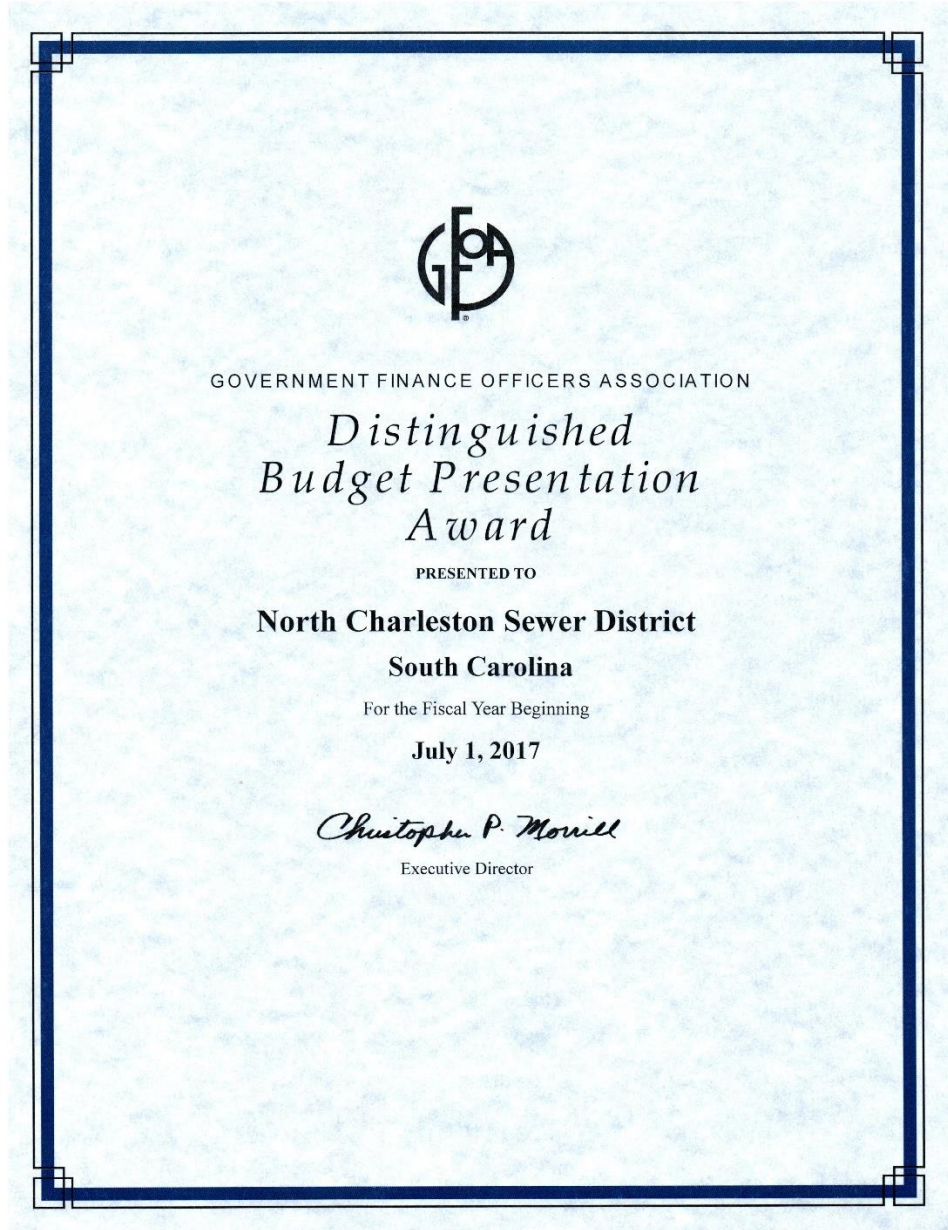




*North Charleston, SC
Sewer Fund Operating & Capital*

*Fiscal Year
2019
Annual Budget*



The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to the North Charleston Sewer District for its annual budget for the year beginning July 1, 2017.

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

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

Sewer District Commission

Gary C. McJunkin
Chairman

George Gomes
1st Vice Chairman

William R. Fuller
2nd Vice Chairman

Sylderrial T. Pryor
Secretary

Melinda Chambers
Commissioner

Clifford E. Johnson
Commissioner

Gerinda Doctor
Commissioner

Eugene W. Myers
Commissioner

Gary N. Thomas, Sr.
Commissioner

Management

District Manager: Jarred Jones, P.E.

