

BUDGET

FY 2019-20



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FY 2019-20 BUDGET

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Jean-Marc Petit, Director of
Engineering and Technical Services

Philip Leiber, Director of Finance and
Administration

Ann Sasaki, Deputy General Manager /
Director of Operations

Kenton Alm, Counsel for the District

Katie Young, Secretary of the District

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VISION, MISSION, VALUES

OUR VISION

To be a high-performance organization that provides exceptional customer service and regulatory compliance at responsible rates

OUR MISSION

To protect public health and the environment

OUR VALUES

People

- Value customers and employees
- Respect each other
- Work as a team
- Work effectively and efficiently
- Celebrate our successes and learn from our challenges

Community

- Value water sector partners
- Foster excellent community relationships
- Be open, transparent and accessible
- Understand service level expectations
- Build partnerships

Principles

- Be truthful and honest
- Be fair, kind and friendly
- Take ownership and responsibility

Leadership and Commitment

- Promote a passionate and empowered workforce
- Encourage continuous growth and development
- Inspire dedication and top-quality results
- Provide a safe and healthful environment



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GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Central Contra Costa Sanitary District
California**

For the Fiscal Year Beginning

July 1, 2018

Christopher P. Morill

Executive Director

The Government Finance Officers Association of the United States and Canada presented a Distinguished Budget Presentation Award to Central San for its Annual Budget for the fiscal year beginning July 1, 2018. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as a financial plan, as an operations guide, and as a communications device. Central San believes this budget document continues to conform to program requirements.

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General Manager's Message

Board of Directors:

I am proud to present the Central Contra Costa Sanitary District's (Central San) Fiscal Year (FY) 2019-20 combined budget. This budget reflects Central San's unwavering commitment to protecting public health and the environment in a fiscally responsible, innovative, and customer-focused manner.

A Year of Milestones

This was a year of noteworthy accomplishments for Central San. We celebrated our 21st Platinum Peak Performance Award, with only a few agencies receiving this prestigious honor given by the National Association of Clean Water Agencies for 100% compliance with our treatment plant permit. This award reflects our commitment to environmental protection and strengthens our role as an industry leader. We also realized significant savings through bond refinancing and implemented numerous infrastructure projects in alignment with our 20-year master plan, including the following:



- The replacement of 6 miles of neighborhood sewer pipes.
- The completion of the Headworks Project, which replaced outdated bar screens with new technology that removes over 276 tons of plastic and debris per year from incoming wastewater.
- The seismic upgrade of our Pump and Blower Building. This building houses critical large pumps and equipment that convey wastewater through the treatment process.
- The completion of the award-winning Wet Scrubber Research Project. This project tested a new air cleaning technology system, saving over \$14 million in capital costs.

Embracing the Future

The current fiscal year established a strong foundation for our future endeavors. Our use of long-term strategic planning and cost-saving initiatives allows significant reduction in our operation and maintenance budget without compromising the high-quality services our customers have come to expect from Central San. Further, this budget includes several initiatives that will enhance productivity and decrease costs. These initiatives include the implementation of a new Enterprise Resource Planning (ERP) system, the transition to California Public Employees' Retirement System (CalPERS) health benefits and the completion of critical capital projects.

The current ERP system, which is used to manage an array of human resource, financial, and purchasing and inventory information, is more than twenty years old. The implementation of a new ERP system will streamline processes, increase functionality and provide better reporting tools to help Central San manage our resources. The transition to CalPERS health benefits comes with significant cost savings, which will allow us to concentrate more funds on capital improvements. These savings

are timely and will be applied to critical infrastructure projects, including renovations to our solids handling and recycled water production and storage facilities.

Accomplishments within our Strategic Plan Goals

Below are some of Central San’s major accomplishments under each of the six goals in the Strategic Plan:



GOAL ONE
Provide exceptional customer service and maintain an excellent reputation in the community

- Successfully completed the fourth Central San Academy, a program which educates our customers on the mission of Central San and how it is fulfilled
- Focused outreach efforts to showcase completion of major infrastructure projects that will increase reliability and add value for customers



GOAL TWO
Strive to meet regulatory requirements

- Achieved 21 consecutive years of 100% compliance with our National Pollutant Discharge Elimination System Permit, governing our wastewater discharge
- Increased collection at the Household Hazardous Waste Collection Facility and pharmaceutical drop-off sites
- Reduced sanitary sewer overflows from a high of 162 in 2012 to an all-time low of 28 (1.85 per 100 miles)



GOAL THREE
Be a fiscally responsible and effective wastewater utility

- Switched to CalPERS health benefits for employees and retirees, saving \$5.8 million annually, effective July 2019
- Refinanced debt to save over \$8.2 million in interest costs over the next ten years
- Achieved 18 consecutive years of receiving the Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting
- Awarded the Government Finance Officers Association Distinguished Budget Presentation Award for the FY 2018-19 Budget
- Initiated a benchmarking study to compare Central San’s performance over the past three fiscal years to comparable agencies’ performance statewide and regionwide



GOAL FOUR
Recruit, develop, and retain a highly trained and safe workforce

- Hosted bi-monthly HR @ Your Service trainings for employees
- Held the second Supervisory Academy and started the third Management Academy
- Paired mentors and mentees in the third year of the Central San Mentorship Program



Maintain a reliable infrastructure

- Began Plant Operations Building Seismic Improvements and Energy and Aeration Project
- Cleaned 778 miles of sanitary sewers and televised 205 miles of sanitary sewers
- Implemented a comprehensive Asset Management Program to track assets and optimize maintenance through their lifecycles



Embrace technology, innovation, and environmental sustainability

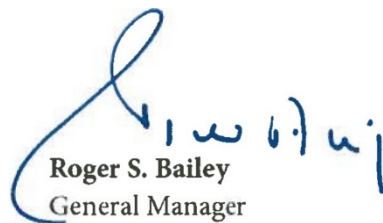
- Continued membership in the Leading Utilities of the World, a global network of the most successful and innovative water and wastewater utilities
- Began Hydrothermal Processing of Wastewater Solids Project, to investigate the potential to turn wastewater solids into biofuels
- Formalized an Optimizations Program to identify opportunities for increased efficiency and to establish a framework for tracking and committing to innovations and continuous improvement
- Continued to work on Recycled Water Exchange Project

We take great pride in the critical work we do at Central San and in our dedication to excellence. This budget reflects that continued dedication and our pursuit of the highest levels of reliability and service for the residents of central Contra Costa County.

Continuing our Progress

The FY 2019-20 Budget will enable Central San to address its challenges and successfully complete the goals for FY 2019-20 as outlined in the Strategic Plan, all while continually optimizing our operations. I want to thank the Board for providing the vision, resources, and support necessary to achieve these goals and respond to future challenges. I want to also thank our staff for working so diligently to develop this budget, which will ensure that we are well-positioned financially to accomplish our goals.

We recognize that the communities within our service area rely on us for a very basic but critical service. Accordingly, the proposed budget represents our commitment to serving them with excellence and providing the highest value. By planning for the future, making sound financial decisions, implementing new technologies and processes, and maintaining a highly skilled and dedicated workforce, Central San will remain a world-class organization that provides our customers with exceptional service and value, now and well into the future.

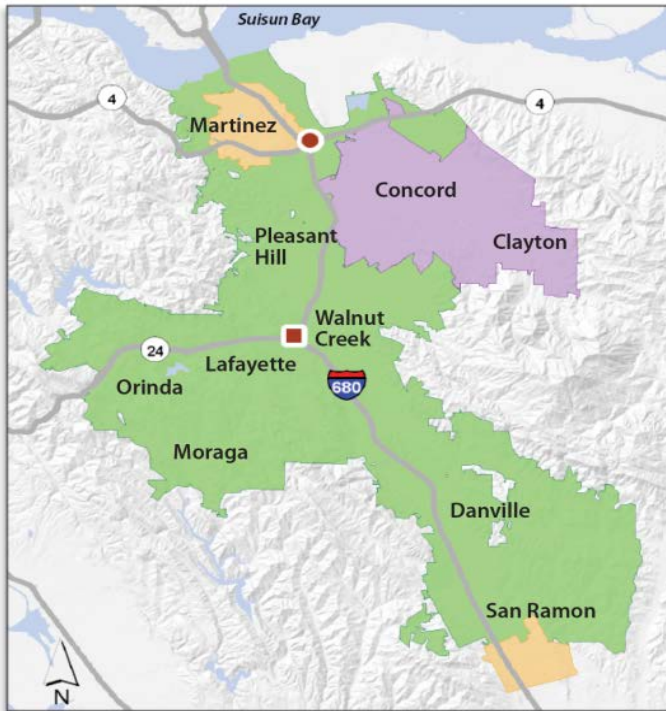


Roger S. Bailey
General Manager



About Central San

Established in 1946, Central San is located about 30 miles northeast of San Francisco and provides wastewater services for nearly 500,000 residents and more than 3,000 businesses in central Contra Costa County. This service territory covers 145 square miles and includes Alamo, Clyde, Danville, Lafayette, Martinez, Moraga, Orinda, Pacheco, Pleasant Hill, San Ramon, Walnut Creek, and unincorporated areas within central Contra Costa County. Central San also treats wastewater from an additional 37 square miles for residents of Concord and Clayton under a 1974 contract with the City of Concord.



- Sewage collection and wastewater treatment; household hazardous waste (HHW) disposal
- Wastewater treatment and HHW disposal for residents in Concord and Clayton by contract
- HHW disposal only
- Central San headquarters, treatment plant, HHW Facility, and Residential Recycled Water Fill Station
- Collection System Operations headquarters

Central San by the Numbers

- Maintains over **1,500 miles** of sewer pipelines
- Operates **18** pumping stations to send non-gravity-fed flow to the plant
- Treats an average annual flow of **34.7 million gallons per day** of wastewater
- Treats **2.4 million gallons per day** further to produce recycled water for non-potable use such as irrigation and industrial applications
- Reuses, recycles, recovers, or safely disposes of **2.2 million pounds** of HHW per year
- Collects **17,000 pounds** of unwanted medications per year through the Pharmaceutical Disposal Program
- Achieves a high customer satisfaction rating for sewer emergency response (**3.9 out of 4.0** as of Q3 in FY 2019-20)
- Educates approximately **3,000 students** in pollution prevention per year
- Leads approximately **250 participants** in treatment plant tours per year



Community Profile

For over 70 years, Central San has been proud to serve its customers in the San Francisco Bay Area, specifically, in the central Contra Costa County region. The service area is located at the foot of Mount Diablo (3,848 feet), whose state park and foothills offer hiking trails and open space preserves that are frequently used by the neighboring residents.

The cities served by Central San are also some of the most historic in California. Martinez, where the headquarters is located, was a key crossing point over the Carquinez Strait for the Pony Express, and its downtown is notable for its preserved historic buildings, including the John Muir National Historic Site. A short distance away, Concord, Walnut Creek, and San Ramon boast revitalized shopping districts, drawing retailers and restaurants from other parts of the state to open locations there. One of Central San's largest customers, the City of Concord, is working on converting a former Naval Weapons Station into a Community Reuse Project, which will include parks, housing, office, retail, and the restoration of Mt. Diablo Creek. Central San is proud to be part of the effort to make the project as sustainable as possible by supplying recycled water for irrigation in this development.



In recent years, the population of the service area has boomed, partially due to its accessibility to San Francisco and Silicon Valley via public transit. Most of the population of Contra Costa County lies along the busy I-680 corridor that connects the North Bay to Silicon Valley. As shown in the following tables, the area in which Central San operates is a growing community to whom this agency is honored to provide its core services, including educational messaging to instill the environmental values foundational to Central San as an organization.

Service Area Population (Last Ten Years)

As of January 1	Inside District	Concord / Clayton	Total Served	% Change
2009	322,200	134,000	456,200	0.95%
2010	319,377	135,378	454,755	-0.32%
2011	321,800	133,600	455,400	0.14%
2012	326,900	134,200	461,100	1.25%
2013	332,600	134,900	467,500	1.39%
2014	335,009	135,856	470,865	0.72%
2015	339,029	137,357	476,386	1.17%
2016	340,667	140,916	481,583	1.09%
2017	344,591	139,654	484,245	0.55%
2018	348,333	140,590	488,923	0.97%

Population by Community (2010 and 2018)

Community*	As of January 1, 2010	As of January 1, 2018
Clayton	10,936	11,431
Concord	124,442	129,159
Danville	43,110	44,396
Lafayette	24,206	25,655
Martinez	21,078	20,908
Moraga	14,701	16,991
Orinda	17,799	19,199
Pleasant Hill	33,384	35,068
San Ramon	51,099	68,118
Walnut Creek	65,443	70,667
Unincorporated Contra Costa County**	48,557	47,331
Total Service Area	454,755	488,923
Contra Costa County Total	1,073,055	1,149,363

* Central San shares service of these communities with other agencies, and adjustments for the populations served by those other agencies have been made.

**Includes Alamo, Clyde, and Pacheco.

Source: California Department of Finance, Demographic Research Unit and local agency service records

Ten Largest Customers by Sewer Service Charge (FY 2017-18)

Customer	Operating Revenue	Rank	% of Operating Revenue
City of Concord*	\$14,973,623	1	16.19%
Contra Costa County General Services**	\$556,782	2	0.60%
First Walnut Creek Mutual	\$487,350	3	0.53%
Park Regency Apartments	\$457,596	4	0.49%
Second Walnut Creek Mutual Apartments	\$387,750	5	0.42%
Sunvalley Shopping Center	\$354,208	6	0.38%
John Muir Health**	\$278,589	7	0.30%
San Ramon Unified School District	\$247,766	8	0.27%
Willows Shopping Center	\$236,285	9	0.26%
Branch Creek Vista Apartments	\$205,200	10	0.22%
Total	\$18,185,149	-	19.66%

* Contract with the City of Concord to treat and dispose of wastewater for Concord and Clayton

**Contra Costa County General Services and John Muir Health are permitted industries

Active Service Accounts and FY Sewer Service Charge Billings (FY 2017-18)

User Group	Accounts	2017-18 Sewer Service Charge Billings	% of Total
Residential	113,602	\$72,351,472	81%
Mixed Use	423	\$5,761,927	6%
Office	967	\$2,319,555	3%
Hotel/Motel	23	\$1,174,330	1%
Food Service	164	\$1,098,961	1%
Businesses	384	\$662,265	1%
Recreation/Entertainment	137	\$651,823	1%
Automotive/Car Wash	240	\$630,988	1%
Market/Supermarket	40	\$482,969	1%
Industrial Permitted	9	\$477,127	1%
All Other User Groups	994	\$4,097,581	5%
Total	116,983	\$89,708,998	100%

Ten Largest Employers in Contra Costa County (2017)

Employers	Estimated Employees	% of Total County Employment
Chevron Corporation	10,000+	1.89%
Bay Alarm Company	1,000-4,999	0.56%
St. Mary's College	1,000-4,999	0.56%
Bio-Rad Laboratories	1,000-4,999	0.56%
Job Connections	1,000-4,999	0.56%
John Muir Medical Center	1,000-4,999	0.56%
Kaiser Permanente	1,000-4,999	0.56%
La Raza Market	1,000-4,999	0.56%
Martinez Medical Offices	1,000-4,999	0.56%
USS-POSCO Industries	1,000-4,999	0.56%

Source: County of Contra Costa, California, California Annual Financial Report for June 30, 2017, Statistical Section, principal employers excludes government employers

Economic Statistics for Contra Costa County (Last Ten FYs)

FY Ended June 30	Population*	Personal Income*	Per Capita Personal Income*	Average Annual Unemployment Rate**
2008	1,023,344	\$60,281,111,000	58,906	6.3%
2009	1,037,890	\$56,296,792,000	54,242	10.8%
2010	1,052,875	\$56,882,501,000	54,030	11.3%
2011	1,066,126	\$61,498,902,000	57,681	10.4%
2012	1,079,093	\$66,772,041,000	61,878	9.0%
2013	1,096,310	\$67,290,115,000	61,435	7.4%
2014	1,110,971	\$71,164,468,000	64,056	6.2%
2015	1,126,027	\$77,914,957,000	69,195	5.0%
2016	1,138,645	\$82,204,425,000	72,195	4.4%
2017	1,147,439	\$87,810,279,000	76,527	3.8%

* Source: U.S. Department of Commerce, Bureau of Economic Analysis. Estimates for 2010-2016 reflect county population estimates available as of March 2018

**Source: State of California, Employment Development Department, annual calendar figure

Organizational Structure

Central San is governed by a Board of Directors (Board) whose five members are elected at-large on a non-partisan basis and serve a four-year term.

The Board appoints the General Manager, the Counsel for the District, and the Secretary of the District.

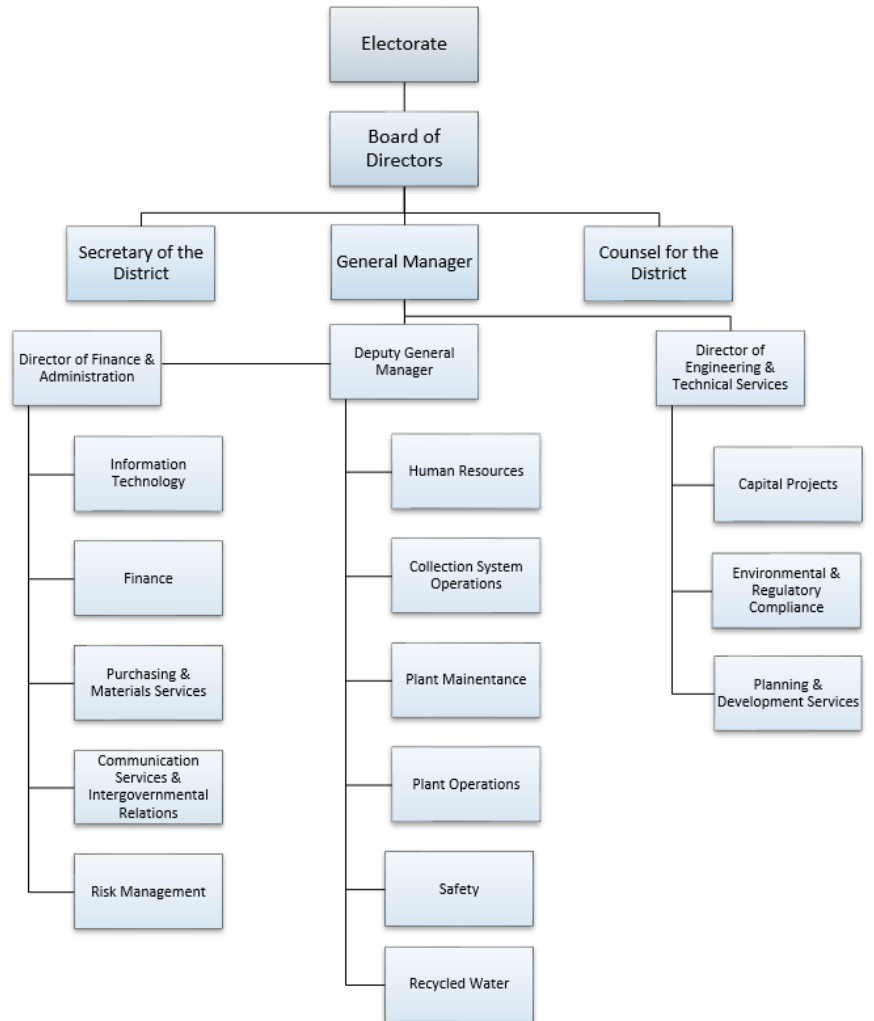
Central San is organized into three departments: Finance and Administration, Engineering and Technical Services, and Operations.

Central San currently has 291 budgeted full-time employees, and this number has remained the same for the past three years.

This team of employees is led by a General Manager, a Deputy General Manager, two Department Directors, and 11 Division Managers.

The chart on the right depicts the operating divisions and programs that are funded in the budget.

Central San's main headquarters, Board Room, and treatment plant are located at 5019 Imhoff Place in Martinez. Central San's Collection System Operations are headquartered at 1250 Springbrook Road in Walnut Creek.



Budgeting Calendar, Process, and Spending Authorities

The budget development process for FY 2019-20 started midway through FY 2018-19 with the updated financial plan, followed by Board review of the financial plan in a workshop held in January 2019. Board input was used in further internal budget development during February, leading to extensive internal review of the proposed budget in March.

Initial budget proposals were input in Pass One, after which the General Manager, Director of Finance and Administration, and each division manager met to review results. Several cycles, or passes, of budget development took place thereafter. Required changes were input in Pass Two, another review session was held, and final changes were input in the Final Pass. Development of the budget was finalized in April and May, producing a draft which was provided to the Board in May. The Operations and Maintenance sections were reviewed by the Board Finance Committee, and the capital budget was reviewed by the Board Engineering & Operations Committee prior to Board adoption of the final budget in June.

The budget process typically is aligned with two other key planning processes: strategic planning, which covers a two-year window, and rate setting.

FY 2019-20 is the second year of the current two-year Strategic Plan that commenced in FY 2018-19. The strategic goals, strategies, initiatives, key success measures, and metrics of that plan were established during early 2018 and provide guidance for funding activities in the budget. The budget proposes a level of funding that will enable and achieve the goals set forth in the two-year strategic plan.

Additionally, during FY 2018-19, staff presented an update of the financial plan and commenced a discussion about the need for rate adjustments. During the financial workshop in January 2019, the Board provided staff with tentative direction to prepare a multi-year rate adjustment which would be announced through a Proposition 218 notification process in March and a public hearing on proposed rate adjustments on April 18. At that meeting, the Board adopted a four-year schedule of adjustments, with increases of 5.5%, 5.2%, 4.9%, and 4.2% for single family residential customers, which were elements of the 5.25%, 5.25%, 4.75%, and 4.75% average increases across all customer classes. Annual public hearings will be conducted for years two through four to determine if lesser rate adjustments are possible.

A diagram summarizing the budget and rate development process is provided below.



A calendar of key intersecting events during the process for the FY 2019-20 budget is provided below, comprised of activities from the three aforementioned critical business areas of the planning process: the Strategic Plan, Budget, and Rate Setting.

Key Strategic Plan, Budget, and Rate Setting Events for FY 2019-20 Budget

Date	Strategic Plan	Budget	Rate Setting
January-March 2019	N/A	N/A	Board Rate Workshop (Review of Financial Plan including updates to the Ten-Year Capital Improvement Plan (CIP) and Capital Improvement Budget)
February 2019	N/A	Departments/divisions develop and submit operating budget proposals	N/A
March 2019	Staff reviews Q3 strategic accomplishments (review is performed on a quarterly basis)	General Manager reviews operating budget with departments/divisions	Proposition 218 Notices Sent to Property Owners
April 2019	N/A	Draft operating budget finalized with departments/divisions Draft Ten-Year CIP finalized by Department of Engineering and Technical Services	Public Hearing on adoption of proposed rate increases
May 2019	N/A	Draft Operating Budget Presented to the Finance Committee and the Board Draft Capital Improvement Budget and Ten-Year CIP presented to the Engineering & Operations Committee and Board	N/A
June 2019	Staff reviews year-end accomplishments	Public Hearing on adoption of final budget	Public Hearing on adoption of Capacity and Developer-Related Fees, Rates, and Charges

Once the budget is adopted, the General Manager has the authority to spend within the overall budget. Payments are governed by the limits set in the General Manager Delegation of Authority (Board Policy 38). Individual supervisors and managers are granted authority for purchase requisitions, approvals, and payment authorizations consistent with the signature limit matrix by position that serves as a partial delegation of some of the General Manager authority. Certain expenditures over \$100,000 require Board approval.

Spending is monitored monthly by staff and by the Board; variances of more than 10% on individual budget line item categories are highlighted and subject to discussion by the Finance Committee. All expenditures are submitted monthly to the Finance Committee and the Board for review and approval. Monthly financial statements are issued internally and to the Board. Monthly and annual variance explanations are presented to the Board. The Board also reviews year-end variance explanations and determines how available funds from favorable variances are used.

Should it become necessary to spend more than the overall Operations and Maintenance, Capital, Debt Service or Self-Insurance budget, formal Board action would be required to adopt an amended budget. For the Capital Improvement Program, budgets for projects are set on an annual basis. The General Manager has the authority to reallocate funds up to \$500,000 between projects. Reallocations above that amount require approval by the Board. The Capital Improvement Budget also includes a \$2.0 million contingency, which is subject to the same General Manager transfer limits. Transfers above that amount, or the creation of a new, unbudgeted capital project, would require approval by the Board.

The General Manager has the authority to spend up to the budgeted amounts for Debt Service. The General Manager may also spend Self-Insurance Fund reserves to pay claims and claim expenses within the self-insured retention (\$500,000) during the fiscal year.

General Manager and Board roles in the administration of financial limits related to expenditures are summarized in the two tables below:

Capital Improvement Program Authorization Limits

Action		General Manager	Board of Directors
Approve Capital Improvement Plan and Capital Improvement Budget (CIP/CIB)		None	No Limit
Transfer Funds to Individual Project Budgets		\$500,000 or Less ¹	No Limit
Authorize Consultant Contracts	Professional Consulting Services	\$100,000 or Less	Greater than \$100,000
	Technical Consulting Services	\$100,000 or Less	Greater than \$100,000
	Professional Engineering Services	\$100,000 or Less	Greater than \$100,000
Transfer Funds from CIB Contingency Account to Projects Not Included in the CIB		\$200,000* or Less per Project ²	Greater than \$200,000*
Individual Equipment Items and Equipment Contingency in the Equipment Budget		Up to Amount Specified in Equipment Budget	No limit
Individual Equipment Items Not in the Equipment Budget		\$50,000 or Less	No limit
Authorize Supplemental Funds to Program Budgets and Contingency Account		Not Applicable	Sewer Construction Fund Balance
Award Construction Contracts ³		\$200,000* or Less	Greater than \$200,000*
Authorize Construction Change Orders	Additive	\$200,000* or Less	Greater than \$200,000*
	Deductive	No Limit	No Board Authorization Required
Subcontractor Substitutions		All Substitutions Unless Protested by Subcontractor	Substitutions Protested by Subcontractor
Construction Project Acceptance		All Projects	Informational Announcement to the Board
Close Out Project		All Projects	Memo Provided to the Board at End of Fiscal Year

¹ Limited by the remaining balances of the applicable program and contingency account.

² Limited by the remaining balance of the applicable contingency account.

³ Bid protests and rejection of all bids must go to the Board with the exception of those under \$200,000 and which fall under the provisions of the California Uniform Public Construction Cost Accounting Act (UPCCAA) (§§ 22042 and 22042.5).

* These limits shall be raised concurrently with changes to the UPCCAA (California Public Contract Code §22032(a), representing the threshold above which formal bidding is required under the UPCCAA.

Contracting Authority Limits

Value	Category of the Procurement		
	Goods and Services	Professional Consulting Services	Public Works Projects ¹
> \$0	General Manager Delegated Authority ¹		
> \$0 and ≤ \$100,000		General Manager Delegated Authority	
> \$100,000		Board Authorization Required	
> \$0 and ≤ \$200,000			General Manager Delegated Authority
> \$200,000			Board Authorization Required
Change Orders > \$200,000			Board Authorization Required
Amending Agreements ≤ \$1,000,000: >15% or \$100,000, whichever is greater ²		Board Authorization Required	
Amending Agreements > \$1,000,000: >10% or \$200,000, whichever is less		Board Authorization Required	

¹ The Board delegates authority to the General Manager, or their designee, to award and enter into contracts for goods and services within the Board's adopted operating budget, excluding labor, provided purchasing policy and procedures are adhered to.

² Board authorization is required for amendments that cause the agreement to exceed \$100k when the original agreement did not have prior Board authorization because it was less than or equal to \$100k.

Strategic Plan Summary

Central San developed a two-year Strategic Plan for FYs 2018-20 that establishes policy direction and outlines core commitments, focused initiatives, and key performance metrics. This document evolved from the FY 2016-18 Strategic Plan and continued to utilize the Effective Utility Management framework as an overarching tool.



Effective Utility Management was originally developed by the Environmental Protection Agency in collaboration with several major water sector associations in 2007 and is made of 10 attributes which provide a succinct indication of where effectively managed utilities should focus and what they should strive to achieve.







The Strategic Performance section at the end of this document goes into additional detail about the Strategic Plan, including: 1) how the Strategic Plan Strategies and Initiatives align with Effective Utility Management attributes and Central San core values and 2) which divisions are responsible for the various Initiatives.

Key Budget Priorities: Responding to Challenges

The Budget and Strategic Plan, as key planning documents, provide the resources and guidance necessary to accomplish Central San’s mission to protect public health and the environment and overcome its challenges. Central San is committed to improving the quality of services provided to its customers and will positively respond to major challenges through its key budget priorities as linked to the Strategic Plan goals, as follows:

Key Budget Priority	Primary Response	FY 2019-20 Budgeted Project(s)
 Provide exceptional customer service and maintain an excellent reputation in the community		
Addressing concerns and educating customers regarding required revenue/resources to replace aging infrastructure and meet regulatory requirements	Continue commitment to customer outreach, prioritization of the Ten-Year Capital Improvement Plan, and balancing capital spending with affordability and rate impact concerns	Public outreach, including continuing funding for the highly successful Central San Academy, educating students on pollution prevention, and publishing the <i>Pipeline</i> community newsletter
 Strive to meet regulatory requirements		
Increasingly stringent air regulation requirements	Anticipate changing regulations and plan for cost-effective alternatives to maintain reliability and meet requirements	Replacement of wet scrubber as part of the Solids Handling Facilities Improvement Project

Key Budget Priority	Primary Response	FY 2019-20 Budgeted Project(s)
 Be a fiscally responsible and effective wastewater utility		
<p>Maintaining responsible rates at an affordable level</p>	<p>Offset infrastructure replacement, regulatory responses, and other expenses with cost-saving efforts, efficiencies, optimizations, and innovations</p>	<p>CalPERS health benefits transition, which will save approximately \$5.8 million per year in healthcare-related costs without sacrificing benefits for employees</p> <p>Steam and Aeration Blower Systems Replacement Study to optimize one of the major energy sources of the treatment process</p>
 Recruit, develop, and retain a highly trained and safe workforce		
<p>Fostering employee engagement to harness human talent to meet the challenges faced by Central San</p>	<p>Recruit, train, and retain high quality employees. Develop characteristics of Central San’s company culture to reaffirm priorities, recognize employees, and celebrate core values</p>	<p>Employee development programs such as internal leadership, training, and mentorship programs and outside conferences, training, and professional association memberships to inspire continuous education and improvement</p> <p>Replace ERP software and undergo significant training to utilize this new technology at the core of Central San’s business operations</p>
 Maintain a reliable infrastructure		
<p>Maintaining and upgrading aging infrastructure, including increasing capital improvement investment and internal resources to deliver on these increased levels of capital spending</p>	<p>Continue the effort which began in FY 2018-19 to implement the recommendations of the Comprehensive Wastewater Master Plan with significantly increased capital investment</p>	<p>Major projects include the Solids Handling Facility Improvements, Pumping Station Improvements, Outfall Pipeline Inspection and Improvements, and Mechanical and Concrete Structures Rehabilitation</p>

Key Budget Priority	Primary Response	FY 2019-20 Budgeted Project(s)
 Embrace technology, innovation, and environmental sustainability		
<p>The need for all water sector agencies to play a role in maintaining a sustainable water supply with recent drought experiences and the continuing effects of climate change</p>	<p>Partner with agencies to find water solutions benefiting the region and state. This includes looking for creative solutions such as water exchanges and increased interagency cooperation</p>	<p>The ongoing effort to bring to fruition a Recycled Water Exchange with Contra Costa Water District and Santa Clara Valley Water District to utilize recycled water at nearby refineries in place of potable water to increase the amount of potable water available to the community</p>
<p>Ever-increasing focus on resource recovery and sustainability</p>	<p>Test and plan for alternative processes, equipment, and technology that are sustainable and cost effective</p>	<p>Continue piloting new treatment technologies and researching potential solar energy projects</p>

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Financial Overview

Central San uses an enterprise fund to account for its operations. The single enterprise fund is further segmented into four internal sub-funds:

- **Operations and Maintenance (O&M) Running Expense Fund** – This fund provides for the general operations, maintenance, and administration of Central San. Sewer Service Charge (SSC) revenues are collected by the Contra Costa County Tax Collector's Office and are remitted to Central San in two installments in April and December of each year. Central San provides several services, including wastewater treatment, to its customers and, by contract, to the cities of Concord and Clayton. Central San is reimbursed annually for the treatment services provided to Concord and Clayton residents. Central San reserves five months (41.7%) of its gross operating expenditures at the start of each fiscal year to pay its ongoing expenses throughout the year.
- **Sewer Construction Fund (Capital Fund)** – This fund provides for treatment plant and collection system asset renewal and replacement expenditures, as well as office facilities renewal, vehicle and equipment replacement, information systems replacement, and miscellaneous capital expansion needs. The City of Concord reimburses Central San for its share of expenses related to projects impacting the services the city has contracted with Central San to provide, proportional to flow. Property tax (ad valorem taxes) and a portion of SSC revenues, which comprise a significant portion of annual capital project revenues, are collected by the Contra Costa County Tax Collector's Office and remitted to Central San in two installments in April and December of each year. In addition, Capacity Fees received from permits are allocated to this capital fund. In order to meet the cash flow needs of the capital projects program, Central San reserves 50% of the annual cash-funded portion of the Capital Projects budget at the start of each fiscal year. In FY 2019-20, the entire Capital Projects budget will be cash funded. The Capital Projects section of this document provides a table showing the various sources of revenue funding for each type of capital project. In future years, the financial plan anticipates a portion of the Capital Projects budget will be funded with bond proceeds.
- **Self-Insurance Fund (SIF)** – This fund accounts for interest earnings on cash balances in this fund and cash allocations from other funds, as well as for costs of insurance premiums and claims not covered by Central San's insurance coverage. Central San has self-insured a portion of its liability and property risks since July 1, 1986, when the Board of Directors (Board) approved the establishment of the SIF. Central San is self-insured for three events, up to \$500,000 per occurrence, for its general and automobile liability program, for a total of \$1.5 million. Maintaining a self-insured retention reduces Central San's insurance premium expense. In order to help mitigate the financial impacts and maintain uninterrupted service in the event of an emergency or catastrophic event, Central San maintains an Emergency Fund Reserve balance of \$5 million in the SIF. Actuarial studies are performed every other year and are used to set the Governmental Accounting Standards Board (GASB) 10 liability amount.
- **Debt Service Fund** – This fund accounts for activity associated with the payment of Central San's long-term bonds and loans. Central San's total debt service for FY 2019-20 is \$3.0 million, a decrease of approximately \$600,000 from the \$3.6 million budgeted in FY 2018-19. This decrease is due to the debt refinancing completed in FY 2018-19, which will save \$8.2 million in interest costs through FY 2028-29. A portion of Central San's ad valorem tax revenue is the primary funding source for the Debt Service Fund.

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Financial Planning Policies

The significant policies that play a role in managing Central San's finances are summarized below:

Fiscal Reserves Policy

There is a strong emphasis placed on maintaining adequate reserves, and having a reserve policy ensures long-term financial stability. In 2015, the Board adopted Board Policy No. BP 017-Fiscal Reserves, which set targets for each of Central San's reserve funds. This policy was reviewed and updated by the Board during FY 2017-18. Key provisions remained generally unchanged, with updates primarily focusing on providing detail about the usage of the reserves and recognizing new accounts since the initial policy. Fiscal reserves provide working capital for O&M activities; funding for long-term capital improvement requirements; fulfillment of legal, regulatory, and contractual obligations; mitigation of risk and liability exposures; and cash flow emergencies. Table 14 shows projected reserve balances as of June 30, 2019 and June 30, 2020.

- **O&M Fund** – Working capital reserves, the Board has set a target of five months (41.7%) of gross operating expenses at the start of each fiscal year.
- **Sewer Construction Fund (Capital Improvement)** – Working capital reserves, the Board has set a target of 50% of the annual Capital Projects budget at the start of each fiscal year, excluding capital projects that are to be funded with bond proceeds.
- **SIF Reserves** – The Board has set a target of three times the annual retention, currently at \$500,000. In addition, to help mitigate the financial impacts and maintain uninterrupted service in the event of an emergency or catastrophic event, Central San maintains an Emergency Fund Reserve balance of \$5 million in the SIF.
- **Debt Service Reserve (Bond Reserve)** – The previously outstanding 2009 certificates of participation (a type of borrowing) required the establishment and maintenance of a debt service reserve fund defined in the loan documents. With the refinancing of that debt with 2018 revenue bonds, the debt service reserve fund was eliminated in September 2018, with the then \$4.86 million balance used to reduce the required issuance amount of the refunding debt. No debt service reserve fund is now outstanding.
- **Rate Stabilization Fund** – The 2018 Revenue Bond documents provided that Central San could establish and fund a discretionary rate stability fund. As of this date, a Rate Stabilization Fund has not been established or funded.

Basis for Budgeting

Central San's Comprehensive Annual Financial Report provides detail about the actual expenditures of the four sub-funds in the Central San enterprise fund. The basis of budgeting for these sub-funds is the accrual basis of accounting, the same that is used in the audited financial statements and Comprehensive Annual Financial Report. Through this budget and its adoption by the Board, funds are appropriated to each of the four sub-funds. Each of the sub-funds presents a budget in the form of revenues, expenses, and an overall contribution to or draw from reserves.

Central San presents a “balanced budget” each year, defined as a budget in which:

Budgeted revenues and planned draws from the applicable reserve meet or exceed budgeted expenditures, and where any planned draws from the reserve will leave the reserve at or above the policy targeted level.

Debt Management and Continuing Disclosure Policy

In August 2017, the Board adopted Board Policy No. BP 029 – Debt Management and Continuing Disclosure, which sets the parameters for the responsible and prudent use of debt to fund a part of Central San’s capital spending in the coming years. Central San has primarily used a pay-as-you-go philosophy but has, occasionally, used some debt financing for large capital improvements brought about by regulatory changes or other unforeseen factors. The Debt Management Policy provides for the conservative use of debt. The funding allocated toward pipeline replacement in general is to be collected through SSC rates, capacity fees, and/or taxes, while debt is permitted for the remaining portion of the capital program. Currently, Central San is repaying a State of California Water Reclamation Loan and 2009 Revenue Bonds. As of June 30, 2018, total outstanding debt associated with infrastructure improvements was \$29.095 million. In September 2018, that number was reduced to \$19.45 million as a result of debt refinancing. Central San’s ten-year financial plan anticipates external borrowing (subject to Board approval) during FY 2020-21; this is anticipated to be in the form of either revenue bonds or a loan from the Clean Water State Revolving Fund and Water Recycling Funding Programs of the State Water Resources Control Board. Central San applied for an \$89.0 million State Revolving Fund loan in December 2018 through a competitive process and is awaiting final notification (expected in June 2019) as to whether the loan request will be granted.

Debt restrictions currently include the following:

- **Revenue Pledge and Covenant** – Central San pledges property tax revenue, along with its net revenues consisting of gross revenues less the cost of operating the wastewater system.
- **Debt Service Coverage Ratios** of at least 1.0x (gross revenues including capacity fees and after payment of O&M, plus tax revenues / total debt service) and 1.25x (gross revenues excluding capacity fees and after payment of O&M plus tax revenues / total debt service) are adhered to.

Central San’s Debt Service Coverage Ratio is strong and benefits from minimal debt service as a result of the District’s current pay-as-you-go philosophy. This favorable coverage ratio is a factor in Central San’s very strong AAA and Aa1 credit ratings issued by Standard & Poor’s and Moody’s, respectively.

Investment Policy

Central San’s investment policy, Board Policy No. BP 005 – Statement of Investment Policy, last updated in September 2018, is based on state law and prudent money management. All investments are in accordance with this policy and Sections 53646 and 53601 of the California Government Code. Central San has formal agreements with Contra Costa County, allowing them to act as Central San’s banker. The County invests all Central San funds. Securities are held in a custodial account separate from the County. The investment policy applies to all Central San funds and investment activities.

The investment policy is presented to the Board annually, and its priorities are safety, liquidity, and yield. The policy addresses issues such as permitted investments, banks and dealers, maturities, diversification, risk, delegation of authority, prudence, controls, reporting, and performance evaluation.

The GASB 45 (Other Post-Employment Benefits [OPEB]) Trust and Pension Prefunding Trust Investment Guidelines are also presented to the Board annually. The investments of these trusts are longer-term investments, with the GASB 45 (OPEB) Trust adopting a “moderate” investment strategy, and the Pension Prefunding Trust adopting a “moderately conservative” investment strategy. With respect to both trusts, U.S. Bank is the Trustee, HighMark Capital is the Investment Manager, and Public Agency Retirement Services is the Trust Administrator and Consultant. As of December 31, 2018, the GASB 45 (OPEB) Trust had a balance of \$58 million.

The IRS Section 115 Pension Prefunding Trust was adopted during FY 2017-18 and was initially funded with \$3.4 million. With the adoption of this trust, Central San may make optional payments to the Pension Prefunding Trust rather than direct any extra payment(s) to the Contra Costa County Employees' Retirement Association (CCCERA), giving Central San greater retirement payment flexibility in the future, while still reducing overall pension liability. In December 2017, the Board allocated \$2.0 million of the FY 2017-18 year-end favorable budget variance to the Pension Prefunding Trust. Additional payments were made during FY 2018-19 from the \$2.5 million budgeted towards paying down unfunded liabilities included in the O&M Budget. As of April 30, 2019, the balance in the fund was \$7.2 million. In future years, Central San may draw down the Pension Prefunding Trust to meet its payment obligations to CCCERA in order to smooth payment obligations and mitigate rate volatility.

Current Financial Plan

Central San has a multi-year financial plan that projects anticipated spending, debt issuances, customer data, tax collections, and resulting rate increases. Factors considered in the long-range forecast include the impact of state legislation and mandates, regulatory compliance, GASB requirements, negotiated or forecasted salary increases and employee benefit changes (including anticipated changes in healthcare and retirement costs), energy costs, development in the service area, and infrastructure renewal and replacement needs.

The financial plan undergoes substantial development and review by staff, and various scenarios are presented to the Board during financial planning and rate-setting workshops. The financial plan covers a period of twenty years, although assumptions for the first ten years of the plan carry a higher degree of confidence than for the outer years in the plan.

The current financial plan reflects the proposed Ten-Year Capital Improvement Plan (CIP) spending levels identified in the Comprehensive Wastewater Master Plan, as updated during periodic reviews of the spending plan. The most recent review was conducted in late 2018 and presented at the January 15, 2019 Board Financial Planning Workshop. The financial plan for FY 2019-20 estimated O&M spending at \$87.5 million and capital spending at \$66.2 million, based on the following assumptions:

Operations and Maintenance

- Funding for the initiatives addressed in the two-year Strategic Plan. Accordingly, Central San's various planning documents are integrated and consistent.
- Updated O&M costs based on inflation and other cost-growth factors, including labor costs per the maximum inflation assumptions in the memoranda of understanding with the bargaining units and agreements with unrepresented employees.
- A key cost change anticipated for FY 2019-20 relates to an expected transition to CalPERS health benefits, providing savings estimated at \$5.6 million annually. The Financial Plan assumed \$5.6 million in annual savings from a 2017 analysis conducted by Central San's actuarial services consultant, Bartel Associates. In February 2019, Bartel Associates provided an updated analysis showing the savings to be \$5.8 million. An analysis showing the reconciliation between the savings estimate provided by Bartel Associates and the budget line items is shown in Figure 1 of the Supplemental Financial Information section of this budget document.

Once the proposed budget is adopted, the individual line items in the O&M portion of the financial plan will be updated to reflect the final budget. The approved budget is then used as a baseline for future years' planning.

Capital

The Ten-Year CIP was rolled forward one year (changing from \$806 million to \$833 million), then inflated by 3%, to \$860.9 million to be reflected in 2019 dollars. The amount was then updated by refining cash flows, reducing expenditures by \$29.3 million during the first three years, and smoothing the overall shape of the spending projection while increasing overall spending by \$6.3 million. This update reflects a detailed assessment of Central San's latest needs and capacity to ramp up CIP spending from the current levels, as well as reducing the pressure on rates in the near-term. As a result of this change, previously anticipated rate adjustments of about 7% annually over the next two years were projected to fall to the mid 5% range (and as noted, on April 18, the Board adopted system-wide average increases of 5.25%, 5.25%, 4.75%, 4.75% for FY 2019-20 through FY 2022-23, respectively).

Financial Summary

The FY 2019-20 Budget provides the resources necessary to advance the Strategic Plan and meet the challenges Central San faces as it strives to increase service quality and minimize costs. At the same time, the budget allows Central San to accomplish its mission in the most cost-effective and financially sustainable manner to ensure the best value to its customers.

Central San’s total budget for FY 2019-20 is \$157.8 million, representing an increase of \$18.2 million, or 13.1%, compared to the FY 2018-19 budget of \$139.6 million.

The driver of the increase in the total budget is a 46.0% increase in sewer construction investment, from \$45.3 million in FY 2018-19 to \$66.2 million in FY 2019-20.

The FY 2019-20 O&M Budget is \$87.6 million, a reduction of \$2.1 million from the current FY 2018-19 budget of \$89.7 million. As a result of the switch to CalPERS health benefits, the significant reduction in benefit costs more than offsets increases in salaries and other costs, producing a net reduction of \$2.1 million.

Debt service is reduced by \$0.6 million, a result of lower interest costs from the debt refinancing that took place in FY 2018-19.

The Self-Insurance Fund (SIF) is set at \$1.1 million for the costs of premiums and estimated losses based on historical trends and represents a slight increase from the \$0.9 million funding level of the FY 2018-19 Budget.

Table 1 – FY 2019-20 Total Budget

Fund	Expenditures Trend				Budget to Budget Variance	% Variance
	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2019-20 Budget		
Operations and Maintenance	\$89,713,587	\$87,347,500	\$89,720,456	\$87,584,775	(\$2,135,681)	-2.4%
Sewer Construction	\$42,774,000	\$36,696,049	\$45,319,000	\$66,176,000	\$20,857,000	46.0%
Debt Service	\$3,819,099	\$3,818,057	\$3,611,038	\$2,982,415	(\$628,624)	-17.4%
Self-Insurance	\$936,500	\$697,793	\$924,500	\$1,073,700	\$149,200	16.1%
Total Budget	\$137,243,186	\$128,559,399	\$139,574,994	\$157,816,890	\$18,241,896	13.1%

* With contribution to reserves of \$1,349,926 in FY 2019-20, total use of funds is \$159,166,815.

Sources of Funds

The sources of funds (revenues) for FY 2019-20 are shown in Figure 1. A comparison of the major revenue sources for FY 2019-20, the current year, and prior years is shown in Figure 2.

Figure 1 – Total Funding Sources – FY 2019-20 Proposed Budget

FY 2019-20 Total Budgeted Funding Sources of \$159,166,815

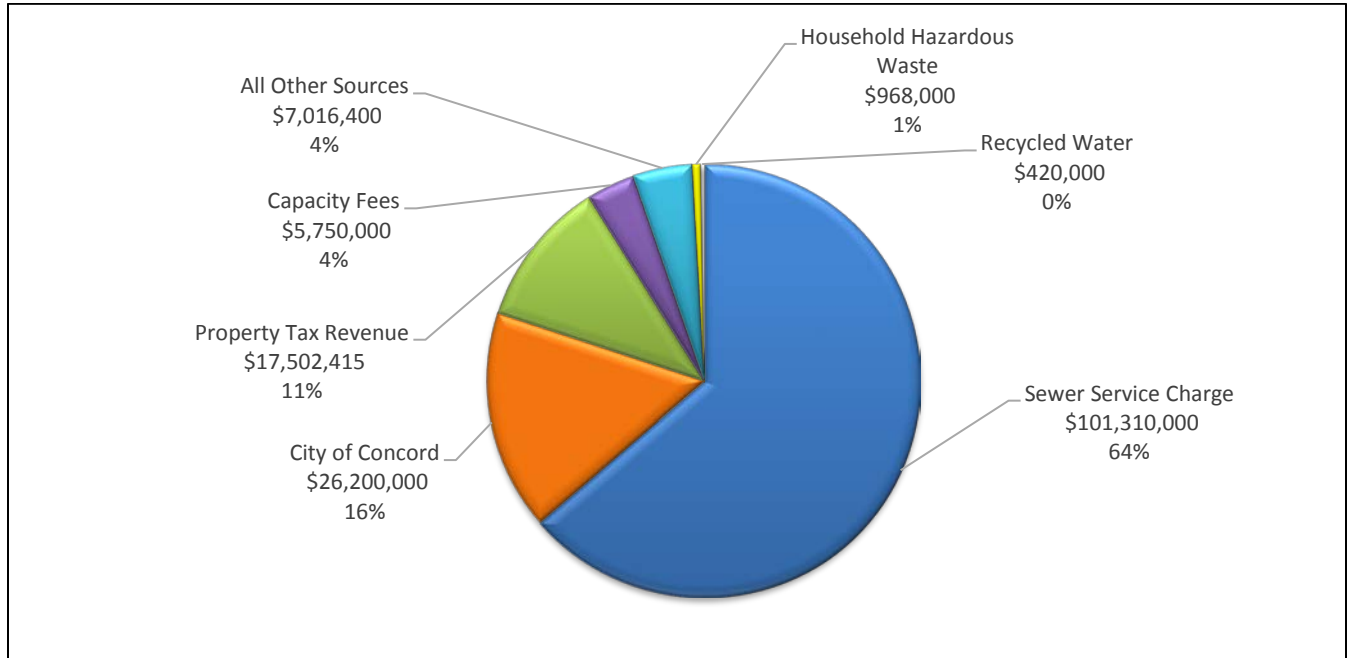
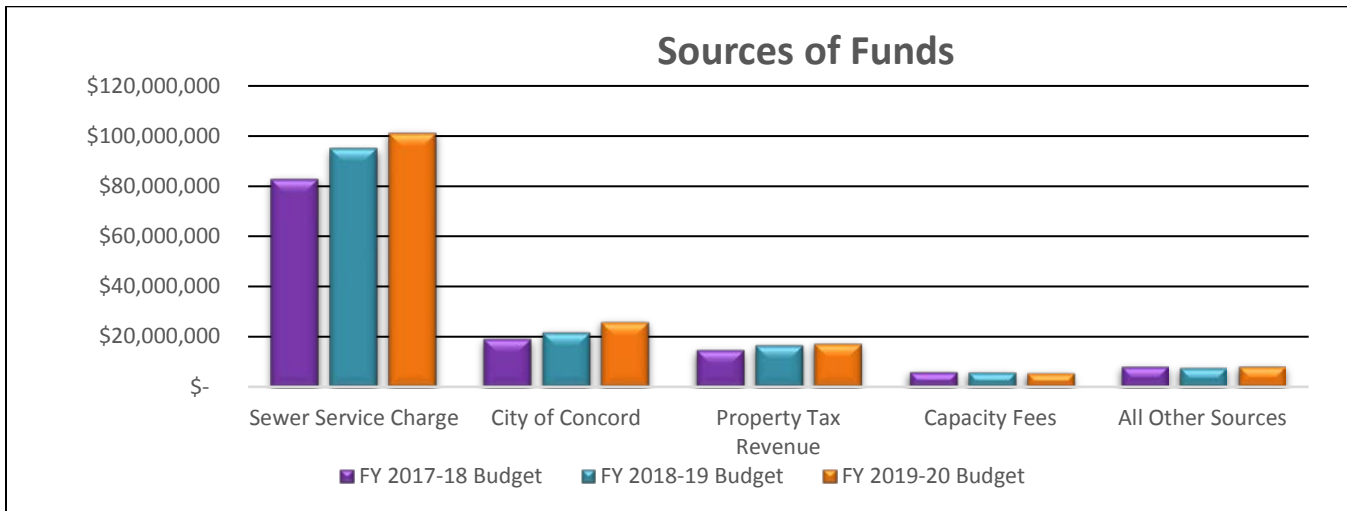


Figure 2 – Total Funding Sources – Three-Year Budget Comparison

<u>FY 2017-18</u>	<u>FY 2018-19</u>	<u>FY 2019-20</u>
\$138,532,599	\$147,386,287	\$159,166,815



The SSC is the largest source of revenue at \$101.3 million, followed by the City of Concord at \$26.2 million, ad valorem property tax at \$17.5 million, and Capacity Fees at \$5.8 million. All other sources of revenue are \$8.1 million. A brief description of Central San’s revenue sources and how they are forecasted follows:

- **Sewer Service Charge (SSC)** – Each customer in Central San’s service area pays a SCC, which applies to both residential and non-residential customers. It is assessed annually on the customer’s property tax bill to pay for the collection and treatment of wastewater. The SCC is based on customer class. The basis for the charge is the strength and volume of the wastewater discharged, and customers are assigned to various classes for billing purposes. SCCs vary by customer class and have been developed to ensure that each class pays its proportionate share of operating, maintaining, repairing, and upgrading the sewer collection and treatment system. Periodic cost of service studies review and adjust the allocation of costs to individual customer classes based on their impact to the sewer system. For residential customers, separate rates are charged to single family and multi-family residences. Non-residential customers are typically billed based on their water consumption and business type. For budgetary purposes, the forecast for the SSC is based on prior year revenue, estimated growth derived from anticipated residential construction, and predicted changes in non-residential water consumption.
- **City of Concord** – Central San receives revenues from the City of Concord which are calculated and billed in accordance with the terms of a contractual agreement for the treatment of wastewater from both the city of Concord and the city of Clayton. The Cities are responsible for paying their flow-proportional share of the operating and maintenance costs for Central San’s treatment plant. The amount of revenue is forecast annually for budgeting purposes by multiplying the City of Concord’s estimated flow percentage by the budgeted treatment plant and associated costs. The amount due is invoiced by Accounting in August for the prior fiscal year.
- **Property Tax Revenue** – Central San receives a share of the ad valorem property taxes collected by Contra Costa County on properties within the service area. These taxes are used to pay debt service requirements, and the remaining funds are allocated to the Capital Improvement Program. This revenue is forecast by reviewing historic property tax revenue and adjusting for anticipated changes in property value.
- **Capacity Fees** – These fees are collected from new construction and expansion of non-residential facilities which result in an added wastewater burden. The fee is calculated as an equity buy-in. Residential parcels are charged a flat per-unit fee, and non-residential parcels are typically charged based on the business type and building square footage, which represents their anticipated wastewater burden. The amounts due are collected before plans are approved. The budgeted amount is estimated by the Planning & Development Services Division based on trend analysis and anticipated construction activity for the upcoming year.
- **Household Hazardous Waste (HHW) Reimbursement** – Central San provides a facility where residents and businesses within the service area may dispose of specified hazardous wastes. Additionally, residents from specified cities (Concord, Clayton, San Ramon, and parts of Martinez served by the Mt. View Sanitary District) also have the right to use the facility, and these cities pay a contractually agreed amount for this service. The amounts due are invoiced by Accounting in August for the prior fiscal year. The budgeted amounts are based on projected total costs of the facility, to be shared pro rata by all users within the service area.
- **Recycled Water** – This represents revenue from the sale of recycled water to customers in Central San’s service area who have recycled water meters. The amounts due are invoiced by Accounting bi-monthly based on monthly meter readings. The Planning & Development Services Division forecasts the revenue from recycled water based on projected changes in recycled water consumption.

- **All Other Sources** – This includes the following:
 - **Permit and Inspection Fees** – Fees for sewer permits, plan review, inspections, and related activities, including environmental compliance fees. The amounts are forecast by the Development Services Supervisor based on anticipated construction activity for the upcoming year.
 - **Lease Rental Income** – This represents rental income from buffer properties (buildings and undeveloped land) owned by Central San and rented to third parties through multi-year agreements. Leases are reviewed by Accounting and Right-of-Way to identify any changes to multi-year lease rates. Budgeted lease revenue is based on the terms of those leases.
 - **Stormwater/Pollution Prevention** – These are fees collected from Contra Costa County and certain cities for performing stormwater inspections as required by Contra Costa County’s National Pollutant Discharge Elimination System permit. These services are provided by Central San’s Environmental Compliance group under contract with the Contra Costa Clean Water Program. Amounts are invoiced by Accounting based on the number of inspections completed. The budgeted amount is based on a targeted number of inspections to be performed during the fiscal year.
 - **Interest Income** – This is based on forecast cash levels multiplied by estimated interest rates over the course of the fiscal year.
 - **Developer Fees** – These are charges for plan review and inspection of mainline extension projects by developers and other property owners. The amounts are collected by the Permit Counter and are budgeted based on estimates by the Planning & Development Services Division based on trend analysis and anticipated construction activity for the upcoming fiscal year.
 - **Pumped Zone Fees** – New developments in areas where pumps are required to move wastewater to the Central San treatment plant pay an additional capacity fee to cover pumping infrastructure costs. These fees are separately shown as Pumped Zone Fees and are budgeted by multiplying the incremental Pumped Zone Fee times the number of development units anticipated to be subject to such fees.
 - **Other** – This includes annexation fees, other service charges, and miscellaneous fee revenue. Amounts are collected by various departments depending on the source of revenue. For the SIF, other revenue includes an allocation from the O&M fund in an amount necessary to replenish the SIF to the targeted level after projected expenses in the budget year.
 - **Use of Reserves** – Use of, or contribution to, reserves is determined by sub-fund. A contribution to reserves results from budget year revenues exceeding budget year expenditures. A draw from reserves results if the reverse is true. Table 14 shows the reserve status by sub-fund and overall status of the Central San Enterprise Fund.

Table 2 and 2a below shows the overall funding sources of Central San and how those funding sources are applied to each sub-fund.

Table 2 – Allocation of Funds – FY 2019-20 Budget

Funding Sources FY 2019-20 Budget	Fund 01	Fund 02	Fund 03	Fund 04	Total
	O&M	Capital	Self-Insurance	Debt Service	Proposed FY 2019-20 Budget
Sewer Service Charge	\$69,090,870	\$32,219,130	\$0	\$0	\$101,310,000
City of Concord	\$14,570,000	\$11,630,000	\$0	\$0	\$26,200,000
Tax Revenue	\$0	\$14,520,000	\$0	\$2,982,415	\$17,502,415
Capacity Fees	\$0	\$5,750,000	\$0	\$0	\$5,750,000
HHW Reimbursement	\$968,000	\$0	\$0	\$0	\$968,000
Recycled Water	\$420,000	\$0	\$0	\$0	\$420,000
Other Revenue Sources Including:	\$0	\$0	\$0	\$0	\$0
Permit & Inspection Fees	\$1,870,000	\$0	\$0	\$0	\$1,870,000
Lease Rental Income	\$703,500	\$0	\$0	\$0	\$703,500
Stormwater/Pollution Prevention	\$370,000	\$0	\$0	\$0	\$370,000
Interest Income	\$1,231,000	\$674,000	\$179,900	\$0	\$1,803,900
Developer Fees	\$0	\$514,000	\$0	\$0	\$514,000
Pumped Zone Fees	\$0	\$291,000	\$0	\$0	\$291,000
Other	\$337,000	\$0	\$846,000	\$0	\$1,183,000
Total Other Revenue Sources	\$4,230,500	\$1,479,000	\$1,025,900	\$0	\$6,735,400
Subtotal Funding Sources	\$89,560,370	\$65,598,130	\$1,025,900	\$2,982,415	\$159,166,815

Table 2a – Allocation of Funds – FY 2018-19 Budget

Funding Sources FY 2018-19 Budget	Fund 01	Fund 02	Fund 03	Fund 04	Total
	O&M	Capital	Self-Insurance	Debt Service	FY 2018-19 Budget
Sewer Service Charge	\$67,073,732	\$27,926,268	\$0	\$0	\$95,000,000
City of Concord	\$14,800,000	\$7,150,000	\$0	\$0	\$21,950,000
Tax Revenue	\$0	\$13,300,000	\$0	\$3,528,591	\$16,828,591
Capacity Fees	\$0	\$5,900,000	\$0	\$0	\$5,900,000
HHW Reimbursement	\$929,000	\$0	\$0	\$0	\$929,000
Recycled Water	\$420,000	\$0	\$0	\$0	\$420,000
Other Revenue Sources Including:	\$0	\$0	\$0	\$0	\$0
Permit & Inspection Fees	\$1,783,000	\$0	\$0	\$0	\$1,783,000
Lease Rental Income	\$627,000	\$0	\$0	\$0	\$627,000
Stormwater/Pollution Prevention	\$360,000	\$0	\$0	\$0	\$360,000
Interest Income	\$600,000	\$570,000	\$115,750	\$82,447	\$1,368,197
Developer Fees	\$0	\$443,000	\$0	\$0	\$443,000
Pumped Zone Fees	\$0	\$600,000	\$0	\$0	\$600,000
Other	\$333,000	\$0	\$844,500	\$0	\$1,177,500
Total Other Revenue Sources	\$3,703,000	\$1,613,000	\$960,250	\$82,447	\$6,358,696
Total	\$86,925,732	\$55,889,268	\$960,250	\$3,611,038	\$147,386,287

Sewer Service Charge

Tables 3 and 4 show the SSC for FY 2019-20 compared to the FY 2018-19 rates for residential and non-residential customers. These rates were approved by the Board after a public hearing on April 18, 2019 as part of a four-year rate ordinance. Prior to the rate adoption, two financial planning workshops were held (in November 2018 and January 2019) to discuss Central San’s financial outlook and to receive preliminary Board direction on key financial planning matters.

Table 3 – Approved Annual SSC-Residential

Customer Type	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Single Family Residence	\$471	\$503	\$530	\$567	\$598
Other Residences – Apartments, Condominiums, Duplexes, Second Living Units, Mobile Homes	\$463	\$487	\$513	\$549	\$566
Effective Date	07/01/15	07/01/16	07/01/17	07/01/18	7/01/19

Table 4 – Approved Annual SSC-Non-Residential

User Group	Description	Combined Strength Limits	Former Category Name	FY 2018-19	FY 2019-20
Low	Non-residential uses not listed below (no food service)	up to 350 mg/l	Standard commercial, churches, schools billed by consumption including daycare, preschools, and universities	\$5.61	\$6.23
			Automotive, aviation, and marine	\$6.46	
Medium-Low	Food service without Type 1 hood, shared water meter with less than 50% food service	351 to 700 mg/l	Delicatessens, yogurt shops, ice cream shops, coffee shops, bars, and mixed-use rate class XA	\$5.61	\$6.72
			Mixed-use rate classes XB, XC, XD, and XE	Varies	\$7.65
Medium	Shared water meter with 50% or greater food service	701 to 1,000 mg/l	Mixed-use rate classes XF, XG, XH, and XI	Varies	\$9.59
Medium-High	Food service with Type 1 hood, supermarkets, hotels and motels with food service, shared water meters with bakery	1,000 to 1,300 mg/l	Hotels and motels	\$9.74	\$10.70
			Restaurants and supermarkets	\$10.53	
			Mixed-use rate classes XJ, XK	Varies	
High	Mortuaries, bakeries, restaurants with grinders or emulsifiers, breweries with BMP permit	greater than 1,300 mg/l	Mortuaries	\$12.93	\$14.18
			Bakeries	\$14.90	
			Mixed-use rate classes XL, XM, XN, and XO	Varies	
Minimum Annual Charge				\$566.00	\$566.00

Customer Type	FY 2018-19	FY 2019-20
Schools		
Schools – Daycare, Preschool, University (per hundred cubic feet)	\$5.61	\$6.23
Schools – Elementary (per student)	\$6.98	\$7.43
Schools – Intermediate and High School (per student)	\$13.71	\$14.68
Industrial Permit (including food processing)		
Wastewater Flow (per hundred cubic feet)	\$4.14	\$4.82
Biological Oxygen Demand (BOD) (per 1,000 pounds)	\$1,370.72	\$1,275.00
Total Suspended Solids (TSS) (per 1,000 pounds)	\$639.14	\$666.00
Fixed	\$98.33	\$93.69
Special Discharge Permits and Contractual Agreements	Determined Individually	Determined Individually

In April 2019, the Board approved consolidation of most of Central San’s prior non-residential customer classes into five classes based on combined strength limits, defined as the sum of biochemical oxygen demand and total suspended solids. The new customer classes are Low, Medium-Low, Medium, Medium-High, and High and fairly charge those customers for the proportionate cost of collecting and treating their wastewater. The change is effective July 1, 2019.

