



# OPERATING AND CAPITAL BUDGET FISCAL YEAR 2017/18



**NAPA SANITATION DISTRICT  
NAPA, CALIFORNIA**

## **NapaSan**

# **Budget Acknowledgements**

### **Board of Directors**

Jill Techel, Chair  
Ryan Gregory, Vice-Chair  
Peter Mott, Director  
David Graves, Director  
Mary Luros, Director  
Alfredo Pedrosa, Alternate Director  
Doris Gentry, Alternate Director

### **Executive Officer**

Tim Healy, General Manager

### **Management Team**

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

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

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

Andrew Damron, Technical Services Director / District Engineer  
Kyle Broughton, Capital Program Manager  
Chris Francis, Interim Regulatory Compliance Manager

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

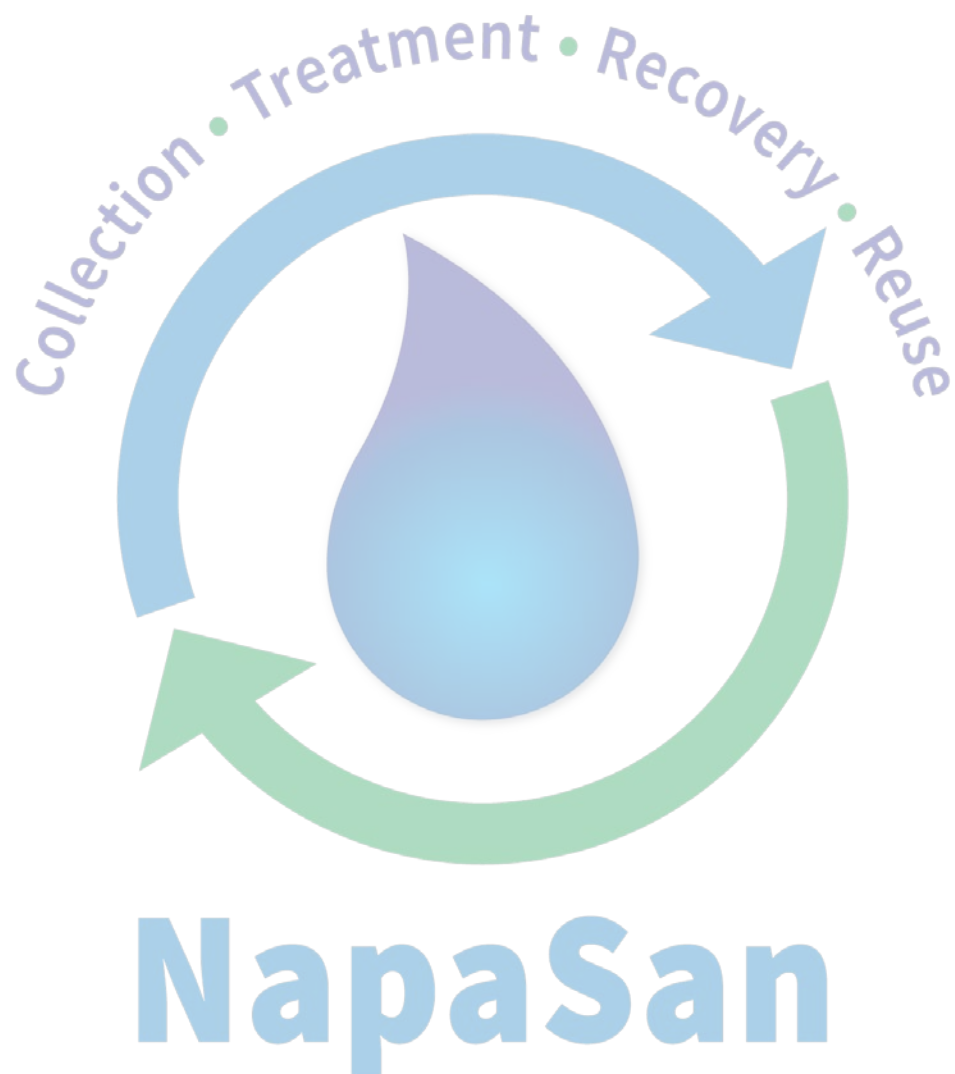
Jeff Tucker, Administrative Services Director / Chief Financial Officer  
Cheryl Schuh, Human Resources Officer / Clerk of the Board  
Cyndi Bolden, Senior Accountant



## Table of Contents

<b>Transmittal Letter .....</b>	<b>5</b>	<b>Capital Improvement Plan .....</b>	<b>71</b>
<b>Budget Resolution .....</b>	<b>15</b>	Program Description .....	73
<b>NapaSan Overview.....</b>	<b>17</b>	Definition of Capital Expenditures .....	73
Mission.....	17	Capital Plan Development Process .....	73
History.....	17	Vehicle Replacement Guidelines.....	73
Public Services .....	17	Sources of Capital Expenditure Funding .....	74
Performance Measurement.....	18	Use of Capacity Charges for Expansion .....	74
Strategic Planning Goals and Objectives .....	19	Changes from Prior CIP.....	74
Financial Policies Summary .....	24	Summary of FY 2017/18 Capital Projects .....	75
Compliance with Financial Policies .....	25	Partner-Funded Projects.....	76
Organization.....	25	Unfunded or Delayed Projects.....	76
Organization Chart .....	26	Impact of Projects on Operating Budget.....	76
Position Control Roster .....	27	FY 2017/18 Capital Project Descriptions .....	78
Map of NapaSan Service Area.....	28	FY 2017/18 Capital Projects – Allocation of Capacity Charges.....	82
<b>Budget Summary .....</b>	<b>29</b>	Ten-Year Capital Improvement Plan – Table of Projects .....	83
Fund Structure.....	29	<b>Ten-Year Financial Plan.....</b>	<b>89</b>
Basis of Accounting .....	29	Plan Description.....	91
Basis of Budgeting .....	29	Link to Strategic Plan .....	91
Budget Appropriation.....	29	Revenue Forecast.....	91
Budget Development Process.....	29	Operating Cost Forecast.....	92
Budget Amendment Process .....	30	Capital Costs .....	92
Budget Calendar for FY 2017/18 .....	30	Pay-Go vs. Debt Financing .....	92
Sources of Funds/Revenues .....	31	Ten-Year Cash Flow.....	93
Uses of Funds/Expenditures.....	34	<b>Debt.....</b>	<b>95</b>
Fund Equity.....	35	Debt Policy .....	97
Reserves .....	37	Current Debt Obligations.....	97
GFOA Budget Award .....	37	Debt Covenants.....	97
<b>Detailed Tables of Revenues and Operating Expenditures .....</b>	<b>39</b>	Debt Capacity & Debt Limitations .....	98
Revenues – All Sources.....	41	Future Debt Issues .....	98
Operating Expenditures – All Accounts.....	42	Debt Coverage Ratio Calculation .....	98
Operating Expenditures – By Major Expense Category .....	44	Debt Service Schedules .....	99
Operating Expenditures – By Department .....	45	<b>Appendix A–Glossary of Terms.....</b>	<b>105</b>
<b>Expenditure Budgets by Department .....</b>	<b>47</b>	<b>Appendix B–Statistics &amp; Economic Data..</b>	<b>111</b>
Board of Directors.....	48	<b>Appendix C–Strategic Plan .....</b>	<b>123</b>
General Manager’s Office .....	50	<b>Appendix D–Financial Policies .....</b>	<b>147</b>
Administrative Services .....	52	<b>Appendix E–2016 Performance Measurement Report .....</b>	<b>165</b>
Safety, Training & Fleet Maintenance .....	54	<b>Appendix F–Capacity Charges Report for Fiscal Year 2015/16 .....</b>	<b>271</b>
Collection System .....	56		
Treatment Plant Operations.....	58		
Treatment Plant Maintenance.....	60		
Water & Biosolids Reclamation.....	62		
Engineering .....	64		
Regulatory Compliance.....	66		
Community Outreach & Pollution Prevention ....	68		
Non-Departmental Expenses.....	70		

This page intentionally left blank.





**DATE:** June 7, 2017

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

**FROM:** Tim Healy, General Manager  
Jeff Tucker, Director of Administrative Services/CFO

**SUBJECT:** FY 2017/18 Operating and Capital Budget

On behalf of the entire Executive and Management Team, we are pleased to present to you the Proposed FY 2017/18 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 County was at 4.2% in February 2017, lower than the 4.5% a year ago and significantly below the 5.8% from two years ago. This compares to the state average of 5.2%.<sup>1</sup>

Personal incomes increased 6.9% from prior year.<sup>2</sup> Approximately 10.5% of the city population is at or below the poverty line, compared to 15.3% statewide.<sup>3</sup> The total number of visitors to the Napa Valley in 2016, estimated at 3.5 million, is 6.3% higher than in 2014, the last reporting period.<sup>4</sup>

In FY 2016/17, activity in planning referrals and the review of development plans for building permits remains strong compared with prior years, indicating that continued construction is anticipated in FY 2017/18. These projects will have an impact on NapaSan, 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 2017/18 Napa Sanitation District Operating and Capital Budget was developed with recognition of the strong local economy, incorporating known development projects, but not assuming rapid growth in any specific areas of the economy.

NapaSan  
1515 Soscol Ferry Road  
Napa, CA 94558

Office (707) 258-6000  
Fax (707) 258-6048

[www.napasand.com](http://www.napasand.com)

---

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

<sup>2</sup> [www.centerforjobs.org](http://www.centerforjobs.org) - 2015 compared to 2014 is the most recent data.

<sup>3</sup> U. S. Census Bureau's 2014 American Community Survey, 1-Year.

<sup>4</sup> 2016 Napa Valley Visitor Industry Economic Impact Report.

## **Budget Priorities and Direction**

The proposed budget represents a focused effort to increase the service levels provided by NapaSan. There are no significant changes in the operating budget, but 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 NapaSan and the community, with budget priorities and direction developed to address these challenges:

**Reduce Inflow & Infiltration and Overflows.** The heavy rains that hit California and particularly the North Bay last winter highlighted the problem with old, cracked pipes letting in significant amounts of water into the sewer system. This I&I contributed to normal flows at the treatment plant increasing from around 6 million gallons per day (MGD) to over 50 MGD. This much additional water in the sewer pipes from storm events and high ground water result in increased treatment costs as well as a much higher probability of sewer system overflows. Recent improvements in the sewer system southwest of downtown Napa have demonstrated that focusing sewer rehabilitation on areas of significant I&I can have the positive impacts of both reducing flows during storms as well as extending the expected useful life of the pipes. The Board has set expectations, and provided the resources, for NapaSan to double the amount of sewer rehabilitations in the next several years.

**Maintain Assets for Future Generations.** The bulk of the community's sewer system 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 NapaSan'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 2017/18 Budget includes continued efforts to establish an Asset Management program to focus on the maintenance, rehabilitation, and replacement of existing assets – plant, collections and recycled water. The resulting efforts will integrate into the 10-Year Capital Improvement Plan (CIP) and 10-Year Financial Plan, providing much better and more focused attention on the maintenance and longevity of our assets.

NapaSan 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. NapaSan has increased its commitment to rehabilitate aging sewers, with a minimum replacement of 1.3%

of its sewer assets annually for the next two fiscal years, with an increased minimum goal of 2% starting thereafter.

**Fairness in Rate Setting.** In March 2016, during the Proposition 218 Rate Setting Hearings, the Board heard the concerns of residents and indicated that it wanted to evaluate the sewer service charge and other fee methodologies, toward an effort to find the best way to collect fees that balanced the need to be both fair and efficient. In the Strategic Plan adopted in May 2017, the Board reiterated its commitment to conduct this evaluation. The proposed budget anticipates a direct and concerted effort to conduct that evaluation, to engage the public in developing and considering options, and presenting those options to the Board for consideration.

**Prepare for the Next Drought.** FY 2017/18 begins with California finishing one of its wettest years on record, effectively ending the five year drought. But while the drought may be over, we need to remain vigilant in our efforts to help prepare the community for the next drought to come by providing an alternative to using potable water for non-potable uses. To that end, the Board has directed staff to continue capital projects in the community to expand recycled water availability, to work with property owners along existing pipelines to convert them to using recycled water, to come to agreement with the City of Napa on expanding the areas where recycled water is allowed, and to make improvements to the collection system, pretreatment efforts and treatment processes to improve the quality of recycled water.

**Position NapaSan for Growth in the Community.** 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, NapaSan 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 Operating Budget and Ten-Year Capital Improvement Plan include 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 Trunk project in this next year. The 10-Year 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.

**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. NapaSan 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 10-Year Financial Plan shows that the current year budget, anticipated future operating budgets, Capital Improvement Plan and revenue forecast should still result in NapaSan fully funding its identified reserves.

## Financial Overview

NapaSan 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 \$15,424,300, compared to \$15,404,730 in FY 2016/17, for an increase of 0.1%. 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 \$25,018,300 is considerably higher than the \$19,283,950 capital budget in FY 2016/17, most notably due to the Browns Valley Trunk project, expansion of the MST recycled water pipeline, and increased efforts to rehabilitate sewer pipe and reduce I&I.

The total operating and capital budget for NapaSan (excluding intrafund transfers) of \$45.2 million, is up 14.6% from last year. This increase is made up from a 2.1% increase in Salaries & Benefits from prior year, 3.0% decrease in Services & Supplies, and 29.7% increase in Capital.

In the FY 2016/17 budget, it was anticipated that NapaSan would debt finance the Browns Valley Trunk and associated West Napa Pump Station projects. While the project design continues for these projects, NapaSan is working with the State Water Resources Control Board’s Division of Financial Assistance to acquire a State Revolving Fund loan. It is not anticipated that the loan will be secured until early 2018. Construction of the project will not begin until the loan has been secured. Once secure, NapaSan can request reimbursement for the design costs incurred to that date.

The operating emergency reserves, debt reserves and cash flow reserves are fully funded, per NapaSan financial policy.

## Summary of the FY 2017/18 Budget

### **Revenues**

Sewer Service Charges (SSCs), NapaSan’s largest source of revenues, are collected annually as assessments on the property tax rolls. NapaSan is entering into the second year of a five-year plan established under the Proposition 218 process in March 2016. The FY 2017/18 budget includes an increase in the rate of 15%, from \$554.88 per Equivalent Dwelling Unit to \$638.10. This increase, along with growth from development, will result in about \$3.65 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 rise slightly through next year. More information on the forecast methods can be found in the “Sources of Funds/Revenues” section of the Budget Summary.



FY 2017/18 revenues from all sources are expected to be \$46,269,100, 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 over \$24.7 million in FY 2016/17 to just over \$28.4 million this year (15.0% increase). Sewer service charges are anticipated to increase 16.2% due to the increase in rates and recent growth. Recycled water sales revenues are expected to be lower than prior year budget, but higher than prior year estimated actual.

Intergovernmental revenues are budgeted at \$4,076,000, associated with the extension of the MST recycled water distribution pipeline. Capacity charge revenue is projected lower, at \$3,630,000, compared to \$5,512,000 budgeted in the prior year, based on actual development projects anticipated.

### **Operating Expenditures**

NapaSan operating expenditures are expected to be \$15,424,300 (total operating budget of \$29,101,750, minus intrafund transfers of \$8,900,000 and debt service payments of \$4,777,450). This represents an increase in budgeted operating expenditures of \$19,570 or 0.1%.

Salary and benefit expenses are proposed to increase 2.1%. Salaries are set to increase 3.8%, accounting for both cost of living increases and step increases. Changes in benefits and overtime make up the difference, with the most significant change coming from health insurance (down 5.5%) and offsetting an increase in overtime (up 13.7%). The current Memorandum of Understanding was approved in June 2014 and sets salary and benefit levels through June 2020.

For FY 2017/18, there is no change in the number FTE proposed.

The budget for services and supplies in total is proposed to decrease 3.0% over the prior year's budget. The budget includes \$11,100 less in chemical expenses and \$23,000 less in electricity expenses, NapaSan's two largest categories.

Included in the budget for services and supplies are the following projects that were either identified in the NapaSan's Strategic Plan for completion this year or are at the request of the Board:

- \$100,000 to study winery waste treatment options. This study will be completed once NapaSan has developed a partnership with the winery community to complete the study.
- \$150,000 to study potential changes to NapaSan's sewer service and capacity charge methodologies.
- \$20,000 to complete a study of staff total compensation and comparison to other agencies.
- \$15,000 to conduct the employee survey.

## **Capital Expenditures**

NapaSan maintains a 10-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. NapaSan 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 focuses increased attention to sewer rehabilitation projects, planning for the replacement of 2% of the sewer system, or about 5.7 miles of pipeline, annually.

The capital expenditure budget for FY 2017/18, the first year of the ten-year plan, is \$25,018,300. Two projects, the MST Recycled Water Pipeline Extension and the Coombsville Recycled Water Truck Fill Station, are paid for by partners, while the Recycled Water Reservoir Lining Project, Browns Valley Trunk and the West Napa Pump Station Improvements are debt financed through State Revolving Fund (SRF) loans.

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

## **Debt and Debt Service**

NapaSan has four distinct debts for which it pays annual debt service. All of NapaSan's debt has fixed interest rates. Total debt service for FY 2017/18 will be just under \$4.8 million.

It is anticipated that NapaSan will enter into a Clean Water State Revolving Fund (SRF) loan with the State Water Resources Control Board in FY 2017/18 to pay for the Browns Valley Trunk project and associated West Napa Pump Station Improvements project. The loan will be for the entire project amount, not to exceed \$20 million. Debt service on this loan is anticipated to begin in FY 2019/20, as debt service on this loan does not commence until construction of the project is complete.

It is also anticipated that NapaSan will enter into an SRF loan in FY 2017/18 to pay for the Recycled Water Reservoir Lining project. This loan is under a special program co-sponsored by the U.S. Environmental Protection Agency and includes a "50% loan forgiveness" component. Debt service on this loan is anticipated to begin in FY 2018/19.

**Fund Equity and Reserves**

The ending fund equity for FY 2016/17 is estimated to be \$14,353,500. This number assumes that most of the capital budget in FY 2016/17 is spent, or that any underspending is carried forward into this fiscal year.

As proposed, the ending fund equity for NapaSan is projected to be **\$15,877,550** on June 30, 2018 and is allocated as follows:

\$2,314,000	<b>15% Operating Reserve</b> – This is 15% of NapaSan’s budgeted operating expenditures, excluding taxes, transfers and debt service.
\$10,750,000	<b>Operating Cash Flow Reserve</b> – This amount is necessary on July 1 to cover NapaSan’s anticipated operating expenses between the start of the fiscal year and December, when NapaSan 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 NapaSan. This reserve is held by a third party Trust Agent.
\$823,550	<b>Available for Use</b> – This is the projected amount of fund equity, including bond proceeds, available to NapaSan for use on capital projects at the end of FY 2017/18. The Ten-Year Financial Forecast anticipates using this fund equity on future capital projects.

Following is a summary table of the revenue, expenditure and intrafund transfer budgets for FY 2017/18, along with information on fund equity and reserves.

### *Budget Summary*

	<b>FY 16/17 <u>Adjusted Budget</u></b>	<b>FY 17/18 <u>Budget</u></b>	<b>Percent <u>Change</u></b>
<b>Beginning Fund Equity</b>	<b>\$17,262,069</b>	<b>\$14,353,500</b>	<b>(16.9%)</b>
<b>Revenue – All funds, excluding transfers</b>			
Sewer Service Charges (incl. delinquencies)	\$22,514,000	26,162,000	16.2%
Capacity Charges	5,512,000	3,630,000	(34.1%)
Waste Hauler Fees	172,000	175,000	1.7%
Recycled Water Sales	958,000	913,000	(4.7%)
Land Leases	719,000	722,000	0.4%
Intergovernmental / Grants	2,250,000	4,076,000	81.1%
Interest on Invested Funds	109,000	174,000	59.6%
Construction/Building Permit Review Fees	184,500	189,100	2.5%
Bond/Loan Proceeds	4,550,000	10,137,000	122.8%
Other Revenues	69,000	91,000	31.8%
<b>Total Revenues</b>	<b>\$37,037,500</b>	<b>\$46,269,100</b>	<b>24.9%</b>
<b>Expenditures – All funds, excluding transfers</b>			
Salaries & Benefits	\$9,382,370	\$9,581,300	2.1%
Services & Supplies	5,994,110	5,814,350	(3.0%)
Taxes & Other	28,250	28,650	1.4%
<b>Subtotal Operating Expenses</b>	<b>\$15,404,730</b>	<b>\$15,424,300</b>	<b>0.1%</b>
Capital Expenditures	\$19,283,950	\$25,018,300	29.7%
Debt Service (incl. debt administration expenses)	4,773,050	4,777,450	0.0%
<b>Subtotal Capital Expenses</b>	<b>\$24,057,000</b>	<b>\$29,795,750</b>	<b>23.8%</b>
GAAP Adjustment	0	(\$475,000)	-
<b>Total Expenditures</b>	<b>\$39,461,730</b>	<b>\$44,745,050</b>	<b>13.3%</b>
<b>Ending Fund Equity</b>	<b>\$14,615,120</b>	<b>\$15,877,550</b>	<b>8.6%</b>
<b>Reserves</b>			
Operating Reserve	\$2,243,000	\$2,314,000	3.1%
Debt Reserve	1,990,000	1,990,000	0.0%
Operating Cash Flow Reserve	10,375,000	10,750,000	3.6%
<b>Total Reserves</b>	<b>\$14,608,000</b>	<b>\$15,054,000</b>	<b>3.0%</b>
<b>Available for Use (Ending Fund Equity minus Reserves)</b>	<b>\$229,839</b>	<b>\$823,550</b>	<b>258.3%</b>
	<b>FY 16/17 <u>Adjusted Budget</u></b>	<b>FY 17/18 <u>Budget</u></b>	<b>Percent <u>Change</u></b>
<b>Intrafund Transfers</b>			
Transfer from Operations to Capital Projects	\$8,900,000	\$8,900,000	0.0%
Transfer from Expansion to Capital Projects	5,512,000	3,630,000	(34.1%)
<b>Total Intrafund Transfers</b>	<b>\$14,412,000</b>	<b>\$12,530,000</b>	<b>(13.1%)</b>



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

NapaSan has increased sewer service charges specifically to double the amount of sewer pipe it rehabilitates, while making significant efforts to keep operating expenses lower to allow for additional investment in infrastructure maintenance.

The cost of employee benefits is expected to rise in future years. Specifically the cost of health and retirement benefits is a major contributor to anticipated 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 four years based on the amounts set during the Proposition 218 process, with modest annual increases starting in year five of the forecast. Annual increases in capacity charge rates (by CPI) are projected, as are increases in development (particularly hotels), and annual increases for recycled water fees (by CPI). Further detailed information regarding the NapaSan's 10-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 NapaSan 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, NapaSan assumed that recycled water sales would be 2,400 acre feet. Sales for next year are estimated at approximately 1,948 acre feet. The projected increases for future years assume that Stanly Ranch 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). 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 390 EDU in capacity charges in FY 2017/18, with additional large developments anticipated in FY 18/19 and FY 19/20. If economic development does not increase by these levels, there will be lower than 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 NapaSan's Finance Committee, Long Term Planning Committee and Board of Directors, and the cooperation and assistance of NapaSan staff, in developing a responsible and thoughtful budget for FY 2017/18. 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 NapaSan 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 2017/18

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

**WHEREAS**, the Board of Directors of the NapaSan has studied and considered in detail a Preliminary Operating Budget and Capital Improvement Program for FY 2017/18; 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 NapaSan governing body, has determined that the attached Final Budget, describing:

- Operating Budget Appropriation of \$20,201,750, plus intrafund transfer of \$8,900,000 to support Capital Projects, for a total of \$29,101,750; and,
- Expansion Appropriation of \$3,630,000 in intrafund transfer to support Capital Projects; and,
- Capital Projects Appropriation of \$25,018,300; 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 \$638.10 per EDU;

be hereby adopted as the Final Budget and Sewer Service Charges for FY 2017/18.

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 7<sup>th</sup> day of June, 2017, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

---

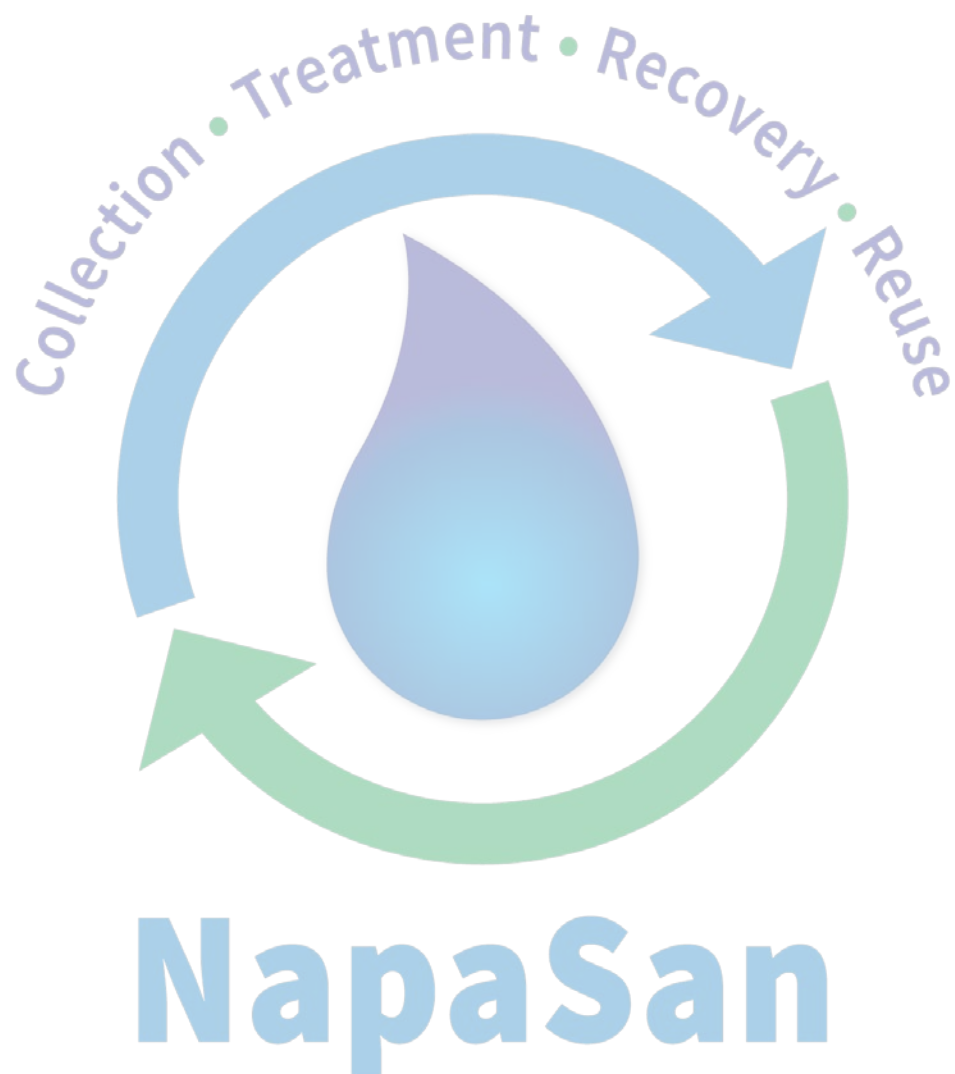
Chair, Board of Directors

ATTEST:

---

Secretary, Board of Directors

This page intentionally left blank.





## Napa Sanitation District Overview

### *Mission*

It is the mission of the Napa Sanitation District (NapaSan) 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*

NapaSan, 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*

NapaSan 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 NapaSan 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. NapaSan's Administration, Engineering and Collection System offices were relocated to the SWRF in 2013.

### *Public Services*

There are approximately 36,900 connections within NapaSan's 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. NapaSan 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.

NapaSan's regulating body, the Regional Water Quality Control Board, permits discharge to the Napa River in accordance with a National Pollutant Discharge Elimination System (NPDES) permit. NapaSan provides full secondary treatment at its wastewater facility whenever discharging to the Napa River.



*Soscol Water Recycling Facility at sunrise*

During the summer months, 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 8.1 MGD last year.

## ***Performance Measurement***

NapaSan created and issued its Performance Measurement Report for Calendar Year 2016 in March 2017. 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.

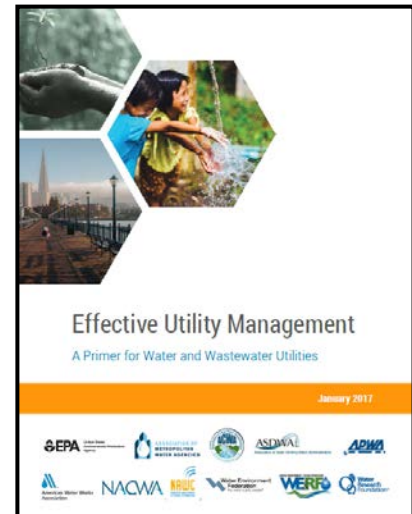
The report uses the Effective Utility Management (EUM) framework for presenting the performance information. EUM was developed in 2009 by six major water and wastewater associations and the United States Environmental Protection Agency to help utility managers make practical, systematic changes to achieve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

NapaSan 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.



NapaSan rates “**watch**” on seven measures (11%). A “watch” designation signifies that NapaSan 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, recycled water quality, sewer main condition assessment, total recordable incident rate, vehicle accident rate, insurance claims, and the comparative ranking of NapaSan’s sewer service charge rate.

NapaSan rates “**unsatisfactory**” on four measures (6%). “Unsatisfactory” signifies that NapaSan has not met its goals or that the trend is negative. This rating was for the operating ratio, lower sewer lateral renewal & replacement, sewer main line cleaning and media/press coverage.

Several of the performance measures have been identified as “Key Performance Indicators” (KPIs) for determining whether NapaSan 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 2016 can be found in Appendix E of this budget.

## Strategic Planning Goals and Objectives

In April 2017, the Board of Directors updated its Strategic Plan, articulating the long-term goals, objectives and priorities of NapaSan. 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 NapaSan's website.



## Mission

The mission of NapaSan 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 NapaSan's service area. Systematic replacement of 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. NapaSan must ensure that treatment capacity will be in place to address current and projected future needs.

### Key Performance Indicators

Indicator	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Target 2017	Target 2018
Renewal & Replacement of Assets	2.6%	8.8%	10.2%	4.5%	2% - 4%	2% - 4%
Sewer Main Renewal & Replacement	0.0%	1.8%	2.6%	1.1%	1.3%	1.3%
Collection System Failures	1	1	0	1	0	0
Treatment Plant Capacity Used	43%	42%	38%	42%	<75%	<75%
Uptime for Cogeneration Engine	96%	96%	98%	79%	> 80%	> 95%

### Strategic Objectives:

### Completion:

1A:	Strive to replace and rehabilitate at least 2% of sewers annually	Ongoing
1B:	Continue to implement an asset management program	Ongoing
1C:	Design and construct the Browns Valley Road Interceptor	Dec. 2019
1D:	Update the Collection System Master Plan	June 2020
1E:	Study whether to implement a Private Lateral Program	Dec. 2020

### 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 Sewer Interceptor Project (Engineering)
- Begin implementation of a formal asset management plan (Engineering)
- Plan for and complete renewal & replacement capital projects that impact approximately 4% of NapaSan's total assets (Engineering)
- Rehabilitate or replace at least 1.3% of the Collection System sewer mains (Engineering)
- Design and construct I&I sewer rehabilitation projects annually (Capital Improvement Plan)
- Design and construction I&I pilot projects on upper laterals (Capital Improvement Plan)

- Evaluate the effectiveness of I&I projects (Engineering)
- Design the replacement of Headworks equipment (Engineering)
- Rehabilitate large diameter sewer main on Soscol Avenue (Capital Improvement Plan)
- Rehabilitate HVAC and Lab ventilation in OPS building (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 NapaSan's mission. The NapaSan Board has a fiduciary responsibility to ensure that adequate financial resources are in place to operate NapaSan and carry out its mission.

### Key Performance Indicators

Indicator	Actual FY 12/13	Actual FY 13/14	Actual FY 14/15	Actual FY 15/16	Estimate FY 16/17	Target FY 17/18
Bond Rating	AA-	AA-	AA-	AA-	AA	AA
Debt Service Coverage Ratio	247%	276%	226%	284%	285%	348%
Operating Ratio	0.87	0.88	0.90	0.94	0.99	> 1
Sewer Bill Affordability	0.66%	0.68%	0.66%	0.68%	0.78%	< 1%

### Strategic Objectives:

### Completion:

2A:	Conduct study of sewer service charge and capacity charge methodologies for residential customers	Dec. 2018
2B:	Evaluate long-term liabilities, including pension and OPEB liabilities	March 2018
2C:	Conduct comprehensive review of strategies for developing non-rate/non-fee revenues, including land leases	Ongoing

### Related Department Objectives:

- Engage with wine industry representatives regarding the study of winery waste treatment options (General Manager's Office)
- Under the direction of the Lands Committee and Board, work to develop options for lease revenue on District-owned property (General Manager's Office)
- Conduct a study of NapaSan's sewer service charge and capacity charge methodologies (Administrative Services)
- Evaluate options for funding long-term liabilities such as pensions and OPEBs (Administrative Services)
  - 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)



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



### Goal 3: Operational Optimization

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

#### Key Performance Indicators

Indicator	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Target 2017	Target 2018
Compliance with NPDES Permit	100%	100%	100%	100%	100%	100%
Sanitary Sewer Overflows (Cat. 1) per 100 miles of main	0.0	4.81	0.0	1.11	0.0	0.0
Self-Generated Electricity	33.7%	32.6%	38.4%	31.5%	> 30%	> 35%
Chemical Consumption (gallons hypochlorite per MG treated-summer)	207	204	211	211	< 225	< 225
Plant Planned Maintenance Ratio (Hours)	58%	66%	66%	66%	> 60%	> 60%
Collections Planned Maintenance Ratio (hours)	88%	88%	87%	87%	> 80%	> 80%

#### Strategic Objectives:

#### Completion:

3A:	Reengage with winery industry to understand and evaluate options for mutually beneficial alternatives for managing winery waste	Dec. 2018
3B:	Continue to evaluate opportunities for shared services	Ongoing
3C:	Develop Business Continuity Plan as part of disaster mitigation	Dec. 2018
3D:	Evaluate and recommend ways to reduce energy and chemistry consumption in treatment process and collection system (coordinated with Objective 6D)	March 2018

#### 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 NapaSan sewer mains per year (Collection System)
- Video inspect 10% of the sewer mains in NapaSan'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 (Regulatory Compliance)

Review and update operational data sampling and analysis management for an efficient process control operational strategy (Regulatory Compliance)

- Review and return development plans within 30 days of submittal to NapaSan (Engineering)
- Facilitate additional recycled water conversions in the MST and Los Carneros Water District areas.



