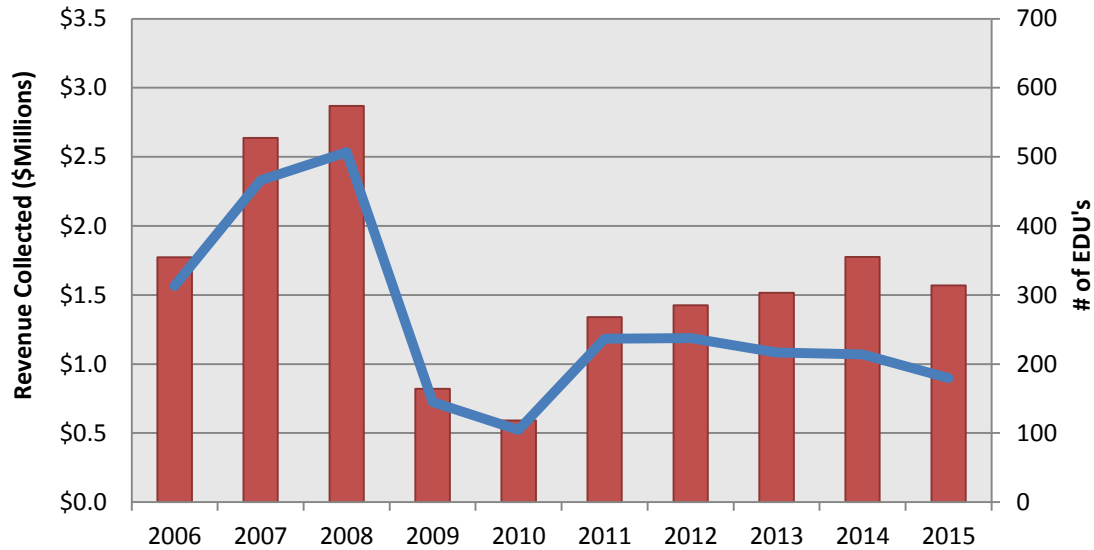
### Sewer Service Revenue



### Historic Sewer Service Revenues

Fiscal Year Ended June 30	Sewer Service Revenues	Percentage Change
2006	10,421,825	-
2007	12,003,390	15.2%
2008	14,051,455	17.1%
2009	16,880,763	20.1%
2010	17,089,263	1.2%
2011	17,173,259	0.5%
2012	17,400,473	1.3%
2013	17,965,150	3.2%
2014	18,665,200	3.9%
2015	19,190,535	2.8%

### Capacity Charges Past Ten Fiscal Years

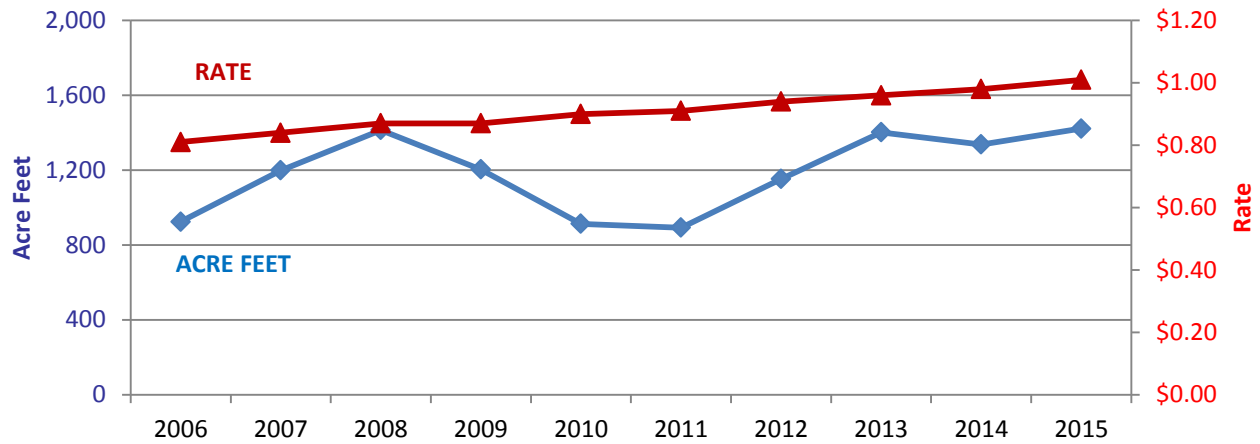


### Historic Capacity Charges

FY Ended June 30	Capacity Charges (per EDU)	Total Collected	Number of EDU's
2006	5,660	1,773,246	313.3
2007	5,660	2,637,594	466.0
2008	5,660	2,867,637	506.6
2009	5,660	820,914	145.0
2010	5,660	591,859	104.6
2011	5,660	1,339,102	236.6
2012	6,000	1,425,486	237.6
2013	7,000	1,516,677	216.7
2014	8,300	1,774,081	213.7
2015	8,723	1,568,328	179.8



