

## Capital Improvement Plan



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

## 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 32, 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:

<u>FY 2008/09 Actual</u>	
Beginning Deficit (7/1/08)	(\$12,607,167)
Revenues	1,387,193
Expansion Projects	1,663,801

<u>FY 2009/10 Actual</u>	
Beginning Deficit	(\$12,883,775)
Revenues	600,664
Expansion Projects	2,191,370

<u>FY 2010/11 Actual</u>	
Beginning Deficit	(\$14,474,480)
Revenues	2,183,802
Expansion Projects	2,811,161

<u>FY 2011/12 Actual</u>	
Beginning Deficit	(\$15,101,839)
Revenues	3,330,418
Expansion Projects	4,208,445

<u>FY 2012/13 Actual</u>	
Beginning Deficit	(\$15,979,866)
Revenues	2,693,047
Expansion Projects	2,171,064

<u>FY 2013/14 Actual</u>	
Beginning Deficit	(\$15,457,883)
Revenues	3,635,826
Expansion Projects	7,447,155

<u>FY 2014/15 Actual</u>	
Beginning Deficit	(\$19,269,211)
Revenues	3,341,297
Expansion Projects	10,657,234

<u>FY 2015/16 Actual</u>	
Beginning Deficit	(\$26,585,149)
Revenues	3,252,412
Expansion Projects	1,832,349

<u>FY 2016/17 Estimated</u>	
Beginning Deficit	(\$26,165,086)
Revenues	3,804,000
Expansion Projects	1,118,448

<u>FY 2017/18 Budget</u>	
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 16/17, 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 16/17.

### 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 duel 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

	<u>FY 2017/18</u>	<u>10-Year CIP</u>
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 EPA (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 18xxx – 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.

<b>Net Impacts of Capital Projects on Operating Budget</b>			
<b>CIP #</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>
18xxx	300,000	25,000	25,000
17734	0	(4,000)	(4,000)
13745	0	0	8,000
<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**

pink = completed in-house  
 blue = needed for future planning  
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**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>I&amp;I Smoke Testing</b>	<b>Project Total:</b>	<b>\$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>Collection System Asset Management Software</b>	<b>Project Total:</b>	<b>\$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:</b>	<b>\$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>Upper Lateral Rehabilitation - Basin L (Pilot #3)</b>	<b>Project Total:</b>	<b>\$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>Manhole Rehab - Nipak - Basin H</b>	<b>Project Total:</b>	<b>\$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:</b>	<b>\$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:</b>	<b>\$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:</b>	<b>\$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>Summer 2018 Sewer Rehabilitation</b>	<b>Project Total:</b>	<b>\$4,250,000</b>	<b>FY 2017/18:</b> <b>\$1,650,000</b>

*This collection system rehabilitation project will be designed and constructed to reduce I&I in various high priority areas.*

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**Summer 2019 Sewer Rehabilitation** **Project Total: \$4,779,200** **FY 2017/18: \$20,000**

*This collection system rehabilitation project will be designed and constructed to reduce I&I in various high priority areas.*

**COLLECTION SYSTEM EQUIPMENT**

**Locatable Mini-camera #2 Replacement** **Project Total: \$11,100** **FY 2017/18: \$11,100**

*This project will replace this equipment with consistent mechanical problems.*

**Manhole Smart Covers (4)** **Project Total: \$25,000** **FY 2017/18: \$25,000**

*This project will purchase level sensing equipment for installation in collection system manholes to monitor high flows during wet-weather conditions.*

**Vehicle 504 - TV Truck** **Project Total: \$270,000** **FY 2017/18: \$270,000**

*This project will purchase new CCTV equipment for the existing TV truck.*

**LIFT STATIONS**

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

**TREATMENT**

**13745 Pond 1 Dredge** **Project Total: \$3,400,000** **FY 2017/18: \$400,000**

*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.*

**TREATMENT - EQUIPMENT**

**13735 Duel Fuel Boiler Burner** **Project Total: \$155,300** **FY 2017/18: \$155,300**

*Replace the existing boiler to enable processing of digester gas and natural gas. The existing boiler does not meet existing air regulations.*

**13741 Secondary PS Pump Rebuild (3)** **Project Total: \$118,500** **FY 2017/18: \$38,800**

*This equipment is at the end of its useful life and needs to be replaced.*

**17713 Secondary PS VFD Replacement (3)** **Project Total: \$166,400** **FY 2017/18: \$55,400**

*This equipment is at the end of its useful life and needs to be replaced.*

**13743 Residual Analyzers (Deox) Replacements** **Project Total: \$25,000** **FY 2017/18: \$5,000**

*This equipment is at the end of its useful life and needs to be replaced.*

**3W Pipeline - Soscol PS to Plant - Rehab** **Project Total: \$33,300** **FY 2017/18: \$33,300**

*Rehabilitate existing pipeline between recycled water reservoirs and plant 3W system to allow tertiary treated water for plant utility water use This project add redundancy to the 3W system.*