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 NapaSan Board wants to create a positive and respectful working environment that encourages all employees to do the best job possible for the NapaSan ratepayers.

### Key Performance Indicators

Indicator	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Target 2017	Target 2018
Safety Training Completed On-Time	99%	99%	84%	97%	> 98%	> 98%
Employee Survey: "I feel valued by my work unit."	na	85.7%	na	70.5%	> 70%	> 70%
Employee Survey: "I tell others that NapaSan is a great place to work."	na	73.8%	na	91.0%	> 70%	> 70%
Employee Survey: "I will look for work outside NapaSan this next year."	na	47.6%	na	34.0%	< 35%	<35%
Employee Survey: "Efforts are being made to capture critical institutional knowledge..."	na	3.56	na	3.45	> 3.5	> 3.5

### Strategic Objectives:

### Completion:

4A:	Promote NapaSan as a progressive, professional workplace through engagement and the development and promotion of internships and "in training" programs	Ongoing
4B:	Conduct Employee Survey in Fall 2017	March 2018
4C:	Explore a total compensation study	Sept. 2017
4D:	Prepare for and begin MOU negotiations	June 2020
4E:	Address succession planning through supervisory/management training and an internal mentorship program	Ongoing

### Related Department Objectives:

- Continue to provide direction to all departments, aligning efforts to promote and be consistent with NapaSan's goals and policy directives (General Manager's Office)
- Oversee the implementation of the Employee Survey (General Manager's Office)
- Support the Board in a study of total compensation (Administrative Services)
- Provide support to departments through recruitments and internship programs (Administrative Services)
- Continue efforts in succession planning, including training and mentorship programs (Administrative Services)
- Develop a Business Continuity Plan for operations during disasters, and integrate NapaSan in the city and county's emergency response systems (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 (Regulatory Compliance)



*Intern learning laboratory analyses*

## Goal 5: Community Outreach and Communication

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

### Key Performance Indicators

Indicator	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Target 2017	Target 2018
Media Coverage Quantity	31	31	33	44	> 20	> 20
Media Coverage Accuracy	90%	97%	100%	86%	> 85%	> 85%
Customer Satisfaction-Plug Ups (percent "good" or "excellent")	100%	99.5%	99.1%	96.5%	> 95%	> 95%
Customer Satisfaction-Cleanouts (percent "good" or "excellent")	97.9%	100%	98.2%	100%	> 95%	> 95%

### Strategic Objectives:

### Completion:

5A:	Be proactive in communicating with the public, stakeholders and the press for all aspects of NapaSan's activities	Ongoing
5B:	Complete the deliverables identified in the 2016 Communications Plan	June 2019

### Related Department Objectives:

- Implement the Communications Plan and meet the identified annual goals (Community Outreach & Pollution Prevention)
- Complete NapaSan's eighth 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 (Community Outreach & Pollution Prevention)
- Conduct plant tours and make public presentations (Community Outreach & Pollution Prevention)
- Promote and deliver classroom presentations targeting elementary school students (Community Outreach & Pollution Prevention)
- Continue public outreach on proper disposal of fats, oil and grease (FOG) (Community Outreach & Pollution Prevention)
- Develop and disseminate to stakeholders pollution prevention BMPs as necessary (Community Outreach & Pollution Prevention)
- Develop Spanish language outreach for pollution prevention messages (Community Outreach & Pollution Prevention)

## Goal 6: Resource Recovery

The goal is to implement policies and technologies to recover resources from wastewater for beneficial reuse. The NapaSan Board wants to recover resources for reuse when economically viable and a market exists for their beneficial reuse. NapaSan 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 2013	Actual 2014	Actual 2015	Actual 2016	Target 2017	Target 2018
Recycled Water Reused on Non-District Property	72%	75%	78%	81%	> 85%	> 85%
Biosolids Beneficially Reused	100%	100%	100%	100%	> 95%	> 95%
Digester Gas Beneficial Reuse	98%	95%	96%	78%	> 80%	> 90%

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

6A:	Implement capital projects in partnership with local agencies for the distribution of recycled water	Dec. 2018
6B:	Participate with local partners on long-term opportunities for water reuse	June 2018
6C:	Evaluate current recycled water allocation policy	June 2018
6D:	Evaluate energy self-generation with the primary goal of decreasing overall energy costs	March 2018
6E:	Improve recycled water quality to increase appeal and acceptability	Ongoing
6F:	Renew or extend the recycled water agreement with City of Napa that permits NapaSan to sell recycled water within the city's water service area	Dec. 2017

**Related Department Objectives:**

- Represent NapaSan at the North Bay Water Reuse Authority, specifically working to bring federal money to the region for recycled water projects (General Manager's Office)
- 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 (Community Outreach & Pollution Prevention)
- Distribute 717 million gallons (2,200 acre feet) of recycled water, with 85% sold to customers (Water & Biosolids Reclamation)
- Put 100% of the biosolids applied to NapaSan 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)
- Complete construction of the MST Recycled Water Expansion Project (Capital Improvement Program)

***Financial Policies Summary***

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

NapaSan is in full compliance with the Financial Policies updated and adopted in February 2017, as described above and provided in their entirety in Appendix D.

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

- The annual operational expenditures for NapaSan, including debt service, are less than the annual operating revenue forecasted to be received, meeting the requirement for a balanced budget.
- | Financial Policy Compliance |   |              |
|-----------------------------|---|--------------|
| NSD Policy                  | Target  | FY 17/18     |
| Balanced Budget             | Operating revenues minus operating expenditures > \$0 | \$10,958,350 |
| Operating Reserve           | 15% of Operating Budget                               | 15.0%        |
| Cash Flow Reserve           | As necessary  | \$10,750,000 |
| Debt Coverage Ratio         | > 1.25x coverage                                      | 3.48x        |
- NapaSan has designated an Operating Reserve of 15% of budgeted operating revenues (\$2,314,000) and a Cash Flow/Liquidity Reserve of \$10,750,000. These reserves meet the minimum requirements established in the Financial Policies.
  - NapaSan 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.
  - NapaSan 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.

## ***Organization***

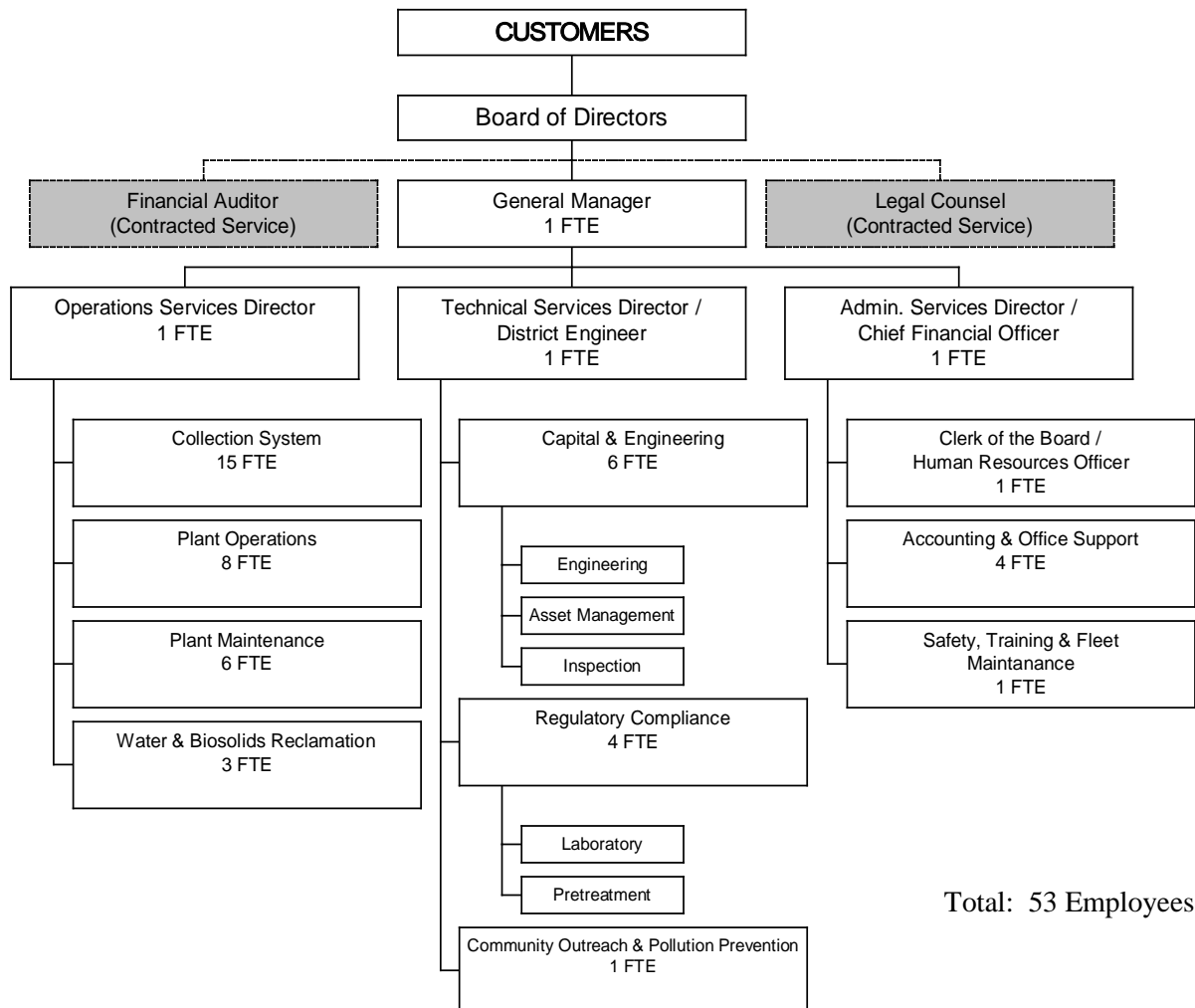
The Napa Sanitation District is governed by a Board of Directors. Two directors are members of the Napa City Council. One director is a member of the Napa County Board of Supervisors. Two directors are citizen appointees, one appointed by the City and one by the County. NapaSan is managed by a General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

The Financial Auditor and the Legal Counsel for NapaSan are contracted services. These functions report directly to the Board. All other functions report to the General Manager. NapaSan 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 Division 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 Division 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 Division 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, and regulatory reporting. This Division includes “Treatment Plant Laboratory” and “Pollution Prevention” in the Expenditure Budgets by Division section of this budget document.
  - Community Outreach and Pollution Prevention:** includes media relations, ratepayer communications, stakeholder engagement and educational programming. This Division includes “Community Outreach & 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



Total: 53 Employees

**Napa Sanitation District  
Position Control Roster**

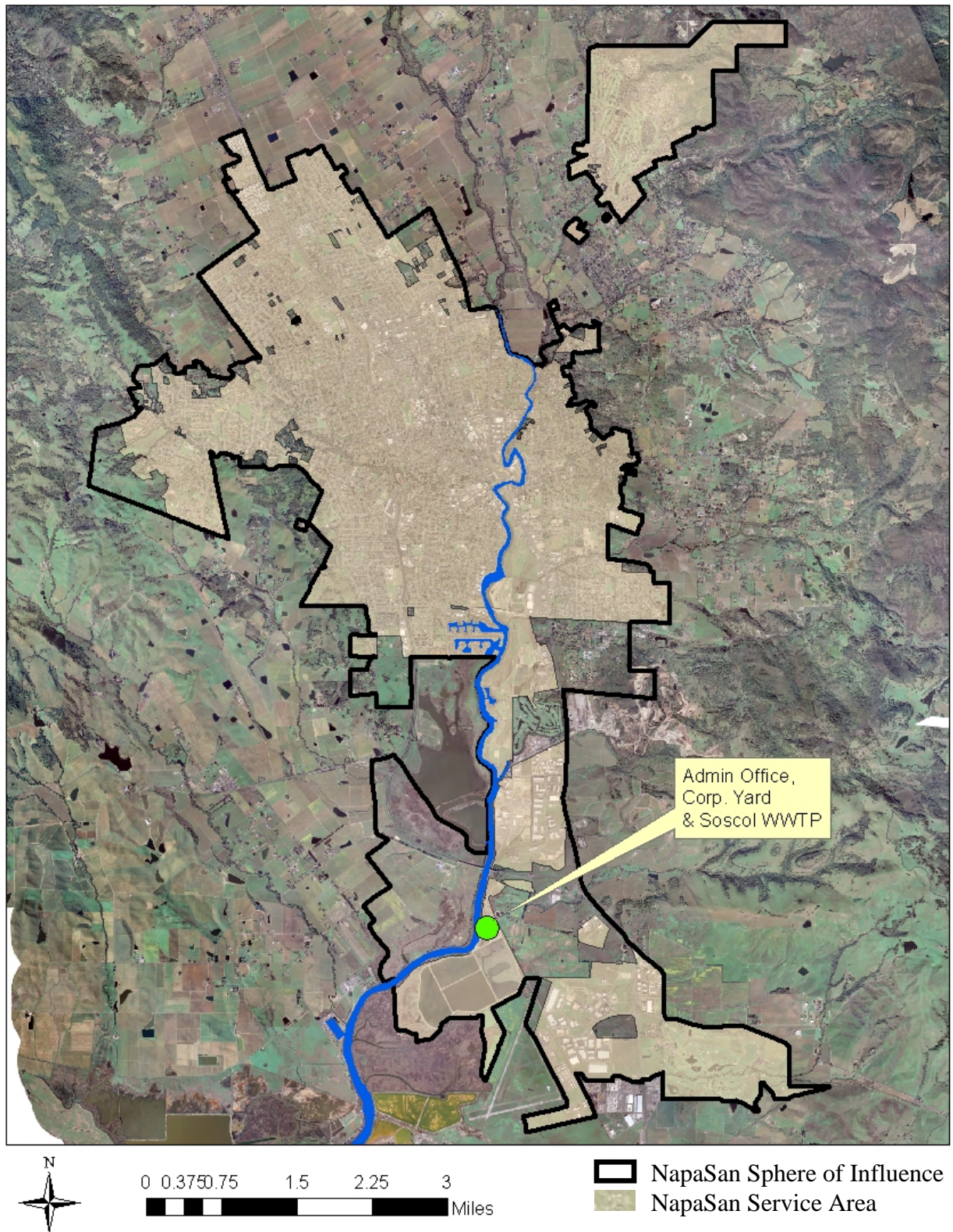
As adopted on July 1

<b>Position Series (excluding Board Members)</b>	<b>FY 14/15 Adopted</b>	<b>FY 15/16 Adopted</b>	<b>FY 16/17 Adopted</b>	<b>FY 17/18 Proposed</b>
<b>General Manager's Office</b>				
General Manager	1	1	1	1
Assistant General Manager	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
Administrative Assistant I/II	2	2	2	2
Management Analyst & Outreach Coordinator	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	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	2	2	2
Collection System Worker IT/I/II	9	8	10	10
<b>Treatment Plant Operations</b>				
Plant Manager	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	4	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	2	2	2
<b>Technical Services</b>				
Director of Technical Services	-	1	1	1
<b>Engineering</b>				
Capital Projects Manager/Senior Civil Engineer	1	1	1	1
Junior/Assistant/Associate Engineer	3	2	2	2
Asset Management Analyst	-	1	1	1
District Inspector I/II	2	2	2	2
<b>Regulatory Compliance</b>				
Regulatory Compliance Manager	-	1	1	1
Lab Supervisor	1	-	-	-
Laboratory Technician I/II	3	3	3	3
<b>Community Outreach &amp; Pollution Prevention</b>				
Pollution Prevention and Outreach Specialist	-	1	1	1
<b>Totals</b>	<b>51</b>	<b>51</b>	<b>53</b>	<b>53</b>



## Napa Sanitation District

## Map of NapaSan Service Area



## Budget Summary

### *Fund Structure*

NapaSan 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 NapaSan 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*

NapaSan’s budgetary procedures conform to state regulations and Generally Accepted Accounting Principles. While NapaSan uses full accrual accounting in its annual financial statements, NapaSan 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 NapaSan 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.

NapaSan 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. 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.

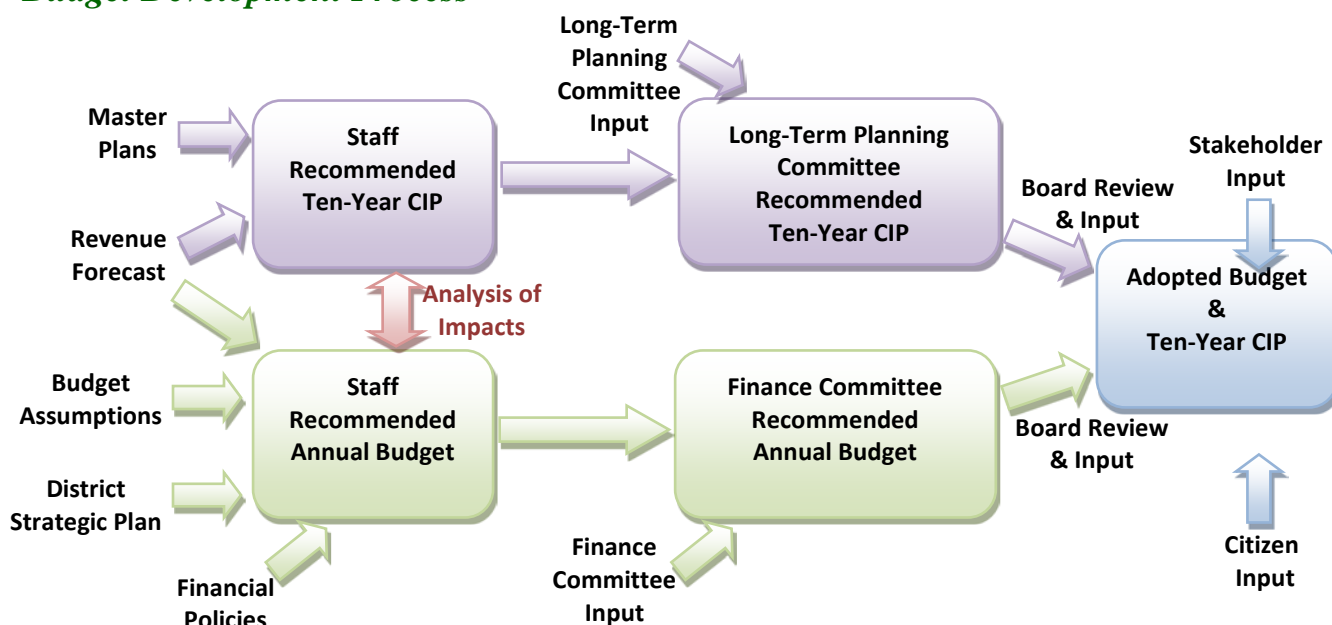
The proposed Operating Budget is provided to the Finance Committee, a subcommittee of the Board of Directors, who reviews the budget for consistency with the Board's budget direction and to ensure that there are adequate resources aligned to meet Board priorities. The proposed CIP is provided to the 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 2017/18***

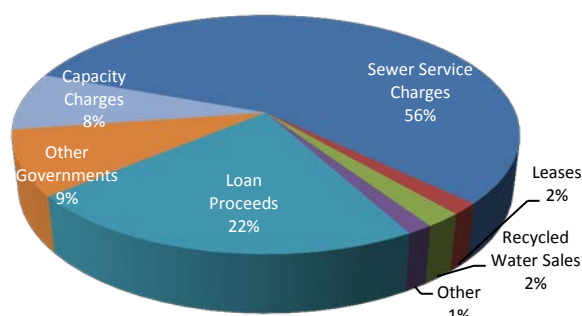
<b>Jan. 9, 2017</b>	Finance Committee meeting, to discuss budget development calendar, assumptions for next year, and policy direction.
<b>Feb. 1, 2017</b>	Budget direction and assumptions confirmed with Board of Directors.
<b>Jan. to March</b>	Staff develops proposed budget and Ten-Year CIP.
<b>April 7, 2017</b>	Finance Committee makes recommendations.
<b>April 21, 2017</b>	Long Term Planning Committee reviews Ten-Year CIP and makes recommendations.
<b>May 3, 2017</b>	Board of Directors receives and discusses the Proposed Operating Budget for FY 2017/18.
<b>May 17, 2017</b>	Board of Directors receives and discusses the Ten-Year CIP for FY 2017/18 through FY 2026/27.
<b>June 7, 2017</b>	Board of Directors adopts the FY 2017/18 Operating and Capital Budget and Ten-Year CIP.

## Sources of Funds/Revenues

NapaSan has a stable revenue foundation, with 57% of NapaSan's FY 17/18 total 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 82%). Other significant revenue sources include capacity charges, recycled water sales, waste hauler fees, land leases, and interest earnings.

### Source of Funds

**Total\* = \$46,269,100**



\* Excluding Transfers

**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 NapaSan. The top ten sewer service customers represent only 9.9% 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.

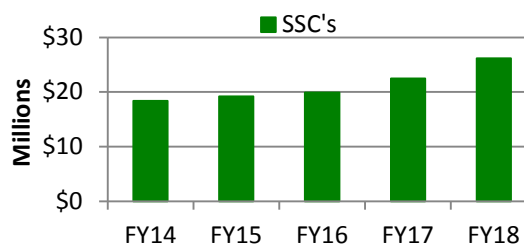
NapaSan followed the Proposition 218 process in 2016, providing the necessary notices and holding public hearings. At that time, the fee was set to increase annually. The fee is set to increase in FY

2017/18 from \$554.88 to \$638.10 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%
FY 16/17	\$554.88	15.0%
<b>FY 17/18</b>	<b>\$638.10</b>	<b>15.0%</b>
FY 18/19	\$676.38	6.0%
FY 19/20	\$710.20	5.0%
FY 20/21	\$738.62	4.0%

Sewer service charges revenue is forecasted for FY 2017/18 based on the estimated number of EDUs and the sewer service charge fee of \$638.10 per EDU. The total budgeted revenue is adjusted by a small percentage to account for delinquencies and non-payments.

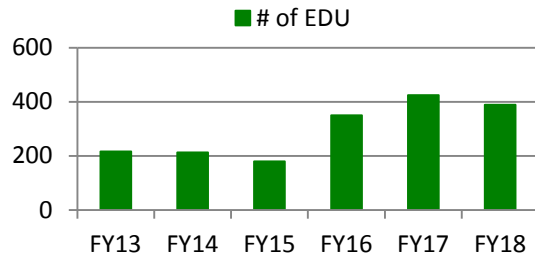


**Grants and intergovernmental** revenues are those revenues that are paid to NapaSan by another government, specifically for performing some specific task. In FY 2017/18, NapaSan will receive reimbursement from Napa County for construction of a new recycled water pipeline in the MST area.

**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 390 EDU being developed during the fiscal year.



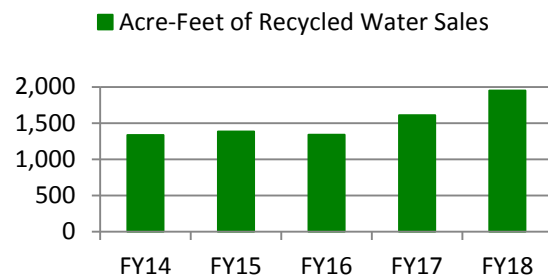
In September 2010, the Board of Directors approved a phased-in increase to the capacity charges. Prior to that date, the fee had not increased since 1995. The annual capacity charge fee increase is now based on the Engineering News Record Construction Cost Index for San Francisco (February-to-February). For February 2017, there was a 3.9% increase to the index compared to prior year.

#### 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
July 1, 2017	Increase to \$9,299 per EDU

**Recycled Water Sales** are collected from customers who purchase recycled water from NapaSan. 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 1,950 acre-feet (635 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.

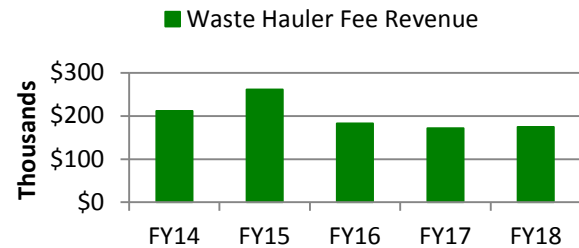


In 2017, the rates increased to \$1.62 per 1,000 gallons in the peak demand period, with lower rates for off-peak use and for those customers that enter long-term contracts for significant water use. In 2018, the rate is estimated to increase to \$1.66 per 1,000 gallons.

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 increased in FY15 and FY16. However, FY17 and FY18 assume “typical” years 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 NapaSan’s sewerage works and dispose of that waste at the wastewater treatment plant. In FY 2012/13, NapaSan 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 2017/18 are flat for septage and FOG haulers, based on monthly trends seen the past year.

**Land Leases** generate revenue for the District. NapaSan 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.

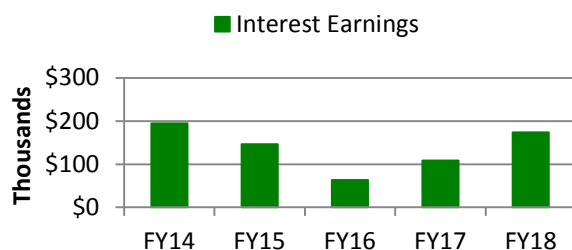
REVENUE - ALL SOURCES							
Account Description	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	YTD FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
<b>780 - Operations</b>							
Interest: Invested Funds	129,206	62,553	75,000	29,925	50,000	174,000	132.0%
Rent - Building/Land	712,553	715,254	719,000	359,125	716,000	722,000	0.4%
Construction/Bldg Permit Review Svcs	25,196	161,238	184,500	72,693	180,000	189,100	2.5%
Hauler Fees	261,593	182,808	172,000	68,889	172,000	175,000	1.7%
Sewer Usage Fees	19,190,534	19,887,172	22,514,000	13,070,876	22,500,000	26,152,000	16.2%
State - Other Funding	-	-	-	11,471	15,000	15,000	-
Penalties on Delinquent Sewer Fees	41,439	32,019	-	6,449	8,000	10,000	-
Recycled Water Sales	415,797	453,048	958,000	491,830	758,000	913,000	(4.7%)
Miscellaneous	107,874	89,989	69,000	18,308	30,000	51,000	(26.1%)
<b>Total - Operations</b>	<b>20,884,192</b>	<b>21,584,081</b>	<b>24,691,500</b>	<b>14,129,567</b>	<b>24,429,000</b>	<b>28,401,100</b>	<b>15.0%</b>
<b>781 - Capital Improvement Projects</b>							
Interest: Invested Funds	17,635	-	34,000	-	-	-	(100.0%)
Federal Grants - USBR & FEMA	3,586,966	1,861,364	300,000	2,094	295,000	1,001,000	233.7%
Other Government Agencies	7,794,763	17,354,109	1,950,000	1,359,013	1,950,000	3,075,000	57.7%
Miscellaneous	38,064	27,925	-	-	-	-	-
Bond/Loan Proceeds	-	-	4,550,000	-	4,550,000	10,137,000	122.8%
Sale of Capital Assets	21,518	14,147	-	18,700	25,000	25,000	-
Intrafund Transfers In	17,848,830	10,898,000	14,412,000	5,760,767	14,400,000	12,530,000	(13.1%)
<b>Total - Capital Improvement Projects</b>	<b>29,307,776</b>	<b>30,155,545</b>	<b>21,246,000</b>	<b>7,140,574</b>	<b>21,220,000</b>	<b>26,768,000</b>	<b>26.0%</b>
<b>782 - Expansion</b>							
Interest: Invested Funds	200	1,352	-	1,221	2,500	-	-
Capacity Charges	1,568,328	3,139,503	5,512,000	3,535,767	3,804,000	3,630,000	(34.1%)
<b>Total - Expansion</b>	<b>1,568,528</b>	<b>3,140,855</b>	<b>5,512,000</b>	<b>3,536,988</b>	<b>3,806,500</b>	<b>3,630,000</b>	<b>(34.1%)</b>
<b>Total - All Departments</b>	<b>51,760,496</b>	<b>54,880,481</b>	<b>51,449,500</b>	<b>24,807,130</b>	<b>49,455,500</b>	<b>58,799,100</b>	<b>14.3%</b>

**Interest Earnings** is the revenue NapaSan receives on idle cash and reserves that it maintains in its accounts. Cash is invested by the County of Napa Treasurer on NapaSan's behalf and in accordance with state law, and posted to NapaSan'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 NapaSan of approximately 0.5%, depending on liquidity needs and the specific investments made. The Federal Reserve increased rates in the last year, with a current target of 0.75% to 1.00%.

For FY 2017/18, NapaSan has assumed an earnings rate of 1.25% 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.

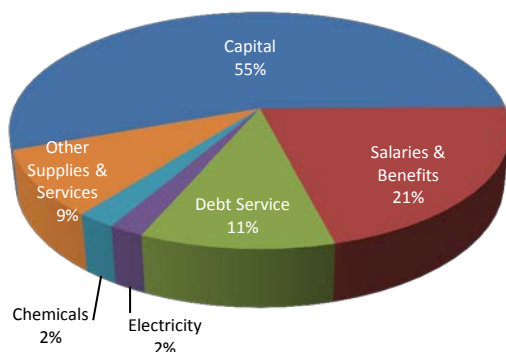


## Uses of Funds/Expenditures

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

### Use of Funds

**Total\* = \$45,220,050**



\* Excluding 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 NapaSan'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 2.75% in FY 2017/18 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 no new positions in the FY 2017/18 budget. Overall, salaries are budgeted to increase 3.8% over prior year.

Health benefits are known for the first two quarters in FY 2017/18. The budget assumes a 7% increase in employer costs for the last two quarters. Total health insurance budget is down 5.5% from prior year due to an overestimate in the prior year and changes in demographics of some employees.

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, NapaSan paid both the employer and employee

contribution for retirement benefits. In the new MOUs, the employees will pick up 4.25% of the employee contribution for FY 2017/18. The retirement cost budget is expected to increase by 2.0%.

Payments in lieu of health benefits are expected to increase by 4.9%. A decrease in the per person eligible is built into the projections, but in the prior year NapaSan saw an increase in the number of employees who opted out of health insurance (by being covered under a different plan), thus increasing the in lieu payments overall. The net impact is a savings to NapaSan.

Workers' compensation insurance costs are slightly higher than prior year by 0.7%, based on a slight increase in the Experience Modification Rate.

In total, salaries and benefits increase 2.1% over the prior fiscal year.

**Services and supplies** include the purchase of supplies and equipment to maintain and operate the various systems in NapaSan. 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.

Total services and supplies for FY 2017/18 are budgeted to be 3.0% lower than the prior fiscal year. One-time only projects in the prior year were removed, lowering the overall budget. Electricity is down, even with expanded recycled water distribution expected in FY 2017/18, because of anticipated savings from the solar and stationary storage projects. The chemicals budget is anticipated to decrease almost 1.1% to account for decreases 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 2017/18 capital plan include the Summer 2017 and Summer 2018 I&I Reduction Projects, the Browns Valley Trunk Sewer Interceptor project and related improvements at West Napa Pump Station, and a project to line the recycled water reservoirs. The plan also includes an extension of recycled water



**EXPENSES - OPERATING AND CAPITAL**

<b>Account Description</b>	<b>Actual FY 14/15</b>	<b>Actual FY 15/16</b>	<b>Adj. Budget FY 16/17</b>	<b>Estimated FY 16/17</b>	<b>Proposed FY 17/18</b>	<b>Percent Change</b>
Salaries & Benefits	\$8,122,300	\$7,680,196	\$9,382,370	\$8,886,930	\$9,581,300	2.1%
Services & Supplies	4,676,433	5,053,311	5,994,110	5,373,077	5,814,350	(3.0%)
Capital Expenses	38,619,401	22,651,756	19,283,950	19,283,950	25,018,300	29.7%
Debt Service	4,550,460	4,547,473	4,773,050	4,773,050	4,777,450	0.1%
Taxes & Assessments	25,160	24,995	28,250	28,247	28,650	1.4%
<b>Total All Expenses</b>	<b>\$55,993,754</b>	<b>\$39,957,731</b>	<b>\$39,461,730</b>	<b>\$38,345,254</b>	<b>\$45,220,050</b>	<b>14.6%</b>

(excluding intrafund transfers)

(presented on budgetary basis – does not conform to GAAP)

pipeline on Coombsville Road in the MST and the installation of a recycled water filling station, both of which are paid by other agencies.