### Recycled Water Sales in Acre Feet



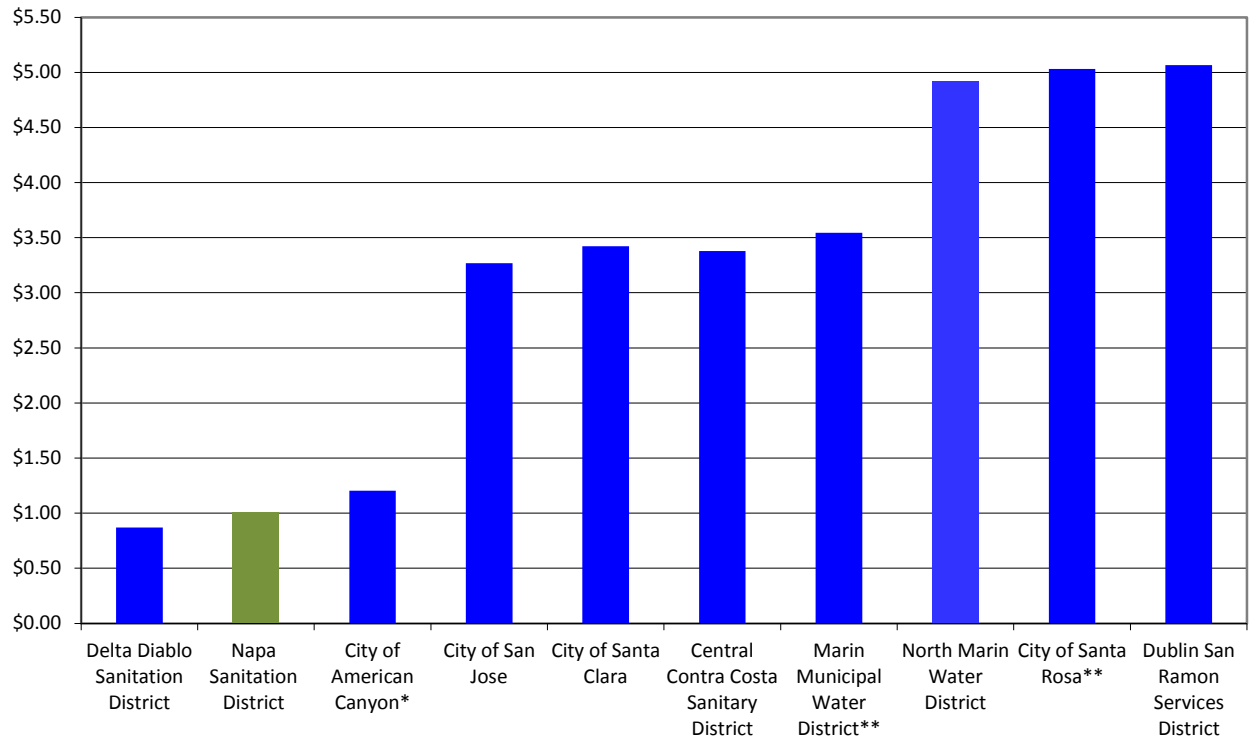
### Historic Annual Recycled Water Sales

Calendar Year Ending December 31	QUANTITY		RATES
	Total Acre Feet	Total Million Gallons	Rate per 1,000 Gallons
2006	924	301	0.81
2007	1,199	391	0.84
2008	1,415	461	0.87
2009	1,204	392	0.87
2010	913	298	0.90
2011	893	291	0.91
2012	1,153	376	0.94
2013	1,402	457	0.96
2014	1,337	436	0.98
2015	1,422	463	1.01