**3W Strainer** **Project Total: \$83,200** **FY 2017/18: \$83,200**

*Add strainer to the 3W system to protect pumps that use 3W for seal water.*

**3W VFD** **Project Total: \$62,100** **FY 2017/18: \$62,100**

*Install a new VFD for the existing second 3W pump at the treatment plant. This project adds redundancy to the 3W system.*

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<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>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>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>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>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>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>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>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>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>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>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>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>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>Main - Belt Press Hydraulic Actuator Replacement</b> <i>Replace existing actuators that are at the end of their useful life.</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>
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**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.*

**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.*

**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**

**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%.*

**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.*

**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.*

**17734 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.*

**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.*

**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>COLLECTION SYSTEM</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
	I&I Smoke Testing	100,000	39.4%	60.6%	39,400	60,600
	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
	Upper Lateral Rehabilitation - Basin L (Pilot #3)	5,000		100.0%	-	5,000
	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
	Summer 2018 Sewer I&I	1,650,000	39.4%	60.6%	650,100	999,900
	Summer 2019 Sewer I&I	20,000	39.4%	60.6%	7,880	12,120
<b>COLLECTION SYSTEM - EQUIPMENT</b>						
	Locatable Mini-Camera #2 Replacement	11,100		100.0%	-	11,100
	Manhole - Smart Covers	25,000		100.0%	-	25,000
	Vehicle 504 - TV Truck	270,000		100.0%	-	270,000
<b>TREATMENT</b>						
13745	Pond 1 Dredge	400,000		100.0%	-	400,000
<b>TREATMENT - EQUIPMENT</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
	3W Pipeline-Soscol PS to Plant-Rehab	33,300		100.0%	-	33,300
	3W Strainer	83,200		100.0%	-	83,200
	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
	Primary Influent Pipe - East Gallery	250,000		100.0%	-	250,000
	Lab - Distillation System	6,000		100.0%	-	6,000
	Lab - Muffle Furnace - Replacement	15,000		100.0%	-	15,000
	Main - Rotork Actuator Replacment	91,800		100.0%	-	91,800
	Main - Septage Card Reader Replacement	21,400		100.0%	-	21,400
	Main - Secondary Clarifier Mech/Struct Rehab	50,000		100.0%	-	50,000
	Main - Filter Flow Control - Rotork Valvues	46,600		100.0%	-	46,600
	Main - Neuros Blowers Rebuild	62,100		100.0%	-	62,100
	Main - CCB #3 Effluent Gate	5,000		100.0%	-	5,000
	Main - FOG Station Water Heater	5,000		100.0%	-	5,000
	Main - Pond 4 PS - Repair Leak	24,000		100.0%	-	24,000
	Main - Filter 1-4 Air Valve	10,000		100.0%	-	10,000
	Main - Belt Press Hydraulic Actuator Replace	20,000		100.0%	-	20,000
<b>TREATMENT - STRUCTURES</b>						
17726	Headworks Equipment Rehab/Replacment	250,000		100.0%	-	250,000
	OPS Building HVAC and Lab Ventilation	500,000		100.0%	-	500,000
	Earthquake - Digester Tower Repair	300,000		100.0%	-	300,000
	Roof Replacement - Solids Handling/Digester Tower	232,900		100.0%	-	232,900
<b>SCADA</b>						
	SCADA MP Project #1 - Network Monitoring	50,000		100.0%	-	50,000
<b>RECYCLING - DISTRICT</b>						
16716	Line Recycled Water Reservoir	1,800,000		100.0%	-	1,800,000
	Jameson 24" Flow Meter Rehab	6,200		100.0%	-	6,200
	Coombsville Truck Fill Station	100,000		100.0%	-	100,000
<b>RECYCLING - EXPANSION</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>OTHER</b>						
13729	Development Technical Support	239,900		100.0%	-	239,900
	Box Culvert - Fugundes Emergency Access	5,000		100.0%	-	5,000
	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>