**Debt service** includes the principal and interest payments for all of NapaSan's outstanding loans. Debt service is approximately \$4.8 million and is anticipated to increase slightly in FY 2018/19 for the Recycled Water Reservoir Lining Project SRF loan, and in FY 2019/20 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.

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

- from Operations into the Capital Projects account (\$8,900,000)
- from Expansion into the Capital Projects account (\$3,630,000)

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 NapaSan.

***Fund Equity***

Fund equity, for the basis of NapaSan'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 NapaSan 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 2017/18, the estimated Ending Fund Equity is \$1,524,050 higher than the Beginning Fund Equity for the fiscal year, and is available to fund reserves and future capital projects.

## Financial Overview

	FY 14/15 Actuals	FY 15/16 Actuals	FY 16/17 Budget	FY 16/17 Estimate	FY 17/18 Budget
<b>Beginning Fund Equity</b>	<b>\$37,082,086</b>	<b>\$18,820,600</b>	<b>\$17,262,069</b>	<b>\$17,262,069</b>	<b>\$14,353,500</b>
<b>Revenues</b>					
Use of Money/Property	\$859,594	\$779,159	\$828,000	\$768,500	\$896,000
Charges for Services	21,497,554	23,855,083	29,340,500	27,429,000	31,074,100
Intergovernmental	11,453,896	15,228,939	2,250,000	2,245,000	4,076,000
Bond Proceeds	0	0	4,550,000	4,550,000	10,137,000
Sale of assets	21,518	14,147	0	25,000	25,000
Miscellaneous Revenues	79,103	104,853	69,000	38,000	61,000
<b>Total Revenues</b>	<b>\$33,911,665</b>	<b>\$39,982,181</b>	<b>\$37,037,500</b>	<b>\$35,055,500</b>	<b>\$46,269,100</b>
<b>Operating Expenditures</b>					
Salaries and Benefits	\$6,955,714	\$5,872,455	\$9,382,370	\$8,886,930	\$9,581,300
Services and Supplies	4,676,836	5,053,312	5,994,110	5,373,077	5,814,350
Taxes and Assessments	25,160	24,995	28,250	28,247	28,650
Debt Service	4,772,926	4,776,996	4,773,050	4,773,050	4,777,450
<b>Total Operating Expenditures</b>	<b>\$16,430,636</b>	<b>\$15,727,758</b>	<b>\$20,177,780</b>	<b>\$19,061,304</b>	<b>\$20,201,750</b>
Capital Expenditures	\$38,619,401	\$24,250,109	\$19,283,950	\$19,283,950	\$25,018,300
GAAP Adjustments	(2,876,886)	1,562,845	0	(381,185)	(475,000)
<b>Total Expenditures</b>	<b>\$52,173,151</b>	<b>\$41,540,712</b>	<b>\$39,461,730</b>	<b>\$37,964,069</b>	<b>\$44,745,050</b>
<b>Ending Fund Equity</b>	<b>\$18,820,600</b>	<b>\$17,262,069</b>	<b>\$14,837,839</b>	<b>\$14,353,500</b>	<b>\$15,877,550</b>
Operating Reserve	\$2,085,000	\$2,227,000	\$2,243,000	\$2,243,000	\$2,314,000
Debt Reserve	1,990,000	1,990,000	1,990,000	1,990,000	1,990,000
Operating Cash Flow Reserve	8,240,000	10,987,000	10,375,000	10,375,000	10,750,000
<b>Total Reserves</b>	<b>\$12,315,000</b>	<b>\$15,204,000</b>	<b>\$14,608,000</b>	<b>\$14,608,000</b>	<b>\$15,054,000</b>
<b>Available for Use</b>	<b>\$6,505,600</b>	<b>\$2,058,069</b>	<b>\$229,839</b>	<b>(\$254,500)</b>	<b>\$823,550</b>
(Fund Equity minus Reserves)					

The numbers above are net of transfers in and out.

## **Reserves**

NapaSan manages three distinct reserves. The first reserve is an **operating reserve** designed to assist NapaSan 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 NapaSan to have on hand on July 1 to cover its anticipated expenses through the summer and fall until NapaSan 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.

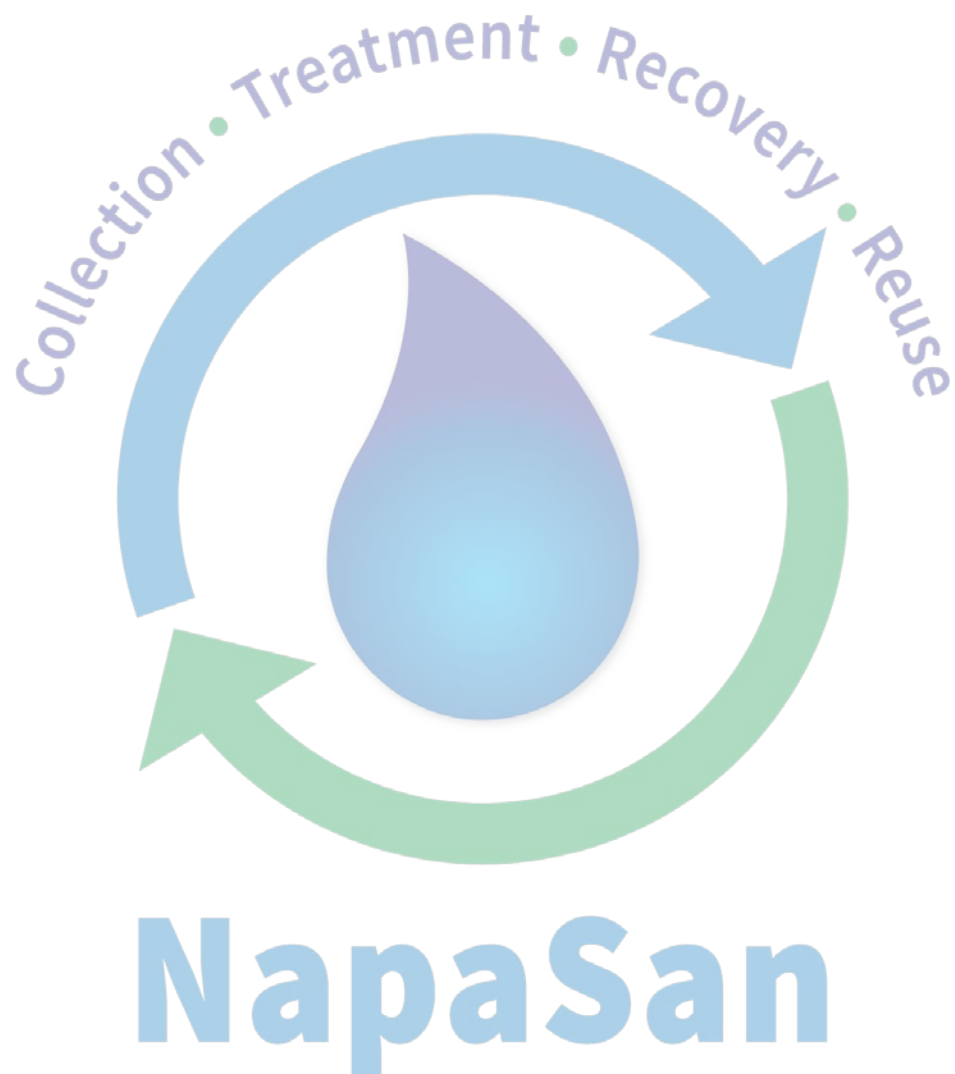
## **GFOA Budget Award**

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, 2016. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communications device.

This award is valid for a period of one year only. District staff believes that this current FY 2017/18 budget continues to conform to program requirements and will be submitting it to GFOA to determine its eligibility for another award.



This page intentionally left blank.



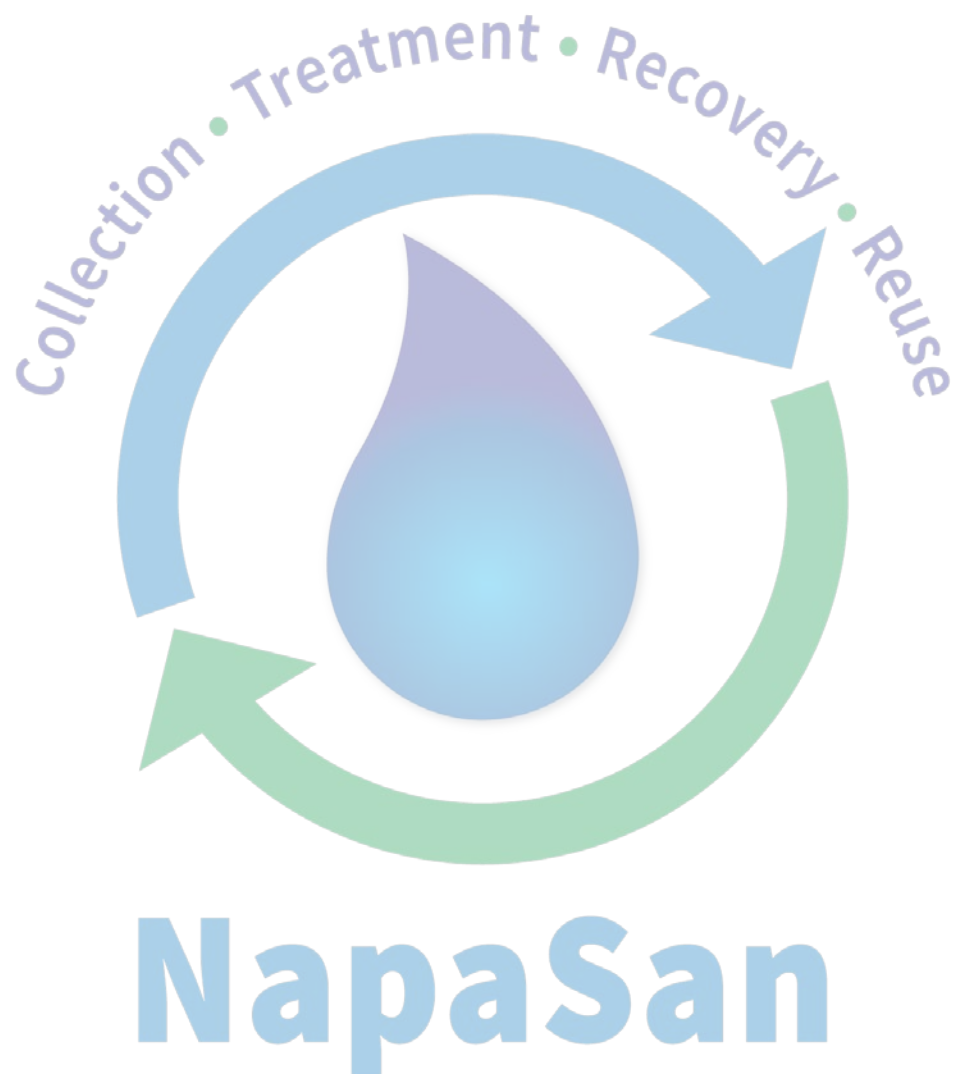
## Detailed Tables of Revenues and Operating Expenditures



*Recycled Water Pump Station – Soscol Water Recycling Facility*



This page intentionally left blank.



**Napa Sanitation District  
FY 2017/18 Proposed Budget**

**REVENUE - ALL SOURCES**

<b>Account Description</b>	<b>Actual FY 14/15</b>	<b>Actual FY 15/16</b>	<b>Adjusted FY 16/17</b>	<b>Estimated FY 16/17</b>	<b>Proposed FY 17/18</b>	<b>Percent Change</b>
<b><u>780 - Operations</u></b>						
Interest: Invested Funds	129,206	62,553	75,000	50,000	174,000	132.0%
Rent - Building/Land	712,553	715,254	719,000	716,000	722,000	0.4%
Construction/Bldg Permit Review Svcs	25,196	161,238	184,500	180,000	189,100	2.5%
Hauler Fees	261,593	182,808	172,000	172,000	175,000	1.7%
Sewer Usage Fees	19,190,534	19,887,172	22,514,000	22,500,000	26,152,000	16.2%
State - Other Funding	-	-	-	15,000	15,000	-
Penalties on Delinquent Sewer Fees	41,439	32,019	-	8,000	10,000	-
Recycled Water Sales	415,797	453,048	958,000	758,000	913,000	(4.7%)
Miscellaneous	107,874	89,989	69,000	30,000	51,000	(26.1%)
<b>Total - Operations</b>	<b>20,884,192</b>	<b>21,584,081</b>	<b>24,691,500</b>	<b>24,429,000</b>	<b>28,401,100</b>	<b>15.0%</b>
<b><u>781 - Capital Improvement Projects</u></b>						
Interest: Invested Funds	17,635	-	34,000	-	-	(100.0%)
Federal Grants - USBR & FEMA	3,586,966	1,861,364	300,000	295,000	1,001,000	233.7%
Other Government Agencies	7,794,763	17,354,109	1,950,000	1,950,000	3,075,000	57.7%
Miscellaneous	38,064	27,925	-	-	-	-
Bond/Loan Proceeds	-	-	4,550,000	4,550,000	10,137,000	122.8%
Sale of Capital Assets	21,518	14,147	-	25,000	25,000	-
Intrafund Transfers In	17,848,830	10,898,000	14,412,000	12,700,000	12,530,000	(13.1%)
<b>Total - Capital Improvement Projects</b>	<b>29,307,776</b>	<b>30,155,545</b>	<b>21,246,000</b>	<b>19,520,000</b>	<b>26,768,000</b>	<b>26.0%</b>
<b><u>782 - Expansion</u></b>						
Interest: Invested Funds	200	1,352	-	2,500	-	-
Capacity Charges	1,568,328	3,139,503	5,512,000	3,804,000	3,630,000	(34.1%)
<b>Total - Expansion</b>	<b>1,568,528</b>	<b>3,140,855</b>	<b>5,512,000</b>	<b>3,806,500</b>	<b>3,630,000</b>	<b>(34.1%)</b>
<b>Total - All Departments</b>	<b>51,760,496</b>	<b>54,880,481</b>	<b>51,449,500</b>	<b>47,755,500</b>	<b>58,799,100</b>	<b>14.3%</b>

**Napa Sanitation District  
FY 2017/18 Budget**

42

**OPERATING EXPENDITURES - ALL ACCOUNTS**

Account	Account Description	Actual FY 14/15	Actual FY 15/16	Adj. Budget FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
51100	Salaries and Wages	4,421,747	4,609,028	5,038,060	4,718,560	5,231,800	3.8%
51115	Overtime	208,330	198,449	191,000	237,910	217,200	13.7%
51120	Holiday Pay	10,063	9,866	9,000	6,400	9,350	3.9%
51130	Vacation Payout	39,466	6,023	9,300	10,770	-	(100.0%)
51200	457B Employer Contribution	72,658	76,058	85,200	83,400	85,200	0.0%
51205	Cell Phone Allowance	5,928	6,525	8,800	7,810	8,100	(8.0%)
51210	Director Pay	29,392	30,760	23,200	30,350	30,350	30.8%
51300	Medicare	69,828	72,073	73,480	70,280	75,550	2.8%
51305	F.I.C.A. / Social Security	1,822	1,907	1,400	1,900	1,900	35.7%
51400	Employee Insurance - Premiums	1,202,750	926,729	1,523,610	1,376,250	1,439,550	(5.5%)
51405	Workers Compensation	128,653	79,225	138,420	127,930	139,400	0.7%
51600	Retirement	1,593,363	158,619	1,873,270	1,803,600	1,910,300	2.0%
51605	Other Post Employment Benefits	214,454	290,450	302,510	303,870	322,300	6.5%
51990	Other Employee Benefits	123,847	131,746	105,120	107,900	110,300	4.9%
<b>Subtotal Salaries &amp; Benefits</b>		<b>\$8,122,300</b>	<b>\$6,597,459</b>	<b>\$9,382,370</b>	<b>\$8,886,930</b>	<b>\$9,581,300</b>	<b>2.1%</b>
52115	Property Tax/Assessment Admin	12,215	12,232	12,500	12,297	12,500	0.0%
52125	Accounting/Auditing Services	61,844	59,409	66,000	58,000	58,913	(10.7%)
52130	Information Technology Services	332,120	342,096	337,007	337,007	290,987	(13.7%)
52140	Legal Services	88,610	99,778	251,350	233,500	258,700	2.9%
52145	Engineer Services	52,127	13,889	3,600	3,600	-	(100.0%)
52150	Temporary/Contract Help	73,621	66,208	93,550	71,000	137,000	46.4%
52205	Actuarial Services	2,550	4,950	3,000	2,000	8,750	191.7%
52220	Medical/Laboratory Services	29,841	34,214	39,453	37,300	38,650	(2.0%)
52305	Training Services	11,895	8,205	23,450	21,935	14,550	(38.0%)
52310	Consulting Services	188,644	180,415	646,000	285,720	564,750	(12.6%)
52325	Waste Disposal Services	40,088	38,736	46,900	40,050	44,550	(5.0%)
52330	Hazardous Waste Disposal Services	3,783	178	5,000	4,000	5,000	0.0%
52335	Security Services	12,861	11,830	12,800	12,600	13,400	4.7%
52340	Landscaping Services	8,250	18,099	40,100	29,600	39,600	(1.2%)
52345	Janitorial Services	58,132	59,545	61,200	61,180	79,350	29.7%
52490	Other Professional Services	176,562	307,161	402,700	222,735	316,250	(21.5%)
52500	Maintenance - Equipment	106,517	126,000	167,800	144,293	169,250	0.9%
52505	Maintenance - Bldgs/Improvements	65,333	129,810	94,450	92,395	101,150	7.1%
52515	Maintenance - Software	59,543	69,519	65,950	88,336	76,400	15.8%
52520	Maintenance - Vehicles	140,201	136,922	90,950	107,100	106,350	16.9%
52600	Rents and Leases - Equipment	64,961	90,653	80,750	85,652	75,000	(7.1%)
52605	Rents and Leases - Buildings/Land	1,157	1,173	1,400	1,400	1,450	3.6%
52705	Insurance - Premiums	176,615	180,742	182,050	168,267	194,000	6.6%
52710	Insurance - Claims	11,730	8,566	15,000	13,000	15,000	0.0%
52800	Communications/Telephone	35,821	41,914	44,500	39,598	41,400	(7.0%)
52810	Advertising/Marketing	9,370	22,095	37,150	32,070	51,000	37.3%
52820	Printing and Binding	3,116	10,788	3,500	3,500	3,600	2.9%
52825	Bank Charges	795	1,530	1,200	1,450	1,450	20.8%
52830	Publications and Legal Notices	6,713	2,225	7,050	7,000	7,050	0.0%
52840	Permits/License Fees	138,270	104,433	159,250	152,137	162,900	2.3%
52900	Training/Conference Expenses	64,397	65,958	115,500	78,315	106,850	(7.5%)
52905	Business Travel/Mileage (Meetings)	1,393	2,075	2,300	2,550	2,600	13.0%

**Napa Sanitation District  
FY 2017/18 Budget**

43

**OPERATING EXPENDITURES - ALL ACCOUNTS**

Account	Account Description	Actual FY 14/15	Actual FY 15/16	Adj. Budget FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
53100	Office Supplies	21,399	25,997	18,600	16,700	18,600	0.0%
53105	Office Supplies - Furniture/Fixtures	-	12,716	6,400	865	1,300	(79.7%)
53110	Freight/Postage	12,886	15,446	17,300	17,300	17,600	1.7%
53115	Books/Media/Subscriptions	2,341	1,744	3,900	3,820	4,050	3.8%
53120	Memberships/Certifications	67,604	65,223	80,000	76,076	83,700	4.6%
53200	Utilities - Gas	18,767	26,096	19,900	19,900	19,900	0.0%
53205	Utilities - Electric	761,485	915,609	891,700	1,000,700	868,700	(2.6%)
53215	Utilities - Fire Suppression Systems	2,164	2,472	3,700	2,900	12,350	233.8%
53220	Utilities - Water	3,682	3,918	4,650	4,600	4,650	0.0%
53250	Fuel	109,203	84,994	112,900	69,390	74,700	(33.8%)
53300	Clothing and Personal Supplies	32,837	32,955	41,750	38,600	45,100	8.0%
53315	Medical/Laboratory Supplies	69,961	98,666	75,500	75,808	75,500	0.0%
53320	Safety Supplies	31,808	31,569	32,100	33,540	27,350	(14.8%)
53330	Janitorial Supplies	15,373	19,088	18,250	18,090	18,100	(0.8%)
53340	Chemicals	882,076	956,169	972,750	956,400	961,650	(1.1%)
53350	Maintenance Supplies	507,409	379,062	432,650	450,665	433,150	0.1%
53360	Infrastructure Repair Supplies	10,330	12,550	12,850	13,550	14,050	9.3%
53400	Minor Equipment/Small Tools	32,039	45,060	52,600	53,939	57,300	8.9%
53410	Computer Equipment/Accessories	1,022	3,788	3,500	7,132	4,500	28.6%
53415	Computer Software/Licensing Fees	682	3,594	1,600	695	800	(50.0%)
53600	Special Department Expense	37,158	45,573	46,000	38,300	39,200	(14.8%)
53635	Service Awards	7,879	8,301	12,300	12,300	12,300	0.0%
53650	Business Related Meals/Supplies	1,194	2,483	1,650	1,050	1,650	0.0%
53665	Wellness Reimbursement	8,058	6,930	15,150	9,670	16,750	10.6%
53670	Education Reimbursement	-	1,960	3,000	1,500	3,000	0.0%
<b>Subtotal Services &amp; Supplies</b>		<b>\$4,676,433</b>	<b>\$5,053,311</b>	<b>\$5,994,110</b>	<b>\$5,373,077</b>	<b>\$5,814,350</b>	<b>(3.0%)</b>
54100	Principal on Bonds/COPs	2,614,186	2,731,714	2,834,350	2,834,350	2,936,950	3.6%
54310	Interest on Bonds/COPs	1,931,414	1,812,719	1,933,600	1,933,600	1,833,400	(5.2%)
54320	Administration on Bonds/COPs	4,860	3,040	5,100	5,100	7,100	39.2%
54500	Taxes and Assessments	25,160	24,995	28,250	28,247	28,650	1.4%
57900	Intrafund Expenditures	6,887,500	7,900,000	8,900,000	2,225,000	8,900,000	-
<b>Subtotal Other</b>		<b>\$11,463,120</b>	<b>\$12,472,468</b>	<b>\$13,701,300</b>	<b>\$7,026,297</b>	<b>\$13,706,100</b>	<b>0.0%</b>
<b>TOTALS</b>		<b>\$24,261,853</b>	<b>\$24,123,237</b>	<b>\$29,077,780</b>	<b>\$21,286,304</b>	<b>\$29,101,750</b>	<b>0.1%</b>

**Napa Sanitation District  
FY 2017/18 Budget**

44

**OPERATING EXPENDITURES - BY MAJOR EXPENSE CATEGORY**

	<b>Actual FY 14/15</b>	<b>Actual FY 15/16</b>	<b>Adj. Budget FY 16/17</b>	<b>Estimated FY 16/17</b>	<b>Proposed FY 17/18</b>	<b>Percent Change</b>
<b>Salaries &amp; Benefits</b>						
Board of Directors	34,616	33,572	25,480	33,500	33,500	31.5%
General Manager's Office	385,339	300,277	403,570	391,360	397,800	(1.4%)
Administrative Services	1,087,687	863,395	1,148,040	1,129,790	1,161,300	1.2%
Safety, Training & Fleet Maintenance	129,953	120,351	161,560	159,770	165,300	2.3%
Collection System	2,011,189	1,603,747	2,369,250	2,097,990	2,444,950	3.2%
Treatment Plant Operations	1,514,444	1,211,350	1,644,360	1,609,530	1,697,900	3.3%
Treatment Plant Maintenance	804,775	709,444	1,045,500	1,016,180	1,053,600	0.8%
Regulatory Compliance	661,638	527,956	724,050	707,540	736,500	1.7%
Engineering	990,043	799,630	1,253,920	1,128,090	1,272,700	1.5%
Community Outreach & Poll. Prev.	17,611	84,433	135,920	134,870	132,500	(2.5%)
Water & Biosolids Reclamation	485,005	343,304	470,720	478,310	485,250	3.1%
Non-Departmental Expenses	-	-	-	-	-	-
<b>Subtotal Salaries &amp; Benefits</b>	<b>\$8,122,300</b>	<b>\$6,597,459</b>	<b>\$9,382,370</b>	<b>\$8,886,930</b>	<b>\$9,581,300</b>	<b>2.1%</b>
<b>Services &amp; Supplies</b>						
Board of Directors	144,646	153,392	350,200	330,870	594,500	69.8%
General Manager's Office	145,067	135,169	260,650	88,730	79,750	(69.4%)
Administrative Services	527,329	561,768	580,910	542,784	526,800	(9.3%)
Safety, Training & Fleet Maintenance	73,332	72,091	102,550	89,590	91,250	(11.0%)
Collection System	361,343	374,369	406,150	351,032	411,700	1.4%
Treatment Plant Operations	2,076,021	2,305,604	2,165,100	2,243,153	2,149,650	(0.7%)
Treatment Plant Maintenance	625,060	677,391	863,350	823,579	881,550	2.1%
Regulatory Compliance	144,462	178,400	188,750	196,754	181,050	(4.1%)
Engineering	69,604	60,787	351,200	168,334	256,050	(27.1%)
Community Outreach & Poll. Prev.	63,877	111,666	148,300	123,184	116,850	(21.2%)
Water & Biosolids Reclamation	205,908	182,723	320,350	178,260	256,900	(19.8%)
Non-Departmental Expenses	239,785	239,951	256,600	236,807	268,300	4.6%
<b>Subtotal Services &amp; Supplies</b>	<b>\$4,676,433</b>	<b>\$5,053,311</b>	<b>\$5,994,110</b>	<b>\$5,373,077</b>	<b>\$5,814,350</b>	<b>(3.0%)</b>
<b>Other</b>						
Administrative Services	18	24	50	30	50	-
Treatment Plant Operations	196	190	200	200	200	-
Water & Biosolids Reclamation	24,946	24,781	28,000	28,017	28,400	1.4%
Non-Departmental Expenses	11,437,960	12,447,473	13,673,050	6,998,050	13,677,450	0.0%
<b>Subtotal Other</b>	<b>\$11,463,120</b>	<b>\$12,472,468</b>	<b>\$13,701,300</b>	<b>\$7,026,297</b>	<b>\$13,706,100</b>	<b>0.0%</b>
<b>Total</b>	<b>\$24,261,853</b>	<b>\$24,123,237</b>	<b>\$29,077,780</b>	<b>\$21,286,304</b>	<b>\$29,101,750</b>	<b>0.1%</b>



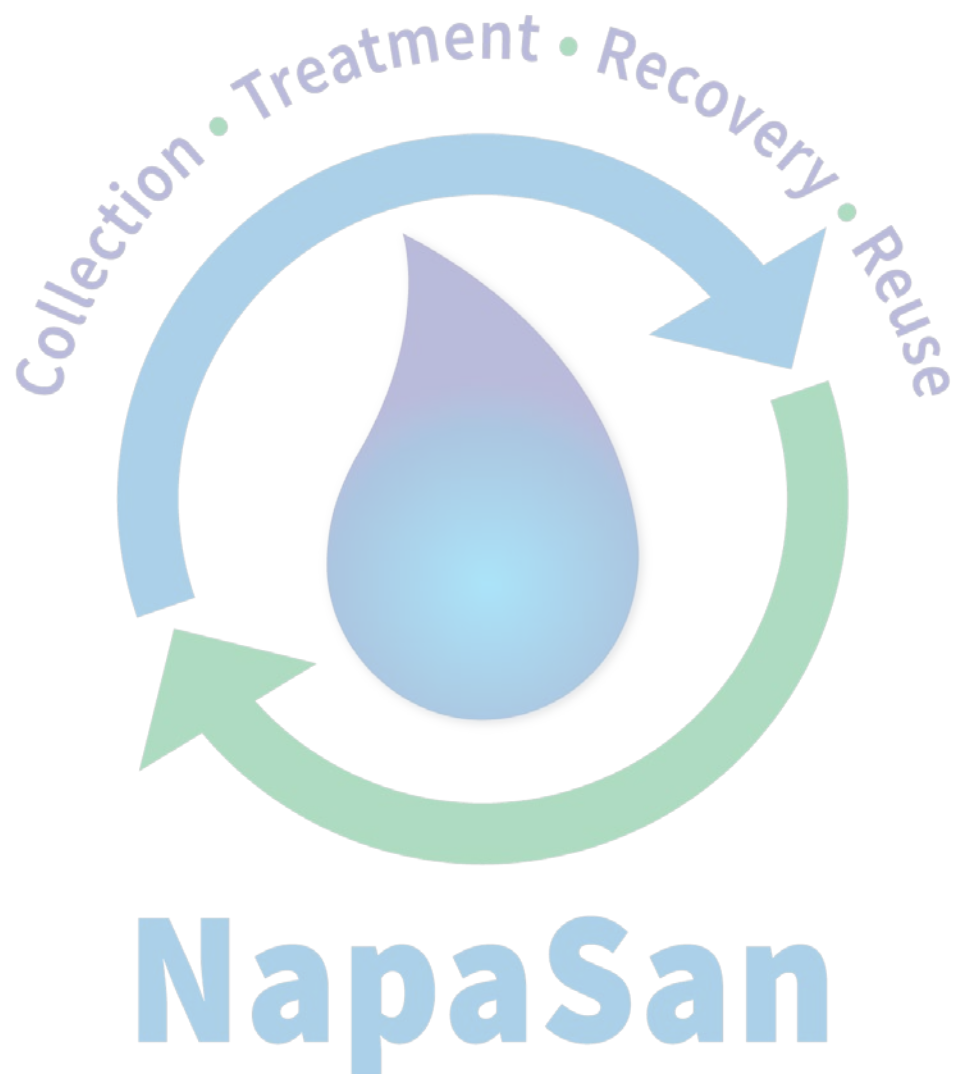
**Napa Sanitation District  
FY 2017/18 Budget**

45

**OPERATING EXPENDITURES - BY DEPARTMENT**

Department	Category	Actual FY 14/15	Actual FY 15/16	Adj. Budget FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
<b>Board of Directors</b>	Salaries & Benefits	34,616	33,572	25,480	33,500	33,500	31.5%
	Services & Supplies	144,646	153,392	350,200	330,870	594,500	69.8%
	<b>Total</b>	179,262	186,964	375,680	364,370	628,000	67.2%
<b>General Manager's Office</b>	Salaries & Benefits	385,339	300,277	403,570	391,360	397,800	(1.4%)
	Services & Supplies	145,067	135,169	260,650	88,730	79,750	(69.4%)
	<b>Total</b>	530,406	435,446	664,220	480,090	477,550	(28.1%)
<b>Administrative Services</b>	Salaries & Benefits	1,087,687	863,395	1,148,040	1,129,790	1,161,300	1.2%
	Services & Supplies	527,329	561,768	580,910	542,784	526,800	(9.3%)
	Other	18	24	50	30	50	-
	<b>Total</b>	1,615,034	1,425,187	1,729,000	1,672,604	1,688,150	(2.4%)
<b>Safety, Training &amp; Fleet Maintenance</b>	Salaries & Benefits	129,953	120,351	161,560	159,770	165,300	2.3%
	Services & Supplies	73,332	72,091	102,550	89,590	91,250	(11.0%)
	<b>Total</b>	203,285	192,443	264,110	249,360	256,550	(2.9%)
<b>Community Outreach &amp; Poll. Prev.</b>	Salaries & Benefits	17,611	84,433	135,920	134,870	132,500	(2.5%)
	Services & Supplies	63,877	111,666	148,300	123,184	116,850	(21.2%)
	<b>Total</b>	81,488	196,099	284,220	258,054	249,350	(23.7%)
<b>Non-Departmental Expenses</b>	Services & Supplies	239,785	239,951	256,600	236,807	268,300	4.6%
	Debt Service	4,550,460	4,547,473	4,773,050	4,773,050	4,777,450	0.1%
	Transfers	6,887,500	7,900,000	8,900,000	2,225,000	8,900,000	-
	<b>Total</b>	11,677,745	12,687,424	13,929,650	7,234,857	13,945,750	0.1%
<b>Treatment Plant Operations</b>	Salaries & Benefits	1,514,444	1,211,350	1,644,360	1,609,530	1,697,900	3.3%
	Services & Supplies	2,076,021	2,305,604	2,165,100	2,243,153	2,149,650	(0.7%)
	Other	196	190	200	200	200	-
	<b>Total</b>	3,590,660	3,517,143	3,809,660	3,852,883	3,847,750	1.0%
<b>Treatment Plant Maintenance</b>	Salaries & Benefits	804,775	709,444	1,045,500	1,016,180	1,053,600	0.8%
	Services & Supplies	625,060	677,391	863,350	823,579	881,550	2.1%
	<b>Total</b>	1,429,835	1,386,835	1,908,850	1,839,759	1,935,150	2.9%
<b>Regulatory Compliance</b>	Salaries & Benefits	661,638	527,956	724,050	707,540	736,500	1.7%
	Services & Supplies	144,462	178,400	188,750	196,754	181,050	(4.1%)
	<b>Total</b>	806,100	706,356	912,800	904,294	917,550	(2.4%)
<b>Engineering</b>	Salaries & Benefits	990,043	799,630	1,253,920	1,128,090	1,272,700	1.5%
	Services & Supplies	69,604	60,787	351,200	168,334	256,050	(27.1%)
	<b>Total</b>	1,059,646	860,417	1,605,120	1,296,424	1,528,750	(25.6%)
<b>Collection System</b>	Salaries & Benefits	2,011,189	1,603,747	2,369,250	2,097,990	2,444,950	3.2%
	Services & Supplies	361,343	374,369	406,150	351,032	411,700	1.4%
	<b>Total</b>	2,372,532	1,978,116	2,775,400	2,449,022	2,856,650	4.6%
<b>Water &amp; Biosolids Reclamation</b>	Salaries & Benefits	485,005	343,304	470,720	478,310	485,250	3.1%
	Services & Supplies	205,908	182,723	320,350	178,260	256,900	(19.8%)
	Other	24,946	24,781	28,000	28,017	28,400	1.4%
	<b>Total</b>	715,859	550,808	819,070	684,587	770,550	(5.9%)
<b>Total Operating Expenditures</b>		<b>\$24,261,853</b>	<b>\$24,123,237</b>	<b>\$29,077,780</b>	<b>\$21,286,304</b>	<b>\$29,101,750</b>	<b>0.1%</b>

This page intentionally left blank.