Division Heads:

Chief Operating Officer: Gary Alford, P.E.

Chief Financial Officer: Matt Clark, CPA

Capital Projects Director: Phillip Sexton, P.E.

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How to Use the Budget Document

This is intended to assist those readers not familiar with the North Charleston Sewer District's budget documents or governmental budgeting. It provides a quick overview of how the budget is organized and what information is included. The North Charleston Sewer District budget is divided into the following 5 major sections:

Section 1 - The Introduction

This section contains the transmittal letter that provides a summary of the 2018/2019 ("FY 19") budget top priorities, an overview of the entire budget and highlights budget changes. In addition, this section includes District wide policy and goals, a profile of the District including a map, and budgeting and financial policies. Also included in this section are the area's demographics.

Section 2 - Budget Summary

This section provides the reader with financial schedules for the FY 19 budget. It includes a summary of revenues, expenses and changes in net position and an appropriations summary of sources and uses of funds. Explanations are provided for significant changes from the current year's budget. Financial analysis is also provided for the District's debt and equity positions. Lastly, the section provides a long-range financial forecast.

Section 3 - Budget by Department

This section presents the operation and maintenance budget by division and for each department. Organization charts are included for the District as a whole and by Division. Also included are department level goals, performance measures, work load statistics and current year accomplishments.

Section 4 - Capital

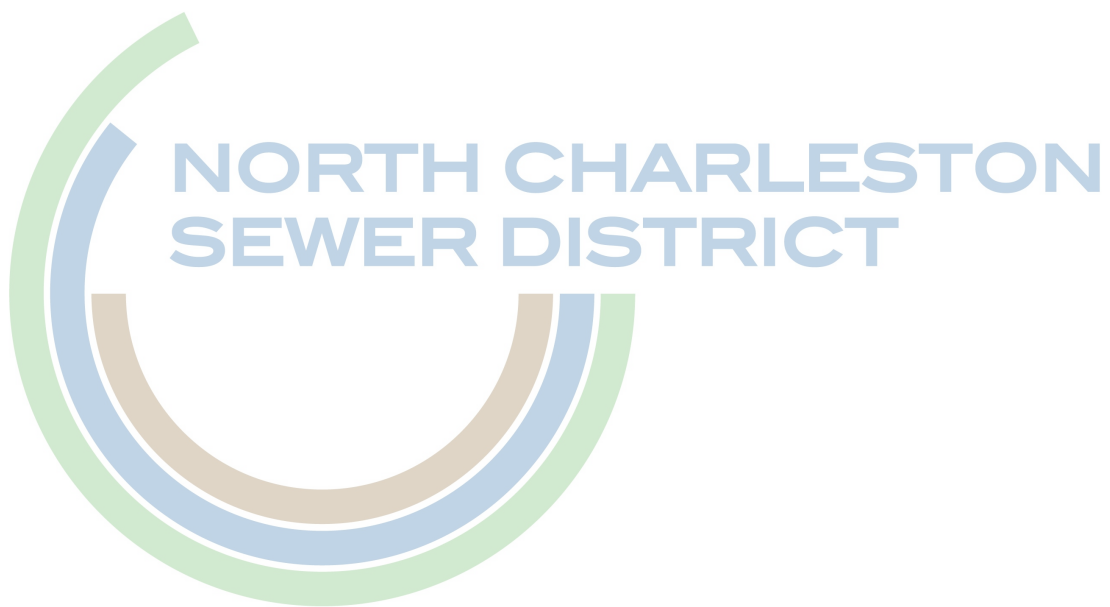
This section contains capital related schedules and narratives. Included in this section are the following:

- Five-Year Capital Improvement Plan
- Annual Capital Improvements
- Service Area Maps

Section 5 - Appendix

This section provides the reader with information that may help them to understand the document and business operations better. Included in this section are the following:

- Acronyms
- Glossary of Terms



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Section 1

Introduction



May 9, 2018

Members of the Commission
And Citizens of the North Charleston Sewer District
7225 Stall Road
North Charleston, SC 29406

Dear Members of the Commission and Citizens:

We are pleased to present the fiscal year 2019 (“FY 19”) budget for the North Charleston Sewer District of North Charleston, South Carolina (hereafter referred to as the “District”). This document not only provides details on the FY 19 budget but also provides insight into the District’s operations, outlines financial policies, and discusses our strategic goals.