Source: Napa Sanitation District

Note: 1 Acre Feet = .325851 Million Gallons

### Recycled Water Rate for Surrounding Areas



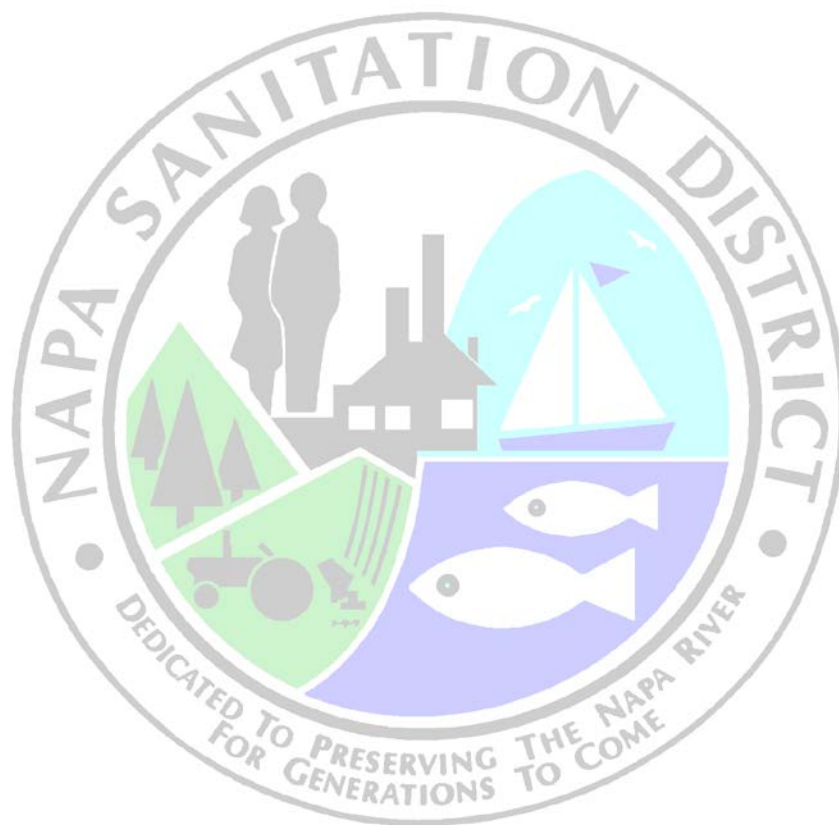
### Recycled Water Rates

Agency	Rate per 1,000 gallons	Fiscal Year
Delta Diablo Sanitation District	\$0.87	FY 15-16
<b>Napa Sanitation District</b>	<b>1.01</b>	FY 15-16
City of American Canyon*	1.20	FY 15-16
City of San Jose	3.27	FY 15-16
City of Santa Clara	3.42	FY 15-16
Central Contra Costa Sanitary District	3.38	FY 15-16
Marin Municipal Water District**	3.54	FY 15-16
North Marin Water District	4.92	FY 15-16
City of Santa Rosa**	5.03	FY 15-16
Dublin San Ramon Services District	5.07	FY 15-16

\*Most customers are being charged this rate

\*\*Tier 1 Rate

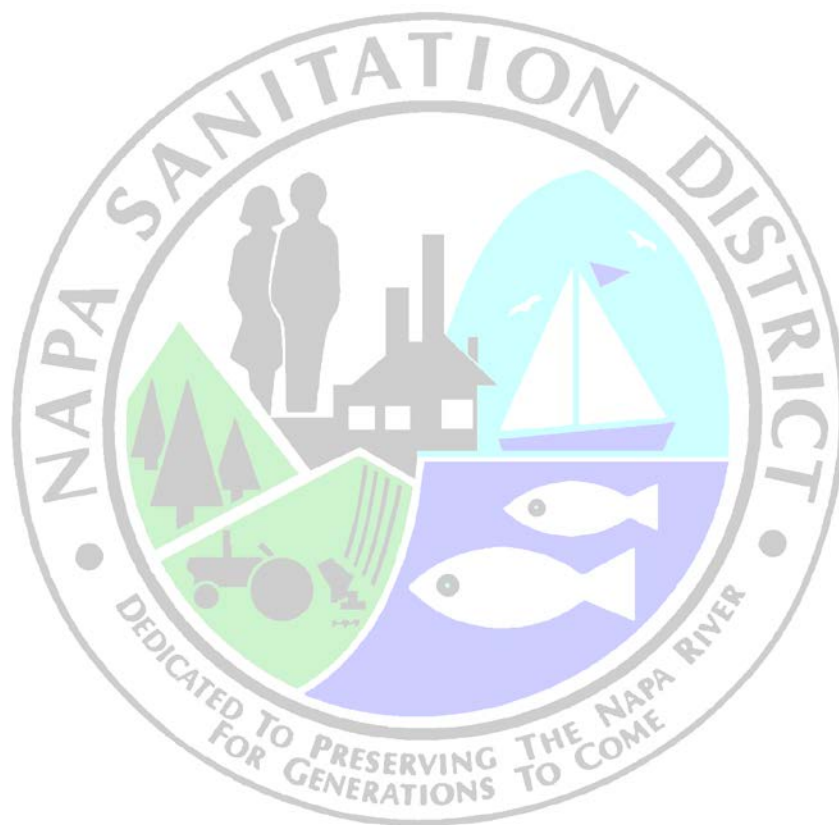
Please note that the rates reflected are based on consumption. Some agencies charge a fixed monthly charge in addition to the consumption charge.