## 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 NapaSan 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 NapaSan.

### *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 NapaSan to ensure:

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

### *Related Department Objectives*

- Oversee the policy and strategic direction 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.
- Provide direction to staff on efforts to increase non-rate revenues and improve NapaSan's operational efficiency and effectiveness.

### *Changes in Service Levels*

- The Board of Directors budget includes NapaSan's expenses for legal services and audit services, as these functions report directly to the Board.
- The FY 17/18 budget includes \$100,000 in Consulting Services to support efforts to evaluate and recommend winery waste treatment options.
- The FY 17/18 budget includes \$150,000 in Consulting Services to support a study and recommendations for improving NapaSan's sewer service and capacity charge methodologies.
- The FY 17/18 budget includes \$20,000 for a total compensation study.

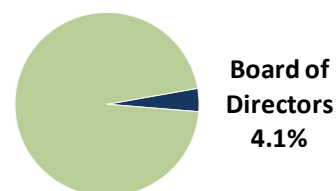


*Stationary storage system stores energy created at night for use during the day.*



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

#### Percent of Operating Budget



#### Proposed Budget

	Actual FY 14/15	Actual FY 15/16	Adj. Budget FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	\$ 34,616	\$ 33,572	\$ 25,480	\$ 33,500	\$ 33,500	31.5%
Services & Supplies	\$ 144,646	\$ 153,392	\$ 350,200	\$ 330,870	\$ 594,500	69.8%
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 179,262</b>	<b>\$ 186,964</b>	<b>\$ 375,680</b>	<b>\$ 364,370</b>	<b>\$ 628,000</b>	<b>67.2%</b>

#### Position Authorizations

Position Series	FY 14/15	FY 15/16	FY 16/17	FY 17/18
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 and Administrative Services are jointly responsible for conducting the study of sewer service charge and capacity charge methodologies (**Goal Two: Financial Stability, Objective 2A**). General Manager's Office is also overseeing the next employee survey in Fall 2017 (**Goal Four: Employee Development, Objective 4B**), working with the Board to pursue leases on District property (**Goal Two: Financial Stability, Objective 2C**), partnering with winery industry to develop alternative methods for treating winery waste (**Goal Three: Operational Capability, Objective 3A**), promoting NapaSan as a progressive, professional organization as a great place to work (**Goal Four: Employee Development, Objective 4A**), and working with partners to expand recycled water delivery and long-term water reuse opportunities (**Goal Six: Resource Recovery, Objectives 6A, 6B, 6C and 6F**).

### *Department Goals*

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

#### Related Department Objectives

- Oversee the engagement with wine industry representatives regarding the study of winery waste treatment options.
- Represent NapaSan at the North Bay Water Reuse Authority, specifically working to bring federal money to the region for Recycled Water projects.
- Under the direction of the Lands Committee and Board, work to develop options for lease revenue on District-owned property.

**Goal:** Provide leadership and management throughout NapaSan.

#### Related Department Objectives

- Provide direction to all departments, aligning efforts to promote and be consistent with NapaSan'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 other priority projects.
- Oversee the implementation of the Employee Survey.

### *Changes in Service Levels*

- The Budget removes a one-time expense of \$70,000 for assistance in negotiating a new NPDES permit.
- The budget includes a one-time expense of \$15,000 to conduct an employee survey.

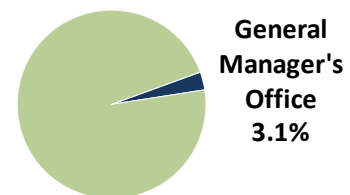


*NapaSan Booth at annual Earth Day event*



*NapaSan booth at the annual Ag Expo in Napa*

### Percent of Operating Budget



### Proposed Budget

	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	\$ 385,339	\$ 300,277	\$ 403,570	\$ 391,360	\$ 397,800	(1.4%)
Services & Supplies	\$ 145,067	\$ 135,169	\$ 260,650	\$ 88,730	\$ 79,750	(69.4%)
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 530,406</b>	<b>\$ 435,446</b>	<b>\$ 664,220</b>	<b>\$ 480,090</b>	<b>\$ 477,550</b>	<b>(28.1%)</b>

### Position Authorizations

Position Series	FY 14/15	FY 15/16	FY 16/17	FY 17/18
General Manager	1	1	1	1
Assistant General Manager/District Engineer	1	1	-	-
<b>Totals</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>

## Administrative Services

### Description

Administrative Services provides administrative and financial support for all other NapaSan departments. The division includes accounting, payroll, budget and financial planning, Information Technology, 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 NapaSan's "**Goal Two: Financial Stability.**" This Department is jointly responsible with the General Manager's Office to study sewer service charge and capacity charge methodology options (**Objective 2A**). This department will also be responsible for evaluating and presenting options to the Board regarding long term liabilities (**Objective 2B**), evaluating opportunities for shared services (**Goal 3: Operational Optimization, Objective 3B**) and supporting the Board in its total compensation study (**Goal 4: Employee Development, Objective 4C**). The Department will take a leadership role in promoting further succession planning through training and mentorship (**Goal 4: Employee Development, Objective 4E**).

### Department Goals

**Goal:** Provide financial information for managers and Board to maintain NapaSan's financial viability and stability.

#### Operating Ratio

(above 1.0 is goal)

12/13	13/14	14/15	15/16	16/17	17/18
0.87	0.88	0.90	0.94	0.97	1.00

#### Debt Service Coverage Ratio

(greater than 125% is required)

12/13	13/14	14/15	15/16	16/17	17/18
247%	276%	226%	284%	300%	300%

#### Sewer Service Charge Bill Affordability

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

12/13	13/14	14/15	15/16	16/17	17/18
0.66%	0.68%	0.66%	0.68%	0.70%	0.72%

### Related Department Objectives

- Review cash flow and emergency reserves for adequacy.
- Conduct a study of NapaSan's sewer service charge and capacity charge methodologies.
- Complete the eighth year's Performance Measurement Report.
- Evaluate options for funding long-term liabilities such as pensions and OPEBs.
- Continue to provide financial support to managers, supervisors and staff, in support of NapaSan activities.

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

#### Experience Turnover Rate

(Lower is better)

2013	2014	2015	2016	2017	2018
0.0%	4.3%	0.0%	3.7%	4.0%	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."**

2013	2014	2015	2016	2017	2018
na	3.48	na	na	3.5	na

### Related Department Objectives

- Provide support to departments through recruitments and internship programs.
- Support the Board in a study of total compensation.
- Assist the General Manager in conducting the employee survey
- Continue efforts in succession planning, including training and mentorship programs.
- Continue to provide human resource support to managers, supervisors and staff, in support of NapaSan activities.

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

### Related Department Objectives

- Evaluate opportunities to increase efficiencies in the delivery of support services.

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

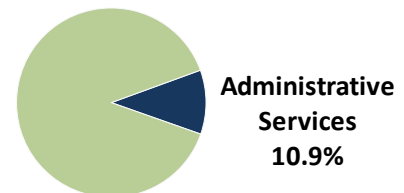
### *Changes in Service Levels*

- FY 17/18 budget increased \$16,750 for OPEB and pension actuarial and analysis services, and consulting regarding long-term liabilities.
- Budget for accounting services, Information Technology services and Human Resource services through Napa County decreased \$59,170 from prior year, for same level of service.



*NapaSan Open House*

### Percent of Operating Budget



### Proposed Budget

	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	\$ 1,087,687	\$ 863,395	\$ 1,148,040	\$ 1,129,790	\$ 1,161,300	1.2%
Services & Supplies	\$ 527,329	\$ 561,768	\$ 580,910	\$ 542,784	\$ 526,800	(9.3%)
Other	\$ 18	\$ 24	\$ 50	\$ 30	\$ 50	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 1,615,034</b>	<b>\$ 1,425,187</b>	<b>\$ 1,729,000</b>	<b>\$ 1,672,604</b>	<b>\$ 1,688,150</b>	<b>(2.4%)</b>

### Position Authorizations

Position Series	FY 14/15	FY 15/16	FY 16/17	FY 17/18
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	-	-	-
Administrative Assistant I/II	2	2	2	2
<b>Totals</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>6</b>

## Safety, Training and Fleet Maintenance

### Description

Many of NapaSan'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 NapaSan's contractors also work and operate safely.

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

### Link to District Goals in Strategic Plan

This Department supports NapaSan'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)

	12/13	13/14	14/15	15/16	16/17	17/18
NSD	66	66	84	89	104	100
Avg	85	94	94	93	na	na

#### Total Recordable Incidence Rate

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

	2013	2014	2015	2016	2017	2018
NSD	10.69	0	2.10	8.36	0	0
Avg	3.4	5.3	4.1	na	na	na

#### Number of Insurance Claims

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

	12/13	13/14	14/15	15/16	16/17	17/18
	14.95	8.60	18.85	6.27	0	0

#### Severity of Insurance Claims

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

	12/13	13/14	14/15	15/16	16/17	17/18
	\$33k	\$6k	\$104k	\$92	\$0	\$0

#### Online Safety Training Hours Completed by Staff

	2013	2014	2015	2016	2017	2018
	99.1%	99.2%	100%	91.2 %	90%	90%

#### Related Department Objectives

- Develop and implement periodic review plan for NapaSan safety policies and programs.
- Assist Plant Operations in developing a Business Continuity Plan for operations during disasters, and integrate NapaSan in the city and county's emergency response systems.
- 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 NapaSan operational effectiveness, while increasing efficiency and reducing overall cost.
- Oversee NapaSan'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.



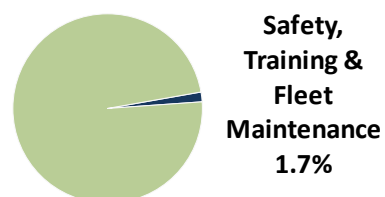
### *Changes in Service Levels*

- The training budget changes annually to accommodate the different trainings required, on a two or three-year rotational basis.
- There are no significant changes in service levels in this program.



*District staff training on fire extinguisher use*

### Percent of Operating Budget



### Proposed Budget

	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	\$ 129,953	\$ 120,351	\$ 161,560	\$ 159,770	\$ 165,300	2.3%
Services & Supplies	\$ 73,332	\$ 72,091	\$ 102,550	\$ 89,590	\$ 91,250	(11.0%)
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 203,285</b>	<b>\$ 192,443</b>	<b>\$ 264,110</b>	<b>\$ 249,360</b>	<b>\$ 256,550</b>	<b>(2.9%)</b>

### Position Authorizations

Position Series	FY 14/15	FY 15/16	FY 16/17	FY 17/18
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 NapaSan'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 NapaSan'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 sewer rehabilitation projects (**Objective 1A**) and in decisions made as part of the Asset Management program (**Objective 1B**). The Department will be significantly involved in the Collection System Master Plan update (**Objective 1D**).

### 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 and SF Regional averages)

	2013	2014	2015	2016	2017	2018
NSD	0.0	4.8	0.0	1.1	0	0
CA	3.8	5.1	3.9	4.9	na	na
Reg	6.7	6.7	6.1	7.0	na	na

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

	2013	2014	2015	2016	2017	2018
NSD	0.0	1.4	1.4	2.0	0	0
CA	5.2	53.1	2.4	3.7	na	na
Reg	0.0	4.6	1.4	4.3	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

2013	2014	2015	2016	2017	2018
31	29	32	30	30	30

#### 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)

2013	2014	2015	2016	2017	2018
7.4%	10.3%	8.5%	9.2%	10%	10%

#### Percent of Main Lines Cleaned

(Goal is 40%)

2013	2014	2015	2016	2017	2018
47.6%	47.6%	42.3%	34.2%	40%	40%

#### Planned Maintenance as Ratio of Total Maintenance

(Goal is 90%)

2013	2014	2015	2016	2017	2018
87.6%	87.5%	86.7%	87.1%	88%	90%

#### Number of Public Laterals Replaced or Rehabilitated

(Goal is 60 per year)

2013	2014	2015	2016	2017	2018
51	52	72	36	60	60

#### Related Department Objectives

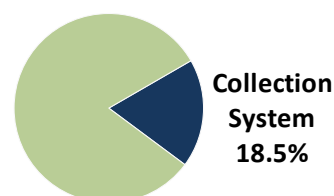
- Maintain the sewer lateral preventive maintenance program at current service levels.
- Video inspect 10% of the sewer mains in the District's system
- Clean at least 40% of District sewer mains per year.
- Root foam 4 miles of sewer main, including related laterals and manholes, to reduce the root 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.

***Changes in Service Levels***

- FY 17/18 budget includes \$16,300 for “in training” temporary worker program
- FY 17/18 budget increased the vehicle maintenance budget by \$10,000 based on experience.



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

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

	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	\$ 2,011,189	\$ 1,603,747	\$ 2,369,250	\$ 2,097,990	\$ 2,444,950	3.2%
Services & Supplies	\$ 361,343	\$ 374,369	\$ 406,150	\$ 351,032	\$ 411,700	1.4%
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 2,372,532</b>	<b>\$ 1,978,116</b>	<b>\$ 2,775,400</b>	<b>\$ 2,449,022</b>	<b>\$ 2,856,650</b>	<b>2.9%</b>

**Position Authorizations**

Position Series	FY 14/15	FY 15/16	FY 16/17	FY 17/18
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	2	2	2
Collection System Worker IT/I/II	9	8	10	10
<b>Totals</b>	<b>13</b>	<b>13</b>	<b>15</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 developing the Treatment Plant Master Plan (**Objective 1D**) and development of an Asset Management program (**Objective 1B**).

The Department will be responsible to evaluate ways to reduce energy and chemistry (**Goal Three: Operational Optimization, Objective 3D**).

To support "Goal Six: Resource Recovery," this Department will provide technical analysis to evaluate energy self-generation projects (**Objective 6D**) and toward efforts to improve recycled water quality (**Objective 6E**).

### 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% - monthly average)

	2013	2014	2015	2016	2017	2018
BOD	97.9%	97.7%	98.2%	96.7%	95%	95%
TSS	97.2%	96.7%	96.3%	94.6%	95%	95%

### Total Allowable BOD and TSS

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

	2013	2014	2015	2016	2017	2018
BOD	5.3	4.9	4.6	5.3	5.0	5.0
TSS	7.6	7.4	9.8	10.0	10.0	10.0

### 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

	2013	2014	2015	2016	2017	2018
Wnt	52.7	33.4	28.8	20.3	30	30
Smr	79.0	50.6	103.5	109.6	100	100

### Hypochlorite per MG processed

	2013	2014	2015	2016	2017	2018
Wnt	113.3	102.9	124.3	85.4	90	90
Smr	206.6	203.7	211.9	211.3	200	200

### Percent Electricity Produced by Cogen Engine

	2013	2014	2015	2016	2017	2018
	33.7%	32.6%	35%	32%	36%	38%

### Electricity Consumed per Million Gallons Treated (Megawatt-hours per MG processed)

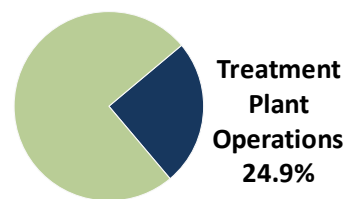
	2013	2014	2015	2016	2017	2018
Wnt	2.0	1.7	2.1	1.6	1.7	1.7
Smr	5.7	5.9	6.3	6.0	6.0	6.0

### 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.

***Changes in Service Levels***

- FY 17/18 budget adds \$18,800 for temporary help associated with asset management implementation.
- FY 17/18 budget subtracts \$23,000 for electricity, based on experience and adjusted for a change in rates due to solar PPA.

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

	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	\$ 1,514,444	\$ 1,211,350	\$ 1,644,360	\$ 1,609,530	\$ 1,697,900	3.3%
Services & Supplies	\$ 2,076,021	\$ 2,305,604	\$ 2,165,100	\$ 2,243,153	\$ 2,149,650	(0.7%)
Other	\$ 196	\$ 190	\$ 200	\$ 200	\$ 200	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 3,590,660</b>	<b>\$ 3,517,143</b>	<b>\$ 3,809,660</b>	<b>\$ 3,852,883</b>	<b>\$ 3,847,750</b>	<b>1.0%</b>

**Position Authorizations**

Position Series	FY 14/15	FY 15/16	FY 16/17	FY 17/18
Director of Operations Services	-	-	1	1
Plant Manager	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 and information to support the master planning efforts (**Objective 1D**) and Asset Management implementation (**Objective 1B**).

### 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>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
58.0%	65.8%	65.8%	65.8%	68%	68%

### Number of work orders completed

<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
1,372	1,351	1,314	1,482	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.
- Implement Infrared Imaging PM program for all electrical switchgear and motor control centers

**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>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
96%	96%	98%	79%	90%	98%

### Related Department Objectives:

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

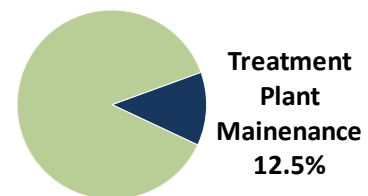
### Changes in Service Levels

- FY 17/18 budget reduces maintenance on cogeneration engine based on overhaul in prior year.
- FY 17/18 budget includes resources to perform periodic “deep clean” of carpets, restrooms and kitchens to ensure hygienic conditions.
- FY 17/18 budget includes \$8,000 for fire sprinkler inspection (required every 5 years).
- FY 17/18 budget includes the replacement of the air fuel control module in the cogeneration engine to increase efficiency and decrease emissions.



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

### Percent of Operating Budget



### Proposed Budget

	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	\$ 804,775	\$ 709,444	\$ 1,045,500	\$ 1,016,180	\$ 1,053,600	0.8%
Services & Supplies	\$ 625,060	\$ 677,391	\$ 863,350	\$ 823,579	\$ 881,550	2.1%
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 1,429,835</b>	<b>\$ 1,386,835</b>	<b>\$ 1,908,850</b>	<b>\$ 1,839,759</b>	<b>\$ 1,935,150</b>	<b>1.4%</b>

### Position Authorizations

Position Series	FY 14/15	FY 15/16	FY 16/17	FY 17/18
Plant Maintenance Supervisor	1	1	1	1
Equipment Maintenance Specialist I/II	3	4	4	4
Plant Attendant	1	1	1	1
<b>Totals</b>	<b>5</b>	<b>6</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, NapaSan generates recycled water to “Title 22 Unrestricted Use” quality, which is permitted under State of California Regulations for almost any use except potable (drinking) water. NapaSan 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 NapaSan’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 recycled water allocation policy (**Objective 6C**).

### Department Goals

**Goal:** Distribute 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>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
100%	100%	100%	100%	100%	100%

#### Recycled Water Reuse by Customers

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

<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
71.5%	75.2%	78.3%	80.6%	85%	85%

#### Related Department Objectives

- Maintain recycled water availability at 100% during the non-discharge period.

- Distribute 717 million gallons (2,200 acre feet) recycled water, with 85% sold to customers.
- Complete annual recycled water user site inspections, issuing no Notices of Non-compliance.
- Napa Airport Centre continues conversion to recycled water for irrigation of two facilities.
- Facilitate additional conversion activities of MST and Los Carneros Water District customers.

**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>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</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 NapaSan land to beneficial reuse, through active agricultural practices on the land (growing crops, grazing sheep, etc.).

### Changes in Service Levels

- FY 17/18 reduces budget for pipeline repair by \$50,000 based on actual demand in recent years.
- FY 17/18 budget includes \$15,850 in new software maintenance contracts for water management software and recycled water meter reading software.

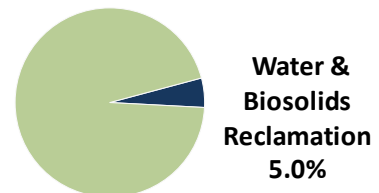


*Sheep Grazing at Somky Ranch*



*Irrigating Jameson Ranch with recycled water*

**Percent of Operating Budget**



**Proposed Budget**

	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	\$ 485,005	\$ 343,304	\$ 470,720	\$ 478,310	\$ 485,250	3.1%
Services & Supplies	\$ 205,908	\$ 182,723	\$ 320,350	\$ 178,260	\$ 256,900	(19.8%)
Other	\$ 24,946	\$ 24,781	\$ 28,000	\$ 28,017	\$ 28,400	1.4%
<b>TOTAL EXPENDITURES</b>	<b>\$ 715,859</b>	<b>\$ 550,808</b>	<b>\$ 819,070</b>	<b>\$ 684,587</b>	<b>\$ 770,550</b>	<b>(5.9%)</b>

**Position Authorizations**

Position Series	FY 14/15	FY 15/16	FY 16/17	FY 17/18
Reclamation Systems Director	1	1	1	1
Reclamation Maintenance Worker I/II	3	2	2	2
<b>Totals</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>

## Engineering

### Description

Engineering provides technical assistance to the operational departments within NapaSan. The group is responsible for managing most of NapaSan's capital projects and prepares project charters for projects that are included in the 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 NapaSan's "Goal One: Infrastructure Reliability" and "Goal Six: Resource Recovery" by providing project management and leadership on all of the infrastructure projects identified:

- Collection System Master Plan and Treatment Plant Master Plan updates (**Objective 1D**)
- Replace 2% of sewers annually (**Objective 1A**)
- Develop and Asset Management Plan (**Objective 1B**)
- Design and construct Browns Valley Road Sewer Interceptor (**Objective 1C**)
- Study whether to implement a Private Lateral Program (**Objective 1E**)
- Working with local partners to expand the distribution of recycled water (**Objective 6A**)
- Work with local partners to achieve long-term recycled water goals (**Objective 6B**), evaluate the current recycled water allocation policy (**Objective 6C**) and renew the recycled water agreement with the City of Napa (**Objective 6F**)
- Evaluate energy self-generation to reduce overall energy costs (**Objective 6D**)

### Department Goals

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

#### Percent of Annual Capital Plan Expended

12/13	13/14	14/15	15/16	16/17	17/18
63.8%	62.8%	83.2%	72.1%	85%	85%

#### Capital Expenses as Percent of Operating Expenses

11/12	12/13	13/14	14/15	15/16	16/17	17/18
106%	168%	322%	239%	167%	170%	

#### 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 Sewer Interceptor project.
- Begin construction on the Recycled Water Reservoir Lining project.
- Complete construction of the MST Recycled Water Expansion 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.

#### Percent of Sewer Mains Rehabilitated

2013	2014	2015	2016	2017	2018
0.03%	1.82%	2.60%	1.01%	1.3%	1.8%

#### Renewal & Replacement of Assets

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

12/13	13/14	14/15	15/16	16/17	17/18
2.6%	8.8%	10.2%	4.5%	4%	4%

#### Related Department Objectives

- Begin implementation of a formal asset management plan
- Rehabilitate or replace at least 1.3% of the Collection System mains.
- Plan for and complete renewal & replacement capital projects that impact approximately 4% of NapaSan's total assets annually.
- Complete the Summer 2017 I&I Sewer Rehabilitation project and complete in-house design of the Summer 2018 I&I project to reduce peak wet-weather flow.
- Begin design of the Headworks Equipment Rehabilitation project.
- Rehabilitation the HVAC and Lab ventilation system in the OPS building.



**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)

<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
96.1%	97.5%	94.4%	93.6%	95%	95%

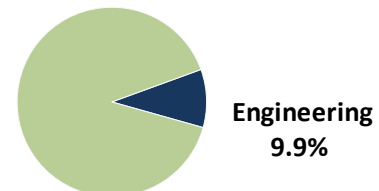
#### Related Department Objectives

- Review and return development plans within 30 days of submittal NapaSan.
- 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 NapaSan collection system facilities, include locating sewers, permit processing, preconstruction meetings, inspections, and updating record drawings.

#### Changes in Service Levels

- Continuation of the Asset Management program's use of consulting services to implement the first phase of the plan.
- FY17/18 budget includes \$19,200 in temporary help to support asset management data gathering.
- FY 17/18 budget includes \$5,000 for GIS aerial photo update, in partnership with County.
- FY 17/18 budget removes some one-time expenses in prior year, including training, storage services, and a new computer.

#### Percent of Operating Budget



#### Proposed Budget

	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	\$ 990,043	\$ 799,630	\$ 1,253,920	\$ 1,128,090	\$ 1,272,700	1.5%
Services & Supplies	\$ 69,604	\$ 60,787	\$ 351,200	\$ 168,334	\$ 256,050	(27.1%)
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 1,059,646</b>	<b>\$ 860,417</b>	<b>\$ 1,605,120</b>	<b>\$ 1,296,424</b>	<b>\$ 1,528,750</b>	<b>(4.8%)</b>

#### Position Authorizations

Position Series	FY 14/15	FY 15/16	FY 16/17	FY 17/18
Technical Services Director	-	-	1	1
Senior Civil Engineer	1	1	1	1
Junior/Assistant/Associate Engineer	3	3	3	2
Asset Management Analyst I	-	-	-	1
District Inspector I/II	2	2	2	2
<b>Totals</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>7</b>

## Regulatory Compliance

### Description

The Regulatory Compliance Department provides support to Technical Services Department with consistently high quality analytical laboratory and Source Control 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 Regulatory Compliance Department supports NapaSan's goals in the Strategic Plan through its support of the Plant Operations, Plant Maintenance, and Engineering Departments, and the Community Outreach & 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.

### Related Department Objectives

- Implement new Environmental Laboratory Accreditation Program (ELAP) certification requirements.
- Continue to implement a successful and effective Pretreatment Program
- Continue development and implementation of a Method Detection Limit program.
- Continue to characterize NapaSan's collection system raw waste stream.
- 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.

#### Number of regulatory analyses processed

<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
4,644	5,030	4,670	2,699	2,600	2,500

#### Number of Process Control analyses processed

<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
14,155	15,259	12,827	12,138	12,500	12,000

#### Number of special request analyses processed

<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
94	196	1,885	829	1,200	1,200

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

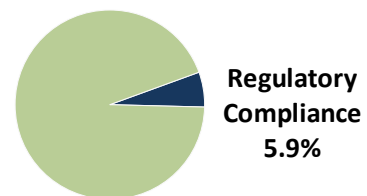
<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
4,355	5,380	2,434	2,457	2,500	2,500

***Changes in Service Levels***

- FY 17/18 budget removes \$10,850 for temporary assistance in the lab.
- FY 17/18 budget removes \$6,500 in one-time costs for LIMS software setup.
- FY 17/18 budget includes expenses related to new ELAP certification requirements, including \$1,100 for additional certification fees, but also decreased chemicals (\$3,500) based on a change in method.
- FY 17/18 budget includes \$4,000 for an upgraded temperature data logger system.



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

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

	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	\$ 661,638	\$ 527,956	\$ 724,050	\$ 707,540	\$ 736,500	1.7%
Services & Supplies	\$ 144,462	\$ 178,400	\$ 188,750	\$ 196,754	\$ 181,050	(4.1%)
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 806,100</b>	<b>\$ 706,356</b>	<b>\$ 912,800</b>	<b>\$ 904,294</b>	<b>\$ 917,550</b>	<b>0.5%</b>

**Position Authorizations**

Position Series	FY 14/15	FY 15/16	FY 16/17	FY 17/18
Regulatory Compliance Manager	-	-	1	1
Lab Supervisor	1	1	-	-
Lab Technician I/II	3	3	3	3
<b>Totals</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>

## Community Outreach & Pollution Prevention

### Description

The Community Outreach & Pollution Prevention Program is a cross-departmental program designed to ensure that NapaSan communicates transparently with ratepayers and stakeholders, and acts proactively to disseminate its pollution prevention message. This is done through school programs, community events and treatment plant tours.

The program also works to ensure that discharges to the collection system and treatment plant are in compliance with NapaSan's Sewer Use Ordinance and will not pose a hazard to the public, NapaSan employees or NapaSan facilities and treatment processes.

NapaSan'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.

### Link to District Goals in Strategic Plan

This program supports the Strategic Plan, specifically “**Goal Three: Operational Optimization**” in the outreach to develop alternative methods for treating winery waste (**Objective 3A**) and “**Goal Five: Community Outreach and Communication**” in the development of proactive communication methods and practices (**Objective 5A**) and the completion of Communications Plan goals and objectives (**Objective 5B**). The program also contributes toward **Goal Six: Resource Recovery, Objective 6E** to improve recycled water quality through its efforts in pollution prevention.

### 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)*

2013	2014	2015	2016	2017	2018
100%	100%	100%	100%	100%	100%

### Lateral Overflows or Backups Due to FOG

*(goal is zero)*

2013	2014	2015	2016	2017	2018
6	2	1	1	0	0

### Main Line Sanitary Sewer Overflows Due to FOG

*(goal is zero)*

2013	2014	2015	2016	2017	2018
1	3	1	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

2013	2014	2015	2016	2017	2018
17	31	14	44	30	30

### Pounds of Unwanted Pharmaceuticals Diverted

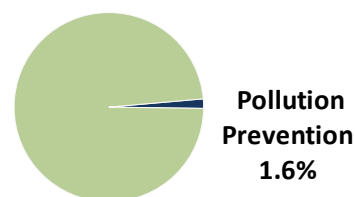
2013	2014	2015	2016	2017	2018
3,464	2,910	3,126	3,838	3,000	3,000

### Related Department Objectives

- Implement the Communications Plan and meet the identified annual goals
- Partner with local partners 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.
- Continue monitoring, sampling, reporting, and billing for all categorical dischargers.

***Changes in Service Levels***

- FY 17/18 budget removes \$32,000 for the development of the Communications Plan.
- FY 17/18 budget removes \$8,450 in Outreach materials, primarily for the video development project.
- FY 17/18 budget includes \$15,000 to develop and implement marketing messages on NapaSan vehicles.

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

	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	\$ 17,611	\$ 84,433	\$ 135,920	\$ 134,870	\$ 132,500	(2.5%)
Services & Supplies	\$ 63,877	\$ 111,666	\$ 148,300	\$ 123,184	\$ 116,850	(21.2%)
Other	-	-	-	-	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 81,488</b>	<b>\$ 196,099</b>	<b>\$ 284,220</b>	<b>\$ 258,054</b>	<b>\$ 249,350</b>	<b>(12.3%)</b>

**Position Authorizations**

Position Series	FY 14/15	FY 15/16	FY 16/17	FY 17/18
Pollution Prevention and Outreach Specialist	-	1	1	1
<b>Totals</b>	<b>0</b>	<b>1</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 NapaSan memberships in organizations and associations, liability insurance, refunds of sewer service charges, debt service payments, and interfund transfers.

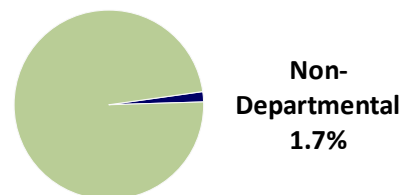
### Changes in Service Levels

- There is an increase in the FY 2017/18 budget of \$11,950 for liability insurance premiums.