Top budget priorities and significant initiatives

For this budget year, many top concerns facing the District and our industry remain unchanged. Management has identified the following as the most significant of those concerns:

- Aging infrastructure
- Rapidly changing and expanded use of technology
- Increasing operational costs, specifically utilities and employee-related benefits
- Training and developing our workforce
- Harmful effects of Fats, Oils and Grease (“FOG”) throughout our System

Aging infrastructure

Many of our largest transportation lines are nearing 50 years in age. Age and exposure to gases have made these lines fragile and increase the risk of failure. The Sewer District has been aggressively rehabilitating these lines since 2009, with the last major rehabilitation scheduled for 2019.

In FY 18, we completed rehabilitation of 10,700 feet of 54-inch transportation lines running from the industrial park at the end of Pringle Street to the VC pump station located near the old Baker Hospital. The next phase of 4,600 feet of 42-inch transportation lines from the end of Apple Street in Wando Woods to the Cummins plant off Leeds Avenue got underway and will be completed in FY 19. This will complete the rehabilitation of all large line segments initially classified as “critical” in the 2010 study.

FY 19 will shift focus to the rehabilitation of our infrastructure in the Lincolnville basin and assessment of our infrastructure in the Popperdam basin. We will continue to rehabilitate one large pump station a year. Noisette pump station was rehabilitated in 2018 and Filbin Creek Pump Station rehabilitation is scheduled for FY 19.

Rapidly changing and expanded use of technology

From 2015 to 2017, the District invested heavily in technology upgrades including new financial software, new work order and maintenance software, a new telemetry system, upgraded GIS, field tablets for mobile data entry, and new prioritization software for line repairs.

FY 19's strategy continues the shift from software implementation to end user training. Maximizing the capabilities of our current systems will improve efficiency and help control operating costs. Field crews have easier access to data, supervisors can monitor and control systems remotely, and office personnel have reduced the need for paper supplies and copying.

Within the next 5 years, the District has a goal to eliminate 24-hour staffing at the wastewater treatment plant ("the Plant"). For FY 19, Plant personnel will be researching various technology options that facilitate remote monitoring of operations. The Plant monitoring system will eventually integrate with the Pump Station telemetry (monitoring) system and allow for a system-wide monitoring and control network.

Increasing operational costs

Across our industry the trend continues of rising operational costs combined with lower end-user consumption.

Challenges for the FY 19:

- Labor costs:
 - The area's low unemployment rate has resulted in a tightening labor market. To keep and retain skilled employees, the FY 19 budget includes a 2.5% pay-for-performance incentive.
 - The District is a member of the South Carolina Retirement System ("SCRS"). The State mandated a 1% raise to employer contributions each year for five years beginning in FY 18. At the end of that five year period, the District will be contributing 18.5% of each employee's salary to SCRS.
- Property insurance premium increases: The previous three years have brought two hurricanes and historic flooding to the coastal area. As a result, property insurance premiums have steadily increased. Notice was given by the South Carolina State Insurance Fund that premiums would increase on all policies between 10% – 15%. At the time of this letter, the District is in the final stages of evaluating proposals from other insurance providers to hopefully limit the premium increases.
- Utility rates and landfill fees comprise 13% of the operating budget and are expected to see 2 – 4% rate increases.

To minimize the impacts of these rising operational costs to our customers, the FY 19 budget kept the same level of full time budgeted positions. Long-term costs containment will most likely come from outsourcing tasks, where beneficial, advancements in technology, and operational improvements from best practices in the industry.

Training and developing our workforce

Employee training on new technology and staying informed and knowledgeable on industry trends continues to be a top priority. Improving operational effectiveness and maintaining the highest standards in quality depend on effective use of our technologies and staying current on industry trends.

The FY 19 training budget includes: several national trainings, local skill-enhancing classes, Plant Operators Challenge, safety courses, and tuition reimbursement.

Harmful effects of Fats, Oils and Grease (“FOG”) throughout our System

A leading cause of sewer blockages is the accumulation of fats, oils, and grease (FOG) in the sanitary sewers. The FOG enters the sewers through connections from homes, food service establishments, and industrial wastewater dischargers. The blockages cause sanitary sewer overflows into local waterways and backups into nearby homes and businesses. The maintenance costs associated with the blockages are passed along to all sewer rate payers.

In 2014, the District began a FOG program and as a first step, required grease trap owners to submit monthly disposal logs. Since that time, the District has promoted public awareness, added community grease collection containers, developed a FOG master plan, and pilot tested strategies for FOG control at pump stations.