Napa Sanitation District  
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#	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	Total 10-Year CIP
<b>COLLECTION SYSTEM</b>												
1	13701 Mainline Sewer Rehab	91,800	95,000	98,300	101,800	105,300	109,000	112,900	116,800	120,900	125,100	1,076,900
2	13702 Manhole Raising / Rehab	206,000	428,500	443,500	459,000	475,100	491,700	508,900	526,700	545,200	564,200	4,648,800
3	13703 Lateral Replacement / Rehab	74,500	77,100	79,800	82,600	85,500	88,500	91,600	94,800	98,100	101,600	874,100
4	13704 Cleanout Installation / Rehab	90,000	93,200	96,500	99,800	103,300	106,900	110,700	114,600	118,600	122,700	1,056,300
5	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	2,428,400
6	18701 I&I Smoke Testing	100,000	-	-	-	-	-	-	-	-	-	100,000
7	Collection System Master Plan	-	-	890,800	-	-	-	-	-	-	-	890,800
8	18702 Collection System Asset Management Software	350,000	-	-	-	-	-	-	-	-	-	350,000
9	17701 ACP CIPP Lining Project #2	-	350,000	-	-	-	-	-	-	-	-	350,000
10	17702 Upper Lateral Rehab - Basin L (Pilot) #2	155,300	-	-	-	-	-	-	-	-	-	155,300
11	18703 Upper Lateral Rehab - Basin L (Pilot) #3	5,000	160,700	-	-	-	-	-	-	-	-	165,700
12	18704 Manhole Rehab - Nipak - Basin H	284,600	-	-	-	-	-	-	-	-	-	284,600
13	17705 Soscol Ave (8th to Oil Company Rd)	950,000	-	-	-	-	-	-	-	-	-	950,000
14	14703 Browns Valley Trunk	9,237,000	2,049,000	-	-	-	-	-	-	-	-	11,286,000
15	17708 Summer 2017 Sewer Rehabilitation	2,942,000	-	-	-	-	-	-	-	-	-	2,942,000
16	18705 Sewer System Inflow/Infiltration 2018	1,650,000	2,600,000	-	-	-	-	-	-	-	-	4,250,000
17	Sewer System Rehab/Replacement 2019	-	-	1,053,300	-	-	-	-	-	-	-	1,053,300
18	18706 Sewer System Inflow/Infiltration 2019	20,000	1,821,100	1,884,800	-	-	-	-	-	-	-	3,725,900
19	Sewer System Rehab/Replacement 2020	-	-	1,053,300	1,090,100	-	-	-	-	-	-	2,143,400
20	Sewer System Inflow/Infiltration 2020	-	20,000	1,884,800	-	-	1,950,800	-	-	-	-	3,855,600
21	Sewer System Rehab/Replacement 2021	-	-	-	1,090,100	1,128,300	-	-	-	-	-	2,218,400
22	Sewer System Inflow/Infiltration 2021	-	-	20,000	1,950,800	2,019,100	-	-	-	-	-	3,989,900
23	Sewer System Rehab/Replacement 2022	-	-	-	-	1,128,300	1,167,800	-	-	-	-	2,296,100
24	Sewer System Inflow/Infiltration 2022	-	-	-	20,000	2,019,100	2,089,700	-	-	-	-	4,128,800
25	Sewer System Rehab/Replacement 2023	-	-	-	-	1,167,800	1,208,700	1,208,700	-	-	-	2,376,500