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

### Percent of Operating Budget



### Proposed Budget

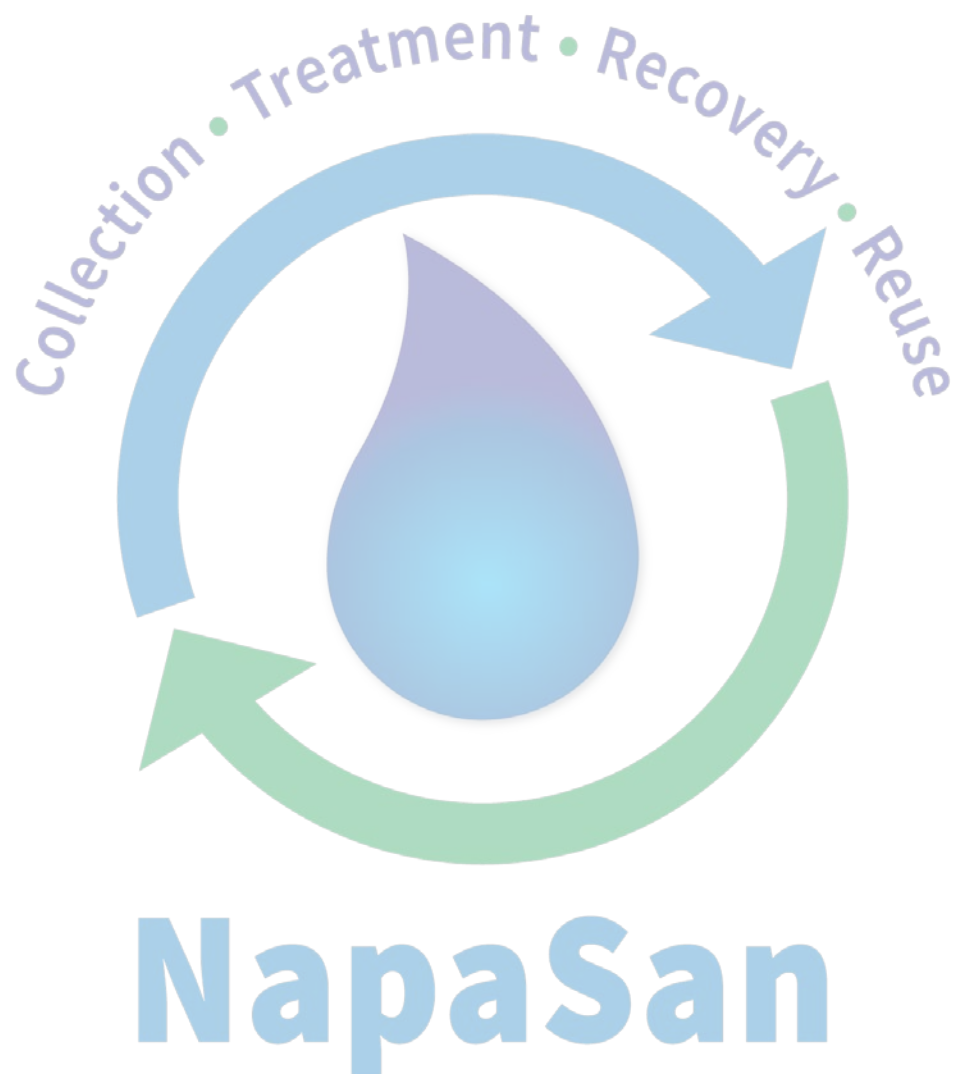
	Actual FY 14/15	Actual FY 15/16	Adjusted FY 16/17	Estimated FY 16/17	Proposed FY 17/18	Percent Change
Salaries & Benefits	-	-	-	-	-	-
Services & Supplies	\$ 239,785	\$ 239,951	\$ 256,600	\$ 236,807	\$ 268,300	4.6%
<b>Total Operating Expenditures</b>	<b>\$ 239,785</b>	<b>\$ 239,951</b>	<b>\$ 256,600</b>	<b>\$ 236,807</b>	<b>\$ 268,300</b>	<b>4.6%</b>
Debt Service, Transfers and Taxes	\$ 11,437,960	\$ 12,447,473	\$ 13,673,050	\$ 6,998,050	\$ 13,677,450	0.0%
<b>TOTAL EXPENDITURES</b>	<b>\$ 11,677,745</b>	<b>\$ 12,687,424</b>	<b>\$ 13,929,650</b>	<b>\$ 7,234,857</b>	<b>\$ 13,945,750</b>	<b>0.1%</b>

## Capital Improvement Plan



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

This page intentionally left blank.



## 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 NapaSan 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, NapaSan 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*

NapaSan maintains a fleet of vehicles used solely for purposes related to the direct maintenance and operations of NapaSan. 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 NapaSan has adequately planned for the replacement costs associated with the vehicle.

Every year, a team of NapaSan staff reviews the list of vehicles owned by NapaSan 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 NapaSan Board of Directors for approval, in accordance with procurement policy.

The replacement of fleet vehicles represents almost \$5.2 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 aeration basin panels were replaced in 2017.*



## ***Sources of Capital Expenditure Funding***

There are several sources of funding for capital projects. NapaSan collects capacity charges on new development to pay for its share of expanding the collection and treatment systems. NapaSan 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***

NapaSan imposes a capacity charge on new development (see the Budget Summary section, page 31, for more information on this revenue source).

In August 2009, NapaSan 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 Actual**

Beginning Deficit	(\$26,585,149)
Revenues	3,252,412
Expansion Projects	1,832,349

#### **FY 2016/17 Estimated**

Beginning Deficit	(\$26,165,086)
Revenues	3,804,000
Expansion Projects	1,118,448

#### **FY 2017/18 Budget**

Beginning Deficit	(\$23,479,534)
Revenues	3,630,000
Expansion Projects	1,938,086
Ending Deficit	(21,787,620)

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 2015/16 can be found in Appendix F of this budget document.

### ***Changes from Prior CIP***

The CIP was amended by the Board after initial adoption only once during FY 2016/17, to carry forward the budgets of unfinished projects from the prior year. Other changes were made on the General Manager's approval, moving budget from one



project to another. 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:

- Combined the ACP CIPP Lining Project #2 (CIP 17701), Infiltration Rehab – SSMH and Pipelines project (CIP 17704) and the Ranch De Los Robles Sewer Rehab project (CIP 17706) into the Summer 2017 Sewer Rehabilitation project (CIP 17708).
- Established a new Upper Lateral Retrofit program of I&I Reduction in the Homewood/Westwood area (CIP 17734) with a budget of \$200,000.
- In several projects, either reduced or increased the project budget to meet actual bid or costs.

The net impact of the adjustments to the CIP was neutral; there was no increase or decrease in the total capital budget for FY 2016/17.

### **Summary of FY 2017/18 Capital Projects**

The following is a summary of FY 2017/18 capital projects. **Dollar amounts noted are the amount budgeted for FY 2017/18, 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 significant and 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 Trunk Interceptor project, the Summer 2017 Sewer Rehabilitation project, the Summer 2018 Sewer Rehabilitation project, and Soscol Avenue (8<sup>th</sup> to Oil Company Road) rehabilitation project. This category also includes an upgrade/replacement of the collection system asset management software. Collection system projects for the fiscal year total \$16,363,200.

**Collection System Equipment** – The Collection Department will be replacing one of its locatable mini-camera units, purchasing four “Smart” manhole covers and replacing camera equipment in the CCTV truck. Total equipment cost is \$306,100.

**Lift Stations** – Lift stations are pump stations within the sewer collection system. In FY 2017/18, there are no projects in this category.

**Treatment** – FY 2017/18 includes the first year of a three year project to design and construct a mechanical dredge in Pond 1. Capital costs in this area total \$400,000 for this fiscal year.

**Treatment – Equipment** – These projects include a number of equipment replacements, most notable of which are projects to replace and improve the plant water (“3W”) system, repair the primary influent pipe in the east gallery, continue the replacement of valve actuators, rebuild one of the blowers, and the replacement of the boiler burner with a dual fuel boiler burner. The total FY 2017/18 expenditure is \$1,500,000.

**Treatment Plant – Structures** – There are four projects associated with the structures at the treatment plant. They include the beginning of the headworks equipment replacement project, an HVAC and lab ventilation project for the Operations buildings, a roof replacement on the solids handling and digester tower buildings, and structural repair to the digester tower for damage caused by the August 2014 earthquake. The total FY 2017/18 expenditure is \$1,282,900.

**SCADA** – SCADA is the hardware and software that is used to operate the treatment plant. In FY 2017/18, there is a network monitoring project scheduled to begin, with \$50,000 budgeted for FY 2017/18.

**Recycling-District** – This section includes projects and equipment necessary for the NapaSan to maintain its fields, distribute recycled water, and

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

	<b><u>FY 2017/18</u></b>	<b><u>10-Year CIP</u></b>
Collection System	\$16,363,200	\$92,181,100
Collection System Equipment	306,100	3,379,800
Lift Stations	0	3,448,200
Treatment	400,000	5,580,400
Treatment Equipment	1,500,000	20,082,100
Treatment Structures	1,282,900	28,812,000
SCADA	50,000	1,117,200
Recycling-District	1,906,200	4,893,900
Recycling-Expansion	2,950,000	11,644,600
Other	259,900	5,075,200
<b>Total</b>	<b>\$25,018,300</b>	<b>\$176,214,500</b>

land apply biosolids. FY 2017/18 includes lining the existing two recycled water reservoirs to increase their holding capacity, rehabilitation of the flow meter on the Jameson line, and construction of a recycled water truck fill station on the Coombsville line. The total FY 2017/18 expenditure is \$1,906,200.

**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 and the extension of the recycled water distribution pipeline in the MST along Coombsville Road. Total FY 2017/18 budget is \$2,950,000.

**Other** – Development technical support is the capitalization of staff time spent reviewing the plans and inspections associated with contributed capital. Other expenses in the category include installing a box culvert on the Fugundes property for emergency access to the plant during flooding events, and the purchase of a handheld GPS unit. Total for FY 2017/18 is \$259,900.

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

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

NapaSan has also partnered with Napa County to construct the extension of the MST recycled water pipeline along Coombsville Road, and to construct a truck fill station along that same alignment. The project is being funded by Napa County from Community Facilities District (CFD) proceeds, a “Green Projects Reserve” grant from the US Environmental Protection Agency (through the State Water Resources Control Board) and from a grant from the US Bureau of Reclamation. These funding sources are covering all of NapaSan’s costs for these two projects.

### ***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. As NapaSan further develops its Asset Management Program, these placeholders will be replaced with actual projects.

There are a number of projects in this CIP where the start dates have been pushed out to begin in later years, as compared to last year’s CIP. There were several reasons for changing the dates:

- Deferred beginning the Collection System Master Plan by one year, to allow for the Browns Valley Trunk project to be constructed and I&I flow monitoring results evaluated prior to completing the Master Plan.
- Deferred beginning the Treatment Plant Master Plan until after completion of the Collection System Master Plan.
- Deferred the replacement of some Plant and Lab equipment based on condition assessment of the equipment.
- Construction of the Second Digester and Aeration Basin Expansion was deferred a year, to align with the 1 year deferral of the Treatment Plant Master Plan.

Staff believes that these delays will not result in deferred maintenance scenarios, nor will the 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 2017/18 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 2017/18 capital projects will have a significant impact on the current and future NapaSan operations and maintenance budgets.

CIP 18702 – Collection System Asset Management Software project in the CIP includes only the costs to procure the software. Additional costs are included in the operations budget for consultants to assist NapaSan staff in planning for the acquisition and in data migration to the new system. The impact to the FY 2017/18 operating budget is \$300,000, with future costs associated with the ongoing maintenance agreement for the software.

The Rehabilitation projects and I&I projects in the Collection System 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 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 Pond 1 Dredge (CIP 13745) will contribute to increased biosolids that need to be dewatered, trucked to Jameson Ranch, and incorporated into the land. The amount will not be significant, as the materials will be incorporated into existing processes. Impact to the operating budget is predominantly from increased polymer for dewatering, and in electricity to operate the dredge. Estimated operating budget impact is \$8,000 annually.

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 expansion of the MST recycled water pipeline (CIP #17734) 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 will need to recognize an additional \$10,000 in treatment costs, although these costs will be offset by increased recycled water sales revenue of approximately \$14,000.

#### Net Impacts of Capital Projects on Operating Budget

<b>CIP #</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>
18702	300,000	25,000	25,000
13745	0	0	8,000
17734	0	(4,000)	(4,000)
<b>Total</b>	<b>\$300,000</b>	<b>\$21,000</b>	<b>\$29,000</b>



*New recycled water filter under construction in 2014*

**FY 2017/18**  
**CIP Project Descriptions**

**COLLECTION SYSTEM**

<b>13701 Mainline Sewer Rehabilitation</b>		<b>FY 2017/18:</b>	<b>\$91,800</b>
<i>Ongoing program to conduct spot repairs to damaged sewer lines using NapaSan crews or an outside contractor, extending the useful life of these assets.</i>			
<b>13702 Manhole Raising / Rehabilitation</b>		<b>FY 2017/18:</b>	<b>\$206,000</b>
<i>Ongoing program to fund the raising of manhole rims in streets that have been resurfaced. NapaSan replaces or rehabilitates damaged manholes in this program.</i>			
<b>13703 Lateral Replacement / Rehabilitation</b>		<b>FY 2017/18:</b>	<b>\$74,500</b>
<i>Ongoing program to rehabilitate street laterals as required using NapaSan crews or an outside contractor.</i>			
<b>13704 Cleanout Installation / Rehabilitation</b>		<b>FY 2017/18:</b>	<b>\$90,000</b>
<i>Ongoing program using NapaSan crews to install lateral clean-outs at the property line where one does not exist.</i>			
<b>13705 Inflow &amp; Infiltration (I&amp;I) Reduction Program</b>		<b>FY 2017/18:</b>	<b>\$207,000</b>
<i>This program conducts flow monitoring and field reconnaissance for I&amp;I reduction projects. A consultant and NapaSan staff will analyze the effectiveness of the I&amp;I reduction projects.</i>			
<b>18701 I&amp;I Smoke Testing</b>	<b>Project Total: \$100,000</b>	<b>FY 2017/18:</b>	<b>\$100,000</b>
<i>Smoke testing is used to determine whether there is inflow from roof leaders, area drains, or other sources in areas with high inflow and infiltration.</i>			
<b>18702 Collection System Asset Management Software</b>	<b>Project Total: \$350,000</b>	<b>FY 2017/18:</b>	<b>\$350,000</b>
<i>This replaces the existing asset management software in the collection system that is inadequate to meet the current data-driven decision-making needs for sewer system asset management.</i>			
<b>17702 Upper Lateral Rehabilitation - Basin L (Pilot #2)</b>	<b>Project Total: \$160,300</b>	<b>FY 2017/18:</b>	<b>\$155,300</b>
<i>This pilot project will replace residential private sewer lateral pipes in a portion of Basin L.</i>			
<b>18703 Upper Lateral Rehabilitation - Basin L (Pilot #3)</b>	<b>Project Total: \$165,700</b>	<b>FY 2017/18:</b>	<b>\$5,000</b>
<i>This pilot project will replace residential private sewer lateral pipes in a portion of Basin L.</i>			
<b>18704 Manhole Rehab - Nipak - Basin H</b>	<b>Project Total: \$284,600</b>	<b>FY 2017/18:</b>	<b>\$284,600</b>
<i>The project will rehabilitate existing manholes to decrease groundwater infiltration into the Collection System.</i>			
<b>17705 Soscol Ave (8th to Oil Company Road)</b>	<b>Project Total: \$1,450,000</b>	<b>FY 2017/18:</b>	<b>\$950,000</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>14703 Browns Valley Truck Interceptor</b>	<b>Project Total: \$17,038,756</b>	<b>FY 2017/18:</b>	<b>\$9,237,000</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 and to decrease the potential for overflows.</i>			
<b>17708 Summer 2017 Sewer Rehabilitation</b>	<b>Project Total: \$5,322,000</b>	<b>FY 2017/18:</b>	<b>\$2,942,000</b>
<i>This Collection System rehabilitation project will be designed and constructed to reduce I&amp;I in Basin G (Browns Valley Area) and other high priority areas.</i>			
<b>18705 Summer 2018 Sewer Rehabilitation</b>	<b>Project Total: \$4,250,000</b>	<b>FY 2017/18:</b>	<b>\$1,650,000</b>
<i>This Collection System rehabilitation project will be designed and constructed to reduce I&amp;I in various high priority areas.</i>			

**FY 2017/18**  
**CIP Project Descriptions**

<b>18706</b>	<b>Summer 2019 Sewer Rehabilitation</b>	<b>Project Total:</b>	<b>\$4,779,200</b>	<b>FY 2017/18:</b>	<b>\$20,000</b>
<i>This Collection System rehabilitation project will be designed and constructed to reduce I&amp;I in various high priority areas.</i>					

**COLLECTION SYSTEM EQUIPMENT**

<b>18707</b>	<b>Locatable Mini-camera #2 Replacement</b>	<b>Project Total:</b>	<b>\$11,100</b>	<b>FY 2017/18:</b>	<b>\$11,100</b>
<i>This project will replace this equipment with consistent mechanical problems.</i>					

<b>18708</b>	<b>Manhole Smart Covers (4)</b>	<b>Project Total:</b>	<b>\$25,000</b>	<b>FY 2017/18:</b>	<b>\$25,000</b>
<i>This project will purchase level sensing equipment for installation in collection system manholes to monitor high flows during wet-weather conditions.</i>					

<b>18709</b>	<b>Vehicle 504 - TV Truck</b>	<b>Project Total:</b>	<b>\$270,000</b>	<b>FY 2017/18:</b>	<b>\$270,000</b>
<i>This project will purchase new CCTV equipment for the existing TV truck.</i>					

**LIFT STATIONS**

*There are no Lift Station projects in FY 2017/18.*

**TREATMENT**

<b>13745</b>	<b>Pond 1 Dredge</b>	<b>Project Total:</b>	<b>\$3,400,000</b>	<b>FY 2017/18:</b>	<b>\$400,000</b>
<i>This project will install a dredge in the Pond 1 Oxidation Pond, to remove solids after treatment in the pond, for incorporation into the fields at Jameson.</i>					

**TREATMENT - EQUIPMENT**

<b>13735</b>	<b>Duel Fuel Boiler Burner</b>	<b>Project Total:</b>	<b>\$155,300</b>	<b>FY 2017/18:</b>	<b>\$155,300</b>
<i>Replace the existing boiler to enable processing of digester gas and natural gas. The existing boiler does not meet existing air regulations.</i>					

<b>13741</b>	<b>Secondary PS Pump Rebuild (3)</b>	<b>Project Total:</b>	<b>\$118,500</b>	<b>FY 2017/18:</b>	<b>\$38,800</b>
<i>This equipment is at the end of its useful life and needs to be replaced.</i>					

<b>17713</b>	<b>Secondary PS VFD Replacement (3)</b>	<b>Project Total:</b>	<b>\$166,400</b>	<b>FY 2017/18:</b>	<b>\$55,400</b>
<i>This equipment is at the end of its useful life and needs to be replaced.</i>					

<b>13743</b>	<b>Residual Analyzers (Deox) Replacements</b>	<b>Project Total:</b>	<b>\$25,000</b>	<b>FY 2017/18:</b>	<b>\$5,000</b>
<i>This equipment is at the end of its useful life and needs to be replaced.</i>					

<b>18710</b>	<b>3W Pipeline - Soscol PS to Plant - Rehab</b>	<b>Project Total:</b>	<b>\$33,300</b>	<b>FY 2017/18:</b>	<b>\$33,300</b>
<i>Rehabilitate existing pipeline between recycled water reservoirs and plant 3W system to allow tertiary treated water for plant utility water use This project adds redundancy to the 3W system.</i>					

<b>18711</b>	<b>3W Strainer</b>	<b>Project Total:</b>	<b>\$83,200</b>	<b>FY 2017/18:</b>	<b>\$83,200</b>
<i>Add strainer to the 3W system to protect pumps that use 3W for seal water.</i>					

<b>18712</b>	<b>3W VFD</b>	<b>Project Total:</b>	<b>\$62,100</b>	<b>FY 2017/18:</b>	<b>\$62,100</b>
<i>Install a new VFD for the existing second 3W pump at the treatment plant. This project adds redundancy to the 3W system.</i>					



**FY 2017/18**  
**CIP Project Descriptions**

<b>17714</b>	<b>WWTP MP - 3W System Improvements</b> <i>Replace valves and address corrosion in the 3W system at the treatment plant.</i>	<b>Project Total:</b>	<b>\$500,000</b>	<b>FY 2017/18:</b>	<b>\$440,000</b>
<b>17715</b>	<b>Turbidimeters (7) Tertiary Replacements</b> <i>This equipment is at the end of its useful life and needs to be replaced.</i>	<b>Project Total:</b>	<b>\$43,000</b>	<b>FY 2017/18:</b>	<b>\$20,000</b>
<b>18713</b>	<b>Primary Influent Pipe - East Gallery</b> <i>Replace or rehabilitate a section of pipe within the treatment plant that is corroded and leaking.</i>	<b>Project Total:</b>	<b>\$250,000</b>	<b>FY 2017/18:</b>	<b>\$250,000</b>
<b>18714</b>	<b>Lab - Distillation System</b> <i>Purchase new lab equipment to provide access to additional information.</i>	<b>Project Total:</b>	<b>\$6,000</b>	<b>FY 2017/18:</b>	<b>\$6,000</b>
<b>18715</b>	<b>Lab - Muffle Furnace Replacement</b> <i>Replace existing equipment in the lab that is at the end of its useful life.</i>	<b>Project Total:</b>	<b>\$15,000</b>	<b>FY 2017/18:</b>	<b>\$15,000</b>
<b>18716</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>\$91,800</b>	<b>FY 2017/18:</b>	<b>\$91,800</b>
<b>18717</b>	<b>Main - Septage Card Reader Replacement</b> <i>Replace the existing card reader for the septage receiving station.</i>	<b>Project Total:</b>	<b>\$21,400</b>	<b>FY 2017/18:</b>	<b>\$21,400</b>
<b>18718</b>	<b>Main - Secondary Clarifier Mech/Structure Rehab</b> <i>Evaluate condition of existing secondary clarifiers. If necessary, in the future years, repair or rehabilitate existing steel and/or concrete components.</i>	<b>Project Total:</b>	<b>\$400,000</b>	<b>FY 2017/18:</b>	<b>\$50,000</b>
<b>18719</b>	<b>Main - Filter Flow Control - Rotork Valves</b> <i>Add new valves to the filter structure to control filter influent.</i>	<b>Project Total:</b>	<b>\$46,600</b>	<b>FY 2017/18:</b>	<b>\$46,600</b>
<b>18720</b>	<b>Main - Neuros Blowers Rebuilt</b> <i>Hire a contractor to rebuild the existing blowers as part of scheduled maintenance.</i>	<b>Project Total:</b>	<b>\$126,400</b>	<b>FY 2017/18:</b>	<b>\$62,100</b>
<b>18721</b>	<b>Main - CCB #3 Effluent Gate</b> <i>Repair or replace existing gate.</i>	<b>Project Total:</b>	<b>\$5,000</b>	<b>FY 2017/18:</b>	<b>\$5,000</b>
<b>18722</b>	<b>Main - FOG Station Water Heater</b> <i>Install a larger water heater at the FOG station for increased maintenance of the FOG system.</i>	<b>Project Total:</b>	<b>\$5,000</b>	<b>FY 2017/18:</b>	<b>\$5,000</b>
<b>18723</b>	<b>Main - Pond 4 Pump Station - Repair Leak</b> <i>Repair a discharge pipe leak below the pump station.</i>	<b>Project Total:</b>	<b>\$24,000</b>	<b>FY 2017/18:</b>	<b>\$24,000</b>
<b>18724</b>	<b>Main - Filter 1-4 Air Valve</b> <i>Provide isolation valves to air lifts at filter cells 1-4 to provide individual air control to each filter cell.</i>	<b>Project Total:</b>	<b>\$10,000</b>	<b>FY 2017/18:</b>	<b>\$10,000</b>
<b>18725</b>	<b>Main - Belt Press Hydraulic Actuator Replacement</b> <i>Replace existing actuators that are at the end of their useful lives.</i>	<b>Project Total:</b>	<b>\$20,000</b>	<b>FY 2017/18:</b>	<b>\$20,000</b>

**TREATMENT - STRUCTURES**

<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>\$2,060,000</b>	<b>FY 2017/18:</b>	<b>\$250,000</b>
--------------	--	-----------------------	--------------------	--------------------	------------------

**FY 2017/18**  
**CIP Project Descriptions**

**18726 OPS Building HVAC and Lab Ventilation**                      **Project Total: \$500,000**                      **FY 2017/18: \$500,000**  
*Fixes various deficiencies in the HVAC and electrical systems of building and resolves a ventilation safety issue in the lab.*

**18727 Earthquake Repair - Digester Tower**                      **Project Total: \$300,000**                      **FY 2017/18: \$300,000**  
*Repairs damage to the digester bridge off the digester tower cause by the 2014 earthquake.*

**18728 Roof Replacement-Solids Handling/Digester Tower**                      **Project Total: \$232,900**                      **FY 2017/18: \$232,900**  
*Replace existing roof that is leaking and at the end of its useful life.*

**SCADA**

**18729 SCADA MP Project #1 - Network Monitoring**                      **Project Total: \$210,700**                      **FY 2017/18: \$50,000**  
*This project increases the network monitoring of the SCADA system.*

**RECYCLING - DISTRICT**

**16716 Line Recycled Water Reservoirs**                      **Project Total: \$2,146,600**                      **FY 2017/18: \$1,800,000**  
*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%.*

**18730 Jameson 24" Flow Meter Rehab**                      **Project Total: \$6,200**                      **FY 2017/18: \$6,200**  
*Rehabilitate/replace existing master recycled water flow meter serving Jameson Ranch, Eagle Vines, Chardonnay and Kirkland Ranch.*

**18731 Coombsville Truck Fill Station**                      **Project Total: \$100,000**                      **FY 2017/18: \$100,000**  
*Install a recycled water truck fill station in the MST area off of Coombsville Road.*

**RECYCLING - EXPANSION**

**13727 North Bay Water Reuse Project**                      **FY 2017/18: \$150,000**  
*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.*

**16722 MST RW Pipeline Extension**                      **Project Total: \$3,999,300**                      **FY 2017/18: \$2,800,000**  
*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.*

**OTHER**

**13729 Development Technical Support**                      **FY 2017/18: \$239,900**  
*District staff reviews and comments on development plans involving sewer and recycled water facilities and contributed capital.*

**18732 Box Culvert - Fugundes Emergency Access**                      **Project Total: \$105,000**                      **FY 2017/18: \$5,000**  
*Reconstruct a culvert on the Fugundes property, near the airport, to provide emergency access to the treatment plant.*

**18733 GPS Handheld**                      **Project Total: \$15,000**                      **FY 2017/18: \$15,000**  
*Purchase equipment for the purpose of documentation of as-built conditions of new assets.*

**FY 2017/18 Capital Project Schedule**  
**Allocation of Capacity Charges**

#	Name	FY 17/18	% 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	91,800		100.0%	-	91,800
13702	Manhole Raising/Rehab	206,000		100.0%	-	206,000
13703	Lateral Replacement/Rehab	74,500		100.0%	-	74,500
13704	Cleanouts Installation/Rehab	90,000		100.0%	-	90,000
13705	I&I Reduction Program	207,000	39.4%	60.6%	81,558	125,442
18701	I&I Smoke Testing	100,000	39.4%	60.6%	39,400	60,600
18702	Collection System Asset Management Software	350,000		100.0%	-	350,000
17702	Upper Lateral Rehabilitation - Basin L (Pilot #2)	155,300		100.0%	-	155,300
18703	Upper Lateral Rehabilitation - Basin L (Pilot #3)	5,000		100.0%	-	5,000
18704	Manhole Rehab - Nipak - Basin H	284,600		100.0%	-	284,600
17705	Soscol Ave (8th to Oil Company Road)	950,000		100.0%	-	950,000
14703	Browns Valley Rd & First St	9,237,000		100.0%	-	9,237,000
17708	Summer 2017 Sewer Rehabilitation/I&I	2,942,000	39.4%	60.6%	1,159,148	1,782,852
18705	Summer 2018 Sewer I&I	1,650,000	39.4%	60.6%	650,100	999,900
18706	Summer 2019 Sewer I&I	20,000	39.4%	60.6%	7,880	12,120
<b><u>COLLECTION SYSTEM - EQUIPMENT</u></b>						
18707	Locatable Mini-Camera #2 Replacement	11,100		100.0%	-	11,100
18708	Manhole - Smart Covers	25,000		100.0%	-	25,000
18709	Vehicle 504 - TV Truck	270,000		100.0%	-	270,000
<b><u>TREATMENT</u></b>						
13745	Pond 1 Dredge	400,000		100.0%	-	400,000
<b><u>TREATMENT - EQUIPMENT</u></b>						
13735	Dual Fuel Boiler Burner	155,300		100.0%	-	155,300
13741	Secondary PS Pump Rebuild (3)	38,800		100.0%	-	38,800
17713	Secondary PS VFD Replacement (3)	55,400		100.0%	-	55,400
13743	Residual Analyzers (Deox) Replacements	5,000		100.0%	-	5,000
18710	3W Pipeline-Soscol PS to Plant-Rehab	33,300		100.0%	-	33,300
18711	3W Strainer	83,200		100.0%	-	83,200
18712	3W VFD	62,100		100.0%	-	62,100
17714	WWTP MP - 3W System Improvements	440,000		100.0%	-	440,000
17715	Turbidimeters (7) Tertiary Replacements	20,000		100.0%	-	20,000
18713	Primary Influent Pipe - East Gallery	250,000		100.0%	-	250,000
18714	Lab - Distillation System	6,000		100.0%	-	6,000
18715	Lab - Muffle Furnace - Replacement	15,000		100.0%	-	15,000
18716	Main - Rotork Actuator Replacment	91,800		100.0%	-	91,800
18717	Main - Septage Card Reader Replacement	21,400		100.0%	-	21,400
18718	Main - Secondary Clarifier Mech/Struct Rehab	50,000		100.0%	-	50,000
18719	Main - Filter Flow Control - Rotork Valvues	46,600		100.0%	-	46,600
18720	Main - Neuros Blowers Rebuild	62,100		100.0%	-	62,100
18721	Main - CCB #3 Effluent Gate	5,000		100.0%	-	5,000
18722	Main - FOG Station Water Heater	5,000		100.0%	-	5,000
18723	Main - Pond 4 PS - Repair Leak	24,000		100.0%	-	24,000
18724	Main - Filter 1-4 Air Valve	10,000		100.0%	-	10,000
18725	Main - Belt Press Hydraulic Actuator Replace	20,000		100.0%	-	20,000
<b><u>TREATMENT - STRUCTURES</u></b>						
17726	Headworks Equipment Rehab/Replacment	250,000		100.0%	-	250,000
18726	OPS Building HVAC and Lab Ventilation	500,000		100.0%	-	500,000
18727	Earthquake - Digester Tower Repair	300,000		100.0%	-	300,000
18728	Roof Replacement - Solids Handling/Digester Tower	232,900		100.0%	-	232,900
<b><u>SCADA</u></b>						
18729	SCADA MP Project #1 - Network Monitoring	50,000		100.0%	-	50,000
<b><u>RECYCLING - DISTRICT</u></b>						
16716	Line Recycled Water Reservoir	1,800,000		100.0%	-	1,800,000
18730	Jameson 24" Flow Meter Rehab	6,200		100.0%	-	6,200
18731	Coombsville Truck Fill Station	100,000		100.0%	-	100,000
<b><u>RECYCLING - EXPANSION</u></b>						
13727	North Bay Wate Reuse Project	150,000		100.0%	-	150,000
17734	MST RW Pipeline Expansion	2,800,000		100.0%	-	2,800,000
<b><u>OTHER</u></b>						
13729	Development Technical Support	239,900		100.0%	-	239,900
18732	Box Culvert - Fugundes Emergency Access	5,000		100.0%	-	5,000
18733	GPS Handheld	15,000		100.0%	-	15,000
<b>TOTAL</b>		<b>25,018,300</b>			<b>1,938,086</b>	<b>23,080,214</b>