Below is a diagram of the five customer classes showing the combined strength limits and the representative businesses that are contained within each category:

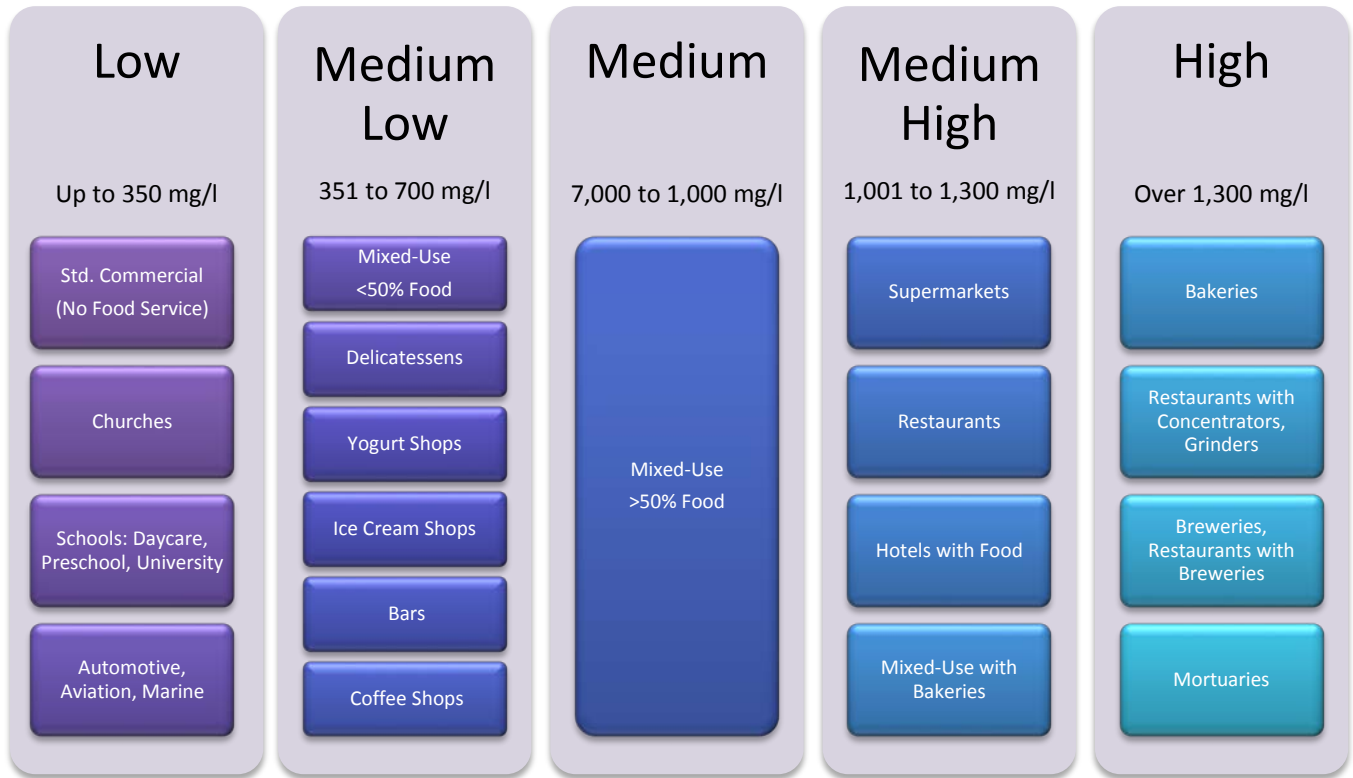


Table 5 indicates the total collected SSC and how such funds are allocated to the O&M and Capital Budgets. The allocation of the SSC to Capital increases from 29.4% in FY 2018-19 to 31.8% in FY 2019-20. All the revenue generated by the FY 2019-20 SSC rate increases will be directed to the CIP and will be used to fund capital spending in FY 2019-20 and subsequent years.

Table 5 - Allocation of SSC

	FY 2017-18 Budget	%	FY 2017-18 Actual	%	FY 2018-19 Budget	%	FY 2019-20 Budget	%	Change
To O&M	\$75,220,700	84.3%	\$75,824,221	84.4%	\$67,073,732	70.6%	\$69,090,870	68.2%	\$2,017,138
To Capital	\$13,967,300	15.7%	\$14,060,789	15.6%	\$27,926,268	29.4%	\$32,219,130	31.8%	\$4,292,862
Total Collected	\$89,188,000	100.0%	\$89,885,010	100.0%	\$95,000,000	100.0%	\$101,310,000	100.0%	\$6,310,000

Uses of Funds

The uses of funds (expenditures and contributions to reserves) for FY 2019-20 are shown in Figure 3. Two expenditure categories, O&M and Sewer Construction, account for 97% of the total uses. In FY 2019-20, a contribution to reserves comprises 1% of the total use of funds. These funds will be applied to the Sewer Construction Fund (Capital Improvement Program) to help offset the need for related to the increased capital spending planned for FY 2019-20 and future years.

Figure 3 – Total Funding Uses – FY 2019-20 Budget

Total FY 2019-20 Budgeted Expenditures and Contributions of Reserves: \$159,166,815

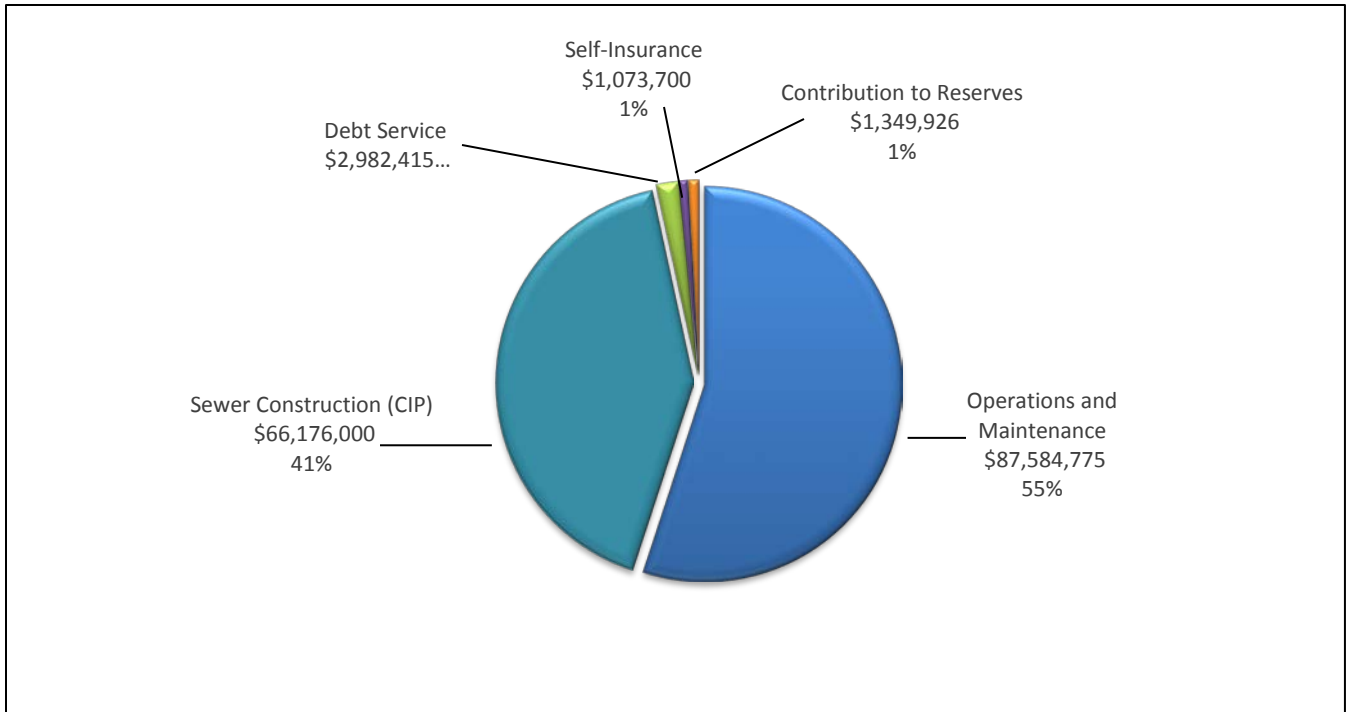
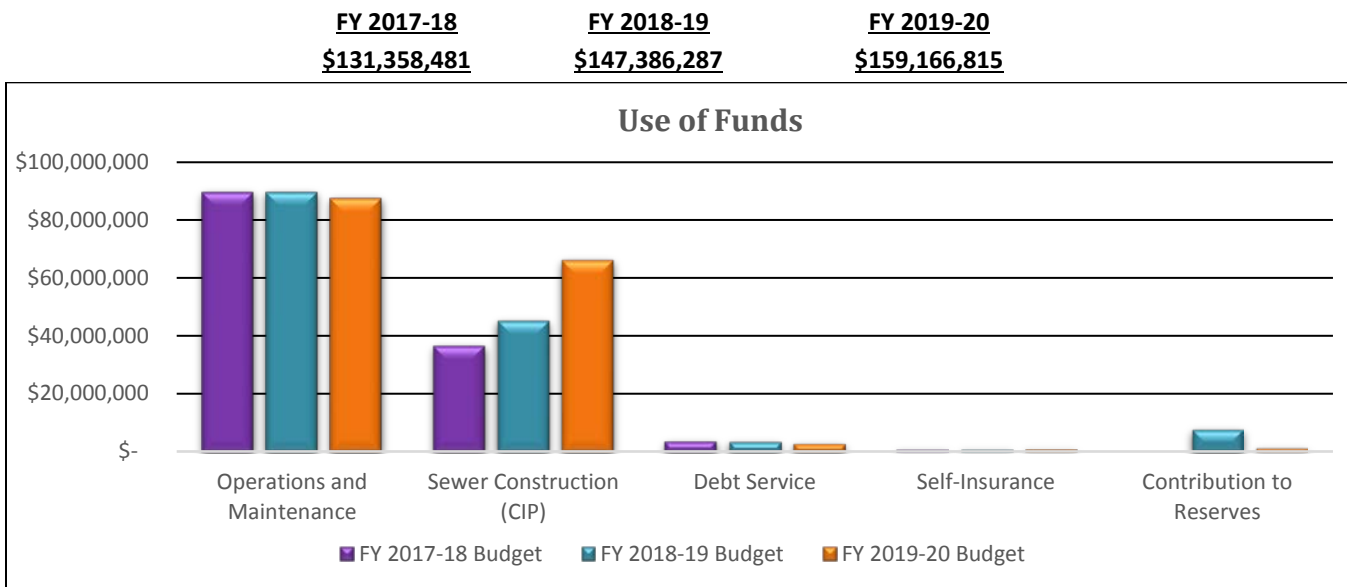


Figure 4 – Where the Money Goes



Operations & Maintenance Budget Overview

The total O&M revenue for FY 2019-20 is projected to be \$89.6 million, compared to the FY 2018-19 budget amount of \$86.9 million, as shown in Table 6.

Table 6 – FY 2019-20 Budgeted O&M Revenues

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Budget Variance	% Variance
O&M Revenue							
Sewer Service Charge	\$75,220,700	\$75,824,221	\$67,073,732	\$67,999,000	\$69,090,870	\$2,017,138	3.0%
City of Concord	\$15,200,000	\$14,973,623	\$14,800,000	\$15,200,000	\$14,570,000	(\$230,000)	-1.6%
Permit & Inspection Fees	\$1,724,000	\$2,091,062	\$1,783,000	\$2,087,000	\$1,870,000	\$87,000	4.9%
Lease Rental Income	\$612,000	\$619,317	\$627,000	\$686,500	\$703,500	\$76,500	12.2%
HHW Reimbursement	\$853,000	\$899,723	\$929,000	\$949,000	\$968,000	\$39,000	4.2%
Stormwater / Pollution Prevention	\$340,000	\$421,022	\$360,000	\$400,000	\$370,000	\$10,000	2.8%
Interest Income	\$78,000	\$230,042	\$600,000	\$993,000	\$1,231,000	\$631,000	105.2%
Recycled Water	\$335,000	\$466,960	\$420,000	\$420,000	\$420,000	\$0	0.0%
Other	\$296,000	\$439,015	\$333,000	\$335,000	\$337,000	\$4,000	1.2%
Total Revenue	\$94,658,700	\$95,964,985	\$86,925,732	\$89,069,500	\$89,560,370	\$2,634,638	3.0%

Revenue increases by \$2.6 million, or 3.0%, are due to the following:

- While system-wide average SSC rates are increasing by 5.25% effective July 1, 2019, the O&M allocation of the SSC decreases from 70.6% in FY 2018-19 to 68.2% in FY 2019-20, with the amount allocated to capital projects increasing from 29.4% to 31.8%.
- The City of Concord is allocated a share proportional to their flow to the treatment plant and environmental and regulatory compliance expenses and is billed for administrative overhead and a finance charge. City of Concord revenue toward O&M costs is expected to be \$14.6 million in FY 2019-20, a 1.6% decrease compared to \$14.8 million in FY 2018-19. This is due to decreased O&M spending, offset by a slightly higher anticipated share of flow-based costs attributable to the City of Concord.

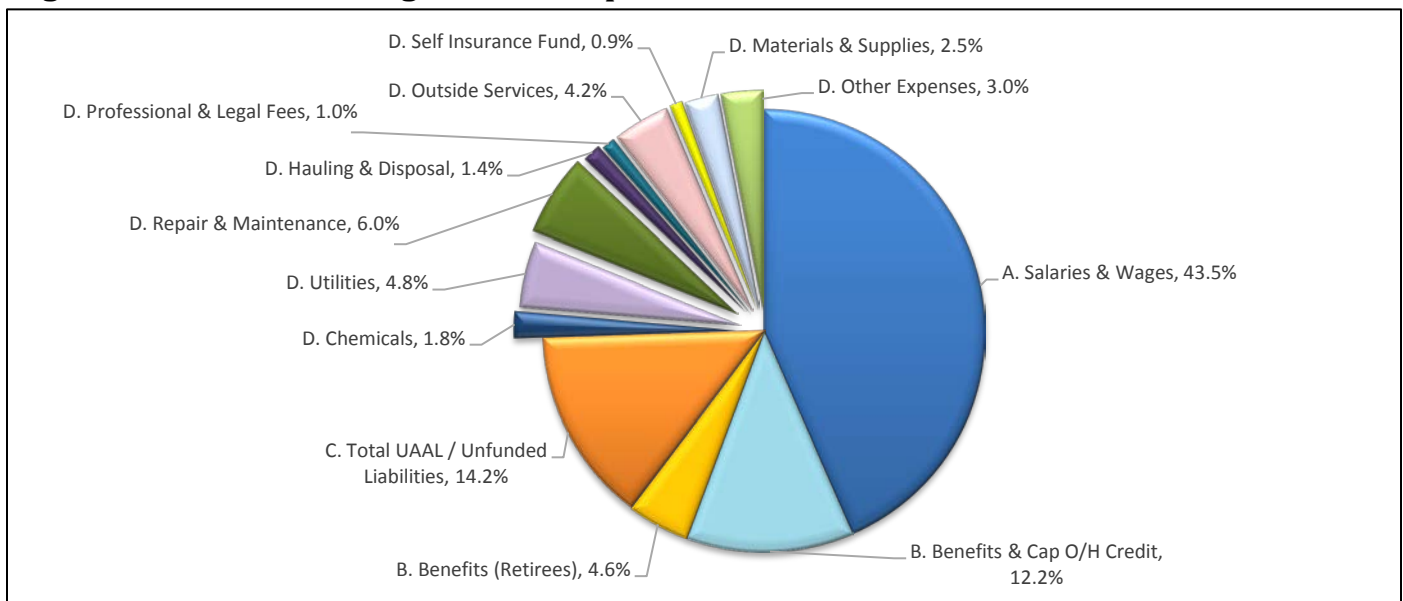
As shown in Table 7, total O&M expenses are projected to be \$87.6 million in FY 2019-20, a reduction of \$2.1 million from the \$89.7 million budget in FY 2018-19. This figure includes all Central San services including wastewater collection and treatment, HHW collection, and recycled water production and distribution. Central San has maintained a relatively flat O&M budget for six years in a row (FY 2014-15 to FY 2019-20). Despite this fiscal discipline, the budget continues to provide funding for strategic initiatives and key activities. Table 7 and Figure 5 show the FY 2019-20 O&M Budget by expense category. Significant savings from a transition to CalPERS health benefits has enabled this reduction in O&M spending, despite inflationary pressures in other expense categories.

O&M salaries and benefits (categories A and B) comprise 60.3% of the overall O&M Budget. Contributions toward unfunded liabilities (category C) are another 14.2%. Salary, benefit, and Unfunded Actuarial Accrued Liability (UAAL) related costs are 74.5% of the O&M Budget. All other expenses (category D) comprise 25.5%.

Table 7 – FY 2019-20 Budgeted O&M Expenditures and Contribution to Reserve

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Budget Variance	% Variance	FY 2019-20 % of Total
A. Salaries & Wages								
Salaries & Wages	\$34,797,628	\$33,847,471	\$35,571,037	\$35,783,100	\$38,060,443	\$2,489,406	7.0%	43.5%
B. Benefits								
Benefits & Capital Overhead Credit	\$12,655,155	\$13,354,020	\$12,655,572	\$13,128,561	\$10,727,641	(\$1,927,931)	-15.2%	12.2%
Salary & Benefits (Active Employees)	\$47,452,783	\$47,201,491	\$48,226,609	\$48,911,661	\$48,788,084	\$561,475	1.2%	55.7%
Benefits (Retirees)	\$5,946,000	\$5,573,753	\$5,941,200	\$5,745,000	\$4,001,000	(\$1,940,200)	-32.7%	4.6%
C. UAAL								
Retirement UAAL / Unfunded Liabilities	\$11,679,261	\$11,347,000	\$10,720,478	\$11,463,712	\$11,186,841	\$466,363	4.4%	12.8%
Additional UAAL Contributions	\$2,500,000	\$5,000,000	\$2,500,000	\$2,500,000	\$1,250,000	(\$1,250,000)	-50.0%	14.3%
Total UAAL / Unfunded Liabilities	\$14,179,261	\$16,347,000	\$13,220,478	\$13,963,712	\$12,436,841	(\$783,637)	-5.9%	14.2%
Total Labor Related Costs	\$67,578,044	\$69,122,244	\$67,388,287	\$68,620,373	\$65,225,925	(\$2,162,362)	-3.2%	74.5%
D. Other O&M Expenses								
Chemicals	\$1,482,000	\$1,025,129	\$1,459,000	\$1,414,000	\$1,620,000	\$161,000	11.0%	1.8%
Utilities	\$4,639,790	\$4,349,145	\$4,142,550	\$4,180,254	\$4,209,350	\$66,800	1.6%	4.8%
Repair & Maintenance	\$5,299,754	\$4,428,945	\$5,414,644	\$5,121,404	\$5,242,867	(\$171,777)	-3.2%	6.0%
Hauling & Disposal	\$1,023,975	\$1,032,064	\$1,126,475	\$1,084,550	\$1,186,175	\$59,700	5.3%	1.4%
Professional & Legal Fees	\$807,600	\$663,704	\$845,300	\$731,086	\$874,300	\$29,000	3.4%	1.0%
Outside Services	\$3,452,717	\$2,324,576	\$3,510,822	\$3,008,053	\$3,639,547	\$128,725	3.7%	4.2%
Self-Insurance Fund	\$585,000	\$585,000	\$779,500	\$779,500	\$825,000	\$45,500	5.8%	0.9%
Materials & Supplies	\$2,059,325	\$2,103,329	\$2,108,126	\$2,166,588	\$2,152,127	\$44,001	2.1%	2.5%
Other Expenses	\$2,785,382	\$1,973,119	\$2,945,752	\$2,511,987	\$2,609,484	(\$336,268)	-11.4%	3.0%
**Total Other O&M	\$22,135,543	\$18,485,012	\$22,332,169	\$20,997,422	\$22,358,850	\$26,681	0.1%	25.5%
Total Expenditures	\$89,713,587	\$87,607,256	\$89,720,456	\$89,617,795	\$87,584,775	(\$2,135,681)	-2.4%	100%

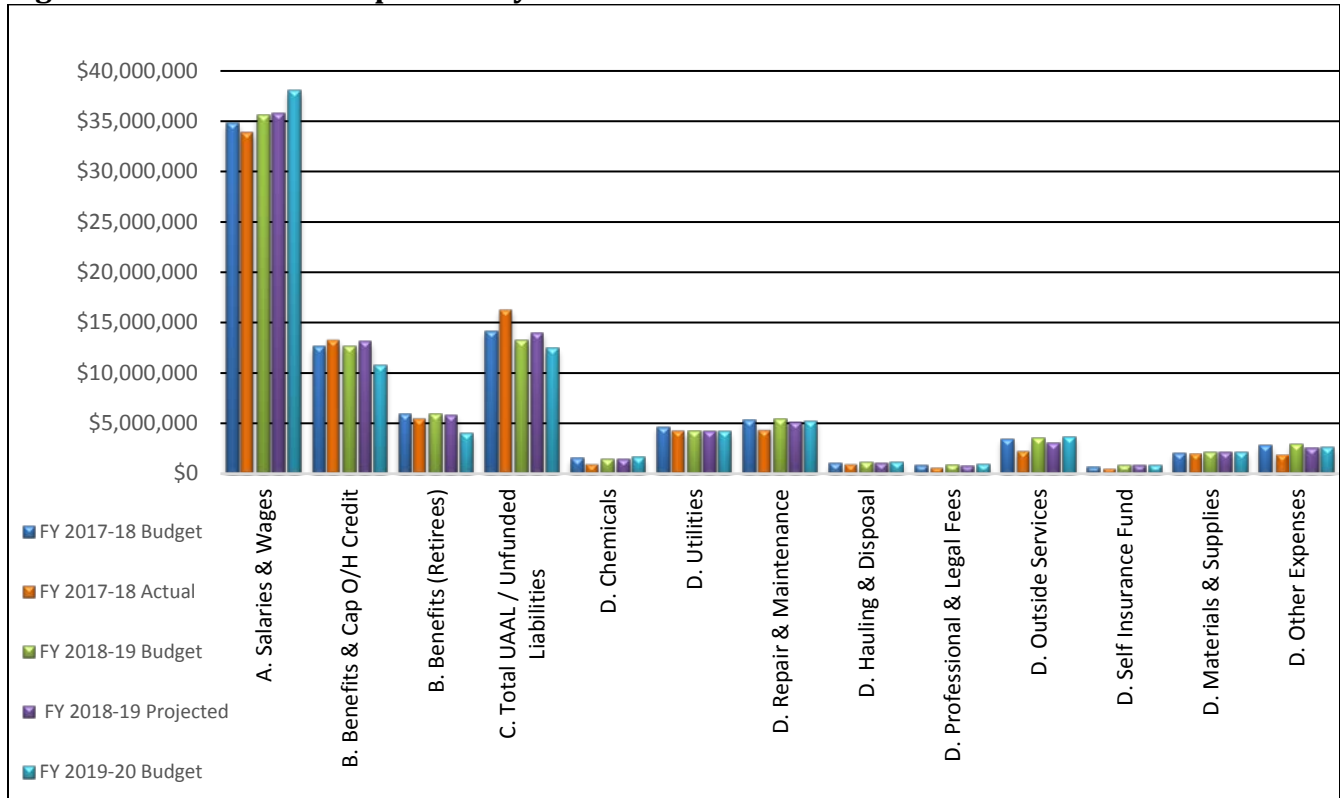
Figure 5 – FY 2019-20 Budgeted O&M Expenditures



Variations in the Operations & Maintenance Budget

O&M costs overall decrease from FY 2018-19 to FY 2019-20 by \$2.1 million. Salaries increase by \$2.5 million, which are offset by benefit and retirement cost decreases of \$3.9 million. Contributions toward unfunded liabilities dropped \$0.8 million, while other costs were flat from year to year. These changes are discussed below and illustrated in Figure 6.

Figure 6 – O&M Cost Comparison by Year



The lettered expense categories in the chart correspond to the descriptions below.

A. O&M Salaries & Wages

Central San’s budgeted salaries are \$38.1 million in FY 2019-20, compared to \$35.6 million in FY 2018-19, representing an increase of \$2.5 million, or 7.0%. The increase reflects the 3.5% salary adjustment effective April 2019 (which was higher than the 3% assumed in the FY 2018-19 budget), an assumed salary adjustment effective April 2020 of 3% (the actual adjustment will be based on the Bay Area Consumer Price Index change from February 2019 to February 2020), step increases for newer employees, and a decrease in the vacancy factor from 3.25% assumed in the FY 2018-19 budget to 2%, which is the level historically assumed.

B. Benefits and Capitalized Overhead

Cost-Saving Transition to CalPERS Health – As part of labor negotiations, the Board agreed with the bargaining units to switch to CalPERS health benefits for active and retired employees, effective July 1, 2019. Initially, Central San’s actuarial services consultant, Bartel Associates, presented estimated savings to the Board totaling \$5.6 million as a result of this action. In the OPEB valuation provided to the Board in early 2019, that number was updated to \$5.8 million. The savings from

the transition affect the Benefits and Capitalized Overhead expense grouping and the Unfunded Liabilities expense grouping (discussed below). A \$3.9 million reduction in Benefits and Capitalized Overhead, or 20.8% decrease results from this change and other offsetting cost changes described below. The cost of benefits in the O&M Budget totals \$14.7 million in FY 2019-20 compared to \$18.6 million in FY 2018-19. An analysis showing the reconciliation between the Bartel savings estimate and the budget line items is shown in Figure 1 of the Supplemental Financial Information section of this budget document.

Other changes in benefit cost assumptions are listed below. Given the timing of the budget process, assumptions were made on program costs pending the availability of actual announced changes by the providers. These assumed cost changes for budget purposes, and the actual cost changes subsequently announced by the carriers, are discussed in the bullet points below.

- **CCCERA** – The overall retirement normal cost for FY 2019-20 is essentially unchanged at \$5.3 million in FY 2018-19. The retirement contribution rate is decreasing 1% for legacy employees and 3.3% for Public Employees’ Pension Reform Act employees, offset by higher pensionable wages.
- **Delta Dental** – A 3.75% rate increase was assumed during the budget process. Subsequently, the carrier announced that premiums are decreasing by 7%.
- **Long-Term Disability** – A 3% rate increase was assumed during the budget process. The actual rates have not been finalized.
- **Employee Assistance Program** – A 3% rate increase was assumed for budget purposes. Subsequently, the carrier announced that premiums will not change for FY 2019-20.
- **Workers' Compensation** – A 10% rate increase was assumed for budget purposes. The actual rates have not been finalized. More impactful, however, is the Experience Modification factor that adjusts the gross rate of the collective pool to the member agency. Central San’s Experience Modification increased from 0.74 to 1.06, a 43.2% increase.
- **Life Insurance** – A 0% rate change is assumed for budget purposes. The actual rates have not been finalized as of April 2019.

The Capitalized Administrative Overhead rate, a credit given for capital work to the O&M Budget for non-work hours and overhead, decreased from 124% in FY 2018-19 to 121% for FY 2019-20. The Capitalized Administrative Overhead budget is \$4.4 million in FY 2019-20, up from \$4.0 million in FY 2018-19, reflective of the increase in the Capital Improvement Budget.

C. Unfunded Liabilities

Central San has agreements with its employees to provide pension and post-employment healthcare benefits. Central San prefunds the pension/benefits in accordance with actuarial calculations that make certain economic and demographic assumptions. The goal is to grow these prefunded amounts into enough assets to cover the liabilities arising from the promised pension/benefits. An unfunded liability may occur when those economic/demographic assumptions are not met, those assumptions are changed, and/or the level of pension/benefits is adjusted.

Overall contributions toward unfunded liabilities decrease from \$13.2 million in FY 2018-19 to \$12.4 million in FY 2019-20, representing a decrease of \$0.8 million, or 5.9%.

The pension unfunded liability expense to be paid to CCCERA is \$11.2 million in FY 2019-20, which, compared to the budget of \$10.7 million in FY 2018-19, is an increase of \$0.5 million, or 4%.

The budget also includes \$1.25 million to be paid toward the unfunded liabilities for either pension or OPEB obligations, to be determined by the Board during the fiscal year. This is a reduction from the \$2.5 million in the current year budget as pension and OPEB funding ratios have improved significantly in recent years due to multiple factors, including: (1) additional payments above actuarially required amounts, (2) a change to lower-cost health insurance effective July 2019 that reduces OPEB liabilities, and (3) favorable returns on pension and OPEB assets.

To the extent that budget savings are available with the completion of the FY 2019-20 year, the Board may choose to direct part of the savings toward additional unfunded liabilities funding.

D. All Other O&M Expenses

The remaining O&M non-labor expenses are flat at \$22.36 million in FY 2019-20, compared to \$22.33 million in FY 2018-19. Additional information is included in the individual division budgets. The areas of most significant change include the following:

- **Chemicals** – This expense increased by \$161,000, or 11%, due to increased pricing of polymer.
- **Utilities** – This expense increased by \$67,000, or 1.6%, due to increased cost for landfill gas.
- **Repairs & Maintenance** – This expense decreased by \$172,000, or 3.2%, due to the Vehicle and Equipment Shop performing more in-house repairs and a decrease in software renewal expenses.
- **Hauling & Disposal** – This expense increased by \$60,000, or 5.3%, due to higher HHW disposal rates and rising diesel prices.
- **Professional & Legal Fees** – This expense increased by \$29,000, or 3.4%, due to a need for additional legal research and advice in the Office of the General Manager/Office of the Secretary of the District.
- **Outside Services** – This expense increased by \$129,000, or 3.7%, due to a need for additional use of outside technical service firms in the Planning and Development Services Division.
- **Self-Insurance Expense** – This expense increased by \$46,000, or 5.8%, reflecting an increased allocation from O&M to cover anticipated higher estimated loss payments, legal services, and insurance premiums.
- **Materials & Supplies** – This expense increased by \$44,000, or 2.1%, due to small budgetary increases across many divisions.
- **Other Expenses** – This expense decreased by \$336,000, or 11.4%. No Proposition 218 Notice expenses or Board election will occur in FY 2019-20, both of which were budgeted in FY 2018-19.

- Technical Training, Conferences, & Meetings – This expense is included in the Other Expenses category and increased by \$23,000, or 6.4%, due to increased technical training for both new hires and succession planning efforts with existing staff. Table 8 shows a breakdown of the budget in Technical Training, Conferences, & Meetings.

Table 8 – Technical Training, Conferences, & Meetings

	FY 2017-18 Budget	FY 2018-19 Budget	FY 2019-20 Budget	Variance from FY 2018-19	% Variance
Board of Directors	\$45,000	\$45,000	\$40,000	(\$5,000)	-11%
Administration Department	\$93,550	\$107,900	\$119,700	\$11,800	11%
Engineering Department	\$97,375	\$100,325	\$107,425	\$7,100	7%
Operations Department	\$86,450	\$104,600	\$113,500	\$8,900	9%
Total	\$322,375	\$357,825	\$380,625	\$22,800	6.4%

Operations & Maintenance Budget by Operating Department

Table 9 and Figure 7 provide a summary of the operating budgets by department. Further details are included in the Operating Departments Section.

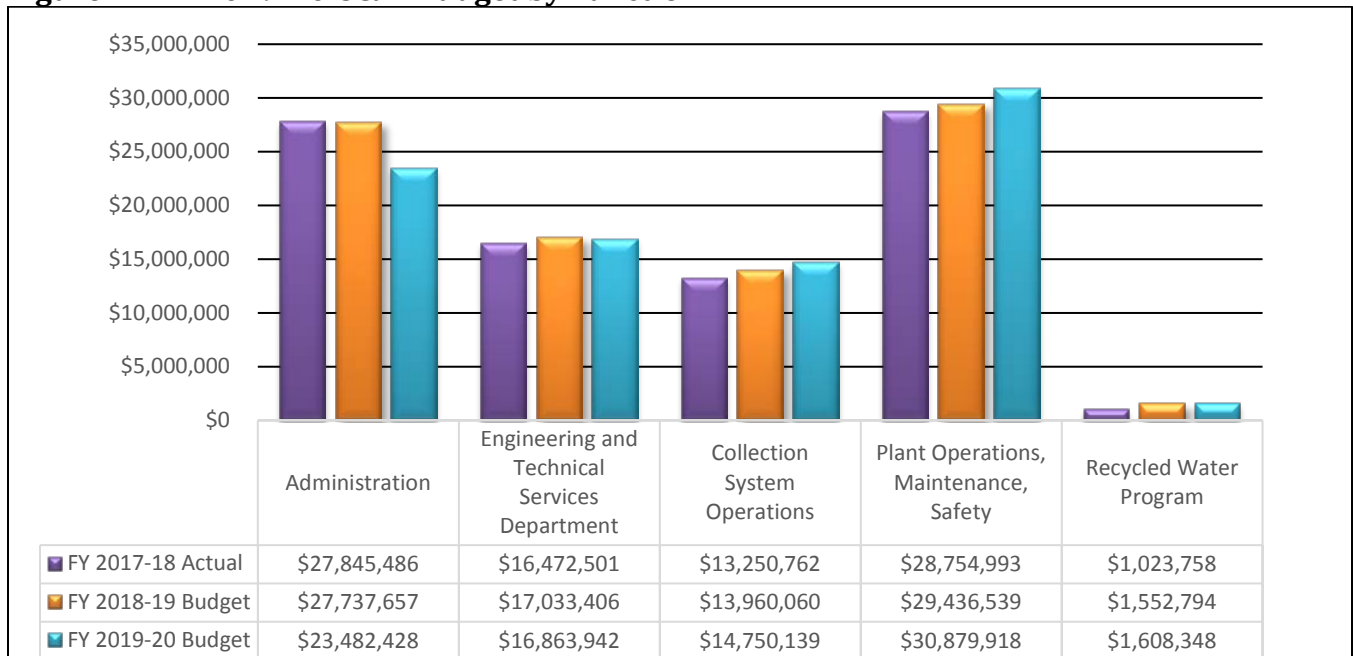
Table 9 – O&M Budget by Department

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Budget Variance	% Variance
Administration							
Communication Services and Intergovernmental Relations	\$1,979,369	\$1,774,303	\$2,094,427	\$1,925,092	\$1,980,908	(\$113,519)	-5%
Finance	\$2,570,983	\$2,097,841	\$2,442,604	\$2,036,266	\$2,409,374	(\$33,230)	-1%
Human Resources	\$12,579,787	\$14,754,657	\$12,609,437	\$12,591,970	\$8,251,199	(\$4,358,238)	-35%
Information Technology	\$3,938,582	\$3,526,457	\$4,137,334	\$3,970,913	\$4,093,590	(\$43,744)	-1%
Purchasing and Materials Services	\$1,958,932	\$1,634,026	\$2,051,286	\$1,880,258	\$2,123,488	\$72,202	4%
Risk Management	\$1,604,720	\$1,217,984	\$1,823,308	\$1,727,014	\$1,867,875	\$44,567	2%
Office of the General Manager / Office of the Secretary of the District	\$2,629,493	\$2,840,218	\$2,579,261	\$3,323,021	\$2,755,994	\$176,733	7%
Total	\$27,828,993	\$27,845,486	\$27,737,657	\$27,454,534	\$23,482,428	(\$4,255,229)	-15%
Engineering and Technical Services Department							
Capital Projects	\$766,422	\$437,006	\$835,854	\$544,128	\$455,841	(\$380,013)	-45%
Environmental and Regulatory Compliance	\$8,451,520	\$7,999,359	\$8,397,399	\$8,270,530	\$8,628,203	\$230,804	3%
Planning and Development Services	\$7,816,395	\$8,036,137	\$7,800,153	\$7,455,700	\$7,779,898	(\$20,255)	0%
Total	\$15,899,140	\$16,472,501	\$17,033,406	\$16,270,358	\$16,863,942	(\$169,464)	-1%

Table 9 – O&M Budget by Department (Continued)

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Budget Variance	% Variance
Operations							
Collection System Operations	\$14,156,213	\$13,250,762	\$13,960,060	\$14,331,708	\$14,750,139	\$790,079	6%
Plant Maintenance	\$14,138,658	\$13,532,776	\$14,366,463	\$14,385,929	\$14,610,349	\$243,886	2%
Plant Operations	\$14,886,976	\$14,504,548	\$14,222,651	\$15,106,596	\$15,520,408	\$1,297,757	9%
Safety Program	\$916,895	\$717,669	\$847,425	\$746,437	\$749,161	(\$98,264)	-12%
Recycled Water Program	\$1,318,642	\$1,023,758	\$1,552,794	\$1,322,233	\$1,608,348	\$55,554	4%
Total	\$46,082,785	\$43,029,512	\$44,949,393	\$45,892,903	\$47,238,405	\$2,289,012	5%
Total All Departments	\$89,810,918	\$87,347,500	\$89,720,456	\$89,617,795	\$87,584,775	(\$2,135,681)	-2%

Figure 7 – FY 2019-20 O&M Budget by Function

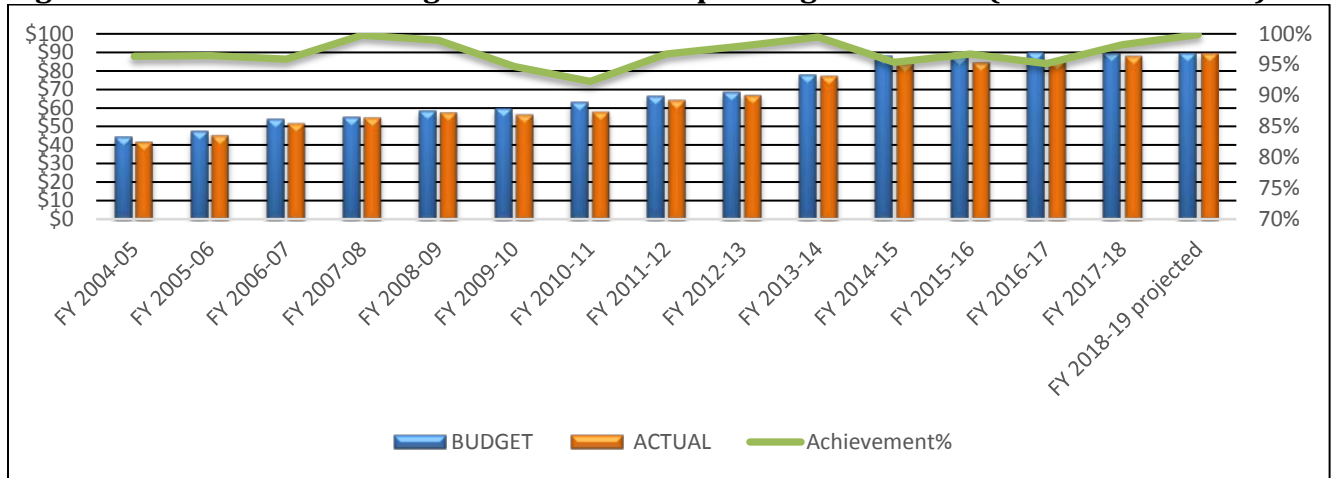


The substantial reduction in Administration costs is primarily related to the \$4.3 million reduction in retiree benefits, unfunded liabilities payments, and additional unfunded liabilities payment that are budgeted in the Human Resources division.

Historical Variances in Operations & Maintenance Spending

Figure 8 shows historic O&M budgeted and actual amounts, and actual spending as a percentage of budget. There have been variances averaging 2.9% (spending was 97.1% of budget) over the last five years (with variances averaging 3.3% since FY 2004-05). In the development of the FY 2019-20 Budget, attention was paid to reviewing the budget on a line-by-line basis, with the budgeted amount evidenced by detailed support and a comparison to FY 2018-19 projected spending.

Figure 8 – Historic O&M Budget versus Actual Spending in Millions (Multi-Year Trend)



Staffing, Salaries, and Benefits (Costs included in both O&M and Sewer Construction)

Total labor, benefit, and UAAL related costs decreased \$1.1 million, or 1.5%, from \$75.7 million in FY 2018-19 to \$74.6 million in FY 2019-20.

Total salaries and benefits for active employees are budgeted at \$58.2 million in FY 2019-20, including both the O&M fund and the Sewer Construction Fund, compared to \$56.6 million total salaries and benefits in FY 2018-19, a \$1.6 million increase. Benefits for retirees are projected to be \$4.0 million in FY 2019-20, compared to \$5.9 million in FY 2018-19, due to the transition to CalPERS health benefits. Costs of unfunded liabilities for pension and OPEB costs are \$12.4 million, down from \$13.2 million in FY 2018-19.

Major factors affecting overall salaries and benefits include the following:

- + Cost of living adjustment of 3.5%, a component of the overall assumed salary increases of 5%
- + Reduction in assumed vacancy factor from 3.25% to 2%
- + Additional overtime of \$0.3 million, an increase of 21%
- Savings from transition to CalPERS health benefit plans effective July 1, 2019

The following tables show various levels of detail regarding labor costs. Table 10 summarizes all labor-related costs across two sub-funds. Additional tables in the Supplemental Financial Information section at the end of this budget document provide additional detail about salary and benefit costs.

Table 10 – Total Labor Costs Summary

FY 2019-20 Budget	Operations & Maintenance	Sewer Construction	Total
Active Employees			
Budgeted Full-Time Employee Positions (Estimated Allocation)*	264.9	25.1	290.0
Budgeted Salaries & Wages	\$38,060,443	\$3,601,298	\$41,661,741
Budgeted Benefits	\$15,176,010	\$1,353,379	\$16,529,389
Capitalized Administrative Overhead**	(\$4,448,369)	\$4,448,369	\$0
Benefits After Capitalized Administrative Overhead	\$10,727,641	\$5,801,748	\$16,529,389
Total Costs Active Employees	\$48,788,084	\$9,403,046	\$58,191,130
Retiree Costs and Unfunded Liabilities			
Retiree Benefit Costs	\$4,001,000	\$0	\$4,001,000
UAAL / Unfunded Liabilities	\$12,436,841	\$0	\$12,436,841
Total Retiree Costs and Unfunded Liabilities	\$16,437,841	\$0	\$16,437,841
Total Labor Related Costs	\$65,225,925	\$9,403,046	\$74,628,971

* Estimated allocation of Full-Time Employees between Sewer Construction and O&M.

**Consists of indirect costs associated with non-productive hours and Administrative Overhead.

FY 2018-19 Budget	Operations & Maintenance	Sewer Construction	Total
Active Employee Costs			
Budgeted Full-Time Employee Positions (Estimated Allocation)*	266.9	23.1	290.0
Budgeted Salaries & Wages	\$35,571,037	\$3,085,056	\$38,656,093
Budgeted Benefits	\$16,635,295	\$1,294,263	\$17,929,558
Capitalized Administrative Overhead**	(\$3,979,723)	\$3,979,723	\$0
Benefits After Capitalized Administrative Overhead	\$12,655,572	\$5,273,986	\$17,929,558
Total Active Employee Costs	\$48,226,609	\$8,359,042	\$56,585,651
Retiree and Unfunded Liabilities Costs			
Retiree Benefits	\$5,941,200	\$0	\$5,941,200
UAAL / Unfunded Liabilities	\$13,220,47	\$0	\$13,220,478
Total Retiree and Unfunded Liabilities Costs	\$19,161,678	\$0	\$19,161,678
Total Labor-Related Costs	\$67,388,287	\$8,359,042	\$75,747,329

* Estimated allocation of Full-Time Employees between Sewer Construction and O&M.

**Consists of indirect costs associated with non-productive hours and Administrative Overhead.

Budgeted Full-Time Equivalents

Table 11 shows full-time equivalent employee totals for the time periods indicated. The Year-End Actual figures represent actual staffing as of June 30, 2018. In addition to the 291 budgeted positions, the General Manager has the ability to add five additional “transitional” positions at any given time to backfill positions vacated due to an extended leave of absence or as necessary to properly address succession planning. The costs associated with these positions are funded through vacancy savings. Table 12 shows the positions by bargaining unit and division.

Table 11 – Budgeted Full-Time Equivalents

	FY 2017-18 Year-End Actual	FY 2018-19 Budget	FY 2019-20 Budget
Regular Employees	289.0	290.0	291.0
Limited Duration Employees			
Summer Students	30.0	31.0	29.0
Interns	9.5	9.0	10.0

Table 12 – Full-Time Equivalent Positions by Bargaining Unit and Division

	Administration	Engineering	Operations	Total
Local One	18.0	40.0	108.0	166.0
Management Support/Confidential Group	27.0	48.0	32.0	107.0
Management	4.0	4.0	3.0	11.0
Unrepresented	5.0	1.0	1.0	7.0
Total by Division	53.0	93.0	144.0	291.0

Staffing Changes

During 2015, a staffing and organizational study^[1] was completed for Central San. The study recommended that Central San hire a consultant to conduct a classification study, which was completed in 2017, to ensure that Central San’s classification structure was appropriate, and employees were working within their job classifications. The budget includes the cost of implementing the recommendations of the study, as well as other changes to the classification structure that Central San has deemed as operationally necessary. The FY 2019-20 Budget includes \$200,000 in gross wages and \$106,000 for the benefit-related costs of implementing these potential changes.

Overall, staffing is at 291 positions, reflective of the 2015 Organization and Staffing Plan recommendation, which recommended an additional four positions from the then 287 budgeted positions. In recent years, budgeted staffing of 290 did not include the fourth position, an Internal Auditor. The position is now proposed in the budgeted staffing as an Internal Auditor, which is currently funded (and continues in the FY 2019-20 budget) as a temporary position. Apart from the inclusion of the one Internal Auditor position, reallocations of staffing between divisions and position changes within divisions are summarized below:

- Contracts Analyst (Purchasing) retitled to Contracts Specialist (Capital Projects)
- Three Associate Control Systems Engineers (Plant Operations) retitled to Utility Systems Engineers (Plant Operations)
- One Utility Systems Engineer (Plant Operations) to Utility Systems Engineer (Plant Maintenance)
- One Assistant Engineer (Plant Maintenance) to Utility Systems Engineer (Plant Operations)
- Two Assistant Engineers (Capital Projects) to one Engineering Assistant I/II (Capital Projects) and one Associate Engineer (Capital Projects)
- One Associate Engineer (Capital Projects) to Utility Systems Engineer (Capital Projects)

^[1] Report is available here: http://centralsan.org/documents/Organization_and_Staffing_Plan.pdf.

Capital Improvement Budget

Sewer Construction Fund revenues are projected to increase by \$9.7 million, from \$55.9 million in FY 2018-19 to \$65.6 million in FY 2019-20. This increase is to cover an extensive CIP and will be generated primarily through an increase in SSC of \$4.3 million, resulting from additional revenue available from the 5.25% system average rate increase effective July 1, 2019 and an expected City of Concord reimbursement of \$11.6 million due to higher flows and increased cost-based reimbursement. Budgeted capital expenditures for FY 2019-20 are \$66.1 million, a \$20.8 million increase over the FY 2018-19 budget of \$45.3 million. The \$66.1 million does not include the anticipated carryforward from FY 2018-19, which will be communicated to the Board after the close of the current fiscal year. The \$20.8 million increase, or 46%, in budgeted spending is a significant step toward the increased capital spending that will be taking place for the next several years as shown in the Ten-Year CIP presented later in this document.

Central San will draw down approximately \$0.6 million from capital reserves during FY 2019-20 with expenditures exceeding revenues by that amount. Funding the Sewer Construction Fund (Capital Improvement) Working Capital Reserves exceeds the requirement of the aforementioned Board Policy No. BP 017 - Fiscal Reserves. Prior years' contributions to the Sewer Construction Reserve allow for smoothing of rate requirements to accommodate the significant ramp-up of expenditures that is projected to occur during the next couple of years.

Table 13 below is a summary of the projected FY 2019-20 Sewer Construction Fund revenues and expenditures. Further details are included in the Capital Improvement Program section.

Table 13 – Sewer Construction Fund Revenues and Expenditures

	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected *	FY 2019-20 Budget**	Budget-to-Budget Variance	% Variance
Revenue							
Capacity Fees	\$5,900,000	\$7,937,754	\$5,900,000	\$5,750,000	\$5,750,000	(\$150,000)	-3%
Pumped Zone Fees	\$513,000	\$1,301,061	\$600,000	\$600,000	\$291,000	(\$309,000)	-52%
Interest Income	\$386,000	\$777,226	\$570,000	\$570,000	\$674,000	\$104,000	18%
Ad Valorem Taxes	\$12,100,000	\$13,918,715	\$13,300,000	\$13,300,000	\$14,520,000	\$1,220,000	9%
Sewer Service Charge	\$13,967,300	\$14,060,789	\$27,926,268	\$28,311,000	\$32,219,130	\$4,292,862	15%
Reimbursements							
City of Concord	\$6,000,000	\$6,364,725	\$7,150,000	\$7,150,000	\$11,630,000	\$4,480,000	63%
Recycled Water Sales	\$38,500	\$0	\$0	\$0	\$0	\$0	0%
Developer Fees and Charges	\$423,000	\$519,072	\$443,000	\$443,000	\$514,000	\$71,000	16%
Total Revenue	\$39,327,800	\$44,879,342	\$55,889,268	\$56,124,000	\$65,598,130	\$9,708,862	17%
Expenditures							
Treatment Plant Program	\$18,045,000	\$15,681,067	\$16,865,000	\$18,300,000	\$28,631,000	\$11,766,000	70%
Collection System Program	\$18,492,000	\$20,291,192	\$19,347,000	\$19,500,000	\$27,129,000	\$7,782,000	40%
General Improvements Program	\$4,277,000	\$2,222,593	\$4,750,000	\$3,900,000	\$5,369,000	\$1,469,000	31%
Recycled Water Program	\$460,000	\$1,309,754	\$2,857,000	\$2,300,000	\$4,152,000	\$1,295,000	45%
Contingency	\$1,500,000	\$0	\$1,500,000	\$0	\$895,000	(\$605,000)	(40%)
Total Expenditures	\$42,774,000	\$39,504,606	\$45,319,000	\$44,000,000	\$66,176,000	\$20,857,000	46%
Carryforward	\$3,700,000		\$6,968,827				
Total Expenditure Authority	\$46,474,000		\$52,287,827				
Sewer Construction Funds Available							
Projected Revenue				\$56,124,000	\$65,598,130		
Projected Expenditures ***				\$44,000,000	\$66,176,000		
Reserves Contribution/(Draw)				\$12,124,000	(\$577,870)		

* Projection as of April 2019.

**The FY 2019-20 budget amount does not include any carryforward from past fiscal years; the Board will be notified of any carryforward amount after the close of the current fiscal year.

***Reserve calculation assumes difference between FY 2018-19 budget and projected spending will be spent in FY 2019-20.

Impact of Capital Improvement Budget on Ongoing Operations & Maintenance Budget

Central San’s Capital Improvement Budget and the extent to which FY 2019-20 nonrecurring capital investments will affect the proposed or future years’ operating budget are described later in this document. In general, given the nature and composition of the FY 2019-20 Capital Improvement Budget, these effects are minimal. Future capital projects could have more substantial impacts (e.g., additional personnel costs, additional maintenance costs, or additional utility costs or, conversely, anticipated savings such as reduced utility costs or lower maintenance costs) that would be specified further in the year such projects are budgeted.

Reserve Projections

Board Policy No. BP 017 - Fiscal Reserves sets targets for each of Central San's reserve funds. Fiscal reserves provide working capital for O&M activities; funding for long-term capital improvement requirements; fulfillment of legal, regulatory, and contractual obligations; mitigation of risk and liability exposures; and cash flow emergencies. These reserves were fully funded as of FY 2017-18 but are adjusted annually based on changes in the targeted balance calculation.

- **For the O&M Fund** (Working capital reserves) – The Board has set a target of five months (41.7%) of gross operating expenses at the start of each fiscal year.
- **For the Sewer Construction Fund** (Working capital reserves) – The Board has set a target of 50% of the annual Capital Improvement Budget at the start of each fiscal year, excluding capital projects that are to be funded with bond proceeds.
- **For the SIF Reserves** – The Board has set a target of three times the annual deductible, \$1.5 million. In addition, to help mitigate financial impacts and maintain uninterrupted service in the event of an emergency or catastrophic event, Central San maintains an Emergency Fund Reserve balance of \$5 million in the SIF.

Table 14 presents a summary of Central San's current reserve balance projections compared to the Board Policy targets. The reserve levels are projected to be above the policy-required levels on June 30, 2019 and 2020. The FY 2019-20 revenue requirement funds a projected \$1.3 million increase in the reserve balances. The increase in the O&M reserve is related to the projection in the financial plan for a FY 2020-21 O&M spending level of \$92.1 million. The slight draw down in Sewer Construction is related to the overall increase in Capital Improvement Budget spending while rate increases lag the spending increase.

The amounts are subject to change based on actual financial results for the current and next fiscal years. The Supplemental Financial Information section of this budget document contains a table showing changes in net position and fund equity.

Table 14 – Reserve Projections

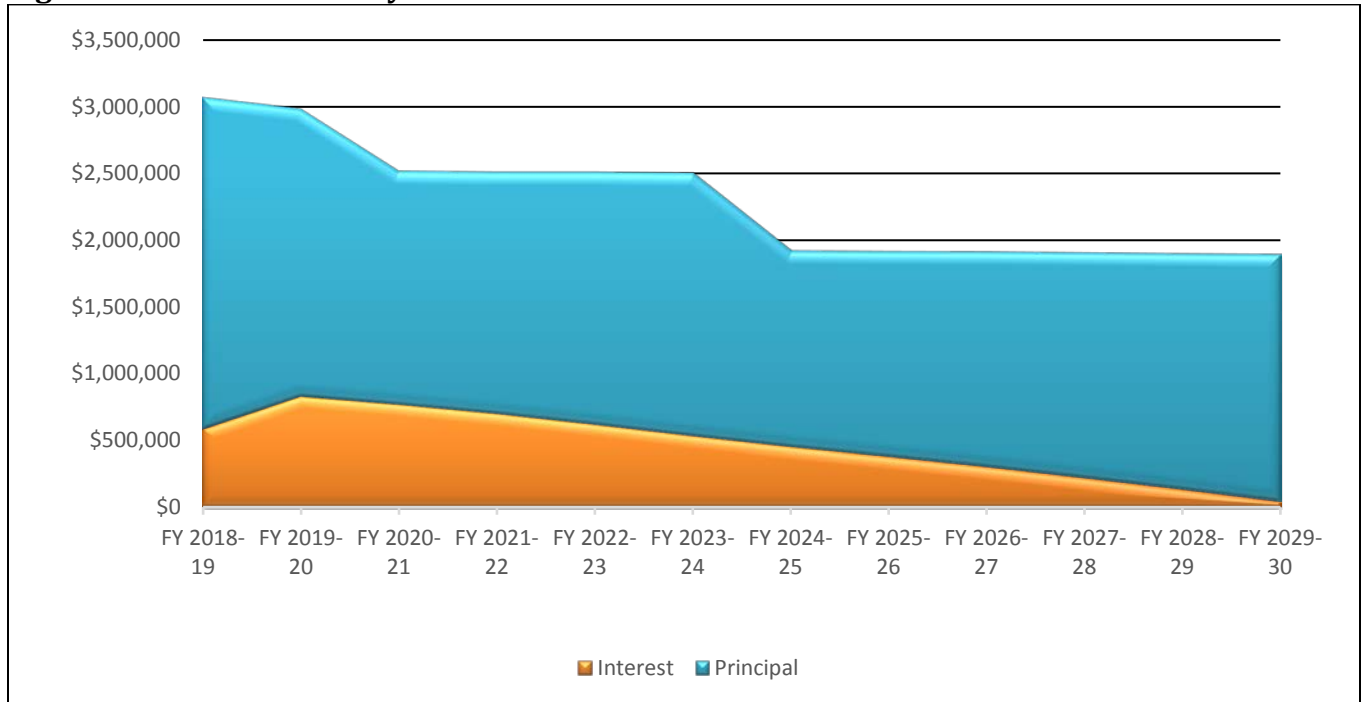
	O&M Fund	Sewer Construction Fund (Capital)	Self-Insurance Fund	Totals
Projected Balance as of June 30, 2019	\$36,924,515	\$56,148,243	\$6,959,875	\$100,032,633
Projected Balance as of June 30, 2020	\$38,900,110	\$55,570,373	\$6,912,075	\$101,382,558
Change Year Over Year	\$1,975,595	(\$577,870)	(\$47,800)	\$1,349,925
<i>Reference:</i>	Table 7	Table 13	Self Insurance Table 1	See Figure 3
Percentage Change Year Over Year	5.4%	-1.0%	-0.7%	1.3%
Explanation	Ending balance at 6/30/19 is above policy level due to projected O&M savings in FY 2018-19	Funds were set aside in Recent years prior years to be used toward the funding of future year's Capital Budgets		
Comparison to Policy Target-Start of Budget Year				
Policy Target	5/12 of following year's O&M Budget	50% of following year's non-debt funded Capital Budget	3 times annual deductible of \$500,000 plus \$5 million	
Reserve Policy Target end of June 30, 2019	\$36,493,656	\$33,088,000	\$6,500,000	\$76,081,656
Projected Balance Minus Reserve Policy Target at June 30, 2019	\$430,859	\$23,060,243	\$459,875	\$23,950,977
Comparison to Policy Target-End of Budget Year				
Reserve Policy Target end of June 30, 2020	\$38,371,110	\$32,048,551	\$6,500,000	\$76,919,661
Projected Balance Minus Reserve Policy Target at June 30, 2020	\$529,000	\$23,521,822	\$412,075	\$24,462,897

Reserve calculations subject to final close of financial results for the year and may differ from projection.
Reserve projection may be updated by the time of the presentation of the final budget.

Debt Service

Current debt service expenditures include outstanding payments on 2018 Revenue Bonds. Details on the debt service are included in the Debt Program Section. Figure 9 depicts all existing debt payments for Central San. Future planned debt issuances would add to this debt profile. The need for new bond funding is anticipated for FY 2020-21.

Figure 9 – Debt Service Payment Schedule



Long-Term Spending Trend

Figure 10 shows a long-term trend line of past O&M expenditures, while Figure 11 shows a long-term trend line of past capital expenditures. The O&M Budget has been held essentially flat since FY 2014-15, for a total of six years. Capital spending has been ramping up significantly since FY 2016-17, with spending projected to average \$86 million per year over the next decade (in 2019 dollars).

Figure 10 – Long-Term O&M Spending Trend

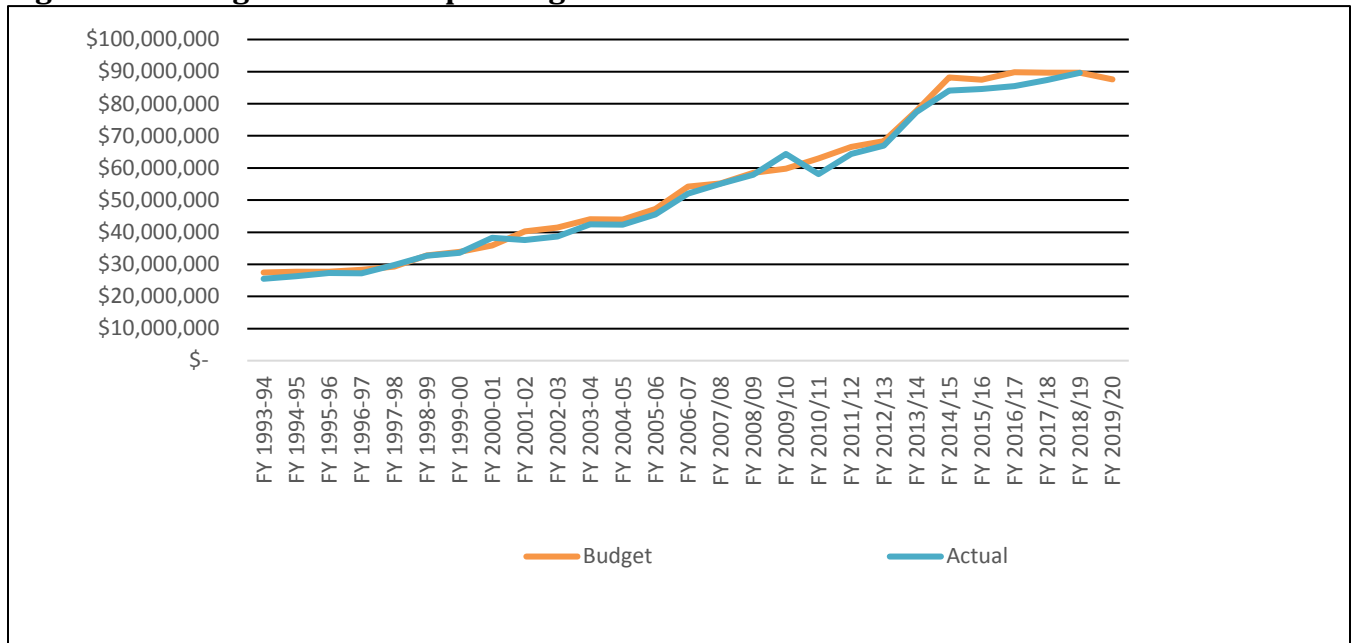
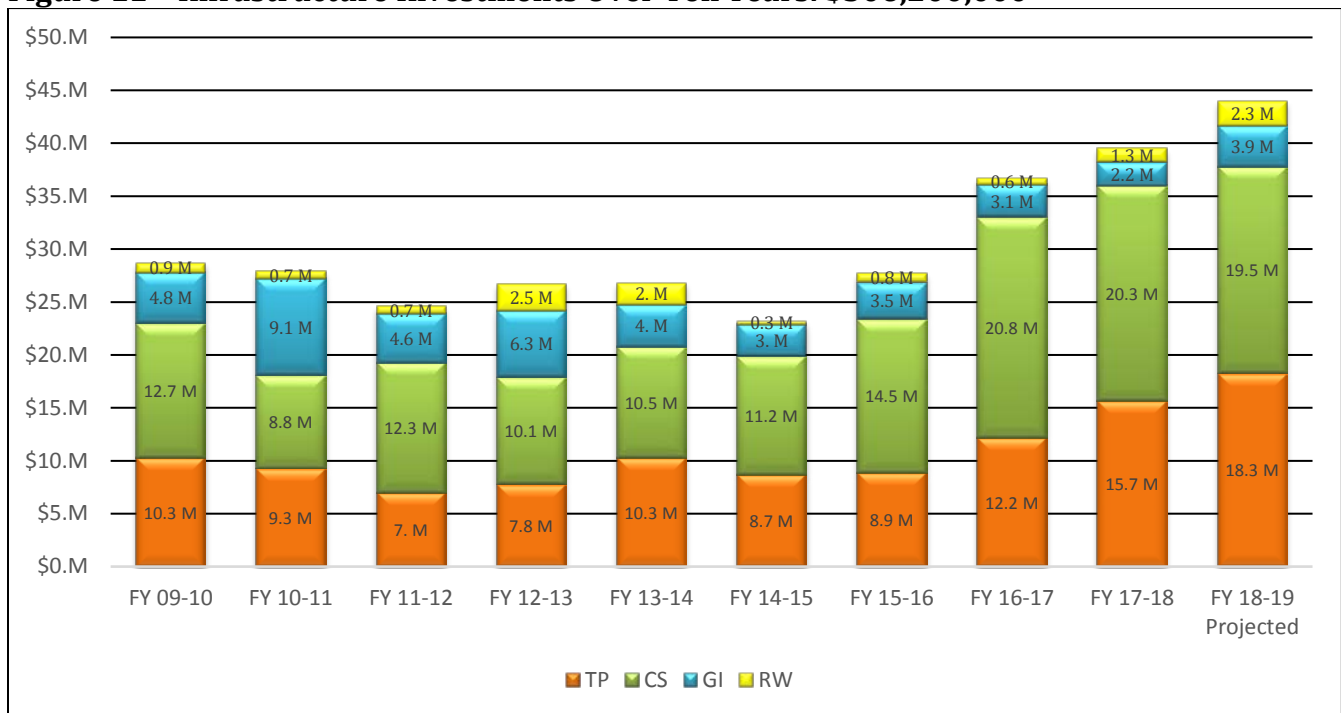


Figure 11 – Infrastructure Investments Over Ten Years: \$306,200,000



RW – Recycled Water / GI – General Improvements / CS – Collection System / TP – Treatment Plant

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Operating Departments

On a day-to-day basis, the following three Operating Departments that make up Central San carry out the mission of protecting public health and the environment:

- Administration
- Engineering and Technical Services
- Operations

The departments work together to provide both exceptional internal and external customer service in the operation of Central San's wastewater collection, treatment, recycled water, and household hazardous waste collection facilities. The departments are guided by Central San's Strategic Plan, which provides direction and initiatives to help guide the achievement of the strategic goals and objectives.

Each department director worked closely with the division managers to create a prudent and cost-effective budget, utilizing efficiency and effectiveness to execute the Strategic Plan initiatives and targets while keeping costs at a minimum.

The following sections describe the responsibilities of each department and division, their Strategic Plan accomplishments in FY 2018-19, Strategic Plan targets and performance in key metrics for FYs 2017-18 and 2018-19, Strategic Plan targets for FY 2019-20, and operating budget needs. The total operating budget for FY 2019-20 is \$87.6 million, a \$2.1 million or 2.3% decrease over the \$89.7 million budget for FY 2018-19.