26	Sewer System Inflow/Infiltration 2023	-	-	-	-	20,000	2,089,700	2,162,900	-	-	-	4,272,600
27	Sewer System Rehab/Replacement 2024	-	-	-	-	-	-	1,208,700	1,251,000	-	-	2,459,700
28	Sewer System Inflow/Infiltration 2024	-	-	-	-	20,000	2,162,900	2,238,600	2,238,600	-	-	4,421,500
29	Sewer System Rehab/Replacement 2025	-	-	-	-	-	-	1,251,000	1,294,800	1,294,800	-	2,545,800
30	Sewer System Inflow/Infiltration 2025	-	-	-	-	-	20,000	2,238,600	2,316,900	2,316,900	-	4,575,500
31	Sewer System Rehab/Replacement 2026	-	-	-	-	-	-	-	1,294,800	1,294,800	1,340,100	2,634,900
32	Sewer System Inflow/Infiltration 2026	-	-	-	-	-	-	20,000	2,316,900	2,316,900	2,398,000	4,734,900
33	Sewer System Rehab/Replacement 2027	-	-	-	-	-	-	-	-	-	1,340,100	1,340,100
34	Sewer System Inflow/Infiltration 2027	-	-	-	-	-	-	-	20,000	2,418,000	2,398,000	4,816,000
35	Trunk Project - Year 7	-	-	-	-	-	-	1,229,300	-	-	-	1,229,300
36	Trunk Project - Year 8	-	-	-	-	-	-	-	1,272,300	-	-	1,272,300
37	Trunk Project - Year 9	-	-	-	-	-	-	-	-	1,316,800	-	1,316,800
38	Trunk Project - Year 10	-	-	-	-	-	-	-	-	-	1,362,900	1,362,900
<b>COLLECTION SYSTEM - EQUIPMENT</b>												
40	16706 Locatable Mini-Camera #1 Replacement	-	-	-	-	-	-	13,600	-	-	-	13,600
41	18707 Locatable Mini-Camera #2 Replacement	11,100	-	-	-	-	-	-	-	14,600	-	25,700
42	Locatable Mini-Camera #3 Replacement	-	-	11,900	-	-	-	-	-	-	-	11,900
43	Locatable Mini-Camera #4 Replacement	-	-	-	-	12,700	-	-	-	-	-	12,700
44	17709 Eel Replacement #1	-	-	-	-	-	-	-	7,100	-	-	7,100
45	Eel Replacement #2	-	-	5,900	-	-	-	-	-	-	-	5,900
46	Eel Replacement #3	-	-	-	-	-	6,600	-	-	-	-	6,600
47	Eel Replacement #4	-	-	-	-	-	-	-	-	7,300	-	7,300
48	Permaliner Picote - CIPP Lateral Repair Tool	-	20,000	-	-	-	-	-	-	-	-	20,000
49	18708 Manhole - Smart Covers (4)	25,000	-	-	-	-	-	-	-	-	-	25,000
50	13711 Vehicle 711 - Kubota	-	-	-	-	-	-	53,400	-	-	-	53,400
51	13712 Vehicle 173 - Plugup Truck - Secondary	-	-	-	-	-	-	-	81,800	-	-	81,800
52	Vehicle 185 - Plugup Truck - Primary	-	-	-	-	-	-	-	-	84,700	-	84,700
53	Vehicle 180 - Ford Ranger	-	35,400	-	-	-	-	-	-	-	-	35,400
54	Vehicle 154 - Ford Ranger	-	-	-	-	-	-	-	43,500	-	-	43,500
55	Vehicle 15 - Water Trailer	-	-	-	11,600	-	-	-	-	-	-	11,600
56	Vehicle 166 - Ford F-350	-	-	-	-	29,700	-	-	-	-	-	29,700
57	Vehicle 706 - 410 Backhoe	-	-	-	-	164,200	-	-	-	-	-	164,200
58	Vehicle 175 - Hybrid Escape	-	-	25,500	-	-	-	-	-	-	-	25,500
59	18709 Vehicle 504 - TV Truck	270,000	-	-	-	-	-	614,600	-	-	-	884,600