#	Name	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	FY 26/27 Projected
<b>COLLECTION SYSTEM</b>											
13701	Mainline Sewer Rehab	91,800	95,000	98,300	101,800	105,300	109,000	112,900	116,800	120,900	125,100
13702	Manhole Raising / Rehab	206,000	428,500	443,500	459,000	475,100	491,700	508,900	526,700	545,200	564,200
13703	Lateral Replacement / Rehab	74,500	77,100	79,800	82,600	85,500	88,500	91,600	94,800	98,100	101,600
13704	Cleanout Installation / Rehab	90,000	93,200	96,500	99,800	103,300	106,900	110,700	114,600	118,600	122,700
13705	I&I Monitoring Program	207,000	214,200	221,700	229,500	237,500	245,900	254,500	263,400	272,600	282,100
18701	I&I Smoke Testing	100,000	-	-	-	-	-	-	-	-	-
	Collection System Master Plan	-	-	890,800	-	-	-	-	-	-	-
18702	Collection System Asset Management Software	350,000	-	-	-	-	-	-	-	-	-
17701	ACP CIPP Lining Project #2	-	350,000	-	-	-	-	-	-	-	-
17702	Upper Lateral Rehab - Basin L (Pilot) #2	155,300	-	-	-	-	-	-	-	-	-
18703	Upper Lateral Rehab - Basin L (Pilot) #3	5,000	160,700	-	-	-	-	-	-	-	-
18704	Manhole Rehab - Nipak - Basin H	284,600	-	-	-	-	-	-	-	-	-
17705	Soscol Ave (8th to Oil Company Rd)	950,000	-	-	-	-	-	-	-	-	-
14703	Browns Valley Trunk	9,237,000	2,049,000	-	-	-	-	-	-	-	-
17708	Summer 2017 Sewer Rehabilitation	2,942,000	-	-	-	-	-	-	-	-	-
18705	Sewer System Inflow/Infiltration 2018	1,650,000	2,600,000	-	-	-	-	-	-	-	-
	Sewer System Rehab/Replacement 2019	-	-	1,053,300	-	-	-	-	-	-	-
18706	Sewer System Inflow/Infiltration 2019	20,000	1,821,100	1,884,800	-	-	-	-	-	-	-
	Sewer System Rehab/Replacement 2020	-	-	1,053,300	1,090,100	-	-	-	-	-	-
	Sewer System Inflow/Infiltration 2020	-	20,000	1,884,800	1,950,800	-	-	-	-	-	-
	Sewer System Rehab/Replacement 2021	-	-	-	1,090,100	1,128,300	-	-	-	-	-
	Sewer System Inflow/Infiltration 2021	-	-	-	1,950,800	2,019,100	-	-	-	-	-
	Sewer System Rehab/Replacement 2022	-	-	20,000	-	1,128,300	1,167,800	-	-	-	-
	Sewer System Inflow/Infiltration 2022	-	-	-	20,000	2,019,100	2,089,700	-	-	-	-
	Sewer System Rehab/Replacement 2023	-	-	-	-	-	1,167,800	1,208,700	-	-	-
	Sewer System Inflow/Infiltration 2023	-	-	-	-	20,000	2,089,700	2,162,900	-	-	-
	Sewer System Rehab/Replacement 2024	-	-	-	-	-	-	1,208,700	1,251,000	1,294,800	-
	Sewer System Inflow/Infiltration 2024	-	-	-	-	-	20,000	2,162,900	2,238,600	2,316,900	-
	Sewer System Rehab/Replacement 2025	-	-	-	-	-	-	20,000	2,238,600	2,294,800	1,340,100
	Sewer System Inflow/Infiltration 2025	-	-	-	-	-	-	-	20,000	2,316,900	2,398,000
	Sewer System Rehab/Replacement 2026	-	-	-	-	-	-	-	-	-	1,340,100
	Sewer System Inflow/Infiltration 2026	-	-	-	-	-	-	-	-	-	2,398,000
	Sewer System Rehab/Replacement 2027	-	-	-	-	-	-	-	-	-	1,340,100
	Sewer System Inflow/Infiltration 2027	-	-	-	-	-	-	-	-	20,000	2,398,000
	Trunk Project - Year 7	-	-	-	-	-	-	1,229,300	-	-	-
	Trunk Project - Year 8	-	-	-	-	-	-	-	1,272,300	-	-
	Trunk Project - Year 9	-	-	-	-	-	-	-	-	1,316,800	-
	Trunk Project - Year 10	-	-	-	-	-	-	-	-	-	1,362,900
<b>COLLECTION SYSTEM - EQUIPMENT</b>											
16706	Locatable Mini-Camera #1 Replacement	-	-	-	-	-	-	13,600	-	-	-
18707	Locatable Mini-Camera #2 Replacement	11,100	-	-	-	-	-	-	-	14,600	-
	Locatable Mini-Camera #3 Replacement	-	-	11,900	-	-	-	-	-	-	-
	Locatable Mini-Camera #4 Replacement	-	-	-	-	12,700	-	-	-	-	-
17709	Eel Replacement #1	-	-	-	-	-	-	-	7,100	-	-
	Eel Replacement #2	-	-	-	-	-	-	-	-	-	-
	Eel Replacement #3	-	-	5,900	-	-	-	-	-	-	-
	Eel Replacement #4	-	-	-	-	-	6,600	-	-	-	-
	Permaliner Picote - CIPP Lateral Repair Tool	-	20,000	-	-	-	-	-	-	7,300	-
18708	Manhole - Smart Covers (4)	25,000	-	-	-	-	-	-	-	-	-
13711	Vehicle 711 - Kubota	-	-	-	-	-	-	53,400	-	-	-
13712	Vehicle 173 - Plugup Truck - Secondary	-	-	-	-	-	-	-	81,800	-	-
	Vehicle 185 - Plugup Truck - Primary	-	-	-	-	-	-	-	-	84,700	-
	Vehicle 180 - Ford Ranger	-	35,400	-	-	-	-	-	-	-	-
	Vehicle 154 - Ford Ranger	-	-	-	-	-	-	-	43,500	-	-

#	Name	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	FY 26/27 Projected
18709	Vehicle 15 - Water Trailer	-	-	-	11,600	-	-	-	-	-	-
	Vehicle 166 - Ford F-350	-	-	-	-	29,700	-	-	-	-	-
	Vehicle 706 - 410 Backhoe	-	-	-	-	164,200	-	-	-	-	-
	Vehicle 175 - Hybrid Escape	-	-	25,500	-	-	-	-	-	-	-
	Vehicle 504 - TV Truck	270,000	-	-	-	-	-	614,600	-	-	-
	Vehicle 100 - Backhoe Trailer	-	-	-	25,300	-	-	-	-	-	-
	Vehicle 512 - Rodder	-	-	-	-	180,000	-	-	-	-	-
	Vehicle 18 - Cement Trailer	-	-	-	-	37,400	-	-	-	-	-
	Vehicle 16 - 18ft Trailer	-	9,400	-	-	-	-	-	-	-	-
	Vehicle 205 - Forklift	-	-	-	43,200	-	-	-	-	-	-
	Vehicle 179 - Mini-Dump	-	-	-	-	62,900	-	-	-	-	-
	Vehicle 182 - Mini-Dump	-	-	-	-	62,900	-	-	-	-	-
	Vehicle 514 - 10 Yard Dump	-	-	-	-	-	-	-	-	252,600	-
	Vehicle 528 - Mini-Vactor	-	-	-	-	-	-	566,600	-	-	-
	Vehicle 529 - Vactor	-	534,000	-	-	-	-	-	-	-	-
	Vehicle 183 - Repair Truck	-	-	-	-	-	55,300	-	-	-	-
<b>LIFT STATIONS</b>											
17711	West Napa PS - Rehab	-	1,300,000	-	-	-	-	-	-	-	-
	Main - Stonecrest Pump Rebuild	-	45,000	-	-	-	-	-	-	-	-
	Lift Station Equipment Renewal & Replacement	-	-	40,000	41,400	-	-	-	-	-	-
	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	-	-	-	-	-
	Lift Station Equipment Renewal & Replacement	-	-	-	-	42,800	-	-	-	-	-
	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	44,300	-	-	-	-
	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	-	459,000	475,100	491,700	-
	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	-	-	-	-	-
	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	-	-	-	-	508,900
<b>TREATMENT</b>											
13745	Pond 1 Dredge	400,000	2,000,000	1,000,000	-	-	-	-	-	-	-
	WWTP Master Plan	-	-	-	1,843,900	-	-	-	-	-	-
	Siloxane Filter - Venturi	-	-	221,700	-	-	-	-	-	-	-
	Headworks - Biofilter	-	-	-	114,800	-	-	-	-	-	-
<b>TREATMENT - EQUIPMENT</b>											
13735	Dual Fuel Boiler Burner	155,300	-	-	-	-	-	-	-	-	-
13741	Secondary PS Pump Rebuild (3)	38,800	-	-	-	-	-	-	-	-	-
17713	Secondary PS VFD Replacement (3)	55,400	57,400	-	-	-	-	-	-	-	-
13743	Residual Analyzers (Deox) Replacements	5,000	-	10,000	-	-	-	-	-	87,600	-
15707	DAFT Overflow Pumps (2) Cornell	-	11,500	11,900	-	-	-	-	-	-	-
18710	3W Pipeline - Soscot PS to Plant - Rehab	33,300	-	-	-	-	-	-	-	-	-
18711	3W Strainer	83,200	-	-	-	-	-	-	-	-	-
18712	3W VFD	62,100	-	-	-	-	-	-	-	-	-
17714	WWTP MP - 3W System Improvements	440,000	-	-	-	-	-	-	-	-	-
17715	Turbidimeters (7) Tertiary Replacements	20,000	-	-	-	-	-	-	-	-	-
	MLE Recirculation Pumps (2) - Nutrient Opt	-	229,500	-	-	-	-	-	-	-	-
	Portable Pumps 10" (2)	-	172,100	-	-	-	-	-	-	-	-
	Sodium Bisulfite Tank #2	-	68,900	-	-	-	-	-	-	-	-
	Marsh-to-Pond Pump Station Upgrade	-	-	88,700	-	-	-	-	-	-	-
18713	Primary Influent Pipe - East Gallery	250,000	-	-	57,400	-	-	-	-	-	-
	Plant Panel - Upgrade	-	-	-	-	-	-	-	-	-	-
	Ops - SBS Flash Mixers	-	-	88,700	-	-	-	1,229,300	-	-	-
	Ops - Plant Project - Year 7	-	-	-	-	-	-	-	-	-	-
	Ops - Plant Project - Year 8	-	-	-	-	-	-	-	-	-	-
	Ops - Plant Project - Year 9	-	-	-	-	-	-	-	-	-	-
	Ops - Plant Project - Year 10	-	-	-	-	-	-	-	1,272,300	1,975,200	-
	Lab - Upgrade Project	-	-	-	-	-	-	-	-	-	2,044,300
	Lab - Lab Grade Dishwasher Replacement #1	-	-	-	-	477,100	-	-	29,600	-	-



Napa Sanitation District  
FY 2017/18 Budget

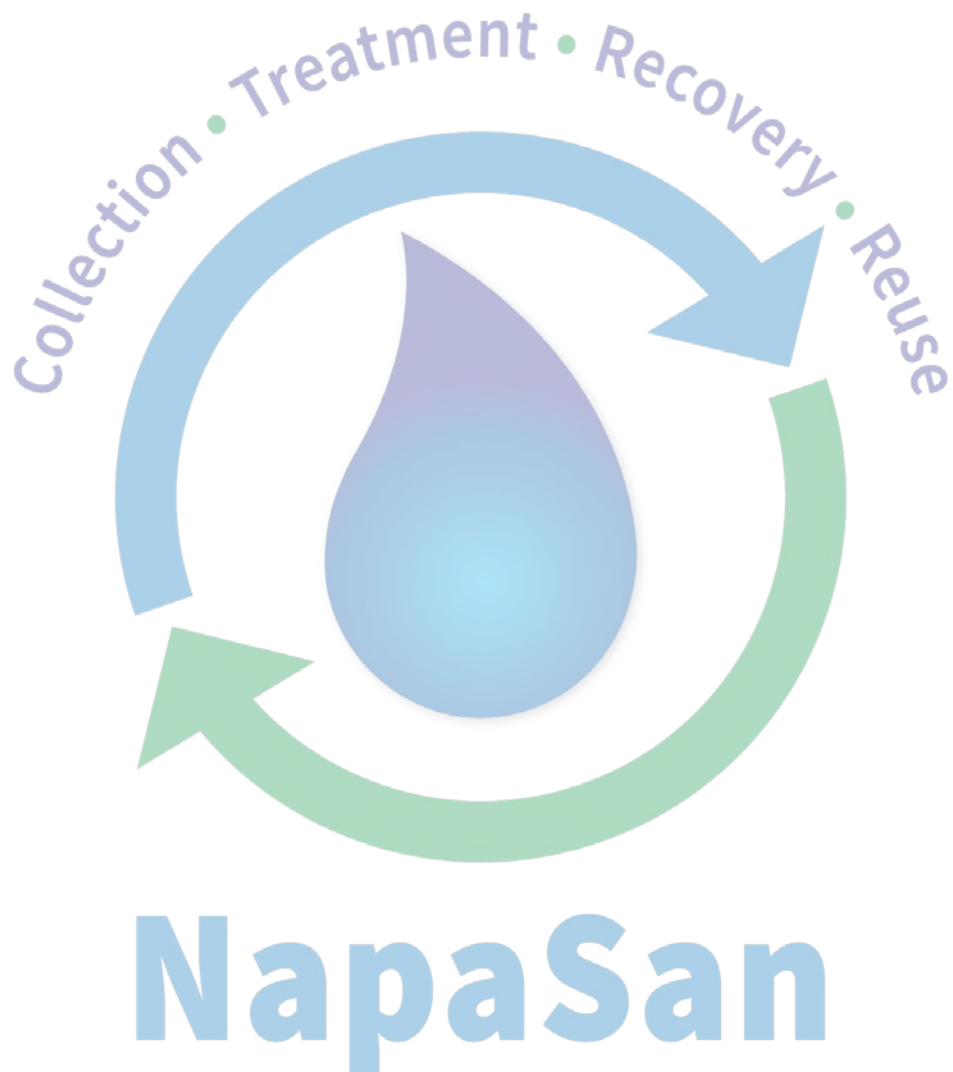
#	Name	FY 17/18 Projected	FY 18/19 Projected	FY 19/20 Projected	FY 20/21 Projected	FY 21/22 Projected	FY 22/23 Projected	FY 23/24 Projected	FY 24/25 Projected	FY 25/26 Projected	FY 26/27 Projected
	Lab - Lab Grade Dishwasher #2	-	-	-	-	26,700	-	-	-	-	-
	Lab - Refrigerator/Freezer (2)	-	-	-	-	13,100	-	-	-	-	-
15710	Lab - Anperometric Titrator Replacement	-	-	-	-	-	-	-	-	7,300	-
	Lab - Microscope Replacement	-	-	53,000	-	-	-	-	-	-	-
14731	Lab - Balance Replacement	-	-	-	-	-	-	-	-	22,700	-
	Lab - Autoclave Replacement	-	-	-	-	-	36,900	-	-	-	-
	Lab - UV Spectrophotometer Replacement	-	-	-	-	28,700	-	-	-	-	-
	Lab - BOD Incubator Replacement	-	-	-	-	9,300	-	-	-	-	-
	Lab - BOD System Replacement	-	-	-	-	53,400	-	-	-	-	-
	Lab - Sampler 4700 Replacement	-	-	-	-	-	8,000	-	-	-	-
	Lab - Sampler 4700 Replacement	-	-	-	-	-	8,000	-	-	-	-
	Lab - Sampler 4700 Replacement	-	-	-	-	-	8,000	-	-	-	-
	Lab - Sampler 4700 Replacement	-	-	-	-	-	-	8,300	-	-	-
	Lab - Sampler 4700 Replacement	-	-	-	-	-	-	8,300	-	-	-
	Lab - Centrifuge Replacement	-	-	-	-	-	7,500	-	-	-	-
	Lab - ICP MS	-	-	178,200	-	-	-	-	-	-	-
	Lab - FIA IC Unit	-	103,300	-	-	-	-	-	-	-	-
18714	Lab - Distillation System	6,000	-	-	-	-	-	-	-	-	-
18715	Lab - Muffle Furnace - Replacement	15,000	-	-	-	-	-	-	-	-	-
18716	Main - Rotork Actuator Replacement	91,800	-	-	-	-	-	-	-	-	-
	Main - Rotork Actuator Replacement	-	95,000	-	-	-	-	-	-	-	-
	Main - Rotork Actuator Replacement	-	-	-	101,800	-	-	-	-	-	-
	Main - Rotork Actuator Replacement	-	-	-	-	-	109,000	-	-	-	-
	Main - Rotork Actuator Replacement	-	-	-	-	-	-	-	116,800	-	-
	Main - Septage Pump & Motor Replacement	-	-	-	-	-	31,800	-	-	-	-
18717	Main - Septage Card Reader Replacement	21,400	-	-	-	-	-	-	-	-	-
16712	Main - Primary Clarifier Mech/Struct Rehabilitation	50,000	150,000	647,700	175,000	175,000	-	-	-	-	-
18718	Main - Secondary Clarifier Mech/Struct Rehabilitation	-	-	-	-	-	-	-	-	-	-
	Main - Flocc Clarifier Recoating	-	-	118,800	-	-	-	-	-	-	-
	Main - Polymer Tanks (3) replacement	-	-	160,700	-	-	-	-	-	-	-
16713	Main - Buried Metallic Piping (eval/rehab)	-	-	75,000	250,000	-	-	-	-	-	-
	Main - 12KV Redundant Line (to RW sta)	-	53,600	-	-	-	-	-	-	-	-
18719	Main - Filter Flow Control - Rotork Valves	46,600	-	-	-	-	-	-	-	-	-
	Main - Dewatering Polymer Injection Mixers - Relocatic	-	-	33,300	-	-	-	-	-	-	-
18720	Main - Neuros Blowers Rebuild	62,100	64,300	-	-	-	-	-	-	-	-
	Main - CCB Coating - E&W Channels	-	50,000	166,300	-	-	-	-	-	-	-
18721	Main - CCB #3 Effluent Gate	5,000	-	-	-	-	-	-	-	-	-
	Main - Pond 4 PS - Pump Rehab	-	50,000	-	-	-	-	-	-	-	-
18722	Main - FOG Station Water Heater	5,000	-	-	-	-	-	-	-	-	-
18723	Main - Pond 4 PS - Repair Leak	24,000	-	-	-	-	-	-	-	-	-
18724	Main - Filter 1-4 Air Valve	10,000	-	-	-	-	-	-	-	-	-
18725	Main - Belt Press Hydraulic Actuator Replace	20,000	-	-	-	-	-	-	-	-	-
	Main - Plant Door Replacement - Phase 1	-	-	22,200	-	-	-	-	-	-	-
	Main - Plant Door Replacement - Phase 2	-	-	-	23,000	-	-	-	-	-	-
	Main - Plant Door Replacement - Phase 3	-	-	-	-	23,800	-	-	-	-	-
	Main - Plant Door Replacement - Phase 4	-	-	-	-	-	24,600	-	-	-	-
	Main - Plant Door Replacement - Phase 5	-	-	-	-	-	-	25,400	-	-	-
	Main - Plant Project - Year 7	-	-	-	-	-	-	1,229,300	-	-	-
	Main - Plant Project - Year 8	-	-	-	-	-	-	-	-	-	-
	Main - Plant Project - Year 9	-	-	-	-	-	-	-	-	-	-
	Main - Plant Project - Year 10	-	-	-	-	-	-	-	-	-	-
13722	Vehicle 132 - Ford F-150	-	-	-	-	-	-	-	-	1,975,200	-
	Vehicle 163 - Ford Ranger (Replace with F-150)	-	32,100	-	-	-	-	-	35,600	-	-
	Vehicle 162 - Ford F-250 Diesel (replace with F-150)	-	35,600	-	-	-	-	-	-	-	-
	Vehicle 165 - Ford F-350	-	-	-	-	-	-	-	-	-	-
	Vehicle 178 - Ford F-350 SRW	-	-	-	-	38,000	-	-	-	-	-

#	Name	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	FY 26/27 Projected
	Vehicle 158 - Ford F-250 Diesel	-	-	-	-	40,700	-	-	-	-	-
	Vehicle 176 - Escape Hybrid	-	-	25,500	-	-	-	-	-	-	-
	Vehicle 28-39 - Electric Truck	-	-	17,100	-	-	-	-	-	-	-
	Vehicle 204 - Forklift	-	-	-	-	44,700	-	-	-	-	-
	Vehicle 513 - 10 Yard Dump	-	-	-	-	178,100	-	-	-	-	-
	Vehicle 206 - Forklift TH103	-	-	-	-	-	114,300	-	-	-	-
	Vehicle 184 - Ford F-550 EM Truck	-	-	-	-	-	55,300	-	-	-	-
	Vehicle 131 - Ford F-250	-	-	-	-	-	43,600	-	-	-	-
	Vehicle 302 - Boat	-	-	-	-	6,400	-	-	-	-	-
	Vehicle 40 - Cushman 1200X	-	-	-	-	-	12,700	-	-	-	-
	Vehicle 41 - Cushman 1200X	-	-	-	-	-	12,700	-	-	-	-
	Vehicle 42 - Cushman 1200X	-	-	-	-	-	12,700	-	-	-	-
	Vehicle 28-30 - Western Golf Cart	-	-	-	8,900	-	-	-	-	-	-
	Vehicle 28-31 - Western Golf Cart	-	-	-	8,900	-	-	-	-	-	-
	Vehicle 28-32 - Western Golf Cart	-	-	-	8,900	-	-	-	-	-	-
<b>TREATMENT - STRUCTURES</b>											
17726	Headworks Equipment Replacement	250,000	1,000,000	700,000	-	-	-	-	-	-	-
	WWTP MP - Second Digester	-	-	-	-	717,800	2,153,300	14,355,200	-	-	-
18726	Building HVAC and Lab Ventilation	500,000	-	-	-	264,400	793,300	5,288,700	-	-	-
18727	Plant Locker Room Improvements	-	50,000	-	-	-	-	-	-	-	-
	Earthquake - Structural Repair	300,000	-	-	-	-	-	-	-	-	-
	WWTP Site Paving	-	-	-	-	-	-	500,000	-	-	-
	Pond Levee Repair	-	-	50,000	841,900	-	-	-	-	-	-
	WWTP MP - Pond Imp - Ph 2 - Trans Struct 2 to 3	-	5,000	296,300	-	-	-	-	-	-	-
18728	WWTP MP - Pond Imp - Ph 2 - Trans Struct 3 to 4	-	-	-	-	5,000	292,000	-	-	-	-
	Roof Replacement - Solids Handling/Digester Tower	232,900	-	-	-	-	-	-	-	-	-
	Roof Replacement - Filter Support	-	-	-	66,600	-	-	-	-	-	-
	Roof Replacement - Chemical Storage	-	-	-	-	53,400	-	-	-	-	-
	Roof Replacement - Headworks	-	-	-	-	-	86,000	-	-	-	-
	Roof Replacement - Secondary Effluent PS	-	-	-	-	-	-	10,200	-	-	-
<b>SCADA</b>											
	SCADA MP Phase 5 / Security Study	-	250,000	-	-	-	-	-	-	-	-
18729	SCADA MP Project #1 - Network Monitoring	50,000	160,700	-	-	-	-	-	-	-	-
	SCADA MP Project #2	-	-	-	200,000	-	-	-	-	-	-
	SCADA MP Project #3	-	-	-	-	200,000	-	-	-	-	-
	SCADA Backup System	-	-	-	-	-	141,700	-	-	-	-
	SCADA Server Replacement	-	-	-	114,800	-	-	-	-	-	-
<b>RECYCLING - DISTRICT</b>											
16716	WWTP MP - Line Recycled Water Reservoir	1,800,000	-	-	-	-	-	-	-	-	-
18730	Jameson 24" Flow Meter Rehab	6,200	-	-	-	-	-	-	-	-	-
	Kirkland Recycled Water Pipeline Rehabilitation	-	-	-	737,600	-	-	-	-	-	-
18731	Coombsville Truck Fill Station	100,000	-	-	-	-	-	-	-	-	-
	Truck Fill Station - Kennedy Line Connection	-	5,000	75,000	-	-	-	-	-	-	-
	24" Valve Replacement on Kirkland Pipeline	-	5,000	60,000	-	-	-	-	-	-	-
	Jameson Solids Pad Rehabilitation	-	-	-	36,900	-	-	-	-	-	-
	Jameson PS VFD	-	68,900	-	-	-	-	-	-	-	-
	Jameson Sprinkler Replacement - Field A	-	-	88,700	-	-	-	-	-	-	-
	Jameson Sprinkler Replacement - Field B	-	-	-	91,800	-	-	-	-	-	-
	Jameson Sprinkler Replacement - Field C	-	-	-	-	95,000	-	-	-	-	-
	Jameson Sprinkler Replacement - Field D	-	-	-	-	-	98,300	-	-	-	-
	Jameson Sprinkler Replacement - Field E	-	-	-	-	-	-	101,800	-	-	-
	Soscol RW Pump Replacement/Rehab	-	-	-	150,000	-	-	-	-	-	-
	Soscol RW Pump Replacement/Rehab	-	-	-	-	-	150,000	-	-	-	-
	Soscol RW Pump Replacement/Rehab	-	-	-	-	-	-	-	150,000	-	-
	Pull Flail Chopper Replacement	-	33,100	-	-	-	-	-	-	-	-

Napa Sanitation District  
FY 2017/18 Budget

#	Name	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	FY 26/27 Projected
14733	Vehicle 172 - Ford F-150	-	-	-	-	-	-	-	43,500	-	-
14725	Vehicle 723 - Yanmar Tractor	-	-	-	-	-	-	104,400	-	-	-
	Vehicle 723/720 - Attachments/Implements	-	28,700	-	-	-	-	-	-	-	-
	Vehicle 171 - Ford F-350	-	-	-	44,900	-	-	-	-	-	-
	Vehicle 174 - Ford F-350 SB	-	-	73,200	-	-	-	-	-	-	-
	Vehicle 311 - Kubota	-	-	-	23,900	-	-	-	-	-	-
	Vehicle 312 - Kubota	-	-	-	23,900	-	-	-	-	-	-
	Vehicle 721 - John Deer 8430T Tractor	-	-	-	-	-	357,800	-	-	-	-
	Vehicle 17 - 18ft Trailer	-	-	-	-	-	-	-	-	11,000	-
	Vehicle 722 - John Deer 444K Loader	-	-	-	-	-	-	-	-	-	238,500
	Vehicle 720 - KubotaTractor Loader	-	-	-	-	-	-	-	74,500	-	-
	Vehicle 013 - Pipe Dolly	-	-	-	-	16,300	-	-	-	-	-
<b>RECYCLING - EXPANSION</b>											
13727	North Bay Water Reuse Project	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	-	-
16722	MST RW Pipeline Expansion	2,800,000	-	-	-	-	-	-	-	-	-
	NBWRA - 3rd Reservoir	-	-	-	-	-	58,000	290,000	2,552,000	-	-
	NBWRA - RW Expansion Ph 2	-	-	-	-	-	44,000	220,000	1,936,000	-	-
	RW Socol Pump Station Upgrade	-	-	-	-	-	2,544,600	-	-	-	-
<b>OTHER</b>											
13729	Development Technical Support	239,900	248,300	257,000	266,000	275,300	284,900	294,900	305,200	315,900	327,000
	Solar Purchase Buy Out	-	-	-	-	-	1,950,000	-	-	-	-
18732	Box Culvert - Fugundes Emergency Access	5,000	100,000	-	-	-	-	-	-	-	-
18733	GPS Handheld	15,000	-	-	-	-	-	-	-	-	-
14728	Vehicle 161 - Ford C-Max	-	-	-	-	-	-	30,500	-	-	-
	Vehicle 177 - Ford Escape Hybrid	-	-	25,500	-	-	-	-	-	-	-
14729	Vehicle 133 - Ford F-150	-	-	-	-	-	-	42,000	-	-	-
	Vehicle 011 - CSET Trailer	-	23,700	-	-	-	-	-	-	-	-
14730	Vehicle 607 - Ford Taurus	-	-	-	-	28,500	-	-	-	-	-
	Vehicle 130 - Ford F150	-	-	-	-	-	40,600	-	-	-	-
<b>PROJECT TOTALS</b>		\$25,018,300	\$15,154,300	\$12,554,600	\$12,536,900	\$10,834,800	\$17,356,700	\$34,666,600	\$17,933,100	\$14,961,400	\$15,197,800
<b>Cumulative Total (FY 18/18 - FY 26/27)</b>		\$25,018,300	\$40,172,600	\$52,727,200	\$65,264,100	\$76,098,900	\$93,455,600	\$128,122,200	\$146,055,300	\$161,016,700	\$176,214,500

This page intentionally left blank.



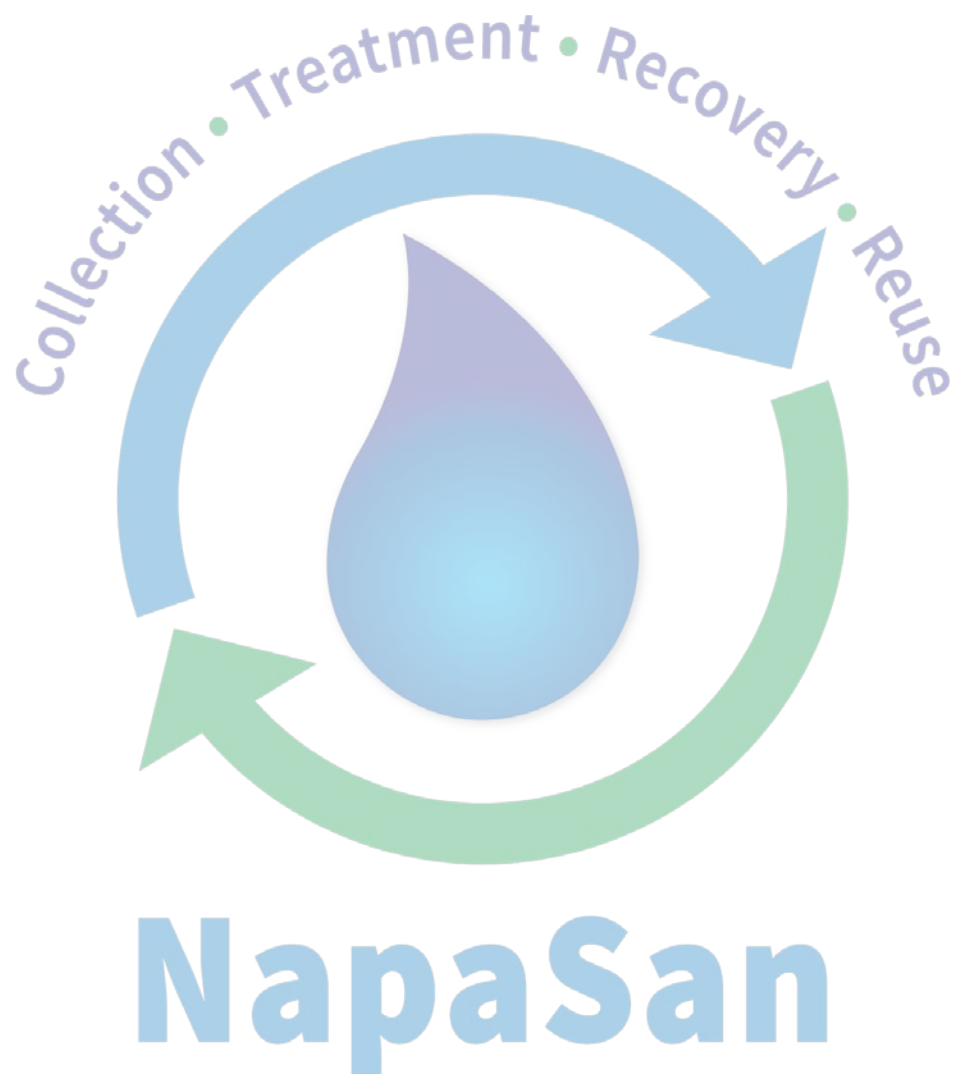
## Ten-Year Financial Plan



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



This page intentionally left blank.



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

### Link to Strategic Plan

NapaSan's Strategic Plan (discussed in Budget Overview on pages 19-24 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, NapaSan has increased the sewer service charge (SSC) annually by the local Consumer Price Index (CPI). In March 2016, NapaSan 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 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 3.0% annually.

### Recycled Water Fees

Recycled water fees are becoming a more significant source of revenue for NapaSan. These are the fees charged to users of recycled water. Fees are set by the Board of Directors through ordinance. The rates have been adjusted by CPI in 2017 and are as follows:

Rate	Description
\$1.62/kgal	Peak demand usage (April - October)
\$1.30/kgal	Large contract users
\$1.22/kgal	Off peak usage (Nov. – Feb.)
\$1.09/kgal	March

The forecast assumes that NapaSan will increase recycled water sales from 1,686 acre feet in FY 2016/17 to 1,948 acre feet in FY 2017/18. 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 increased 3.9% for FY 2017/18 to \$9,299 per Equivalent Dwelling Unit (EDU). Future year rates are estimated to increase 3.5% annually.

Capacity charges are forecasted based on known and planned development projects. NapaSan staff tracks planning referrals and other information to forecast hotels, other commercial developments and housing projects that are anticipated to begin construction in the next four years. A baseline number is then assumes for the remaining ten-year forecast.

Fiscal Year	Forecasted EDU
FY 17/18	390 EDU
FY 18/19	436 EDU
FY 19/20	514 EDU
FY 20/21	175 EDU

### 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 NapaSan 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 NapaSan. 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 systems, and the purchase of materials and supplies. NapaSan 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 2016/17 and 2.75% through FY 2019/20).

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 is projected to remain flat for FY 2017/18, and then expected to reduce slightly in future years. For the Ten-Year Financial Plan, salaries and benefits combined are projected to increase 3.4% to 3.5% annually.

Services and supplies are forecasted 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 plans that influence the overall Ten-Year Capital Improvement Plan, including the NapaSan Strategic Plan, 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 in March 2016, and that development occurs as projected for capacity charges.

The budget and Ten-Year Capital Improvement Plan, described in detail in the previous sections 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 NapaSan 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 NapaSan needs to accumulate the money for the project and already have it prior to the work being completed.