The FY 19 budget includes funds to continue public awareness efforts and install equipment that reduces FOG’s impact at pump stations. A currently unfilled position in Accounting will be removed and a position added to Pump Stations to help with the collection of grease from pump stations.

FY 18 financial results and accomplishments

	<i>Estimated Actual</i>	<i>FY 18 Budget</i>	<i>\$ Variance</i>	<i>% Variance</i>
<i>Operating Revenues</i>	\$ 30.03	\$ 29.12	\$.91	3.1%
<i>Operating Expenses</i>	(15.98)	(17.35)	1.37	7.9%
<i>Net operations</i>	14.05	11.77	2.28	19.4%
<i>Depreciation</i>	(8.56)	(8.56)	-	0%
<i>Non-operating revenue</i>	.48	0.23	.25	108.7%
<i>Non-operating expenses</i>	(1.05)	(1.05)	-	0%
<i>Change in net position</i>	\$ 4.92	\$ 2.39	\$ 2.53	105.9%

FY 18 operating revenues are projected to exceed budget by 3%. The largest source of operating revenues, sewer service revenues, are anticipated to exceed budget by 2%. Residential customer accounts have increased by 1%. The number of commercial accounts remained similar to FY 17 and billable consumption increased 3%. New connection permits and origin fees are again strong, totaling \$1,075,000, as of March 2018.

Connection and origin fees are anticipated to exceed budget by \$259,000, or 27%. Interest income revenues are also exceeding budget as rates have steadily risen throughout the year. Interest income is anticipated to end the year at \$469,000 compared to FY 17 of \$372,000.

Operating expenses through March 2018 are within budget and have increased less than 1% from the previous year. Budget savings have been achieved through leaving several authorized positions unfilled as they became available, low fuel prices, conservation efforts on utility usage, and no significant unexpected repairs.

The FY 18 capital budget, which includes projects rolled from FY 17, totaled \$21,497,000 of which \$10,082,000 was expended through March. Another \$3,400,000 is excepted to be spent by June 30th. We anticipate approximately \$6,500,000 to be in process at year end and roll into FY 19 for completion.

Completed FY 18 capital projects include:

- Large CIPP line rehabilitation (\$5.2M), this project re-lined pipe from Brickyard Pump Station to the VC/Navy junction box.
- Lincolnville Pump Station Upgrade (\$1.1M), this project increased pump station capacity and extended a force main.
- Noisette Pump Station Upgrade (\$1.4M), this project rehabilitated the pump station and added modifications that facilitate future grease collection at this site.

Several FY 18 highlights and accomplishments:

- The District finalized and evaluated a Plant and large pump station utility utilization study. The study validated many procedures the District has already implemented and presented a few new options for future utility reduction.
- A salary, job position and employee evaluation study was completed. Recommendations will be presented to the Commission in June 2018.
- The new warehouse on Stall Rd. became operational, increasing the District’s ability to keep emergency backup parts and equipment on hand.
- The Plant replaced all ceramic disc diffusers in three aeration basins with membrane diffusers. This was accomplished inhouse by Plant personnel with assistance from Lines and Pump Station employees.
- Hurricane Irma created hazardous conditions and extremely high flows. District employees worked around the clock to minimize the impact to our customers. The Plant was able to maintain effective treatment levels throughout the event.
- As a result of training and recent equipment purchases, the Lines department completed several projects that historically would be outsourced. Projects included: replacement of two manholes on the North Woods trunk line, cleaning of the Otranto force main, a repair to a 48-inch line at the Treatment Plant, and an emergency repair to the gravity main outside the Woodside pump station.

FY 19 Budget

	<i>FY 19 Budget</i>	<i>FY 18 Budget</i>	<i>\$ Variance</i>	<i>% Variance</i>
<i>Operating Revenues</i>	\$ 29.89	\$ 29.12	\$.77	2.6%
<i>Operating Expenses</i>	(17.77)	(17.35)	(0.42)	2.4%
<i>Net Operating Revenue</i>	12.12	11.77	.35	3.0 %
<i>Depreciation</i>	(8.95)	(8.56)	(.39)	4.6%
<i>Non-operating revenue</i>	0.55	0.23	.32	139%
<i>Non-operating expenses</i>	(1.03)	(1.05)	.02	(1.9%)
<i>Change in net position</i>	\$ 2.69	\$ 2.39	\$.30	12.6%

The FY 19 operating revenues budget increased 2.6% over FY 18 from anticipated customer account and billable consumption growth. Sewer service rates will remain unchanged for FY 19.