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#	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	Total 10-Year CIP
60	Vehicle 100 - Backhoe Trailer	-	-	-	25,300	-	-	-	-	-	-	25,300
61	Vehicle 512 - Rodder	-	-	-	-	180,000	-	-	-	-	-	180,000
62	Vehicle 18 - Cement Trailer	-	-	-	-	37,400	-	-	-	-	-	37,400
63	Vehicle 16 - 18ft Trailer	-	9,400	-	-	-	-	-	-	-	-	9,400
64	Vehicle 205 - Forklift	-	-	-	43,200	-	-	-	-	-	-	43,200
65	Vehicle 179 - Mini-Dump	-	-	-	-	62,900	-	-	-	-	-	62,900
66	Vehicle 182 - Mini-Dump	-	-	-	-	62,900	-	-	-	-	-	62,900
67	Vehicle 514 - 10 Yard Dump	-	-	-	-	-	-	-	-	252,600	-	252,600
68	Vehicle 528 - Mini-Vactor	-	-	-	-	-	-	566,600	-	-	-	566,600
69	Vehicle 529 - Vactor	-	534,000	-	-	-	-	-	-	-	-	534,000
70	Vehicle 183 - Repair Truck	-	-	-	-	-	55,300	-	-	-	-	55,300
71	<b>LIFT STATIONS</b>											
72	17711 West Napa PS - Rehab	-	1,300,000	-	-	-	-	-	-	-	-	1,300,000
73	Main - Stonecrest Pump Rebuild	-	45,000	-	-	-	-	-	-	-	-	45,000
74	Lift Station Equipment Renewal & Replacement	-	-	40,000	-	-	-	-	-	-	-	40,000
75	Lift Station Equipment Renewal & Replacement	-	-	-	41,400	-	-	-	-	-	-	41,400
76	Lift Station Equipment Renewal & Replacement	-	-	-	-	42,800	-	-	-	-	-	42,800
77	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	44,300	-	-	-	-	44,300
78	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	-	459,000	-	-	-	459,000
79	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	-	-	475,100	-	-	475,100
80	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	-	-	-	491,700	-	491,700
81	Lift Station Equipment Renewal & Replacement	-	-	-	-	-	-	-	-	-	508,900	508,900
82	<b>TREATMENT</b>											
83	13745 Pond 1 Dredge	400,000	2,000,000	1,000,000	-	-	-	-	-	-	-	3,400,000
84	WWTP Master Plan	-	-	-	1,843,900	-	-	-	-	-	-	1,843,900
85	Siloxane Filter - Venturi	-	-	221,700	-	-	-	-	-	-	-	221,700
86	Headworks - Biofilter	-	-	-	114,800	-	-	-	-	-	-	114,800
87	<b>TREATMENT - EQUIPMENT</b>											
88	13735 Dual Fuel Boiler Burner	155,300	-	-	-	-	-	-	-	-	-	155,300
89	13741 Secondary PS Pump Rebuild (3)	38,800	-	-	-	-	-	-	-	-	-	38,800
90	17713 Secondary PS VFD Replacement (3)	55,400	57,400	-	-	-	-	-	-	-	-	112,800
91	13743 Residual Analyzers (Deox) Replacements	5,000	-	10,000	-	-	-	-	-	87,600	-	102,600
92	15707 DAFT Overflow Pumps (2) Cornell	-	11,500	11,900	-	-	-	-	-	-	-	23,400
93	18710 3W Pipeline - Soscol PS to Plant - Rehab	33,300	-	-	-	-	-	-	-	-	-	33,300
94	18711 3W Strainer	83,200	-	-	-	-	-	-	-	-	-	83,200
95	18712 3W VFD	62,100	-	-	-	-	-	-	-	-	-	62,100
96	17714 WWTP MP - 3W System Improvements	440,000	-	-	-	-	-	-	-	-	-	440,000
97	17715 Turbidimeters (7) Tertiary Replacements	20,000	-	-	-	-	-	-	-	-	-	20,000
98	MLE Recirculation Pumps (2) - Nutrient Opt	-	229,500	-	-	-	-	-	-	-	-	229,500
99	Portable Pumps 10" (2)	-	172,100	-	-	-	-	-	-	-	-	172,100
100	Sodium Bisulfite Tank #2	-	68,900	-	-	-	-	-	-	-	-	68,900
101	Marsh-to-Pond Pump Station Upgrade	-	-	88,700	-	-	-	-	-	-	-	88,700
102	18713 Primary Influent Pipe - East Gallery	250,000	-	-	-	-	-	-	-	-	-	250,000
103	Plant Panel - Upgrade	-	-	-	57,400	-	-	-	-	-	-	57,400
104	Ops - SBS Flash Mixers	-	-	88,700	-	-	-	-	-	-	-	88,700
105	Ops - Plant Project - Year 7	-	-	-	-	-	-	1,229,300	-	-	-	1,229,300
106	Ops - Plant Project - Year 8	-	-	-	-	-	-	-	1,272,300	-	-	1,272,300
107	Ops - Plant Project - Year 9	-	-	-	-	-	-	-	-	1,975,200	-	1,975,200
108	Ops - Plant Project - Year 10	-	-	-	-	-	-	-	-	-	2,044,300	2,044,300
109	Lab - Upgrade Project	-	-	-	-	477,100	-	-	-	-	-	477,100
110	Lab - Lab Grade Dishwasher Replacement #1	-	-	-	-	-	-	29,600	-	-	-	29,600
111	Lab - Lab Grade Dishwasher #2	-	-	-	-	26,700	-	-	-	-	-	26,700
112	Lab - Refrigerator/Freezer (2)	-	-	-	-	13,100	-	-	-	-	-	13,100
113	15710 Lab - Amperometric Titrator Replacement	-	-	-	-	-	-	-	-	7,300	-	7,300
114	Lab - Microscope Replacement	-	-	53,000	-	-	-	-	-	-	-	53,000
115	14731 Lab - Balance Replacement	-	-	-	-	-	-	-	-	22,700	-	22,700
116	Lab - Autoclave Replacement	-	-	-	-	-	36,900	-	-	-	-	36,900
117	Lab - UV Spectrophotometer Replacement	-	-	-	-	28,700	-	-	-	-	-	28,700
118	Lab - BOD Incubator Replacement	-	-	-	-	9,300	-	-	-	-	-	9,300
119	Lab - BOD System Replacement	-	-	-	-	53,400	-	-	-	-	-	53,400
120	Lab - Sampler 4700 Replacement	-	-	-	-	-	8,000	-	-	-	-	8,000