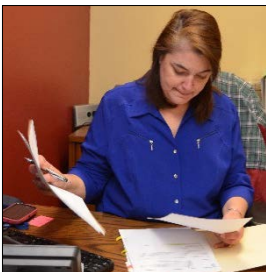


Administration Department

The key to moving water is not simply in the pipes and pumps, but also in the people who keep the business running. The Administration Department's primary function is to provide services that support the efficient operation of Central San, including the General Manager and his administrative support; financial management; human resources; purchasing and materials services; information technology; and risk management. The department is also responsible for advancing Central San's policy objectives with state and federal legislative bodies, in addition to being responsible for interagency relations and public affairs.

The divisions that comprise this department include the following:

- Communication Services and Intergovernmental Relations
- Finance
- Human Resources
- Information Technology
- Purchasing and Materials Services
- Risk Management
- Office of the General Manager/
Office of the Secretary of the District



Communication Services and Intergovernmental Relations

OVERVIEW

This division facilitates communication with employees, customers, stakeholders, local agencies, legislators, and elected officials, which encompasses government relations, advocacy, community outreach, media relations, emergency communications, publications, events, and student educational programs. In addition, it oversees a contracted, full-service reprographics services center which is utilized by all of Central San.

FY 2018-19 Strategic Accomplishments



Provide exceptional customer service and maintain an excellent reputation in the community











- Completed the fourth session of Central San Academy, a program which educates customers on Central San’s mission and how it is fulfilled.
- Created “Tenant Tips” outreach material, which will be utilized statewide in apartment and tenant agreements, reducing impacts to sewer systems.
- Replaced Central San’s external website to increase ease of use, update information, and ensure compliance with accessibility standards.
- Developed an updated Proposition 218 Notice to customers that provides easy-to-understand language about potential rate increases using maps, graphics, and photos to highlight the work of Central San, launching a new industry standard.
- Initiated a new, award-winning kindergarten to second grade education program.
- Performed research to assess customer awareness, satisfaction, desire to learn more about Central San, and methods of best receiving information.
- Grew social media presence by engaging in Wipes Clog Pipes educational awareness campaign.



Embrace technology, innovation, and environmental sustainability

- Awarded the 2018 California Water Environment Association Award for Community Engagement and Outreach Best Use of Social Media.
- Awarded the California Association of Public Information Officials Award of Distinction for Excellence in Graphic Design, Photography, and Visualization.
- Awarded the California Association of Public Information Officials Excellence in Public Information and Communication Award for Photography.
- Awarded the California Association of Public Information Officials Excellence in Public Information and Communication Award for Video Production – Long Form.

FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets


Goal	Metric	FY 2017-18 Target*	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target*	FY 2018-19 Performance as of Q3**	
 GOAL ONE	Students Served by Educational Programs	>2,200	3,443		>4,000	4,274	
 GOAL ONE	Participants in Treatment Plant / HHWCF Tours and Central San Presentations	>150 Participants on Tours	262		>500	1,122	
		>400 Participants at Speakers Bureau Presentations	567				
 GOAL ONE	Participants in Citizens Academy, Central San Academy	>30	39		>30	43	

* FY 2016-17 metric targets were set by the FY 2016-18 Strategic Plan. FY 2017-18 and 2018-19 metric targets were set by the FY 2018-20 Strategic Plan.

**Performance as of Q3 (March 31, 2019) is included in the tables of the Operating Department pages of this book. Final FY 2018-19 performance will be added to the Strategic Performance section toward the end of this book when the data becomes available after June 30.

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 GOAL ONE Build External Customer Relationships and Awareness	Continue to expand outreach with residential and commercial customers, legislators, elected officials, and sister agencies to grow and maintain relationships and advocate for the interests of Central San’s customers.
	Invest in programs to inform the public and students of the need to fund necessary infrastructure improvements to maintain Central San’s level of service and protect public health and the environment through the Central San Academy, student education programs, tours, and more.
	Perform outreach to customers on projects that impact their communities through construction, pumping station improvements, and sister agency interconnections promoting the use of recycled water.

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$676,862	\$628,802	\$732,452	\$724,900	\$747,972	\$23,072	3%	\$15,520	2%
Employee Benefits	\$471,302	\$418,161	\$216,536	\$222,700	\$192,229	(\$30,471)	-14%	(\$24,307)	-11%
Unfunded Liabilities *	\$0	\$0	\$226,934	\$226,026	\$220,602	(\$5,424)	-2%	(\$6,332)	-3%
Repairs & Maintenance	\$1,000	\$0	\$1,000	\$1,000	\$1,000	\$0	0%	\$0	0%
Professional & Legal Services	\$2,600	(\$2,363)	\$3,500	\$2,500	\$3,500	\$1,000	40%	\$0	0%
Outside Services	\$399,000	\$360,509	\$391,000	\$267,500	\$306,000	\$38,500	14%	(\$85,000)	-22%
Materials & Supplies	\$61,675	\$43,726	\$61,675	\$61,636	\$61,675	\$39	0%	\$0	0%
Other Expenses	\$366,930	\$325,469	\$461,330	\$418,830	\$447,930	\$29,100	7%	(\$13,400)	-3%
Total	\$1,979,369	\$1,774,303	\$2,094,427	\$1,925,092	\$1,980,908	\$55,816	3%	(\$113,519)	-5%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Communication Services and Intergovernmental Relations Manager	1.0	1.0	1.0
Community Affairs Representative	2.0	3.0	3.0
Graphics Technician	1.0	1.0	1.0
Media Production Technician	1.0	1.0	1.0
Public Information and Production Assistant	1.0	0.0	0.0
Total	6.0	6.0	6.0

Limited Duration Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Graphic Design Summer Student	1.0	1.0	1.0
Intern	0.0	1.0	1.0
Total	1.0	2.0	2.0

Budget Modifications and Contributions to Key Priorities

The Communication Services and Intergovernmental Relations Division Operating Budget for FY 2019-20 is \$2.0 million, a \$0.1 million or 5% decrease over the \$2.1 million budget in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment and increases due to step advancements. The decrease in Benefits is due to lower premiums for the new medical plans. Outside Services decreased due to lower Reprographic Service Center provider expense. Other Expenses decreased as a Proposition 218 Notice to customers is not expected to be needed in FY 2019-20.

Communication Services and Intergovernmental Relations takes the lead role in conveying to customers and other government agencies how Central San responds to challenges facing the organization. This includes federal, state, and local advocacy, maintaining customer awareness of Central San's services, and promoting customer behavioral changes to reduce water pollution and impacts on Central San's infrastructure.

Finance

OVERVIEW

This division is responsible for maintaining internal controls over financial reporting of all Central San funds and accounts. It administers the transactions related to cash and investments, debt service, cash receipts, accounts payable, sewer service charges, and all other revenues, pension, and capital assets. It is also responsible for the preparation of the budget and coordinates this process with all other departments at Central San. Monthly financial statements are prepared, reviewed, and analyzed by this division and submitted to the Board for review. Central San is subject to an annual external audit, which is administered and coordinated by this division. Subsequent to this audit, this division assembles the Comprehensive Annual Financial Report, which is submitted to the Board and the Government Finance Officers Association (GFOA).


















FY 2018-19 Strategic Accomplishments



Be a fiscally responsible and effective wastewater utility





- Refinanced outstanding debt to save \$8.2 million in interest costs over the next decade.
- Fully funded the Other Post-Employment Benefits (OPEB) actuarially determined contribution and paid an additional \$2.5 million toward the unfunded liability.
- Developed the FY 2019-20 Budget with a sixth year of essentially flat Operations & Maintenance budget (FY 2014-15 to FY 2019-20).
- Achieved 18 consecutive years of receiving the GFOA Certificate of Achievement for Excellence in Financial Reporting.
- Received the GFOA Distinguished Budget Presentation Award for the FY 2018-19 Budget.
- Continued development of an internal audit program and implemented findings from the initial internal audits done in FY 2017-18.
- Received an unqualified audit opinion and zero reported material weaknesses or significant deficiencies in internal controls as part of the annual financial audit.

FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
	Service Affordability Maintained	Sewer Service Charge (SSC) Less Than Average of Bay Area Agencies	Target Met		SSC Less Than Average of Bay Area Agencies SSC Plus Ad Valorem Tax Less Than Average of Bay Area Agencies	Target Met	
	Credit Ratings	AAA from Standard and Poor's (S&P)	AAA from Standard and Poor's (S&P)		AAA from S&P and Aa1 from Moody's	AAA from S&P on New Debt and Aa1 from Moody's	
	Debt Service Coverage Ratio	>2.0x	8.9x		>2.0x	>15.0x	
	Actual Reserves as a Percentage of Target	100.0%	100.0%		100.0%	100.0%	
	Reported Material Weaknesses or Significant Deficiencies in Internal Controls as Part of Annual Financial Audit	N/A Not a Metric in the FY 2016-18 Strategic Plan			Zero (0)	Zero (0)	
	Operating Expenditures as a Percentage of Operating Budget	>90.0%	94.6%		>95.0%	>99.0%	

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 <p>Maintain a Strong Reputation in the Community</p>	Achieve awards for budget and financial reporting from GFOA.
 <p>Conduct Long-Range Financial Planning</p>	Continue to support effort to manage unfunded liabilities by reporting on and offering alternatives for favorable variances towards these obligations or other priorities.
 <p>Manage Costs</p>	Implement improvements to interim financial reports to address areas of interest to the Board.
 <p>Manage Costs</p>	Begin implementation of new enterprise resource planning (ERP) software , which will re-engineer business processes in key divisions District wide, resulting in cost reduction through efficiencies.

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$1,222,311	\$1,095,542	\$1,211,950	\$941,700	\$1,232,280	\$290,580	31%	\$20,330	2%
Employee Benefits	\$933,092	\$798,295	\$461,426	\$447,535	\$373,414	(\$74,121)	-17%	(\$88,012)	-19%
Unfunded Liabilities *	\$0	\$0	\$343,153	\$341,781	\$311,815	(\$29,966)	-9%	(\$31,338)	-9%
Repairs & Maintenance	\$1,000	\$0	\$1,000	\$100	\$1,000	\$900	900%	\$0	0%
Professional & Legal Services	\$225,750	\$47,876	\$243,000	\$138,500	\$250,500	\$112,000	81%	\$7,500	3%
Outside Services	\$145,900	\$136,980	\$148,800	\$148,600	\$197,200	\$48,600	33%	\$48,400	33%
Materials & Supplies	\$9,800	\$9,048	\$10,000	\$13,000	\$10,000	(\$3,000)	-23%	\$0	0%
Other Expenses	\$33,130	\$10,100	\$23,275	\$5,050	\$33,165	\$28,115	557%	\$9,890	42%
Total	\$2,570,983	\$2,097,841	\$2,442,604	\$2,036,266	\$2,409,374	\$373,108	18%	(\$33,230)	-1%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Accountant	3.0	2.0	2.0
Accounting Technician III	3.0	3.0	3.0
Finance Administrator	2.0	2.0	2.0
Finance Manager	1.0	1.0	1.0
Total	9.0	8.0	8.0

Budget Modifications and Contributions to Key Priorities

The Finance Division Operating Budget for FY 2019-20 is \$2.4 million, which remained flat compared to the \$2.4 million budget in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment, increases due to step advancements, and additional funding for the Temporary Senior Internal Auditor position, offset by reductions due to staff turnover and lower costs for new employees. The decrease in Benefits is due to lower premiums for the new medical plans. Outside Services increased due to temporary staffing needed for the financial system conversion related to the replacement of the ERP software. All others increased due to higher property tax administration fees at Contra Costa County.

Finance supports Central San by providing transparent financial information and works, in conjunction with the Engineering and Technical Services Department, to provide the rate and debt funding to address the principal issues facing Central San. The division plays a significant role in specifying the costs of Central San's functions, how those costs drive the need for rate adjustments, and in developing financial alternatives to keep rates moderated over the long term through financing approaches. This data is used to document why spending is necessary and that rate levels are no more than necessary to meet essential needs, provide for long-term reliability, and ensure appropriate levels of customer service. Finance will be working with other divisions to implement a new financial system, as part of the ERP System Replacement Project.

Human Resources

OVERVIEW

This division manages employee and labor relations; recruitment, testing, and selection to enhance Central San's workforce; classification and compensation; benefits administration; agency-wide training; organizational development; and all payroll functions. While its budget is under the umbrella of the Administration Department, the Human Resources Division is overseen by the Deputy General Manager/Director of Operations in the Operations Department.

FY 2018-19 Strategic Accomplishments



Strive to meet regulatory requirements

- Reviewed and updated Deferred Compensation and Cafeteria Plan (Section 125 documents).
- Conducted harassment and ethics training for all employees.



Be a fiscally responsible and effective wastewater utility

- Transitioned all employees and retirees to CalPERS health benefit plans, which is projected to save an estimated \$5.8 million per year in healthcare costs.
- Implemented new Health Reimbursement Arrangement (HRA) for Tier III employees to offset some of their future healthcare costs without additional OPEB liability.
- Conducted audit of payroll functions



Recruit, develop, and retain a highly trained and safe workforce

























- Completed labor negotiations after 18 months of discussions.
- Enhanced the performance appraisal process and planned implementation.
- Identified potential vendors for the implementation of an agency-wide learning management system to centralize tracking of all employee training.
- Hosted HR @ Your Service training sessions for employees.
- Held the second session of the Supervisory Academy.
- Evolved the third session of the Management Academy to allow participants from sister public agencies.
- Paired mentors and mentees in the second year of the Mentorship Program.
- Added new component to Commuter Benefit Program, giving participating employees the ability to get up to \$265 per month tax free.
- Implemented Catastrophic Leave Program, allowing employees to donate accrued leave hours to a bank for other employees to use so they may continue to stay in paid status.
- Established Labor Management Committee with Local One and resumed Committee meetings with the Management Support / Confidential Group.
- Began transition to new occupational healthcare provider, Kaiser Permanente.
- Implemented background checks for all new employees.



Embrace technology, innovation, and environmental sustainability




- Eliminated paper timesheets through the implementation of an electronic timekeeping system, *IntelliTime*®.

FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
	Employees Attending Customer Service Training	≥50.0% of All District Staff	100.0% of Staff Due for Training (New Employees Within 6 Months of Employment)		100.0% of New Employees Within 6 Months of Employment	100.0%	
	Average Time to Fill Vacancy (From Request to Hire)	<60 days	68 days		<60 days	59 days	
	Turnover Rate at or Below Industry Average	<8.8%	4.8%		≤4.8%	4.7%	
	Average Annual Training Hours (External and Internal Training)	7.5 Hours Per Full-Time Equivalent Employee (FTE)	27.4 Hours/FTE		15 Hours/FTE	13.9 Hours/FTE	
	Actual Versus Budgeted Usage of Training Dollars	>80.0%	60.3%		>80.0%	71.0%	
	Participation in Annual Wellness Expo	N/A Not a Metric in the FY 2016-18 Strategic Plan			Increase by 10.0% each Year	-15.0%	
	Internal Promotions (Excludes Entry-Level Positions)	N/A Not a Metric in the FY 2016-18 Strategic Plan			≥25.0%	28.0%	
	Formal Grievances Filed	N/A Not a metric in the FY 2016-18 Strategic Plan			Zero (0)	2	
	Performance Evaluations Completed on Time	100.0%	49.0%		100.0%	90.0%	

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 <p>Manage Costs</p>	<p>Implement the new ERP software for increased automation, ease of report production, and improved record keeping.</p> <p>Complete the transition to CalPERS Health benefits for all employees and retirees.</p>
 <p>Ensure Adequate Staffing and Training to Meet Current and Future Operational Levels</p>	<p>Continue the Mentorship Program.</p> <p>Launch third Supervisory Academy in 2020.</p> <p>Purchase and implement a learning management system.</p>
 <p>Enhance Relationship with Employees and Bargaining Units</p>	<p>Investigate additional cost-effective benefits to offer to employees.</p> <p>Complete employee engagement survey and implement recommendations.</p> <p>Continue to work collaboratively with bargaining units to resolve workplace issues in their early stages and prevent grievances.</p>

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$1,049,323	\$1,001,418	\$1,263,408	\$1,088,000	\$1,321,355	\$233,355	21%	\$57,947	5%
Employee Benefits	\$2,553,199	\$2,631,323	\$348,110	\$597,457	\$672,895	\$75,438	13%	\$324,785	93%
Retiree Benefits	\$5,946,000	\$5,761,741	\$6,081,435	\$5,880,336	\$4,126,434	(\$1,753,902)	-30%	(\$1,955,001)	-32%
Unfunded Liabilities *	\$0	\$0	\$1,852,454	\$2,047,847	\$272,185	(\$1,775,662)	-87%	(\$1,580,269)	-85%
Additional UAAL Contributions **	\$2,500,000	\$5,000,000	\$2,500,000	\$2,500,000	\$1,250,000	(\$1,250,000)	-50%	(\$1,250,000)	-50%
Repairs & Maintenance	\$7,500	\$1,619	\$3,500	\$3,500	\$2,500	(\$1,000)	-29%	(\$1,000)	-29%
Professional & Legal Services	\$166,450	\$131,863	\$166,450	\$166,450	\$168,450	\$2,000	1%	\$2,000	1%
Outside Services	\$319,200	\$192,488	\$345,000	\$250,000	\$357,000	\$107,000	43%	\$12,000	3%
Materials & Supplies	\$20,000	\$18,889	\$31,000	\$30,000	\$51,000	\$21,000	70%	\$20,000	65%
Other Expenses	\$18,115	\$15,316	\$18,080	\$28,380	\$29,380	\$1,000	4%	\$11,300	63%
Total	\$12,579,787	\$14,754,657	\$12,609,437	\$12,591,970	\$8,251,199	(\$4,340,771)	-34%	(\$4,358,238)	-35%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee and Retiree Benefits line item in prior years.

** Additional UAAL: Costs for additional discretionary contributions to pay down employee related liabilities for the entire Central San active and retiree base. These payments may be directed by the Board towards pension or OPEB liabilities.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Human Resources Analyst	3.0	2.0	2.0
Human Resources Manager	1.0	1.0	1.0
Senior Administrative Technician	1.0	2.0	2.0
Payroll Analyst	1.0	1.0	1.0
Total	6.0	6.0	6.0

Budget Modifications and Contributions to Key Priorities

The Human Resources Operating Budget for FY 2019-20 is \$8.3 million, a \$4.4 million or 35% decrease over the \$12.6 million budget in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment. The decrease in Benefits is due to lower premiums for the new medical plans for employees in this division and for all Central San retirees. Outside Services increased due to higher fees and increased usage of several service providers, offset by lower Central San training and recruitment expenses. Unfunded Liabilities decreased due to the elimination of the required OPEB contribution and a reduction in the additional unfunded liabilities contribution.

Certain costs relating to all Central San employees or retirees are centrally budgeted in the Human Resources Division. The following are items budgeted in Human Resources but not specific to that division:

- Salaries & Wages includes \$400,000 for Compensated Absences Accrual Payments.
- Employee Benefits includes \$450,000 for Accrued Compensated Absences and \$30,000 for Unemployment Expenses.
- Retiree Benefits includes all costs related to retirees, including health insurance, dental insurance, and life insurance.
- Unfunded Liabilities includes the costs for supplemental pension and OPEB trust payments. This account description includes payments to the OPEB trust to meet the annual Actuarially Determined Contribution (ADC) amount in full. The new medical plans have reduced the ADC so low that Central San's pay-as-you-go retiree premiums are now higher than its ADC. There is no required OPEB trust payment to fully satisfy the ADC in FY 2019-20.

Human Resources plays an important role in meeting the overall challenges that Central San is addressing by working to retain an engaged and motivated workforce. This includes administering the employee performance review and performance planning process; administering the labor memoranda of understanding; attracting and retaining talented employees through a competitive pay and benefit structure; and providing training programs to ensure that Central San managers, supervisors and employees have the tools and knowledge to contribute to a high-performance organization.

Information Technology

OVERVIEW

The Information Technology (IT) Division supports all computer hardware, software, and telecommunications needs at Central San. It is tasked with Central San’s cybersecurity and is often called to assist with the improvement and automation of business processes agency-wide through the use of technology.

FY 2018-19 Strategic Accomplishments



Provide exceptional customer service and maintain an excellent reputation in the community

- Awarded Municipal Information Systems Association of California Award for Excellence in IT Practices.
- Replaced external website with a more customer-friendly platform, with assistance from the Communication Services and Intergovernmental Relations Division.



Be a fiscally responsible and effective wastewater utility

- Migrated data into the new *e-Builder*® project management software.
- Built ongoing integration between e-Builder and the current *SunGard*® ERP system.



Maintain a reliable infrastructure







- Worked with engineering to design and begin construction of a new, more secure Data Center, as well as to procure the vendor to assist with equipment migration.



Embrace technology, innovation, and environmental sustainability





- Worked with Purchasing staff and a consultant, GFOA, to procure a new ERP system product and implementer.
- Implemented *IntelliTime*® timekeeping software for Human Resources, to transition agency-wide timekeeping to a paperless system.

FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
	Information System Uptime (Excluding Planned Maintenance)	100.0%	99.5%		100.0%	100.0%	
	Data Backup and Recovery	Zero (0) Lost Data	Zero (0) Lost Data		Zero (0) Lost Data	Zero (0) Lost Data	

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 <p>GOAL ONE Build External Customer Relationships and Awareness</p>	<p>Be well underway in the implementation of the new ERP system, with a goal of completing both the financial and human resources components by early 2021.</p>
 <p>GOAL THREE Manage Costs</p>	
 <p>GOAL FIVE Protect District Personnel and Assets from Threats and Emergencies</p>	<p>Complete construction of new Data Center and migration of equipment into the new location.</p>
 <p>GOAL SIX Encourage the Review and Testing of Technology to Optimize and Modernize Business Operations</p>	<p>Replace desk phones with new digital phones equipped with advanced mobile and collaboration features.</p>
	<p>Explore options to replace legacy permitting and billing systems.</p>

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$1,508,704	\$1,383,426	\$1,569,307	\$1,576,100	\$1,661,338	\$85,238	5%	\$92,031	6%
Employee Benefits	\$1,219,553	\$1,123,150	\$729,744	\$707,859	\$688,200	(\$19,659)	-3%	(\$41,544)	-6%
Unfunded Liabilities *	\$0	\$0	\$509,668	\$507,629	\$524,113	\$16,484	3%	\$14,445	3%
Utilities	\$146,440	\$119,789	\$129,800	\$129,800	\$109,500	(\$20,300)	-16%	(\$20,300)	-16%
Repairs & Maintenance	\$886,750	\$791,770	\$1,047,090	\$974,500	\$957,414	(\$17,086)	-2%	(\$89,676)	-9%
Outside Services	\$125,000	\$83,488	\$110,000	\$32,000	\$110,000	\$78,000	244%	\$0	0%
Materials & Supplies	\$6,200	\$9,618	\$6,200	\$7,500	\$7,500	\$0	0%	\$1,300	21%
Other Expenses	\$45,935	\$15,215	\$35,525	\$35,525	\$35,525	\$0	0%	\$0	0%
Total	\$3,938,582	\$3,526,457	\$4,137,334	\$3,970,913	\$4,093,590	\$122,677	3%	(\$43,744)	-1%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Information Technology Manager	1.0	1.0	1.0
Information Technology Supervisor	2.0	2.0	2.0
Project Manager/Business Analyst	1.0	1.0	1.0
System Administrator	2.0	2.0	2.0
Technical Support Analyst	3.0	3.0	3.0
Information Technology Analyst I/II	2.0	2.0	2.0
Total	11.0	11.0	11.0

Budget Modifications and Contributions to Key Priorities

The Information Technology Division Operating Budget for FY 2019-20 is \$4.1 million, which remains flat compared to the \$4.1 million budget in FY 2018-19. The increase in Salaries & Wages includes the agency-wide cost-of-living adjustment and increases due to step and personnel advancements. The decrease in benefits is due to lower premiums for the new medical plans. Utilities decreased due to the cancellation of the fiber optic circuit between the Headquarters Office Building and the Collection System Operations Building.

Purchasing and Materials Services

OVERVIEW

This division provides the necessary materials, supplies, equipment, services, and information to support Central San’s operations. It is responsible for contracting and procurement for all departments (except construction contracts) and ensuring compliance with applicable federal, state, and local regulations. The warehouse maintains Central San’s inventory of needed supplies, materials, equipment, and spare parts for operations, providing inventory control measures and analysis. In addition, the warehouse provides delivery services for these items, as well as interoffice mail, and is responsible for surplus disposition.

FY 2018-19 Strategic Accomplishments



Provide exceptional customer service and maintain an excellent reputation in the community

- Received the Achievement of Excellence in Procurement Award for the eighth-consecutive year, recognizing organizational excellence in public purchasing.
- Maintained requisition tracking system to allow end-users to view status of procurement requests, including a customer satisfaction survey to better monitor performance and customer service goals.
- Processed over 600 procurement requests.



Strive to meet regulatory requirements

- Developed Board Policy No. BP 035 – Purchasing Policy.
- Assisted with researching the Uniform Public Construction Cost Accounting Act (UPCCAA) for Board adoption via Board Policy No. BP 036 – Informal Bidding.



Be a fiscally responsible and effective wastewater utility

- Assumed mail delivery services throughout Central San as an optimization measure, recognizing the efficiencies to be gained by combining mail delivery services with the warehouse’s current delivery schedules.
- Leveraged spend through annual requirements contracts for 31% of the total procurement spend for goods and services, not including construction, construction-related professional services, and utility payments. This improved efficiency, shortened the procurement processing time, and saved money through negotiated pricing contracts.
- Promoted open competition and equal opportunity for qualified suppliers and service providers by successfully soliciting and awarding high-level service and commodity-based contracts.
- Participated in the Bay Area Chemical Consortium bidding process, resulting in awards for aluminum sulfate, sodium hypochlorite, and sodium hydroxide.
- Completed cycle counts of warehouse inventory, including counting 5,788 total line items for a total piece count of 102,567 and total value count of \$3,518,678.



Recruit, develop, and retain a highly trained and safe workforce

- Planned for upcoming retirements and staffing changes through recruitments.
- Evaluated processes to strategically ensure that procurement resources are being utilized efficiently.



Maintain a reliable infrastructure

- Prioritized and resolved various urgent requests for troubleshooting, repairs, and rentals of critical equipment.
- Managed the assets spare parts team to establish goals and objectives and the database to identify improvements and ensure efficient management.



Embrace technology, innovation, and environmental sustainability

- Completed various trainings on electronic signature technology and started utilization on a trial basis to better understand workflow capabilities.

FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance	FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3
GOAL ONE	Purchasing Internal Customer Survey Rating of Satisfactory or Better	N/A Not a Metric in the FY 2016-18 Strategic Plan		≥70.0%	100.0%
GOAL THREE	Difference in Inventory Value in Purchasing Database vs. Value Submitted to Accounting	N/A Not a Metric in the FY 2016-18 Strategic Plan		<1.0%	1.0%
GOAL THREE	Accuracy of Physical Inventory Count vs. Book Value	N/A Not a Metric in the FY 2016-18 Strategic Plan		≥95.0%	99.0%

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
Build External Customer Relationships and Awareness	Continue to promote open competition and equal opportunity for qualified suppliers and service providers by successfully soliciting and awarding high-level service and commodity-based contracts.
Manage Costs	Further improve workflow using electronic signature technology and digital transaction management services.
	Implement ERP software to improve procedures and align with industry best practices and develop new administrative procedures to document the updated processes.
	Continue to find opportunities to leverage spend through annual requirements contracts .

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$1,001,079	\$847,270	\$1,058,883	\$917,800	\$1,165,618	\$247,818	27%	\$106,735	10%
Employee Benefits	\$834,953	\$705,253	\$508,940	\$493,381	\$475,397	(\$17,984)	-4%	(\$33,543)	-7%
Unfunded Liabilities *	\$0	\$0	\$346,563	\$345,177	\$345,573	\$396	0%	(\$990)	0%
Repairs & Maintenance	\$23,000	\$10,000	\$23,000	\$15,000	\$23,000	\$8,000	53%	\$0	0%
Professional & Legal Services	\$35,000	\$7,641	\$35,000	\$35,000	\$35,000	\$0	0%	\$0	0%
Outside Services	\$29,000	\$42,019	\$49,000	\$49,000	\$49,000	\$0	0%	\$0	0%
Materials & Supplies	\$14,000	\$11,799	\$14,000	\$11,500	\$14,000	\$2,500	22%	\$0	0%
Other Expenses	\$21,900	\$10,044	\$15,900	\$13,400	\$15,900	\$2,500	19%	\$0	0%
Total	\$1,958,932	\$1,634,026	\$2,051,286	\$1,880,258	\$2,123,488	\$243,230	13%	\$72,202	4%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Materials Coordinator	1.0	1.0	1.0
Materials Services Supervisor	1.0	1.0	1.0
Purchasing and Materials Manager	1.0	1.0	1.0
Senior Buyer	3.0	3.0	3.0
Senior Materials Coordinator	2.0	2.0	2.0
Contracts Analyst	0.0	1.0	0.0
Total	8.0	9.0	8.0

Limited Duration Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Warehouse Summer Student	1.0	1.0	0.0
Total	1.0	1.0	0.0

Budget Modifications and Contributions to Key Priorities

The Purchasing and Materials Services Division Operating Budget for FY 2019-20 is \$2.1 million, which remains roughly flat compared to the \$2.1 million budget in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment, budgeting for a vacant Materials Coordinator position, and temporary help for the ERP software conversion, offset by the Contracts Specialist position moving to the Capital Projects Division. The decrease in benefits is due to lower premiums for the new medical plans.

The division is helping to address the overall challenges facing Central San by working to ensure there is sufficient procurement processing capacity in light of increased contracting for infrastructure needs. FY 2019-20 will see Purchasing working to implement the new ERP software, which is anticipated to significantly improve contract management and automated procurement functionality, in addition to providing staff with better tools for productivity and internal customer service.

Risk Management

OVERVIEW

This division protects Central San from loss or damage to its personnel and assets. It manages workers' compensation, liability claims, security programs, insurance procurement, self-insurance funding, contract and insurance review, litigation support, and Central San's Emergency Preparedness and Response Programs.

FY 2018-19 Strategic Accomplishments



Be a fiscally responsible and effective wastewater utility









- Managed claims aggressively to reduce costs and facilitate resolution, resulting in an average cost per overflow claim of \$8,720.
- Continued to debrief after losses to identify and implement preventive measures.
- Expanded procedure for managing claims arising from construction activities.
- Conducted and presented results of Risk Control Audit to Management Team.
- Initiated Enterprise Risk Management planning process via strategic risk identification workshops.
- Developed interdepartmental standard operating procedure for coordinating claims arising from capital projects.



Maintain a reliable infrastructure



- Prepared and presented Emergency Management Program report to the Board.
- Completed Vital Contractors Section of the Continuity Plan.
- Updated and restocked emergency supplies cache.
- Participated in the Operational Area Council to contribute to creating an effective and multijurisdictional approach to disaster preparedness and planning.
- Conducted annual Emergency Operations Center activation exercise.
- Worked with Communication Services and Intergovernmental Relations to develop a Crisis Communications Plan.
- Updated Access Control Procedure.
- Developed scope and design of pumping stations security improvements.
- Provided training on internal controls to Management Team.
- Updated Post Orders for contracted security guards.
- Coordinated and implemented procedural changes to maintain security during on-site construction activities.

FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of June 1	
	Workers' Compensation Experience Modifier	<1.0	0.7		<1.0	0.7	
	Temporary Modified Duty Provided (Return to Work Program)	>80% of Occupational Injuries	83.33%		>95% of Recordable Injuries	100%	
	Self-Insurance Reserves as a Percentage of Target	100%	100%		N/A Not A Metric In The FY 2018-20 Strategic Plan		

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 Manage Costs	Maintain an average cost per overflow claim of ≤\$25,000.
	Actively seek opportunities to reduce risk in extant and developing business processes.
	Initiate next steps in implementing Enterprise Risk Management model.
 Protect District Personnel and Assets from Threats and Emergencies	Incorporate emergency response activities into Emergency Operations Plan and Continuity of Operations where applicable.
	Continue implementation of recommendations from security assessment.
	Finalize security system design criteria for use in upcoming capital projects.

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$240,149	\$150,701	\$262,093	\$260,500	\$286,980	\$26,480	10%	\$24,887	9%
Employee Benefits	\$196,621	\$118,988	\$101,561	\$98,534	\$122,766	\$24,232	25%	\$21,205	21%
Unfunded Liabilities *	\$0	\$0	\$87,304	\$86,955	\$91,484	\$4,529	5%	\$4,180	5%
Repairs & Maintenance	\$57,500	\$16,966	\$42,500	\$42,500	\$44,000	\$1,500	4%	\$1,500	4%
Professional & Legal Services	\$28,800	\$8,628	\$26,350	\$17,650	\$21,350	\$3,700	21%	(\$5,000)	-19%
Outside Services	\$423,000	\$320,961	\$453,500	\$369,410	\$448,000	\$78,590	21%	(\$5,500)	-1%
Self-Insurance Expense	\$585,000	\$585,000	\$779,500	\$779,500	\$825,000	\$45,500	6%	\$45,500	6%
Materials & Supplies	\$59,000	\$3,966	\$53,000	\$53,000	\$6,000	(\$47,000)	-89%	(\$47,000)	-89%
Other Expenses	\$14,650	\$12,775	\$17,500	\$18,965	\$22,295	\$3,330	18%	\$4,795	27%
Total	\$1,604,720	\$1,217,984	\$1,823,308	\$1,727,014	\$1,867,875	\$140,861	8%	\$44,567	2%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Risk Management Administrator	1.0	1.0	1.0
Risk Management Specialist	1.0	1.0	1.0
Total	2.0	2.0	2.0

Budget Modifications and Contributions to Key Priorities

The Risk Management Operating Budget for FY 2019-20 is \$1.9 million, a \$45,000 or 2% increase over the \$1.8 million budget in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment and increases due to step advancements. The decrease in Benefits is due to lower premiums for the new medical plans. Self-Insurance increased to properly replenish the Self-Insurance Fund. Materials & Supplies decreased due to the removal of Emergency Management Supplies budgeted in FY 2018-19.

Risk Management assists Central San in effectively managing risks, broadly defined as anything that can impede Central San from meeting its strategic goals. Building this program's capacity will be an important tool in helping Central San mitigate risks as the agency ramps up the level of capital spending in the coming years, and in meeting evolving regulatory requirements. Risk Management helps Central San meet these and other challenges of the environment in which the agency operates.

Office of the General Manager and Office of the Secretary of the District

The General Manager and Secretary of the District, along with a contracted Counsel for the District, comprise Central San's Executive Management Team. The General Manager's and Secretary of the District's offices have separate staff and reporting structure; however, their budgets are combined.

Office of the General Manager

OVERVIEW

The primary mission of the Office of the General Manager is to work with the Board of Directors (Board) to establish policies and procedures, as well as the overall goals and Strategic Plan of Central San. The General Manager reports directly to the Board; acts as Central San's representative in collaborative associations with other agencies; and provides general oversight to all operations. This includes interagency relations, legislative activities, communications, optimization efforts, and the completion of set goals for the year as part of the successful execution of the Strategic Plan.

This office also provides direction, support, and resources to departments so they may effectively and efficiently accomplish the Vision, Mission, and Goals of Central San. The agency-wide FY 2018-19 accomplishments and strategic performance, as well as the FY 2019-20 targets and objectives, are embodied in each of the individual division and program sections. Highlights of Central San's accomplishments are included in the General Manager's Message at the beginning of this book and in annual Strategic Plan and Optimizations reports produced by the Office of the General Manager each year.

This office's staffing budget includes the administrative staff supporting the General Manager, Finance Division, and the rest of the Administration Department, as well as the Director of Finance and Administration, who provides oversight over the administrative divisions of Information Technology, Finance, Purchasing and Materials Services, Communication Services and Intergovernmental Relations, and Risk Management.

Fiscal Year 2018-19 Strategic Accomplishments



GOAL ONE Provide exceptional customer service and maintain an excellent reputation in the community

- Initiated Benchmarking Study to compare Central San's performance against other water and wastewater agencies in California and nationwide.
- Continued participation as a Leading Utility of the World, an initiative of the Global Water Leaders Group facilitating interagency learning opportunities.
- Produced and presented Strategic Plan Annual Report to the Board.
- Continued to provide oversight and support to staff in the completion of the fourth session of the citizens academy, Central San Academy.



GOAL FOUR Recruit, develop, and retain a highly trained and safe workforce

- Served as a mentor to an Assistant Engineer in the Mentorship Program, giving him the ability to expand his experience at Central San and work on a project outside his normal realm.



Embrace technology, innovation, and environmental sustainability






- Established formal Optimizations Program to commit to efficiency, effectiveness, and continuous improvement by establishing a framework to track and report progress.
- Produced and presented Optimizations Annual Report to the Board.
- Facilitated Long-Term Vision Planning Board Workshop to discuss challenges and opportunities, an expanded vision of what Central San could become over time, constraints that could limit the ability to achieve that vision, and how those constraints can be addressed.
- Continued supporting staff in its efforts to augment the region’s water supply through the proposed Recycled Water Exchange and the request from the Dublin San Ramon Services District East Bay Municipal Utility District Recycled Water Authority to divert flow from the San Ramon Pumping Station to create recycled water.
- Served as a panelist at the American Water Summit conference, mentoring two young professionals from another water sector agency on direct potable reuse as part of the future of water.
- Attended the Global Water Summit to network with leaders of other water utilities, private companies in the water industry, and government leaders to gain a broader view on current water trends, disruptive designs, and how the digital revolution affects the water sector.

FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance	FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
GOAL ONE	Awards or Recognitions Received	N/A Not a Metric in the FY 2016-18 Strategic Plan		10	10	

FY 2019-20 Strategic Objectives

In the coming fiscal year, this office will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 <p>Build External Customer Relationships and Awareness</p>	<p>Continue providing staff with resources and high-level guidance needed to maintain excellence in the industry.</p>
 <p>Maintain a Strong Reputation in the Community</p>	<p>Represent Central San’s best interests in involvement with industry associations and advocacy groups regionwide, statewide, nationwide, and worldwide.</p>
 <p>Re-engineer Business Processes and Complete Optimization Studies to Identify Opportunities to Reduce Costs and Align with Best Practices</p>	<p>Continue to drive performance, efficiency, and effectiveness through the Optimizations Program and fulfillment of the Strategic Plan.</p> <p>Help oversee the significant effort to replace Central San’s ERP system, including the selection of the vendor which best fits the agency’s needs and staff augmentation to ensure day-to-day tasks can be performed in addition to training on the new program.</p>
 <p>Cultivate a Positive Work Culture</p>	<p>Propose a culture statement for Board adoption that emphasizes Central San’s priorities, including recognizing the value of employees.</p> <p>Continue to meet regularly with labor bargaining unit representatives and division workgroups to maintain an open channel of communication and address workplace issues.</p>
 <p>Augment the Region’s Water Supply</p>	<p>Continue to work toward the fruition of the Recycled Water Exchange, an innovative partnership among Central San, Contra Costa Water District, and Santa Clara Valley Water District to supply recycled water to neighboring refineries.</p>

Office of the Secretary of the District

OVERVIEW

The Secretary of the District reports directly to the Board and provides administrative support to the five elected Board Members. The Office of the Secretary of the District manages the Board and Committee meeting processes, including the preparation and distribution of agendas and minutes and the publication of notices of public hearings. It coordinates compliance with Fair Political Practices Commission regulations and the Brown Act, receives legal claims against Central San, coordinates elections with the Contra Costa County Elections Office, and arranges Ethics and Brown Act trainings for the Board and staff. It also manages Central San’s Records Management Program and responds to Public Records Act requests.

The expenses for the Board are included in the Office of the Secretary of the District’s budget and are reflected in the Budget Overview by Expense Category table below as Director Fees & Expenses.

FY 2018-19 Strategic Accomplishments



Provide exceptional customer service and maintain an excellent reputation in the community

- Facilitated migration of data to Central San’s new external website, which provides easier access to Board and standing Committee agenda packets and minutes.
- Coordinated with Contra Costa County Elections Office regarding the November 6, 2018 General Election to fill two seats on the Board.



Strive to meet regulatory requirements

- Facilitated adoption of four new Board Policies.
- Coordinated biennial review of existing Board Policies and facilitated subsequent amendments to ten policies.
- Began comprehensive review of the Master Records Retention Schedules to ensure each department’s business needs are met within legal guidelines and that physical or electronic records were represented accurately.
- Provided training on managing e-mail records and the newly revised procedure for responding to Public Records Act requests, wherein staff and Board Members may be required to search their personal accounts and devices.



Recruit, develop, and retain a highly trained and safe workforce

- Coordinated newly required training for Board Members on Sexual Harassment Prevention.
- Updated *The Gavel – A User’s Guide to the Board Meeting Process* for use by staff.
- Updated the *Board Member Handbook* in preparation for the 2018 election cycle.



Embrace technology, innovation, and environmental sustainability

- Began livestreaming Board meetings in house.

FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance	FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3
 GOAL TWO	Biennial Review of All Existing Board Policies	N/A Not a Metric in the FY 2016-18 Strategic Plan		100%	100% 

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 GOAL ONE Provide High-Quality Customer Service	Begin livestreaming Board meetings on external customer website.
	Consider potential improvements to the Board Meeting Room , including the addition of multiple video cameras to improve transparency, upgrades to the electronic systems to accommodate mobile devices, and replacing projector screens with monitors.
 GOAL ONE Maintain a Strong Reputation in the Community	Renew Transparency Certificate of Excellence from the California Special Districts Leadership Foundation.
 GOAL TWO Comply with all Federal, State, and Local Regulations Related to District Administration	Develop new policy for destroying records that meets the requirements of Government Code §60201(b)(2) and ensures evidence of compliance with retention policies, then train Management staff on the policy.
	Review and present the updated Records Retention Schedules with incorporated destruction policy to the Board for adoption, finalize a new Records Program Administrative Procedure , and provide training to appropriate employees.
	Convert 2015 Board Compensation Resolution to a new Board Policy to facilitate regular review.
	Conduct employee workshops on the Ethics Compliance, Brown Act, and Public Records Act.

Office of the General Manager and Office of the Secretary of the District

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$1,366,016	\$1,294,154	\$1,238,422	\$1,468,500	\$1,442,515	(\$25,985)	-2%	\$204,093	16%
Employee Benefits	\$619,571	\$861,485	\$91,255	\$494,028	\$256,487	(\$237,541)	-48%	\$165,232	181%
Unfunded Liabilities *	\$0	\$0	\$333,210	\$483,269	\$403,262	(\$80,007)	-17%	\$70,052	21%
Director Fees & Expenses	\$168,631	\$138,462	\$168,494	\$158,494	\$144,650	(\$13,844)	-9%	(\$23,844)	-14%
Repairs & Maintenance	\$10,800	\$9,078	\$14,300	\$10,000	\$10,000	\$0	0%	(\$4,300)	-30%
Professional & Legal Services	\$150,000	\$313,766	\$175,000	\$200,000	\$200,000	\$0	0%	\$25,000	14%
Outside Services	\$146,000	\$128,414	\$150,000	\$155,650	\$145,000	(\$10,650)	-7%	(\$5,000)	-3%
Materials & Supplies	\$20,150	\$17,216	\$20,150	\$17,650	\$24,950	\$7,300	41%	\$4,800	24%
Other Expenses	\$148,325	\$77,643	\$388,430	\$335,430	\$129,130	(\$206,300)	-62%	(\$259,300)	-67%
Total	\$2,629,493	\$2,840,218	\$2,579,261	\$3,323,021	\$2,755,994	(\$567,027)	-17%	\$176,733	7%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Administrative Services Supervisor (Office of the Secretary of the District)	1.0	1.0	1.0
Administrative Technician (Office of the General Manager)	1.0	1.0	1.0
Assistant to the Secretary of the District (Office of the Secretary of the District)	1.0	1.0	1.0
Director of Finance and Administration (Office of the General Manager)	1.0	1.0	1.0
Executive Assistant (Office of the General Manager)	1.0	1.0	1.0
General Manager (Office of the General Manager)	1.0	1.0	1.0
Internal Auditor (Office of the General Manager)	0.0	0.0	1.0
Management Analyst (Office of the General Manager)	1.0	1.0	1.0
Secretary of the District (Office of the Secretary of the District)	1.0	1.0	1.0
Senior Administrative Assistant (Office of the General Manager)	1.0	1.0	1.0
Senior Administrative Technician (Office of the General Manager and Office of the Secretary of the District)	2.0	2.0	2.0
Total	11.0	11.0	12.0

Limited Duration Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Clerical Summer Student (Office of the Secretary of the District)	1.0	1.0	1.0
Total	1.0	1.0	1.0

Budget Modifications and Contributions to Key Priorities

The Office of the General Manager/Office of the Secretary of the District Operating Budget for FY 2019-20 is \$2.7 million, a \$100,000 or 7% increase over the \$2.6 million budget in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment and increases due to step advancements. Benefits increased due to a lower vacancy factor, offset by lower premiums for the new medical plans. Director Fees & Expenses decreased due to lower medical plan premiums and a reduction in training and conference expenses. Professional & Legal Services expenses increased due to additional funding for legal research and advice. Other Expenses decreased due to the lack of election expenses in FY 2019-20.

The Organization and Staffing Plan conducted in 2015 recommended the addition of an Internal Auditor position. In FY 2018-19, this position was funded as a temporary position and budgeted in the Finance operating division. In FY 2019-20, it has been budgeted as a Regular Status Employee in the Office of the General Manager but will continue to be funded, as it was in FY 2018-19, as a temporary position within the Finance operating division budget.

The Office of the General Manager, budgeted in this division, leads the effort to address all key priorities facing Central San, as described in the General Manager’s Message. The Office of the Secretary of the District assures the ongoing flow of information to and from the Board, facilitating policy direction and oversight.

Engineering and Technical Services Department

The Engineering and Technical Services Department consists of three divisions that report to the Director of Engineering and Technical Services. The primary function of this department is to ensure Central San's infrastructure is well maintained and equipped for the future, including foreseeing potential regulatory changes, climate impacts, and the end of assets' useful lives.

The Capital Projects division is responsible for the planning, design, construction, and/or rehabilitation of treatment plant, collection system, and recycled water infrastructure. The Environmental and Regulatory Compliance division is responsible for monitoring industrial businesses for environmental compliance; conducting regulatory activities and permit monitoring; performing laboratory analysis; and managing the Household Hazardous Waste Collection Facility. The Planning and Development Services division handles development services, including right-of-way, property management, inspection, mainline plan review; financial planning for rate-setting; planning, piloting, and applied research; asset management and Geographic Information Systems data; and Resource Recovery Program management.

The divisions that comprise this department include the following:

- Capital Projects
- Environmental and Regulatory Compliance
- Planning and Development Services



Capital Projects

OVERVIEW

This division conducts and manages the preliminary design, final design, public bidding, and construction management of projects to improve or rehabilitate the treatment plant, pumping stations, collection system sewer pipelines, general facilities, safety, and recycled water infrastructure. In addition, this division works as one of the primary engineering resources at Central San, including staff that provides data and support to facilitate the work, not just of the Capital Projects division, but also of the entire organization.

Fiscal Year 2018-19 Strategic Accomplishments



Provide exceptional customer service and maintain an excellent reputation in the community

- Received 95% customer satisfaction rating for the Walnut Creek Sewer Renovations, Phase 12 construction project.
- Received 97% customer satisfaction rating for the South Orinda Sewer Renovations, Phase 6 construction project.
- Received 90% customer satisfaction rating for the North Orinda Sewer Renovations, Phase 7 construction project.



Be a fiscally responsible and effective wastewater utility

- Implemented the Uniform Public Construction Cost Accounting Act for savings on administrative costs of bidding and streamlining the bidding process for smaller projects.
- Executed blanket contracts to cover similar work shared by multiple projects to save on engineering and administration costs.



Maintain a reliable infrastructure










- Completed several critical projects, including the upgrade to the bar screens at the Headworks facility and sewer renovations in Walnut Creek, Lafayette, and Orinda.
- Constructed new potable water system and upgraded infrastructure to ensure safety.



Embrace technology, innovation, and environmental sustainability



- Supported the ongoing Hydrothermal Processing of Wastewater Solids pilot project.
- Repaired the Clearwell and expanded the use of recycled water to restrooms within the treatment plant, to support the Recycled Water Program.
- Completed the selection and procurement contract for new air pollution control equipment at the Martinez treatment plant.


Fiscal Years 2017-18 and 2018-19 Strategic Performance and Fiscal Year 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
	Average Customer Satisfaction Rating on Construction Projects	>95.0%	94.3%		≥95.0% (Median rating)	95.0%	
	Miles of Pipeline Replaced	>0.5% of Assets (7.6 Miles Per Year for the Next Five Years Starting in FYs 2018-20)	0.4% of assets (6.5 miles)		>0.5% of assets (7.6 miles per year for the next five years starting in FYs 2018-20)	0.4% (Replaced 5.3 miles)	
	Capital Expenditures as a Percentage of Capital Budgeted Cash Flow Including Carry Forward	>90.0%	85.0%		>90.0%	82.0%	

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 Comply with All Federal, State, and Local Regulations Related to District Administration	Complete final design and successfully bid the Solids Handling Facility Improvements , which will include air pollution control equipment needed to reliably comply with current air regulations.
 Manage Costs	Continue to implement the Uniform Public Construction Cost Accounting Act to help streamline infrastructure replacement projects using informal bidding and maintain a contractors list for projects under \$200,000. Complete final design and successfully bid the Pumping Station Upgrades – Phase 1 project to replace the diesel-driven engines and electrical switchgear at the Moraga and Orinda Crossroads pumping stations for improved reliability and safety.

Goal/Strategy	Objective for FY 2019-20
 <p>Facilitate Long-Term Capital Renewal and Replacement</p>	Continue to replace sewers in poor condition and respond to urgent or emergency sewer repairs throughout the service area in a timely manner.
	Replace sewers needing difficult or frequent maintenance to allow the Collection System Operations division to focus on other sewers and reduce sanitary sewer overflows.
	Deliver projects on time and on budget using new construction management software, e-Builder.

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$1,887,522	\$1,680,619	\$1,959,112	\$1,714,800	\$1,960,752	\$245,952	14%	\$1,640	0%
Employee Benefits	(\$1,279,90)	(\$1,344,68)	(\$1,851,61)	(\$1,917,69)	(\$2,238,43)	(\$320,732)	17%	(\$386,820)	21%
Unfunded Liabilities *	\$0	\$0	\$585,833	\$626,317	\$595,475	(\$30,842)	-5%	\$9,642	2%
Utilities	\$21,600	\$18,236	\$22,800	\$19,000	\$19,200	\$200	1%	(\$3,600)	-16%
Repairs & Maintenance	\$3,500	\$1,360	\$3,000	\$3,000	\$3,000	\$0	0%	\$0	0%
Outside Services	\$44,725	\$28,433	\$41,100	\$32,600	\$35,325	\$2,725	8%	(\$5,775)	-14%
Materials & Supplies	\$30,700	\$22,002	\$28,700	\$24,200	\$33,600	\$9,400	39%	\$4,900	17%
Other Expenses	\$58,280	\$31,044	\$46,920	\$41,910	\$46,920	\$5,010	12%	\$0	0%
Total	\$766,422	\$437,006	\$835,854	\$544,128	\$455,841	(\$88,287)	-16%	(\$380,013)	-45%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Note: The staff in this Division are budgeted with the Capital Improvements Program. As a result, 98% of their combined salary and benefit expenses are paid for by the projects identified in the Capital Improvement Budget. The amounts above are net of the capitalized administrative overhead transfer to the Sewer Construction Fund.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Administrative Assistant	1.0	2.0	2.0
Assistant Engineer	6.0	7.0	5.0
Assistant Land Surveyor	2.0	2.0	2.0
Associate Engineer	6.0	7.0	7.0
Capital Projects Division Manager	1.0	1.0	1.0
Contracts Specialist	0.0	0.0	1.0
Engineering Assistant I/II	0.0	0.0	1.0
Engineering Assistant III	1.0	1.0	1.0
Engineering Technician III	3.0	3.0	3.0
Land Surveyor	1.0	1.0	1.0
Senior Engineer	3.0	3.0	3.0
Senior Engineering Assistant	1.0	1.0	1.0
Utility Systems Engineer	0.0	0.0	1.0
Total	25.0	28.0	29.0

Limited Duration Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Summer Student	3.0	3.0	3.0
Intern	3.0	3.0	3.0
Total	6.0	6.0	6.0

Budget Modifications and Contributions to Key Priorities

The Capital Projects Operating Budget for FY 2019-20 is \$500,000, a \$400,000 or 45% decrease over the \$800,000 budget in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment, increases due to step advancements, and the addition of a Contracts Specialist position, offset by additional time being charged to work for capital projects. The decrease in Benefits is due to lower premiums for the new medical plans and the additional time charged to projects. Outside Services decreased due to a reduced need for consulting support. Materials & Supplies increased due to the purchase of operating and safety supplies.

The Capital Projects Division leads Central San’s efforts in maintaining and upgrading aging infrastructure, as well as implementing projects driven by the need to meet evolving regulatory requirements. This division also oversees projects related to other strategic priorities of Central San, including playing a role in maintaining a sustainable water supply and executing projects related to resource recovery. The division is building its capacities to effectively administer a significantly larger Capital Improvement Program in future years. This includes implementing a program management information system and using outside resources to supplement Central San staff.

As noted in the footnote to the Budget Overview table, most of the cost for staff in this division are charged to the projects that the group oversees and manages.

Environmental and Regulatory Compliance

OVERVIEW

This division ensures that Central San is in compliance with applicable federal, state, and local environmental laws, regulations, and policies. It ensures Central San's permitted businesses and industrial customers comply with all applicable requirements to protect the environment as well as Central San's assets; manages the Household Hazardous Waste Collection Program and Residential Recycled Water Fill Station; receives and interprets laboratory data and applies their results to regulatory requirements to ensure the treatment plant's effluent meets all water quality standards; evaluates treatment plant operations to ensure compliance with all air pollution control standards; evaluates the effectiveness of regulatory compliance programs; develops and implements new programs as mandated by legislation and/or policy; monitors and analyzes legislation and new regulations that impact regulatory compliance; and represents Central San before boards, political bodies, committees, and the general public. Through active participation in the Bay Area Clean Water Agencies, this division works collaboratively with sister agencies to provide technical expertise, financial support, and a public utility perspective to ensure that regulations affecting the Bay Area wastewater community are well informed, thoughtful, and effective.

Fiscal Year 2018-19 Strategic Accomplishments



Strive to meet regulatory requirements

- Achieved 21st year of continuous compliance with all National Pollutant Discharge Elimination System permit requirements governing wastewater discharge.
- Maintained 2018 anthropogenic greenhouse gas emissions below the Cap and Trade inclusion threshold.
- Evaluated preliminary treatment plant health risks in preparation for compliance with Bay Area Air Quality Management District Rule 11-18.
- Completed root cause analyses on incidences of non-compliance with air permit requirements.
- Division Manager served as Chair of the Bay Area Clean Water Agencies' Executive Board and staff served in leadership roles on associated committees.



Maintain a reliable infrastructure






















- Evaluated feasibility of a wet ash handling system.
- Assisted in optimizing the furnace combustion oxygen measuring system by certifying a new, more robust analyzer as a compliance monitoring instrument.



Embrace technology, innovation, and environmental sustainability


- Oversaw over 45,000 visits to the Household Hazardous Waste Collection Facility and Residential Recycled Water Fill Station by residents, small businesses, reuse customers, retail partners, and fill station users.
- Continued use of tablets in the field for Environmental Compliance inspections.

Fiscal Years 2017-18 and 2018-19 Strategic Performance and Fiscal Year 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
	National Pollutant Discharge Elimination System Compliance	Zero (0) Violations	Zero (0) Violations		Zero (0) Violations	Zero (0) Violations	
	Title V Compliance	Zero (0) Violations	3 violations (Will be Addressed with New Wet Scrubber)		Zero (0) violations	3 violations (Will be Addressed with New Wet Scrubber)	
	Recycled Water Title 22 Compliance	Zero (0) Violations	Zero (0) Violations		Zero (0) Violations	Zero (0) Violations	
	Anthropogenic Greenhouse Gas Emissions (Per Calendar Year)	<25,000 Metric Tons (MT) CO ₂ e	23,789 MT CO ₂ e for Calendar Year 2018		<25,000 Metric Tons CO ₂ e	24,500 MT CO ₂ e Estimated for Calendar Year 2019	
	Annual Environmental Compliance Inspections and Permitting Completed on Time	100.0%	100.0%		100.0%	100.0%	
	Household Hazardous Waste Management Compliance	N/A Not a Metric in the FY 2016-18 Strategic Plan			Zero (0) Violations	Zero (0) Violations	
	Maximum Residential Recycled Water Fill Station Customer Wait Time	15 Minutes	<15 Minutes		N/A Not a Metric in the FY 2018-20 Strategic Plan		
	Potable Water System Monthly Testing Meets All Water Quality Standards	N/A Not a Metric in the FY 2016-18 Strategic Plan			100%	100%	

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 <p>Strive to Achieve 100% Permit Compliance in Air, Water Land, and Other Regulations</p>	Strive to meet all air permit requirements (Title V and Permit to Operate).
	Strive to meet all wastewater-related permit requirements (National Pollutant Discharge Elimination System Treatment Plant Permit, Nutrients Watershed Permit, Polychlorinated Biphenyls, and Mercury Watershed Permit).

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$3,542,344	\$3,551,010	\$3,594,027	\$3,706,500	\$3,831,724	\$125,224	3%	\$237,697	7%
Employee Benefits	\$2,670,133	\$2,680,246	\$1,480,320	\$1,457,551	\$1,416,357	(\$41,194)	-3%	(\$63,963)	-4%
Unfunded Liabilities *	\$0	\$0	\$1,140,247	\$1,220,345	\$1,205,956	(\$14,389)	-1%	\$65,709	6%
Utilities	\$24,300	\$11,933	\$13,500	\$12,204	\$14,300	\$2,096	17%	\$800	6%
Repairs & Maintenance	\$110,000	\$77,509	\$109,000	\$91,250	\$96,500	\$5,250	6%	(\$12,500)	-11%
Hauling & Disposal	\$474,925	\$514,212	\$538,425	\$537,700	\$590,125	\$52,425	10%	\$51,700	10%
Professional & Legal Services	\$6,000	\$33,039	\$6,000	\$5,350	\$6,000	\$650	12%	\$0	0%
Outside Services	\$570,500	\$396,789	\$594,500	\$516,663	\$598,500	\$81,837	16%	\$4,000	1%
Materials & Supplies	\$300,200	\$319,184	\$308,500	\$281,200	\$330,000	\$48,800	17%	\$21,500	7%
Other Expenses	\$147,302	\$109,351	\$150,880	\$133,733	\$149,741	\$16,008	12%	(\$1,139)	-1%
Other Expenses-Bay Area Clean Water Agencies	\$605,816	\$306,086	\$462,000	\$308,034	\$389,000	\$80,966	26%	(\$73,000)	-16%
Total	\$8,451,520	\$7,999,359	\$8,397,399	\$8,270,530	\$8,628,203	\$357,673	4%	\$230,804	3%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Administrative Assistant	1.0	1.0	1.0
Assistant Engineer	2.0	2.0	2.0
Associate Engineer	1.0	1.0	1.0
Chemist I/II	5.0	5.0	5.0
Chemist III	1.0	1.0	1.0
Environmental and Regulatory Compliance Division Manager	1.0	1.0	1.0
Environmental Compliance Inspector I/II	6.0	6.0	6.0
Environmental Compliance Superintendent	1.0	1.0	1.0
Household Hazardous Waste Supervisor	1.0	1.0	1.0
Household Hazardous Waste Technician I/II	3.0	3.0	3.0
Laboratory Superintendent	1.0	1.0	1.0
Senior Chemist	1.0	1.0	1.0
Senior Engineer	1.0	1.0	1.0
Senior Environmental Compliance Inspector	2.0	2.0	2.0
Senior Household Hazardous Waste Technician	2.0	2.0	2.0
Total	29.0	29.0	29.0

Limited Duration Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Laboratory Assistant Summer Student	2.0	2.0	1.0
Intern	1.5	2.0	3.0
Total	3.5	4.0	4.0

Budget Modifications and Contributions to Key Priorities

The Environmental and Regulatory Compliance Operating Budget for FY 2019-20 is \$8.6 million, a \$200,000 or 3% increase over the \$8.4 million budget in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment and increases due to step advancements. The decrease in Benefits is due to lower premiums for the new medical plans, offset by higher premiums for workers' compensation. Repairs & Maintenance decreased due to lower than expected maintenance expenses in FY 2018-19 that is expected to continue in FY 2019-20. Hauling & Disposal increased due to new contract for hazardous waste disposal. Other Expenses-Bay Area Clean Water Agencies decreased due to a lower than anticipated possible nutrient studies expense.

The Environmental and Regulatory Compliance Division plays the leading role in monitoring evolving regulation and environmental compliance requirements promulgated by state and federal agencies and assuring that Central San is positioned to meet these requirements.

Planning and Development Services

OVERVIEW

This division provides development services, including right-of-way, property management, development inspection, permit counter operations, and mainline plan review. This division also leads pilot studies to provide in-depth results specific to Central San's operations and needs; oversees asset management, geographic information systems, and computerized maintenance management systems used by staff and the public; and conducts financial planning for rates, capacity fees, permits, and sewer service charges, including preparation of the rate increases that may be necessary to adequately fund operations, maintenance, and the sewer construction budget for the increase in Capital Improvement Program needs, which have quadrupled over the past four years.

FY 2018-19 Strategic Accomplishments



Provide exceptional customer service and maintain an excellent reputation in the community

- Created an interactive map on the external customer website for visitors to view capital improvement work on the collection system.



Be a fiscally responsible and effective wastewater utility

- Developed rate alternative scenarios that reduced 10-year Capital Improvement Plan (Ten-Year CIP) cash flow and Central San's reliance on debt by \$34 million.
- Presented new rate structure for mixed-use businesses and non-residential customers as part of the proposed rate for Board consideration on April 18, 2019.
- Presented alternatives for Board input consistent with debt management policy, fiscal reserve policy, 10-Year CIP, and general ratemaking principles at two Financial Workshops and a Public Hearing.
- Prepared a State Revolving Fund application in the amount of \$89.6 million for the Solids Handling Facility Improvements Project.
- Completed Lime Reduction Bench Scale Study and paper recommending full-scale testing for potential savings in lime procurement costs.
- Conducted annual reviews of the following:
 - Current rates and fees, for reasonableness and consistency
 - Capacity fees, to ensure appropriate fees are assessed and collected
 - Businesses, to ensure consistent use with existing permits and payment of capacity fees.



Maintain a reliable infrastructure

- Initiated comprehensive two-year program to perform condition assessments for the Steam Aeration and Blower System Project.











Embrace technology, innovation, and environmental sustainability

- Continued work toward a recycled water exchange program with Contra Costa Water District and Santa Clara Valley Water District.
- Presented at the 2018 Water Environment Federation Technical Conference on the Wet Scrubber Pilot, an award-winning air pollution control research project that tested a new air cleaning technology system, saving over \$14 million in capital costs.
- Presented on optimizations at the 2018 California Water Environment Association Conference.
- Completed Phase 1 of the Hydrothermal Processing of Wastewater Solids project, which will test an emerging hydrothermal resource recovery process for solids handling. Phase 1 included planning and preliminary design for Department of Energy evaluation and successful submittal of a \$3 million California Energy Commission grant. Additionally, staff helped obtain an additional \$3 million in grant funding and presented the project to the Bay Area Biosolids Coalition.
- Completed a desktop evaluation and recommended eventual pilot testing of two innovative nutrient removal technologies: *AquaNereda*® (an aerobic granular sludge technology) and Membrane Aerated Biofilm Reactor.
- Implemented a pilot project for new recycled water meter technology (*Water Pigeon*®).
- Continued exploring opportunities for a solar energy project that meets the cost-effectiveness criteria in the Board’s recently updated Energy Policy.
- Completed implementation of and training on the e-Builder program management information system.



FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets





Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
GOAL ONE	Average Customer Satisfaction Rating on Permit Counter Interactions	>95.0%	96.0%		>95.0% (Median Rating)	100.0%	
GOAL THREE	Median Service Affordability	SSC Less Than Median of Bay Area Agencies	Target Met		SSC Less Than Median of Bay Area Agencies SSC Plus Ad Valorem Tax Less Than Average of Bay Area Agencies	Target Met	
GOAL SIX	Gallons of Recycled Water Distributed at the Residential Recycled Water Fill Station	>14M Gallons Per Year	2,447,911 Gallons (Dependent on Drought and Weather)		N/A Not a Metric in the FY 2018-20 Strategic Plan		

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance	FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3		
	Gallons of Recycled Water Distributed Through the Commercial Truck Fill Program	>4M Gallons Per Year	796,338 Gallons (Dependent on Drought and Weather)		N/A Not a metric in the FY 2018-20 Strategic Plan		
	Pilot Test New and Promising Technology	>3 Pilot Tests Or Reviews Per Year	5 Pilot Tests or Reviews		>3 Pilot Tests or Reviews Per Year	5 Pilot Tests or Reviews	
	Present Research Papers and Findings	>3 Papers Per Year	4 Papers		>3 Papers or Presentations Per Year	4 Papers and Presentations	

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 <p>Build External Customer Relationships and Awareness</p>	<p>Update 2014 Standard Specifications for Design and Construction.</p>
 <p>Develop Alternatives for New Revenues and Funding Sources (e.g., Interagency Agreements, Services, and Recycled Water)</p>	<p>Update the State Revolving Fund application for the Solids Handling Facility Improvements Project if not selected for funding and prepare an application for the Filter Plant Project by the December 31, 2019 State deadline.</p>

Goal/Strategy	Objective for FY 2019-20
 <p>GOAL FIVE Manage Assets Optimally Throughout Their Lifecycle</p>	<p>Develop prioritization model for vertical assets.</p>
 <p>GOAL FIVE Facilitate Long-Term Capital Renewal and Replacement</p>	<p>Continue work on comprehensive two-year program to perform condition assessments for the Steam Aeration and Blower System Project.</p> <p>Develop a planning tool for future capital spending for the program management information system, e-Builder.</p>
 <p>GOAL SIX Reduce Reliance on Non-Renewable Energy</p>	<p>Complete evaluation of additional cost-effective solar energy projects available for Central San's operation.</p>
 <p>GOAL SIX Encourage the Review and Testing of Technology to Optimize and Modernize Business Operations</p>	<p>Optimize plan review workflow for Development Mainline Construction.</p> <p>Evaluate and review permitting software.</p> <p>Review mobile applications software for Construction Inspectors.</p> <p>Participate in Phase 2 of the Hydrothermal Processing of Wastewater Solids project.</p>

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$4,464,830	\$4,597,315	\$4,444,903	\$4,621,700	\$4,580,592	(\$41,108)	-1%	\$135,689	3%
Employee Benefits	\$2,278,748	\$2,699,154	\$761,183	\$388,817	\$488,384	\$99,567	26%	(\$272,799)	-36%
Unfunded Liabilities *	\$0	\$0	\$1,435,363	\$1,535,198	\$1,434,618	(\$100,580)	-7%	(\$745)	0%
Utilities	\$137,300	\$150,810	\$136,900	\$142,700	\$149,800	\$7,100	5%	\$12,900	9%
Repairs & Maintenance	\$59,400	\$25,766	\$59,400	\$21,400	\$35,400	\$14,000	65%	(\$24,000)	-40%
Professional & Legal Services	\$165,000	\$131,984	\$165,000	\$131,500	\$165,000	\$33,500	25%	\$0	0%
Outside Services	\$569,542	\$342,357	\$634,542	\$504,400	\$761,542	\$257,142	51%	\$127,000	20%
Materials & Supplies	\$47,550	\$26,210	\$57,850	\$37,000	\$57,850	\$20,850	56%	\$0	0%
Other Expenses	\$94,025	\$62,541	\$105,012	\$72,985	\$106,712	\$33,727	46%	\$1,700	2%
Total	\$7,816,395	\$8,036,137	\$7,800,153	\$7,455,700	\$7,779,898	\$324,198	4%	(\$20,255)	0%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Note: Some staff in this division are budgeted with the Capital Improvements Program. As a result, 26% of their combined salary and benefit expenses are paid for by the projects identified in the Capital Improvement Budget. The amounts above are net of the capitalized administrative overhead transfer to the Sewer Construction Fund.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Administrative Assistant	1.0	1.0	1.0
Administrative Services Supervisor	1.0	1.0	1.0
Assistant Engineer	2.0	2.0	2.0
Associate Engineer	4.0	4.0	4.0
Construction Inspector	4.0	4.0	4.0
Development Services Supervisor	2.0	2.0	2.0
Director of Engineering and Technical Services	1.0	1.0	1.0
Engineering Assistant III	5.0	5.0	5.0
Engineering Assistant I/II	2.0	2.0	2.0
Engineering Technician I/II	1.0	1.0	1.0
GIS Analyst	2.0	2.0	2.0
GIS/CMMS Administrator	1.0	1.0	1.0
Maintenance Planner	1.0	1.0	1.0
Management Analyst	1.0	1.0	1.0
Planning and Development Services Division Manager	1.0	1.0	1.0
Program Manager	1.0	1.0	1.0
Senior Engineer	3.0	4.0	4.0
Senior Right-of-Way Agent	2.0	2.0	2.0
Total	35.0	36.0	36.0

Limited Duration Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Engineering Assistant Summer Student	8.0	5.0	4.0
Intern	4.0	3.0	4.0
Total	12.0	8.0	8.0

Budget Modifications and Contributions to Key Priorities

The Planning and Development Services Operating Budget for FY 2019-20 is \$7.8 million, which remained flat compared to the \$7.8 million budget in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment and increases due to step advancements, offset by additional time being charged to work for capital projects. The decrease in Benefits is due to lower premiums for the new medical plans and the additional time charged to projects. Utilities increased due to rising utility rates. Repairs & Maintenance decreased due to lower than expected maintenance expenses related to Central San-owned rental properties. Outside Services increased due to the need for technical service firms to staff divisional objectives.

The Planning and Development Services Division's budget allows Central San to meet several key challenges including maintaining customer awareness of Central San's services, the costs involved in meeting those responsibilities, and meeting service level expectations at responsible rates. This is accomplished through the division's work in maintaining the financial plan and rate-setting, by balancing the objectives of setting rates to fund important priorities for Central San, while keeping rate adjustments moderated and no higher than necessary.

The division also includes the staff and program costs for Central San's resource recovery program and efforts to maintain a sustainable water supply.

Operations Department

The Operations Department consists of three divisions, the Safety Program, and the Recycled Water Program. The Recycled Water Program consists of staff from multiple departments. The primary function of the Operations Department is to collect, clean, and dispose of wastewater in compliance with regulatory requirements, and to divert a portion of the wastewater to produce Title 22 recycled water. This includes operations and maintenance of pipelines, pumping stations, and treatment facilities; oversight of power generation operations; fleet maintenance; and managing computerized control equipment and systems.

The Divisions that comprise this Department include the following:

- Collection System Operations
- Plant Maintenance
- Plant Operations
- Safety Program
- Recycled Water Program



Collection System Operations

OVERVIEW

This division is responsible for cleaning, maintaining, and repairing over 1,500 miles of collection sewers, trunk sewers and force mains in Central San’s vast collection system, as well as maintaining the recycled water distribution system. This division also includes an in-house vehicle shop, which is responsible for the maintenance of all Central San vehicles.

FY 2018-19 Strategic Accomplishments



Provide exceptional customer service and maintain an excellent reputation in the community

- Received first place award for California Water Environment Association 2018 Large Collection System of the Year in the Bay Area and second place award for California Water Environment Association 2018 Large Collection System of the Year in the State of California.
- Responded to 411 customer service phone calls.
- Received and cleared over 27,700 USA locating requests on time.



Strive to meet regulatory requirements

- Responded to 28 sanitary sewer overflows (1.85 overflows per 100 miles – the lowest overflow rate in Central San’s history).
- Cleaned 778 miles of sewers.
- Completed 22,014 work orders on schedule 98% of the time.
- Performed 22% of all cleaning work on “hotspots.”
- Closed circuit televised 205 miles of sewers.



Be a fiscally responsible and effective wastewater utility






























- Reduced vehicle fleet by 2 vehicles after reviewing automatic vehicle location data analytics, eliminating maintenance costs and registration fees for those vehicles.
- Continued to optimize cleaning schedules to dispatch staff more efficiently and clean sewers as needed to best prevent overflows.



Maintain a reliable infrastructure




- Completed 982 services on vehicles and equipment.
- Continued to convert cleaning schedules from routine to scheduled maintenance to ensure each line has a scheduled cleaning date.

FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of June 1	
	Average Onsite Response Time for Collection System Emergency Calls, During Working Hours	<20.0 Minutes	35.3 Minutes		<20.0 Minutes	31.4 Minutes	
	Average Onsite Response Time for Collection System Emergency Calls, After Hours	<30.0 Minutes	37.8 Minutes		<40.0 Minutes	33.5 Minutes	
	Average Customer Service Rating for Emergency Calls	≥3.80 out of 4.00	3.96 out of 4.00		≥3.80 out of 4.00	3.90 out of 4.00	
	Sanitary Sewer Overflows	<3.0 Spills per 100 Miles of Pipeline	1.7 Spills per 100 Miles		<2.5 Spills Per 100 Miles of Pipeline	1.5 Spills per 100 Miles of Pipeline	
	Spills to Public Water	<3	1		<3	6	
	Percentage of Spills <500 Gallons	>95.0%	87.5%		>95.0%	91.3%	
	Pipeline Cleaning Schedules Completed on Time	>95.0%	97.0%		>95.0%	99.0%	
	Pipeline Cleaning QA/QC	On ≥3.0% of Pipelines Cleaned on an Annual Basis	2.8%		On ≥3.0% of Pipelines Cleaned on an Annual Basis	3.8%	
	Pipeline Cleaning QA/QC Passing Rate	>98.0%	88.9%		>98.0%	94.4%	
	Uptime for Vehicles and Equipment	N/A Not a Metric in the FY 2016-18 Strategic Plan			100.0%	99.3%	

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 <p>GOAL ONE Build External Customer Relationships and Awareness</p>	Continue to respond quickly to emergency calls both during and after work hours.
 <p>GOAL TWO Strive to Minimize the Number of Sanitary Sewer Overflows</p>	Continue to proactively and optimally clean sewers to prevent overflows.
	Optimize cleaning schedule frequencies and location of work orders.
 <p>GOAL THREE Manage Costs</p>	Investigate and provide recommendations for the use of alternative diesel fuels.

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$6,164,374	\$6,131,156	\$6,272,384	\$6,606,000	\$6,913,694	\$307,694	5%	\$641,310	10%
Employee Benefits	\$5,087,527	\$4,867,427	\$3,031,274	\$3,052,495	\$3,046,602	(\$5,893)	0%	\$15,328	1%
Unfunded Liabilities *	\$0	\$0	\$1,942,922	\$2,078,574	\$2,052,083	(\$26,491)	-1%	\$109,161	6%
Utilities	\$142,400	\$151,035	\$145,400	\$157,400	\$157,400	\$0	0%	\$12,000	8%
Repairs & Maintenance	\$1,624,304	\$1,047,768	\$1,474,504	\$1,383,504	\$1,449,503	\$65,999	5%	(\$25,001)	-2%
Hauling & Disposal	\$131,000	\$128,592	\$131,000	\$119,800	\$131,000	\$11,200	9%	\$0	0%
Professional & Legal Services	\$7,500	\$922	\$7,500	\$2,000	\$7,000	\$5,000	250%	(\$500)	-7%
Outside Services	\$110,600	\$63,002	\$59,680	\$67,030	\$83,280	\$16,250	24%	\$23,600	40%
Materials & Supplies	\$749,550	\$738,814	\$756,951	\$739,252	\$769,452	\$30,200	4%	\$12,501	2%
Other Expenses	\$138,958	\$122,047	\$138,445	\$125,653	\$140,125	\$14,472	12%	\$1,680	1%
Total	\$14,156,213	\$13,250,762	\$13,960,060	\$14,331,708	\$14,750,139	\$418,431	3%	\$790,079	6%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Administrative Assistant	1.0	1.0	1.0
Senior Administrative Assistant	1.0	1.0	1.0
Administrative Technician	2.0	2.0	2.0
Collection System Maintenance Scheduler	1.0	1.0	1.0
Collection System Operations Division Manager	1.0	1.0	1.0
Construction Equipment Operator	2.0	2.0	2.0
Field Operations Superintendent	1.0	1.0	1.0
Maintenance Crew Leader	16.0	18.0	18.0
Maintenance Crew Member I/II	18.0	18.0	18.0
Maintenance Supervisor	4.0	4.0	4.0
Senior Engineer	1.0	1.0	1.0
Utility Worker	2.0	2.0	2.0
Vehicle and Equipment Mechanic	3.0	3.0	3.0
Vehicle Maintenance and Equipment Maintenance Supervisor	1.0	1.0	1.0
Total	54.0	56.0	56.0

Limited Duration Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Laborer Summer Student	3.0	3.0	0.0
Clerical Summer Student	1.0	1.0	0.0
Total	4.0	4.0	0.0

Budget Modifications and Contributions to Key Priorities

The Collection System Operations Operating Budget for FY 2019-20 is \$14.8 million, an \$800,000 or 6% increase over the \$14.0 million budget in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment and increases due to step advancements. Benefits increased due to higher premiums for workers' compensation, offset by lower premiums for the new medical plans. Utilities increased due to higher rates experienced in FY 2018-19. Repairs & Maintenance decreased due to the Vehicle and Equipment Shop performing more in-house repairs. Outside Services increased due to cost increase for Underground Service Alert (USA-811).

Plant Maintenance

OVERVIEW

This division is responsible for maintaining all mechanical, electrical, and instrumentation equipment and systems for the treatment plant, laboratory, as well as all facilities at the Martinez campus. It consists of five shops: Mechanical, Machine, Electrical, Instrumentation, and Building and Grounds, as well as a Reliability Engineering section. The Pumping Station workgroup in this division operates and maintains the 18 pumping stations throughout the service area. This division's aim is to be a high-performance team that maintains the treatment plant and pumping stations in an optimal state and to continuously improve overall maintenance effectiveness and asset reliability over the life cycle of the asset.

FY 2018-19 Strategic Accomplishments



Strive to meet regulatory requirements

- Awarded the 2018 Uptime Award for Best Reliability Engineering for Maintenance Program from Reliabilityweb.com.
- Maintained all equipment and systems to achieve the National Association of Clean Water Agencies Peak Performance Platinum Award for the 21st consecutive year.



Be a fiscally responsible and effective wastewater utility

- Worked with Engineering in the pre-design, design, and construction stages to ensure procurement and correct installment of the latest, safest, most reliable equipment and technology.
- Obtained new tools and equipment to increase work efficiency, such as an Iron Worker for the Mechanical Shop.



Recruit, develop, and retain a highly trained and safe workforce

- Improved Mechanical Maintenance Technician Trainee Program.
- Added new technical learning libraries content.
- Enhanced hiring process to include a hands-on practical exam.
- Engaged with community and technical colleges' recruitment and program development.



Maintain a reliable infrastructure

- Completed 22 Don't Just Fix It; Improve It initiatives to increase maintenance effectiveness, lower costs, and increase equipment reliability.
- Completed 113 safety work orders.
- Continuously reviewed maintenance procedures and identified opportunities to improve 16 preventative maintenance program tasks.
- Increased accessibility of asset information for maintenance staff including tracking Don't Just Fix It; Improve It initiatives, improving spares management, creating new workflows to the *Cityworks*® maintenance system, and adding job plans to the geographic database, and *GeoPortal*®.



Embrace technology, innovation, and environmental sustainability



- Made additions to the Asset Condition Monitoring program such as implementing breaker overload testing program and winding analyzer program, which play a significant role in lowering equipment downtime costs, increasing reliability of equipment, increasing effectiveness of the motor management program, and enhancing acceptance testing of new or overhauled equipment.

FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
	Safety-Prioritized Work Orders Completed on Time	100%	98%		100%	90%	
	Regulatory Title V Work Orders Completed on Time	100%	100%		100%	99%	
	Planned Treatment Plant Preventative Maintenance Completed on Time	N/A Not a Metric in the FY 2016-18 Strategic Plan			>95%	100%	
	Kilowatt Hours (kWh) of Electricity Produced	>18 million kWh Per Year (Reported as a Rolling Average)	20.1 million kWh		>18 million kWh Per Year (Reported as a Rolling Average)	22.5 million kWh	
	kWh of Solar Power Produced at CSO and the HHWCF	>200,000 kWh Per Year (Reported as a Rolling Average)	282,300 kWh		>220,000 kWh (Reported as a Rolling Average)	262,900 kWh	

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 <p>GOAL FOUR Meet or Exceed Industry Safety Standards</p>	Continue to apply the latest arc-resistant switchgear with arc-quenching devices to make it safer for staff to operate and service electrical equipment.
 <p>GOAL FIVE Continue Maintenance on Assets Using a Reliability-Based Approach</p>	Actively participate in all phases of asset lifecycles , including design, installation, operation, maintenance, and replacement planning.
	Commit to consistently perform the most effective maintenance tasks on the equipment at the optimal frequency.
	Utilize a repeatable and comprehensive approach to maintenance that optimizes asset lifecycle based on reliability, cost, and criticality, including continuing to perform additional Reliability Centered Maintenance, Root Cause Analysis, Preventive Maintenance Optimization analysis, and Defect Elimination initiatives on critical equipment and systems.
	Continue to develop the Asset Centered Maintenance Program and integrate with analytics for earliest warning of equipment degradation.

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$5,501,480	\$5,278,262	\$5,727,357	\$5,565,100	\$5,983,974	\$418,874	8%	\$256,617	4%
Employee Benefits	\$4,304,142	\$4,045,772	\$2,455,560	\$2,419,171	\$2,453,090	\$33,919	1%	(\$2,470)	0%
Unfunded Liabilities *	\$0	\$0	\$1,751,735	\$1,764,647	\$1,801,074	\$36,427	2%	\$49,339	3%
Chemicals	\$300,000	\$115,950	\$250,000	\$200,000	\$200,000	\$0	0%	(\$50,000)	-20%
Utilities	\$508,150	\$532,526	\$516,550	\$516,550	\$516,550	\$0	0%	\$0	0%
Repairs & Maintenance	\$2,408,300	\$2,368,884	\$2,528,450	\$2,471,450	\$2,511,650	\$40,200	2%	(\$16,800)	-1%
Hauling & Disposal	\$158,800	\$157,963	\$163,800	\$163,800	\$163,800	\$0	0%	\$0	0%
Outside Services	\$257,750	\$160,281	\$236,200	\$401,700	\$220,200	(\$181,500)	-45%	(\$16,000)	-7%
Materials & Supplies	\$559,200	\$686,234	\$575,200	\$679,400	\$594,200	(\$85,200)	-13%	\$19,000	3%
Other Expenses	\$140,836	\$186,903	\$161,611	\$204,111	\$165,811	(\$38,300)	-19%	\$4,200	3%
Total	\$14,138,658	\$13,532,776	\$14,366,463	\$14,385,929	\$14,610,349	\$224,420	2%	\$243,886	2%

+ Reallocated

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Assistant Engineer	1.0	1.0	0.0
Buildings and Grounds Supervisor	1.0	1.0	1.0
Electrical Shop Supervisor	0.0	1.0	1.0
Electrical Technician	4.0	4.0	4.0
Instrument Shop Supervisor	1.0	1.0	1.0
Instrument Technician	3.0	3.0	3.0
Machinist	2.0	2.0	2.0
Maintenance Crew Leader	1.0	1.0	1.0
Maintenance Planner	3.0	3.0	3.0
Maintenance Technician I/II, Mechanical	1.0	2.0	2.0
Maintenance Technician III, Mechanical	6.0	7.0	7.0
Mechanical Supervisor	2.0	2.0	2.0
Painter	1.0	1.0	1.0
Plant Maintenance Division Manager	1.0	1.0	1.0
Plant Maintenance Superintendent	1.0	1.0	1.0
Pumping Stations Operator I/II	4.0	4.0	4.0
Pumping Stations Operator III	2.0	2.0	2.0
Pumping Stations Supervisor	1.0	1.0	1.0
Senior Engineer	1.0	1.0	1.0
Utility Systems Engineer	0.0	0.0	1.0
Utility Worker	6.0	7.0	7.0
Total	42.0	46.0	46.0

Limited Duration Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Laborer Summer Student	10.0	11.0	5.0
Engineering Assistant Summer Student	0.0	1.0	0.0
Intern	1.0	1.0	1.0
Total	11.0	13.0	6.0

Budget Modifications and Contributions to Key Priorities

The Plant Maintenance Operating Budget for FY 2018-19 is \$14.6 million, a \$200,000 or 2% increase over the \$14.4 million budget in FY 2017-18. Salaries & Wages include the agency-wide cost-of-living adjustment, increases due to step advancements, and a General Manager Transitional Position for Maintenance Technician. The decrease in Benefits is due to lower premiums for the new medical plans, offset by higher premiums for workers' compensation. Chemicals decreased due to improvements in monitoring and adjusting chemicals based on seasonal and operational conditions. Outside Services decreased due to maintenance task optimizations and revised service contracts. Materials & Supplies increased due to planned maintenance requiring higher priced items.

The Plant Maintenance Division Budget directly addresses several of the principal issues facing Central San by optimizing the Maintenance Program to ensure that equipment and system reliability meets all safety, service level, and regulatory requirements. The division strives to continuously improve overall maintenance effectiveness and reliability over the lifecycle of an asset, including active participation in all phases of design, installation, operation, maintenance, and replacement planning.

Plant Operations

OVERVIEW

This division operates and maintains Central San’s treatment plant in Martinez. The treatment plant has a permitted capacity of 53.8 million gallons per day (MGD) and cleans an average of 34.7 MGD, 2.5 MGD of which is further treated into recycled water and reused within the treatment plant and distributed to customers for non-potable uses. This division’s budget also includes the head of the Operations Department – the Deputy General Manager – and the administrative services for the Plant Operations and Plant Maintenance Divisions.

FY 2018-19 Strategic Accomplishments



Strive to meet regulatory requirements

- Maintained eligibility for the National Association of Clean Water Agencies Peak Performance award platinum status for the 21st consecutive year, recognizing 100% compliance with the wastewater discharge permit.



Maintain a reliable infrastructure







- Assisted Engineering in the design, coordination, and construction of the Headworks Screenings Upgrades; Piping Renovations – Phase 9; Mechanical and Concrete Renovations; Pump and Blower Building Seismic Upgrades; Plant Operations Building Seismic Upgrades; Influent Pump Electrical Improvements; and Solids Handling Facility Improvements Projects.
- Improved reliability of the Ultraviolet Disinfection Basins by replacing obsolete control hardware and pilot testing low ultraviolet transmittance.
- Initiated a valve exercising program to ensure valves throughout the plant do not lose function due to lack of use.









Embrace technology, innovation, and environmental sustainability

- Spearheaded the training and use of *DocuSign*® as a pilot, which is now being used by more divisions for electronic signatures.




FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
	National Pollutant Discharge Elimination System Compliance	Zero (0) Violations	Zero (0) Violations		Zero (0) Violations	Zero (0) Violations	
	Title V Compliance	Zero (0) Violations	3 Violations (Will Be Addressed with New Wet Scrubber)		Zero (0) Violations	3 Violations (Will Be Addressed with New Wet Scrubber)	

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
	Recycled Water Title 22 Compliance	Zero (0) Violations	Zero (0) Violations		Zero (0) Violations	Zero (0) Violations	
	Anthropogenic Greenhouse Gas Emissions (Per Calendar Year)	Less than 25,000 MT CO ₂ e	23,789 MT CO ₂ e for Calendar 2018		Less than 25,000 Metric Tons CO ₂ e	24,500 MT CO ₂ e Estimated for Calendar 2019	

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 <p>Strive to Achieve 100% Permit Compliance in Air, Water, Land, and Other Regulations</p>	<p>Maintain eligibility for the National Association of Clean Water Agencies Peak Performance Award Platinum Status for the 22nd consecutive year.</p>
 <p>Ensure Adequate Staffing and Training to Meet Current and Future Operational Levels</p>	<p>Successfully succession plan and appropriately staff the division to meet the challenges of any upcoming departures.</p>
 <p>Manage Assets Optimally Throughout Their Lifecycle</p>	<p>Continue to work with Engineering in the design, coordination, and construction of projects affecting the treatment plant.</p>

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$5,391,494	\$5,505,216	\$5,317,180	\$5,909,300	\$6,052,856	\$143,556	2%	\$735,676	14%
Employee Benefits	\$3,793,932	\$4,061,415	\$2,031,456	\$2,246,114	\$2,128,325	(\$117,789)	-5%	\$96,869	5%
Unfunded Liabilities *	\$0	\$0	\$1,629,115	\$1,860,645	\$1,828,627	(\$32,018)	-2%	\$199,512	12%
Chemicals	\$1,098,000	\$840,117	\$1,125,000	\$1,120,000	\$1,320,000	\$200,000	18%	\$195,000	17%
Utilities	\$3,484,600	\$3,195,409	\$3,002,600	\$3,027,600	\$3,067,600	\$40,000	1%	\$65,000	2%
Repairs & Maintenance	\$4,200	\$36,050	\$4,200	\$500	\$4,200	\$3,700	740%	\$0	0%
Hauling & Disposal	\$249,000	\$222,805	\$283,000	\$255,000	\$293,000	\$38,000	15%	\$10,000	4%
Professional & Legal Services	\$4,000	\$2,743	\$1,000	\$1,000	\$1,000	\$0	0%	\$0	0%
Outside Services	\$42,000	\$0	\$22,000	\$0	\$22,000	\$22,000	100%	\$0	0%
Materials & Supplies	\$147,900	\$174,692	\$144,900	\$157,200	\$144,900	(\$12,300)	-8%	\$0	0%
Other Expenses	\$671,850	\$466,101	\$662,200	\$529,237	\$657,900	\$128,663	24%	(\$4,300)	-1%
Total	\$14,886,976	\$14,504,548	\$14,222,651	\$15,106,596	\$15,520,408	\$413,812	3%	\$1,297,757	9%

* Reallocated

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Administrative Assistant	2.0	2.0	2.0
Administrative Services Supervisor	1.0	1.0	1.0
Control Systems Engineer	1.0	2.0	0.0
Control Systems Technician	1.0	1.0	1.0
Deputy General Manager	1.0	1.0	1.0
Plant Operations Division Manager	1.0	1.0	1.0
Plant Operations Superintendent	1.0	1.0	1.0
Plant Operations Training Coordinator	1.0	1.0	1.0
Plant Operator I/II	3.0	4.0	4.0
Plant Operator III	1.0	1.0	1.0
Senior Engineer	1.0	1.0	1.0
Senior Plant Operator	16.0	16.0	16.0
Shift Supervisor	7.0	7.0	7.0
Utility Systems Engineer	0.0	0.0	2.0
Total	37.0	39.0	39.0

Limited Duration Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Summer Engineering Assistant	0.0	1.0	1.0
Total	0.0	1.0	1.0

Budget Modifications and Contributions to Key Priorities

The Plant Operations Operating Budget for FY 2019-20 is \$15.5 million, a \$1.3 million or 9% increase over the \$14.2 million budgeted in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment increases due to step advancements, and the addition of a General Manager Transitional Position for a Shift Supervisor. Benefits increased due to higher premiums for workers' compensation, offset by lower premiums for the new medical plans. Chemicals increased due to a polymer price increase following contract rebid. Hauling & Disposal increased due to diesel fuel costs.

This Plant Operations Budget provides Central San staff the resources necessary to continue to meet or exceed evolving regulatory requirements and optimize operations to work cost effectively.

Safety Program

OVERVIEW

The Safety workgroup oversees and administers Central San’s Safety Program. The primary objective of the program is to reduce injuries, accidents, and environmental impact while ensuring compliance. This is achieved through high-quality training for staff; comprehensive workplace evaluation; incident response; hazardous materials management from acquisition to disposal; and management of regulatory information.

FY 2018-19 Strategic Accomplishments



Strive to meet regulatory requirements

- Updated the Chemical Hygiene Plan Safety Directive.
- Began overseeing the Medical Surveillance Program.



Recruit, develop, and retain a highly trained and safe workforce

- Conducted 326 Safety Tailgates to train various divisions on safety topics.
- Administration and Engineering Departments completed calendar year 2018 with zero Lost Work Days.



Maintain a reliable infrastructure




- Spearheaded Fire System, Gas Detection System, and Fall Protection safety upgrades.
- Created a new maintenance access road to the clearwell overflow structure.
- Responded quickly to open action items within the District Safety Committee (the current timeframe for an open action item is less than 60 days).
- Safety Committee reviewed 22 Safety Suggestions in calendar year 2018.
- Conducted 16 Contractor Safety Orientations, reviewed 109 Design and Safety Submittals, and attended 42 Construction Progress Meetings.



Embrace technology, innovation, and environmental sustainability




- Conducted chemical inventory and reconciled safety data sheets with online repository, *MSDSonline*®.

FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
	Employee Injury and Illness Lost Time Incident Rate	<7.4 (Bureau of Labor Statistics’ California Sewage Treatment Facilities Rate)	4.1		<6.8 (Bureau of Labor Statistics’ California Sewage Treatment Facilities Rate)	2.5	

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 <p>Foster Employee Engagement and Interdepartmental Collaboration</p>	<p>Continue improving customer service through the following:</p> <ul style="list-style-type: none"> • Increased visibility in contractor project oversight/design reviews. • Participation in a greater number of tailgate meetings. • Attendance at additional manager and departmental meetings. • Inspections at more job worksites and facilities.
 <p>Ensure Adequate Staffing and Training to Meet Current and Future Operational Levels</p>	<p>Implement on-boarding protocols that identify required training, medical evaluations, and testing for each job classification.</p> <p>Continue monitoring safety metrics, including both leading and lagging indicators, to identify trends in incident reports, first-aids-only, near misses, and inspection findings.</p>
 <p>Enhance the Safety Culture through Improved Training and Communications</p>	<p>Transition to the Target Solutions® online platform to improve efficiency and compliance with online trainings, records retention, and tracking of certifications.</p>

Budget Overview by Expense Category

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$364,050	\$310,597	\$353,959	\$261,800	\$306,293	\$44,493	17%	(\$47,666)	-13%
Employee Benefits	\$317,020	\$286,845	\$141,539	\$162,085	\$107,294	(\$54,791)	-34%	(\$34,245)	-24%
Unfunded Liabilities *	\$0	\$0	\$118,777	\$118,302	\$99,974	(\$18,328)	-15%	(\$18,803)	-16%
Repairs & Maintenance	\$73,500	\$37,265	\$74,700	\$74,700	\$74,700	\$0	0%	\$0	0%
Hauling & Disposal	\$10,250	\$8,492	\$10,250	\$8,250	\$8,250	\$0	0%	(\$2,000)	-20%
Professional & Legal Services	\$2,500	\$0	\$2,500	\$0	\$2,500	\$2,500	100%	\$0	0%
Outside Services	\$68,000	\$13,552	\$61,000	\$41,000	\$61,000	\$20,000	49%	\$0	0%
Materials & Supplies	\$27,500	\$21,253	\$28,100	\$28,050	\$28,100	\$50	0%	\$0	0%
Other Expenses	\$54,075	\$39,664	\$56,600	\$52,250	\$61,050	\$8,800	17%	\$4,450	8%
Total	\$916,895	\$717,669	\$847,425	\$746,437	\$749,161	\$2,724	0%	(\$98,264)	-12%

* Unfunded Liabilities were broken out in FY 2018-19 and included in Employee Benefits line item in prior years.

Personnel Requirements

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Operations Safety Specialist	1.0	2.0	2.0
Safety Officer	1.0	1.0	1.0
Total	2.0	3.0	3.0

Budget Modifications and Contributions to Key Priorities

The Safety Program Operating Budget for FY 2019-20 is \$700,000, a \$100,000 or 12% decrease over the \$800,000 budget in FY 2018-19. Salaries & Wages include the agency-wide cost-of-living adjustment, offset by budgeting one vacant position for six months. The decrease in Benefits is due to lower premiums for the new medical plans. There are only minor adjustments to other expense categories.

Recycled Water Program

OVERVIEW

The Recycled Water Program is a reflection of Central San’s continued efforts to utilize the valuable resources available in treated wastewater to supplement the region’s water supply. Central San began to separately track the Recycled Water Program financials in FY 2016-17, and staff continues to work to accurately budget the anticipated expenses and revenues. This program draws resources from several divisions to provide support for the production and distribution of recycled water to Zone 1 commercial and municipal customers through pipelines, construction contractors through hydrants, and residential customers through the Residential Fill Station operated out of the Household Hazardous Waste Collection Facility. This program also includes planning and regulatory support for the existing system and planned expansions, including the Refinery Recycled Water Exchange Project and the Concord Community Reuse Project.

FY 2018-19 Strategic Accomplishments







Embrace technology, innovation, and environmental sustainability

- Collaborated with Contra Costa Water District and Santa Clara Valley Water District to complete the Work Plan tasks as agreed upon in the Memorandum of Understanding to complete a Preliminary Feasibility Evaluation of the Refinery Recycled Water Exchange Project.
- Collaborated with Dublin San Ramon Services District – East Bay Municipal Utility District Recycled Water Authority (DERWA) to define a project and develop and execute a Temporary Wastewater Diversion Agreement to allow DERWA to divert approximately 1.3 MGD of raw wastewater from Central San’s San Ramon Pumping Station to Dublin San Ramon Services District for the production of recycled water to meet DERWA’s peak summer irrigation demand.
- Distributed 1.5 million gallons of recycled water through the Residential Fill Station.


FYs 2017-18 and 2018-19 Strategic Performance and FY 2019-20 Targets

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3	
	Recycled Water Title 22 Compliance	Zero (0) Violations	Zero (0) Violations		Zero (0) Violations	Zero (0) Violations	
	Total Gallons of Water Distributed to External Customers	>240,000,000 Gallons	219,093,357 Gallons		>240,000,000 Gallons	124,040,000 Gallons	
	Gallons of Recycled Water Distributed at the Residential Fill Station	>14,000,000 Gallons	2,447,911 Gallons		N/A Not a Metric in the FY 2018-20 Strategic Plan		

Goal	Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 / FY 2019-20 Target	FY 2018-19 Performance as of Q3
	Gallons of Recycled Water Distributed by the Commercial Truck Fill Program	>4,000,000 Gallons	796,338 Gallons			N/A Not a Metric in the FY 2018-20 Strategic Plan)
	Maximum Residential Recycled Water Fill Station Customer Wait Time	15 Minutes	<15 Minutes			N/A Not a Metric in the FY 2018-20 Strategic Plan

FY 2019-20 Strategic Objectives

In the coming fiscal year, this division will play a major part in supporting Strategic Plan Goals and Strategies through the following objectives:

Goal/Strategy	Objective for FY 2019-20
 Augment the Region's Water Supply	Continue to support the development of a demonstration Satellite Water Recycling Facility at Diablo Country Club as needed.
	Continue working with Contra Costa Water District and Santa Clara Valley Water District to advance the Refinery Recycled Water Exchange Project .
	Continue working with DERWA and its representatives to approve a project design, complete community outreach, and inspect and accept the construction of a new diversion box to allow the temporary diversion of approximately 1.3 MGD of raw wastewater from Central San to Dublin San Ramon Services District for the production of recycled water to meet DERWA's peak summer irrigation demand.

Budget Overview by Expense Category Treatment

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$228,440	\$167,989	\$225,100	\$223,400	\$173,200	(\$50,200)	-22%	(\$51,900)	-23%
Employee Benefits*	\$231,580	\$159,297	\$213,900	\$212,300	\$143,800	(\$68,500)	-32%	(\$70,100)	-33%
Chemicals	\$84,000	\$69,062	\$84,000	\$94,000	\$100,000	\$6,000	6%	\$16,000	19%
Utilities	\$175,000	\$169,408	\$175,000	\$175,000	\$175,000	\$0	0%	\$0	0%
Repairs & Maintenance	\$6,000	\$0	\$6,000	\$6,000	\$6,000	\$0	0%	\$0	0%
Outside Services	\$500	\$0	\$500	\$500	\$500	\$0	0%	\$0	0%
Materials & Supplies	\$1,000	\$286	\$1,000	\$1,000	\$1,000	\$0	0%	\$0	0%
Other Expenses	\$6,600	\$6,836	\$6,600	\$6,600	\$28,200	\$21,600	327%	\$21,600	327%
Total	\$733,120	\$572,878	\$712,100	\$718,800	\$627,700	(\$91,100)	-13%	(\$84,400)	-12%

Distribution

(Including Distribution, Residential Fill Station, Satellite Water Recycling Facility, and Refinery Recycled Water Exchange)

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Salaries & Wages	\$188,650	\$223,994	\$340,500	\$197,000	\$399,300	\$202,300	103%	\$58,800	17%
Employee Benefits*	\$102,948	\$141,155	\$211,344	\$131,897	\$275,398	\$143,501	109%	\$64,054	30%
Repairs & Maintenance	\$23,000	\$4,911	\$23,000	\$23,000	\$23,000	\$0	0%	\$0	0%
Professional & Legal Services	\$14,000	(\$12,395)	\$14,000	\$31,136	\$14,000	(\$17,136)	-55%	\$0	0%
Outside Services	\$202,000	\$55,303	\$214,000	\$172,000	\$245,000	\$73,000	42%	\$31,000	14%
Materials & Supplies	\$4,900	\$391	\$10,900	\$25,000	\$17,900	(\$7,100)	-28%	\$7,000	64%
Other Expenses	\$50,024	\$37,521	\$26,950	\$23,400	\$6,050	(\$17,350)	-74%	(\$20,900)	-78%
Total	\$585,522	\$450,880	\$840,694	\$603,433	\$980,648	\$377,215	63%	\$139,954	17%

* Unfunded Liabilities are included in the Employee Benefits line item for Recycled Water.

Total Recycled Water

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Projected Variance	% Variance	Budget to Budget Variance	% Variance
Total Recycled Water Expenses	\$1,318,642	\$1,023,758	\$1,552,794	\$1,322,233	\$1,608,348	\$286,115	22%	\$55,554	4%

Personnel Requirements

Several divisions support the Recycled Water Program. Personnel for the Recycled Water Program are shown in their respective divisions and total 2.7 full time equivalents. A portion of their labor costs, as appropriate to their time spent on the program, are included in the Recycled Water Budget. In addition, the budget includes funding for three temporary staff to operate the Residential Fill Station and one intern to support recycled water planning.

Regular Status Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Program Manager	0.5	0.5	0.5
Engineering and Technical Services Department Staff	0.7	0.9	0.9
Operations Department Staff	1.2	1.3	1.3
Total	2.4	2.7	2.7

Limited Duration Employees	FY 2017-18 Year-End Actual	FY 2018-19	FY 2019-20
Fill Station Temporary	8.0	3.0	3.0
Intern	0.0	1.0	0.0
Total	8.0	4.0	3.0

Budget Modifications and Contributions to Key Priorities

The Recycled Water Program Operating Budget for FY 2019-20 is \$1.6 million, which remained essentially flat compared to the \$1.6 million budget in FY 2018-19. Utilities increased due to rising electrical expense in the treatment plant. Outside Services increased due to the need for technical services for process support services. Materials & Supplies increased due to meter replacements and in-house repair supplies.

The Recycled Water Program helps Central San address several of the challenges presented by the environment in which it operates. These challenges include the need for all water sector agencies in the arid west to play a role in maintaining a sustainable water supply, with recent drought experiences, and the continuing effects of climate change. The program also addresses the increased focus on resource recovery in the wastewater industry.

Financial Summary for Recycled Water Program

Recycled Water Expense Summary	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Budget Variance	% Variance
Treatment Plant O&M	\$572,878	\$712,100	\$718,800	\$627,700	(\$84,400)	-12%
Treatment Plant Capital	\$1,280,926	\$2,757,000	\$2,757,000	\$3,452,000	\$695,000	25%
Distribution O&M	\$450,880	\$840,694	\$603,433	\$980,648	\$139,954	17%
Distribution Capital	\$28,828	\$100,000	\$145,000	\$700,000	\$600,000	600%
Total Combined Expense	\$2,333,512	\$4,409,794	\$4,224,233	\$5,760,348	\$1,350,554	630%

Recycled Water Revenue Summary	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Budget Variance	% Variance
Treatment Plant (Value Not Charged)	\$457,309	\$1,455,207	\$1,457,148	\$2,193,766	\$738,559	51%
Zone 1 Revenue	\$377,000	\$420,000	\$420,000	\$420,000	\$0	0%
Residential Fill (Value Not Charged)	\$83,308	\$232,185	\$229,122	\$268,156	\$35,971	15%
Satellite Reimbursement	\$32,242	\$81,700	\$81,700	\$144,700	\$63,000	77%
City of Concord Reimbursement	\$478,973	\$1,289,671	\$1,289,671	\$1,659,923	\$370,252	29%
Total Combined Revenue	\$1,428,832	\$3,478,763	\$3,477,641	\$4,686,545	\$1,207,782	172%

Regarding the FY 2019-20 Budget Revenue figures noted above, the \$420,000 Zone 1 Revenue is entirely allocated to O&M (see Table 5 in Financial Summary). The \$1,659,923 City of Concord Reimbursement is contained within the \$14,570,000 for O&M (see Table 5 in Financial Summary) and \$11,630,000 for Capital (see Table 11 in Financial Summary). The \$144,700 Satellite Reimbursement is contained within the \$337,000 Other Revenues (see Table 5 in Financial Summary).

Self-Insurance Program

Central San has self-insured a portion of its liability and property risks since July 1, 1986, when the Board approved the establishment of the Self-Insurance Fund (SIF). Central San currently self-insures general and auto liability risks up to \$500,000 per occurrence and purchases a \$15 million excess liability insurance policy above that retention.

At this time, Central San does not purchase insurance coverage for earthquake or flood losses because insurance programs currently available in California are very expensive for the scope and limits of coverage provided. As a result, Central San self-insures these risks.

Fund Allocation

In 1994, the Government Accounting Standards Board issued statement No. 10 (GASB-10) which established requirements on how public agencies must fund their self-insured risks. To assure compliance with GASB-10, Central San restructured the SIF into three sub-funds. Each of the three sub-funds was established to pay for specific losses and expenses. In FY 2015-16, Sub-Fund B was retired and funds for its risks were transferred to Sub-Fund C.

Table 1 presents a recent financial history and projection of the SIF and shows the FY 2019-20 SIF Budget. The SIF revenue for FY 2019-20 is projected to be \$1,025,900, and expenses are projected to be \$1,073,700, resulting in net SIF reserves of \$7,197,741. The budgeted revenues include the allocation of \$825,000 from the FY 2019-20 Operations and Maintenance (O&M) Fund to the SIF.

Sub-Fund A: Actuarially-Based Risks

Sub-Fund A is used to pay general liability and auto liability claims and expenses within Central San's self-insured retention. Claims in excess of this retention are covered by a liability excess insurance policy that renews annually on July 1.

Under the requirements of GASB-10, risks that can be actuarially studied must be funded based on an actuarial study performed at least every two years. General liability and automobile liability risks are readily studied throughout the insurance and self-insurance industry to project funding levels for future losses. Central San obtained an actuarial review of its self-insured general liability and automobile liability losses in September 2018. The next actuarial report will be performed in August 2020 using loss data through June 30, 2020.

The Board established a policy to maintain the Sub-Fund A reserve at three times the amount of Central San's self-insured retention. The current \$500,000 retention requires a \$1.5 million reserve. This reserve is used to pay claims and expenses throughout the year and is replenished the following fiscal year.

Table 2 shows budgeted revenue for FY 2019-20 of \$41,500 with expenses of \$400,000, for a decrease of \$358,500. This amount will be transferred from Sub-Fund C in order to maintain the minimum reserve at \$1.5 million.

Sub-Fund B: Non-Actuarially-Based Risks

Sub-Fund B has been retired and all reserves for these risks were transferred to Sub-Fund C in FY 2015-16.

Sub-Fund C: Non-GASB-10 Risks

Sub-Fund C has historically covered the Risk Management Program expenses including insurance premiums, self-insured property losses, potential losses from uninsurable risks, and the costs of initiating claims and lawsuits against others. As noted above, this fund now includes reserves for non-GASB-10 risks and catastrophic losses.

The Board established a policy to maintain this reserve at \$5 million. This reserve is used to pay claims and expenses throughout the year and is replenished the following fiscal year. This fund also receives the annual O&M contribution and then re-allocates funds needed to maintain the required reserve in Sub-Fund A.

Table 3 shows budgeted revenue for FY 2019-20 of \$984,400, which includes a transfer from the O&M Fund.

Table 1 – SIF Summary Overview

Account Description	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget
Revenues				
SIF Allocation from O&M Fund	\$585,000	\$779,500	\$779,500	\$825,000
Insurance Allocation from Household Hazardous Waste	\$19,679	\$65,000	\$20,000	\$21,000
Subrogation Recovery	\$516,493	\$0	\$0	\$0
Interest Income	\$91,898	\$115,750	\$163,200	\$179,900
Total Revenue	\$1,213,069	\$960,250	\$962,700	\$1,025,900
Expenditures				
Claims Adjusting	\$0	\$0	\$0	\$2,000
Insurance Consulting	\$0	\$6,500	\$5,000	\$0
Loss Payments	\$173,757	\$253,000	\$167,500	\$275,000
Losses: Audit Adjustment for GASB-10	(\$75,151)	\$0	\$0	\$0
Legal Services	\$8,058	\$20,000	\$80,000	\$80,000
Technical Services	\$67,171	\$75,000	\$40,000	\$85,000
Insurance Premiums	\$539,703	\$570,000	\$570,000	\$631,700
Total Expenses	\$713,538	\$924,500	\$862,500	\$1,073,700
Revenue Over Expense	\$499,531	\$35,750	\$100,200	(\$47,800)
Projected Reserves *				
Beginning of Year	\$6,645,809	\$6,700,026	\$7,145,340	\$7,245,540
Reserve Policy Transfer	\$0	\$0	\$0	\$0
Revenue over Expense	\$499,531	\$35,750	\$100,200	(\$47,800)
End of Year Projected Reserves	\$7,145,340	\$6,735,776	\$7,245,540	\$7,197,740
Allocated Reserves:				
Actuarial Reserves-GASB-10 (Fund A)	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000
Non-Actuarial Reserves-GASB-10 (Fund C)	\$5,645,341	\$5,235,776	\$5,745,541	\$5,697,741
Total Allocated Reserves	\$7,145,341	\$6,735,776	\$7,245,541	\$7,197,741

*Projected reserves may differ from actual reserves due to entries related to the accrual method of accounting

Table 2 – SIF – Sub-Fund A

Account Description	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget
Projected Reserves- Beginning of Year	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000
Revenues				
O&M	\$0	\$0	\$0	\$0
Subrogation Recovery	\$0	\$0	\$0	\$0
Interest	\$21,191	\$26,712	\$37,100	\$41,500
Total Revenue	\$21,191	\$26,712	\$37,100	\$41,500
Expenses				
Losses	\$168,746	\$250,000	\$150,000	\$250,000
Losses: Audit Adjustment for GASB-10	(\$75,151)	\$0	\$0	\$0
Legal Services	\$9,459	\$20,000	\$75,000	\$75,000
Technical	\$67,171	\$75,000	\$30,000	\$75,000
Total Expenses	\$170,225	\$345,000	\$255,000	\$400,000
Revenue Over Expense	(\$149,034)	(\$318,288)	(\$217,900)	(\$358,500)
Projected Reserves *				
Transfer (to)/from Sub-Fund C	\$149,033	\$318,288	\$217,900	\$358,500
Reserve Increase Transfer from Fund C	\$0	\$0	\$0	\$0
Total Reserves Projected End of Year	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000

* Projected reserves may differ from actual reserves due to entries related to the accrual method of accounting

Table 3 – SIF – Sub-Fund C

Account Description	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget
Beginning Reserves	\$5,145,809	\$5,200,026	\$5,645,341	\$5,745,541
Revenues				
O&M	\$585,000	\$779,500	\$779,500	\$825,000
Subrogation Recovery	\$516,493	\$0	\$0	\$0
Insurance Recovery from Household Hazardous Waste Partners	\$19,679	\$65,000	\$20,000	\$21,000
Interest	\$70,707	\$89,038	\$126,100	\$138,400
Total Revenue	\$1,191,878	\$933,538	\$925,600	\$984,400
Expenses				
Losses	\$5,011	\$3,000	\$17,500	\$25,000
Legal	-\$1,401	\$0	\$5,000	\$5,000
Technical	\$0	\$0	\$10,000	\$10,000
Insurance Premiums	\$539,703	\$570,000	\$570,000	\$631,700
Insurance Consulting Services	\$0	\$6,500	\$5,000	\$0
Claims Adjustment	\$0	\$0	\$0	\$2,000
Total Expenses	\$543,313	\$579,500	\$607,500	\$673,700
Revenue Over Expense	\$648,565	\$354,038	\$318,100	\$310,700
Projected Reserves				
Transfer (to)/from Sub-Fund A	(\$149,033)	(\$318,288)	(\$217,900)	(\$358,500)
Transfer (to)/from Sub-Fund B	\$0	\$0	\$0	\$0
Reserve Increase to Sub-Fund A (Audit Adjustment for GASB-10)	\$0	\$0	\$0	\$0
Reserve Policy Transfers	\$0	\$0	\$0	\$0
Total Reserves Projected End of Year	\$5,645,341	\$5,235,776	\$5,745,541	\$5,697,741

* Projected reserves may differ from actual reserves due to entries related to the accrual method of accounting

Figure 1 - History of Revenue, Expense, and Reserve Balance

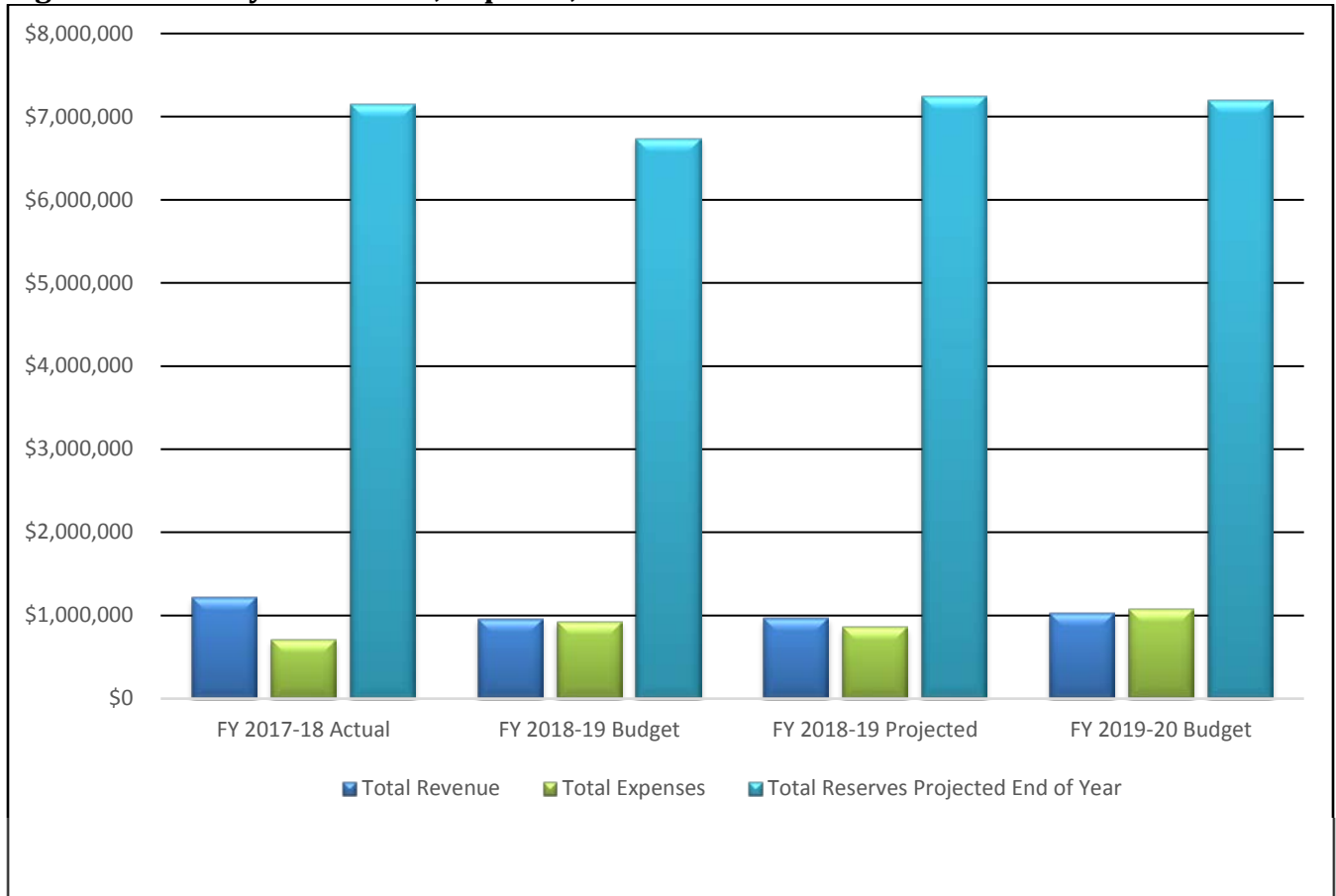


Figure 2 - History of Loss Payment and Insurance Premiums

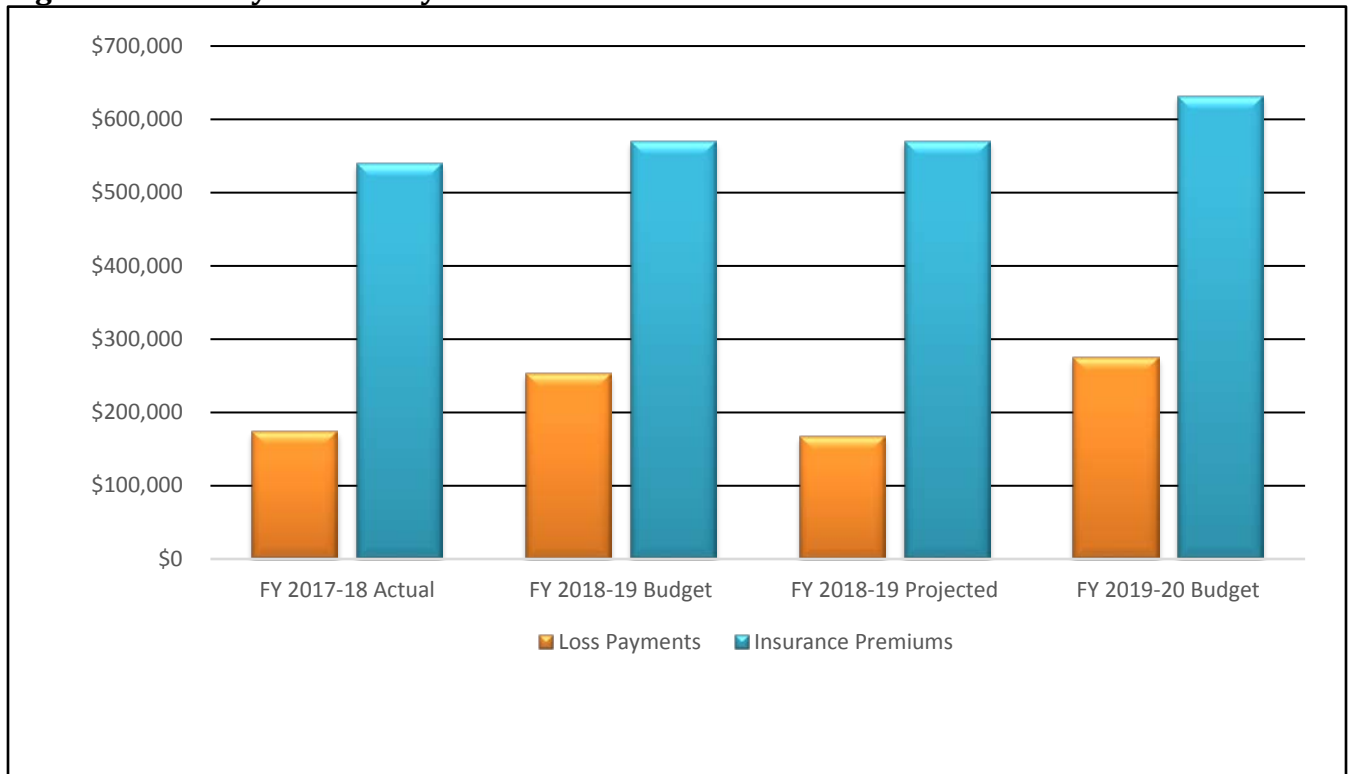


Figure 3 – Reserves by Sub-Fund

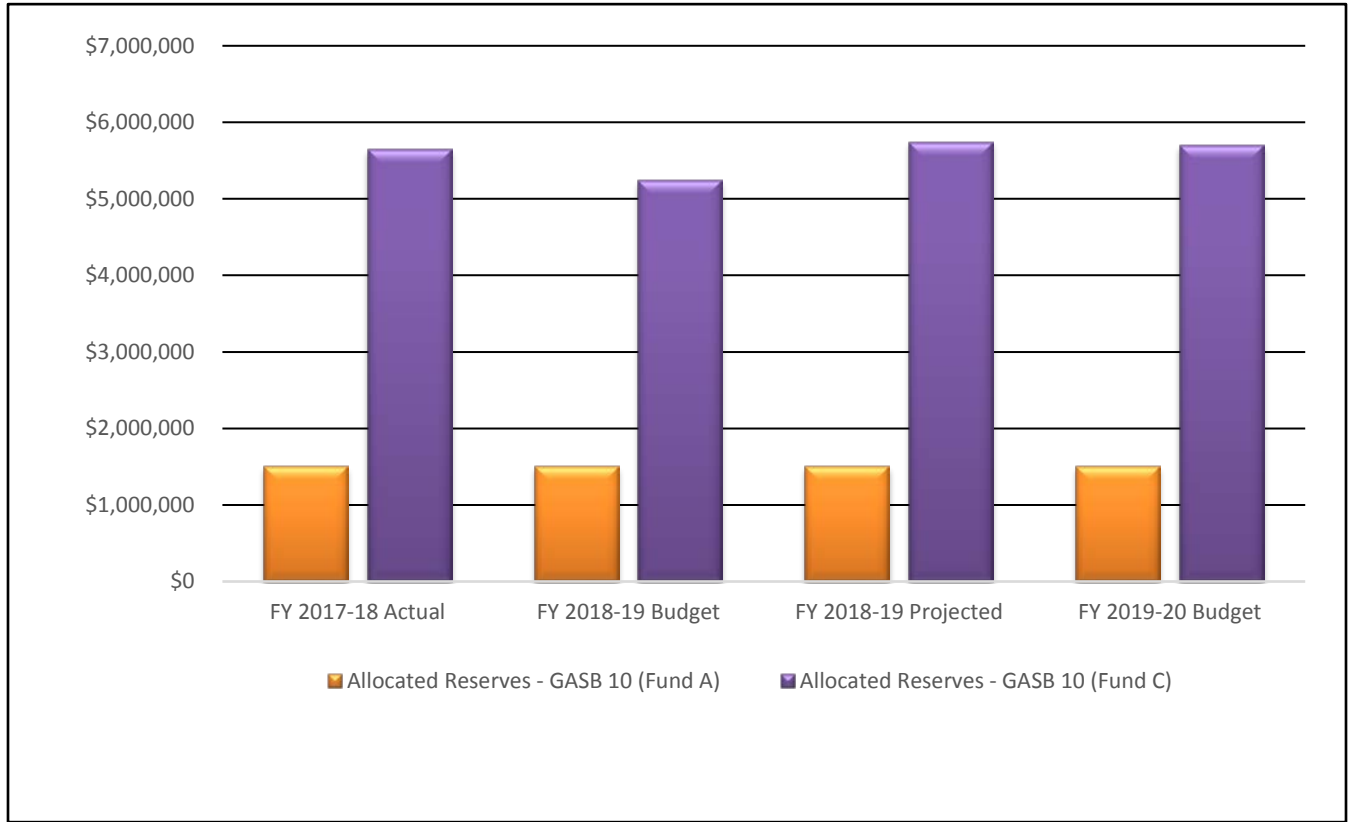
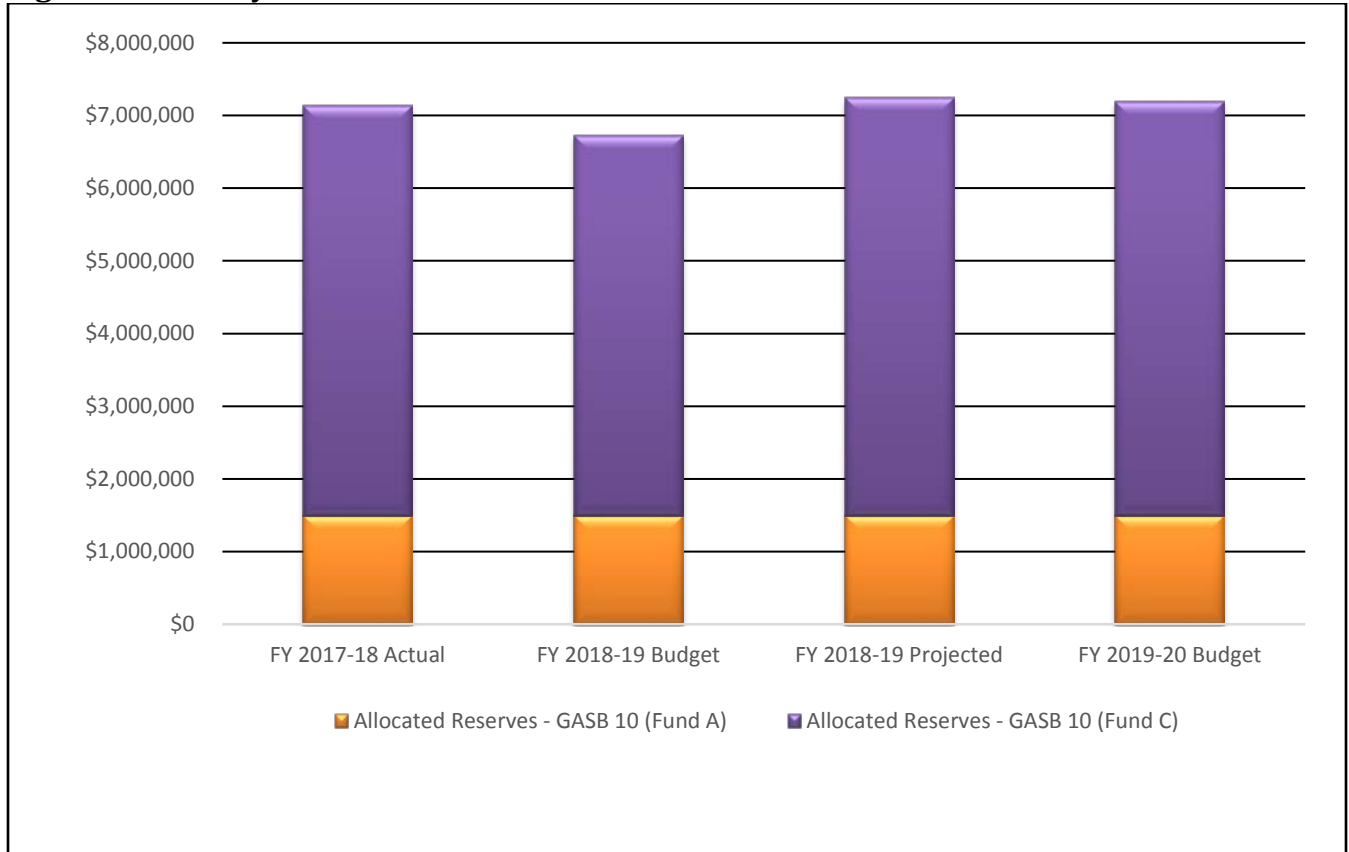


Figure 4 – History of Reserves



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Capital Improvement Program

OVERVIEW

Central San funds an extensive Capital Improvement Program (CIP) designed to preserve, maintain, and enhance Central San's assets, meet regulatory requirements, accommodate the community's needs, and protect public health and the environment. Capital improvements are construction or renovation activities that add value to Central San's fixed assets (pipelines, buildings, facilities, and equipment) or significantly extend their useful life.

Capital Expenditures Definition

Capital expenditures are cash outlays by Central San 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 expectancy of one year or more. Examples of capital assets include treatment plant renovations, collection system sewer replacements, equipment replacements, vehicle acquisitions, buildings, and land. Land is always considered a capital asset, regardless of value. All capital assets and improvements acquired or constructed are included in the CIP.