NapaSan Financial Policy states that NapaSan 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 2017/18, NapaSan intends to enter into two loan agreements with the State Water Resources Control Board, one for a Clean Water State Revolving Fund loan of approximately \$20 million for the Browns Valley Trunk and West Napa Pump Station Improvements project, and the other for a

**10-Year Financial/Cash Flow Forecast**

	Projected 2017/18	Projected 2018/19	Projected 2019/20	Projected 2020/21	Projected 2021/22
<b>Beginning Fund Equity</b>	<b>\$14,353,500</b>	<b>\$15,877,600</b>	<b>\$16,742,000</b>	<b>\$19,198,500</b>	<b>\$19,653,800</b>
<b>Operating revenue</b>					
Sewer service charges	26,162,000	27,995,000	29,705,000	31,273,000	32,345,000
Capacity Charges	3,630,000	4,200,000	5,125,000	1,806,000	2,670,000
Recycled Water Sales	913,000	1,044,000	1,156,000	1,273,000	1,329,000
Hauler Fees	175,000	180,000	185,000	191,000	197,000
Development Fees	189,100	193,800	198,600	203,600	208,700
Miscellaneous Revenue	91,000	93,000	95,000	97,000	99,000
<b>Total Operating Revenue</b>	<b>31,160,100</b>	<b>33,705,800</b>	<b>36,464,600</b>	<b>34,843,600</b>	<b>36,848,700</b>
<b>Non-Operating Revenue</b>					
Interest	174,000	238,000	293,000	384,000	393,000
Rents and leases	722,000	725,000	728,000	731,000	734,000
From Other Governments	4,076,000	0	0	0	0
Loan / Bond Proceeds	10,137,000	2,049,000	0	0	982,200
<b>Total - Non-Operating Revenue</b>	<b>15,109,000</b>	<b>3,012,000</b>	<b>1,021,000</b>	<b>1,115,000</b>	<b>2,109,200</b>
<b>Total Revenue</b>	<b>46,269,100</b>	<b>36,717,800</b>	<b>37,485,600</b>	<b>35,958,600</b>	<b>38,957,900</b>
<b>Operating Expense</b>					
Salaries and benefits	9,581,300	9,906,900	10,245,700	10,584,000	10,936,100
Services and supplies	5,814,350	5,931,000	6,268,000	6,421,000	6,294,000
Taxes and Other	28,650	29,200	29,800	30,400	31,000
Debt Service - Existing	4,777,450	4,772,000	4,771,000	4,771,000	4,768,000
Debt Service - New/Projected	0	60,000	1,160,000	1,160,000	1,160,000
<b>Total Operating Expense</b>	<b>20,201,750</b>	<b>20,699,100</b>	<b>22,474,500</b>	<b>22,966,400</b>	<b>23,189,100</b>
<b>Capital Projects</b>	<b>25,018,300</b>	<b>15,154,300</b>	<b>12,554,600</b>	<b>12,536,900</b>	<b>10,834,800</b>
<b>Total - All Expenses</b>	<b>45,220,050</b>	<b>35,853,400</b>	<b>35,029,100</b>	<b>35,503,300</b>	<b>34,023,900</b>
<b>Net revenue (deficit)</b>	<b>1,049,050</b>	<b>864,400</b>	<b>2,456,500</b>	<b>455,300</b>	<b>4,934,000</b>
<b>GAAP Adjustment</b>	<b>\$475,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Ending combined fund equity</b>	<b>\$15,877,550</b>	<b>\$16,742,000</b>	<b>\$19,198,500</b>	<b>\$19,653,800</b>	<b>\$24,587,800</b>
RW Repair & Replacement Reserv	0	0	116,000	243,000	376,000
Bond Reserve	1,990,000	2,050,000	3,150,000	3,150,000	3,150,000
Operating Reserve	2,314,000	2,400,000	4,000,000	5,000,000	6,000,000
Cash Flow Reserve	10,750,000	11,000,000	11,000,000	11,250,000	11,600,000
<b>Fund Equity Available for Use</b>	<b>\$823,550</b>	<b>\$1,292,000</b>	<b>\$932,500</b>	<b>\$10,800</b>	<b>\$3,461,800</b>

“green projects reserve” loan for the Recycled Water Reservoir Lining project, with a 50% loan forgiveness component. The Ten-Year Forecast shows the proceeds from the loans in years corresponding to expenditures for this project, as this state program is a reimbursement program.

clarifier. The plan also anticipates that in FY 2022/23, NapaSan will seek a Federal loan for the implementation of recycled water expansion projects.

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

**10-Year Financial/Cash Flow Forecast**

	Projected 2022/23	Projected 2023/24	Projected 2024/25	Projected 2025/26	Projected 2026/27
<b>Beginning Fund Equity</b>	<b>\$24,587,800</b>	<b>\$25,222,100</b>	<b>\$25,129,300</b>	<b>\$25,534,200</b>	<b>\$26,859,300</b>
<b>Operating revenue</b>					
Sewer service charges	33,511,000	34,718,000	35,967,000	37,260,000	38,599,000
Capacity Charges	2,764,000	2,861,000	2,961,000	3,064,000	3,171,000
Recycled Water Sales	1,386,000	1,442,000	1,506,000	1,570,000	1,640,000
Hauler Fees	203,000	209,000	215,000	221,000	228,000
Development Fees	213,900	219,200	224,700	230,300	236,100
<u>Miscellaneous Revenue</u>	<u>101,000</u>	<u>104,000</u>	<u>107,000</u>	<u>110,000</u>	<u>113,000</u>
<b>Total Operating Revenue</b>	<b>38,178,900</b>	<b>39,553,200</b>	<b>40,980,700</b>	<b>42,455,300</b>	<b>43,987,100</b>
<b>Non-Operating Revenue</b>					
Interest	492,000	504,000	503,000	511,000	537,000
Rents and leases	738,000	741,000	745,000	748,000	752,000
From Other Governments	25,500	127,500	1,122,000	0	0
<u>Loan / Bond Proceeds</u>	<u>3,023,100</u>	<u>20,026,400</u>	<u>1,866,000</u>	<u>0</u>	<u>0</u>
<b>Total - Non-Operating Revenue</b>	<b>4,278,600</b>	<b>21,398,900</b>	<b>4,236,000</b>	<b>1,259,000</b>	<b>1,289,000</b>
<b>Total Revenue</b>	<b>42,457,500</b>	<b>60,952,100</b>	<b>45,216,700</b>	<b>43,714,300</b>	<b>45,276,100</b>
<b>Operating Expense</b>					
Salaries and benefits	11,302,600	11,684,300	12,082,000	12,496,400	12,928,500
Services and supplies	6,470,000	6,929,700	6,679,000	6,813,000	6,949,000
Taxes and Other	31,600	32,200	32,800	33,500	34,200
Debt Service - Existing	4,752,300	4,697,100	4,699,900	4,699,900	4,699,900
<u>Debt Service - New/Projected</u>	<u>1,910,000</u>	<u>3,035,000</u>	<u>3,385,000</u>	<u>3,385,000</u>	<u>3,385,000</u>
<b>Total Operating Expense</b>	<b>24,466,500</b>	<b>26,378,300</b>	<b>26,878,700</b>	<b>27,427,800</b>	<b>27,996,600</b>
<b>Capital Projects</b>	<b>17,356,700</b>	<b>34,666,600</b>	<b>17,933,100</b>	<b>14,961,400</b>	<b>15,197,800</b>
<b>Total - All Expenses</b>	<b>41,823,200</b>	<b>61,044,900</b>	<b>44,811,800</b>	<b>42,389,200</b>	<b>43,194,400</b>
<b>Net revenue (deficit)</b>	<b>634,300</b>	<b>(92,800)</b>	<b>404,900</b>	<b>1,325,100</b>	<b>2,081,700</b>
<b>GAAP Adjustment</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Ending combined fund equity</b>	<b>\$25,222,100</b>	<b>\$25,129,300</b>	<b>\$25,534,200</b>	<b>\$26,859,300</b>	<b>\$28,941,000</b>
RW Repair & Replacement Reserv	515,000	659,000	810,000	967,000	1,131,000
Bond Reserve	5,300,000	5,300,000	5,300,000	5,300,000	5,300,000
Operating Reserve	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000
Cash Flow Reserve	12,400,000	13,100,000	13,400,000	13,700,000	13,700,000
<b>Fund Equity Available for Use</b>	<b>\$1,007,100</b>	<b>\$70,300</b>	<b>\$24,199</b>	<b>\$892,299</b>	<b>\$2,809,999</b>

**Ten-Year Cash Flow**

The table here and on the previous page shows the Ten-Year Financial/Cash Flow Forecast. 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 to account for necessary reserves to come up with an amount of equity that is available for use.

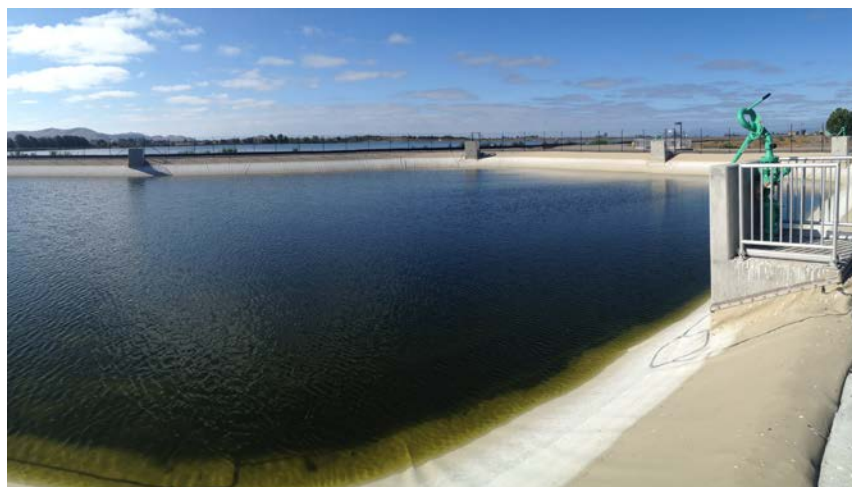
This model assumes that all fund equity available at the end of one year is rolled over for use in the following year. The model also assumes that there is no underspending of operating expenses, although traditionally there is a small percentage of operating budget that is not spent each year.



## Debt

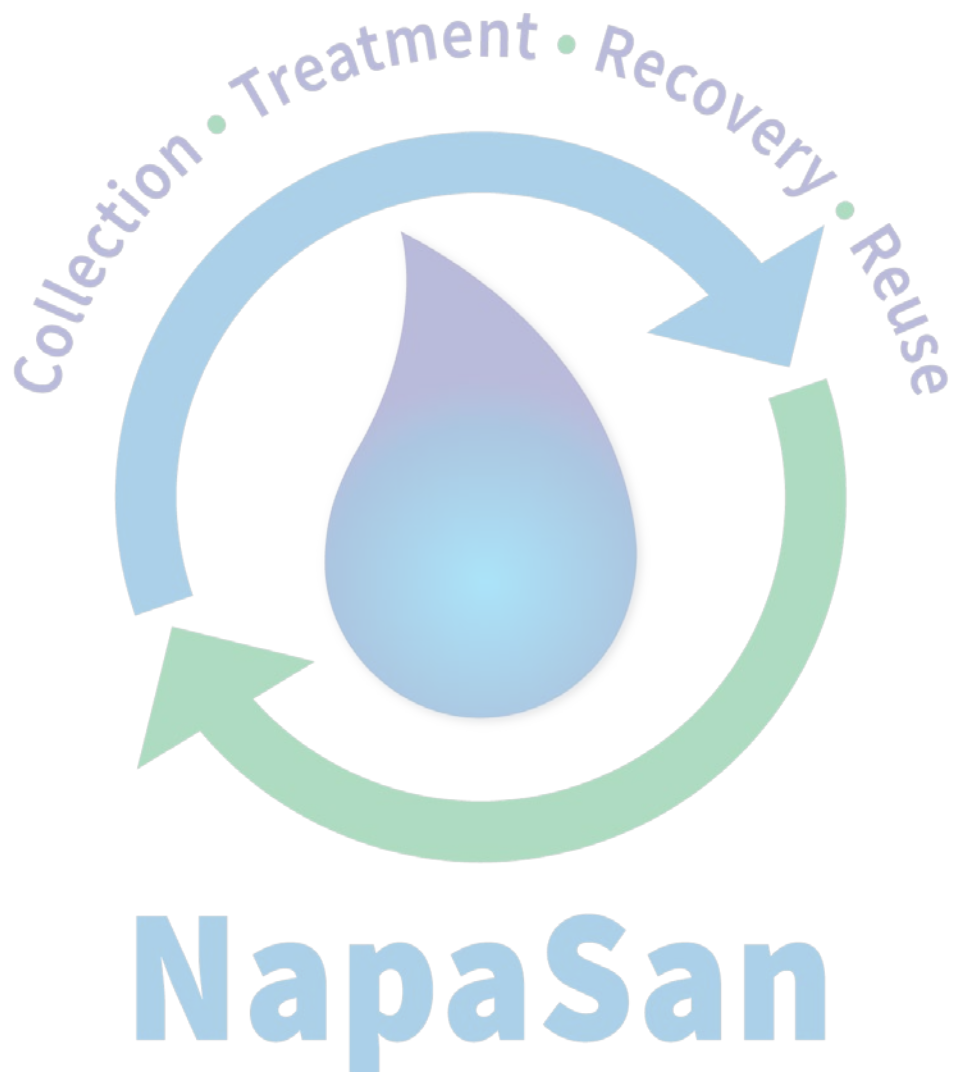


*Construction of the secondary effluent equalization basin in 2014*



*Completed secondary effluent equalization basin*

This page intentionally left blank.



## 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 NapaSan makes to repay the principal and interest on its debt.

### Debt Policy

As a matter of policy, NapaSan 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 NapaSan 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.

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

### Current Debt Obligations

**2003 SRF** – In 2003, NapaSan 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 \$331,845 as of July 1, 2017.

**2008 SRF** – In 2008, NapaSan 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 \$998,009 as of July 1, 2017.

**Series 2009B** – These 20-year Certificates of Participation were 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 NapaSan 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 \$18,825,000 as of July 1, 2017.

**Series 2012A** – These 20-year Certificates of Participation were 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. (See Debt Service Table 5.) Outstanding principal on this debt obligation is \$32,555,000 as of July 1, 2017.

### Debt Covenants

A debt covenant is a requirement imposed on NapaSan 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 NapaSan. This covenant applies to all of NapaSan'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. NapaSan is required by the bond covenant to maintain a debt service coverage ratio of at least 1.25. For FY 2017/18, the District's coverage ratio is budgeted to be 3.48.

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

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

NapaSan does not issue general obligation debt, and as such, there is no legal limitation on the amount of debt it can issue. NapaSan 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 NapaSan money, and 2) limitations on future debt placed on NapaSan by current debt.

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

Second, the debt coverage ratio imposed by existing debt holders also applies to any future debt NapaSan 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, NapaSan has the capacity to issue approximately \$120 million in additional debt (3.5% TIC, 20 year term), assuming that there was a buyer for that debt in the bond market, NapaSan could pay the debt service, and other financial policies are maintained.

### ***Debt Coverage Ratio Calculation***

	<b><u>Estimated FY 16/17</u></b>	<b><u>Proposed FY 17/18</u></b>
Revenue		
Sewer Service Charges	\$22,525,000	\$26,152,000
Capacity Charges	\$3,804,000	\$3,630,000
Recycled Water	758,000	913,000
Interest	109,000	174,000
Rents & Leases	719,000	722,000
Other Revenue (excl. sale of property and grant revenue)	428,500	455,100
Operating Expenses	<b>(\$14,405,050)</b>	<b>(\$15,424,300)</b>
Net Revenue	\$13,938,450	\$16,621,800
Parity Debt Service		
2003 SRF	\$60,300	\$60,250
2008 SRF	93,650	93,650
2009B COP	1,956,800	1,958,250
2012A COP	2,657,200	2,658,200
Total Debt Service (excl. debt administration expenses)	\$4,767,950	\$4,770,350
<b>Parity Debt Coverage Ratio</b> (net revenue ÷ total debt service) (must be greater than 1.25)	<b>2.92</b>	<b>3.48</b>

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

The Ten-Year Capital Improvement Plan and the Ten-Year Financial Plan includes financing the Browns Valley Road and West Napa Pump Station Improvements and Recycled Water Reservoir Lining projects. 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 2017/18, with debt service payments not beginning until after the completion of construction.

The plan assumes that NapaSan 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.

**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
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
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
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
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
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
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>

# **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

---

**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).

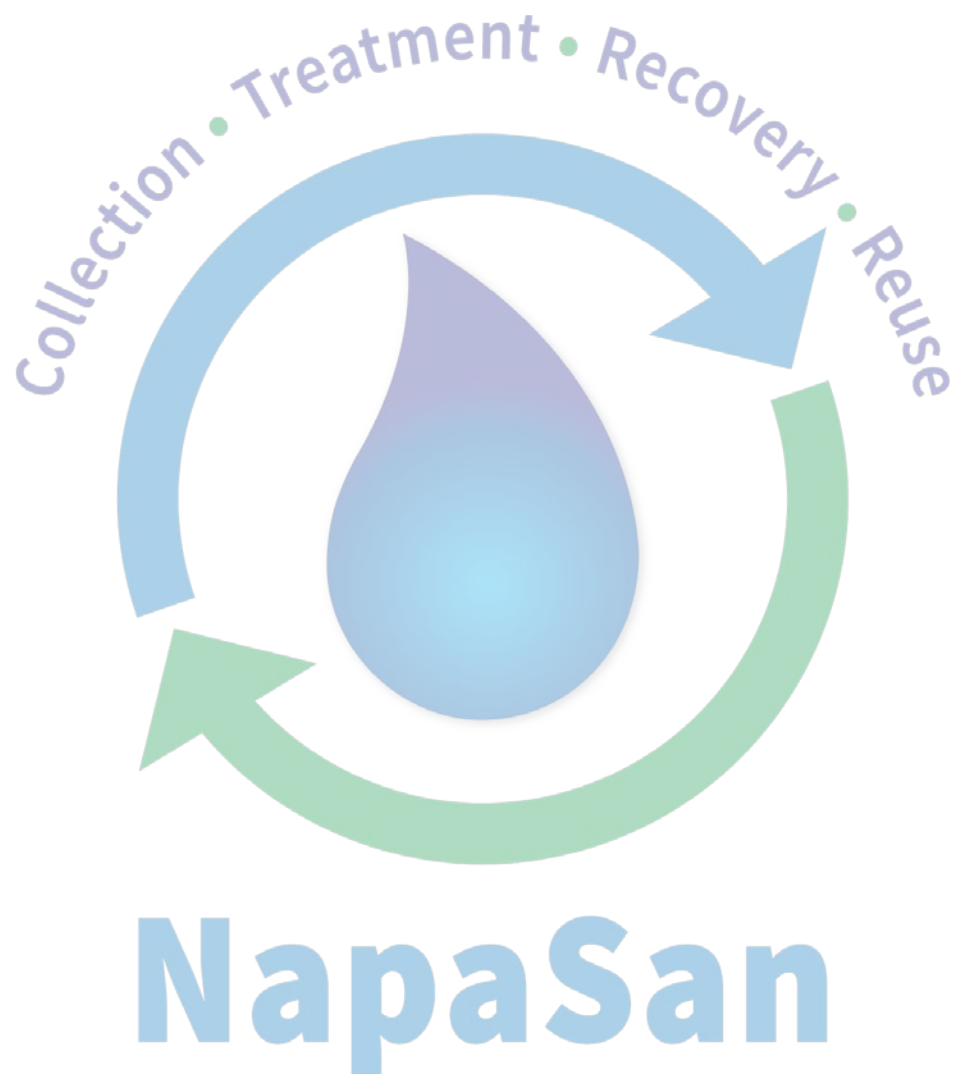
**True Interest Cost (TIC)** – This is the real cost of issuing a bond. It includes all ancillary fees (underwriter fees, etc.) and takes into consideration any premium payments and different interest rates paid on different bonds within a series. This number can be used to compare quotes or bids for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

## **Appendix B**

### **Statistics and Economic Data**



This page intentionally left blank.



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

	<b>2000</b>	<b>2015</b>
Population:	72,585	80,429
Median Age:	36.1	37.2
Median Household Income:	\$49,154	\$74,315
Persons Below Poverty Level	8.9%	10.5%
Median Housing Value:	\$238,300	\$579,500
Housing Units		
Owner-Occupied	16,362	15,121
Renter-Occupied	10,616	12,784
Not Computed <sup>(2)</sup>	-	-
Vacant <sup>(2)</sup>	798	-
	<b>27,776</b>	<b>27,905</b>

Source: US Census Bureau Census Data; 2015 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>(3)</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

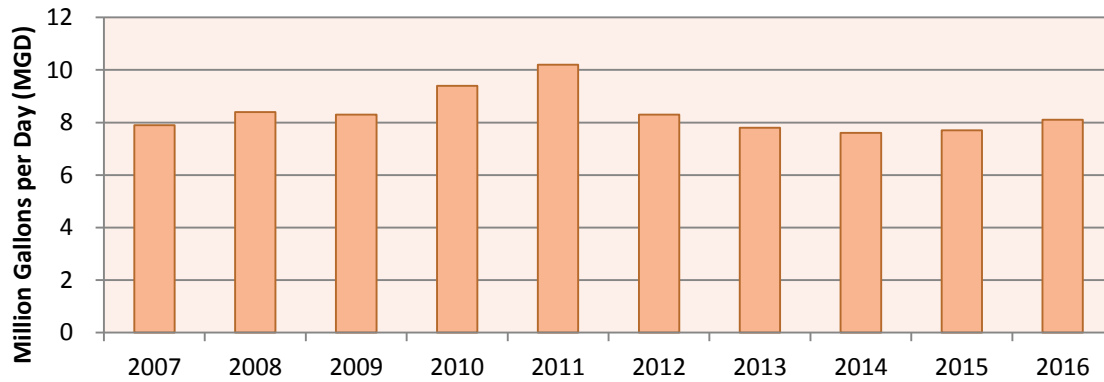
Source: Napa Sanitation District

(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) Information unavailable for 2015

(3) MGD = Million Gallons per Day

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



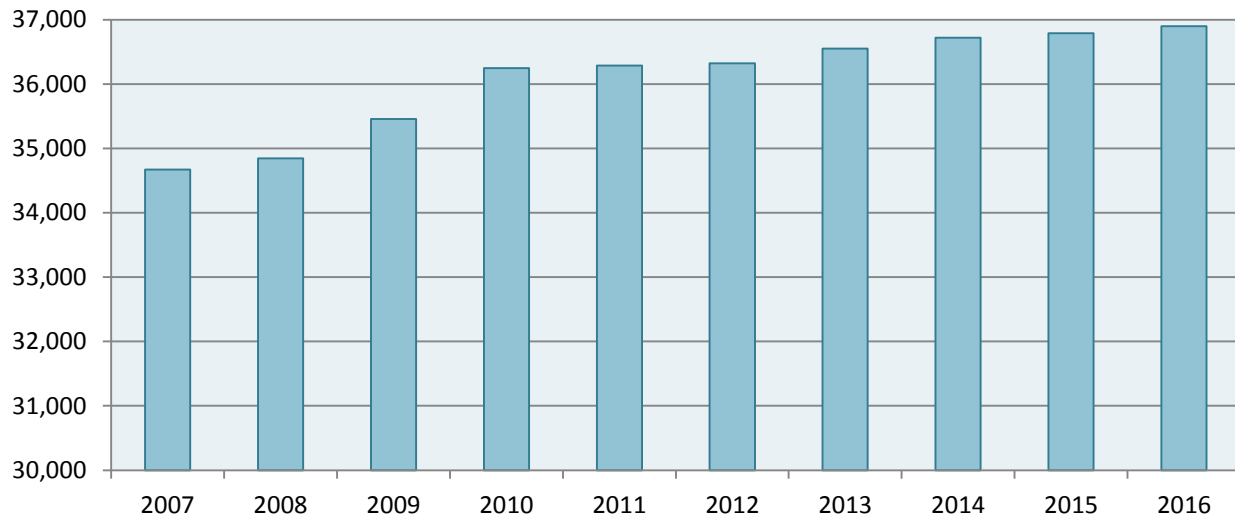
### Historic Average Daily Influent Flow at Wastewater Treatment Plant

Fiscal Year Ended June 30	Daily Average Flow (MGD)	Increase/ (Decrease)
2007	7.9	-
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%
2016	8.1	4.9%

Source: Napa Sanitation District

MGD = Million Gallons per Day

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

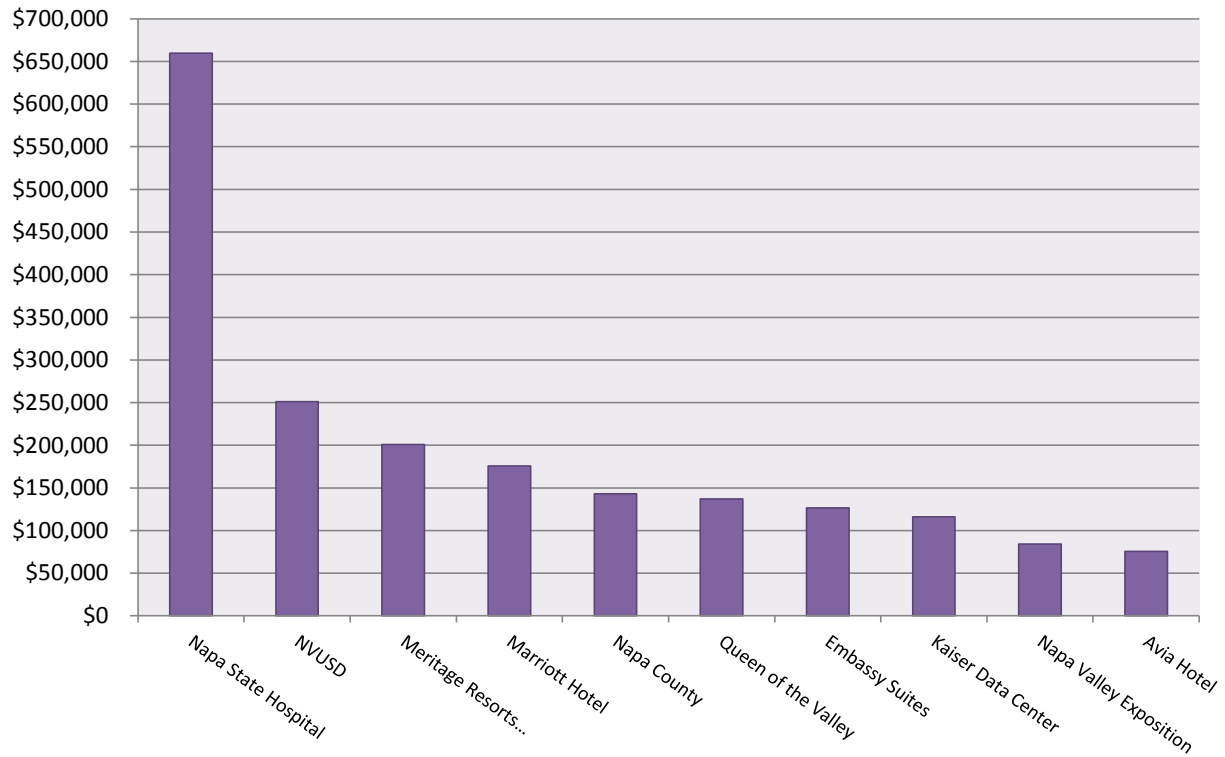


### Historic Sewer System Service Connections and Equivalent Dwelling Units (EDU's)

Fiscal Year Ended June 30	Single Family	Multifamily	Commercial/ Industrial	Total Connections	Total EDU's
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
2016	23,612	8,715	4,574	36,901	41,378

Source: Napa Sanitation District

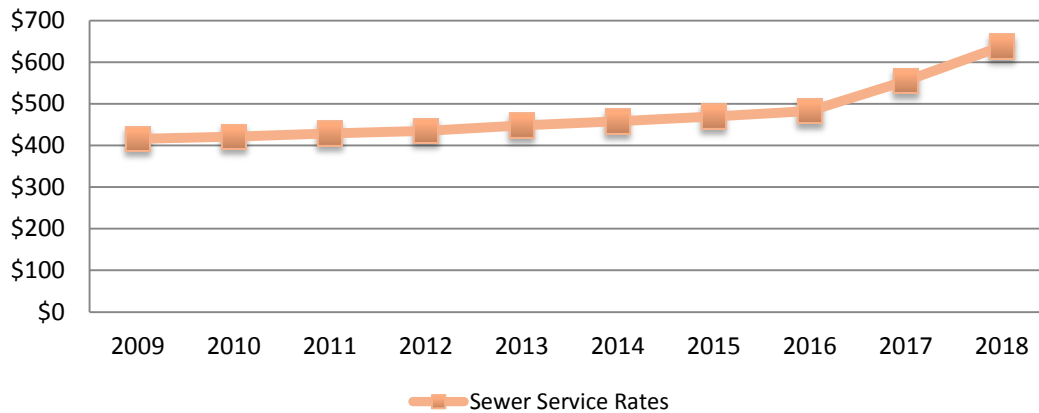
### Ten Largest Sewer Users



### FY 2015/16

	Sewer Service Charges	% of Total <sup>(1)</sup>
Napa State Hospital	\$659,620	3.3%
NVUSD	251,286	1.3%
Meritage Resorts (Restaurants)	200,865	1.0%
Marriott Hotel	175,678	0.9%
Napa County	143,158	0.7%
Queen of the Valley	137,030	0.7%
Embassy Suites	126,753	0.6%
Kaiser Data Center	116,138	0.6%
Napa Valley Exposition	84,100	0.4%
Avia Hotel	75,415	0.4%
<b>Total</b>	<b>\$1,970,042</b>	<b>9.9%</b>

### Sewer Service Rates



### Historic Sewer Service Rates

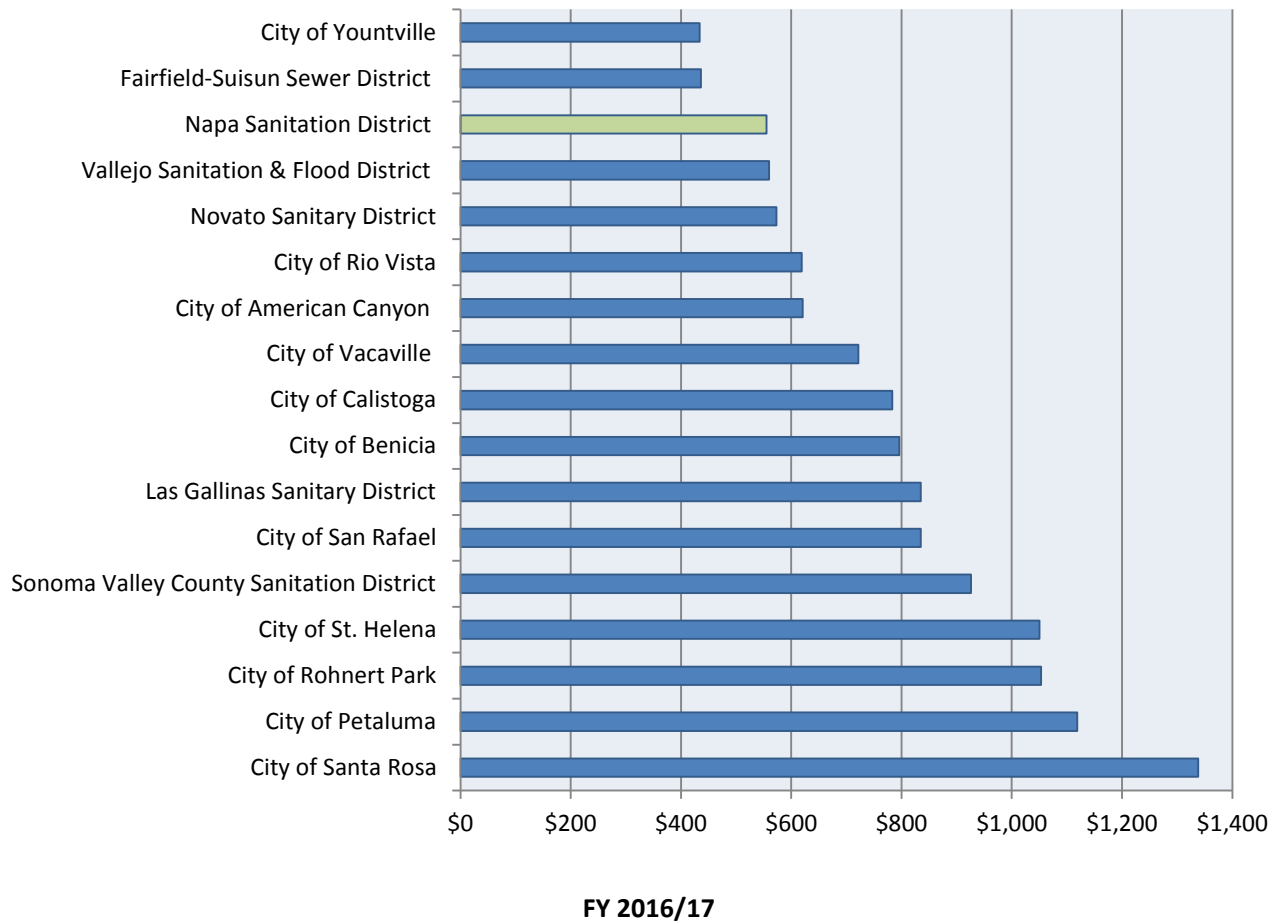
Fiscal Year Ended June 30	Sewer Service Rates	% Increase
2009	416.00	15.0%
2010	421.00	1.2%
2011	429.00	1.9%
2012	435.44	1.5%
2013	448.07	2.9%
2014	457.92	2.2%
2015	469.82	2.6%
2016	482.50	2.7%
2017	554.88	15.0%
2018	638.10	15.0%

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).