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**Appendix C**

**NSD Strategic Plan**

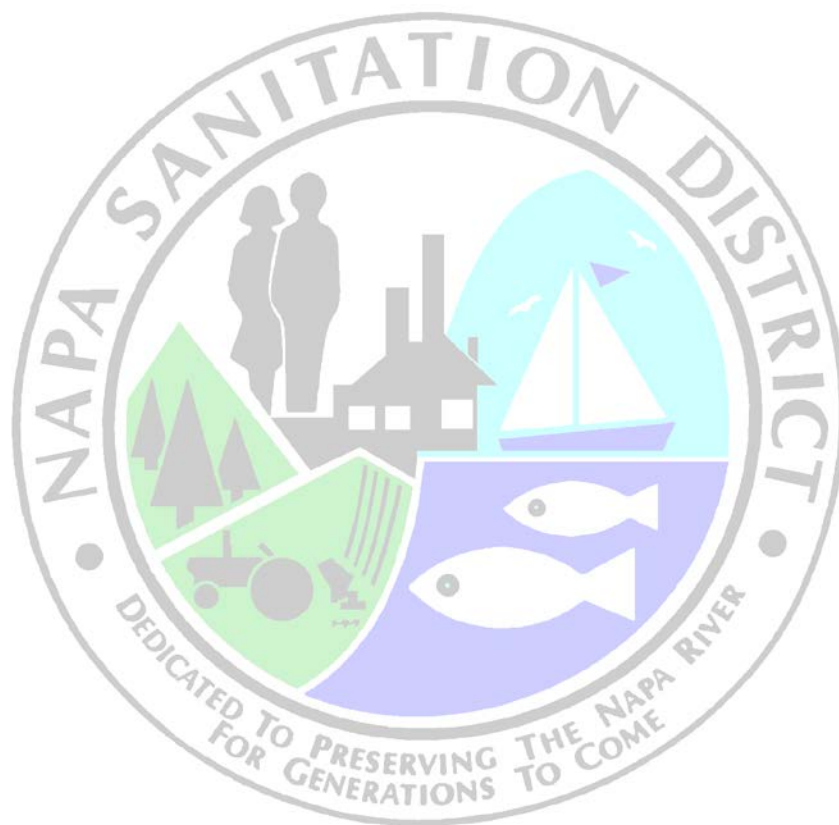


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## **Appendix D**

### **Financial Policies**





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# **NAPA SANITATION DISTRICT**

## **FINANCIAL POLICIES**

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Approved by the Board of Directors  
May 2, 2012



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**1.0 GENERAL POLICIES**

**1.1 Review annually**

Napa Sanitation District's financial policies shall be reviewed annually by the Board and shall be published in the adopted budget.

**1.2 Comply with applicable laws**

The District shall comply with all applicable state and federal laws and regulations concerning financial management and reporting, budgeting, investing and debt administration.

**1.3 Administrative procedures**

The Chief Financial Officer shall establish and maintain appropriate financial and internal control procedures to assure the integrity of the District's finances.



**2.0 RESERVE POLICIES**

**2.1 Reviewed annually**

Napa Sanitation District shall maintain reserves that are appropriate to the needs of the District. Targeted reserve levels shall be established and reviewed annually as part of the budget process. The use of fund balance or reserves for operational activities shall be explained in the annual budget document; such explanation shall describe the circumstances for such action and its expected future impact.

**2.2 Operating reserves**

Napa Sanitation District shall maintain an operating reserve for use during operational or financial emergencies. Emergencies shall constitute significant, unforeseen events that have a dramatic and immediate impact on the operations, assets or financial condition of the District. A plan to replenish this reserve used during a fiscal year shall be developed and approved through the budgeting process in the following fiscal year. The amount of the reserve shall be at least equal to 15% of the budgeted annual operating expenses, excluding debt service, in the General Operations and Maintenance Fund.

**2.3 Liquidity**

Napa Sanitation District shall maintain cash and investments necessary to meet the liquidity needs for the District. Furthermore, the District shall maintain unrestricted cash and investments as required by any debt covenants.

Liquidity needs shall be calculated as follows: on June 30th of each year the District shall maintain a level of cash and investments, less those amounts held in reserve by a fiscal agent, in an amount at least equal to anticipated operating expenditures between July 1 and November 30, plus the amount held in Operating Reserve.

**3.0 REVENUE**

**3.1 Fees and Charges**

**3.1.1 Setting of Fee and Charge Amounts**

Fees and charges shall be set to recover the current operational needs of the District, including the financing of capital improvements in accordance with the Capital Improvement Program.

**3.1.2 Collection of Fees and Charges**

The District shall strive to collect all fees and charges imposed, and shall actively pursue and settle delinquent accounts.

**3.1.3 Review of Fees**

The District shall review fees and charges annually to ensure they are set at appropriate amounts.