Capital Improvement Program Process

Annually, Central San updates its Ten-Year Capital Improvement Plan (Ten-Year CIP). The CIP identifies and prioritizes capital projects needed to accomplish Central San's Strategic Plan and provides the basis for project scheduling, staffing, and long-range financial planning. The CIP also serves as the framework for rate setting and decisions based on planned expenditures. The CIP undergoes several levels of review by Central San as detailed in the Ten-Year CIP Section. Once a project is determined to be necessary, usually based on operational or maintenance needs or condition of the existing asset, the project is listed in the Capital Improvement Budget (CIB). In addition, new or rescheduled projects may occur during any given year due to urgent requirements or unforeseen circumstances. These projects are referred to as new or contingency projects and are included in the CIB as needed.

The CIB provides a detailed presentation of the estimated budget needed for the first year of the Ten-Year CIP beginning on July 1 and ending on June 30, referred to as a fiscal year. Since most capital projects take longer than a year to complete, future years are presented and estimated to predict the potential budget appropriation for the current projects. The CIB includes expenditures for the planning, design, and construction of capital projects and is categorized in four programs: Collection System; Treatment Plant; General Improvements; and Recycled Water. All CIB projects are reviewed and prioritized yearly, especially as projects are refined during the predesign phase which include comprehensive condition assessments. The CIB also includes two types of contingency funding of capital projects. The first, project contingency, is determined at the time of award of any project. The second, CIB contingency, can be used in any program and is intended to cover contingency projects and potential budget overruns. By adopting the CIB, the Board of Directors (Board) authorizes staff to pursue work on the identified projects in all four programs with firm individual project budgets. In addition, any previously approved budget may carry forward to the current fiscal year. Staff reports to the Board the final CIB expenditures after the end of each fiscal year and updates the Board Committee on the status of the CIP.

Capital Revenue

The CIP is funded by the Sewer Construction Fund’s fees and charges listed below which are discussed in detail in the Financial Summary.

- Capacity Fees
- Pumped Zone Fees
- Property Taxes
- Interest
- Sewer Service Charges
- Reimbursement from Others

While Central San generally follows a pay-as-you-go philosophy, Sewer Service Charge rate increases can be mitigated by utilizing bond funding to spread the payment over time. This is anticipated for FY 2020-21.

CIB Project Prioritization

The projects included in the FY 2019-20 CIB have been prioritized to ensure the best use of available and approved funds. Each project was evaluated using a prioritization scoring system that includes input from stakeholders within the Operations and Engineering Departments. The prioritization scoring system uses existing Central San prioritization strategies, including guidelines developed by the Water Environment & Reuse Foundation and prioritization procedures from the National Association of Clean Water Agencies’ member agencies.

Each project is assigned a priority ranking of **Critical, Very High, High, or Medium** based on the project’s score. The criteria used to develop the scores take into consideration the "triple bottom line plus," or social, environmental, financial, and technical benefits of the project and their applicability to Central San’s Vision, Mission, and Values. New projects that were identified as part of the Comprehensive Wastewater Master Plan were prioritized through discussions and workshops with Central San staff. Criteria fell into three categories: 1) Essential Commitments; 2) Project Benefits; and 3) Operational Reliability, as summarized below:

Criteria Category: Essential Commitments
Complies with Regulatory Requirements and Mandates
Meets Commitment with Outside Agency or Existing Contract
Reduces Potential Health or Safety Hazards
Implements Board of Directors’ Policy/Priority
Increases Capacity to Meet Projected Build-out
Criteria Category: Project Benefits
Impacts Phasing or Implementation Schedule for Other Projects
Optimizes Capital Expenditures
Reduces Operations and Maintenance Costs
Reduces Social Impacts
Increases Sustainable Use of Natural or Existing Resources
Reduces Environmental Impacts
Supports Timely Adoption of Technology Improvements
Criteria Category: Operational Reliability
Consistent with Asset Management Program
Improves Reliability and System Performance
Improves Facility-Wide Resiliency



Capital Improvement Budget FY 2018-19 Accomplishments

Sewer Replacement: Several projects have replaced or rehabilitated approximately 31,700 feet (6.0 miles) of sewers, most of which were 6-inch vitrified clay pipes in poor condition. Construction included sewer replacement, new manholes, and other infrastructure improvements in public right-of-way and backyard easements. Trenchless technology was utilized where possible for cost effectiveness and to minimize construction impacts. Central San staff also designed and bid approximately 32,000 feet (6.0 miles) of sewer replacement this fiscal year and coordinated the projects with city paving programs and other utilities throughout the service area.



Sewer Replacement in a Residential Neighborhood and Creek Crossing

Regulatory and Safety Projects: One of the major regulatory challenges facing Central San concerns the air pollution control equipment on the existing furnaces at the wastewater treatment plant. The Solids Handling Facility Improvements Project will replace this equipment to meet current and future regulatory needs. In addition, this project will include structural modifications to the building, furnaces, and electrical bracing to meet current seismic standards. The final design is underway with design completion expected by 2020.



3-D Model Rendition of the Solids Handling Facility Improvements Project

Safety projects included the completion of the Pump and Blower Building Seismic Upgrade and the start of the Plant Operations Building (POB) Seismic Upgrades construction, both projects provide for employee safety while including improvements to ensure reliability of critical facilities that process wastewater.

Infrastructure Replacement: The main emphasis of the CIP is replacing deteriorated infrastructure. Last fiscal year, several projects were initiated in design or construction and included the following major efforts:

- **Mechanical and Concrete Renovations:** This construction project is focused on replacing critical gates, mechanical systems, and rehabilitating concrete structures at the wastewater treatment plant. In addition, this project will rehabilitate the odor control towers and associated electrical for two critical process areas (Headworks and Primary Sedimentation).
- **Pumping Station Upgrades – Phase 1:** Final design is ongoing for needed electrical and mechanical equipment replacement at the Moraga, Orinda Crossroads, and Flush Kleen Pumping Stations. Planning efforts for Phase 2 including Martinez, Maltby, and Fairview Pumping Stations will continue into the next fiscal year.
- **Filter Plant and Clearwell Improvements – Phase 1A:** The preliminary design is complete, and the recommended project includes replacement of deteriorated electrical infrastructure at the Clearwell, new pumps, recycled water storage improvements, and filter system modifications. The final design will continue this fiscal year. Other improvements will be accomplished under future phases.
- **Steam and Aeration Blower Systems Renovation:** Condition assessments are underway for the steam and heat recovery systems at the treatment plant and several other areas in the aeration system, including the blowers, will be evaluated this fiscal year. This project also includes evaluation of the plant electrical systems. The planning of this project will continue into next year.
- **Projects completed:** Several projects are either at the substantial completion or close out phase of construction, these include the Pump and Blower Building Seismic Upgrade (Closed), Plant Energy Optimization (Closed), Equipment Replacement (Closed), Headworks Screenings Upgrade (Substantial Completion), Piping Renovation – Phase 9 (Substantial Completion), and Recycled Water Clearwell Repairs (Substantial Completion). All of which replaced or protected critical infrastructure to allow Central San to continue to effectively collect, treat and process wastewater, and deliver recycled water in compliance with all recycling requirements.



Rehabilitating the odor control tower under the Mechanical and Concrete Project



New potable water tank installed Piping Renovation – Phase 9

FY 2019-20 Capital Improvement Budget

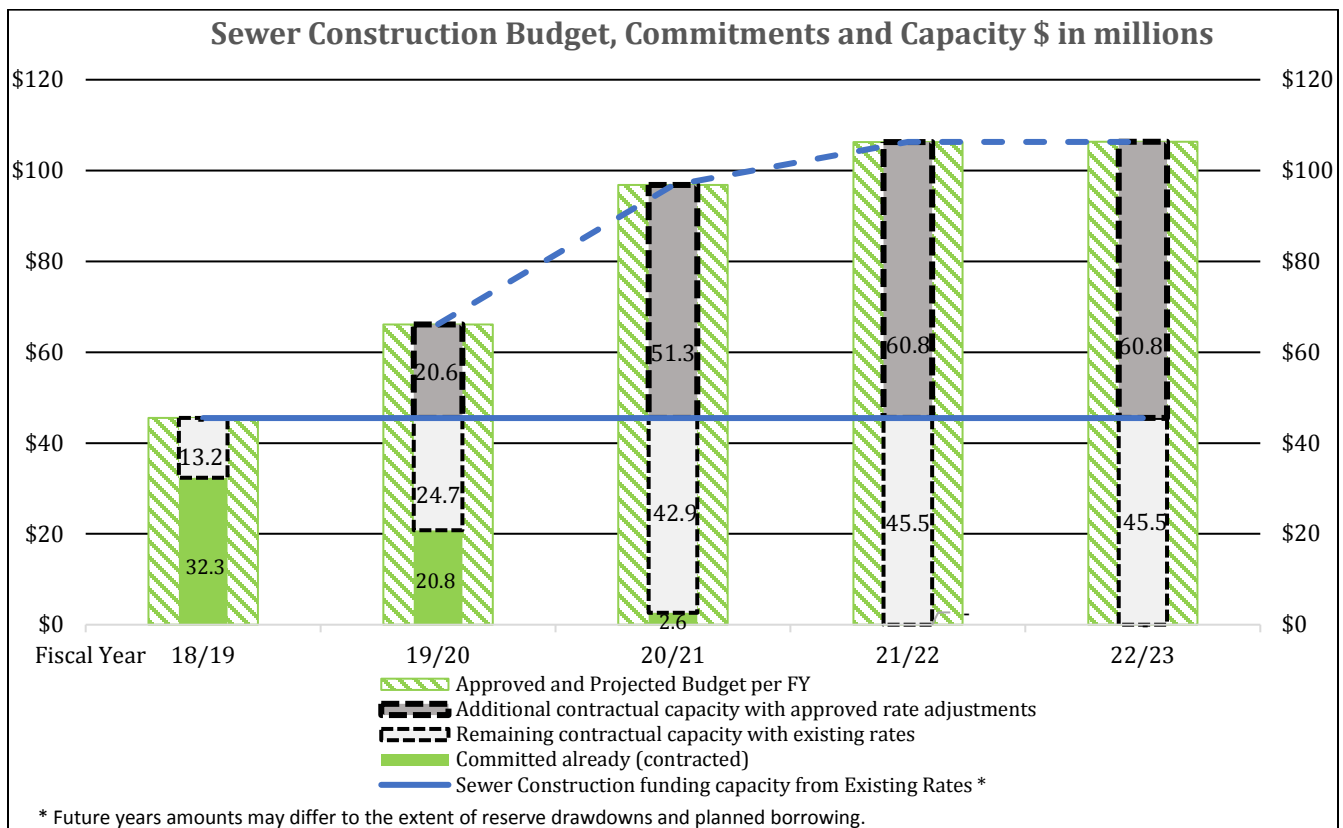
The CIB Budget to date is approximately \$67.8 million. The budget needed for all ongoing and new projects in FY 2019-20 is \$66.2 million. The future year estimated budget for these projects is at \$335.4 million. Combined the total estimated budget for the identified projects in the FY 2019-20 CIB is \$469.4 million. The 2019 Ten-Year CIP is projected to be \$867.2 million as shown below in Table 1:

Table 1 – FY 2019-20 CIB per Program

Program	Budget to Date (1)	FY 2019-20 (2)	Future FYs (2)(2)	Total Estimated Project Budgets (1)+(2)+(3)	FY 2019 Ten Year CIP
Collection System	\$11,649,970	\$27,129,000	\$97,770,000	\$136,548,970	\$349,511,000
Treatment Plant	\$42,250,451	\$28,631,000	\$188,522,000	\$259,403,451	\$413,202,000
General Improvements	\$8,695,483	\$5,369,000	\$10,400,000	\$24,464,483	\$25,998,000
Recycled Water	\$5,239,894	\$4,152,000	\$28,717,000	\$38,108,894	\$55,119,000
CIB Contingency	\$0	\$895,000	\$10,000,000	\$10,895,000	\$23,395,000
Totals:	\$67,835,798	\$66,176,000	\$335,409,000	\$469,420,798	\$867,225,000

FY 2018-19 Capital Improvement Budget Construction Commitments

As of April 30, 2019, the total construction commitments authorized by the Board in FY 2018-19 or previous is \$55.8 million. This includes all construction contracts, purchase orders, construction management, and supporting services to complete the construction phase within the CIB.



FY 2019-20 Capital Improvement Budget Major Project Emphasis

Although the CIB is comprised of budgets for many individual projects, there are several major projects that together account for most of the total capital budget. In FY 2019-20, the emphasis will be on thirteen large projects (those projects over \$1.5 million), which together account for \$51.1 million or 77% of the total CIB for the year. Each major project budget is shown below:

1. Solids Handling Facility Improvements		
FY 2019-20 Budget: \$6,550,000	Estimated total project cost:	\$93,376,000
	Estimated completion date:	FY 2023-24
2. Mechanical and Concrete Renovations		
FY 2019-20 Budget: \$6,400,000	Estimated total project cost:	\$14,047,000
	Estimated completion date:	FY 2020-21
3. Pumping Station Upgrades – Phase 1		
FY 2019-20 Budget: \$4,600,000	Estimated total project cost:	\$27,850,000
	Estimated completion date:	FY 2022-23
4. Lafayette Sewer Renovation – Phase 13		
FY 2019-20 Budget: \$3,817,000	Estimated total project cost:	\$4,317,000
	Estimated completion date:	December 2019
5. Walnut Creek Sewer Renovation – Phase 13		
FY 2019-20 Budget: \$3,621,000	Estimated total project cost:	\$4,121,000
	Estimated completion date:	December 2019
6. South Orinda Sewer Renovation – Phase 7		
FY 2019-20 Budget: \$3,637,000	Estimated total project cost:	\$4,137,000
	Estimated completion date:	December 2019
7. Danville Sewer Renovation – Phase 3		
FY 2019-20 Budget: \$4,100,000	Estimated total project cost:	\$4,600,000
	Estimated completion date:	November 2020
8. Collection System Sewer Renovation – Phase 1		
FY 2019-20 Budget: \$4,473,000	Estimated total project cost:	\$42,579,527
	Estimated completion date:	FY 2021-22
9. Filter Plant and Clearwell Improvements – Phase 1A		
FY 2019-20 Budget: \$3,452,000	Estimated total project cost:	\$33,000,000
	Estimated completion date:	FY 2023-24
10. ERP Replacement		
FY 2019-20 Budget: \$2,000,000	Estimated total project cost:	\$4,000,000
	Estimated completion date:	FY 2021-22
11. Steam and Aeration Blower Systems Renovations		
FY 2019-20 Budget: \$3,500,000	Estimated total project cost:	\$62,000,000
	Estimated completion date:	FY 2026-27
12. POB Seismic Upgrades		
FY 2019-20 Budget: \$2,793,000	Estimated total project cost:	\$6,124,177
	Estimated completion date:	February 2020
13. Annual Infrastructure Replacement		
FY 2019-20 Budget: \$2,200,000	Estimated total project cost:	\$32,800,000
	Estimated completion date:	FY 2029-30

Capital Improvement Budget Modifications

Changes to projects do occur and include rescheduling, consolidation, phasing, modification of scope, and renaming of projects since last fiscal year and include:

Consolidation or Phasing of Existing Projects:

- The Piping Renovation – Phase 9, District Project 7330, scope and budget was combined with the Treatment Plant Urgent Repairs, District Project 7314, and the Water System Upgrades.
- The Pumping Station Upgrades in the Collection System Program has been split into two project phases. Phase 1 will include renovation of the Moraga, Orinda Crossroads, and Flush Kleen Pumping Stations. Phase 2 will include renovation of the Martinez, Fairview, and Maltby Pumping Stations.
- The Collection System Sewer Renovation – Phase 1 project has been split to fund the construction of the Walnut Creek Sewer Renovation – Phase 13, Lafayette Sewer Renovation – Phase 13, South Orinda Sewer Renovation – Phase 7, and Danville Sewer Renovation – Phase 3 as planned and within budget.
- The Plant Control System Network Upgrades was combined with the Programmable Logic Control Systems Upgrade and Information Technology (IT) Development for related fiber work at the Martinez campus for bidding and construction.
- The POB Seismic project was combined with the Property and Building Improvements to fund the tenant improvements and other related items at the Operations building. The Property and Building Improvement has been closed.
- The Cyber Security was closed and consolidated into the IT Development Project.
- The ERP Replacement was separated from the IT Development Project and is now tracked under a new project number.
- The Filter Plant & Clearwell Improvements will include Phase 1A.

Modification of Scope and Budget:

- The Mechanical and Concrete Renovations Project includes scope from the Odor Control Upgrades – Phase 1 and the Outfall Improvements – Phase 7 Projects. The budgets for these projects have been updated to reflect the changes.
- The Furnace Burner Upgrades Project has been closed and scope and budget has been included in the Solids Handling Facility Improvements.
- The Filter Plant & Clearwell Improvements scope and budget changed significantly and has been split into two phases, 1A and 1B. Phase 1B is included in the Ten-Year CIP.
- The development sewerage support includes the new scope and budget to cover the capitalization of the developer inspection.

Renaming Projects:

- The Energy Recovery and Blower Replacement Project has been renamed “Steam and Aeration Blower Systems Renovations.”

California Environmental Quality Act (CEQA) Compliance

The CIB is exempt from CEQA because it is a planning study (Central San CEQA Guidelines Section 15262). Some projects included in the CIB are designated as exempt under CEQA. If appropriate, a Notice of Exemption may be filed for such projects following a future action of the Board, such as an award of a construction contract. Other CIB projects are designated as needing a "Negative Declaration" or "Environmental Impact Report" to comply with CEQA. Non-exempt CEQA projects will be considered for Board approval on a case-by-case basis after preparation and certification of the appropriate CEQA documentation. The following table presents the CEQA compliance status of projects for which staff is requesting an authorization of Sewer Construction Funds. The anticipated types of CEQA documentation required for each project are listed below:

- *Exemption:* Staff will recommend an Exemption Finding, if still appropriate, when each project receives approval consideration at a future Board meeting.
- *Negative Declaration:* Staff will prepare a Negative Declaration for the project. Board consideration of approval of the project would follow its approval of the Negative Declaration.
- *Environmental Impact Report:* Staff will direct preparation of an Environmental Impact Report. Board consideration of approval of the project would follow certification of the Environmental Impact Report.
- *CEQA Documents Completed:* For these projects, CEQA compliance has already been achieved through documents previously prepared and approved.

CEQA Compliance Summary for FY 2019-20

Program/Project		Exemption	CEQA Document Required
COLLECTION SYSTEM PROGRAM			
5991	Pleasant Hill Sewer Renovation – Phase 2	X	
6534	Harper Lane Contractual Assessment District	X	
6679	Cordell Drive Contractual Assessment District	X	
8419	Collection System Planning	X	
8436	Pumping Station Upgrades – Phase 1	X	
8441	Cured-in-Place Pipe (CIPP) Blanket Contract	X	
8442	Pumping Station Equipment and Piping Replacement – Phase 2	X	
8443	Large Diameter Pipeline Inspection Program	X	
8444	Force Main Inspection Program	X	
8447	Pumping Station Security Improvements	X	
8448	Manhole Modification Project	X	
8449	Collection System Modeling Support	X	
8450	Development Sewerage Support	X	
8451	Collection System Sewer Renovation – Phase 1	X	
8452	Lafayette Sewer Renovation – Phase 13	X	
8454	South Orinda Sewer Renovation – Phase 7	X	
8455	Walnut Creek Sewer Renovation – Phase 13	X	
8456	Danville Sewer Renovation – Phase 3	X	
8457	Pumping Stations Upgrades – Phase 2	X	Planning is exempt; more information is needed on future aspects of this project to determine appropriate CEQA documentation.

Program/Project		Exemption	CEQA Document Required
TREATMENT PLANT PROGRAM			
7292	Switchgear Refurbishment – Phase 2	X	
7304	Programmable Logic Controller Systems Upgrades	X	
7315	Applied Research and Innovations	X	
7317	Plant Control System Network Upgrades	X	
7322	Fire Protection System – Phase 2	X	
7327	Headworks Screenings Upgrade	X	
7328	Influent Pump Electrical Improvements	X	
7330	Piping Renovation – Phase 9	X	
7339	Plant Control System I/O Replacement	X	
7341	Walnut Creek/Grayson Creek Levee Rehab		Contra Costa County Flood Control and Water Conservation District will be the Lead Agency and will determine appropriate CEQA documentation.
7348	Solids Handling Facility Improvements	X	
7349	Steam and Aeration Blower Systems Renovations	X	Planning is exempt; more information is needed on future aspects of this project to determine appropriate CEQA documentation.
7351	Mechanical and Concrete Renovations	X	
7352	UV Disinfection Upgrades	X	
7353	Outfall Improvements – Phase 7	X	
7354	Treatment Plant Security Improvements	X	
7355	Odor Control Upgrades – Phase 1	X	
7357	Plant-Wide Instrumentation Upgrades	X	
7359	Solids Conditioning Building Roof Replacement	X	
7360	Existing Plant Facilities As-Is Drawings	X	
7362	POB Seismic Upgrades	X	
7363	Treatment Plant Planning	X	
7364	Treatment Plant Safety Enhancement – Phase 5	X	
7369	Piping Renovation – Phase 10	X	
7370	Annual Infrastructure Replacement	X	
7371	Condition Assessment of Buried Pipelines	X	Planning is exempt; more information is needed on future aspects of this project to determine appropriate CEQA documentation.

Program/Project		Exemption	CEQA Document Required
GENERAL IMPROVEMENTS PROGRAM			
8207	General Security and Access	X	
8230	Capital Legal Services	X	
8236	District Easement Acquisition	X	
8240	IT Development	X	
8243	Server Room Relocation	X	
8249	CSO Dump Pad	X	
8250	ERP Replacement	X	
8516	Equipment Acquisition	X	
8517	Vehicle Replacement Program	X	
RECYCLED WATER PROGRAM			
7306	Zone 1 Recycled Water	X	
7346	Recycled Water Distribution System Surge Analysis	X	
7361	Filter Plant and Clearwell Improvements – Phase 1A	X	
7365	Recycled Water Clearwell Repairs	X	
7366	Recycled Water Distribution System Renovations Program	X	
7368	Water Exchange Project	X	Planning is exempt; more information is needed on future aspects of this project to determine appropriate CEQA documentation.

Capital Improvement Budget – Collection System Program

The following are the major points of emphasis for the FY 2019-20 Collection System Program:

- Renovate sewers as they reach the end of their useful lives to avoid structural failure, sanitary sewer overflows, and control maintenance costs;
- Improve the reliability and operations of the pumping stations; and
- Comply with the Riverwatch settlement agreement.

The process for project identification, prioritization, and scheduling takes into consideration the following seven major components:

- Reduce impacts to customers/residents and the communities;
- Results from Central San’s *InfoMaster*® model, which is an advanced Geographic Information System integrated risk-based analytical asset management and capital planning tool;
- Results from Central San's TV Inspection Program that identify lines in need of rehabilitation or replacement;
- Collection System Operations maintenance records including overflows and stoppages;
- The Pumping Station Inventory Update, which identifies necessary reliability improvements;
- Preliminary Design Report for the renovation and upgrades at six major pumping stations;
- Collection System Master Plan, which identifies capacity limitations in the collection system; and
- Coordination with capital improvement programs for paving and pipeline projects of other agencies/utilities.

This process allows staff to establish priorities and schedules for the individual elements of the system that are incorporated into the Capital Improvement Budget and plan. Assessment tools, such as *InfoMaster*® and Closed-Circuit TV inspection, are utilized to confirm the need for projects. After priorities and schedules are set, projects proceed to design and construction. At each step of the process, the level of accuracy in project scope, schedule, and cost improves. The Collection System Program is comprised of the following projects and planned expenditures:

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Example of Project Driver(s)

Each project is described on the following pages. Each project summary includes project name, description, prioritization, purpose, operating department impact and funding source, location, budgetary information, and drivers (i.e., what is the main impetus for a project). The main driver(s) for each project is (are) identified by highlighting in yellow background color and **bold** text. Driver(s) that is (are) not as significant or not relevant is (are) displayed in gray.

CIB Table 2 – FY 2019-20 Collection System Program Budget/Project Summary

Project Number	Project	Budget-to-Date	FY 2019-20	Future FYs	Total Project Cost
5991	Pleasant Hill Sewer Renovation - Phase 2	\$460,000	\$0	\$2,500,000	\$2,960,000
6534	Harper Lane Contractual Assessment District	\$800,000	\$0	\$0	\$800,000
6679	Cordell Drive Contractual Assessment District	\$123,443	\$0	\$0	\$123,443
8419	Collection System Planning	\$985,000	\$200,000	\$600,000	\$1,785,000
8436	Pumping Station Upgrades - Phase 1	\$3,747,000	\$4,600,000	\$19,503,000	\$27,850,000
8441	Cured-in-Place Pipe Contract 2017-2020	\$400,000	\$200,000	\$0	\$600,000
8442	Pumping Station Equipment and Piping Replacement - Phase 2	\$61,000	\$103,000	\$600,000	\$764,000
8443	Large Diameter Pipeline Inspection Program	\$250,000	\$515,000	\$1,060,000	\$1,825,000
8444	Force Main Inspection Program	\$125,000	\$0	\$1,800,000	\$1,925,000
8447	Pumping Station Security Improvements	\$156,000	\$51,000	\$371,000	\$578,000
8448	Manhole Modifications	\$700,000	\$309,000	\$1,280,000	\$2,289,000
8449	Collection System Modeling Support	\$200,000	\$103,000	\$212,000	\$515,000
8450	Development Sewerage Support	\$1,130,000	\$900,000	\$6,300,000	\$8,330,000
8451	Collection System Sewer Renovation - Phase 1	\$462,527	\$4,473,000	\$37,644,000	\$42,579,527
8452*	Lafayette Sewer Renovation - Phase 13	\$500,000	\$3,817,000	\$0	\$4,317,000
8454*	South Orinda Sewer Renovation – Phase 7	\$500,000	\$3,637,000	\$0	\$4,137,000
8455*	Walnut Creek Sewer Renovation – Phase 13	\$500,000	\$3,621,000	\$0	\$4,121,000
8456*	Danville Sewer Renovation - Phase 3	\$500,000	\$4,100,000	\$0	\$4,600,000
8457	Pumping Stations Upgrades - Phase 2	\$50,000	\$500,000	\$25,900,000	\$26,450,000
	Total Program	\$11,649,970	\$27,129,000	\$97,770,000	\$136,548,970

*New project in FY 2019-20

Pleasant Hill Sewer Renovation – Phase 2 – District Project 5991

Program	Phase	Priority Rank	Ranking Score
Collection System	Design	Very High	60

Purpose:

To replace and renovate small diameter sewers within the City of Pleasant Hill.

Drivers:

Central San’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful lives as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse.

More than 300 miles of the small diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry weather sanitary sewer overflows (SSOs). Central San implemented a sewer renovation program in 1991 to replace small diameter sewers to control future maintenance requirements and costs, to minimize the number of overflows, to limit the quantity of rainfall entering the collection system, and to improve the level of service provided to customers.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The Pleasant Hill Sewer Renovation – Phase 2 Project will replace or rehabilitate small diameter sewers located in both public right-of-way and easements within the City of Pleasant Hill. Design and construction for this project will be included and coordinated with the Collection System Sewer Renovation – Phase 1 Project.

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): City of Pleasant Hill

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$183,000	\$0	\$0	\$0	\$183,000
Design	\$277,000	\$0	\$250,000	\$0	\$527,000
Construction	\$0	\$0	\$1,250,000	\$1,000,000	\$2,250,000
FY Total	\$460,000	\$0	\$1,500,000	\$1,000,000	\$2,960,000

Harper Lane Contractual Assessment District – District Project 6534

Program	Phase	Priority Rank	Ranking Score
Collection System	Construction	Board Approved	N/A

Purpose:

To provide a financing mechanism for the extension of public sewers into areas that are currently served by septic tanks, referred to as Contractual Assessment Districts (CADs).

Drivers:

In certain instances, the cost to extend public sewers into an area serviced by septic tanks can be an extreme financial burden for one owner or even a small group of owners. Central San developed the CAD Program to address this financial burden. The CAD process provides a means to finance the cost of sewer improvements over time at a fixed interest rate. The CAD assessments are placed on the customers' property tax bills each year until the entire amount is reimbursed to Central San. Each CAD is presented to the Board of Directors for approval.

Description:

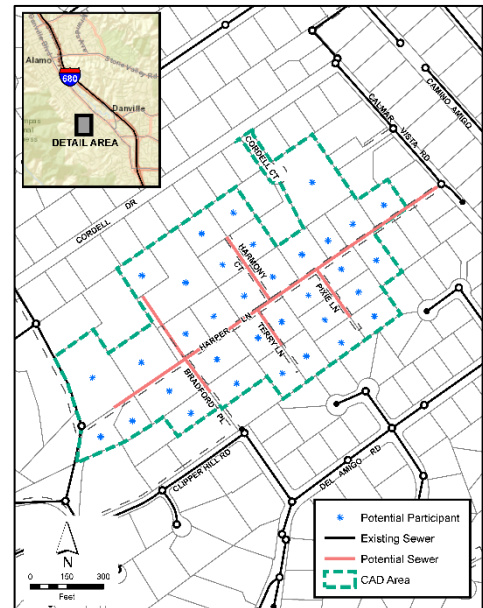
The Harper Lane Area CAD in the Town of Danville will install up to 2,775 feet of 8-inch sewer and infrastructure to serve up to 34 properties. This is a cost neutral project offset by property owners.

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues and repaid by the CAD participants.

Location(s): Town of Danville

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$800,000	\$0	\$0	\$0	\$800,000
FY Total	\$800,000	\$0	\$0	\$0	\$800,000

Cordell Drive Contractual Assessment District – District Project 6679

Program	Phase	Priority Rank	Ranking Score
Collection System	Construction	Board Approved	N/A

Purpose:

To provide a financing mechanism for the extension of public sewers into areas that are currently served by septic tanks, referred to as Contractual Assessment Districts (CADs).

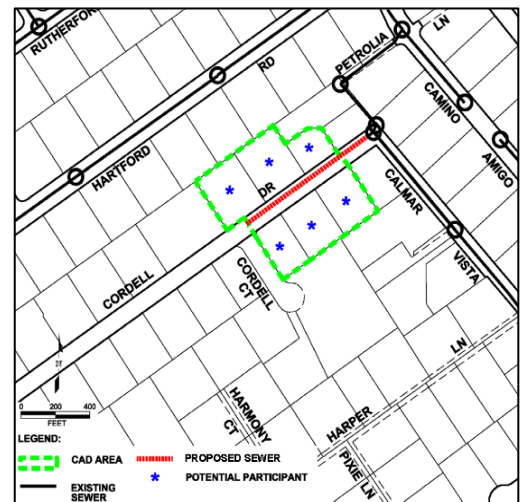
Drivers:

In certain instances, the cost to extend public sewers into an area serviced by septic tanks can be an extreme financial burden for one owner or even a small group of owners. Central San developed the CAD Program to address this financial burden. The CAD process provides a means to finance the cost of sewer improvements over time at a fixed interest rate. The CAD assessments are placed on the customers' property tax bills each year until the entire amount is reimbursed to Central San. Each CAD is presented to the Board of Directors for approval.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

The Cordell Drive CAD in the Town of Danville will install up to 386 feet of 8-inch sewer and infrastructure to serve up to six properties. This is a cost neutral project offset by property owners.



Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues and repaid by the CAD participants.

Location(s): Town of Danville

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$123,443	\$0	\$0	\$0	\$123,443
FY Total	\$123,443	\$0	\$0	\$0	\$123,443

Collection System Planning – District Project 8419

Program	Phase	Priority Rank	Ranking Score
Collection System	Planning	Critical	70

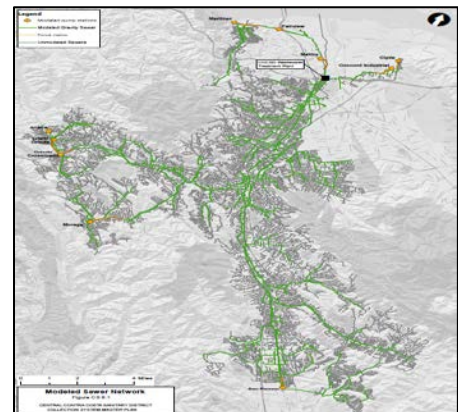
Purpose:

To complete evaluations for upcoming regulatory requirements, assess collection system renovation needs, evaluate sewer capacities, and investigate optimization and pilot opportunities.

Drivers:

Central San owns and operates over 1,540 miles of sewer and 18 pumping stations. Ongoing planning and evaluations are required to proactively address aging infrastructure, capacity needs, upcoming regulations, and sustainability drivers. An *InfoMaster*® sewer replacement risk model is maintained by staff to identify and prioritize sewer renovation needs. *InfoWorks*® hydrodynamic model is maintained by staff to identify capacity deficiencies and renovation needs. This project also includes developing the *InfoMaster*® framework needed to incorporate force main and large diameter sewer inspection results into a risk-based, long-term renovation and inspection strategy.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The following are major elements included in the project:

- Use *InfoWorks*® to evaluate capacity for proposed developments, special discharge requests, sewer renovation projects, and proposed construction shutdowns and bypasses
- Update *InfoMaster*® sewer risk model and long-term sewer renovation need projections to incorporate force main and large diameter sewer inspection results to develop long-term renovation and ongoing condition assessment strategies
- Identify and evaluate promising technologies, optimizations, and pilots applicable to collection system and pumping station operations

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Collection System and Pumping Stations

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$985,000	\$200,000	\$200,000	\$400,000	\$1,785,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$985,000	\$200,000	\$200,000	\$400,000	\$1,785,000

Pumping Station Upgrades – Phase 1– District Project 8436

Program	Phase	Priority Rank	Ranking Score
Collection System	Design	Critical	80

Purpose:

To address aging infrastructure and reliability needs at the Moraga, Flush Kleen, and Orinda Crossroads Pumping Stations.

Drivers:

As part of the Comprehensive Wastewater Master Plan, a comprehensive condition assessment of the pumping stations has identified several structural, mechanical, electrical, and instrumentation improvements. An Arc Flash Study has also identified several improvements required at these pumping stations.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

The following are major elements included in the project:

- Add grinder(s) at the Moraga Pumping Station
- Construct surge tank canopy at Orinda Crossroads Pumping Station
- Replace wet weather diesel engines driven pumps at Moraga and Orinda Crossroads Pumping Stations with electric motors
- New backup generators and automatic transfer switch improvements
- Recondition or replace pumps, valves, and gates
- Repair/recoat piping and concrete
- Major electrical/controls replacement, including Arc Flash Study recommendations
- Replace worn control panels and seismically brace control panels and electrical cabinets
- Improve safety devices such as replacement of gas detection systems and eye wash stations
- Coordination with the City of Orinda, Town of Moraga, and others



Operating Department Impact and Funding Source:

The impacts on the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Moraga, Flush Kleen, and Orinda Crossroads Pumping Stations

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$450,000	\$0	\$0	\$0	\$450,000
Design	\$3,200,000	\$0	\$0	\$0	\$3,200,000
Construction	\$97,000	\$4,600,000	\$12,500,000	\$7,003,000	\$24,200,000
FY Total	\$3,747,000	\$4,600,000	\$12,500,000	\$7,003,000	\$27,850,000

Cured-In-Place Pipe (CIPP) Contract 2017-2020 – District Project 8441

Program	Phase	Priority Rank	Ranking Score
Collection System	Construction	Critical	75

Purpose:

Use CIPP technology to repair any urgent pipelines which require immediate action.

Drivers:

Urgent pipeline projects which require immediate repairs may arise anytime during a fiscal year. Some of these repairs cannot be completed by Central San’s Collection System Operations crews and there is typically not enough time to wait for incorporation into a sewer renovation project.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

This project will include bidding and executing a blanket contract that will allow Central San to use a contractor to perform urgent CIPP work.

CIPP repair work may be triggered by one of the following situations:

- Structural failure of a pipe
- Imminent threat of pipe break or collapse
- Potential for an SSO



Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Collection System

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$100,000	\$0	\$0	\$0	\$100,000
Construction	\$300,000	\$200,000	\$0	\$0	\$500,000
FY Total	\$400,000	\$200,000	\$0	\$0	\$600,000

Pumping Station Equipment and Piping Replacement – Phase 2 – District Project 8442

Program	Phase	Priority Rank	Ranking Score
Collection System	Construction	Critical	65

Purpose:

To replace or recondition failed and obsolete pumps, piping, valves, and other pumping station equipment; and to provide proper emergency response equipment and critical spare parts at pumping stations.

Drivers:

This ongoing project replaces aging equipment and piping in poor condition at the pumping stations.

Additionally, emergency response equipment and critical spare parts are identified to improve resiliency and reliable operations during emergency conditions, power failures, and severe wet weather conditions.

Selection of equipment is completed by Plant Operations, Plant Maintenance, and Engineering staff in coordination with the ongoing Asset Management Program.

Description:

The following are major elements included in the project:

- Install control and isolation valves for shutdown and pumping station protection
- Revise control strategies and equipment response times
- Flood protection measures and critical equipment
- Emergency bypass pumping equipment and piping
- Recondition major equipment to meet original factory specifications
- Purchase critical spare parts for major pumping station equipment

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Pumping Stations

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$61,000	\$103,000	\$200,000	\$400,000	\$764,000
FY Total	\$61,000	\$103,000	\$200,000	\$400,000	\$764,000

Large Diameter Pipeline Inspection Program – District Project 8443

Program	Phase	Priority Rank	Ranking Score
Collection System	Planning	Critical	70

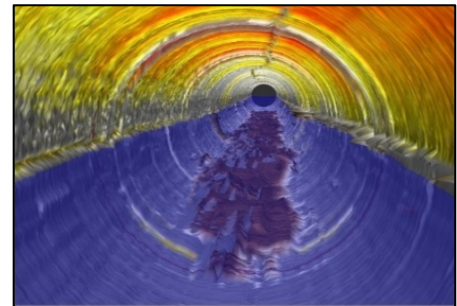
Purpose:

To assess the condition of large diameter trunks and interceptors and confirm the timing for renovation needs.

Drivers:

Central San owns 76 miles of wastewater trunks and interceptors ranging from 24-inches to 102-inches in diameter. The typical lifespan of large sewers ranges from 50 to 150 years depending on pipe material, hydraulic, operating, and environmental conditions. Nearly half of Central San's large sewers are over 50 years old and should be evaluated for remaining life.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Although Central San performs Closed-Circuit TV (CCTV) inspection of large diameter sewers, CCTV inspection is not always practical and does not always provide an accurate condition assessment. For example, CCTV cannot detect external corrosion and cannot assess the condition of the pipe invert when sediment is present. A combination of CCTV inspection, enhanced CCTV with laser profiling, sonar, hydrogen sulfide monitoring, and visual walk-over surveys are recommended to assess the condition of large diameter sewers. Inspection information can be used to ensure replacement of pipelines prior to failure and appropriate timing of replacement.

Description:

A phased large diameter pipeline inspection program was developed and prioritized based on pipe age and consequence of failure. This project is the first of a five-year phase inspection program:

- Review pipeline data and prioritize large diameter sewers for inspection. Initial assessment will be for around 6,000 feet of large diameter reinforced concrete sewers using enhanced CCTV
- Consider piloting and evaluating the benefits of multi-sensor inspection methods
- Consider deploying hydrogen sulfide meters for evaluating and modeling sewer conditions

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Collection System

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$250,000	\$515,000	\$530,000	\$530,000	\$1,825,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$250,000	\$515,000	\$530,000	\$530,000	\$1,825,000

Force Main Inspection Program – District Project 8444

Program	Phase	Priority Rank	Ranking Score
Collection System	Planning	Very High	60

Purpose:

To assess the condition of force mains and confirm the timing for renovation needs.

Drivers:

Central San maintains 31 force mains with a combined length of approximately 23 miles. More than 65% of the force mains are made of metallic materials which are prone to corrosion. The typical lifespan of force mains ranges from 50 to 100 years. Over half of the existing force mains were installed 40 or more years ago. The remaining lifespan of individual force mains is difficult to estimate without inspection-based condition assessment results.

Force main failure methods include internal and external corrosion, mechanical failure due to high pressure and surge events or due to external loads and stresses, and material or installation defects. Recommended force main inspection methods include CCTV inspection, pressure transient monitoring, acoustic leak detection, and electromagnetic inspection.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

A phased inspection program was developed and prioritized based on age and consequence of failure:

- Initial work will be to prepare an implementation plan for the force main inspections
- Highest priority force main inspections to be evaluated in this project are at the Moraga, Orinda Crossroads, Lower Orinda, Bates Boulevard, and Wagner Ranch Pumping Stations
- Other high and medium priority force mains may be considered at the San Ramon, Clyde, Concord Industrial, and Acacia Pumping Stations (Martinez force mains will be evaluated under the Pumping Station Upgrades - Phase 2)
- Other pumping stations have a lower risk and will be inspected in the future

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Collection System

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$125,000	\$0	\$0	\$0	\$125,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$300,000	\$1,500,000	\$1,800,000
FY Total	\$125,000	\$0	\$300,000	\$1,500,000	\$1,925,000

Pumping Station Security Improvements – District Project 8447

Program	Phase	Priority Rank	Ranking Score
Collection System	Design	Critical	65

Purpose:

To improve physical security at the pumping stations and to protect existing critical assets.

Drivers:

In addition to worker safety, there are many critical assets that require physical security improvements to minimize the risk. In FY 2016-17, a comprehensive security study was completed for major Central San facilities that utilized the principles of American Water Works Association J100 Risk Analysis and Management for Critical Asset Protection methodology (*RAMCAP® J100*). *RAMCAP® J100* is a comprehensive approach that enables the estimation of relative risks across multiple assets while considering both malevolent and natural hazards. The *RAMCAP® J100* method is a 7-step process including: 1) Asset Characterization; 2) Threat Characterization; 3) Consequence Analysis; 4) Vulnerability Analysis; 5) Threat Analysis; 6) Risk/Resilience Analysis; and 7) Risk/Resilience Management.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

Findings related to the pumping stations will be implemented under this project or related projects. Some improvements may be implemented in collaboration with other programs. In general, recommendations include:

- Increased surveillance and intrusion detection
- Access control improvements
- Perimeter fencing repair
- Increased signage and other miscellaneous security improvements

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Related Projects: Include Moraga, Orinda, Flush Keen, and Martinez projects

Location(s): Pumping Stations

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$131,000	\$0	\$0	\$0	\$131,000
Construction	\$25,000	\$51,000	\$53,000	\$318,000	\$447,000
FY Total	\$156,000	\$51,000	\$53,000	\$318,000	\$578,000

Manhole Modifications – District Project 8448

Program	Phase	Priority Rank	Ranking Score
Collection System	Construction	Critical	65

Purpose:

To replace, repair, or raise manhole covers and top blocks to match roadway elevations in coordination with pavement restoration plans with agencies or existing conditions.

Drivers:

Central San's collection system includes over 36,000 sewer structures. Many of these structures are manholes or rodding inlets which can be in paved roadways, public right-of-way, and private roadways throughout the entire service area. Continual replacement of manhole covers or repairing top blocks are needed on a yearly basis as the system ages or the roadways are rebuilt.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

This project will fund the replacement or raising of manhole covers and repairing top blocks either through construction projects or reimbursements with cities or other agencies under joint powers agreements.



Operating Department Impact and Funding Source:

This project does not have an impact on the operating budgets. However, if Operations were to self-perform, it would have a significant impact. Project expenditures are funded from Capital Revenues.

Location(s): Collection System

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$700,000	\$309,000	\$320,000	\$1,589,000	\$2,918,000
FY Total	\$700,000	\$309,000	\$320,000	\$1,589,000	\$2,918,000

Collection System Modeling Support – District Project 8449

Program	Phase	Priority Rank	Ranking Score
Collection System	Construction	Critical	65

Purpose:

To maintain and update the *InfoWorks*® hydrodynamic collection system model.

Drivers:

A new *InfoWorks*® Integrated Catchment Modeling hydrodynamic collection system model was configured and calibrated for 190 miles of the trunk sewer system. The new model replaced an old steady-state static model that was no longer supported by vendors and did not offer the same level of accuracy or useful output information that is available with new vendor-supported state-of-the-art hydrodynamic models.

The new model is used for several critical Central San operations such as evaluating sewer capacities, identifying capacity deficiencies, developing sewer sizing criteria, evaluating impacts from increased flows due to development (paid by permit or plan review fees) and special discharges, evaluating re-routing options, and providing hydraulic grade line information that is helpful during emergencies or sewer renovation work.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The following are major elements included in the project:

- Coordinate and update the *InfoWorks*® model with Graphical Information System
- Consider expansion of the trunk sewer model into high priority development areas where anticipated sewer capacity evaluations will be required
- Identify critical areas with model predicted surcharge conditions and install remote level monitors and/or flow monitoring equipment, and rain gauges if required

Operating Department Impact and Funding Source:

This project will have a minor impact on the operating budget due to software updating and licensing costs. Project expenditures are funded from Capital Revenues.

Location(s): Collection System

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$200,000	\$103,000	\$106,000	\$106,000	\$515,000
FY Total	\$200,000	\$103,000	\$106,000	\$106,000	\$515,000

Development Sewerage Support – District Project 8450

Program	Phase	Priority Rank	Ranking Score
Collection System	Construction	Critical	N/A

Purpose:

To capitalize Central San force account labor and other expenses for planning, design, and construction of system sewer extensions.

Drivers:

Central San requires property owners to pay for main sewer extensions needed to serve their property. Where sewers are designed and installed by developers or other private parties, Central San planning, plan review, right-of-way, inspection, and record drawing/mapping efforts are required to ensure that installed sewers meet Central San’s Standard Specifications for Design and Construction. These activities are capitalized under this project.

A portion of the revenue collected for plan review and inspection is credited to the Sewer Construction Fund and offsets some of the expenditures made under this capital project.

Description:

This project is used to fund consultant and staff costs for developer installed sewer facilities.

Operating Department Impact and Funding Source:

This project will have a minor impact on the operating budgets; however, these costs are recovered under fees paid by developers. Project expenditures are funded from Capital Revenues and fees collected are credited to the Sewer Construction Fund.

Location(s): Collection System

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$1,130,000	\$900,000	\$900,000	\$5,400,000	\$8,330,000
FY Total	\$1,130,000	\$900,000	\$900,000	\$5,400,000	\$8,330,000

Collection System Sewer Renovation – Phase 1 – District Project 8451

Program	Phase	Priority Rank	Ranking Score
Collection System	Design/ Construction	Critical	65

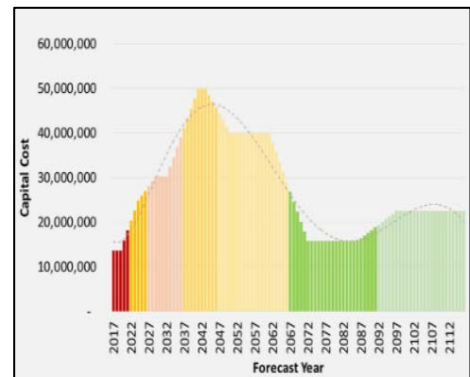
Purpose:

To plan for and design sewer replacement projects for collection system sewers that are near the end of their useful lives.

Drivers:

Nearly all Central San’s sewers will reach the end of their useful lives within the next 100 years. The bulk of the replacement is recommended beyond the Ten-Year Capital Improvement Plan. Continual replacement will provide the best possible protection against SSOs. The *InfoMaster*® sewer replacement risk model was developed to prioritize the timing for sewer replacement and to develop a risk-based sewer replacement program. In the first five years, Central San is planning to replace up to 7.6 miles per year. Replacement for years 10 through 20 in the Capital Improvement Program increases to potentially 18.4 miles per year. The Collection System Sewer Renovation – Phase 1 will span the next five fiscal years (FYs 2018-23).

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

This project is for sewer selection planning and design work for new sewer replacement projects totaling up to 36,000 feet of replacement. These designs will be bid and split into individual projects for construction and will span two fiscal years. These projects include:

- Walnut Creek Sewer Renovation – Phase 14
- Lafayette Sewer Renovation – Phase 14
- Danville Sewer Renovation – Phase 3
- Martinez Sewer Renovation – Phase 6
- South Orinda Sewer Renovation – Phase 8
- Miscellaneous sewer replacements in Alamo, Danville, Moraga, unincorporated Contra Costa County, and other locations or jurisdictions in the service area.

Operating Department Impact and Funding Source:

The impacts on the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Collection System

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$400,000	\$400,000	\$400,000	\$1,200,000
Design	\$462,527	\$2,000,000	\$2,000,000	\$2,000,000	\$6,462,527
Construction	\$0	\$2,073,000	\$15,703,000	\$17,141,000	\$34,917,000
FY Total	\$462,527	\$4,473,000	\$18,103,000	\$19,541,000	\$42,579,527

Lafayette Sewer Renovation – Phase 13 – District Project 8452

Program	Priority Rank	Phase	Ranking Score
Collection System	Critical	Construction	65

Purpose:

To replace and renovate small diameter sewers within the City of Lafayette.

Drivers:

Central San’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful lives as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse.

More than 300 miles of the small diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry weather SSOs.

Central San implemented a sewer renovation program in 1991 to replace small diameter sewers to control future maintenance requirements and costs, to minimize the number of overflows, to limit the quantity of rainfall entering the collection system, and to improve the level of service provided to customers.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The Lafayette Sewer Renovation – Phase 13 Project will replace or rehabilitate up to approximately 11,000 feet of small diameter sewers located in both public right-of-way and easements.

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): City of Lafayette

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$100,000	\$0	\$0	\$0	\$100,000
Design	\$400,000	\$0	\$0	\$0	\$400,000
Construction	\$0	\$3,817,000	\$0	\$0	\$3,817,000
FY Total	\$500,000	\$3,817,000	\$0	\$0	\$4,317,000

South Orinda Sewer Renovation – Phase 7 – District Project 8454

Program	Phase	Priority Rank	Ranking Score
Collection System	Construction	Critical	65

Purpose:

To replace and renovate small diameter sewers within the southern portion of the City of Orinda, unincorporated Orinda, and the Town of Moraga.

Drivers:

Central San’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful lives as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse.

More than 300 miles of the small diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry weather SSOs. Central San implemented a sewer renovation program in 1991 to replace small diameter sewers to control future maintenance requirements and costs, to minimize the number of overflows, to limit the quantity of rainfall entering the collection system, and to improve the level of service provided to customers.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The South Orinda Sewer Renovation – Phase 7 Project will replace or rehabilitate up to approximately 8,900 feet of small diameter sewers located in both public right-of-way and easements within the southern portion of the City of Orinda, unincorporated Orinda, and the Town of Moraga, south of Highway 24.

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): City of Orinda, unincorporated Contra Costa County, and the Town of Moraga

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$100,000	\$0	\$0	\$0	\$100,000
Design	\$400,000	\$0	\$0	\$0	\$400,000
Construction	\$0	\$3,637,000	\$0	\$0	\$3,637,000
FY Total	\$500,000	\$3,637,000	\$0	\$0	\$4,137,000

Walnut Creek Sewer Renovation – Phase 13 – District Project 8455

Program	Phase	Priority Rank	Ranking Score
Collection System	Construction	Critical	65

Purpose:

To replace and renovate small diameter sewers within the City of Walnut Creek and unincorporated Walnut Creek.

Drivers:

Central San’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful lives as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse.

More than 300 miles of the small diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry weather SSOs. Central San implemented a sewer renovation program in 1991 to replace small diameter sewers to control future maintenance requirements and costs, to minimize the number of overflows, to limit the quantity of rainfall entering the collection system, and to improve the level of service provided to customers.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The Walnut Creek Sewer Renovation - Phase 13 Project will replace or rehabilitate up to approximately 8,200 feet of small diameter sewers located in both public right-of-way and easements.

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): City of Walnut Creek and Unincorporated Contra Costa County

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$100,000	\$0	\$0	\$0	\$100,000
Design	\$400,000	\$0	\$0	\$0	\$400,000
Construction	\$0	\$3,621,000	\$0	\$0	\$3,621,000
FY Total	\$500,000	\$3,621,000	\$0	\$0	\$4,121,000

Danville Sewer Renovation – Phase 3 – District Project 8456

Program	Phase	Priority Rank	Ranking Score
Collection System	Design/Construction	Critical	65

Purpose:

To replace and renovate small diameter sewers within the Las Lomas neighborhood in the Town of Danville.

Drivers:

Central San’s 1,500+ mile collection system has pipe segments that range in age from new to more than 100 years old. Some of the pipe segments are at or near the end of their useful lives as evidenced by their need for frequent maintenance, high rate of infiltration, and/or threat of structural collapse.

More than 300 miles of the small diameter sewers in the collection system were constructed prior to 1956. The methods and materials of construction used at that time do not currently perform well, and they are the source of over 90% of the dry weather SSOs. Central San implemented a sewer renovation program in 1991 to replace small diameter sewers to control future maintenance requirements and costs, to minimize the number of overflows, to limit the quantity of rainfall entering the collection system, and to improve the level of service provided to customers.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The Danville Sewer Renovation – Phase 3 Project will replace or rehabilitate approximately 5,000 feet of small diameter sewers and install approximately 40 new private sewer laterals located in both public right-of-way and easements within the Las Lomas neighborhood in the Town of Danville.

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Town of Danville

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$100,000	\$0	\$0	\$0	\$100,000
Design	\$400,000	\$0	\$0	\$0	\$400,000
Construction	\$0	\$4,100,000	\$0	\$0	\$4,100,000
FY Total	\$500,000	\$4,100,000	\$0	\$0	\$4,600,000

Pumping Stations Upgrades – Phase 2 – District Project 8457

Program	Phase	Priority Rank:	Ranking Score
Collection System	Planning/Design	Critical	65

Purpose:

To address aging infrastructure and reliability needs at the Martinez, Fairview, and Maltby Pumping Stations.

Drivers:

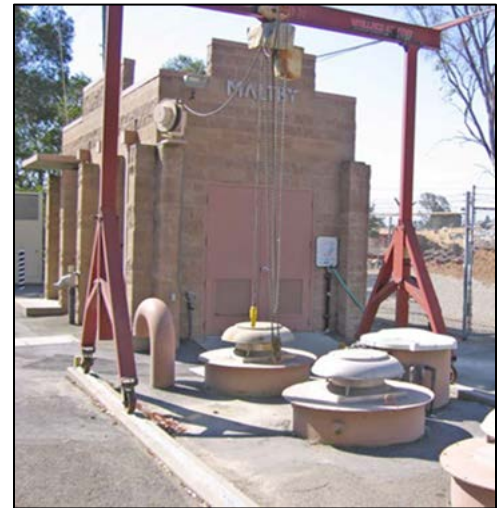
As part of the Comprehensive Wastewater Master Plan, a comprehensive condition assessment of the pumping stations has identified several structural, mechanical, electrical, and instrumentation improvements. An Arc Flash Study has also identified several improvements required at these pumping stations.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

The following are major elements included in the project:

- Replace corroded steel dry pits with new wet wells at the Fairview and Maltby Pumping Stations
- Replace backup generators, electrical, instrumentations, and controls improvements
- Rehabilitate or replace flow meters
- Recondition or replace pumps, valves, and gates
- Repair/recoat piping and concrete
- Major electrical/controls replacement, including Arc Flash Study recommendations
- Replace worn control panels and seismically braced control panels and electrical cabinets
- Improve safety devices such as replacement of gas detection systems and eye wash stations
- Evaluate force mains at each pumping station



Operating Department Impact and Funding Source:

The impacts on the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Martinez, Fairview, and Maltby Pumping Stations

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$50,000	\$100,000			\$150,000
Design	\$0	\$400,000	\$900,000	\$1,400,000	\$2,700,000
Construction	\$0	\$0	\$0	\$23,600,000	\$23,600,000
FY Total	\$50,000	\$500,000	\$900,000	\$25,000,000	\$26,450,000

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Capital Improvement Budget – Treatment Plant Program

The following are the major points of emphasis for the FY 2019-20 Treatment Plant Program:

- Replace equipment as they reach the end of their useful lives to avoid structural and mechanical failures, reduce downtime, and control maintenance costs;
- Upgrade Central San facilities to seismic building codes and standards;
- Respond to regulatory requirements related to pending air emissions regulations; and
- Increase sustainability and energy related projects.

Aging Infrastructure (Asset Rehabilitation and Replacement Projects)

Projects in this subprogram are targeted as asset preservation, rehabilitation, and replacement. The main projects in this program are the Mechanical and Concrete Renovations Project, which will improve the process reliability of the treatment plant by renovating and/or replacing various piping, instrumentation, equipment, and repair concrete structures. Other projects include Ultraviolet Disinfection Equipment Upgrades, District Project 7362, and Plant-Wide Instrumentation Upgrades, District Project 7357, which will extend the useful life of existing equipment and/or facilities. Another significant project will be the continuation and completion of the final design of the Solids Handling Facility Improvements Project, District Project 7348, which includes sludge blend tanks, solids dewatering equipment replacement (feed pumps, centrifuges, cake pumps), wet scrubber, ash handling improvements, as well as associated electrical, instrumentations and controls improvements. Three related solids projects will be constructed ahead of the main project, which include the Emergency Sludge Loading Facility Modifications, the Solids Conditioning Building Emergency Stairway, and the Sludge Blending and Lime Silo repairs.

Regulatory Compliance (Includes Planning and Safety Projects)

This subprogram includes projects that emphasize preparing for future regulations and treatment plant planning, which includes pilot testing various new technologies. Work will be implemented to comply with pending new air permitting requirements and the installation of incinerator emissions improvements is included in the Solids Handling Facility Improvements Project. Safety and security improvements will continue under this subprogram. Solids Conditioning Building and multiple hearth furnaces seismic improvements evaluation and design will continue under the Solids Handling Facility Improvements Project. The Plant Operations Division Office Building Seismic Improvement Project will continue construction this year.

Capacity (Expansion Projects)

There are no projects in the Expansion Program in FY 2019-20.

Sustainability (Resiliency and Energy Projects)

Under this subprogram, steam and aeration blower systems at the treatment plant will continue evaluation through condition assessments.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Example of Project Driver(s)

Each project is described on the following pages. Each project summary includes project name, description, prioritization, purpose, operating department impact and funding source, location, budgetary information, and drivers (i.e., what is the main impetus for a project). The main driver(s) for each project is (are) identified by highlighting in yellow background color and **bold** text. Driver(s) that is (are) not as significant or not relevant is (are) displayed in gray.

All projects in this program are summarized, including planned expenditures, in the following Table 3:

CIB Table 3 – FY 2019-20 Treatment Plant Program Budget/Project Summary

Project Number	Project	Budget-to-Date	FY 2019-20	Future FYs	Total Project Cost
7292	Switchgear Refurbishment - Phase 2	\$970,000	\$200,000	\$0	\$1,170,000
7304	Programmable Logic Control Systems Upgrades	\$485,000	\$0	\$234,000	\$719,000
7315	Applied Research Innovations	\$557,274	\$300,000	\$1,500,000	\$2,357,274
7317	Plant Control System Network Upgrades	\$780,000	\$120,000	\$0	\$900,000
7322	Fire Protection System - Phase 2	\$1,406,000	\$0	\$0	\$1,406,000
7327	Headworks Screenings Upgrade	\$8,700,000	\$0	\$0	\$8,700,000
7328	Influent Pump Electrical Improvements	\$610,000	\$800,000	\$4,000,000	\$5,410,000
7330	Piping Renovation - Phase 9	\$3,180,000	\$0	\$0	\$3,180,000
7339	Plant Control System I/O Replacement	\$1,370,000	\$1,100,000	\$2,028,000	\$4,498,000
7341	Walnut Creek/ Grayson Creek Levee Rehab	\$100,000	\$200,000	\$900,000	\$1,200,000
7348	Solids Handling Facility Improvements	\$10,690,000	\$6,550,000	\$76,136,000	\$93,376,000
7349	Steam and Aeration Blower Systems Renovations	\$1,500,000	\$3,500,000	\$57,000,000	\$62,000,000
7351	Mechanical and Concrete Renovations	\$5,044,000	\$6,400,000	\$2,603,000	\$14,047,000
7352	Ultraviolet Disinfection Upgrades	\$500,000	\$600,000	\$0	\$1,100,000
7353	Outfall Improvements - Phase 7	\$100,000	\$500,000	\$4,900,000	\$5,500,000
7354	Treatment Plant Security Improvements	\$137,000	\$718,000	\$950,000	\$1,805,000
7355	Odor Control Upgrades - Phase 1	\$0	\$0	\$1,600,000	\$1,600,000
7357	Plant-Wide Instrumentation Upgrades	\$290,000	\$450,000	\$1,321,000	\$2,061,000
7359	Solids Conditioning Building Roof Replacement	\$1,300,000	\$0	\$0	\$1,300,000
7360	Existing Facilities As-Is Drawings	\$200,000	\$100,000	\$0	\$300,000
7362	POB Seismic Upgrades	\$3,331,177	\$2,793,000	\$0	\$6,124,177
7363	Treatment Plant Planning	\$900,000	\$500,000	\$1,000,000	\$2,400,000
7364	TP Safety Enhancement - Phase 5	\$100,000	\$600,000	\$0	\$700,000
7369*	Piping Renovation – Phase 10	\$0	\$750,000	\$3,000,000	\$3,750,000
7370*	Annual Infrastructure Replacement	\$0	\$2,200,000	\$30,600,000	\$32,800,000
7371*	Condition Assessment of Buried Pipelines	\$0	\$250,000	\$750,000	\$1,000,000
	Total Program	\$42,250,451	\$28,631,000	\$188,522,000	\$259,403,451

*New project in FY 2019-20

Switchgear Refurbishment – Phase 2 – District Project 7292

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Critical	70

Purpose:

To refurbish electrical switchgears in order to maintain the reliability of critical electrical infrastructure at the treatment plant.

Drivers:

The electrical switchgear throughout the treatment plant were installed in the 1970s and have been well maintained using preventive techniques.

Inspections in 2003 and 2004 showed that several trip units on the circuit breakers required replacement. Circuit breakers have been sent out for Class 1 reconditioning and trip unit replacement on an as-needed basis.

Description:

This project is a multi-year program to repair and replace treatment plant electrical equipment including:

- Refurbish or replace approximately 66, 480V circuit breakers over a five-year period
- Replace 2400V circuit breakers and air breakers at key substations (e.g., Substations 52 and 82)
- Replace protective relays for various switchgear throughout the treatment plant

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Several Substations within the Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$970,000	\$200,000	\$0	\$0	\$1,170,000
FY Total	\$970,000	\$200,000	\$0	\$0	\$1,170,000

Programmable Logic Control Systems Upgrades – District Project 7304

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Very High	50

Purpose:

To upgrade programmable logic control (PLC) systems to current technology for increased performance and improved compatibility to develop and maintain programming standards.

Drivers:

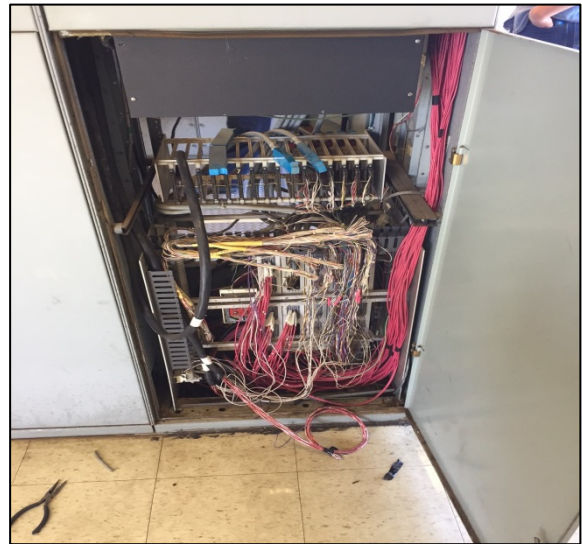
The first PLCs were installed at the treatment plant in the mid-1980s. The number of PLCs has increased from the original two PLCs to more than 30 PLCs. Programming software for the newer PLCs no longer runs efficiently on the older programming units.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

The following are major elements included in the project:

- Upgrade hardware and software necessary to maintain new PLC applications
- Replace older computers with newer computers capable of running current software
- Upgrade older PLC models to maintain compatibility with new equipment, instrumentation, and controls
- Develop and document programming standards for PLC and Supervisory Control and Data Acquisition



Operating Department Impact and Funding Source:

This project will have minor savings for the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Miscellaneous Areas within the Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$96,700	\$0	\$0	\$0	\$96,700
Construction	\$388,300	\$0	\$117,000	\$117,000	\$622,300
FY Total	\$485,000	\$0	\$117,000	\$117,000	\$719,000

Applied Research & Innovations – District Project 7315

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Planning	Very High	50

Purpose:

To implement applied research projects that evaluate promising technologies, processes, and innovations.