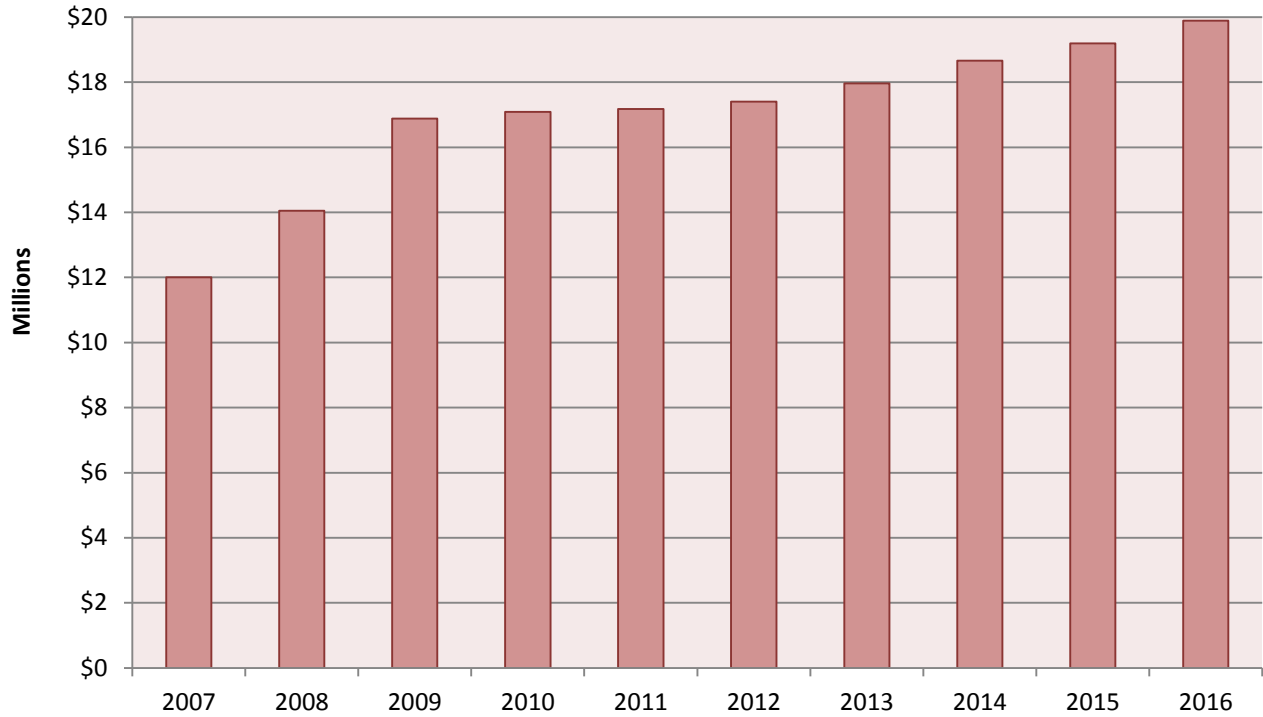


## Sewer Service Rate for Surrounding Areas



Agency	Sewer Service Rate <sup>(1)</sup>
City of Yountville	\$434
Fairfield-Suisun Sewer District	436
Napa Sanitation District	555
Vallejo Sanitation & Flood District	560
Novato Sanitary District	573
City of Rio Vista	619
City of American Canyon	621
City of Vacaville	722
City of Calistoga	783
City of Benicia	796
Las Gallinas Sanitary District	835
City of San Rafael	835
Sonoma Valley County Sanitation District	926
City of St. Helena	1,050
City of Rohnert Park	1,053
City of Petaluma	1,119
City of Santa Rosa	1,338

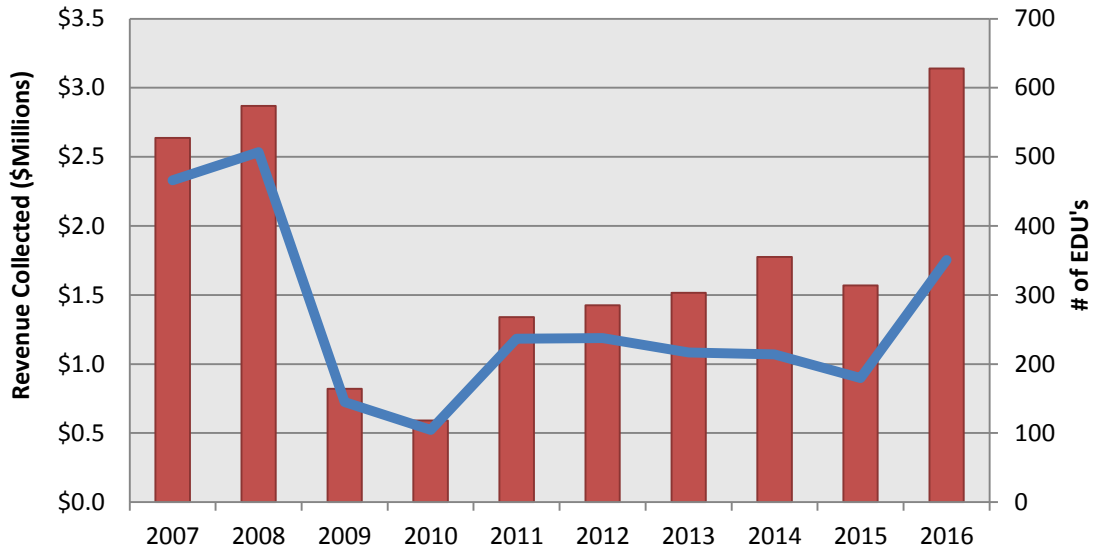
### Sewer Service Revenue



### Historic Sewer Service Revenues

Fiscal Year Ended June 30	Sewer Service Revenues	Percentage Change
2007	12,003,390	-
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%
2016	19,887,172	3.6%

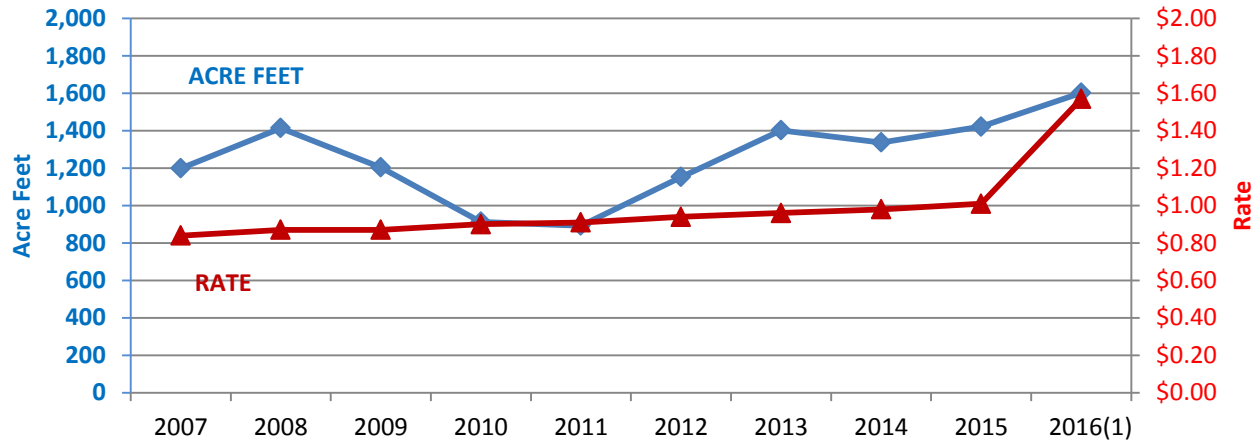
### Capacity Charges Past Ten Fiscal Years



### Historic Capacity Charges

FY Ended June 30	Capacity Charges (per EDU)	Total Collected	Number of EDU's
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
2016	8,950	3,139,503	350.8

### Recycled Water Sales in Acre Feet



### Historic Annual Recycled Water Sales

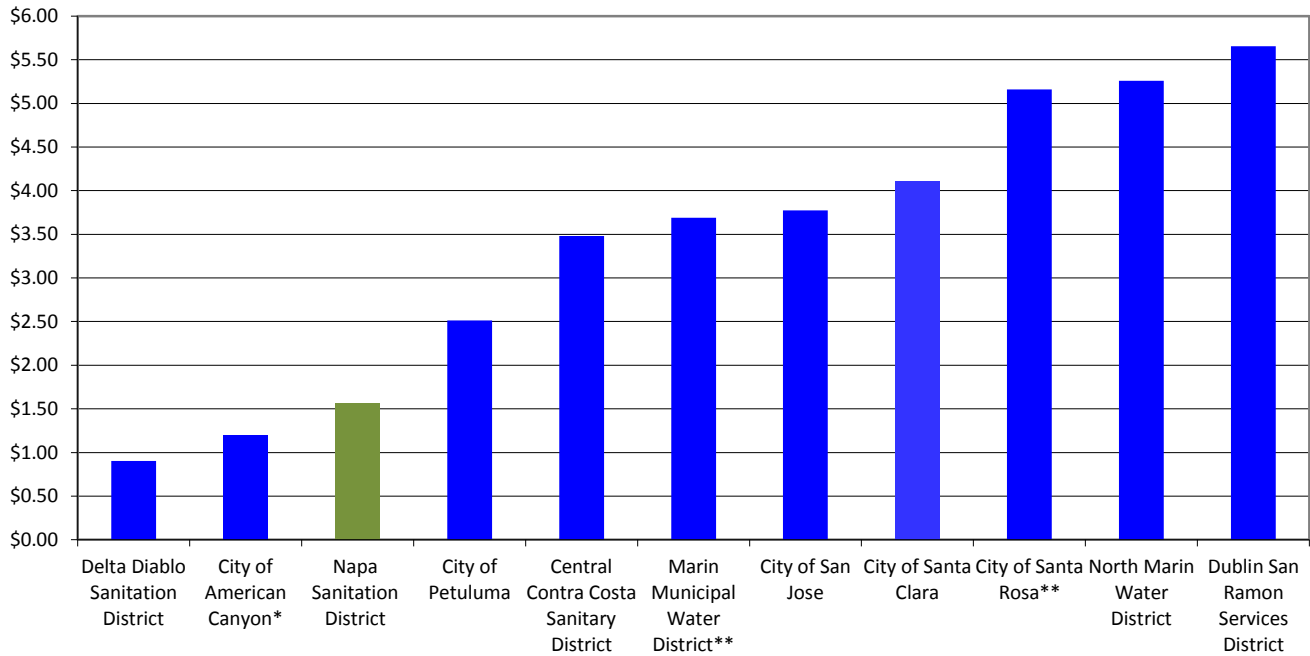
Calendar Year Ending December 31	QUANTITY		RATES
	Total Acre Feet	Total Million Gallons	Rate per 1,000 Gallons
2007	1,199	391	0.84
2008	1,415	461	0.87
2009	1,204	392	0.87
2010	913	298	0.90
2011	893	291	0.91
2012	1,153	376	0.94
2013	1,402	457	0.96
2014	1,337	436	0.98
2015	1,422	463	1.01
2016 <sup>(1)</sup>	1,603	522	1.57

Source: Napa Sanitation District

Note: 1 Acre Feet = .325851 Million Gallons

(1) Board of Directors approved an increase to the Recycled Water Rates starting in 2016. Increases will be done by CPI every year thereafter.

### Recycled Water Rate for Surrounding Areas



### Recycled Water Rates FY 2016-17

Agency	Rate per 1,000 gallons
Delta Diablo Sanitation District	\$0.90
City of American Canyon*	1.20
<b>Napa Sanitation District</b>	<b>1.57</b>
City of Petaluma	2.51
Central Contra Costa Sanitary District	3.48
Marin Municipal Water District**	3.69
City of San Jose	3.77
City of Santa Clara	4.10
City of Santa Rosa**	5.16
North Marin Water District	5.26
Dublin San Ramon Services District	5.66

\*Most customers are being charged this rate

\*\*Tier 1 Rate

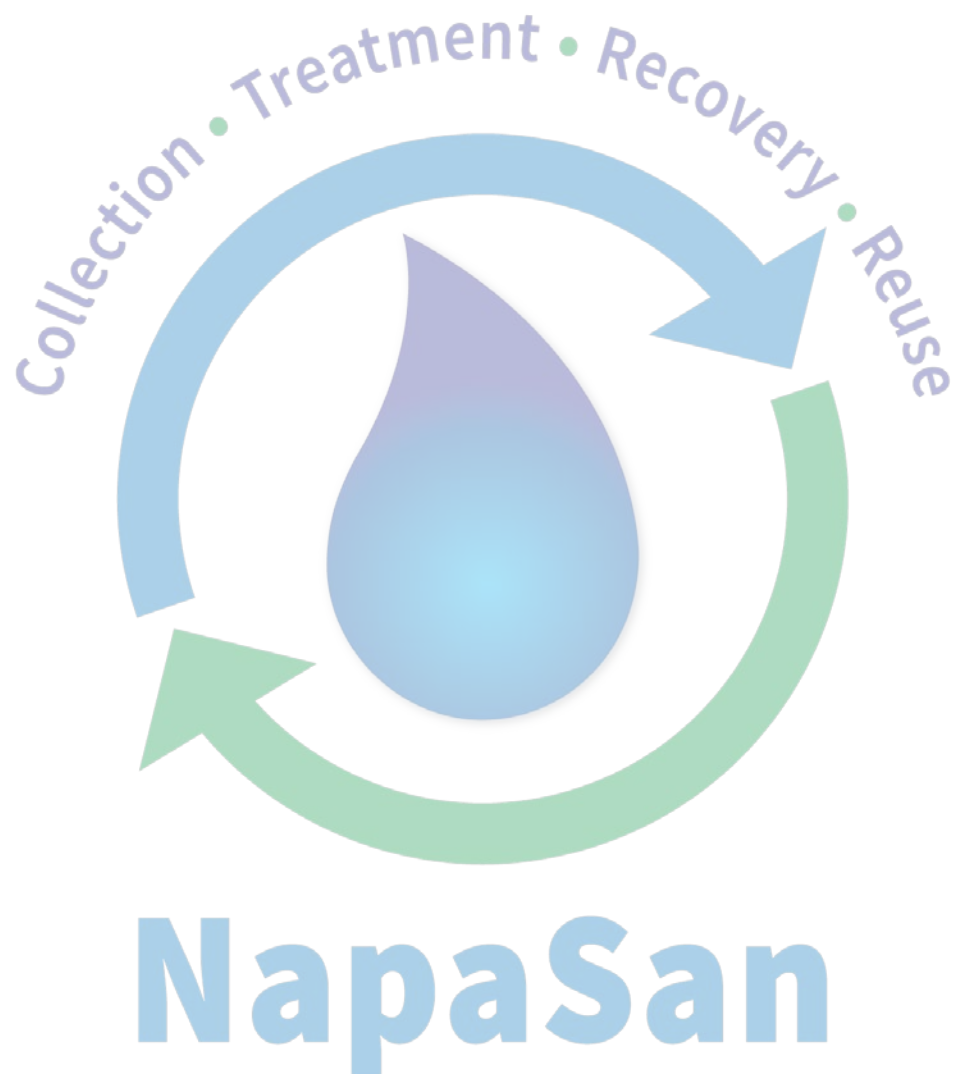
Please note that the rates reflected are based on consumption. Some agencies charge a fixed monthly charge in addition to the consumption charge.

**Appendix C**

**NSD Strategic Plan**



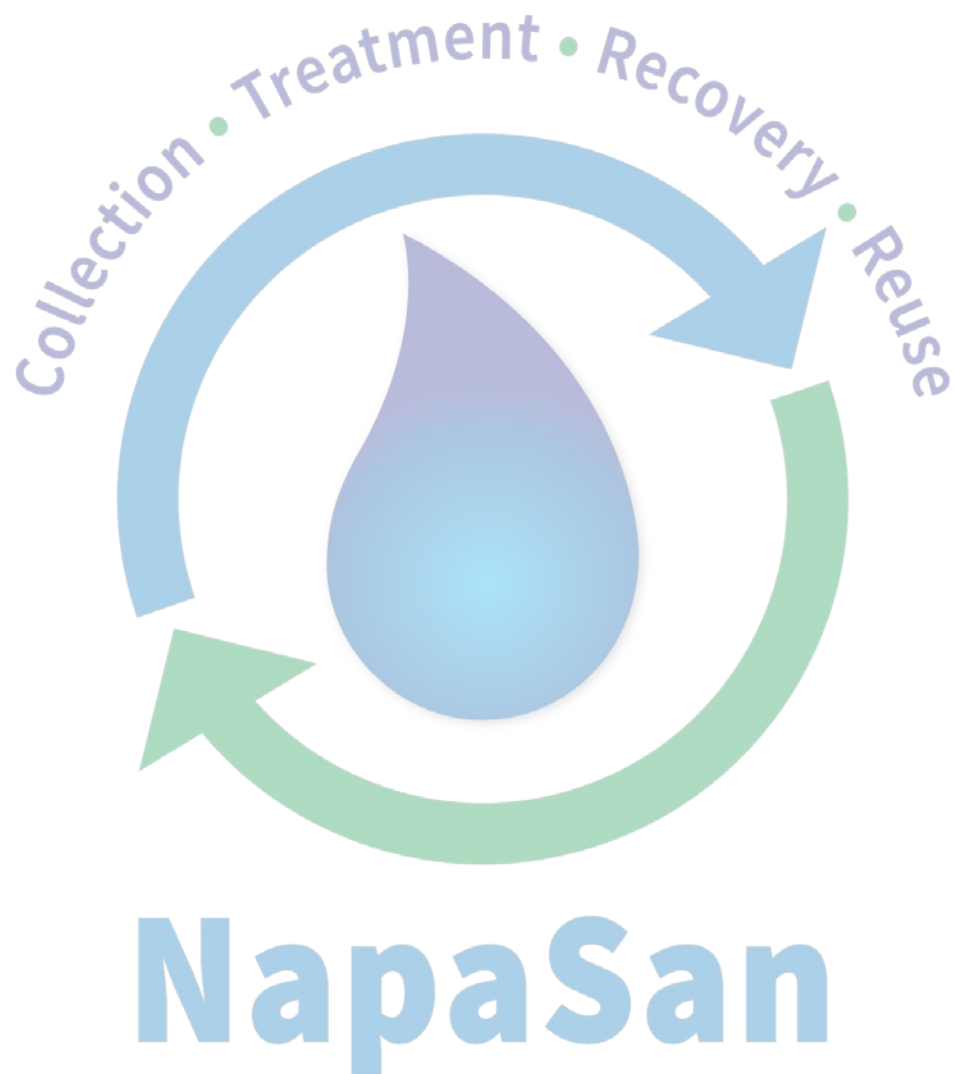
This page intentionally left blank.



## **Appendix D**

### **Financial Policies**

This page intentionally left blank.





## **FINANCIAL POLICIES**

---

Approved by the Board of Directors  
February 1, 2017



*Table of Contents*

<b>1. General Policies .....</b>	<b>3</b>
1.1. Review annually	
1.2. Comply with applicable laws	
1.3. Administrative procedures	
<b>2. Reserve Policies .....</b>	<b>4</b>
2.1. Reviewed annually	
2.2. Operating reserves	
2.3. Liquidity	
<b>3. Revenue .....</b>	<b>5</b>
3.1. Fees and Charges	
3.1.1. Setting of Fee and Charge Amounts	
3.1.2. Collection of Fees and Charges	
3.1.3. Review of Fees	
3.2. Revenue Forecasting	
3.3. Use of one-time and unpredictable revenues	
<b>4. Budgeting and Capital Asset Management .....</b>	<b>6</b>
4.1. Basis of budgeting	
4.2. Balanced budget	
4.3. Budget control	
4.4. Capital asset acquisition, maintenance, replacement and retirement	
4.4.1. Budget for maintenance	
4.4.2. Use of operational fund balance for capital	
4.4.3. Capitalization threshold	
4.4.4. Ten-year Capital Improvement Plan	
4.4.5. Funding requirement	
<b>5. Debt Issuance and Management .....</b>	<b>9</b>
5.1. Use of long-term debt	
5.2. Types of debt	
5.3. Length of debt obligations	
5.4. Debt service limitation	
5.5. Use of credit enhancements	
5.6. Bond rating	



5.7. Financial disclosure	
5.8. Internal controls	
<b>6. Investments</b>	<b>11</b>
6.1. Investment policy	
6.2. Annual review	
<b>7. Financial Reporting</b>	<b>12</b>
7.1. Quarterly Financial Reporting to Board of Directors	
7.2. Monthly Financial Reporting to the Board of Directors	
7.3. Monthly Management Report review	
<b>8. Accounting</b>	<b>13</b>
8.1. Financial statements	
8.2. Annual financial audit	
8.3. Accounting policies and procedures	

**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. The Capital Improvement Plan shall include and indicate when and for what projects the District intends to finance through the issuance of debt. 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. The intended use of debt shall be described in and integrated into the District's Capital Improvement Plan and any long range financial forecasts.

**5.2 Types of debt**

The District, either on its own or through a public benefit corporation, may issue general obligation bonds, certificates of participation, revenue bonds, borrow from a bank, borrow from the State of California through the use of state revolving fund loans, borrow from the Federal Government, or issue any other long or short-term instrument approved by and deemed appropriate by the Board of Directors to meet the capital financing needs of the District. Debt may be fixed rate or variable rate.

**5.3 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.

**5.4 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.

**5.5 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, or the enhancement is a requirement for the loan or debt issuance.

### **5.6 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.

### **5.7 Financial disclosure**

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

### **5.8 Internal controls**

To ensure debt proceeds are used as intended, the District shall implement internal control procedures that include at least the following:

- Debt proceeds shall be deposited in an account separate from other District accounts, with only revenues and expenditures directly associated with the debt proceeds included in the account.
- At least two approvals from different reviewers will be required on all expenditures of debt proceeds, to review and ensure the expenditure is appropriate to be paid from debt proceeds.
- District accounting staff shall prepare periodic reports on the use of debt proceeds for management review.

**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, including relevant information on debt proceeds and debt service payments. 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.

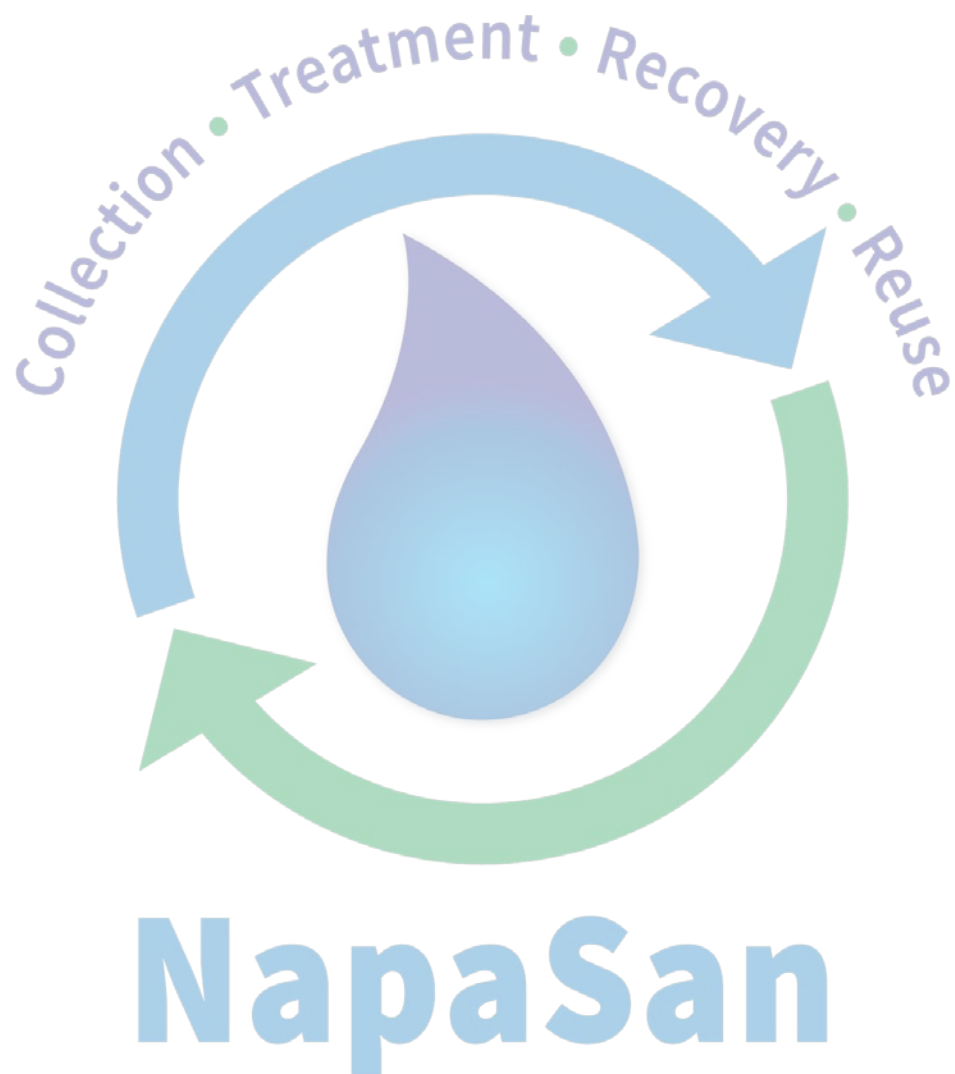
**8.2 Annual financial audit**

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.

This page intentionally left blank.

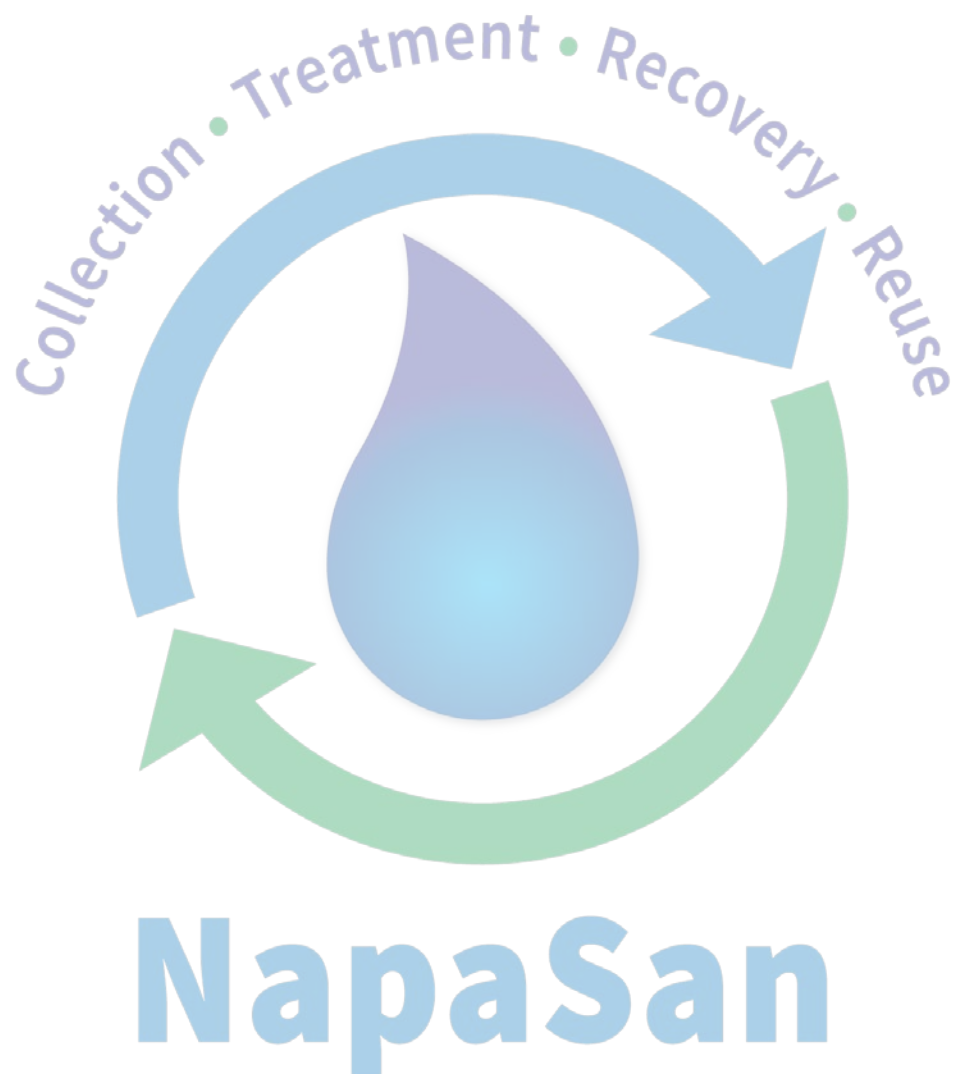


## **Appendix E**

### **2016 Performance Measurement Report**



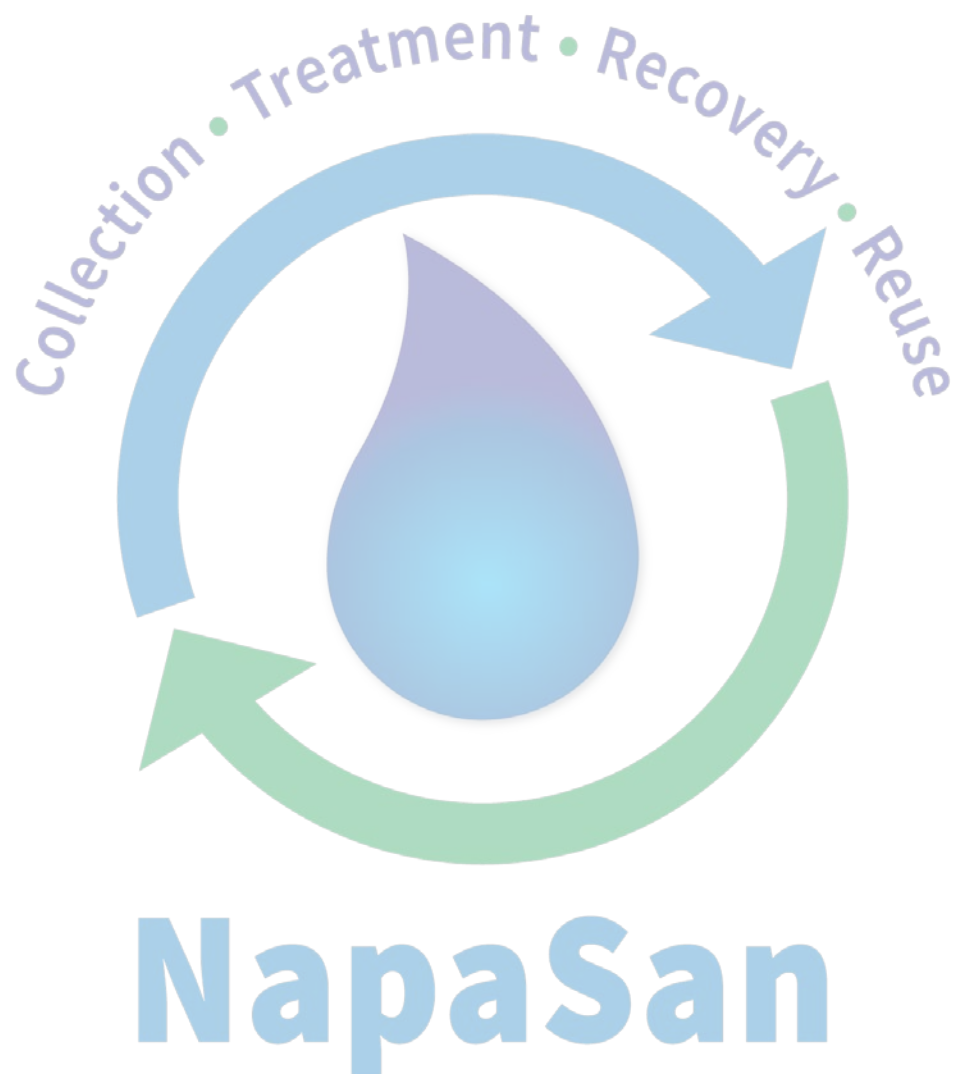
This page intentionally left blank.



## **Appendix F**

### **Capacity Charges Report for Fiscal Year 2015/16**

This page intentionally left blank.



## **Capacity Charges Report for Fiscal Year 2015/16**

### **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 2015/16, the fee for capacity charges was \$8,950 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.

In FY 2014/15, that deficit grew by \$7,315,937.78 to \$26,585,148.88.

### **Activity for Current Reporting Period (FY 2015/16)**

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

#### **Revenue**

Capacity Charges Collected	\$2,916,191.06
Mitigation Fees*	223,311.69
Interest	1,352.37
Other Associated Revenues**	
USBR – WaterSMART Grant	111,557.00
<b>Total Revenue</b>	<b>\$3,252,412.12</b>

	<b>FY 15/16 Total Expended</b>	<b>% of project allocated to Cap Charges</b>	<b>Total Cap Charges</b>	<b>Status as of 6/30/16</b>
<b><u>Expenditures / Capital Projects</u></b>				
13705 – I&I Reduction Program	\$79,657.61	39.4%	\$31,385.10	Ongoing
14701 – Basin L - I&I Reduction Project 4	1,598,352.76	39.4%	629,750.99	Complete
15701 - Upper Later Rehabilitation - Basin L	101,399.64	39.4%	39,951.46	Complete
16701 – Basin L - I&I Reduction Project 5	1,290,370.32	39.4%	508,405.91	Ongoing
16704 – Manhole Rehab - Basin L (Pilot)	9,833.30	39.4%	3,874.32	Complete
13713 – Pond 1 Aeration	2,920.62	100.0%	2,920.62	Complete
13714 – Recycled Water Expansion Phase 1*	458,228.00	39.4%	180,541.83	Complete
13724 – IPS Expansion	1,105,377.54	39.4%	435,518.75	Ongoing
<b>Total Expansion Capital Expenditures</b>			<b>\$1,832,348.97</b>	
<b>Ending Balance (deficit)</b>			<b>(\$25,165,085.73)</b>	

**Budgeted Capacity Charge Expenses for Next Reporting Period (as of 9/30/2016)**

<b><u>CIP# - Name</u></b>	<b><u>FY 16/17</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	\$200,000	39.4%	60.6%	\$78,800	\$121,200
16701 – Basin L - I&I Reduction Project 5	1,400,000	39.4%	60.6%	551,600	848,400
17708 – Basin G - I&I Reduction Project #1	1,200,000	39.4%	60.6%	472,800	727,200
13724 – IPS Expansion	38,700	39.4%	60.6%	15,248	23,452
<b>Total Capacity Charge Expenses</b>	<b>\$2,838,700</b>			<b>\$1,118,448</b>	<b>\$1,720,252</b>

**Note:**

\* Mitigation Fees were allocated to I&I Reduction Projects.

\*\*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).

This page intentionally left blank.