**3.2 Revenue Forecasting**

The District shall estimate revenues conservatively, through an objective, analytical process. The District shall regularly report on forecasted vs. actual revenues, and provide explanation for significant variances.

**3.3 Use of one-time and unpredictable revenues**

One-time revenues shall be used to support one-time expenditures or increase fund balance. Unpredictable revenues shall not be used to support ongoing operational expenses for a period longer than the revenue can reasonably be expected to support them.

**4. BUDGETING AND CAPITAL ASSET MANAGEMENT**

**4.1 Basis of budgeting**

All budgetary procedures will conform to state regulations and generally accepted accounting principles. As such, the District shall use a modified accrual basis of accounting for reporting on budgeted versus actual expenditures, with the following exceptions:

- Grant revenues are budgeted on a modified cash basis rather than an accrual basis;
- Fixed assets are depreciated for some financial reporting, but are fully expensed in the year acquired for budgetary purposes;

**4.2 Balanced budget**

The District shall maintain a balanced budget, defined as total resources (operating revenue, non-operating revenue, intrafund transfers and beginning fund equity) shall equal total requirements (operating expenses, capital expenses, intrafund transfers and ending fund equity) including contingencies. Furthermore, the District considers the budget to be balanced whenever annual operating and non-operating revenues meet or exceed annual operational expenditures. The District is committed to maintaining a balanced budget under normal circumstances and will disclose deviations from a balanced operating budget when it occurs.

**4.3 Budget control**

The Board of Directors retains the exclusive authority to increase annual budget authority for Operational Expenditures. In no case may total operating expenditures exceed that which is appropriated by the Board without a budget amendment duly approved by the Board.

The Board of Directors also retains the exclusive authority to increase the annual budget authority for Capital Expenditures. In no case may total capital expenditures exceed that which is appropriated by the Board without a budget amendment duly approved by the Board.

Only the Board may authorize transfer of budget authority between Operational Expenditures and Capital Expenditures. Only the Board may increase the number of authorized positions in the Position Control Roster.

The General Manager has the authority to approve budget transfers between operating departments. The General Manager has the authority to approve budget

transfers between capital projects. The General Manager has the authority to hire employees in accordance with the Position Control Roster.

The Director of Administrative Services / Chief Financial Officer shall be responsible for establishing a budgetary control system to ensure compliance with this policy.

#### **4.4 Capital asset acquisition, maintenance, replacement and retirement**

##### **4.4.1 Budget for maintenance**

The District shall budget for the adequate maintenance of capital equipment and facilities to protect the public investment and ensure achievement of their maximum useful life.

##### **4.4.2 Use of operational fund balance for capital**

Operational fund balances in excess of established reserves and liquidity requirements shall be used for the development, rehabilitation or replacement of capital assets.

##### **4.4.3 Capitalization threshold**

An asset shall be considered a capital asset when the initial cost of the asset is \$5,000 or more and has a useful life of more than one year. The initial cost shall include any costs necessary to put the asset into its intended use. Interest in real property shall always be considered a capital asset, regardless of its initial cost.

##### **4.4.4 Ten-year Capital Improvement Plan**

The District shall prepare, adopt and update annually a ten-year Capital Improvement Plan that identifies and sets priorities for all major capital assets to be acquired, constructed or replaced by the District. The Capital Improvement Plan shall be included in the Adopted Budget. Major capital assets are those which result in a capitalized asset costing more than \$50,000. Capital assets costing less than \$50,000 may be combined into a single major capital project for Ten-year Capital Improvement Plan purposes, with the individual capital assets identified.

**4.4.5 Funding requirement**

The Capital Improvement Plan shall identify adequate funding to support the acquisition, construction and replacement of assets identified in the plan, and shall identify projects that the District believes beneficial to the system but funding has not yet been identified. Additionally, the District shall strive to develop a comprehensive strategy and funding plan for the renewal and replacement of existing capital assets.

**5. DEBT ISSUANCE AND MANAGEMENT**

**5.1 Use of long-term debt**

The District shall have a preference to finance capital improvements using pay-as-you-go financing and shall issue long-term debt only to finance capital improvements that cannot be readily financed from current revenues. Some exceptions to this may be made on a case-by-case basis for no-interest and extremely-low-interest loan programs for capital projects.

Debt financing shall be used only for major, non-recurring items or improvements with a minimum of five years of useful life; assets with a shorter useful life shall be financed using pay-as-you-go financing.

**5.2 Length of debt obligations**

The District shall repay all debt issued within a period not to exceed the expected useful life of the improvements financed by the debt.

**5.3 Debt service limitation**

The District shall not issue debt where the debt service amounts exceed its ability to pay current obligations from current revenues. This shall be calculated as follows: current operating revenues, less current operating expenditures, shall be at least 125% of anticipated total annual debt service for all outstanding long-term debt.