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#	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	Total 10-Year CIP
121	Lab - Sampler 4700 Replacement	-	-	-	-	-	8,000	-	-	-	-	8,000
122	Lab - Sampler 4700 Replacement	-	-	-	-	-	8,000	-	-	-	-	8,000
123	Lab - Sampler 4700 Replacement	-	-	-	-	-	-	8,300	-	-	-	8,300
124	Lab - Sampler 4700 Replacement	-	-	-	-	-	-	8,300	-	-	-	8,300
125	Lab - Centrifuge Replacement	-	-	-	-	-	7,500	-	-	-	-	7,500
126	Lab - ICP MS	-	-	178,200	-	-	-	-	-	-	-	178,200
127	Lab - FIA IC Unit	-	103,300	-	-	-	-	-	-	-	-	103,300
128	18714 Lab - Distillation System	6,000	-	-	-	-	-	-	-	-	-	6,000
129	18715 Lab - Muffle Furnace - Replacement	15,000	-	-	-	-	-	-	-	-	-	15,000
130	18716 Main - Rotork Actuator Replacement	91,800	-	-	-	-	-	-	-	-	-	91,800
131	Main - Rotork Actuator Replacement	-	95,000	-	-	-	-	-	-	-	-	95,000
132	Main - Rotork Actuator Replacement	-	-	-	101,800	-	-	-	-	-	-	101,800
133	Main - Rotork Actuator Replacement	-	-	-	-	-	109,000	-	-	-	-	109,000
134	Main - Rotork Actuator Replacement	-	-	-	-	-	-	-	116,800	-	-	116,800
135	Main - Septage Pump & Motor Replacement	-	-	-	-	-	31,800	-	-	-	-	31,800
136	18717 Main - Septage Card Reader Replacement	21,400	-	-	-	-	-	-	-	-	-	21,400
137	16712 Main - Primary Clarifier Mech/Struct Rehabilitation	-	150,000	647,700	-	-	-	-	-	-	-	797,700
138	18718 Main - Secondary Clarifier Mech/Struct Rehabilitation	50,000	-	-	175,000	175,000	-	-	-	-	-	400,000
139	Main - Floc Clarifier Recoating	-	-	118,800	-	-	-	-	-	-	-	118,800
140	Main - Polymer Tanks (3) replacement	-	-	160,700	-	-	-	-	-	-	-	160,700
141	16713 Main - Buried Metallic Piping (eval/rehab)	-	-	75,000	250,000	-	-	-	-	-	-	325,000
142	Main - 12kV Redundant Line (to RW sta)	-	53,600	-	-	-	-	-	-	-	-	53,600
143	18719 Main - Filter Flow Control - Rotork Valves	46,600	-	-	-	-	-	-	-	-	-	46,600
144	Main - Dewatering Polymer Injection Mixers - Relocati	-	-	33,300	-	-	-	-	-	-	-	33,300
145	18720 Main - Neuros Blowers Rebuild	62,100	64,300	-	-	-	-	-	-	-	-	126,400
146	Main - CCB Coating - E&W Channels	-	50,000	166,300	-	-	-	-	-	-	-	216,300
147	18721 Main - CCB #3 Effluent Gate	5,000	-	-	-	-	-	-	-	-	-	5,000
148	Main - Pond 4 PS - Pump Rehab	-	50,000	50,000	-	-	-	-	-	-	-	100,000
149	18722 Main - FOG Station Water Heater	5,000	-	-	-	-	-	-	-	-	-	5,000
150	18723 Main - Pond 4 PS - Repair Leak	24,000	-	-	-	-	-	-	-	-	-	24,000
151	18724 Main - Filter 1-4 Air Valve	10,000	-	-	-	-	-	-	-	-	-	10,000
152	18725 Main - Belt Press Hydraulic Actuator Replace	20,000	-	-	-	-	-	-	-	-	-	20,000
153	Main - Plant Door Replacement - Phase 1	-	-	22,200	-	-	-	-	-	-	-	22,200
154	Main - Plant Door Replacement - Phase 2	-	-	-	23,000	-	-	-	-	-	-	23,000
155	Main - Plant Door Replacement - Phase 3	-	-	-	-	23,800	-	-	-	-	-	23,800
156	Main - Plant Door Replacement - Phase 4	-	-	-	-	-	24,600	-	-	-	-	24,600
157	Main - Plant Door Replacement - Phase 5	-	-	-	-	-	-	25,400	-	-	-	25,400
158	Main - Plant Project - Year 7	-	-	-	-	-	-	1,229,300	-	-	-	1,229,300
159	Main - Plant Project - Year 8	-	-	-	-	-	-	-	1,272,300	-	-	1,272,300
160	Main - Plant Project - Year 9	-	-	-	-	-	-	-	-	1,975,200	-	1,975,200
161	Main - Plant Project - Year 10	-	-	-	-	-	-	-	-	-	2,044,300	2,044,300
162	13722 Vehicle 132 - Ford F-150	-	-	-	-	-	-	-	35,600	-	-	35,600
163	Vehicle 163 - Ford Ranger (Replace with F-150)	-	32,100	-	-	-	-	-	-	-	-	32,100
164	Vehicle 162 - Ford F-250 Diesel (replace with F-150)	-	35,600	-	-	-	-	-	-	-	-	35,600
165	Vehicle 165 - Ford F-350	-	-	-	-	-	43,900	-	-	-	-	43,900
166	Vehicle 178 - Ford F-350 SRW	-	-	-	-	38,000	-	-	-	-	-	38,000
167	Vehicle 158 - Ford F-250 Diesel	-	-	-	-	40,700	-	-	-	-	-	40,700
168	Vehicle 176 - Escape Hybrid	-	-	25,500	-	-	-	-	-	-	-	25,500
169	Vehicle 28-39 - Electric Truck	-	-	17,100	-	-	-	-	-	-	-	17,100
170	Vehicle 204 - Forklift	-	-	-	-	44,700	-	-	-	-	-	44,700
171	Vehicle 513 - 10 Yard Dump	-	-	-	-	178,100	-	-	-	-	-	178,100
172	Vehicle 206 - Forklift TH103	-	-	-	-	-	114,300	-	-	-	-	114,300
173	Vehicle 184 - Ford F-550 EM Truck	-	-	-	-	-	55,300	-	-	-	-	55,300
174	Vehicle 131 - Ford F-250	-	-	-	-	-	43,600	-	-	-	-	43,600
175	Vehicle 302 - Boat	-	-	-	-	6,400	-	-	-	-	-	6,400
176	Vehicle 40 - Cushman 1200X	-	-	-	-	-	12,700	-	-	-	-	12,700
177	Vehicle 41 - Cushman 1200X	-	-	-	-	-	12,700	-	-	-	-	12,700
178	Vehicle 42 - Cushman 1200X	-	-	-	-	-	12,700	-	-	-	-	12,700
179	Vehicle 28-30 - Western Golf Cart	-	-	-	8,900	-	-	-	-	-	-	8,900
180	Vehicle 28-31 - Western Golf Cart	-	-	-	8,900	-	-	-	-	-	-	8,900
181	Vehicle 28-32 - Western Golf Cart	-	-	-	8,900	-	-	-	-	-	-	8,900