Drivers:

One of Central San’s goals is to embrace innovation and to be a leader in the wastewater industry. There are several emerging and innovative nutrient removal, disinfection, and solids handling technologies that may offer significant savings and reduced footprint requirements when compared to conventional technologies. Innovations in equipment and instrumentation that may be beneficial will be considered.

Prior to implementing any major renovations for nutrient removal or converting solids handling technologies, staff will evaluate the feasibility of emerging technologies and implement applied research pilots. These pilots will help verify the compatibility with wastewater and facilities, increase understanding of the technology, and help determine whether to consider the technology.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

This project includes techno-economic evaluations and possible pilot testing of nutrient removal technologies such as membrane aerated bioreactors, aerobic granular sludge, and other promising technologies. This project also funds the purchase of research equipment required for on-site field evaluations, optimizations, bench and pilot tests, and includes replacement of an existing 25 plus year-old trailer with a new trailer to support ongoing applied research efforts.

Operating Department Impact and Funding Source:

The impacts to operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Miscellaneous Areas within the Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$557,274	\$300,000	\$500,000	\$1,000,000	\$2,357,274
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$557,274	\$300,000	\$500,000	\$1,000,000	\$2,357,274

Plant Control System Network Upgrades – District Project 7317

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Critical	65

Purpose:

To upgrade the Plant Control System Ethernet Network to Industrial Ethernet standards.

Drivers:

In 2006, Central San’s treatment plant installed a new ethernet based supervisory control and data acquisition system. At the time the supervisory control and data acquisition system was installed, ethernet was limited to the servers only and was redundant. Over time, the ethernet system expanded to the entire treatment plant, but the redundancy was not maintained. Currently, the primary path for treatment plant data traffic runs over the ethernet system that is neither redundant nor sufficiently reliable to meet control system standards.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

The following are major elements included in the project to meet industry redundancy and reliability standards:

- Install and configure industrial type ethernet switches
- Install fiber optic lines for the Treatment Plant Control System
- Install industrial wireless network
- Install fiber optic lines for the New Server Room, District Project 8243



Operating Department Impact and Funding Source:

This project will have minor savings for the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Miscellaneous Areas within the Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$780,000	\$120,000	\$0	\$0	\$900,000
FY Total	\$780,000	\$120,000	\$0	\$0	\$900,000

Fire Protection System – Phase 2 – District Project 7322

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Critical	65

Purpose:

To upgrade or replace treatment plant fire protection systems.

Drivers:

Most of the fire protection system was built in the late 1970s, and the fire alarm control panel was upgraded in the early 2000s. There are seven existing fire protection systems (alarm, monitoring, and suppression types) at the treatment plant. The existing fire systems are the primary notifications to the control-room operators and the occupied buildings in the event of a fire. Wiring and devices on the fire protection system continue to be problematic and are in frequent need of repair. Repairs to the fire alarm system have become extremely complex and difficult; therefore, long-term reliable improvements to the fire protection system are needed.

Description:

Staff anticipates the recommended improvements will be implemented over a multi-year fire protection improvement program:

- Phase 1 of the project, completed in 2013, replaced the outdated Headquarters Office Building fire protection system and corrected limited treatment plant deficiencies
- Phase 2 includes a comprehensive evaluation and implementation of recommended improvements for life safety of occupied (public and staff) areas of all staffed and critical process areas in the treatment plant

Operating Department Impact and Funding Source:

This project will have insignificant impact to the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Miscellaneous Areas within the Treatment Plant

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$162,000	\$0	\$0	\$0	\$162,000
Design	\$200,000	\$0	\$0	\$0	\$200,000
Construction	\$1,044,000	\$0	\$0	\$0	\$1,044,000
FY Total	\$1,406,000	\$0	\$0	\$0	\$1,406,000

Headworks Screenings Upgrade – District Project 7327

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Critical	75

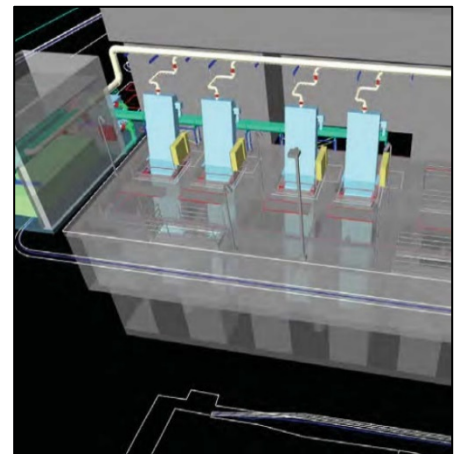
Purpose:

To separate and remove screenings and plastics from the influent wastewater.

Drivers:

The current screenings operation utilizes coarse bar screens installed approximately 25 years ago at the Headworks to separate screenings. The screenings are then processed by grinders and reintroduced immediately downstream of the screens. This operation does not remove any of the plastics in the wastewater which contribute to fouling of numerous liquid and solids stream processes and equipment and may contribute to furnace acid gas emission impacting future regulations. Screenings removal will optimize operations, protect downstream treatment plant facilities, extend downstream equipment life, minimize screenings downtime due to grinder hopper overload, and reduce equipment maintenance.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The project investigated the current Headworks screening operation and recommended the most strategic and cost-effective screenings removal improvements. The project includes the following major elements:

- Replace four existing ¾-inch bar screens with four new multi-rake ¼-inch bar screens
- Install new screenings washer/compactors, sluiceway, and screenings handling facility
- Replace two existing 4-inch bar racks with two re-purposed existing ¾-inch bar screens, hoppers, and grinders
- Project initiated in FY 2015-16 and is scheduled to close in FY 2019-20

Operating Department Impact and Funding Source:

This project will have significant impact (increased disposal costs) on the operating budgets. The project also includes minor energy savings and long-term reduction of equipment maintenance. Project expenditures are funded from Capital Revenues.

Location(s): Headworks Facility

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$200,000	\$0	\$0	\$0	\$200,000
Design	\$750,000	\$0	\$0	\$0	\$750,000
Construction	\$7,750,000	\$0	\$0	\$0	\$7,750,000
FY Total	\$8,700,000	\$0	\$0	\$0	\$8,700,000

Influent Pump Electrical Improvements – District Project 7328

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Design	Critical	65

Purpose:

To address aging electrical components of the influent pumps and improve reliability.

Drivers:

The Influent Pump Facility is critical to operations. During wet weather, some of the pumps convey wastewater to the holding basins. Without the pumps, wastewater cannot be treated or stored in the basins. The influent pump motors are in a dry pit room below grade that is susceptible to flooding. A leak in the piping or flooding of the connected tunnels would potentially submerge the motors and the entire treatment plant would experience a catastrophic shutdown. Electrical improvements are recommended to improve reliability and resiliency. The influent pumps PLCs and variable frequency drives (VFDs) are outdated technology installed over 20 years ago and are becoming increasingly difficult to maintain. These VFDs have experienced multiple failures recently and are essential to managing flows, particularly during wet weather events.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

Several major improvements in the influent pumping process area include:

- Replace influent pumps’ VFDs and upgrade influent pumps’ PLCs
- Evaluate replacement of influent pumps motor(s) with immersible motor(s) or elevate to withstand flooding or other alternatives
- Add Influent Pump No. 6 for reliability and redundancy during peak wet weather events
- Evaluate implementation of “Smart Utility” and use of “Big Data” as part of this project

Operating Department Impact and Funding Source:

The impacts to the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Influent Pump Station (Headworks Facility)

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$100,000	\$0	\$0	\$0	\$100,000
Design	\$510,000	\$400,000	\$0	\$0	\$910,000
Construction	\$0	\$400,000	\$2,000,000	\$2,000,000	\$4,400,000
FY Total	\$610,000	\$800,000	\$2,000,000	\$2,000,000	\$5,410,000

Piping Renovation – Phase 9 – District Project 7330

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Critical	70

Purpose:

To inspect, rehabilitate, and replace above-grade and below-grade piping and related systems at the treatment plant.

Drivers:

During the main treatment plant improvements project in the 1970s (Stage 5A project), numerous above-grade and below-grade piping systems were installed throughout the treatment plant. These pipes convey wastewater, sludge, steam, air, and other utility services between various process areas. Many of these piping systems have been in operation for over 40 years without any major rehabilitation or replacement. Some piping systems are leaking due to corrosion and the condition of some systems is unknown because they have not been visually inspected.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

The following are major elements included in the project:

- Replace miscellaneous chemical systems piping
- Replace piping, valves, and pumps throughout the treatment plant
- Replace boiler feedwater valves and steam flow transmitters
- Replace miscellaneous sludge piping, pumps, valves, floor drains, and water piping
- Replace equipment identified by the Asset Management Program and Operations and Maintenance staff
- Water system upgrades (contingency project) that includes scope of the Treatment Plant Urgent Repairs (District Project 7314 Closed)



Operating Department Impact and Funding Source:

This project will have insignificant impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Miscellaneous Areas within the Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$230,000	\$0	\$0	\$0	\$230,000
Design	\$450,000	\$0	\$0	\$0	\$450,000
Construction	\$2,500,000	\$0	\$0	\$0	\$2,500,000
FY Total	\$3,180,000	\$0	\$0	\$0	\$3,180,000

Plant Control System Input and Output Replacement – District Project 7339

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Critical	70

Purpose:

To upgrade obsolete PLC Input and Output (I/O) cards and associated systems with current technology to maintain reliable operation and vendor support.

Drivers:

PLC I/O cards are critical for equipment and instrumentation communication to the treatment plant control system for process control and monitoring. The first treatment plant PLC I/O card was installed in the mid-1980s. The number of I/O cards in use has increased from only a few to nearly 1,800 cards. Approximately 1,100 of these I/O cards are currently obsolete. Replacement units cannot be purchased from the manufacturer, nor are they fully supported. Central San maintains an inventory of over 100 spare I/O cards to reactively replace units as they fail.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

This is a multi-phase effort to replace obsolete I/O cards and improve associated control system components. The following are major elements included in the project.



- Replace obsolete I/O cards with modern Schneider X80 I/O cards
- Retrofit I/O communication including network cards and communication cabling
- Provide uninterruptible power system (UPS) power to I/O panels
- Upgrade field wiring and devices as necessary
- Provide as-built documentation of the updated system

Operating Department Impact and Funding Source:

This project will have insignificant impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Miscellaneous Areas within the Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$200,000	\$0	\$0	\$0	\$200,000
Design	\$270,000	\$300,000	\$100,000	\$100,000	\$770,000
Construction	\$900,000	\$800,000	\$900,000	\$928,000	\$3,528,000
FY Total	\$1,370,000	\$1,100,000	\$1,000,000	\$1,028,000	\$4,498,000

Walnut Creek/Grayson Creek Levee Rehab – District Project 7341

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Design	Very High	50

Purpose:

To reduce the risk of flood damage to the treatment plant by raising levees through a project led by the Contra Costa County Flood Control and Water Conservation District (FCD).

Drivers:

The treatment plant site is bordered by Walnut and Grayson Creeks with levees that were built by the FCD and US Army Corps of Engineers, and are currently owned and maintained by the FCD. Overtopping of the levees could catastrophically disable treatment plant operations, result in significant facility damage, negatively impact the environment due to discharge of untreated sewage, and impair the local economy. In 2007, the FCD implemented an interim flood control measure to desilt lower Walnut Creek channel and raise the western levees of Walnut and Grayson Creeks. Based on recent modeling, the levees currently provide protection from a 30-year storm. The current flood protection standard by the California Department of Water Resources is to provide protection against at least a 200-year storm with three feet of freeboard, consider for sea level rise, and climate change.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

Due to the critical nature of the treatment plant facilities, the levees will be raised to provide a protection level of a 200-year to 500-year storm with adequate freeboard. The FCD will be the lead agency, and Central San will provide support for design review and construction coordination. Both agencies have agreed to equally share the estimated project cost of \$2.4 million. Central San anticipates accepting and storing soil on buffer property that can be used as levee material to provide in-kind contributions of up to \$500,000. Staff will continue to evaluate in-kind financial contributions.

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Along the Walnut Creek and Grayson Creek Levees, Kiewit Buffer Property

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 20120-21	Future FYs	Total
Planning	\$100,000	\$0	\$0	\$0	\$100,000
Design	\$0	\$200,000	\$0	\$0	\$200,000
Construction	\$0	\$0	\$500,000	\$400,000	\$900,000
FY Total	\$100,000	\$200,000	\$500,000	\$400,000	\$1,200,000

Solids Handling Facility Improvements – District Project 7348

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Design	Critical	75

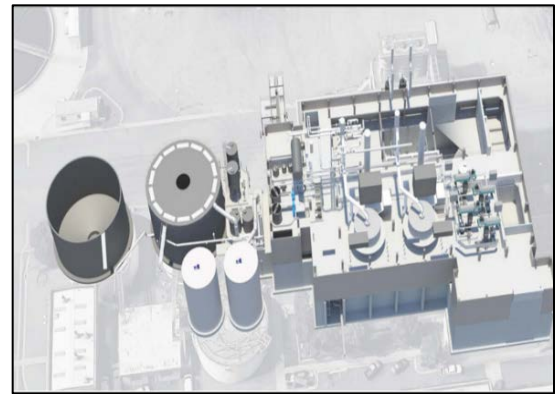
Purpose:

To rehabilitate and replace the sludge dewatering, sludge handling, sludge blending, ash handling, furnace air pollution control equipment, and structural upgrades to the building housing this equipment.

Drivers:

The existing furnaces have significant remaining useful life; however, other solids handling equipment requires replacement. The centrifuges and cake pumps have been in service for over 25 years, are costly to maintain, and spare parts are difficult to obtain. Mixing improvements are recommended for the sludge blending/storage tanks for reliable dewatering. The ash handling equipment is in poor condition and upgrades are recommended to reliably meet ash regulatory requirements. A more efficient wet scrubber and other air pollution control improvements will be needed to reliably comply with current and future air regulations. The Solids Conditioning Building (SCB) that houses the furnaces, cogeneration unit, and other critical equipment does not meet current seismic standards and the building is close to the Concord Fault. Electrical and control systems associated with this equipment will need to be replaced during the project.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The following are major elements included in the project:

- Improvements to Emergency Sludge Loadout Facility and Blending tanks will be constructed separately ahead of the main Solids Project
- Replace wet scrubber with a new venturi scrubber capable of waste heat boiler bypass
- Replace centrifuges, cake pumps, and sludge blending, storage, and mixing systems
- Furnace burner upgrades and ash handling improvements to reduce fugitive ash emissions, improve reliability, and modify the emergency sludge loadout facility
- Seismic improvements for the furnaces and SCB
- Replace electrical and control systems to accommodate new equipment

Operating Department Impact and Funding Source:

This project will have significant impact (energy savings) on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Solids Conditioning Building

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$1,000,000	\$0	\$0	\$0	\$1,000,000
Design	\$9,690,000	\$1,400,000	\$0	\$0	\$11,090,000
Construction	\$0	\$5,150,000	\$17,500,000	\$58,636,000	\$81,286,000
FY Total	\$10,690,000	\$6,550,000	\$17,500,000	\$58,636,000	\$93,376,000

Steam and Aeration Blower Systems Renovations – District Project 7349

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Planning	Critical	80

Purpose:

To evaluate the existing steam system, waste heat recovery, steam turbines, electrical power distribution system, and secondary treatment systems.

Drivers:

Central San’s energy recovery system uses waste heat from the incinerator and cogeneration turbine to produce steam primarily for aeration blowers and other systems. The existing aeration system is from the 1970s and is outdated, inefficient, experiences significant air leaks, and has limited turndown capabilities. The existing steam piping, valves, and related equipment require a detailed assessment. Although it is advantageous to recover waste heat for producing aeration, it also creates a complicated interconnection. Disruptions in solids and steam systems can impact reliability of the secondary process. Similarly, disruptions in blower operation can impact the boiler, steam system, and solids emission controls.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

Several major steam, electrical, and secondary process modifications are included:

- Evaluate the condition of the existing steam generation, steam driven systems and turbine, and more efficient options to produce power from our future waste heat recovery system
- Evaluate modifications to existing aeration tanks and the activated sludge system, including the secondary clarifiers and the hydraulics
- Determine impact from recycled water project that would produce high quality recycled water with very low/no ammonia and low total dissolved solids to feed the two local oil refineries
- The condition assessments will also evaluate, update, and find new optimal ways to distribute electric power around the treatment plant to provide a safe, robust system in the future, determine remaining useful life and improvement of the electrical distribution system

Operating Department Impact and Funding Source:

Impacts to the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Pump and Blower Building, Solids Conditioning Building, Aeration Basins, Electrical Power Distribution System, Primary/Secondary Facilities, and other Treatment Plant Areas

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$1,500,000	\$1,000,000	\$0	\$0	\$2,500,000
Design	\$0	\$1,750,000	\$4,500,000	\$0	\$6,250,000
Construction	\$0	\$750,000	\$1,500,000	\$51,000,000	\$53,250,000
FY Total	\$1,500,000	\$3,500,000	\$6,000,000	\$51,000,000	\$62,000,000

Mechanical and Concrete Renovations – District Project 7351

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Critical	70

Purpose:

To rehabilitate or replace gates and other mechanical equipment, as well as existing concrete structures with leaks or severe cracking.

Drivers:

The gates, concrete, and other miscellaneous equipment and surfaces within the Headworks and Primary Treatment areas are exposed to corrosive environments. Slide gates throughout these areas are essential to stop and re-direct flows as required for preventive maintenance and for emergency and wet weather scenarios. Many of the slide gates have unreliable actuators, show signs of corrosion, have deteriorating seals and wedges, and in some cases, have been inoperable. Additionally, there are some structures and concrete surfaces that have spalling concrete, corroded reinforcing bars, and show signs of significant cracking. Some concrete areas require coating to prevent further corrosion. This project is to address these aging infrastructure needs and improve the safety and reliability of the existing systems.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

Several major elements are included in this project:

- Repair concrete in the Headworks Drywell, West Gallery, Structure B, Structure D, Primary Sedimentation Tanks, Primary Effluent Channel, Influent Structure, and Influent Structures 1 and 1A
- Replace or rehabilitate gates and actuators in the Influent Structure, Influent Structure 1 and 1A, Pre-Aeration, Primary Sedimentation Tanks, and Primary Effluent Channel
- Replace or rehabilitate existing polyvinyl chloride liner, 60-inch and 72-inch pipelines at Structures B and C, primary collector chain and flights, embedded rails, grit piping, and effluent launders
- Odor Control system repairs have been added in these areas and other nearby structures (New)

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Headworks, Pre-Aeration, and Primary Treatment Areas

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$1,100,000	\$0	\$0	\$0	\$1,100,000
Construction	\$3,944,000	\$6,400,000	\$2,603,000	\$0	\$12,947,000
FY Total	\$5,044,000	\$6,400,000	\$2,603,000	\$0	\$14,047,000

Ultraviolet Disinfection Upgrades – District Project 7352

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Critical	65

Purpose:

To rehabilitate components of the existing ultraviolet (UV) disinfection system and improve reliability.

Drivers:

The UV disinfection system was constructed in the mid-1990s. One of the old denitrification tanks was re-purposed for constructing the UV channels and some piping modifications were completed to route secondary effluent to the UV system. The existing UV technology is old, inefficient, and does not have the same controls capabilities and automated cleaning capabilities as newer UV technology. The existing system requires significant cleaning and maintenance. The existing electrical connections are worn and, in some cases, have failed. Until the existing UV system can be replaced, there are several improvements needed to improve the reliability of the existing UV disinfection system. A new system will be installed in the next several years under a separate project.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

Several major elements are included in the project:

- Replace conduits and connectors between the ballasts and UV banks
- Repair and replace components of the existing UV chemical cleaning system
- Rehabilitate or replace the UV gates, actuators, stems, and seals
- Investigate methods to protect the UV system from the elements

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): UV Disinfection Facility

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$500,000	\$600,000	\$0	\$0	\$1,100,000
FY Total	\$500,000	\$600,000	\$0	\$0	\$1,100,000

Outfall Improvements – Phase 7 – District Project 7353

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Design	Critical	70

Purpose:

To inspect the land and submarine portions of the outfall pipeline to maintain or repair the pipeline and meet regulatory requirements.

Drivers:

Central San’s National Pollutant Discharge Elimination System Permit requires proper operation and maintenance of the outfall pipeline that discharges treated final effluent to Suisun Bay. Every five to ten years, the 3.5 mile, 72-inch reinforced concrete outfall pipeline built in 1958 is drained and inspected to verify pipeline alignment and condition of the pipeline and seals. As part of the 2012 Outfall Improvements Project, over 1,500 pipe joints were inspected and 368 joints were repaired with new seals. Of the 1,500 joints, approximately 950 have been repaired.

During the project, final effluent is routed to the Wet Weather Holding Basins and temporarily discharged for several weeks through the overflow weir structure to Walnut Creek in accordance with permit requirements.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The last inspection of the outfall was in 2013 and it is due for a new inspection. This project will include many elements as completed during the previous phase:

- Coordinate inspection and temporary bypass approval with the Regional Water Quality Control Board, and obtain all other necessary permits
- Test the land portion of the outfall and install new joint seals as necessary
- Repair access manholes and inclinometers, and update pipeline survey data
- Structural and valve modifications to Structure 9000
- Repair two pier structures over submarine section
- Install new safety access hatch
- May include road improvement for safer, more efficient access to facilities

Operating Department Impact and Funding Source:

The impacts to the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Treatment Plant, Martinez, and Suisun Bay

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$100,000	\$0	\$0	\$0	\$100,000
Design	\$0	\$500,000	\$0	\$0	\$500,000
Construction	\$0	\$0	\$2,450,000	\$2,450,000	\$4,900,000
FY Total	\$100,000	\$500,000	\$2,450,000	\$2,450,000	\$5,500,000

Treatment Plant Security Improvements – District Project 7354

Program	Phase	Priority Rank	Ranking Score:
Treatment Plant	Design	Critical	65

Purpose:

To improve physical security at the treatment plant and to protect existing critical assets.

Drivers:

In addition to worker safety, there are many critical assets that require physical security improvements to minimize risk.

In FY 2016-17, a comprehensive security study was completed for major Central San facilities that utilized the principles of American Water Works Association J100 Risk Analysis and Management for Critical Asset Protection methodology (*RAMCAP® J100*). *RAMCAP® J100* is a comprehensive approach that enables the estimation of relative risks across multiple assets while considering both malevolent and natural hazards. The *RAMCAP® J100* method is a 7-step process including: 1) Asset Characterization; 2) Threat Characterization; 3) Consequence Analysis; 4) Vulnerability Analysis; 5) Threat Analysis; 6) Risk Analysis; and 7) Risk Management.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

Findings from this study related to the treatment plant will be implemented under this project. Some improvements may be implemented in collaboration with the pumping station and general security improvement projects that were also identified under the same study. In general, recommendations include:

- Increased surveillance and intrusion detection
- Access control improvements
- Perimeter fencing repair and increased signage
- Improved guard facilities, including main gate and contractor staging areas
- Other miscellaneous security improvements

Operating Department Impact and Funding Source:

The impacts to the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$137,000	\$200,000	\$0	\$0	\$337,000
Construction	\$0	\$518,000	\$950,000	\$0	\$1,468,000
FY Total	\$137,000	\$718,000	\$950,000	\$0	\$1,805,000

Odor Control Upgrades – Phase 1 – District Project 7355

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Planning	Very High	60

Purpose:

To replace existing odor control systems for the SCB, Headworks, Pre-Aeration Tanks, and Primary Effluent Channel.

Drivers:

Central San's Odor Control Facilities Plan was last updated in 2006. The update was based on an established odor threshold of 20 dilutions to threshold. To meet this threshold goal at the treatment plant and to address aging equipment, upgrades are recommended to the SCB, Headworks, and Pre-Aeration Odor Control Units. The existing odor control systems use outdated technology with corrosive sodium hypochlorite systems. The odor control towers, piping, panels, ductwork, and fans are experiencing significant wear and require replacement. In addition, nearby surfaces such as concrete pads and building roofs are experiencing significant corrosion. Alternative odor control technologies that do not use sodium hypochlorite and will minimize visible misting will be considered.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The following are major elements included in the project:

- Update the Odor Control Facilities Plan and confirm odor control threshold requirements for design
- Replace the Pre-Aeration Odor Control Unit, ductwork, panels, and piping
- Replace the Headworks Odor Control Unit, ductwork, panels, and piping
- Replace the SCB Odor Control Unit, ductwork, panels, and piping

Operating Department Impact and Funding Source:

The impacts to the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Headworks, Pre-Aeration, Primary Effluent Channel

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$100,000	\$0	\$100,000
Design	\$0	\$0	\$200,000	\$0	\$200,000
Construction	\$0	\$0	\$0	\$1,300,000	\$1,300,000
FY Total	\$0	\$0	\$300,000	\$1,300,000	\$1,600,000

Plant-Wide Instrumentation Upgrades – District Project 7357

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Design	Very High	60

Purpose:

To install new instrumentation for improved monitoring, control, and optimization of Central San facilities.

Drivers:

Collection and data leveraging are becoming increasingly useful for wastewater operations, design, and optimization. As Central San considers future equipment upgrades, potential nutrient removal, and solids handling technologies, it is important to collect data that will be useful for the evaluation and design of those facilities. There are also return streams that Central San has limited data for but could be helpful when evaluating future needs. In the meantime, there are opportunities to optimize existing processes and possibly reduce operations and maintenance costs; however, key instruments are required to evaluate these opportunities.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Energy management and efficiency measures are crucial elements when striving towards net zero energy. Power meters installed at the motor control centers and key equipment can be useful for identifying optimization opportunities. The concept of “big data” is becoming increasingly popular and is aimed at leveraging data to analyze trends to predict how a given process will perform in the future and proactively make adjustments. This project will likely be constructed with other plant projects.

Description:

The following elements are included in the project:

- Develop instrumentation upgrades strategy and phasing plan
- Install flow meters for improved monitoring of return streams
- Install power meters for motor control centers and key equipment
- Install air flow meters for tracking channel aeration demands
- Install other miscellaneous instruments for improved process monitoring, control, and optimization

Operating Department Impact and Funding Source:

The impacts to the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$100,000	\$0	\$0	\$0	\$100,000
Design	\$190,000	\$100,000	\$0	\$0	\$290,000
Construction	\$0	\$350,000	\$531,000	\$790,000	\$1,671,000
FY Total	\$290,000	\$450,000	\$531,000	\$790,000	\$2,061,000

Solids Conditioning Building Roof Replacement – District Project 7359

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Critical	70

Purpose:

To replace the roof of the Solids Conditioning Building.

Drivers:

Over the last 10 years, several repairs have been made to the roof to extend its useful life. Temporary measures have been implemented to protect the electrical equipment from water damage; however, the roof is in poor condition and a roof replacement is recommended as the long-term solution.

In January 2017, Central San experienced significant rainfall. During these wet weather conditions, several roof leaks were identified at the SCB. Some of the leakage is over critical electrical equipment. Failure of this equipment could result in significant disruptions to operations as well as create safety hazards. There are also several other critical assets in this building, including one of the two treatment plant control rooms.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The roof will be replaced for the SCB and an engineered fall protection system will be installed.

Operating Department Impact and Funding Source:

The impacts to the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$150,000	\$0	\$0	\$0	\$150,000
Construction	\$1,150,000	\$0	\$0	\$0	\$1,150,000
FY Total	\$1,300,000	\$0	\$0	\$0	\$1,300,000

Existing Facilities As-Is Drawings – District Project 7360

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	N/A	N/A

Purpose:

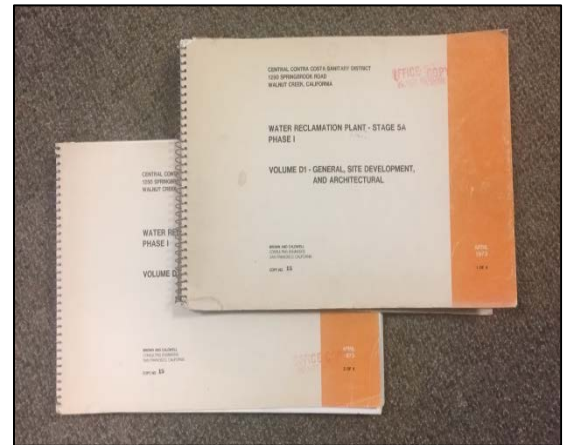
To develop as-is drawings in electronic computer-aided design (CAD) format for existing facilities.

Drivers:

Central San has limited as-built drawings for existing facilities, particularly facilities that were constructed over 40 years ago. Additionally, there are some facilities that have hard copy as-built drawings that are not in CAD format.

Most of Central San’s facilities are over 40 years old. As these existing facilities require rehabilitation or replacement, it will be important to have as-is CAD drawings for implementation of capital improvement projects. Additionally, it is important from an operations and resiliency standpoint to have as-is conditions documented and readily available for addressing potential urgent improvements.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

Compile available past project information, perform field investigations as required, and develop and update as-is CAD drawings for existing facilities. Currently, the focus for as-is drawings will be electrical facilities and treatment plant process areas where improvements are anticipated within the next five years.

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$200,000	\$100,000	\$0	\$0	\$300,000
FY Total	\$200,000	\$100,000	\$0	\$0	\$300,000

Plant Operations Building Seismic Upgrades – District Project 7362

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Critical	75

Purpose:

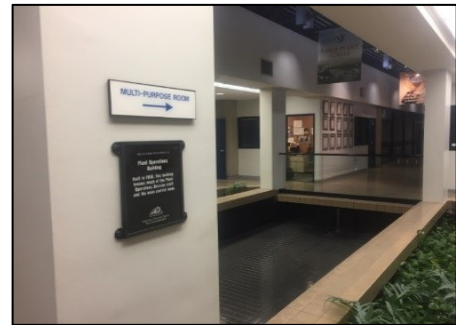
Improve the seismic safety of the Plant Operations Building (POB).

Drivers:

In January 2008, the State of California adopted the 2007 California Building Code. Among the updates in the 2007 California Building Code were significant changes to seismic design. In 2009, a seismic evaluation was completed for the treatment plant facilities (Martinez Wastewater Treatment Plant Seismic Vulnerability Assessment of Selected Facilities, December 2009). Included in the evaluation were recommendations to bring the POB up to date with current seismic design standards.

The POB houses staff for the Plant Operations and Plant Maintenance Divisions, the main control room, control system servers, Board Room, and Multi-Purpose Room (MPR) which also serves as an emergency operations center. The MPR is located within the POB and is frequently used by the public. Central San has plans to construct security improvements to the MPR. This would involve reconfiguring the space and modifying the existing restrooms to improve public access and comply with the Americans with Disabilities Act of 1990. Due to the construction, some of the work spaces may require some modifications. Any floorplan modifications will be done in a cost-effective manner.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

POB seismic improvements will be made to meet the Damage Control Performance Level. Work will take place in the basement, main level, and roof which will include:

- Column strengthening
- Addition of steel braces and columns
- Installation of new steel collector beams
- MPR enhancements to provide Americans with Disabilities Act compliant restrooms, and improve treatment plant security and access
- Headquarters Office Building lobby modifications to the reception and permit areas will improve functionality and access for the public, including the addition of an Americans with Disabilities Act compliant restroom

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Plant Operations Building

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$500,000	\$0	\$0	\$0	\$500,000
Construction	\$2,831,177	\$2,793,000	\$0	\$0	\$5,624,177
FY Total	\$3,331,177	\$2,793,000	\$0	\$0	\$6,124,177

Treatment Plant Planning – District Project 7363

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Planning	Critical	85

Purpose:

To complete evaluations for upcoming regulatory requirements, assess aging infrastructure, evaluate capacity requirements, and investigate opportunities to optimize operation of existing facilities.

Drivers:

As wastewater regulations develop and new treatment technologies become available, process modifications may be needed. This project includes technical evaluations to address regulatory initiatives and maintain permit compliance (e.g., Suisun Bay nutrient modeling work and National Pollutant Discharge Elimination System required studies and reports).

As flows and contaminant loads and concentrations change, capacity evaluations are needed to confirm capacity ratings of existing facilities and to identify any potential capacity improvements required to manage dry weather and wet weather flows and loads. Technical evaluations are completed to support treatment plant operations by evaluating optimization opportunities to improve the reliability and performance of existing treatment plant processes and facilities.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The following are major elements included in the project:

- Support Bay Area Clean Water Agencies nutrient evaluation, management, and reduction strategy work for the San Francisco Bay Area
- Evaluate nutrient reduction options for Central San
- Evaluate performance and optimization opportunities for miscellaneous equipment and processes (e.g., secondary treatment and Filter Plant optimizations)
- Evaluate energy reduction and renewable energy opportunities for the treatment plant

Operating Department Impact and Funding Source: The impacts to operational budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$900,000	\$500,000	\$500,000	\$500,000	\$2,400,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$900,000	\$500,000	\$500,000	\$500,000	\$2,400,000

Treatment Plant Safety Enhancement – Phase 5 – District Project 7364

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Construction	Critical	65

Purpose:

To enhance treatment plant safety through identification of safety concerns, repairs, and capital improvements.

Drivers:

Central San and the treatment plant have proactive safety programs that are administered by separate committees. These committees are responsible for addressing safety concerns at the treatment plant as identified by staff and to respond to regulatory requirements. Often this response will require construction of a capital project. The first three phases of this project addressed various safety repairs and improvements.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

The project will include treatment plant facility improvements for safety, including a second emergency exit stairway for the control room in the Solids Conditioning Building.



Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Related Projects and Bidding:

The project scope was coordinated with planned improvements with the Solids Handling Facility Improvements project.

Location(s): Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$100,000	\$0	\$0	\$0	\$100,000
Construction	\$0	\$600,000	\$0	\$0	\$600,000
FY Total	\$100,000	\$600,000	\$0	\$0	\$700,000

Piping Renovation – Phase 10 – District Project 7369

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Design	Critical	65

Purpose:

To inspect, rehabilitate, and replace above-grade and below-grade piping and related systems at the treatment plant.

Drivers:

During the main treatment plant improvements project in the 1970s (Stage 5A project), numerous above-grade and below-grade piping systems were installed throughout the treatment plant. These pipes convey wastewater, sludge, steam, air, and other utility services between various process areas. Many of these piping systems have been in operation for over 40 years without any major rehabilitation or replacement. Some piping systems are leaking due to corrosion and the condition of some systems is unknown because they have not been visually inspected.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

The following are major elements included in the project:

- Replace piping, valves, and pumps throughout the treatment plant
- Replace the pneumatic water tanks and associated controls
- Replace water piping in the POB equipment gallery and several pipelines
- Replace equipment identified by the Asset Management Program, and Operations and Maintenance staff



Operating Department Impact and Funding Source:

This project will have insignificant impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Miscellaneous areas within the Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$50,000	\$0	\$0	\$50,000
Design	\$0	\$600,000	\$0	\$0	\$600,000
Construction	\$0	\$100,000	\$2,500,000	\$500,000	\$3,100,000
FY Total	\$0	\$750,000	\$2,500,000	\$500,000	\$3,750,000

Annual Infrastructure Replacement – District Project 7370

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Design	Critical	65

Purpose:

To fund ongoing rehabilitation and replacement of wastewater treatment plant assets.

Drivers:

The treatment plant consists of over 4,400 assets with a range of ages. The majority of existing treatment plant equipment was installed around 40 years ago. Over time, equipment, piping systems, and other assets require rehabilitation or replacement to continue with Central San’s high level of service, reliable management, and treatment of wastewater. Some of the improvements to be funded from this project were identified as part of condition assessments. Ongoing condition assessments will be needed to confirm the timing for other rehabilitation and replacement work.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

Rehabilitation and replacement work will be packaged into projects that are scoped and funded from this program. Examples include:

- Roof replacement program including the treatment plant warehouse and standby power facility
- Standby, effluent, primary effluent, portable diesel, and other pump replacement or rehabilitation
- Chemical system tank, pumps, and piping replacement (e.g., sodium hypochlorite, polymer, lime)
- Plant air, process water, and fuel oil system improvements including piping and valves
- Actuators, control panels, and other instrumentation and electrical replacements
- UPCCAA projects that are urgent or critical
- Refurbish coating and cathodic protection systems and other miscellaneous items
- Pre-purchase of equipment for projects (e.g. large final effluent valves for the Outfall Project)

Operating Department Impact and Funding Source:

This project will have insignificant impact on the operating budgets. Project expenditures will be funded from Capital Revenues.

Location(s): Miscellaneous areas within the Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$100,000	\$100,000	\$800,000	\$1,000,000
Design	\$0	\$250,000	\$400,000	\$3,200,000	\$3,850,000
Construction	\$0	\$1,850,000	\$2,900,000	\$23,200,000	\$27,950,000
FY Total	\$0	\$2,200,000	\$3,400,000	\$27,200,000	\$32,800,000

Condition Assessment of Buried Pipelines – District Project 7371

Program	Phase	Priority Rank	Ranking Score
Treatment Plant	Planning	Very High	55

Purpose:

To assess the condition and replacement needs of major buried piping systems at the treatment plant site.

Drivers:

Although several piping systems are accessible in the Central San tunnels, there are several piping systems that are buried and difficult to access for condition assessment. In addition, there are some channels and submerged piping systems that are difficult to access. Some of these piping systems are also required for continuous operation of the treatment plant and are difficult to temporarily shut down for assessment. Despite these challenges, it is important to plan any necessary bypassing operations and perform condition assessments of these pipes, some of which are over 40 years old. These pipelines are critical for Central San operations and rehabilitation or replacement may be required in the coming years.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

This project includes the following major elements:

- Develop a prioritized condition assessment plan for buried piping systems and difficult to access piping or channels
- Bypass pumping and piping as required
- Field inspection of buried or submerged piping systems and channels
- Identify and develop recommended rehabilitation or replacement needs

Operating Department Impact and Funding Source:

This project will have insignificant impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$250,000	\$250,000	\$500,000	\$1,000,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$0	\$250,000	\$250,000	\$500,000	\$1,000,000

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Capital Improvement Budget – General Improvements Program

The General Improvements Program is primarily concerned with property, administrative buildings, management information systems including information technologies, asset management, and new equipment and vehicle needs as described in more detail below:

- **Vehicle Replacement Program** – The Capital Improvement Budget (CIB) includes a yearly allowance for the vehicle replacement budget. Specific vehicles are replaced each year as approved through the annual budget process.
- **Equipment Acquisition** – The Equipment Acquisition project comprises the items budgeted and purchased similar to the Vehicle Replacement Program, which is included in this document. The CIB includes an allowance for the equipment budget. Specific equipment items are approved through the annual budget process.
- **Management Information Systems** – The Management Information Systems subprogram reflects the importance of Information Technology (IT) in the daily operation of Central San. Central San has developed an IT Master Plan that envisions implementing specific improvements and extends several years into the future. An allowance to meet anticipated future information technology needs has been included in the Ten-Year Capital Improvement Plan. Funding for upgrades of Central San’s Geographic Data Integration systems and Enterprise Resource Planning software platform are included in the CIB.
- **General Projects** – This includes improvements to the Headquarters Office Building, Collection System Operations Building and other properties, CIB legal expenses, easement and right-of-way acquisition, and projects related to Central San property improvements. Central San has invested significant resources in its assets, and the purpose of the Asset Management Program, which includes Treatment Plant, Collection System, General Improvements, and Recycled Water assets, is to optimize the lifecycle of these assets to deliver high quality and reliable services in a sustainable manner for customers with an acceptable level of risk.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Example of Project Driver(s)

Each project is described on the following pages. Each project summary includes project name, description, prioritization, purpose, operating department impact and funding source, location, budgetary information, and drivers (i.e., what is the main impetus for a project). The main driver(s) for each project is (are) identified by highlighting in yellow background color and **bold** text. Driver(s) that is (are) not as significant or not relevant is (are) displayed in gray.

All projects in the General Improvements Program are summarized; including all past, current, and planned budgets required to complete each project as shown on the following Table 4:

CIB TABLE 4 – FY 2019-20 General Improvements Program Budget/Project Summary

Project Number	Project	Budget-to-Date	FY 2019-20	Future FYs	Total Project Cost
8207	General Security and Access	\$134,977	\$150,000	\$100,000	\$384,977
8230	Capital Legal Services	\$178,665	\$20,000	\$40,000	\$238,665
8236	District Easement Acquisition	\$258,047	\$75,000	\$150,000	\$483,047
8240	IT Development	\$2,738,794	\$500,000	\$1,260,000	\$4,498,794
8243	Server Room Relocation	\$2,000,000	\$0	\$0	\$2,000,000
8249	Collection System Operations Dump Pad Modifications	\$60,000	\$0	\$0	\$60,000
8250*	Enterprise Resource Planning Replacement	\$600,000	\$3,105,000	\$1,500,000	\$5,205,000
8251*	Capital Improvement Program and Budget Improvements	\$0	\$350,000	\$950,000	\$1,300,000
8516	Equipment Acquisition	\$876,000	\$100,000	\$1,000,000	\$1,976,000
8517	Vehicle Replacement Program	\$1,849,000	\$1,069,000	\$5,400,000	\$8,318,000
	Total Program	\$8,695,483	\$5,369,000	\$10,400,000	\$24,464,483

*New project in FY 2019-20

General Security and Access – District Project 8207

Program	Phase	Priority Rank	Ranking Score
General Improvements	Construction	Critical	65

Purpose:

To improve safety for employees and the public, meet safety standards, reduce exposure to liability, reduce property loss, and reduce operations and maintenance expenses.

Drivers:

Security system improvements are routinely identified and refined. Additional security measures for essential public service facilities are required. In 2016, a comprehensive security study was completed for major facilities that utilized the principles of American Water Works Association J100 Risk Analysis and Management for Critical Asset Protection methodology. This is a comprehensive approach that enables the estimation of relative risks across multiple assets while considering malevolent and natural hazards.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

Findings from this study that are applicable to non-treatment plant facilities and properties will be implemented under this project. Improvements include:

- Installing security upgrades to the Headquarters Office Building’s Lobby to secure the area and clearly identify the public use of the building. Cameras for surveillance, alarm system upgrades for intrusion, and associated systems will be provided.
- Access control improvements and additional card readers, perimeter fencing repair and gates
- Increased signage, improved lighting, and other miscellaneous security system improvements
- Evaluate the replacement and improvements to the security guard shack at the plant.



Operating Department Impact and Funding Source:

Impacts to the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Central San-wide

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$134,977	\$150,000	\$100,000	\$0	\$384,977
FY Total	\$134,977	\$150,000	\$100,000	\$0	\$384,977

Capital Legal Services – District Project 8230

Program	Phase	Priority Rank	Ranking Score
General Improvements	All	Critical	N/A

Purpose:

To streamline the processing of legal bills.

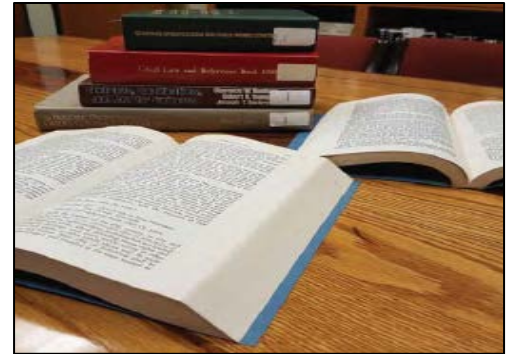
Drivers:

In the past, legal expenses were charged to individual capital projects. This process required extra staff time each month to review legal bills and get approvals from several different project managers.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

Capital legal service expenses are no longer charged to individual capital projects. The processing of legal bills has been streamlined by charging legal expenses to one capital account with four charge numbers for the four programs. This reduces the amount of time all parties must spend processing the legal bill.



Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Central San-wide

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$178,665	\$20,000	\$20,000	\$20,000	\$238,665
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$178,665	\$20,000	\$20,000	\$20,000	\$238,665

District Easement Acquisition – District Project 8236

Program	Phase	Priority Rank	Ranking Score
General Improvements	Construction	Critical	65

Purpose:

To improve or acquire new property land rights for existing or new sanitary sewers that are located on private properties and are not associated with a current capital project for sewer renovation work.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Drivers:

As capital projects are designed, sanitary sewer easements may have to be acquired for those specific projects. This project provides funds for the acquisition of easements for projects where specific funds are not identified within the sewer renovation capital improvement projects in the CIB. Central San is currently evaluating and updating the status of the existing capitalized easements, perfecting easements, and right-of-ways.



Description:

Examples of easements that may be acquired through this project include:

- Easements for existing sewers where no easements currently exist
- Easements for sewers relocated through other public agency projects
- Upgraded easements or access rights for existing sewers
- Upgraded easements for Central San’s outfall pipeline
- Easements for recycled water distribution pipelines

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Central San-wide

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$258,047	\$75,000	\$75,000	\$75,000	\$483,047
FY Total	\$258,047	\$75,000	\$75,000	\$75,000	\$483,047

Information Technology Development – District Project 8240

Program	Phase	Priority Rank	Ranking Score
General Improvements	Construction	Critical	70

Purpose:

To replace and upgrade Information Technology (IT) infrastructure and software as needed.

Drivers:

An IT Development Plan was developed to centralize efforts and funding in the development of computer and telecommunication technology within Central San. Central San budgets IT on an annual basis.

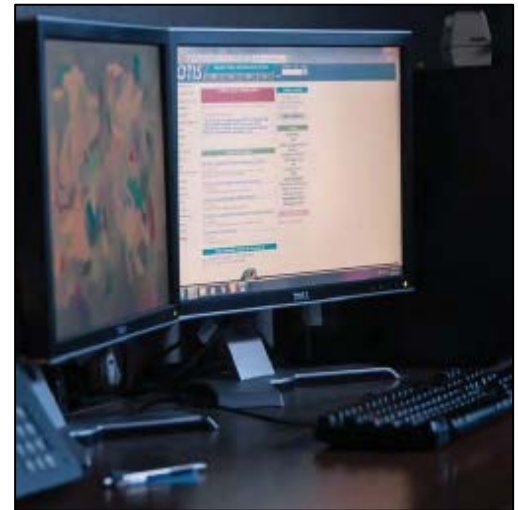
The IT Master Plan was approved in 2015 and its implementation is within the Capital Improvement Program (CIP) and the Ten-Year Capital Improvement Plan.

Description:

This project is the implementation of the IT Master Plan which includes the following major elements:

- Network infrastructure upgrades
- Disaster recovery/business continuity
- Cloud based technology improvements
- Business application suite improvements
- Increasing mobile presence
- Desktop technology refreshment
- Web redesign and enhancement
- Cyber security

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Operating Department Impact and Funding Source:

The impacts to the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Central San-wide

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$2,738,794	\$500,000	\$500,000	\$760,000	\$4,498,794
FY Total	\$2,738,794	\$500,000	\$500,000	\$760,000	\$4,498,794

Server Room Relocation – District Project 8243

Program	Phase	Priority Rank	Ranking Score
General Improvements	Construction	Critical	65

Purpose:

To relocate all servers, network, and other related computer equipment from its current location in the Plant Operations Building (POB) basement to the first level.

Drivers:

The server and equipment in the POB basement are critical for day-to-day Central San operations, customer service, communication, and data management.

This project was initiated after a major IT server failure at the main network facility in the POB basement. The existing server room is a decommissioned laboratory room which is vulnerable to failures of nearby water and wastewater process pipelines. Several alternatives for relocation of the server room to a more reliable and resilient location were evaluated, and a new server room attached to the existing POB has been designed.

Description:

The following are major elements included in the project:

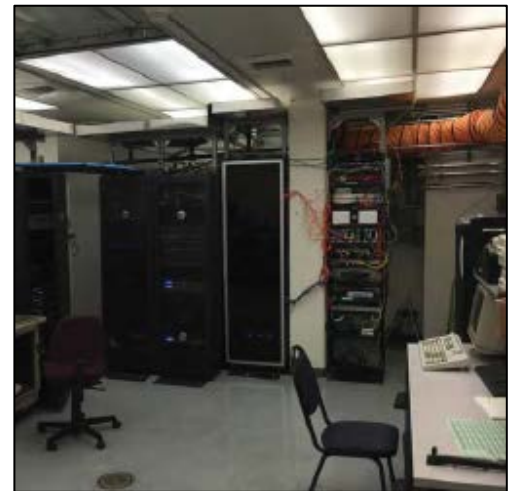
- Relocation of server, network, and related computer equipment to a new Central San server room that will be integrated with the POB facility
- Re-routing of communication cabling and conduits to the new facility
- Professional migration of existing equipment

Operating Department Impact and Funding Source:

This project will have an insignificant impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Treatment Plant

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$85,000	\$0	\$0	\$0	\$85,000
Design	\$250,000	\$0	\$0	\$0	\$250,000
Construction	\$1,665,000	\$0	\$0	\$0	\$1,665,000
FY Total	\$2,000,000	\$0	\$0	\$0	\$2,000,000

Collection System Operations Dump Pad Modifications – District Project 8249

Program	Phase	Priority Rank	Ranking Score
Collection System Program	Construction	Critical	65

Purpose:

This project will reconfigure the Collection System Operations dump pad to improve safety and efficiency.

Drivers:

The current Collection System Operations dump pad slopes towards the front of the truck. Water flows under the trucks as they are unloaded to the trench drain which the crews then have to walk through to get to the truck. The truck needs to be unloaded slowly to prevent it from overflowing the drain.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

The following are major elements included in the project:

- Demolition of the existing concrete dump pad
- Regrade the site
- Installation of new concrete and drainage

Operating Department Impact and Funding Source:

This project will not have an impact on operating budgets. Project expenditures are funded from Capital Revenues.



Location(s): Collection System Operations Facility in Walnut Creek

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$5,000	\$0	\$0	\$0	\$5,000
Construction	\$55,000	\$0	\$0	\$0	\$55,000
FY Total	\$60,000	\$0	\$0	\$0	\$60,000

Enterprise Resource Planning Replacement – District Project 8250

Program	Phase	Priority Rank	Ranking Score
General Improvements	Construction	Critical	65

Purpose:

To replace our legacy Enterprise Resource Planning (ERP) system that manages Central San’s finances, budget, human resources, procurement, payroll and other related resources.

Drivers:

The existing SunGard ERP system uses outdated technology that does not meet the current and future Central San business needs. The latest generation of ERP systems have been developed to implement modern best-practice processes that will help Central San to streamline and optimize many business processes.

This project will eliminate the need for staff to use many manual processes and workarounds that are currently in use to accomplish work. It will enable more organizational transparency by providing visibility into our financial and business data in ways that are not currently possible and will provide the latest generation of technology to ensure full integration with future business applications.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The following are major elements included in the project:

- Conversion of data from SunGard system to new ERP system
- Implementation of Human Resources, Finance, Payroll, and related systems
- Staff training
- Integration with related Central San systems

A replacement of Central San’s permitting software functionality, currently provided by the SunGard system, is not included in these costs but may be funded from IT Development or other project sources.

Operating Department Impact and Funding Source:

This project is expected to have an annual ongoing impact of approximately \$200,000 on the Operating Budget. Other operating efficiencies may offset, in part, some of these direct costs. Project expenditures are funded from Capital Revenues.

Location(s): Martinez and Walnut Creek Campuses and Cloud

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$100,000	\$0	\$0	\$0	\$100,000
Design	\$200,000	\$0	\$0	\$0	\$200,000
Construction	\$300,000	\$3,105,000	\$1,200,000	\$300,000	\$4,905,000
FY Total	\$600,000	\$3,105,000	\$1,200,000	\$300,000	\$5,205,000

Capital Improvement Program and Budget Improvements – District Project 8251

Program	Phase	Priority Rank	Ranking Score
General Improvements	Planning	Very High	TBD

Purpose:

Provide for the capitalization of the staff time necessary for the data gathering and production of the CIB and CIP, and for upgrades to the current program management system software, E-builder, and to standardize specifications and drawings used for all Capital Projects.

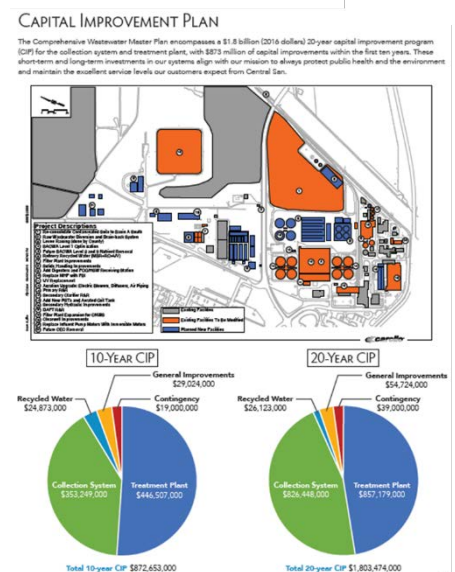
Drivers:

Several drivers are included in the CIP; however, the main driver is aging infrastructure and replacement of critical equipment and systems at Central San. In order to keep up with the increase in the CIP, staff has modernized its program and project management software system to be more effective in delivering project with implementation of E-builder. As of July 1, 2019, E-builder will be done with its pilot stage and go live for all projects.

Description:

Upgrades of additional processes, such as master commitments upgrades, and other project management and reporting tools will be evaluated or included in E-Builder. In addition, an annual budget will be included in this project to account for the yearly CIB and CIP. This project will also fund efforts to standardize design specifications and drawings for all projects.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Operating Department Impact and Funding Source:

This project will not have an impact on operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Central San-wide

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$100,000	\$100,000	\$800,000	\$1,000,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$250,000	\$50,000	\$0	\$300,000
FY Total	\$0	\$350,000	\$150,000	\$800,000	\$1,300,000

Equipment Acquisition – District Project 8516

Program	Phase	Priority Rank	Ranking Score
General Improvements	Construction	Very High	55

Purpose:

To provide new, safe, and cost-effective equipment for operations and maintenance of Central San facilities.

Drivers:

This project is developed as a multi-year program to procure new equipment required for operations and maintenance of assets throughout Central San.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

This project is a multi-year program to procure new equipment such as:

- IRIS M (Visual Vibration) System
- Cold Vapor Atomic Fluorescence Mercury Analyzer

Operating Department Impact and Funding Source:

This project will have an insignificant impact on the operating budgets. Project expenditures are funded from Capital Revenues.



Location(s): Central San-wide

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$876,000	\$100,000	\$250,000	\$750,000	\$1,976,000
FY Total	\$876,000	\$100,000	\$250,000	\$750,000	\$1,976,000

Vehicle Replacement Program – District Project 8517

Program:	Phase:	Priority Rank:	Ranking Score
General Improvements	Construction	Very High	55

Purpose:

Provide safe and cost-effective vehicle replacement.

Drivers:

Central San will budget and acquire vehicles under this project and use asset management principles and historic replacement costs to provide an effective vehicle replacement strategy. Staff, comprised of Engineering and Operations, has forecasted a yearly budget (average costs from FY 2016-2026 plan) which will be used to fund the project. Underspensing in a year will result in a carryforward to future years. This approach will also recognize that due to long lead times, especially on specialized vehicles, the budget for this program can carry forward to the next fiscal year when delivery takes place.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The following vehicles are being considered in FY 2019-20:

- Truck mounted sewer rodder
- Multi-conductor CCTV van
- Medium duty dump truck
- Sports utility van
- Cargo van
- Half-ton 4x4 truck
- Three quarter-ton 2x4 truck
- Half-ton 2x4 truck

Operating Department Impact and Funding Source:

This project will not have an impact on operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Central San-wide

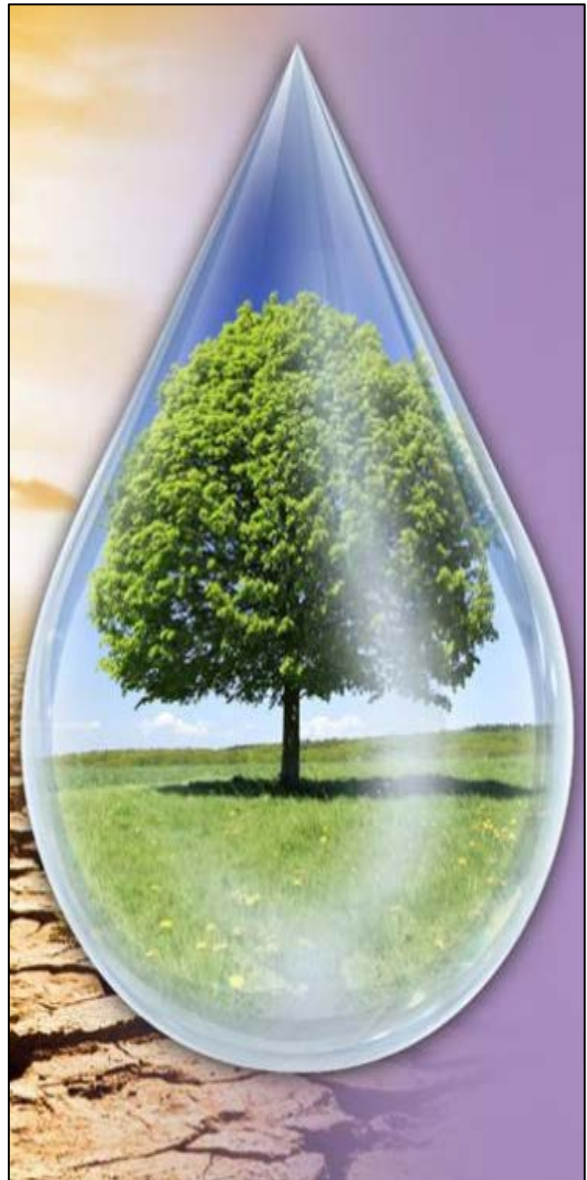
Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$1,849,000	\$1,069,000	\$900,000	\$4,500,000	\$8,318,000
FY Total	\$1,849,000	\$1,069,000	\$900,000	\$4,500,000	\$8,318,000

Capital Improvement Budget – Recycled Water Program

Central San provides landscape irrigation water that meets all the requirements of the State Water Resources Control Board's Division of Drinking Water and the San Francisco Regional Water Quality Control Board for unrestricted landscape irrigation. Recycling water means less water is diverted from the Delta environment. Recycled water is a valuable resource, especially during drought years when water for landscape irrigation is less available because of water rationing.

In 1996 Central San and the Contra Costa Water District reached an agreement allowing Central San to supply recycled water to specific areas of Concord and Pleasant Hill. That area is referred to as Zone 1. About 200 million gallons of recycled water are used annually by irrigation customers, including two golf courses, parks, a community college, an elementary school, three middle schools, a high school, and the City of Pleasant Hill. This project will ultimately deliver 1.5 million gallons per day for irrigation use in the Pleasant Hill area. Central San will continue to collaborate with local water purveyors to identify cost-effective landscape irrigation and industrial recycled water projects.

Central San currently produces over 600 million gallons of recycled water per year for use at the treatment plant site, for irrigation customers, and for a range of commercial uses. Over 200 million gallons per year of recycled water is provided to a variety of customers in Pleasant Hill, Concord, and businesses near Central San's treatment plant in Martinez. Recycled water is used for landscape irrigation at schools, parks, playgrounds, private businesses, golf courses, street medians, industrial processes, and commercial applications such as truck washing, concrete manufacturing, dust control, and toilet and urinal flushing. Central San uses over 300 million gallons per year at the treatment plant for process water and landscape irrigation for Central San properties. Central San continues to pursue several projects as described in the following pages.



The major emphasis of the Recycled Water Program for the next fiscal year will be to begin planning and preliminary design for improvements to Central San’s existing recycled water treatment facilities and related support facilities, to address aging infrastructure needs, and maintain reliable recycled water service to customers and for use at Central San’s treatment plant. Central San will also continue efforts to add new cost-effective customers in Central San’s Zone 1 service area, pursue outside funding assistance (such as federal and state grants for all Central San recycled water projects), and work with water supply agencies to develop recycled water supply alternatives, such as the Water Exchange Project with Contra Costa Water District and Santa Clara Valley Water District.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Example of Project Driver(s)

Each project is described on the following pages. Each project summary includes project name, description, prioritization, purpose, operating department impact and funding source, location, budgetary information and drivers (i.e., what is the main impetus for a project). The main driver(s) for each project is (are) identified by highlighting in yellow background color and **bold** text. Driver(s) that is (are) not as significant or not relevant is (are) displayed in gray.

CIB Table 5 – FY 2019-20 Recycled Water Program Budget/Project Summary

Project Number	Project	Budget-to-Date	FY 2019-20	Future FYs	Total Project Cost
7306	Zone 1 Recycled Water	\$532,894	\$100,000	\$106,000	\$738,894
7346	Recycled Water Distribution System Surge Analysis	\$205,000	\$0	\$0	\$205,000
7361	Filter Plant & Clearwell Improvements – Phase 1A	\$2,537,000	\$3,452,000	\$27,011,000	\$33,000,000
7365	Recycled Water Clearwell Repairs	\$1,700,000	\$0	\$0	\$1,700,000
7366	Recycled Water Distribution System Renovations Program	\$15,000	\$500,000	\$1,600,000	\$2,115,000
7368*	Water Exchange Project	\$250,000	\$100,000	\$0	\$350,000
	Total Program	\$5,239,894	\$4,152,000	\$28,717,000	\$38,108,894

*A new project authorized in FY 2018-19

Zone 1 Recycled Water – District Project 7306

Program	Phase	Priority Rank	Ranking Score
Recycled Water	Construction	Very High	50

Purpose:

To provide recycled water for landscape irrigation customers within the Zone 1 distribution area, which includes Pleasant Hill and portions of Concord and Martinez.

Drivers:

In 2001, Central San completed the Zone 1 Implementation Plan that provided estimated connection costs and revenues for customers identified in the Zone 1 Project Agreement with Contra Costa Water District. Depending on the extent of use, demand for recycled water in Zone 1 for landscape irrigation and commercial uses ranges from 200 to 400 million gallons per year.

Central San staff evaluates potential new recycled water landscape irrigation sites near the existing recycled water distribution system and works with developers to evaluate options for connecting to the system.

Description:

This project provides funds for the planning, design, and construction of recycled water facilities for landscape irrigation and commercial customers in the Zone 1 distribution area.

Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Zone 1 Recycled Water Distribution System - Pleasant Hill, Concord, and Martinez

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$117,000	\$0	\$0	\$0	\$117,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$415,894	\$100,000	\$53,000	\$53,000	\$621,894
FY Total	\$532,894	\$100,000	\$53,000	\$53,000	\$738,894

Recycled Water Distribution System Surge Analysis – District Project 7346

Program	Phase	Priority Rank	Ranking Score
Recycled Water	Planning	Critical	65

Purpose:

To update the recycled water distribution model and conduct a pressure transient and surge analysis of the Recycled Water Distribution System.

Drivers:

The recycled water distribution system has experienced several pipeline breaks over the last few years. An analysis of pressures within the recycled water distribution system during different operating conditions is recommended to confirm whether the existing recycled water surge tank is adequately sized given current recycled water demands and operations, to evaluate other potential distribution system hydraulic bottlenecks and deficiencies, and to optimize pumping operations and controls if required.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

Several elements are included in the project:

- Monitor and evaluate pressure in the recycled water distribution system
- Evaluate the size and optimization of recycled water surge tank, pumps, and distribution system
- Evaluate opportunities to manage pressure transients
- Software modeling of the distribution system



Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Zone 1 Recycled Water Distribution System - Pleasant Hill, Concord, and Martinez

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$205,000	\$0	\$0	\$0	\$205,000
Design	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0
FY Total	\$205,000	\$0	\$0	\$0	\$205,000

Filter Plant & Clearwell Improvements – Phase 1A – District Project 7361

Program	Phase	Priority Rank	Ranking Score
Recycled Water	Design	Critical	70

Purpose:

To rehabilitate and replace components of the existing Filter Plant recycled water facilities.

Drivers:

The recycled water facilities produce disinfected tertiary effluent that meets Title 22 recycled water requirements and is used on-site for utility water and is pumped offsite for various residential and commercial recycled water uses. The Filter Plant, Clearwell structure, and related facilities were constructed in the mid-1970s. The existing Filter Plant media has been partially replaced on a routine basis over the years. The last partial media replacement effort was 15 years ago. The electrical and instrumentation infrastructure is mostly original, showing signs of significant wear, and requires replacement to ensure operational reliability. Opportunities to minimize energy demands and reduce chemical dosing requirements will be included in the rehabilitation project in addition to replacing chemical piping, valves, and pumps that are in poor condition. Additional improvements will be incorporated in a future Phase 1B project.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability



Description:

The Phase 1A project includes the following major elements:

- Rehabilitate and replace various electrical equipment (motor control centers, switchgear, substation), and PLCs
- Replace one filter and chemical addition improvements and rehabilitate coagulant flash mixing, backwash gates, and other miscellaneous equipment and valves
- Replace sodium hypochlorite piping and pumps used for Title 22 disinfection compliance
- Clearwell storage improvements or new storage tanks and related equipment
- Replace pump motors and electrical at the Clearwell Pumping Station

Operating Department Impact and Funding Source:

The impacts to the operating budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$1,130,000	\$0	\$0	\$0	\$1,130,000
Design	\$1,407,000	\$1,200,000	\$0	\$0	\$2,607,000
Construction	\$0	\$2,252,000	\$8,000,000	\$19,011,000	\$29,263,000
FY Total	\$2,537,000	\$3,452,000	\$8,000,000	\$19,011,000	\$33,000,000

Recycled Water Clearwell Repairs – District Project 7365

Program	Phase	Priority Rank	Ranking Score
Recycled Water	Construction	Critical	80

Purpose:

Commission the west cell of the Clearwell structure and perform repairs to the east cell as needed.