**5.4 Use of credit enhancements**

When issuing long-term debt, credit enhancements (letters of credit, bond insurance, etc.) may be used, but only when net debt service on the debt is reduced by more than the cost of the enhancement.

**5.5 Bond rating**

The District shall seek to maintain and, if possible, improve its current bond rating in order to minimize borrowing costs and preserve access to credit.

**5.6 Financial disclosure**

The District shall fully disclose financial and pertinent credit information as it relates to the District's outstanding securities.

**6. INVESTMENTS**

**6.1 Investment policy**

The District shall maintain the same investment policy as the County of Napa and shall invest its cash reserves in the County's investment pool.

**6.2 Annual review**

The District shall review this policy annually and advise the Board when, in the professional opinion of the staff, it would be prudent to consider alternatives to investing its cash reserves.



**7. FINANCIAL REPORTING**

**7.1 Quarterly financial reporting to Board of Directors**

The District shall prepare and provide to the Board of Directors a quarterly summary report that compares actual revenues and expenditures to budgeted amounts. The report shall explain significant variances and provide analysis and interpretation of financial information.

**7.2 Monthly financial reporting to Board of Directors**

On a monthly basis, the Board of Directors shall be provided a financial report that includes budget-to-actual financial reporting and calculation of existing cash balances. The Board shall also receive regularly a report listing payments made to vendors during the reporting period.

**7.3 Monthly management report review**

The District shall prepare a monthly report for review and use by District management staff that compares actual revenues and expenditures to budgeted amounts, as well as additional reports as requested to assist in managing the day-to-day operations of the District.

**8. ACCOUNTING**

**8.1 Financial statements**

The District shall prepare financial statements annually, in accordance with generally accepted accounting principals for governments in the United States.

**8.2 Annual financial audit**

The District's financial statements shall be audited annually by an independent, qualified third party in accordance with generally accepted auditing standards, and shall complete the audit within eight months of the end of the fiscal year. The audit results and any associated management response shall be presented to the Board of Directors.

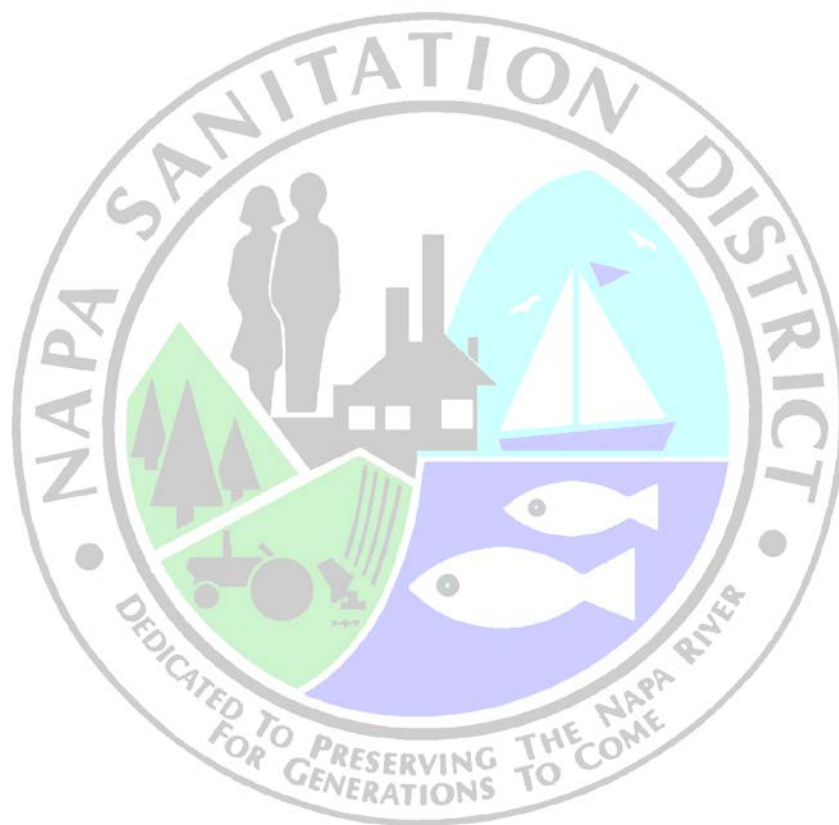
**8.3 Accounting policies and procedures**

Management shall develop internal accounting policies and procedures necessary to implement these Financial Policies and to ensure that internal controls, processes and procedures are adequate to protect the finances of the District.