Napa Sanitation District  
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#	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	Total 10-Year CIP
182	<b>TREATMENT - STRUCTURES</b>											
183	17726 Headworks Equipment Replacement	250,000	1,000,000	700,000	-	-	-	-	-	-	-	1,950,000
184	WWTP MP - Second Digester	-	-	-	-	717,800	2,153,300	14,355,200	-	-	-	17,226,300
185	WWTP MP - Aeration Basin Expansion	-	-	-	-	264,400	793,300	5,288,700	-	-	-	6,346,400
186	18726 Building HVAC and Lab Ventilation	500,000	-	-	-	-	-	-	-	-	-	500,000
187	Plant Locker Room Improvements	-	50,000	-	-	-	-	-	-	-	-	50,000
188	18727 Earthquake - Structural Repair	300,000	-	-	-	-	-	-	-	-	-	300,000
189	WWTP Site Paving	-	-	-	-	-	-	500,000	-	-	-	500,000
190	Pond Levee Repair	-	-	50,000	841,900	-	-	-	-	-	-	891,900
191	WWTP MP - Pond Imp - Ph 2 - Trans Struct 2 to 3	-	5,000	296,300	-	-	-	-	-	-	-	301,300
192	WWTP MP - Pond Imp - Ph 2 - Trans Struct 3 to 4	-	-	-	-	5,000	292,000	-	-	-	-	297,000
193	18728 Roof Replacement - Solids Handling/Digester Tower	232,900	-	-	-	-	-	-	-	-	-	232,900
194	Roof Replacement - Filter Support	-	-	-	66,600	-	-	-	-	-	-	66,600
195	Roof Replacement - Chemical Storage	-	-	-	-	53,400	-	-	-	-	-	53,400
196	Roof Replacement - Headworks	-	-	-	-	-	86,000	-	-	-	-	86,000
197	Roof Replacement - Secondary Effluent PS	-	-	-	-	-	-	10,200	-	-	-	10,200
198	<b>SCADA</b>											
199	SCADA MP Phase 5 / Security Study	-	250,000	-	-	-	-	-	-	-	-	250,000
200	18729 SCADA MP Project #1 - Network Monitoring	50,000	160,700	-	-	-	-	-	-	-	-	210,700
201	SCADA MP Project #2	-	-	-	200,000	-	-	-	-	-	-	200,000
202	SCADA MP Project #3	-	-	-	-	200,000	-	-	-	-	-	200,000
203	SCADA Backup System	-	-	-	-	-	141,700	-	-	-	-	141,700
204	SCADA Server Replacement	-	-	-	114,800	-	-	-	-	-	-	114,800
205	<b>RECYCLING - DISTRICT</b>											
206	16716 WWTP MP - Line Recycled Water Reservoir	1,800,000	-	-	-	-	-	-	-	-	-	1,800,000
207	18730 Jameson 24" Flow Meter Rehab	6,200	-	-	-	-	-	-	-	-	-	6,200
208	Kirkland Recycled Water Pipeline Rehabilitaton	-	-	-	737,600	-	-	-	-	-	-	737,600
209	18731 Coombsville Truck Fill Station	100,000	-	-	-	-	-	-	-	-	-	100,000
210	Truck Fill Station - Kennedy Line Connection	-	5,000	75,000	-	-	-	-	-	-	-	80,000
211	24" Valve Replacement on Kirkland Pipeline	-	5,000	60,000	-	-	-	-	-	-	-	65,000
212	Jameson Solids Pad Rehabilitation	-	-	-	36,900	-	-	-	-	-	-	36,900
213	Jameson PS VFD	-	68,900	-	-	-	-	-	-	-	-	68,900
214	Jameson Sprinkler Replacement - Field A	-	-	88,700	-	-	-	-	-	-	-	88,700
215	Jameson Sprinkler Replacement - Field B	-	-	-	91,800	-	-	-	-	-	-	91,800
216	Jameson Sprinkler Replacement - Field C	-	-	-	-	95,000	-	-	-	-	-	95,000
217	Jameson Sprinkler Replacement - Field D	-	-	-	-	-	98,300	-	-	-	-	98,300
218	Jameson Sprinkler Replacement - Field E	-	-	-	-	-	-	101,800	-	-	-	101,800
219	Soscol RW Pump Replacement/Rehab	-	-	-	150,000	-	-	-	-	-	-	150,000
220	Soscol RW Pump Replacement/Rehab	-	-	-	-	-	150,000	-	-	-	-	150,000
221	Soscol RW Pump Replacement/Rehab	-	-	-	-	-	-	-	150,000	-	-	150,000
222	Pull Flail Chopper Replacement	-	33,100	-	-	-	-	-	-	-	-	33,100
223	17733 Vehicle 172 - Ford F-150	-	-	-	-	-	-	-	43,500	-	-	43,500
224	14725 Vehicle 723 - Yanmar Tractor	-	-	-	-	-	-	104,400	-	-	-	104,400
225	Vehicle 723/720 - Attachments/Implements	-	28,700	-	-	-	-	-	-	-	-	28,700
226	Vehicle 171 - Ford F-350	-	-	-	44,900	-	-	-	-	-	-	44,900
227	Vehicle 174 - Ford F-350 SB	-	-	73,200	-	-	-	-	-	-	-	73,200
228	Vehicle 311 - Kubota	-	-	-	23,900	-	-	-	-	-	-	23,900
229	Vehicle 312 - Kubota	-	-	-	23,900	-	-	-	-	-	-	23,900
230	Vehicle 721 - John Deer 8430T Tractor	-	-	-	-	-	357,800	-	-	-	-	357,800
231	Vehicle 17 - 18ft Trailer	-	-	-	-	-	-	-	-	11,000	-	11,000
232	Vehicle 722 - John Deer 444K Loader	-	-	-	-	-	-	-	-	-	238,500	238,500
233	Vehicle 720 - KubotaTractor Loader	-	-	-	-	-	-	-	74,500	-	-	74,500
234	Vehicle 013 - Pipe Dolly	-	-	-	-	16,300	-	-	-	-	-	16,300
235	<b>RECYCLING - EXPANSION</b>											
236	13727 North Bay Water Reuse Project	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	-	-	1,200,000
237	16722 MST RW Pipeline Expansion	2,800,000	-	-	-	-	-	-	-	-	-	2,800,000
238	NBWRA - 3rd Reservoir	-	-	-	-	-	58,000	290,000	2,552,000	-	-	2,900,000
239	NBWRA - RW Expansion Ph 2	-	-	-	-	-	44,000	220,000	1,936,000	-	-	2,200,000
240	RW Soscol Pump Station Upgrade	-	-	-	-	-	2,544,600	-	-	-	-	2,544,600
241	<b>OTHER</b>											
242	13729 Development Technical Support	239,900	248,300	257,000	266,000	275,300	284,900	294,900	305,200	315,900	327,000	2,814,400