Drivers:

The Clearwell structure was installed in 1975. A cover was installed on the east cell to reduce chlorine usage, prevent algae growth, and maintain recycled water quality. The east cell cover has deteriorated rapidly in recent years. However, it is not feasible to repair the east cell cover due to lack of redundancy. This project will dewater, clean and dispose of solids from the west cell and install a new modular cover on the west cell to obtain redundancy and ensure reliability of the recycled water supply system.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

The project includes the following major elements:

- Dewater, clean, and dispose of solids from the west cell
- Installation of a new modular cover on the west cell
- Repair east cell cover as needed
- Minor mechanical modifications to operate the west cell
- Project initiated in FY 2017-18 and is scheduled to close in FY 2019-20



Operating Department Impact and Funding Source:

This project will not have an impact on the operating budgets. Project expenditures are funded from Capital Revenues.

Location(s): Treatment Plant

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$0	\$0	\$0	\$0	\$0
Design	\$60,000	\$0	\$0	\$0	\$60,000
Construction	\$1,640,000	\$0	\$0	\$0	\$1,640,000
FY Total	\$1,700,000	\$0	\$0	\$0	\$1,700,000

Recycled Water Distribution System Renovations Program – District Project 7366

Program	Phase	Priority Rank	Ranking Score
Recycled Water	Planning	Very High	60

Purpose:

To renovate existing recycled water distribution system facilities.

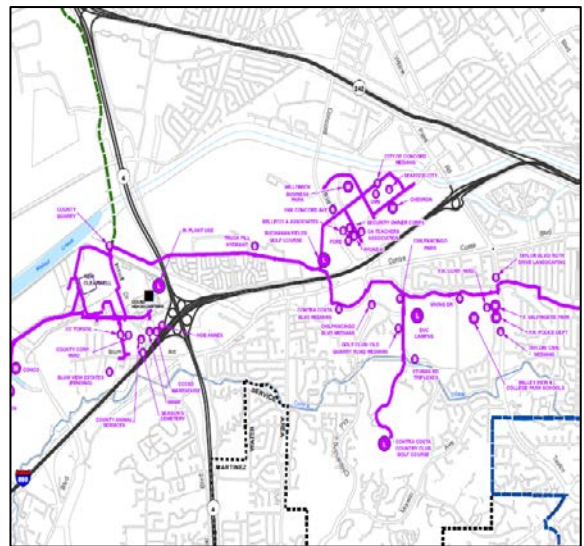
Drivers:

Central San’s recycled water distribution system consists of approximately 13 miles of recycled water distribution piping, which includes several isolation valves, pressure reducing valves, air relief valves, hydrants, flow meters, and other connections and appurtenances. The recycled water distribution system includes pressured pipes installed over various years ranging from the mid-1990s to 2015 and now serves over 30 customers. Eventual renovations and upgrades of the distribution system components will be required to maintain reliable service to Central San’s recycled water customers.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

This project includes renovation of recycled water piping, valves, meters, and other appurtenances. In addition, this project will include upgrades to overall system reliability and continued condition assessment and inspection of various recycled water distribution system assets.



Operating Department Impact and Funding Source:

The impacts to operational budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Zone 1 recycled water distribution system - Pleasant Hill, Concord, Martinez

Project Budget					
Phase	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning	\$15,000	\$85,000	\$0	\$0	\$100,000
Design	\$0	\$200,000	\$0	\$0	\$200,000
Construction	\$0	\$215,000	\$200,000	\$1,400,000	\$1,815,000
FY Total	\$15,000	\$500,000	\$200,000	\$1,400,000	\$2,115,000

Water Exchange Project – District Project 7368

Program	Phase	Priority Rank	Ranking Score
Recycled Water	Planning	Critical	80

Purpose:

To develop a project to recycle as much of Central San’s wastewater supply as possible.

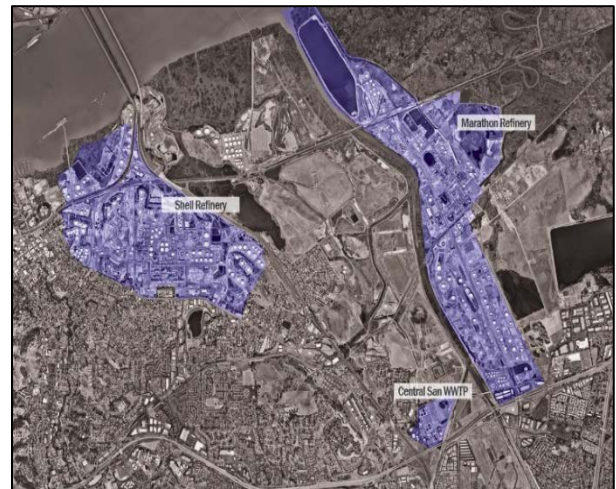
Drivers:

Central San’s Board of Directors is interested in taking advantage of Central San’s wastewater supply to augment the region’s water supply. This project seeks to produce recycled water for meeting Central San’s current and future recycled water irrigation customer demands and for meeting the recycled water quality and demands of the nearby Shell and Marathon refineries in Martinez.

Project Drivers	
Aging Infrastructure	Capacity
Regulatory	Sustainability

Description:

The planning-level effort for this project involves evaluating a cost-effective treatment train that will produce both irrigation-quality recycled water to meet Central San’s current (utility water and Zone 1) and future (Concord Community Reuse Project) Title 22 demands, in addition to producing approximately 19 MGD of industrial-quality recycled water to provide to Contra Costa Water District to serve to their Martinez refinery customers. The refineries’ current water supply (raw Central Valley Project water) would be freed up and exchanged through Contra Costa Water District and conveyed to Santa Clara Valley Water District via the proposed Transfer-Bethany Pipeline and the South Bay Aqueduct.



Operating Department Impact and Funding Source:

The impacts to operational budgets have not yet been determined. Project expenditures are funded from Capital Revenues.

Location(s): Treatment Plant and Martinez

Project Budget					
Phase:	Budget-to-Date	FY 2019-20	FY 2020-21	Future FYs	Total
Planning:	\$250,000	\$100,000	\$0	\$0	\$350,000
Design:	\$0	\$0	\$0	\$0	\$0
Construction:	\$0	\$0	\$0	\$0	\$0
FY Total:	\$250,000	\$100,000	\$0	\$0	\$350,000

Ten-Year Capital Improvement Plan (FY 2019 – FY 2028)

OVERVIEW

Central San has developed a Ten-Year Capital Improvement Plan (Ten-Year CIP) for capital facilities and financing needs. It incorporates the recommendations from the June 2017 Comprehensive Wastewater Master Plan (CWMP). The Ten-Year CIP is updated every year. Specifically, the plan identifies and prioritizes capital projects needed to accomplish Central San’s Vision, Mission, Values, and Goals. It also includes planning-level cost estimates for proposed projects and projections for the various sources of revenue needed to meet the cash flow requirements. The principal purpose of the Ten-Year CIP is to provide the Board of Directors (Board) with the information needed to formulate a long-range policy regarding:

- **Priority and Schedule** – Identify, prioritize, and schedule the projects necessary to accomplish Central San’s Vision, Mission, Values, and Goals.
- **Financing** – Plan for sufficient financial resources to complete the proposed projects.

The CWMP was a critical tool used by Central San to implement the following strategies from Central San’s Strategic Plan (FY 2018-2020):

- **Strive to Meet Regulatory Requirements** by striving to achieve 100% permit compliance in air, water, land, and other regulations and by striving to minimize the number of sanitary sewer overflows by continuing Best Management Practices.
- **Embracing Technology, Innovation, and Environmental Sustainability** by reducing reliance on non-renewable energy using sustainable practices that minimize waste, maximize resources, improve the community, as well as encouraging the review and testing of technology to optimize and modernize business operations.
- **Maintain Reliable Infrastructure** by managing assets optimally through their life cycle, by facilitating long-term capital renewal and replacement, and by protecting Central San personnel and assets from threats and emergencies.

The following Ten-Year CIP section provides a general description of the plan and a discussion of potential, unbudgeted future capital projects. As projects develop and are prioritized, they are grouped into the four programs (Treatment Plant, Collection System, General Improvements, and Recycled Water Program) as shown in the Capital Improvement Budget (CIB).

A brief description of each program and a list of major projects for the Ten-Year CIP are provided in the Capital Improvement Plan sections for each of the four programs. In total, the estimated costs for all the projects listed in the Ten-Year CIP is \$867.2 million.

Ten-Year Capital Improvement Plan Budget Process

The Ten-Year CIP assumes that funds will be available to support the plan. These funds come from all revenue sources as discussed in the *Financial Overview* section. The only two discretionary sources of revenue are the sale of bonds or adjustment of the capital component of the Sewer Service Charge. The Capital Plan assumes that two bond issuances will occur, but the Board has yet to approve the issuance of the bonds. Central San has also applied for State Revolving Fund loans, which may offset in part the need for bond proceeds. The Ten-Year CIP is currently funded on a year-by-year basis when the CIB for the upcoming fiscal year is formally authorized and adopted by the Board. Changes in capital revenue forecasts or changes in recommended expenditures may result in changes to this Ten-Year CIP.

2017 Comprehensive Wastewater Master Plan

The CWMP was completed in June 2017. A key deliverable of the CWMP was an updated Capital Improvement Plan for the next 20-year planning horizon (2017-2037). The CWMP included descriptions, rationales, and estimated costs for collection system and wastewater treatment plant capital improvement projects and ongoing programs to address aging infrastructure, meet existing and anticipated regulatory requirements, accommodate planned growth, optimize energy use, and implement Central San's vision for the treatment plant that is consistent with Central San's strategic plan.

The CWMP was also a critical tool for maintaining a high level of service, establishing long-term fiscally responsible policies for our customers, and providing a clear direction for Central San. To accomplish this, the CWMP:

- Confirmed Capital Improvement Program projects, costs, and site layouts for future facilities
- Identified linkages among the major capital improvement projects and repair and replacement strategies such that the projects can be resorted and rescheduled as changes in planning assumptions and needs occur
- Identified triggers for implementing applied research (if applicable), preliminary design, design, and construction of the recommended capital improvement projects to determine efficient "just-in-time" project implementation
- Identified new or updated policies, programs, and guidelines for the Board considerations to address overall program implementation including project prioritizations, implementation costs, project delivery methods, potential funding sources, and an estimated schedule for implementing plan element
- Confirmed and incorporated operations, maintenance, and energy management strategies
- Accelerated and coordinated condition assessments with the implementation of the asset management plan and confirm long-term repair and replacement strategies

Some of these potential future projects identified in the CWMP are not currently included in the Ten-Year CIP. Central San's CIP will be updated annually as projects are clarified. These future projects are not included in the CIP and amount to about \$920.0 million, of which approximately \$510.0 million may be within the next 20 years.

These projects include the following:

- Nutrient Removal (Nutrient Watershed Permit): Possibly within 10-20 years **
- Recycled Water Exchange (Refinery Recycled Water) Project - 20 million gallons per day
- Advanced Treatment/Contaminants of Emerging Concern Removal **
- Renewable Energy Projects (triggered by increased power demands from nutrient removal) **
- Concord Community Reuse Project Recycled Water Facilities Improvements *
- Concord Community Reuse Project Collection System Improvements *
- Concord Community Reuse Project Recycled Water Distribution System (Central San's current plan is to wholesale recycled water to Contra Costa Water District who will be in charge of the new distribution system, including storage) *

* Projects expected to be cost neutral to Central San

**Projects identified but not currently required by regulations

Ten-Year Capital Improvement Plan Drivers

Projects included in the Ten-Year CIP address one or more of the four major drivers for implementing capital improvement projects: 1) Aging Infrastructure; 2) Regulatory; 3) Capacity; and 4) Sustainability. Most project scopes include several project elements that address a range of drivers. Below is a description for each of the four major drivers:

- **Aging Infrastructure:** This project driver describes projects required to maintain the performance and reliability of existing assets to ensure reliable conveyance and treatment of wastewater. Central San operates and maintains several billion dollars of assets, and several projects in each program have been initiated or are in progress to meet the replacement or rehabilitation needs for our infrastructure. Most of the existing treatment plant facilities were constructed in the late 1970s and early 1980s following the passing of the Clean Water Act, and some of the collection system facilities and piping were constructed as early as the 1940s and 1950s. Central San recognizes the need to address aging infrastructure and has developed an Asset Management system.
- **Regulatory:** This project driver describes projects required to reliably comply with regulatory requirements that are designed to protect human health and the environment, and includes planning needed to anticipate potential future regulatory requirements. Regulatory drivers that may trigger capital improvement projects include potential changes in future state and/or federal water, air, and solids regulations. Potential regulatory drivers include: changes to existing final effluent limits to address nutrients, selenium, contaminants of emerging concern, and others; changes to California/National Toxics Rules, 303 (d) listed pollutants and micropollutants, and new virus-based disinfection criterion; reductions in greenhouse gas emission Cap and Trade Program thresholds; compliance with Federal 129 sewage sludge incineration rules, changes to air emission limits, and solids handling/management and disposal regulations; recycled water, including potential coordinated projects with water agencies on Title 22, indirect or direct potable reuse opportunities; and collection system regulatory requirements such as the reduction of sewer system overflows. Occasionally, improvements are also required to improve the reliability of existing facilities to ensure 100% compliance with regulatory permits and to ensure protection of human health and the environment.

- **Capacity:** This project driver describes projects required to increase capacity of existing facilities. Capacity drivers that may trigger capital improvement projects include potential upgrades required to mitigate hydraulic bottlenecks and increase capacity of existing facilities to accommodate wastewater flows and loads. Projects that would be required to accommodate planned growth are not included in the CIP.
- **Sustainability/Energy/Optimization:** This project driver describes projects to minimize life-cycle costs, maximize benefits, and achieve economic stability through optimization, resiliency, resource recovery, and energy projects. Sustainability drivers that may trigger capital improvement projects include upgrades to strive towards net zero energy, recycled water projects to ensure the reliable supply of recycled water for use at Central San and for use by Central San’s customers, and upgrades to improve the resiliency of Central San facilities. Improvements to strive towards net zero energy or energy self-sufficiency include energy efficiency measures such as installing more energy efficient equipment or treatment processes, and renewable energy projects such as solar or wind.

Ten-Year Capital Improvement Plan – Collection System Program

The Collection System Program includes projects that will address aging and deteriorating infrastructure needs, meet regulatory requirements, address any capacity deficiencies, and improve sustainability or help meet sustainability related goals. The emphasis of the Ten-Year CIP – Collection System Program will be on rehabilitating and replacing deteriorating sewers, new development and sewer expansion by developers within Central San’s service area, upgrading aging pumping stations, and implementing large diameter and force main inspection programs. The inspection programs will help to update the condition of existing infrastructure and to confirm the timing and cost of rehabilitation or replacement of large diameter sewers and force mains. Overall, these projects are targeted at reducing the risk of sewer system overflows in Central San’s collection system.

Central San staff will continue to update the new collection system hydrodynamic model (*InfoWorks*®) to confirm the need and timing for future projects required to alleviate capacity deficiencies and to determine sewer replacement needs.

The *InfoMaster*® program uses closed-circuit television inspection scoring results, sewer cleaning frequency data, pipe age, and other information to assign a likelihood of failure score to each pipe segment in the collection system. The consequence of failure for each pipe segment was determined using factors such as pipeline size, flow conditions, and proximity to waterways, hospitals, schools, and roads. The overall risk of each segment is based on the likelihood of failure and consequence of failure scores, and a decision matrix developed through workshops with staff were used to prioritize the replacement of each pipe segment. The *InfoMaster*® then helps to develop a long-term sewer replacement strategy or program based on the timing/prioritization, and cost for sewer replacement needs. Staff will then work to group sewers of concern geographically and bid as capital projects.

The following tables identify major projects in the Ten-Year CIP – Collection System Program. The projects have been grouped into one of five project categories: 1) Collection System Rehabilitation and Replacement; 2) Pumping Stations; 3) Regulatory Compliance; 4) Collection System Expansion; and 5) Contractual Assessment Districts and Development Sewerage.

**Ten-Year CIP – Collection System Program Projects
Collection System Rehabilitation and Replacement**

Project Title	Year(s)	Location	Description
Manhole Modification Project	Present through 2028	Collection System	This program will fund manhole modifications and replacement throughout the collection system.
Cured-in-Place Pipe Contract	Present through 2028	Collection System	Implement cured-in-place pipe repair projects to address pipelines that require immediate action.
Collection System Sewer Renovation – Phase 2	2023 to 2028	Collection System	This program will fund rehabilitation and replacement of aging sewers throughout the collection system. Aging infrastructure needs will continue to be identified, prioritized by risk, and packaged into capital projects by geographical areas throughout the collection system.
Force Main Replacement	2021-2026	Collection System	Evaluation and potential force main rehabilitation or replacement for the Acacia, Bates, Maltby, and Martinez Pumping Stations.
Large Diameter Renovation Program	2020-2028	Collection System	Future rehabilitation or replacement of large diameter sewers based on the inspection program.

**Ten-Year CIP – Collection System Program Projects
Pumping Stations**

Project Title	Year(s)	Location	Description
Pumping Station Upgrades – Phase 2	Present through 2025	Martinez, Fairview and Maltby Pumping Stations	Rehabilitation and replacement of miscellaneous pumps, piping, valves, electrical systems, and other equipment identified in the field. Acquire necessary pumping station emergency response equipment and critical spare parts.
Pumping Station PLC Upgrades	2021 to 2023	Miscellaneous Pumping Stations	Upgrade outdated PLC software language for all pumping stations.
Pumping Station Improvements	2022 to 2026	Buchanan North and South, Concord Industrial, and Other Pumping Stations	Implement major pumping station upgrades to address structural, mechanical, electrical, instrumentation, and other improvements.

**Ten-Year CIP – Collection System Program Projects
Regulatory Compliance**

Project Title	Year(s)	Location	Description
Collection System Planning	Present through 2028	Collection System	Continued planning to identify potential capital improvement projects required to address aging infrastructure needs, regulatory drivers, capacity deficiencies, and sustainability and optimization opportunities.
Collection System Modeling Support	Present through 2028	Collection System	Continued build-out of the collection system modeled network to include areas of planned development, and other major upgrades and updates to the hydraulic model.
Large Diameter Pipeline Inspection Program	Present through 2028	Collection System	Phased inspection program for large-diameter trunks and interceptors to update condition and prioritize rehabilitation and replacement needs.
Force Main Inspection Program	Present through 2028	Collection System	Phased inspection program for force mains to update condition and prioritize rehabilitation and replacement needs.
Wet Weather Capacity Improvements	2020 to 2028	Collection System	Implement miscellaneous relief projects for sewers identified by the collection system hydraulic model as having wet weather hydraulic capacity deficiencies.

**Ten-Year CIP – Collection System Program Projects
Contractual Assessment Districts and Development Sewerage**

Project Title	Year(s)	Location	Description
Development Sewerage Support	Present through 2028	Central San-wide	Capitalized staff labor and expenses for the survey and right-of-way for construction of developer installed sewer facilities.

Ten-Year Capital Improvement Plan – Treatment Plant Program

The Treatment Plant Program includes projects that will address aging infrastructure needs, meet regulatory requirements, address any hydraulic or process capacity deficiencies, and improve sustainability or help meet sustainability related goals. The emphasis of the Ten-Year CIP – Treatment Plant Program will be on the repair and replacement of aging treatment plant infrastructure, improving existing facilities to ensure reliable compliance with increasingly stringent regulatory requirements, improving the resiliency of existing facilities against security threats and natural hazards such as seismic and flooding events, and improving overall energy efficiency.

Central San staff will continue to evaluate treatment alternatives and applied research projects and pilots to address potential nutrient removal regulations, to confirm the optimal long-term solids handling strategy, and to strive closer to net zero energy in support of Board Policy 027 – Energy.

The following tables identify all the projects in the Ten-Year CIP – Treatment Plant Program. The projects have been grouped into one of three project categories: 1) Liquid Treatment Process; 2) Solids Handling Process; or 3) General Treatment Plant and Safety Improvements.

Ten-Year CIP – Treatment Plant Program Projects

Liquid Treatment Process

Project Title	Year(s)	Location	Description
Wet Weather Flow Management	2024 to 2028	Headworks, Wet Weather Holding Basins	Implement improvements for wet weather flow management and holding basin operation such as raw wastewater diversion pipeline, drain back pumping, sixth influent pump, and improved basin grading and drainage.
Primary Expansion	2026 to 2029	Pre-Aeration, Primaries	Construct up to two additional primary sedimentation tanks and corresponding new pre-aeration (grit removal) tank, improve wet weather grit handling, and replace primary sludge pumps.
Nutrient Removal Optimizations	2022 to 2027	Primary Sedimentation Tanks, A/N Tanks	If required by regulations, construct chemically enhanced primary treatment and modify aeration and nitrification tanks and secondary treatment process to operate in a seasonal nitrification/denitrification treatment mode during dry weather months.
Secondary Treatment Hydraulic Improvements	2022 to 2028	Secondary Clarifiers, Ultraviolet (UV) Channel, Final Effluent Channel	Increase secondary treatment wet weather capacity to accommodate 20-year wet weather storage event. This includes a mixed liquor flow split structure for the secondary clarifiers, up to two additional secondary clarifiers, and mixed liquor channel improvements such as new gates.
UV Hydraulic Improvements	2022 to 2024	UV Channel, Final Effluent Channel	Increase wet weather hydraulic capacity through UV disinfection and final effluent channel to accommodate 20-year wet weather storage event. This includes low lift pumps to alleviate UV channel hydraulic bottlenecks and installing a new parallel final effluent pipe.
UV Disinfection Replacement	2020 to 2025	UV Channel	Replace the aging existing UV disinfection process with a new, more energy efficient UV disinfection process.
Condition Assessment of Buried Pipelines	2020 to 2023	Treatment Plant	Inspect the condition of several large diameter, critical pipelines on the treatment plant site such as primary effluent, mixed liquor, secondary effluent, final effluent pipelines, and wet weather bypass pipelines. These inspections will require complicated shutdowns and temporary bypass pumping and piping.
Outfall Improvements – Phase 8	2026-2028	Treatment Plant	Inspect outfall pipe and make necessary repairs. This project will require complicated shutdowns and temporary bypass pumping and piping.
Steam and Aeration Blower System Renovation Project	Present though 2025	Treatment Plant	To replace and improve the existing steam system, waste heat recovery, steam turbines, and improve the secondary treatment systems related to aeration energy requirements.

**Ten-Year CIP – Treatment Plant Program Projects
Solids Handling Process**

Project Title	Year(s)	Location	Description
Energy Production Facility Improvements	2022 to 2026	Solids Conditioning Building	Rehabilitation of aging critical electrical infrastructure, replacement of the cogeneration turbine will be required, and other miscellaneous heat recovery equipment will require upgrades.

**Ten-Year CIP – Treatment Plant Program Projects
General Treatment Plant and Safety Improvements**

Project Title	Year(s)	Location	Description
Programmable Logic Controllers (PLC) Systems Upgrades	Present through 2028	Treatment Plant	Continued hardware and software replacement and upgrades to maintain PLCs.
Treatment Plant Planning	Present through 2028	Treatment Plant	Continued planning to identify potential capital improvement projects required to address aging infrastructure needs, regulatory drivers, capacity deficiencies, and sustainability and optimization opportunities.
Applied Research and Innovations	Present through 2028	Treatment Plant	Implement applied research projects that evaluate promising and innovative technologies and processes.
Surcharge Soil Pile Relocation	2024 to 2028	Surcharge Pile, Basin A South	Excavate and relocate surcharge pile soils to Basin A South and replace soil cap.
Treatment Plant Supervisory Control and Data Acquisition Improvements	2020 to 2023	Treatment Plant	Complete an evaluation and implementation plan for upgrade and replacement of the supervisory control and data acquisition, PLCs, and communications networks, and determine workforce planning needs.
Treatment Plant Network Resiliency Evaluation	2024 to 2026	Treatment Plant	Complete resiliency evaluation of network system and evaluate needs for redundancy in communications, information systems, and process control systems.
Fire Protection System – Phases 3 through 6	2020 to 2022	Treatment Plant	Continue phased upgrades and replacement of the fire alarm systems throughout the treatment plant.
Warehouse Seismic Upgrades	2020 to 2022	Warehouse	Implement upgrades to the Warehouse Building to meet current seismic design standards and improve overall seismic safety.
Laboratory Seismic Upgrades	2022 to 2025	Laboratory Building	Implement upgrades to the Laboratory Building to meet current seismic design standards and improve overall seismic safety.
Miscellaneous Seismic Upgrades	2022 to 2024	Filter Plant, UV, Headworks, Fuel Oil, Hypo Tanks, Substations	Implement seismic upgrades to miscellaneous structures and process equipment around the treatment plant.

Project Title	Year(s)	Location	Description
Treatment Plant Safety Enhancements – Phases 5 through 8	2019 to 2028	Treatment Plant	Continue to implement safety-related enhancements around the treatment plant to proactively address safety concerns.
Aging Infrastructure Replacement Program	Present through 2028	Treatment Plant	This program will fund aging infrastructure projects around the treatment plant. Aging infrastructure needs will continue to be packaged together and implemented as spinoff capital projects from this program (for example, piping replacement projects, equipment replacement, and electrical/instrumentation/control systems rehabilitation).

Ten-Year Capital Improvement Plan – General Improvements Program

The General Improvement Program includes projects that will address aging infrastructure needs, meet regulatory requirements, and improve sustainability or help meet sustainability related goals. This includes implementing property and building improvements, addressing equipment needs, acquiring new properties if required, completing development of the Asset Management Program, information management system and data management system upgrades, general security improvements enhancement, and cyber security. Many of Central San’s building are over 25 years of age and are starting to require general building upgrades to both the interior and exterior of the buildings such as painting, replacing ceiling tiles, upgrading fixtures, replacing roofs, replacing worn furniture and other equipment, and upgrading buildings to meet current seismic standards. The emphasis of the General Improvement Program for the Ten-Year CIP will be on upgrading many of those aging buildings. In addition, Central San will continue to require routine acquisition of new equipment, vehicle replacement, security improvements, information technology improvements, and improved cyber security enhancements.

The following tables identify major projects in the Ten-Year CIP – General Improvements Program. The projects have been grouped into one of three (3) project categories: 1) Vehicles and Equipment Acquisition; 2) Buildings and District Property; and 3) Information Technology Development.

**Ten-Year CIP – General Improvements Program Projects
Vehicles and Equipment Acquisition**

Project Title	Year(s)	Location	Description
Equipment Acquisition	Present through 2028	Central San-wide	Acquisition of new equipment for operation and maintenance of Central San assets.
Vehicle Replacement Program	Present through 2028	Central San-wide	Continued replacement and acquisition of new Central San vehicles.

**Ten-Year CIP – General Improvements Program Projects
Buildings and District Property**

Project Title	Year(s)	Location	Description
Property and Building Improvements	2021 - 2028	Central San-wide	Improvements to Central San’s buildings, buffer properties, rental properties, and the surrounding parking lots and grounds.
District Easement Acquisition	Present through 2028	Central San-wide	Improve or acquire new property land rights for existing or new sanitary sewers that are located on private properties.
General Security and Access	Present through 2028	Central San-wide	Continued implementation of general security improvements for Central San buildings and properties.

**Ten-Year CIP – General Improvements Program Projects
Information Technology Development**

Project Title	Year(s)	Location	Description
Information Technology Development	Present through 2028	Central San-wide	Continued implementation of Central San-wide IT improvements.

Ten-Year CIP – Recycled Water Program

The Recycled Water Program includes projects that will address aging infrastructure needs, meet regulatory requirements, address any capacity deficiencies, and improve sustainability or help meet sustainability related goals. The emphasis of the Ten-Year CIP – Recycled Water Program will be on continued expansion of the Zone 1 Recycled Water Program in support of Board Policy 019 – Recycled Water, implementing improvements to the existing recycled water filter plant and related support facilities to address aging infrastructure to ensure reliable supply of recycled water, replacing and installing new clear well liner and covers, and initiating ongoing rehabilitation and replacement of recycled water distribution system assets.

Central San staff will continue to explore and plan for other potential recycled water projects and related improvements and expansions that may be required. These other projects will likely involve the wholesale of recycled water to a water purveyor. The following table identifies major projects in the Ten-Year CIP – Recycled Water Program.

Ten-Year CIP – Recycled Water Program Projects

Project Title	Year(s)	Location	Description
Zone 1 Recycled Water	Present to 2028	Zone 1 Area within Concord, Martinez, and Pleasant Hill	Continue to expand Zone 1 Recycled Water Program, where cost-effective, for landscape irrigation at schools, parks, private businesses, golf courses, street medians, and for commercial applications such as truck washing, concrete manufacturing, dust control, and toilet and urinal flushing.
Recycled Water Distribution System Renovations	Present through 2028	Zone 1 Area within Concord, Martinez, and Pleasant Hill	Implement a recurring rehabilitation and replacement program for recycled water distribution system assets such as the recycled water surge tank, distribution piping, valves, and flow meters.
Filter Plant & Clearwell Improvements – Phase 1B	2023 to 2028	Zone 1 Area within Concord, Martinez, and Pleasant Hill	Implement a recurring rehabilitation and replacement program for recycled water distribution system assets such as the recycled water surge tank, distribution piping, valves, and flow meters.

Ten-Year CIP Expenditures

The Ten-Year CIP provides a basis for policy decisions concerning Central San’s long-range CIP and management of the Sewer Construction Fund. The Ten-Year CIP also serves as the capital improvement expenditure basis for performing the fee analysis.

This plan includes projected expenditures totaling \$867.2 million (in 2019 dollars) over the period from FY 2019-20 through FY 2028-29. A summary of the planned expenditures by program, without inflation, for the Ten-Year CIP is included in Tables 1-5 on the next page.

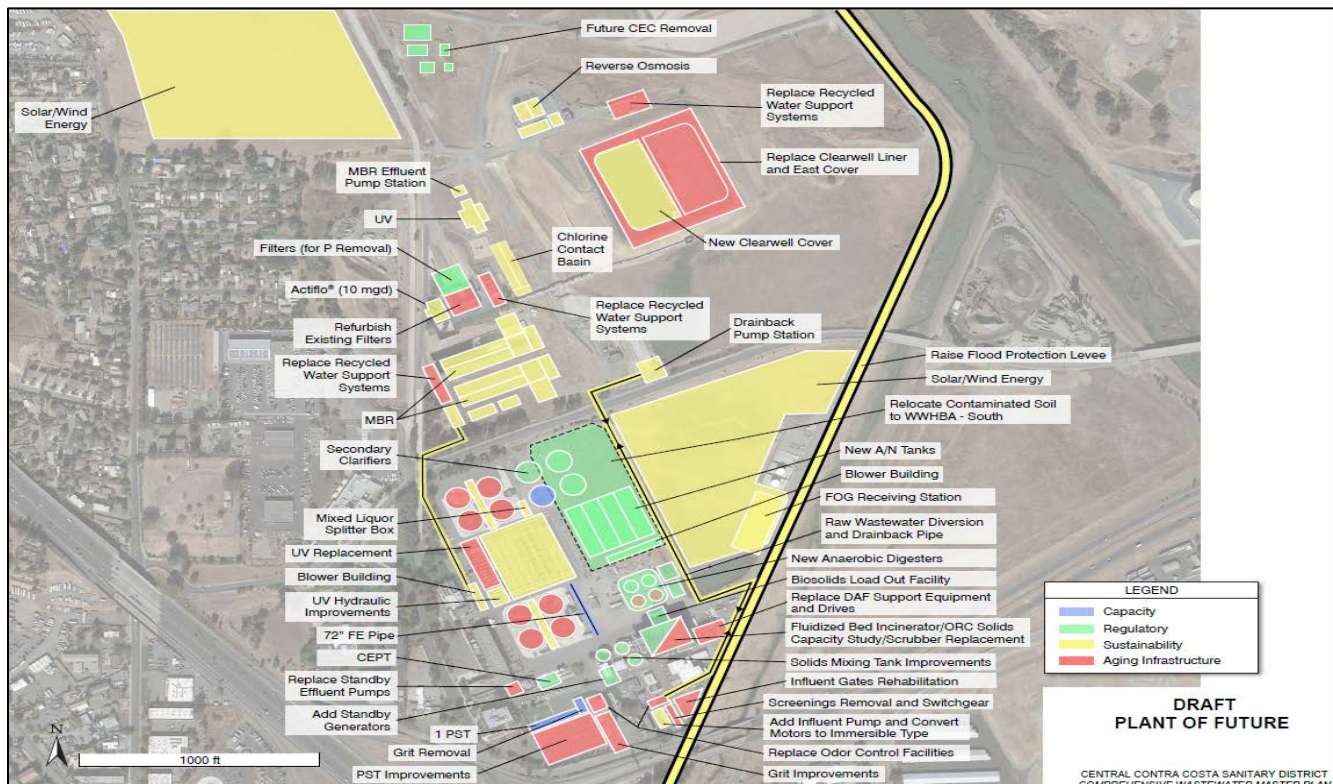


Illustration of a Potential Central San Treatment Plant of the Future

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Table 1 - Ten-Year Program: Collection System		Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Project #	Project Name	10 Year Total	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
5991	Pleasant Hill Sewer Renovation - Phase 2	2,500,000	0	1,500,000	1,000,000	0	0	0	0	0	0	0
8419	Collection System Planning	2,000,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
8436	Pump Station Upgrades - Phase 1	24,103,000	4,600,000	12,500,000	5,503,000	1,500,000	0	0	0	0	0	0
8441	Cured-In-Place Pipe (CIPP) Blanket Contract (2017-2020)	200,000	200,000	0	0	0	0	0	0	0	0	0
8442	Pump Station Equipment & Piping Replacement	1,339,000	103,000	200,000	200,000	200,000	106,000	106,000	106,000	106,000	106,000	106,000
8443	Large Diameter Pipeline Inspection Program - Phase 1	1,575,000	515,000	530,000	530,000	0	0	0	0	0	0	0
8444	Force Main Inspection Program - Phase 1	1,800,000	0	300,000	300,000	300,000	300,000	300,000	300,000	300,000	0	0
8447	Pump Station Security Improvements	422,000	51,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	0	0
8448	Manhole Modifications	2,218,000	309,000	320,000	320,000	320,000	320,000	320,000	0	0	0	309,000
8449	Collection System Modeling Support	1,057,000	103,000	106,000	106,000	106,000	106,000	106,000	106,000	106,000	106,000	106,000
8450	Development Sewerage Support	9,000,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000
8451	Collection System Sewer Renovation - Phase 1	42,117,000	4,473,000	18,103,000	19,541,000	0	0	0	0	0	0	0
8452	Lafayette Sewer Renovations Phase 13	3,817,000	3,817,000	0	0	0	0	0	0	0	0	0
8454	S. Orinda Sewer Renovation - Phase 7	3,637,000	3,637,000	0	0	0	0	0	0	0	0	0
8455	Walnut Creek Sewer Renovation - Phase 13	3,621,000	3,621,000	0	0	0	0	0	0	0	0	0
8456	Danville Sewer Renovations - Phase 3	4,100,000	4,100,000	0	0	0	0	0	0	0	0	0
8457	Pump Station Upgrades - Phase 2	26,400,000	500,000	900,000	4,000,000	9,000,000	7,800,000	4,200,000	0	0	0	0
TBD	Collection System Master Plan (10-Year Update)	1,000,000	0	0	0	0	0	0	0	0	1,000,000	0
TBD	Collection System Master Plan (5-Year Update)	200,000	0	0	200,000	0	0	0	0	0	0	0
TBD	Collection System Sewer Renovation - Phase 2	111,395,000	0	0	0	22,279,000	22,279,000	22,279,000	22,279,000	22,279,000	0	0
TBD	Collection System Sewer Renovation - Phase 3	66,915,000	0	0	0	0	0	0	0	0	25,200,000	41,715,000
TBD	Force Main Inspection Program - Phase 3	350,000	0	0	0	0	0	0	0	0	175,000	175,000
TBD	Force Main Replacement - Acacia	500,000	0	0	0	0	0	100,000	400,000	0	0	0
TBD	Force Main Replacement - Bates	400,000	0	0	400,000	0	0	0	0	0	0	0
TBD	Force Main Replacement - Maltby	3,915,000	0	0	0	0	250,000	665,000	2,000,000	1,000,000	0	0
TBD	Force Main Replacement - Martinez	7,690,000	0	0	0	0	0	725,000	5,765,000	1,200,000	0	0
TBD	Large Diameter Pipeline Inspection Program - Phase 2	2,200,000	0	0	0	550,000	550,000	550,000	550,000	0	0	0
TBD	Large Diameter Pipeline Inspection Program - Phase 3	1,100,000	0	0	0	0	0	0	0	0	550,000	550,000
TBD	Pump Station PLC Upgrades	830,000	0	0	200,000	630,000	0	0	0	0	0	0
TBD	Pump Station Rehabilitation	2,400,000	0	0	0	500,000	500,000	500,000	900,000	0	0	0
TBD	RDI/I Reduction Pilot Program	250,000	0	0	50,000	50,000	50,000	50,000	50,000	0	0	0
TBD	Wet Weather Capacity Improvements - Program	11,410,000	0	800,000	2,500,000	1,500,000	700,000	1,000,000	2,000,000	1,400,000	1,400,000	110,000
TBD	Large Diameter Renovation Program	7,450,000	0	0	1,600,000	2,100,000	1,000,000	500,000	1,500,000	250,000	250,000	250,000
TBD	Cured-In-Place Pipe (CIPP) Blanket Contract (2021+)	1,600,000	0	320,000	110,000	110,000	318,000	106,000	106,000	318,000	106,000	106,000
Collection System Total:		\$ 349,511,000	\$ 27,129,000	\$ 36,732,000	\$ 37,713,000	\$ 40,298,000	\$ 35,432,000	\$ 32,660,000	\$ 37,215,000	\$ 27,812,000	\$ 29,993,000	\$ 44,527,000

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Table 2 - Ten-Year Program: Treatment Plant		Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Project #	Project Name	10 Year Total	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
7292	Switchgear Refurbishment - Phase 2	200,000	200,000	0	0	0	0	0	0	0	0	0
7304	PLC Systems Upgrades	234,000	0	117,000	117,000	0	0	0	0	0	0	0
7315	Applied Research & Innovations	4,800,000	300,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
7317	Plant Control System Network Upgrades	120,000	120,000	0	0	0	0	0	0	0	0	0
7328	Influent Pump Electrical Improvements	4,800,000	800,000	2,000,000	2,000,000	0	0	0	0	0	0	0
7339	Plant Control System I/O Replacement	3,128,000	1,100,000	1,000,000	1,028,000	0	0	0	0	0	0	0
7341	Walnut Creek/Grayson Creek Levee Rehab	1,100,000	200,000	500,000	400,000	0	0	0	0	0	0	0
7348	Solids Handling Facility Improvements - Phase 1	82,686,000	6,550,000	17,500,000	26,000,000	25,607,000	7,029,000	0	0	0	0	0
7349	Steam Aeration & Blower Systems Renovations	60,500,000	3,500,000	6,000,000	6,000,000	15,500,000	15,500,000	11,000,000	3,000,000	0	0	0
7351	Mechanical and Concrete Renovations	9,003,000	6,400,000	2,603,000	0	0	0	0	0	0	0	0
7352	UV Disinfection Upgrades	600,000	600,000	0	0	0	0	0	0	0	0	0
7353	Outfall Improvements - Phase 7	5,400,000	500,000	2,450,000	2,450,000	0	0	0	0	0	0	0
7354	Treatment Plant Security Improvements	1,668,000	718,000	950,000	0	0	0	0	0	0	0	0
7355	Odor Control Upgrades - Phase 1 (Include with Concrete and Mechanical)	1,600,000	0	300,000	1,300,000	0	0	0	0	0	0	0
7357	Plant-Wide Instrumentation Upgrades	1,771,000	450,000	531,000	790,000	0	0	0	0	0	0	0
7360	Existing Facilities As-Is Drawings	100,000	100,000	0	0	0	0	0	0	0	0	0
7362	Plant Operations Building (POB) Seismic Upgrades and MPR	2,793,000	2,793,000	0	0	0	0	0	0	0	0	0
7363	Treatment Plant Planning	5,000,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
7364	TP Safety Enhancements - Phase 5 SCB Stairs	600,000	600,000	0	0	0	0	0	0	0	0	0
7370	Annual Infrastructure Replacement	32,800,000	2,200,000	3,400,000	3,400,000	3,400,000	3,400,000	3,400,000	3,400,000	3,400,000	3,400,000	3,400,000
7371	Condition Assessment of Buried Yard Pipelines	1,000,000	250,000	250,000	250,000	250,000	0	0	0	0	0	0
TBD	CO-Gen Replacement (5 yrs) FY 22-23	24,000,000	0	0	0	500,000	4,000,000	9,500,000	9,000,000	1,000,000	0	0
7369	Piping Renovation - Phase 10	3,750,000	750,000	2,500,000	500,000	0	0	0	0	0	0	0
TBD	Fire Protection System - Phase 3	450,000	0	450,000	0	0	0	0	0	0	0	0
TBD	Fire Protection System - Phase 4	450,000	0	450,000	0	0	0	0	0	0	0	0
TBD	Fire Protection System - Phase 5	400,000	0	0	400,000	0	0	0	0	0	0	0
TBD	Fire Protection System - Phase 6	460,000	0	0	460,000	0	0	0	0	0	0	0
TBD	Laboratory Seismic Upgrades	550,000	0	0	0	50,000	300,000	200,000	0	0	0	0
TBD	Miscellaneous Seismic Upgrades	750,000	0	0	0	250,000	500,000	0	0	0	0	0
TBD	Nutrient Removal Level 1 - Optimization	11,583,000	0	0	0	583,000	1,000,000	4,000,000	5,000,000	1,000,000	0	0
TBD	Odor Control Upgrades - Phase 2	2,150,000	0	0	0	0	0	0	0	0	650,000	1,500,000
TBD	Outfall Improvements - Phase 8	4,282,000	0	0	0	0	0	0	0	582,000	3,700,000	0
TBD	Primary Expansion	14,500,000	0	0	0	0	0	0	0	1,000,000	2,500,000	11,000,000
TBD	Secondary Treatment Hydraulic Improvements	26,850,000	0	0	0	350,000	1,500,000	2,000,000	10,000,000	7,000,000	6,000,000	0
TBD	Solids Handling Facility Improvements - DAFT Tanks	360,000	0	0	0	0	0	0	0	0	0	360,000
TBD	Surcharge Soil Pile Relocation	16,850,000	0	0	0	0	0	800,000	1,650,000	7,200,000	7,200,000	0
TBD	TP Safety Enhancements - Phase 6	750,000	0	0	0	150,000	600,000	0	0	0	0	0
TBD	TP Safety Enhancements - Phase 7	800,000	0	0	0	0	0	0	120,000	680,000	0	0
TBD	TP Safety Enhancements - Phase 8	130,000	0	0	0	0	0	0	0	0	50,000	80,000
TBD	Treatment Plant Network Resiliency Evaluation	250,000	0	0	0	0	0	50,000	200,000	0	0	0
TBD	Treatment Plant PLC and SCADA Upgrades	7,107,000	0	0	0	0	0	0	0	350,000	3,300,000	3,457,000
TBD	Treatment Plant SCADA Improvements	3,500,000	0	1,000,000	2,000,000	500,000	0	0	0	0	0	0
TBD	Treatment Plant Seismic Study	300,000	0	0	300,000	0	0	0	0	0	0	0
TBD	Tunnel Improvements	643,000	0	0	0	0	0	0	0	0	200,000	443,000
TBD	UPCCAA Urgent Projects (Sub to Asset)	5,400,000	0	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
TBD	UV Disinfection Replacement	26,772,000	0	500,000	1,800,000	2,472,000	7,400,000	8,400,000	6,200,000	0	0	0
TBD	UV Hydraulic Improvements	3,480,000	0	0	0	480,000	3,000,000	0	0	0	0	0
TBD	Warehouse Seismic Upgrades	1,200,000	0	300,000	600,000	300,000	0	0	0	0	0	0
TBD	Wet Weather Flow Management	19,582,000	0	0	0	0	0	800,000	2,000,000	6,782,000	9,000,000	1,000,000
TBD	WWTP Master Plan (10-Year Update)	1,000,000	0	0	0	0	0	0	0	500,000	500,000	0
TBD	WWTP Master Plan (5-Year Update)	500,000	0	0	0	500,000	0	0	0	0	0	0
TDB	Coatings Program 5 years (Sub to Asset)	4,500,000	0	1,400,000	1,500,000	1,000,000	600,000	0	0	0	0	0
TDB	Electrical Infrastructure Sub 52, 82, etc.	10,000,000	0	0	0	0	0	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Treatment Plant Total:		\$ 413,202,000	\$ 28,631,000	\$ 45,801,000	\$ 52,895,000	\$ 53,492,000	\$ 46,429,000	\$ 43,750,000	\$ 44,170,000	\$ 33,094,000	\$ 40,100,000	\$ 24,840,000

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Table 3 - Ten-Year Program: General Improvements		Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Project #	Project Name	10 Year Total	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
8207	General Security and Access	250,000	150,000	100,000	0	0	0	0	0	0	0	0
8230	Capital Legal Services	200,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
8236	District Easement Acquisition	750,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
8240	IT Development FY 2016-26	2,900,000	500,000	500,000	380,000	380,000	380,000	380,000	380,000	0	0	0
8250	ERP Replacement	4,605,000	3,105,000	1,200,000	300,000	0	0	0	0	0	0	0
8251	Capital Improvement Plan & Budget	1,300,000	350,000	150,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
8516	Equipment Acquisition	850,000	100,000	250,000	250,000	250,000	0	0	0	0	0	0
8517	Vehicle Replacement Program FY 2016-26	6,469,000	1,069,000	900,000	900,000	900,000	900,000	900,000	900,000	0	0	0
TBD	Document Management	1,272,000	0	212,000	530,000	530,000	0	0	0	0	0	0
TBD	Security Improvements Study (10-Year)	600,000	0	0	0	0	100,000	100,000	100,000	100,000	100,000	100,000
TBD	Security Improvements Study (5-Year)	212,000	0	0	106,000	106,000	0	0	0	0	0	0
TDB	Equipment Acquisition FY 2023-33	1,500,000	0	0	0	0	250,000	250,000	250,000	250,000	250,000	250,000
TDB	Future Property Repairs and Improvements	1,250,000	0	0	200,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
TDB	IT Development FY 2026-36	1,140,000	0	0	0	0	0	0	0	380,000	380,000	380,000
TDB	Vehicle Replacement Program FY 2026-36	2,700,000	0	0	0	0	0	0	0	900,000	900,000	900,000
General Improvements Total:		\$ 25,998,000	\$ 5,369,000	\$ 3,407,000	\$ 2,861,000	\$ 2,511,000	\$ 1,975,000	\$ 1,975,000	\$ 1,975,000	\$ 1,975,000	\$ 1,975,000	\$ 1,975,000

Table 4 - Ten-Year Program: Recycled Water		Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Project #	Project Name	10 Year Total	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
7306	Zone 1 Recycled Water	1,256,000	100,000	53,000	53,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
7361	Filter Plant and Clearwell Improvements - Phase 1A	30,463,000	3,452,000	8,000,000	10,000,000	7,100,000	1,911,000	0	0	0	0	0
7366	Recycled Water Distribution Systems Renovations Program	2,300,000	500,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
7368	Water Exchange & Filter Plant and Clearwell Improvements Phase A	100,000	100,000	0	0	0	0	0	0	0	0	0
TDB	Filter Plant and Clearwell Improvements - Phase 1B	21,000,000	0	0	0	0	1,600,000	2,400,000	6,000,000	5,500,000	5,500,000	0
Recycled Water Total:		\$ 55,119,000	\$ 4,152,000	\$ 8,253,000	\$ 10,253,000	\$ 7,450,000	\$ 3,861,000	\$ 2,750,000	\$ 6,350,000	\$ 5,850,000	\$ 5,850,000	\$ 350,000

Table 5 - Ten-Year Program: Totals by Program		Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Programs		10 Year Total	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Collection System		349,511,000	27,129,000	36,732,000	37,713,000	40,298,000	35,432,000	32,660,000	37,215,000	27,812,000	29,993,000	44,527,000
Treatment Plant		413,202,000	28,631,000	45,801,000	52,895,000	53,492,000	46,429,000	43,750,000	44,170,000	33,094,000	40,100,000	24,840,000
General Improvements		25,998,000	5,369,000	3,407,000	2,861,000	2,511,000	1,975,000	1,975,000	1,975,000	1,975,000	1,975,000	1,975,000
Recycled Water		55,119,000	4,152,000	8,253,000	10,253,000	7,450,000	3,861,000	2,750,000	6,350,000	5,850,000	5,850,000	350,000
Subtotal		843,830,000	65,281,000	94,193,000	103,722,000	103,751,000	87,697,000	81,135,000	89,710,000	68,731,000	77,918,000	71,692,000
Contingency		23,395,000	895,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Total with Contingency		\$ 867,225,000	\$ 66,176,000	\$ 96,693,000	\$ 106,222,000	\$ 106,251,000	\$ 90,197,000	\$ 83,635,000	\$ 92,210,000	\$ 71,231,000	\$ 80,418,000	\$ 74,192,000

(Note: All costs in 2019 dollars)

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Debt Program

Since 2009, Central San has utilized a pay-as-you-go philosophy for capital expenditures. In 2009, and in some earlier years, Central San utilized long-term financing through obligations issued by the Central Contra Costa Sanitary District Facilities Financing Authority. The 2009 obligations (certificates of participation) were issued for the purpose of providing funding for new capital expenditures and to refinance existing debt. In 2018, Central San refinanced the 2009 obligations by issuing revenue bonds. Both types of financial obligations are referred to in this document as bonds or debt.

Central San’s debt service is presently funded by ad valorem tax and interest income. Debt service is projected at \$3.0 million, a reduction from \$3.6 million in FY 2018-19 due to reduced interest costs resulting from the 2018 refinancing, and a reduction in principal repayment also connected with that refinancing (principal repayments from FY 2019-20 to FY 2029-30 were reduced from \$26.6 million to \$19.5 million). Table 1 summarizes the debt service sub-fund Budget.

Table 1 – Debt Service Fund Budget Summary

Debt Service Sub-Fund	FY 2017-18 Actual	FY 2018-19 Budget	FY 2019-20 Budget
Debt Service Revenue:			
Reserve Account Bond Interest Income	\$86,030	\$82,447	\$0
Ad Valorem Tax (Portion Allocated to Debt Service)	\$3,732,026	\$3,528,591	\$2,982,415
Total Revenue	\$3,818,057	\$3,611,038	\$2,982,415
Debt Service Expense:			
2009 Bond Interest Payment and Amortized Costs, Less Subsidy on BABs	\$1,198,221	\$1,103,530	\$0
Reduction of Tax Subsidy Due to Congressional Sequestration	\$27,717	\$27,508	\$0
2018 Bond Interest Payment and Amortized Costs	\$0	\$0	\$837,415
Recycled Water Loan Interest Payment	\$4,742	\$0	\$0
Total Interest Payment and Amortization Costs	\$1,230,680	\$1,131,038	\$837,415
2009 Bond Principal Payment	\$2,405,000	\$2,480,000	\$0
2018 Bond Principal Payment	\$0	\$0	\$2,145,000
Recycled Water Principal Payment	\$182,377	\$0	\$0
Total Principal Payments	\$2,587,377	\$2,480,000	\$2,145,000
Total Debt Service Interest, Amortized Cost and Principal Payments	\$3,818,057	\$3,611,038	\$2,982,415

2018 Revenue Bonds

In September 2018, Central San issued \$19.5 million of Wastewater Revenue Refunding Bonds in two series (tax-exempt Series A for \$15.1 million and federally taxable Series B for \$4.3 million) to refund outstanding 2009 bonds. The transaction was undertaken to take advantage of lower interest rates and to reduce risk of reduced credits from the federal government budget related sequestration affecting the Series 2009 Build America Bonds. The transaction resulted in \$8.2 million of interest savings through FY 2029-30, from lower interest rates and reducing outstanding principal through eliminating a debt service reserve fund that was previously held for the 2009 bonds. The 2018 Revenue Bonds have a revised rate covenant as compared to the 2009 Bonds, providing for a Net Revenues Covenant and a Gross Revenues Covenant.

In short:

- Net Revenues (Gross Revenues excluding capacity fees and after payment of Operation and Maintenance Costs) plus Tax Revenues are to be at least 125% of debt service in a fiscal year.
- Gross Revenues (Gross Revenues including capacity fees and after payment of Operation and Maintenance Costs) plus Tax Revenues are to be at least 100% of debt service in a fiscal year.

Figure 2 shows coverage ratios using the pre-2018 covenants and using the 2018 covenants.

2009 Bonds/Certificates of Participation (No Longer Outstanding)

The 2009 Wastewater Revenue Certificates of Participation, Series A and Series B (Bonds) were originally issued for \$19.6 million and \$34.5 million, respectively, on November 12, 2009 and on December 3, 2009. The proceeds were used in part to finance new capital expenditures (\$17.3 million of Series A and \$12.7 million of Series B), to refund previous debt (\$20.2 million of Series B), and to pay costs of issuance. The Series A Bonds were federally taxable Build America Bonds (BABs), which received a rate subsidy from the federal government. Coupons on this series ranged from 5.20% to 5.70%, while yields ranged from 3.45% to 3.78% net of the subsidy. The Series B Bonds were tax-exempt bonds that were used to refund the 1998 and 2002 bond issuances and raise an additional \$30.0 million in new proceeds, with coupons ranging from 4.0% to 5.0% and yields ranging from 0.40% to 3.79%. The two bonds originally totaled \$54.1 million and were secured by a pledge of tax and net revenues of the wastewater system. Both bonds had original maturities through September 1, 2029. The Series A bonds were called through an extraordinary call provision and redeemed in September 2018. The Series B bonds were advance refunded with the establishment of an escrow account from Series 2018 B bond proceeds and will be formally retired on the normal call date of September 1, 2019.

Reclamation Loan (No Longer Outstanding)

In FY 2017-18, Central San paid the final installment on a \$2.9 million loan from FY 1998-99 with the California State Water Resources Control Board. The loan advanced Central San funds for the design and construction costs for projects related to recycled water treatment programs. Central San repaid advances from the California State Water Resources Control Board over a 20-year period ending in FY 2017-18.

Future Potential Debt

Central San anticipates utilizing long-term financing in FY 2020-21 to finance projects outlined in the Ten-year CIP, including those specified in the Comprehensive Wastewater Master Plan. A new Debt Management and Continuing Disclosure Policy was adopted during FY 2017-18, which specifies the conditions under which debt and other forms of external financing can be used. In December 2018, Central San applied for an \$89.6 million loan through a competitive process with the California State Water Resources Control Board to fund solids handling improvements to the treatment plant. On April 29, 2019, Central San received notification that it was placed on the fundability list for potential funding. The State Board will be providing funding recommendations as part of its Intended Use Plan for SRF funds at a public hearing on June 18, 2019. If not selected, Central San can reapply next year.

Figure 1 and Tables 2 and 3 summarize Central San’s debt service obligations.

Figure 1 – Debt Service by Type

Figure 1 shows annual debt service for past and existing bonds. As described above, potential additional debt issuances could add to debt service requirements in future years.

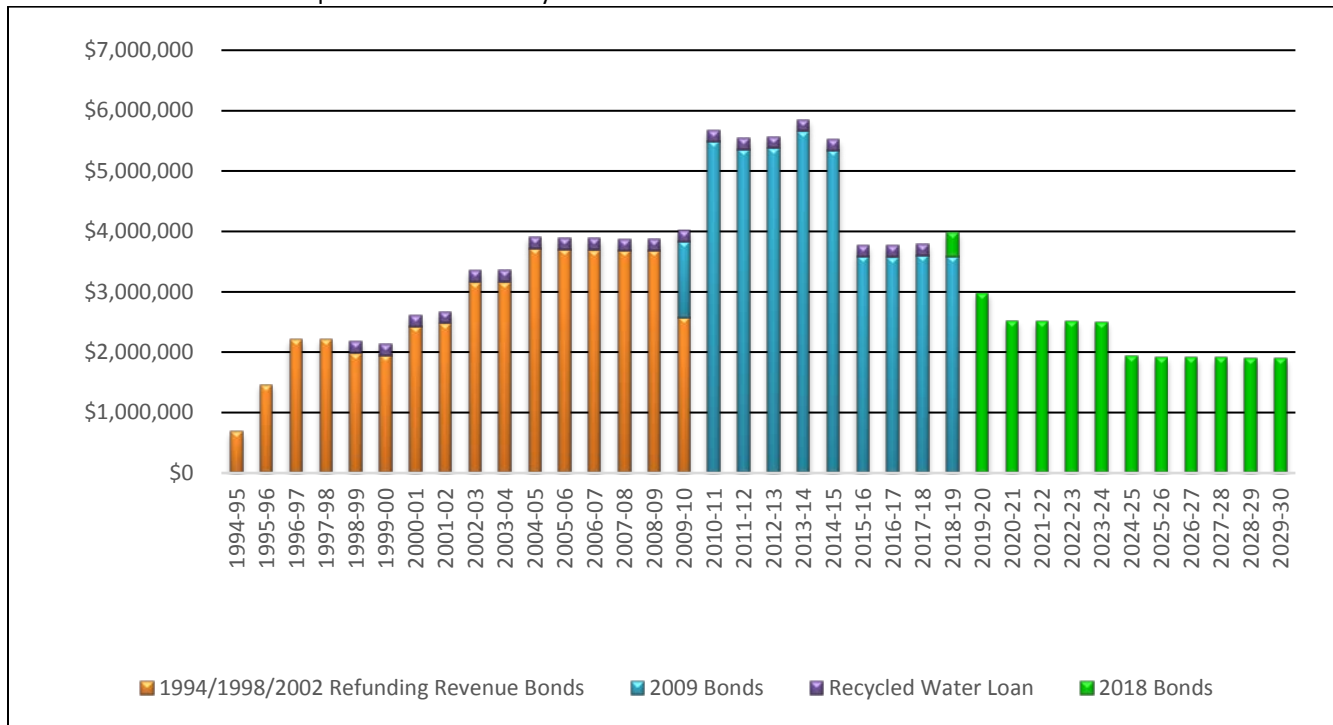


Table 2 – Debt Summary (Currently Outstanding Debt)

Debt service related to the currently outstanding 2018 Series A and Series B bonds is shown below.

2018 Bonds			
Fiscal Year	Principal	Amortization and Interest	Total Debt Service
2018-19		\$403,907	\$403,907
2019-20	\$2,145,000	\$837,415	\$2,982,415
2020-21	\$1,740,000	\$777,605	\$2,517,605
2021-22	\$1,805,000	\$706,227	\$2,511,227
2022-23	\$1,885,000	\$624,797	\$2,509,797
2023-24	\$1,965,000	\$539,267	\$2,504,267
2024-25	\$1,465,000	\$458,875	\$1,923,875
2025-26	\$1,535,000	\$383,875	\$1,918,875
2026-27	\$1,610,000	\$305,520	\$1,915,520
2027-28	\$1,685,000	\$222,875	\$1,907,875
2028-29	\$1,765,000	\$136,625	\$1,901,625
2029-30	\$1,850,000	\$46,250	\$1,896,250

Table 3 – Debt Summary (No Longer Outstanding Debt)

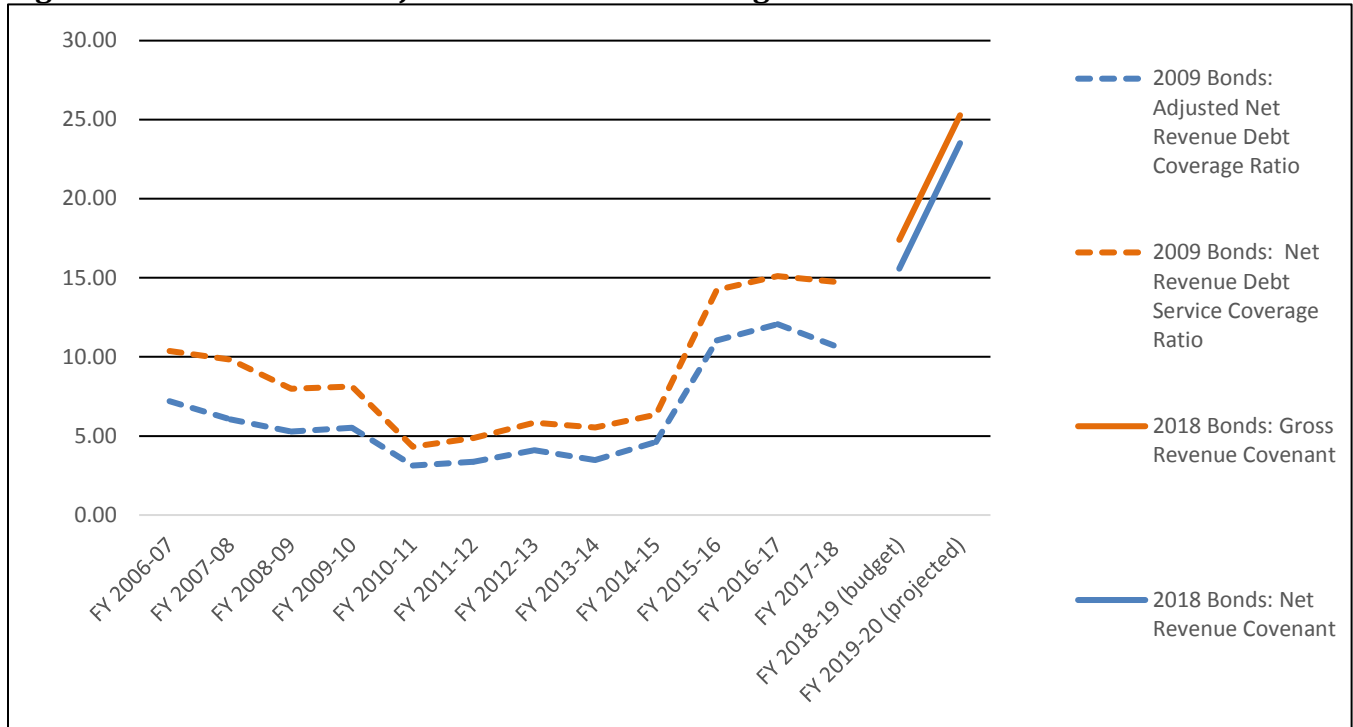
The following table shows debt that is no longer outstanding, for comparative purposes.