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## **Appendix E**

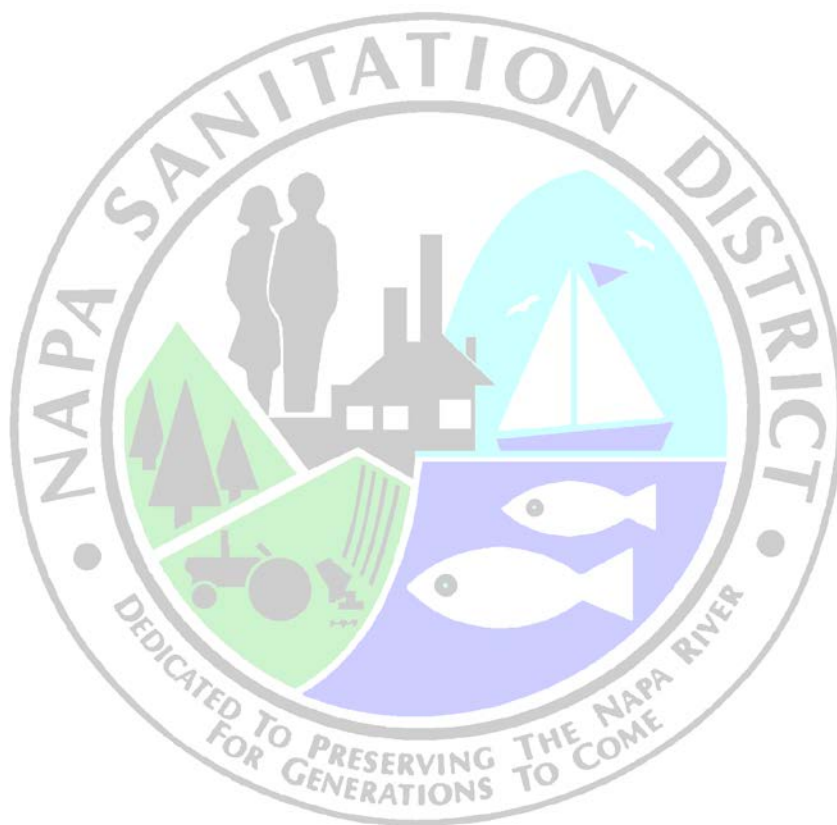
### **2015 Performance Measurement Report**



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## **Appendix F**

### **Capacity Charges Report for Fiscal Year 2014/15**



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## **Capacity Charges Report for Fiscal Year 2014/15**

### **Purpose of the Report**

This report is prepared to comply with California Government Code 66013, detailing the amount of capacity charges were received by the District and on what capital projects those charges were expended.

### **Capacity Charges Defined**

Capacity charges are a charge for public facilities in existence at the time a charge is imposed or charges for new public facilities to be acquired or constructed in the future that are of proportional benefit to the person or property being charged, including supply or capacity contracts for rights or entitlements, real property interests and entitlements and other rights of the local agency involving capital expense relating to its use of existing or new public facilities. The Napa Sanitation District charges a capacity charge on all new development and all expansions or changes of existing development to pay for current and future capital improvement projects in the wastewater treatment plant, reclamation system or collection system that are designed to accommodate growth or expanded use.

The Fiscal Year 2014/15, the fee for capacity charges was \$8,723 per Equivalent Dwelling Unit.

### **Reporting Requirements**

The District is required to report to the public expenditures of capacity charges. As outlined in California Government Code 66013, the public reporting must be done within 180 days after the last day of each fiscal year and must include the following information for that fiscal year:

1. A description of the capacity charges deposited into the fund.
2. The beginning and ending balance of the fund and the interest earned from investment of moneys in the fund.
3. The amount of capacity charges collected in that fiscal year.
4. An identification of all of the following:
  - a. Each public improvement on which charges were expended and the amount of the expenditures for each improvement, including the percentage of the total cost of the public improvement that was funded with those capacity charges if more than one source of funding was used.
  - b. Each public improvement on which charges were expended that was completed during that fiscal year.
  - c. Each public improvement that is anticipated to be undertaken in the following fiscal year.
5. A description of each interfund transfer or loan made from the capital facilities fund. The information provided, in the case of an interfund transfer, shall identify the public improvements on which the transferred moneys are, or will be, expended. The information, in the case of an interfund loan, shall include the date on which the loan will be repaid, and the rate of interest that the fund will receive on the loan.

### **Activity Prior to Reporting Period**

In August 2009, the District completed a study conducted by Bartle Wells Associates that evaluated the allocation of capacity charges to capital projects from Fiscal Year 1995/96 to 2007/08. The study looked at projects completed on a pay-as-you-go basis, as well as those that were debt financed. The study



evaluated which projects should be allocated to user fees (operating revenue), which to capacity charges (expansion fees), and which had “mixed benefit.” For those with mixed benefit, the study evaluated what the percentage split should be for those expenses.