Napa Sanitation District  
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#	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	Total 10-Year CIP
243	Solar Purchase Buy Out	-	-	-	-	-	1,950,000	-	-	-	-	1,950,000
244	18732 Box Culvert - Fugundes Emergency Access	5,000	100,000	-	-	-	-	-	-	-	-	105,000
245	18733 GPS Handheld	15,000	-	-	-	-	-	-	-	-	-	15,000
246	14728 Vehicle 161 - Ford C-Max	-	-	-	-	-	-	30,500	-	-	-	30,500
247	Vehicle 177 - Ford Escape Hybrid	-	-	25,500	-	-	-	-	-	-	-	25,500
248	14729 Vehicle 133 - Ford F-150	-	-	-	-	-	-	42,000	-	-	-	42,000
249	Vehicle 011 - CSET Trailer	-	23,700	-	-	-	-	-	-	-	-	23,700
250	14730 Vehicle 607 - Ford Taurus	-	-	-	-	28,500	-	-	-	-	-	28,500
251	Vehicle 130 - Ford F150	-	-	-	-	-	40,600	-	-	-	-	40,600
252												
253	<b>PROJECT TOTALS</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>\$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>\$176,214,500</b>
254	<i>Cumulative Total (FY 18/18 - FY 26/27)</i>	<i>\$25,018,300</i>	<i>\$40,172,600</i>	<i>\$52,727,200</i>	<i>\$65,264,100</i>	<i>\$76,098,900</i>	<i>\$93,455,600</i>	<i>\$128,122,200</i>	<i>\$146,055,300</i>	<i>\$161,016,700</i>	<i>\$176,214,500</i>	