1994/1998/2002 Refunding Revenue Bonds				2009 Bonds			Recycled Water Loan		
Fiscal Year	Principal	Amortization & Interest	Total Debt Service	Principal	Amortization & Interest	Total Debt Service	Principal	Interest	Total Debt Service
1994-95	--	\$688,127	\$688,127	--	--	--	--	--	--
1995-96	--	\$1,458,830	\$1,458,830	--	--	--	--	--	--
1996-97	\$755,000	\$1,459,741	\$2,214,741	--	--	--	--	--	--
1997-98	\$790,000	\$1,421,245	\$2,211,245	--	--	--	--	--	--
1998-99	\$835,000	\$1,150,177	\$1,985,177	--	--	--	\$139,194	\$47,925	\$187,119
1999-00	\$725,000	\$1,221,898	\$1,946,898	--	--	--	\$114,900	\$72,219	\$187,119
2000-01	\$1,245,000	\$1,181,356	\$2,426,356	--	--	--	\$117,887	\$69,232	\$187,119
2001-02	\$1,285,000	\$1,195,057	\$2,480,057	--	--	--	\$120,952	\$66,167	\$187,119
2002-03	\$1,330,000	\$1,832,680	\$3,162,680	--	--	--	\$124,097	\$63,022	\$187,119
2003-04	\$1,375,000	\$1,790,547	\$3,165,547	--	--	--	\$127,323	\$59,796	\$187,119
2004-05	\$1,995,000	\$1,719,372	\$3,714,372	--	--	--	\$130,634	\$56,486	\$187,119
2005-06	\$2,060,000	\$1,641,214	\$3,701,214	--	--	--	\$134,030	\$53,089	\$187,119
2006-07	\$2,135,000	\$1,559,500	\$3,694,500	--	--	--	\$137,515	\$49,604	\$187,119
2007-08	\$2,210,000	\$1,472,113	\$3,682,113	--	--	--	\$141,090	\$46,029	\$187,119
2008-09	\$2,300,000	\$1,379,326	\$3,679,326	--	--	--	\$144,759	\$42,360	\$187,119
2009-10	\$2,390,000	\$190,068	\$2,580,068	--	\$1,255,607	\$1,255,607	\$148,522	\$38,597	\$187,119
2010-11	--	--	--	\$3,460,000	\$2,027,168	\$5,487,168	\$152,384	\$34,735	\$187,119
2011-12	--	--	--	\$3,465,000	\$1,888,601	\$5,353,601	\$156,346	\$30,773	\$187,119
2012-13	--	--	--	\$3,605,000	\$1,775,376	\$5,380,376	\$160,411	\$26,708	\$187,119
2013-14	--	--	--	\$3,720,000	\$1,941,016	\$5,661,016	\$164,582	\$22,538	\$187,119
2014-15	--	--	--	\$3,865,000	\$1,474,513	\$5,339,513	\$168,861	\$18,258	\$187,119
2015-16	--	--	--	\$2,210,000	\$1,375,080	\$3,585,080	\$173,251	\$13,868	\$187,119
2016-17	--	--	--	\$2,300,000	\$1,275,346	\$3,575,346	\$177,756	\$9,363	\$187,119
2017-18	--	--	--	\$2,405,000	\$1,198,221	\$3,603,221	\$182,377	\$4,742	\$187,119
2018-19	--	--	--	\$2,480,000	\$183,922	\$3,583,530	--	--	--

Debt Related Covenants

An important financial performance metric is the Debt Service Coverage Ratio. The Board’s targeted coverage ratio is 2.0 times. As shown in Figure 2, Central San will meet the overall Debt Service Coverage Ratio of 2.0 times as required. As noted previously, the calculation has changed slightly in connection with the 2018 bonds.

Figure 2 – Historic and Project Debt Service Coverage Ratio



Through FY 2018-19 Bond Covenants on 2009 bonds provided for the following covenants:

- **Net Revenue:** This ratio must be above 1.00 to meet the Debt Rate Covenant (Net Revenue / Total Debt Service)
- **Adjusted Net Revenue:** Net Revenue less Capital Improvement Fees (capacity fees) and City of Concord Capital Charges. This ratio must be above 1.25 to meet the Debt Rate Covenant (Adjusted Net Revenue / Total Debt Service)

The Series 2018A and B Revenue Bonds now has the following covenants:

- **Net Revenues Covenant:** Net revenues (gross revenues excluding capacity fees and after payment of O&M costs) plus tax revenues are to be at least 125% of debt service in a fiscal year.
- **Gross Revenues Covenant:** Gross revenues (gross revenues including capacity fees and after payment of O&M Costs) plus tax revenues are to be at least 100% of debt service in a fiscal year.

Externally Imposed Debt Limits

Central San, as a sanitary district, is subject to certain limits on the direct issuance of bonds payable from proceeds of taxes levied on taxable property in the district. Total bonds issued by Central San cannot exceed 15-20% (depending on some factors) of the assessed value of real and personal property in the district (Health and Safety Code Section 6651). Bond issuances of this nature would require an election with 2/3 voter approval (H&S Code 6644). Central San has no bonds subject to this limitation outstanding. Refunding bonds are not subject to the limitation and election requirement. In 2009 (and previously in 1994 and 2002), Central San financed a portion of its capital improvements through the use of a joint powers authority (JPA), using a form of an installment sale agreement with a similar payment structure as a bond. In such an arrangement, the financing authority issues bonds or certificates of participation, with the installment sale agreement supporting the JPA bonds (payments on the installment agreement received by the JPA pay the JPA's bonds). This structure is typical for California special districts and is not subject to the bond election and debt limits described in the preceding paragraph.

While external financing of the capital program is not anticipated for FY 2019-20, for future years Central San anticipates financing a portion of its capital improvement program through either the financing authority structure used in 2009, revenue bonds issued through a JPA, or through loans from the California State Water Resources Control Board.

Agency Debt Limits

A Debt Management and Continuing Disclosure Policy adopted during FY 2017-18 specified the conditions under which debt and other forms of external financing can be used. This policy is intended to cover both Central San and the Central Contra Costa Sanitary District Facilities Financing Authority, for "debt" in a broad sense, as well as other external financial obligations as an Installment Sale Agreement, which is not a bond and technically is not considered a debt. This policy (Board Policy 029) provided certain guidance on the use of debt and financial obligations, as follows:

Debt Management and Continuing Disclosure Policy Standards for Use of Debt Financing

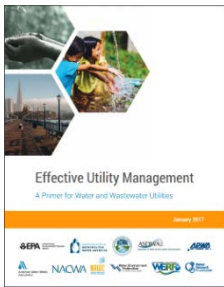
The District shall integrate its debt issuances with the goals of its Capital Improvement Program by timing the issuance of debt to ensure that projects are available when needed in furtherance of the District's public purposes (as articulated in, inter alia, the District's mission, vision and goals) and are consistent with the rate and financial planning parameters specified in the District's long-term financial plans. The Board shall be presented with a long-term financial plan in each instance Sewer Service Charge rates are to be adjusted.

1. The long-term financial plans will specify an expected debt issuance amount over a decade or more long-term planning horizon.
 - a. The District shall target rate or tax revenue funding of, at a minimum, the value of the collection system replacement program (specifically, pipeline replacement) component of the CIP.
 - b. Not more than 60% of the overall CIP shall be financed with debt.
2. All projects in the CIP are eligible to use debt financing, so long as the minimum rate or tax revenues are generated as described in this section.

This policy does not contemplate the use of debt financing to fund ongoing operating and maintenance expenditures; exceptions beyond a de-Minimis amount would require approval of the Board. With respect to debt repayment and amortization, the debt repayment period should be structured so that the weighted average maturity of the debt does not exceed 100% of the expected average useful life of the project being financed.

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Strategic Performance



Effective Utility Management (EUM) Framework

Central San's FY 2018-20 Strategic Plan was developed using the EUM framework as an overarching tool. The EUM was originally developed by the Environmental Protection Agency and several major water sector associations in 2007. The framework is made up of 10 attributes:



Product Quality - Produces "fit for purpose" water that meets or exceeds full compliance with regulatory and reliability requirements and is consistent with customer, public health, ecological, and economic needs.



Customer Satisfaction - Provides reliable, responsive, and affordable services in line with explicit, customer-derived service levels.



Employee and Leadership Development - Recruits and retains a workforce that is competent, motivated, adaptive, and safety focused.



Operational Optimization - Ensures ongoing, timely, cost-effective, reliable, and sustainable performance improvements in all facets of its operations in service to public health and environmental protection.



Financial Viability - Understands the full life-cycle cost of utility operations and the value of water resources.



Infrastructure Strategy and Performance - Understands the condition of and costs associated with critical infrastructure assets.



Enterprise Resiliency - Ensures utility leadership and staff work together internally, and with external partners, to anticipate, respond to, and avoid problems.



Community Sustainability - Takes an active leadership role in promoting and organizing community sustainability improvements through collaboration with local partners.





Water Resource Sustainability - Ensures the availability and sustainable management of water for its community and watershed, including water resource recovery.





Stakeholder Understanding and Support - Engenders understanding and support from stakeholders, including customers, oversight bodies, community and watershed interests, and regulatory bodies for service levels, rate structures, operating budgets, capital improvement programs, and risk management decisions.


Strategic Initiatives Aligned with EUM Attributes and Central San Values

 GOAL ONE	Provide Exceptional Customer Service and Maintain an Excellent Reputation in the Community			
Strategy	Initiative	EUM Attribute(s)	Central San Value(s)	Primarily Responsible Division(s)
Build External Customer Relationships and Awareness	Provide high-quality customer service.	Customer Satisfaction	People, Community	All Divisions
	Invest in business process changes and technologies to effectively increase access to District information and promote customer care, convenience, and self-service.	Customer Satisfaction, Operational Optimization	Leadership and Commitment	Communication Services, Information Technology
	Increase customer understanding and support for key District initiatives, programs, and services.	Stakeholder Understanding and Support	People, Community	Communication Services
	Build and maintain relationships with federal, state, and local elected officials and stakeholders.	Stakeholder Understanding and Support	Community	Communication Services
Foster Employee Engagement and Interdepartmental Collaboration	Establish opportunities for internal partnerships and cross-divisional collaborations.	Enterprise Resiliency	People	All Divisions
	Cultivate employees' understanding of District operations and their role in the agency's success.	Employee and Leadership Development, Enterprise Resiliency	People, Community	All Divisions
Maintain a Strong Reputation in the Community	Continue to participate in industry trade organizations and apply for certifications and awards.	Employee and Leadership Development	People, Community, Leadership and Commitment	All Divisions
	Continue to participate in CalWARN to provide mutual aid to sister agencies.	Community Sustainability	Community, Principles	Risk Management
	Minimize impacts to residents and businesses during maintenance or construction work.	Customer Satisfaction	People, Community	Communication Services, Capital Projects

	Strive to Meet Regulatory Requirements			
Strategy	Initiative	EUM Attribute(s)	Central San Value(s)	Primarily Responsible Division(s)
Strive to Achieve 100% Permit Compliance in Air, Water, Land and Other Regulations	Meet existing regulations.	Product Quality	Principles	Environmental and Regulatory Compliance, Collection System Operations, Plant Operations
	Foster relationships with regulatory agencies.	Stakeholder Understanding and Support	Community	Environmental and Regulatory Compliance
	Track proposed and pending legislation or regulatory changes; plan for possible implementations.	Stakeholder Understanding and Support	Community	Environmental and Regulatory Compliance
	Actively manage greenhouse gas (GHG) emissions in the most cost-effective and responsible manner.	Community Sustainability	Principles	Environmental and Regulatory Compliance, Plant Operations
Strive to Minimize the Number of Sanitary Sewer Overflows	Complete the collection system scheduled maintenance on time and optimize cleaning schedules.	Infrastructure Strategy and Performance	Leadership and Commitment	Collection System Operations
	Continue the pipeline condition assessment and cleaning quality assurance program using the system-wide CCTV program.	Infrastructure Strategy and Performance	Leadership and Commitment	Collection System Operations
Comply with All Federal, State, and Local Regulations Related to District Administration	Review all existing Board Policies every two years to ensure relevancy.	Enterprise Resiliency	Principles	Secretary of the District
	Re-examine existing Department and Administrative Procedures to ensure compliance with applicable laws and regulations.	Enterprise Resiliency	Principles	All Divisions

GOAL THREE 		Be a Fiscally Responsible and Effective Wastewater Utility		
Strategy	Initiative	EUM Attribute(s)	Central San Value(s)	Primarily Responsible Division(s)
Conduct Long-Range Financial Planning	Ensure rate structure and fees are consistent with cost-of-service principles.	Customer Satisfaction, Financial Viability	Community, Principles	Planning and Development Services
	Present alternative financial plans to the Board in FY 2018-19 for necessary rate adjustments for FY 2019-20 onward, including considering the potential issuance of debt to fund the CIP in conjunction with the overall financial plan.	Financial Viability, Infrastructure Strategy and Performance	Community, Principles	Planning and Development Services, Finance
	Develop alternatives for new revenues and funding sources (e.g., interagency agreements, services, and recycled water).	Financial Viability	Leadership and Commitment	Planning and Development Services, Finance
Manage Costs	Effectively manage the cost of employee benefits.	Financial Viability	Community, Principles	Finance, Human Resources
	Carry out targeted audits of critical/high risk functions or processes.	Operational Optimization, Enterprise Resiliency	People, Principles, Leadership and Commitment	All Divisions (Internal Audit Program managed by Finance)
	Re-engineer business processes and complete optimization studies to identify opportunities to reduce costs and align with best practices.	Operational Optimization, Enterprise Resiliency	People, Leadership and Commitment	All Divisions
	Evaluate and apply risk management practices to minimize loss.	Enterprise Resiliency	Principles	Risk Management

 GOAL FOUR	Recruit, Develop, and Retain a Highly Trained and Safe Workforce			
Strategy	Initiative	EUM Attribute(s)	Central San Value(s)	Primarily Responsible Division(s)
Ensure Adequate Staffing and Training to Meet Current and Future Operational Levels	Assess, develop, and implement District-wide training needs.	Employee and Leadership Development	People, Leadership and Commitment	Human Resources, Safety
	Recruit, develop, and train our future leaders.	Employee and Leadership Development	People, Leadership and Commitment	Human Resources
Enhance Relationships with Employees and Bargaining Units	Cultivate a positive work culture.	Employee and Leadership Development	People, Leadership and Commitment	All Divisions
	Sustain and grow collaborative relationships with the labor bargaining units.	Employee and Leadership Development, Enterprise Resiliency	People, Community, Leadership and Commitment	Human Resources
Meet or Exceed Industry Safety Standards	Achieve consistent improvement on State of California and Bay Area industry injury rate.	Employee and Leadership Development	People, Principles, Leadership and Commitment	Safety
	Enhance the safety culture through improved training and communications.	Employee and Leadership Development	People, Principles, Leadership and Commitment	Safety

 GOAL FIVE	Maintain a Reliable Infrastructure			
Strategy	Initiative	EUM Attribute(s)	Central San Value(s)	Primarily Responsible Division(s)
Manage Assets Optimally Throughout Their Lifecycle	Develop Ten -Year CIP consistent with recommendations of the Comprehensive Wastewater Master Plan and Asset Management.	Infrastructure Strategy and Performance	Leadership and Commitment	Capital Projects
	Continue maintenance on assets using a reliability-based approach.	Infrastructure Strategy and Performance	Leadership and Commitment	Plant Maintenance, Planning and Development Services
	Manage current vehicle fleet to provide maximum value.	Infrastructure Strategy and Performance	Leadership and Commitment	Collection System Operations
Facilitate Long-Term Capital Renewal and Replacement	Integrate data from the Asset Management Program into the analysis of long-term Capital Improvement needs based on the Ten -Year CIP.	Infrastructure Strategy and Performance	Leadership and Commitment	Planning and Development Services, Capital Projects
	Implement the Program Management Information System (PMIS).	Operational Optimization, Infrastructure Strategy and Performance	People, Leadership and Commitment	Planning and Development Services, Capital Projects
Protect District Personnel and Assets from Threats and Emergencies	Enhance capability to mitigate, prepare for, respond to, and recover from emergencies.	Enterprise Resiliency	Principles	Risk Management
	Evaluate and implement appropriate improvements to the Security Program to meet new or evolving threats.	Enterprise Resiliency	Principles	Risk Management
	Improve the potable water system and enhance water quality testing procedures.	Product Quality	Community, Leadership and Commitment	Capital Projects, Environmental and Regulatory Compliance

GOAL SIX










Embrace Technology, Innovation, and Environmental Sustainability

Strategy	Initiative	EUM Attribute(s)	Central San Value(s)	Primarily Responsible Division(s)
<p>Augment the Region's Water Supply</p>	<p>Explore partnering opportunities.</p>	<p>Water Resource Sustainability, Community Sustainability</p>	<p>Community</p>	<p>Planning and Development Services (under the Recycled Water Program)</p>
	<p>Continue to support the development of a demonstration Satellite Water Recycling Facility at Diablo Country Club.</p>	<p>Water Resource Sustainability, Community Sustainability</p>	<p>Community, Leadership and Commitment</p>	<p>Planning and Development Services (under the Recycled Water Program)</p>
	<p>Continue to provide recycled water to residents and businesses; evaluate and process new customer requests.</p>	<p>Customer Service Satisfaction, Water Resource Sustainability</p>	<p>Community</p>	<p>Planning and Development Services (under the Recycled Water Program)</p>
<p>Reduce Reliance on Non-Renewable Energy</p>	<p>Explore opportunities for renewable energy generation, conservation, and efficiency based on the Board's Energy Policy.</p>	<p>Community Sustainability</p>	<p>Leadership and Commitment</p>	<p>Planning and Development Services</p>
<p>Encourage the Review and Testing of Technology to Optimize and Modernize Business Operations</p>	<p>Select and implement new Enterprise Resource Planning (ERP) system and integrate with linked systems.</p>	<p>Operational Optimization</p>	<p>Leadership and Commitment</p>	<p>Information Technology</p>
	<p>Expand and improve the use of worthwhile mobile computing and communication technologies.</p>	<p>Operational Optimization</p>	<p>Leadership and Commitment</p>	<p>Information Technology</p>
	<p>Continue developing and investing in cost-effective innovation, leading and promising technology, and applied research and development.</p>	<p>Operational Optimization</p>	<p>Leadership and Commitment</p>	<p>All Divisions</p>

Final FY 2018-19 Performance

The performance against the metrics for FY 2018-19 were only available as of Q3 (March 31, 2019) at the time of initial publication of this document. Following June 30 when final FY 2018-19 performance data becomes available, this section will be populated with the data.

Below is a sample of how the final performance figures for the metrics for FY 2018-19 will appear in this section at that time, categorized by the six Goals:

 GOAL ONE		Provide Exceptional Customer Service and Maintain an Excellent Reputation in the Community				
Metric	FY 2017-18 Target	FY 2017-18 Performance		FY 2018-19 Target	FY 2018-19 Performance	
Average onsite response time for collection system emergency calls, during working hours	<20.0 minutes	35.3 minutes		<20.0 minutes	Will be populated after June 30, 2019	
Average onsite response time for collection system emergency calls, after hours	<30.0 minutes	37.8 minutes		<40.0 minutes	Will be populated after June 30, 2019	
Average customer service rating for emergency calls	≥3.8 out of 4.0	3.96 out of 4.0		≥3.8 out of 4.0	Will be populated after June 30, 2019	

Supplemental Financial Information

This section contains supplemental financial information regarding salaries and benefits, an analysis of the savings related to the transition to CalPERS healthcare plans, and an additional analysis of Changes in Net Position and Fund Equity.

**Table 1 – Salaries, Benefits, Retiree and Unfunded Liabilities Detail
Total Central San**

Total Central San					
	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2019-20 Budget	Budget to Budget Variance
Salaries	\$36,516,669	\$34,852,714	\$38,251,464	\$40,388,361	\$2,136,897
Salary Vacancy	(\$443,000)	\$0	(\$1,193,000)	(\$585,000)	\$608,000
Overtime	\$1,201,806	\$1,198,680	\$1,222,429	\$1,481,380	\$258,951
Standby	\$375,000	\$380,136	\$375,200	\$377,000	\$1,800
Total Salaries	\$37,650,475	\$36,431,530	\$38,656,093	\$41,661,741	\$3,005,648
Current Employee Benefits	\$19,956,075	\$18,333,575	\$18,935,558	\$17,165,389	(\$1,770,169)
Benefit Vacancy	(\$1,149,000)	\$0	(\$1,006,000)	(\$636,000)	\$370,000
Total Benefits (Active Employees)	\$18,807,075	\$18,333,575	\$17,929,558	\$16,529,389	(\$1,400,169)
Total Salaries and Benefits (Active Employees)	\$56,457,550	\$54,765,105	\$56,585,651	\$58,191,130	\$1,605,479
Total Salaries and Benefits (Active Employees) after Capitalized Administrative Overhead	\$56,457,550	\$54,765,105	\$56,585,651	\$58,191,130	\$1,605,479
Retiree Benefit Costs	\$5,946,000	\$5,573,753	\$5,941,200	\$4,001,000	(\$1,940,200)
UAAL / Unfunded Liabilities	\$14,179,261	\$16,347,000	\$13,220,478	\$12,436,841	(\$783,637)
Total Benefits and Liabilities for Past Service	\$20,125,261	\$21,920,753	\$19,161,678	\$16,437,841	(\$2,723,837)
Total Salaries, Benefits & Liabilities for Past Service (Active and Retiree)	\$76,852,811	\$76,685,858	\$75,747,329	\$74,628,971	(\$1,118,358)

**Table 2 – Salaries, Benefits, Retiree and Unfunded Liabilities Detail
Operations & Maintenance Sub-Fund**

Operations & Maintenance Sub-Fund					
	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2019-20 Budget	Budget to Budget Variance
Salaries	\$33,739,967	\$32,313,704	\$35,186,029	\$36,839,790	\$1,653,761
Salary Vacancy	(\$413,000)	\$0	(\$1,111,000)	(\$538,000)	\$573,000
Overtime	\$1,095,661	\$1,153,631	\$1,120,808	\$1,381,653	\$260,845
Standby	\$375,000	\$380,136	\$375,200	\$377,000	\$1,800
Total Salaries	\$34,797,628	\$33,847,471	\$35,571,037	\$38,060,443	\$2,489,406
Current Employee Benefits	\$17,776,358	\$16,431,579	\$17,641,295	\$15,812,010	(\$1,829,285)
Benefit Vacancy	(\$1,149,000)	\$0	(\$1,006,000)	(\$636,000)	\$370,000
Total Benefits (Active Employees)	\$16,627,358	\$16,431,579	\$16,635,295	\$15,176,010	(\$1,459,285)
Total Salaries and Benefits (Active Employees)	\$51,424,986	\$50,279,050	\$52,206,332	\$53,236,453	\$1,030,121
Capitalized Administrative Overhead	(\$3,972,203)	(\$3,337,316)	(\$3,979,723)	(\$4,448,369)	(\$468,646)
Total Salaries and Benefits (Active Employees) after Capitalized Administrative Overhead	\$47,452,783	\$46,941,735	\$48,226,609	\$48,788,084	\$561,475
Retiree Benefit Costs	\$5,946,000	\$5,573,753	\$5,941,200	\$4,001,000	(\$1,940,200)
UAAL / Unfunded Liabilities	\$14,179,261	\$16,347,000	\$13,220,478	\$12,436,841	(\$783,637)
Total Benefits and Liabilities for Past Service	\$20,125,261	\$21,920,753	\$19,161,678	\$16,437,841	(\$2,723,837)
Total Salaries, Benefits & Liabilities for Past Service (Active and Retiree)	\$67,578,044	\$68,862,488	\$67,388,287	\$65,225,925	(\$2,162,362)

**Table 3 – Salaries, Benefits, Retiree and Unfunded Liabilities Detail
Sewer Construction Sub-Fund**

Sewer Construction Sub-Fund					
	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2019-20 Budget	Budget to Budget Variance
Salaries	\$2,776,702	\$2,539,010	\$3,065,435	\$3,548,571	\$483,136
Salary Vacancy	(\$30,000)	\$0	(\$82,000)	(\$47,000)	\$35,000
Overtime	\$106,145	\$45,049	\$101,621	\$99,727	(\$1,894)
Standby	\$0	\$0	\$0	\$0	\$0
Total Salaries	\$2,852,847	\$2,584,059	\$3,085,056	\$3,601,298	\$516,242
Current Employee Benefits	\$2,179,717	\$1,901,995	\$1,294,263	\$1,353,379	\$59,116
Benefit Vacancy	\$0	\$0	\$0	\$0	\$0
Total Benefits (Active Employees)	\$2,179,717	\$1,901,995	\$1,294,263	\$1,353,379	\$59,116
Total Salaries and Benefits (Active Employees)	\$5,032,564	\$4,486,055	\$4,379,319	\$4,954,677	\$575,358
Capitalized Administrative Overhead	\$3,972,203	\$3,337,316	\$3,979,723	\$4,448,369	\$468,646
Total Salaries and Benefits (Active Employees) after Capitalized Administrative Overhead	\$9,004,767	\$7,823,370	\$8,359,042	\$9,403,046	\$1,044,004
Retiree Benefit Costs	\$0	\$0	\$0	\$0	\$0
UAAL / Unfunded Liabilities	\$0	\$0	\$0	\$0	\$0
Total Benefits and Liabilities for Past Service	\$0	\$0	\$0	\$0	\$0
Total Salaries, Benefits & Liabilities for Past Service (Active and Retiree)	\$9,004,767	\$7,823,370	\$8,359,042	\$9,403,046	\$1,044,004

Table 4 shows the allocation of Central San Salaries & Benefits to the O&M Fund and the Sewer Construction Fund.

Table 4 – Salaries, Benefits (Detailed), Retiree and Unfunded Liabilities

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Budget Variance	% Variance
O&M Salaries & Benefits - Active Employees							
O&M Salaries	\$34,797,628	\$33,847,471	\$35,571,037	\$35,783,100	\$38,060,443	\$2,489,406	7.0%
O&M Benefits (Active Employees)							
O&M Workers' Compensation	\$415,320	\$361,845	\$483,026	\$439,465	\$812,844	\$329,818	68.3%
O&M Medical & Health	\$7,094,079	\$6,345,046	\$6,615,333	\$6,708,746	\$5,901,499	(\$713,834)	-10.8%
O&M Dental	\$523,098	\$508,629	\$531,242	\$477,069	\$542,663	\$11,421	2.1%
O&M Retirement - Normal Cost	\$5,121,070	\$4,537,261	\$5,291,401	\$5,138,461	\$5,345,728	\$54,327	1.0%
O&M Deferred Compensation/ Medicare	\$2,396,058	\$2,366,946	\$2,457,201	\$2,374,404	\$2,517,705	\$60,504	2.5%
O&M Other Benefits	\$198,733	\$82,737	\$230,292	\$149,867	\$241,571	\$11,279	4.9%
OPEB Contribution (future contribution only; does not include retiree healthcare premiums)	\$1,578,000	\$1,950,247	\$1,582,800	\$1,779,000	\$0	(\$1,582,800)	-100.0%
O&M Accrued Compensated Absence	\$450,000	\$278,868	\$450,000	\$450,000	\$450,000	\$0	0.0%
O&M Benefit Vacancy Factor	(\$1,149,000)	\$0	(\$1,006,000)	\$0	(\$636,000)	\$370,000	-36.8%
O&M Benefits (Active Employees)	\$16,627,358	\$16,431,579	\$16,635,295	\$17,517,012	\$15,176,010	(\$1,459,285)	-8.8%
O&M Capitalized Administrative Overhead Credit (indirect costs associated with non-productive hours and Administrative Overhead)	(\$3,972,203)	(\$3,337,316)	(\$3,979,723)	(\$4,388,451)	(\$4,448,369)	(\$468,646)	11.8%
O&M Benefits Less Capitalized Overhead Credit (Active)	\$12,655,155	\$13,094,264	\$12,655,572	\$13,128,561	\$10,727,641	(\$1,927,931)	-15.2%
O&M Salaries & Benefits	\$47,452,783	\$46,941,735	\$48,226,609	\$48,911,661	\$48,788,084	\$561,475	1.2%

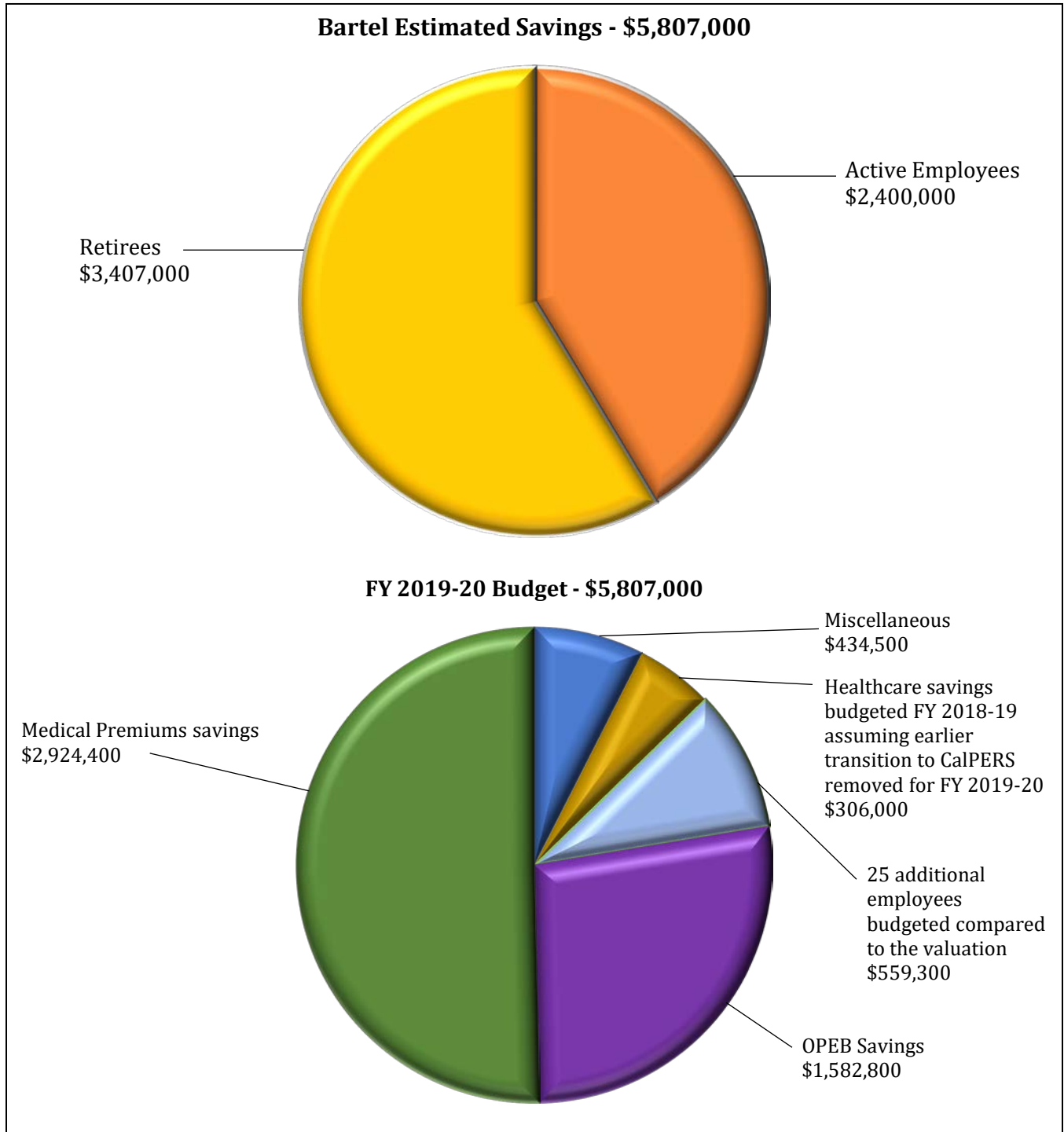
Table 4 – Salaries, Benefits (Detailed), Retiree and Unfunded Liabilities (Continued)

Account Description	FY 2017-18 Budget	FY 2017-18 Actual	FY 2018-19 Budget	FY 2018-19 Projected	FY 2019-20 Budget	Budget to Budget Variance	% Variance
Capital							
Capital Salary and Benefits*	\$5,032,564	\$4,486,055	\$4,379,319	\$4,618,337	\$4,954,677	\$575,358	13.1%
Portion of Capitalized Overhead from above	\$3,972,203	\$3,337,316	\$3,979,723	\$4,388,451	\$4,448,369	\$468,646	11.8%
Capital Salary, Benefits and Capitalized Overhead	\$9,004,767	\$7,823,370	\$8,359,042	\$9,006,788	\$9,403,046	\$1,044,004	12.5%
O&M and Capital Salaries and Benefits (Active)	\$56,457,550	\$54,765,105	\$56,585,651	\$57,918,449	\$58,191,130	\$1,605,479	2.8%
Benefits - Retiree							
Retiree Medical	\$5,441,500	\$5,130,807	\$5,417,000	\$5,300,000	\$3,535,000	(\$1,882,000)	-34.7%
Retiree Dental	\$397,800	\$334,003	\$405,500	\$335,000	\$349,000	(\$56,500)	-13.9%
Retiree Life	\$106,700	\$108,943	\$118,700	\$110,000	\$117,000	(\$1,700)	-1.4%
Retiree Benefits	\$5,946,000	\$5,573,753	\$5,941,200	\$5,745,000	\$4,001,000	(\$1,940,200)	-32.7%
UAAL / Unfunded Liabilities							
UAAL / Unfunded Liabilities	\$11,679,261	\$11,347,000	\$10,720,478	\$11,463,712	\$11,186,841	\$466,363	4.4%
Additional UAAL Contributions	\$2,500,000	\$5,000,000	\$2,500,000	\$2,500,000	\$1,250,000	(\$1,250,000)	-50.0%
Total UAAL / Unfunded Liabilities	\$14,179,261	\$16,347,000	\$13,220,478	\$13,963,712	\$12,436,841	(\$783,637)	-5.9%
Total							
Total O&M Salaries & Benefits, Capital, Retiree Benefits, and Unfunded Liabilities	\$76,582,811	\$76,685,858	\$75,747,329	\$77,627,161	\$74,628,971	(\$1,118,358)	-1.5%

* Comprised of capitalized Salaries & Benefits charged to Central San Capital projects.

Central San’s actuarial services consultant, Bartel Associates, presented to the Board in early 2019 an estimated \$5.8 million savings due to the planned transition to CalPERS healthcare benefits on July 1, 2019. The reconciliation of the \$5.8 million savings against the budgeted expense categories is shown in Figure 1.

Figure 1 – Reconciliation of Bartel Associates Savings Estimate



■ ■ ■ ■ Location in Budget – B. Benefits and Capitalized Overhead
■ Location in Budget – C. Unfunded Liabilities

Table 5 – Changes in Net Position and Fund Equity

	FY 2016-17 Actual	FY 2017-18 Actual	FY 2018-19 Projected	FY 2019-20 Projected
Total Operating Revenue	\$88,625,441	\$92,496,435	\$83,222,732	\$85,048,870
Total Non-Operating Revenues	\$20,647,844	\$22,542,065	\$29,087,288	\$30,268,815
Total Revenues	\$109,273,285	\$115,038,500	\$112,310,020	\$115,317,685
Total Operating Expenses	\$101,464,785	\$109,681,078	\$112,116,926	\$110,247,360
Non-Operating Expense - Interest	\$1,313,398	\$1,230,680	\$1,103,530	\$837,415
Total Expenses	\$102,778,183	\$110,911,758	\$113,220,456	\$111,084,775
Income Before Capital Contributions	\$6,495,102	\$4,126,742	(\$910,436)	\$4,232,910
Total Capital Contributions	\$26,571,487	\$31,760,548	\$35,076,268	\$43,849,130
Change in Net Position	\$33,066,589	\$35,887,290	\$34,165,832	\$48,082,040
Beginning Net Position	\$593,570,427	\$626,637,016	\$620,971,490	\$655,137,322
Restatement - Governmental Accounting Standards Board 75		(\$41,552,816)		
Ending Net Position	\$626,637,016	\$620,971,490	\$655,137,322	\$703,219,362
Net Investment in Capital Assets	\$600,770,254	\$623,307,342	\$656,500,000	\$675,000,000
Restricted for Debt Service	\$4,449,437	\$4,421,504	-	-
Unrestricted	\$21,417,325	(\$6,757,356)	(\$1,362,678)	\$28,219,362
Total Net Position	\$626,637,016	\$620,971,490	\$655,137,322	\$703,219,362

Net Position is classified into three categories: Net Investment in Capital Assets, Restricted for Debt Service, and Unrestricted. The classification is based on availability or accessibility of the resource, rather than its origin. Net position is a measure of the overall financial condition of Central San.

Over time, trends in net position provide indications of Central San's financial strength. Central San's financial condition is affected by numerous factors including financial policies, rate and spending decisions, and external factors such as overall economic trends affecting the service territory, new regulatory requirements, and accounting pronouncements.

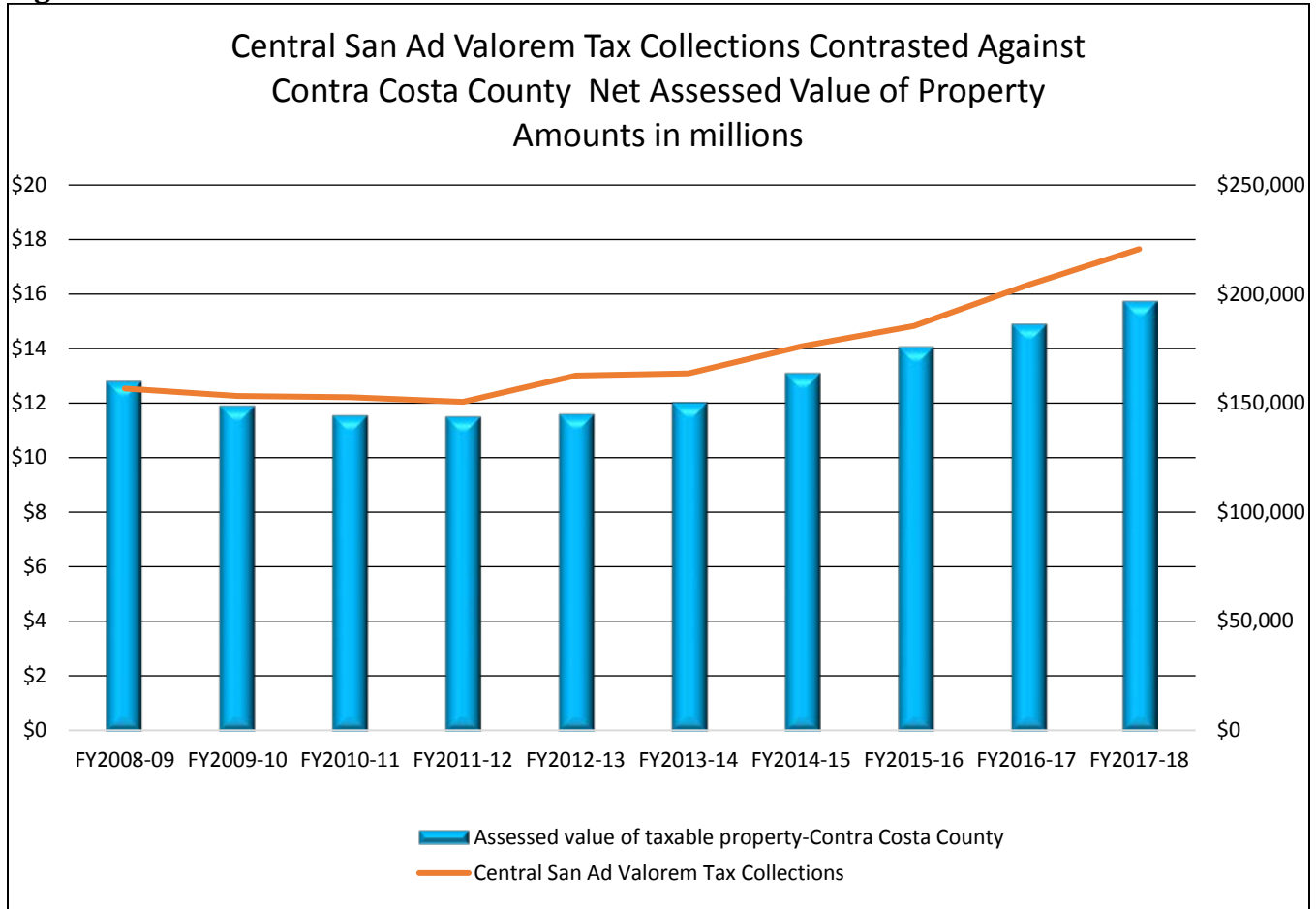
As of year-end FY 2017-18, by far the largest portion of Central San's net position is the investment in capital assets (e.g., land buildings, machinery, equipment, intangible assets, and sewer line infrastructure), less any related debt used to acquire those assets that are still outstanding.

The \$4.4 million restricted for debt service reflected the balance in the debt service reserve fund. Due to a refinancing of 2009 bonds subsequently in September 2018, this debt service reserve was eliminated during FY 2018-19.

Central San implemented Governmental Accounting Standards Board Pronouncement No. 75 during FY 2017-18 which required a restatement to reduce beginning Net Position by \$41.6 million and resulted in a negative unrestricted Net Position balance \$6.8 million.

The following figure shows historical Central San ad valorem property tax collections in comparison to Contra Costa County assessed value of taxable property. Actual revenues received by Central San are based only on the property valuations within the service territory. Figure 2 is provided to illustrate the general correlation between increasing property values and Central San property tax revenues.

Figure 2 – Central San Ad Valorem Tax Collections



Glossary

Terms and Definitions Used in the Budget Document	
Accrual Basis of Accounting	The basis of accounting under which transactions are recognized when they occur, regardless of the timing of related cash flows. An example of accrual basis occurs when an invoice is sent out for services: a receivable is booked and revenue is recorded even though no cash has been received at the time the invoice is mailed to the customer. (See Cash Basis of Accounting and Modified Accrual Basis of Accounting.)
Administration of Capital	Central San-wide and department operations costs incurred by administration support functions which are not directly charged to each capital project but allocated using a rate applied to direct labor dollars.
Ad Valorem Tax	Also referred to as Property Tax. A tax based on the assessed value of taxable property. Central San receives a portion of the ad valorem taxes levied by Contra Costa County on properties in the service area.
Amortization	The action or process of gradually writing off the initial cost of an asset, the action or process of reducing or paying off a debt with regular payments, or a period in which debt is reduced or paid off by regular payments.
Adopted Budget	A balanced financial plan for a specific period authorized by the Board for expenditure or obligation.
Amended Budget	An adopted balanced financial plan reflecting budgetary transfers that occurred since adoption of the budget. The total budget amount must stay within the Board-approved appropriation limit.
Appointment Type	Indicates the character of a position. The following are examples of appointment types for Central San: Regular, District Temporary, and Consultant.
Arbitrage	Borrowing in one market (such as bonds) at one interest rate and investing in another market (such as certificates of deposit) at a higher interest rate. Such activities are highly restricted by the federal government, and any excess interest earned in this manner is not tax-exempt and is subject to rebate to the Federal Government.
Asset	An economic resource owned by the entity that is expected to benefit future operations. Examples of assets are cash, investments, receivables, and capital or fixed assets.
Authorized Position	A position created and established by the Board.
Balanced Budget	A budget in which revenues are equal to expenditures.
Balance Sheet	See Statement of Net Assets, the current term.
Board of Directors	The five public officials elected to represent Central San's service area. Also known as the Board.
Bonds	A written promise to pay a sum of money (principal or face value) at a future date (maturity date) along with a periodic interest amount paid at a specified percentage of the principal (interest rate). Bonds are typically used to finance long-term capital improvements. Debt service payments are made to repay the bond holders. Central San's goal is to limit debt-funded capital to no more than 60% of the total Capital Program over a ten-year period.
Budget	A plan of financial operation, embodying an estimate of proposed expenditures for a given period (typically a fiscal year) and the proposed means of financing them (revenue estimates).
Build America Bonds (BABs)	A type of municipal bond created under the American Recovery and Reinvestment Act of 2009. These bonds are sold at a taxable rate rather than a lower tax-exempt rate, and Central San receives cash rebates from the U.S. Treasury to offset the higher interest cost.

Terms and Definitions Used in the Budget Document

Capacity Fee	Also called Facility Capacity Fee, this is a charge paid at the time of connection to compensate Central San for capital facilities that provide wastewater treatment (i.e., interceptors, primary and secondary treatment facilities, and wet weather treatment plants) to new connections. See <i>Connection Fees</i> and <i>Pumping Capacity Fees</i> .
Capital	Referring to the Sewer Construction Fund.
Capital Appropriation	Board-approved funding for capital reference projects for which relatively accurate time estimates can be made. Unspent appropriations carry forward to the next fiscal year.
Capital Assets	Land, improvements to land, easements, buildings, building improvements, vehicles, machinery, equipment, works of art and historical treasures, infrastructure, and all other tangible or intangible assets that are used in operations and that have initial useful lives extending beyond a single reporting period.
Capital Budget	A financial plan for providing the purchase, construction, or rehabilitation of fixed assets such as equipment, facilities, and systems. The capital budget is usually enacted as a part of the complete annual budget, which includes both operating and capital outlays. The capital budget should be based on a longer-term capital improvement program (CIP).
Capital Cash Flow	Projected cash disbursements for capital projects for a given time period. The estimated capital cash flow is used to determine the amount of revenue required and the rate impacts, or the amount and timing of borrowings to meet the projected expenditure needs for a given time period.
Capital Expenditures	Expenditures related to the purchase or construction of equipment, building structures, aqueducts, and water/sewer pipelines that have a useful life greater than one year and a cost greater than \$5,000.
Capital Improvement Plan (CIP)	A plan for capital expenditures to be incurred each year over a fixed period of several future years setting forth each capital project, identifying the expected beginning and ending date for each project, the amount to be expended in each year, and the method of financing those expenditures.
Capital Labor	The portion of labor costs supporting the capital improvement program.
Cash Basis of Accounting	A basis of accounting under which transactions are recognized only when cash changes hands.
Cash Reserves	Easily liquidated cash and investments available to meet operating, capital, self-insurance, and debt service obligations. Reserves may be restricted or unrestricted. The O&M and Capital Funds Available are unrestricted cash reserves, made up of cash and investments (see <i>Funds Available</i> and <i>Funds Required</i>).
Central Contra Costa Sanitary District Facilities Financing Authority (CCCSD FFA)	A joint powers authority utilized by Central San as a long-term financing vehicle for its capital program.
Certificates of Participation	A form of financing used by municipal or government entities which allows an individual to buy a share of the lease revenue of an agreement made by these entities.
Comprehensive Annual Financial Report (CAFR)	The CAFR is prepared at the close of each fiscal year to show the actual audited condition of Central San's funds and serves as the official public record of Central San's financial status and activities.

Terms and Definitions Used in the Budget Document	
Contra Costa County Employees' Retirement Association (CCCERA)	The retirement association for 16 local agencies in Contra Costa County, including the County itself. CCCERA's retirement benefit structure is based upon the County Employees Retirement Law (CERL) of 1937, commonly referred to as the "37 Act."
CCF	One hundred cubic feet, which equals 748 gallons or one unit.
Civil Service System	The system used for the selection, examination, employment, classification, advancement, suspension, and discharge of employees. Applies only to Regular and Intermittent employees or employees who have attained civil service status but are working in a position excluded from the civil service.
Collection System	Pipelines and pumping stations that convey wastewater from customers to the treatment plant.
Commercial Paper	Short-term financing for capital projects.
Connection Fees (Capacity Fees. Facility Capacity Fees)	A fee charged when new or additional Residential Unit Equivalents (RUE) connect to the sewer to contribute their fair share of service and facility costs. (See <i>Capacity Fees</i> and <i>Pumping Capacity Fees</i>).
Consent Decree	An agreement or settlement to resolve a dispute between two parties.
Cost of Service Study	Equitably assigns cost responsibility to customers through rates and charges developed as part of the study.
Credit Rating	A rating assigned by a nationally recognized statistical rating agency, providing an indication to creditors of the ability of Central San to meet its financial obligations when due. Central San currently has credit ratings from two firms: Standard & Poor's and Moody's. A better credit rating allows Central San to borrow at a lower cost than a less favorable credit rating.
Debt-Funded Capital	Expenditures for capital projects which are funded by bonds, state loans, or other debt.
Debt Policy	A policy adopted by the Board that discusses when and how bonds and other forms of indebtedness may be used by Central San.
Debt Service	Expenditures for interest and principal repayment on bonds or other debt.
Debt Service Coverage	The ratio of net revenues to debt service requirements, calculated in accordance with bond documents. Central San's debt policy specifies that Central San will target a debt service coverage ratio of at least 2.0x. Central San's bond covenants require at least 1.00x coverage on a "gross revenue" basis and 1.25x on a net revenue basis.
Debt Service Fund	One of four sub-funds of the enterprise fund used to account for Central San's operations. This sub-fund accounts for activity associated with the payment of Central San's long-term bonds and loans.
Defeasement	Relieving the agency of a particular liability (such as a specific bond series) by refunding the liability through an escrow or trust fund. Legally defeased liabilities do not need to be appropriated each year as the trust fund is removed from the control of the agency. (Central San defeased its 1994 debt using 1998 Revenue Refunding Bonds, and certain 2009 bonds with the 2018 Series Bonds)
Deficit	The excess of expenditures or expenses over revenues during a single accounting period.
Department	A major organizational unit with overall managerial responsibility for functional programs.
Depreciation	A reduction in the value of an asset with the passage of time, due in particular to wear and tear.

Terms and Definitions Used in the Budget Document	
Distribution System	Wastewater treatment plants, storage reservoirs, pumping plants, pipelines, and appurtenances that treat and transmit water to customers.
District Code	A system of rules, which are compiled and arranged by a municipal corporation, and are adopted and used to regulate the conduct of its inhabitants and government.
District Temporary	Temporary staffing positions that are restricted to working no more than 12 months, do not receive customary benefits, and do not have civil service status.
Division	A major organizational unit of a department. Most departments have several divisions, each providing different services.
Effective Utility Management (EUM)	A framework developed in 2007 by the Environmental Protection Agency and water industry leaders that indicates where effectively managed water/wastewater utilities should focus.
Encumbrance	The obligated and unspent portion of a contingent liability established through a purchase order that is chargeable to an account. It ceases to be an encumbrance when it is paid by the recording of an invoice or a reduction of the purchase order's outstanding balance occurs.
Enterprise Funds	<p>In governmental accounting, these are used to account for self-sustaining activities that derive the major portion of their revenue from user fees. Enterprise Fund Accounting is used operations financed and operated in a manner similar to business enterprises, and for which preparation of an income statement is desirable. Central San uses one enterprise fund with four "sub-funds" to better manage internal finances. The sub-funds are as follows:</p> <ul style="list-style-type: none"> • Running Expense - (also referred to as Operations and Maintenance, O&M, or R/E) accounts for the general operations of Central San. Substantially accounts for all operating revenues and expenses. • Sewer Construction - (also referred to as Capital or S/C) accounts for non-operating revenues that are to be used for acquisition or construction of plant, property, and equipment. • Self-Insurance - (also referred to as S/I) accounts for interest earnings on cash balances and cash allocations from other funds, temporary investments, and costs of insurance premiums and claims not covered by Central San's insurance policies. • Debt Service A sub-fund that accounts for activity associated with the payment of Central San's long-term bonds and loans.
Expenditure	The payment of an obligation from Central San's cash amounts.
Facility Capacity Fees	See <i>Connection Fees</i> above.
Fiduciary Fund	A fund in which assets are held by a governmental unit in a trustee capacity or as an agent for individuals, private organizations, and/or other governmental units. There are four types of fiduciary funds: Pension (and other employee benefit), Investment, Private-Purpose and Agency.
Fiscal Year	The 12-month period that begins on July 1 and ends on June 30 of the following year.

Terms and Definitions Used in the Budget Document	
Full-Time Equivalent (FTE)	An employee who works full time counts as 1 FTE.
Fund	An independent fiscal and accounting entity with a self-balancing set of accounts, recording cash and/or resources together with all related liabilities, obligations, reserves, and equities which are segregated for the purpose of carrying on specific activities or attaining certain objectives. One type of government fund is an enterprise fund and is the only type of government fund used by Central San.
Fund Balance (Net Assets)	Assets minus liabilities (also called net assets).
Funded Position	Authorized position for which the Board has appropriated funding in a fiscal year.
Funds Available (Central San term and definition)	The amount of cash and investments available in the O&M and S/C funds on June 30 of any fiscal year using the Funds Required definition below.
Funds Required (Central San term and definition)	Used in the 10-year planning process, this is the amount of money held in cash and investments (liquid assets) that is needed on June 30 of any fiscal year to meet cash flow needs through mid-December, when the first sewer service charge and property tax payments are received from Contra Costa County. This includes Operations and Maintenance (O&M) and Sewer Construction Fund (S/C) cash and temporary investments; it does not include OPEB payments/accruals, Debt Service cash, reserve investments, or and Self-Insurance (S/I) Fund Cash and investments.
Generally Accepted Accounting Principles (GAAP)	Generally Accepted Accounting Principles are the accounting rules that are required to be followed by organizations in the U.S. These Principles are established by two organizations: The Financial Accounting Standards Board for commercial and not-for-profit entities, and the Governmental Accounting Standards Board for governmental entities in the United States.
Governmental Accounting Standards Board (GASB)	Governmental Accounting Standards Board is the body that specifies the accounting rules for governmental agencies in the U.S. The Board issues GASB statements that can require significant changes to an agency's financial reporting.
GASB 45	An accounting requirement published in 2004 by the Governmental Accounting Standards Board (GASB) that addresses how the accounting and financial reporting for post-employment benefits other than pensions (OPEB) should be performed. This Statement establishes standards for the measurement, recognition, and display of OPEB expense/expenditures and related liabilities (assets), note disclosures, and, if applicable, required supplementary information (RSI) in the financial reports of state and local governmental employers.
GASB 68	An accounting requirement of the Governmental Accounting Standards Board effective in 2014 that addresses Accounting and Financial Reporting for Pensions, which revises and establishes new financial reporting requirements for most state and local governments that provide their employees with pension benefits.
General Fund Reserves	An account used to record funds that are not legally restricted for specified purposes, such as those committed to repay obligations. General Fund Reserves provide for self-insurance claims, unplanned revenue changes, working capital, workers' compensation, and unanticipated contingencies.

Terms and Definitions Used in the Budget Document	
General Manager	The Chief Executive Officer of Central San, hired by the Board.
General Obligations (GO) Bonds	When a government pledges its full faith and credit to the repayment of the bonds it issues, those bonds are general obligation (GO) bonds. Sometimes, the term is also used to refer to bonds which are to be repaid from taxes and other general revenues.
Government Finance Officers Association (GFOA)	Government Finance Officers Association represents public finance officials throughout the U.S. and Canada; it provides best practice guidance, consulting, networking opportunities, publications, training programs, and recognition programs to its members.
Goal	The long-term continuing mission of a department, division, or program. Goals define the strategic results to be achieved and therefore indicate the relevance, permanence, scope, and effectiveness of that outcome.
Household Hazardous Waste Collection Facility (HHWCF)	The service and facility operated by Central San providing for the safe disposal of items that, in the absence of this service, could be inappropriately disposed of through the sewer system, risking pollution of the Bay.
Infrastructure	The tangible physical components that ensure delivery of reliable, high-quality wastewater service now and in the future. Typical components are reservoirs, pumping plants, pipelines, and anaerobic digesters.
Internal Control	The plan of organization and all other coordinated methods and procedures adopted to safeguard assets; check the operations data; promote operational efficiency, economy, and effectiveness; and encourage adherence to prescribed managerial policies that will accomplish the objectives of the organization.
InfoMaster®	GIS-based Asset Integrity Management and Capital Planning Tool
InfoWorks®	New Sewer System Hydrodynamic Model
Key Performance Indicators (KPI)	Indicators with specific targets that measure how well Central San is progressing in achieving its goals under the Key Metrics of the Strategic Plan.
Liability	A debt of the business; an amount owed to creditors, employees, government bodies, and others; a claim against assets.
Modified Accrual Basis of Accounting	The accrual basis of accounting adapted to the government fund type under which revenues are recognized when they become both "measurable" and "available to finance expenditures of the current period." Expenditures are generally recognized when the related fund liability is incurred.
Modified Cash Flow Basis	Income and expense accounting method that records revenue when cash is received and records expenses when cash is paid.
Net Assets	See <i>Fund Balance</i> .
One-Time Revenue	A revenue that cannot reasonably be expected to continue, such as a single-purpose federal grant, an interfund transfer, or use of a reserve. Continual use of one-time revenues to balance the annual budget can indicate that the revenue base is not strong enough to support current service levels.
Operating Appropriation	Board-approved funding for operating expenses. Unspent appropriations do not rollover to the next fiscal year.
Operating Budget	A financial plan to fund ongoing operations costs incurred to operate Central San, excluding the building of capital assets, which are included in the capital budget.

Terms and Definitions Used in the Budget Document	
Operating Deficit	When current expenditures exceed current revenues.
Operating Departments	The three units of Central San that carry out the mission of the agency: Administration, Engineering & Technical Services, and Operations.
Operating Labor	The portion of Central San's labor costs supporting day-to-day operations.
Operating & Maintenance (O&M) Fund	One of four sub-funds of the enterprise fund uses to account for Central San's operations. This fund provides for the general operations, maintenance, and administration of Central San. Also referred to as the "Running Expense" fund.
Organization	A group of staff organized into one unit or section working under a division or department. This is the lowest level at which operating budgets are developed.
Other Post-Employment Benefits (OPEB)	In addition to pensions, many state and local governmental employers provide other post-employment benefits (OPEB) as part of the total compensation offered to attract and retain the services of qualified employees. OPEB includes post-employment healthcare, as well as other forms of post-employment benefits (e.g., life insurance) when provided separately from a pension plan.
Overhead (Administrative Overhead and Non-Work Hours)	Administrative Overhead and Non-Work Hours include indirect costs and the value of time off (holidays, sick leave, vacation, etc.). These costs are expressed as a percent of salary. For Central San accounting, salaries and benefits are separate from overhead (whereas consulting firms typically view employee benefits in "overhead"). Indirect costs are costs that are incurred for a common or joint purpose benefiting more than one cost objective or task and are not readily assignable.
Pay as You Go (or PAYGO)	A term used to describe paying expenses as they are incurred, as opposed to pre-paying, pre-funding, or setting money aside for future expenses. Used primarily to refer to the strategy of paying for capital projects.
Public Employees' Pension Reform Act (PEPRA)	California's Public Employees' Pension Reform Act established a new less costly retirement tier for employees newly hired or which did not have prior service with a reciprocal retirement system prior to January 1, 2013.
Performance Measures	Specific quantitative measures of work performed within an activity or program (e.g., total miles of pipes cleaned). Also, a specific quantitative measure of results obtained through a program or activity (e.g., reduced incidence of vandalism due to a new street lighting program).
Program	Broadly defined group of related reference projects combined to facilitate planning and decision making.
Project or Reference Project	Project level identified in the CIP comprised of a discrete set of tasks that can be carried out independently but require coordination with other projects to ensure overall program success. Appropriation requests and projected cash flows are authorized at this level.
Proposed Budget	The recommended balanced financial plan for a specific period of time submitted for consideration to the Board prior to the start of the Proposition 218 notification process.
Proprietary Fund	Proprietary funds are used to account for a government's ongoing organizations and activities that are similar to businesses found in the private sector. These funds are considered self-supporting in that the services rendered by them are generally financed through user charges or on a cost reimbursement basis. There are two types of proprietary funds: Enterprise and Internal Service.
Pumping Capacity Fees	A component of connection fees for units that are located in areas tributary to one or more of Central San's pumping stations. (See <i>Capacity Fees</i> and <i>Connection Fees</i> .)

Terms and Definitions Used in the Budget Document	
Rate (or Cash) Funded Expenditures	Annual operations and maintenance expenses as well as the portion of the capital program that are funded from current revenues.
Rates	Charges for services to customers that cover the costs of such services while allowing Central San to remain reserve neutral.
Regular Position	Full-time, civil service position.
Reserve Policy	A document outlining minimum reserve thresholds, identifying current and potential reserves, and explaining what reserves are, or will be used for.
Reserves	See <i>Cash Reserves</i> .
Residential Unit Equivalent (RUE)	A measure of sewage volume and strength equivalent to a typical residential household.
Restricted Reserves	Monies that, by action of the Board, State Law, or Bond Covenants, are required to be spent on specific programs or held for specified purposes.
Restricted Revenue	Monies that are legally earmarked for a specific use, as may be required by state law, bond covenants, or grant requirements. For instance, capacity fees must be used within the Sewer Construction Fund; the revenue cannot be transferred to O&M.
Revenue	Monies received from rates, charges, and other sources. Revenues are used to pay for expenditures.
Revenue Bonds	Bonds (instruments and indebtedness) issued by the public sector to finance a facility or equipment purchase, which, unlike general obligation bonds, are not backed by the full faith and credit of the government. Instead, their revenues are generated from the facility or equipment that they finance. Because they are state or local government bonds, their interest earnings are typically tax-exempt under the Internal Revenue Code.
Revenue-Funded Capital	Expenditures on capital projects which are funded by revenues of Central San rather than by debt, grants, or other funds.
Service Area	The cities and areas served by Central San, including Lafayette, Orinda, Moraga, Danville, Alamo, Walnut Creek, Pacheco, and portions of San Ramon and Martinez. Concord's and Clayton's residents' and businesses' wastewater is collected by that City and treated by Central San through a contractual arrangement; therefore, Concord and Clayton are considered to be in Central San's service area. (Also called Service Territory).
Self-Insurance Fund	One of four sub-funds of the enterprise fund used to account for Central San's operations. This fund covers the cost of claims not covered by Central San's insurance coverage, the cost of insurance premiums, interest earnings on the fund, and other associated costs.
Sewer Construction (Capital) Fund (S/C)	One of four sub-funds of the enterprise fund used to account for Central San's operations. This sub-fund provides for the treatment plant and collection system renewal and replacement expenditures, as well as office facilities renewal, vehicle and equipment replacement, information systems replacement, and miscellaneous capital expansion needs.
Strategies, Initiatives, Metrics (SIM)	The key components of the Strategic Plan that specify the overall goals in the coming years, consisting of the Strategies (highest level objectives), Initiatives (how the strategies will be achieved), and Metrics (measurements of progress).
Sinking Fund	A method by which a government may set aside money over time to pay for a project or obligation.

Terms and Definitions Used in the Budget Document	
Staffing Plan	The classes and positions that have been authorized by the Board and have been determined necessary to carry out Central San functions. Central San's current staffing level is based on a 2015 Organization and Staffing Plan, which resulted from a study conducted by Raftelis Financial Consultants, recommending 290 FTE positions.
Strategic Plan	The document that provides a blueprint for how Central San will respond to future challenges and changing priorities over a two-year period. It outlines specific goals, strategies, and objectives to guide Central San and establishes criteria to measure progress.
Strategy	Highest level of capital improvement activities, generally a grouping of related programs. Represents key capital objectives as defined in the Mission Statement, Strategic Plan, and Board policies and directives.
Statement of Net Assets (Balance Sheet prior to GASB 34)	A statement reporting the present financial position of an entity by disclosing the value of its assets, liabilities, and equities as of a specified date. Assets minus liabilities equal fund balance (also called Net Assets).
Subsidy Payment	Relating to Build America Bonds (BABs), the subsidy payment represents funds from the federal government to offset part of the interest cost paid by Central San as the issuer of bonds. The BABs were issued in 2009 in lieu of traditional tax-exempt debt. Central San pays a taxable rate of interest to investors, investors pay the Federal Government Income Tax on that interest, and the federal government remits a specified percentage of the interest payment to Central San.
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Unfunded Actuarial Accrued Liability (UAAL)	The difference between the actuarial accrued liability and the actuarial value of assets accumulated to finance that obligation. This is a term used in connection with pension plans or commitments to provide other post-employment benefits (OPEB) to employees.
Unfunded Liability	Liability that has been incurred during the current or a prior year, that does not have to be paid until a future year, and for which reserves have not been set aside. This is similar to a long-term debt in that it represents a legal commitment to pay at some time in the future.
Vacancy Factor	Recognizing that not all Funded Positions will be occupied throughout a fiscal year, this allowance reduces budgeted funding to reflect such vacancies. While positions are vacant, some costs are incurred on occasion for temporary staff or consulting resources, reducing the vacancy factor.
Working Capital	The capital of a business which is used in its day-to-day trading operations, calculated as the current assets minus the current liabilities.

Acronyms and Abbreviations

Acronyms and Abbreviations Used in the Budget Document	
Board	Board of Directors
CAD	Contractual Assessment Districts, Computer Aided Design
CalPERS	California Public Employees' Retirement System
CCERA	Contra Costa County Employees' Retirement Association
CCTV	Closed-Circuit TV
CCWD	Contra Costa Water District
Central San	Central Contra Costa Sanitary District
CEQA	California Environmental Quality Act
CIB	Capital Improvement Budget
CIP	Capital Improvement Plan — covers 10 years
CIP	Capital Improvement Program
CIPP	Cured-in-Place Pipe
DERWA	Dublin San Ramon Services District - East Bay Municipal Utility District Recycled Water Authority
ERP	Enterprise Resource Planning
FCD	Flood Control and Water Conservation District
FY	Fiscal Year - July 1 through June 30
GFOA	Government Finance Officers Association
HHW	Household Hazardous Waste
IT	Information Technology
MGD	Million Gallons per Day
MPR	Multi-Purpose Room
O&M	Operations & Maintenance
OPEB	Other Post-Employment Benefits
PLC	Programmable Logic Controller
POB	Plant Operations Building
POPEB	Other Post-Employment Benefits
RAMPCAP J100	Risk Analysis and Management for Critical Asset Protection
SCB	Solids Conditioning Building
SIF	Self-Insurance Fund
SSC	Sewer Service Charge
SSO	Sanitary Sewer Overflow
Ten-Year CIP	Ten-Year Capital Improvement Plan
UV	Ultraviolet
VFD	Variable Frequency Drives