The study concluded that the expansion fund (capacity charges) was overspent by \$19.4 million, with that difference being picked up by the capital projects fund (user fees). And after applying the existing fund balance for the expansion fund at the end of Fiscal Year 2007/08, there was still a capacity charge deficit of \$12,607,167.

In FY 2009/10, that deficit grew by \$1,590,705.81 to \$14,474,480.48.

In FY 2010/11, that deficit grew by \$627,358.75 to \$15,101,839.23.

In FY 2011/12, that deficit grew by \$878,026.91 to \$15,979,866.14.

In FY 2012/13, that deficit shrunk by \$521,983.77 to \$15,457,882.37.

In FY 2013/14, that deficit grew by \$3,811,328.73 to \$19,269,211.10.

### **Activity for Current Reporting Period (FY 2014/15)**

**Beginning Balance (deficit) (\$19,269,211.10)**

#### **Revenue**

Capacity Charges Collected	\$1,448,084.85
Mitigation Fees*	120,243.36
Interest	199.63
Other Associated Revenues**	
USBR – WaterSMART Grant	1,772,768.76
<b>Total Revenue</b>	<b>\$3,341,296.60</b>

	<b>FY 14/15 Total Expended</b>	<b>% of project allocated to Cap Charges</b>	<b>Total Cap Charges</b>	<b>Status as of 6/30/15</b>
<b><u>Expenditures / Capital Projects</u></b>				
13705 – I&I Reduction Program	\$118,494.05	39.4%	\$46,686.66	Ongoing
13706 – Basin L - I&I Reduction Project 2	1,750.03	39.4%	689.51	Completed
13707 – Basin L - I&I Reduction Project 3*	2,881,968.92	39.4%	1,135,495.75	Completed
14701 – Basin L - I&I Reduction Project 4	2,435,127.61	39.4%	959,440.28	Ongoing
14703 – Browns Valley Rd & First St	962,336.20	100.0%	962,336.20	Ongoing
15701 - Upper Later Rehabilitation - Basin L	4,672.09	39.4%	1,840.80	Ongoing
13713 – Pond 1 Aeration	895,042.20	100.0%	895,042.20	Ongoing
13714 – Recycled Water Expansion Phase 1**	5,705,285.39	39.4%	2,247,882.44	Ongoing
13724 – IPS Expansion	11,187,361.76	39.4%	4,407,820.53	Ongoing
<b>Total Expansion Capital Expenditures</b>			<b>\$10,657,234.38</b>	

**Ending Balance (deficit) (\$26,585,148.88)**

**Budgeted Capacity Charge Expenses for Next Reporting Period (as of 11/30/2015)**

<b><u>CIP# - Name</u></b>	<b><u>FY 15/16</u></b>	<b><u>% Funded by Capacity Charges</u></b>	<b><u>% Funded by Other Revenue</u></b>	<b><u>Total Capacity Charges</u></b>	<b><u>Total Other Revenue</u></b>
13705 – I&I Reduction Program	\$130,000	39.4%	60.6%	\$51,220	\$78,780
14701 – Basin L - I&I Reduction Project 4	2,176,600	39.4%	60.6%	857,580	1,319,020
14703 – Browns Valley Rd & First Street	1,362,450	100.0%	0.0%	1,362,450	-
15701 – Upper Lateral Rehabilitation - Basin L	220,300	39.4%	60.6%	86,798	133,502
16701 - Basin L - I&I Reduction Project 5	800,000	39.4%	60.6%	315,200	484,800
16702 - Collection System Master Plan Amndmnt	250,000	39.4%	60.6%	98,500	151,500
16703 - Cleanout Replacement - Basin L (Pilot)	10,000	39.4%	60.6%	3,940	6,060
16704 - Manhole Rehab - Basin L (Pilot)	10,000	39.4%	60.6%	3,940	6,060
16707 - West Napa PS - Long Term Planning	75,000	39.4%	60.6%	29,550	45,450
13713 – Pond 1 Aeration	5,000	100.0%	0.0%	5,000	-
13714 – Recycled Water Expansion Phase 1**	353,000	39.4%	60.6%	139,082	213,918
13724 – IPS Expansion	1,144,100	39.4%	60.6%	450,775	693,325
<b>Total Capacity Charge Expenses</b>	<b>\$6,536,450</b>			<b>\$3,404,036</b>	<b>\$3,132,414</b>

**Note:**

\* Mitigation Fees were allocated to I&I Reduction Project 3.

\*\*Any grant revenue or reimbursements received for these projects will be recorded as “Other Associated Revenue” and credited against the capacity charges.

Additional information on capital expenditures can be found in the NSD Adopted Operating and Capital Budget at [www.NapaSan.com](http://www.NapaSan.com).