Operating expenses increased \$420,000, or 2.4%, from FY 18. Significant increases came from: the South Carolina State Pension Plan contribution increase of 2%, compensation increase from the FY 18 pay-for-performance incentive, \$125,000 added to implement findings from the FY 18 compensation and evaluation study, property insurance premiums increase, and from increased fees in the renewed contract with Charleston Water Systems to perform billing and collecting services. The increases were offset by reductions in special studies and chemical usage.

Total budgeted FTEs remain unchanged for FY 19. One position was added to the Pump Stations department, but offsetting that position was removal of an unfilled position in the Accounting department. Health insurance premiums, which have increased in previous years, remained unchanged for FY 19.

The FY 19 capital plan calls for expenditures of \$13,432,985, an increase of \$1,673,000 from FY 18. The five-year capital plan totals \$51,673,870. Significant FY 19 projects include: aerial pile replacements, Rehabilitation of Filbin Creek Pump Station, and a potential land purchase.

Operations will continue to be completely funded through user rates. Capital will be funded through cash on hand. No new debt is planned for FY 19.

Strategic planning

The District first created a strategic plan in 2015. Each subsequent year, the plan is reviewed and adjusted as short-term goals are met and/or situations and assumptions change. The plan assists with prioritizing initiatives to focus on those that support our core values, purpose, and vision.

The plan identifies five strategic areas:

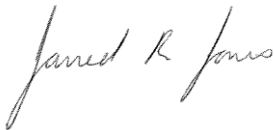
- Fiscal Stability
- Operational Excellence
- Workforce Development
- Strong Infrastructure
- Community

Each strategic area has a subset of short and longer-term goals and objectives that help guide the District towards achieving excellence in that area. These are summarized in Section 1 of this document. Performance measures for each objective are outlined by individual departments in Section 3.

In Closing

This past year the Sewer District made significant capital investments with the continued rehabilitation of our large transportation lines. The FY 19 capital budget will continue this vital work. Operationally, we have invested, and plan to continue to invest, heavily in technology and workforce training. The District strives to continually improve and provide excellent service to our customers and the community.

Respectfully submitted,



Jarred R. Jones, PE
District Manager



Matt Clark
Chief Financial Officer

Sewer District's History

Our History

The North Charleston Sewer District was created by the South Carolina General Assembly Act No. 1768 of 1972. The Act dissolved the former North Charleston Consolidated Public Service District and created the North Charleston Sewer District.

System History

The Consolidated Public Service District began constructing the treatment facility and main transportation trunk lines in 1966. The original treatment plant, which provided primary treatment, had a capacity of 18 million gallons per day (MGD), and the transportation system included eight pump stations.

In the early 1970's, the trunk lines were extended and four additional pump stations were added. During the 1980's, the transportation lines were extended several times and secondary treatment was added. The Sewer District continued expanding transportation lines and adding pump stations through the mid-1990's. As these trunk lines were extended, pump stations were added to provide service to areas that gravity lines would not support. In 2009, the navy base sewer system was transferred to the Sewer District adding approximately 17 miles of transportation lines and five (5) pump stations.

In 1988, the treatment plant capacity was increased by 9 MGD to a capacity of 27 MGD. During 1997, a diffused air aeration system was added to the treatment plant facilities. During fiscal year 2002, the belt and frame press dewatering systems were replaced with a centrifuge system. Fiscal year 2007, the chlorine disinfection system was changed to an ultraviolet disinfection system. Construction to increase the capacity and add a primary clarifier and an aeration tank began in fiscal year 2007 and was completed June 2009. This construction project increased the plant's capacity to 32 MGD and added nitrification to the treatment process.

In the mid-1990's, the Sewer District began systematically rehabilitating the oldest small to medium sized transportation lines. Since 2006 the Sewer District has been systematically rehabilitating our largest transportation lines ranging in size from 36" to 66" in diameter.

District Location

The North Charleston Sewer District lies wholly within Charleston County, having as its southern boundary Mount Pleasant Street in the City of Charleston; as its eastern boundary the Cooper River and Berkeley County line; as its western boundary the Ashley River and the Dorchester County line; and as its northern boundary the Dorchester County and Berkeley County lines.

Form of Government

Commission/Manager

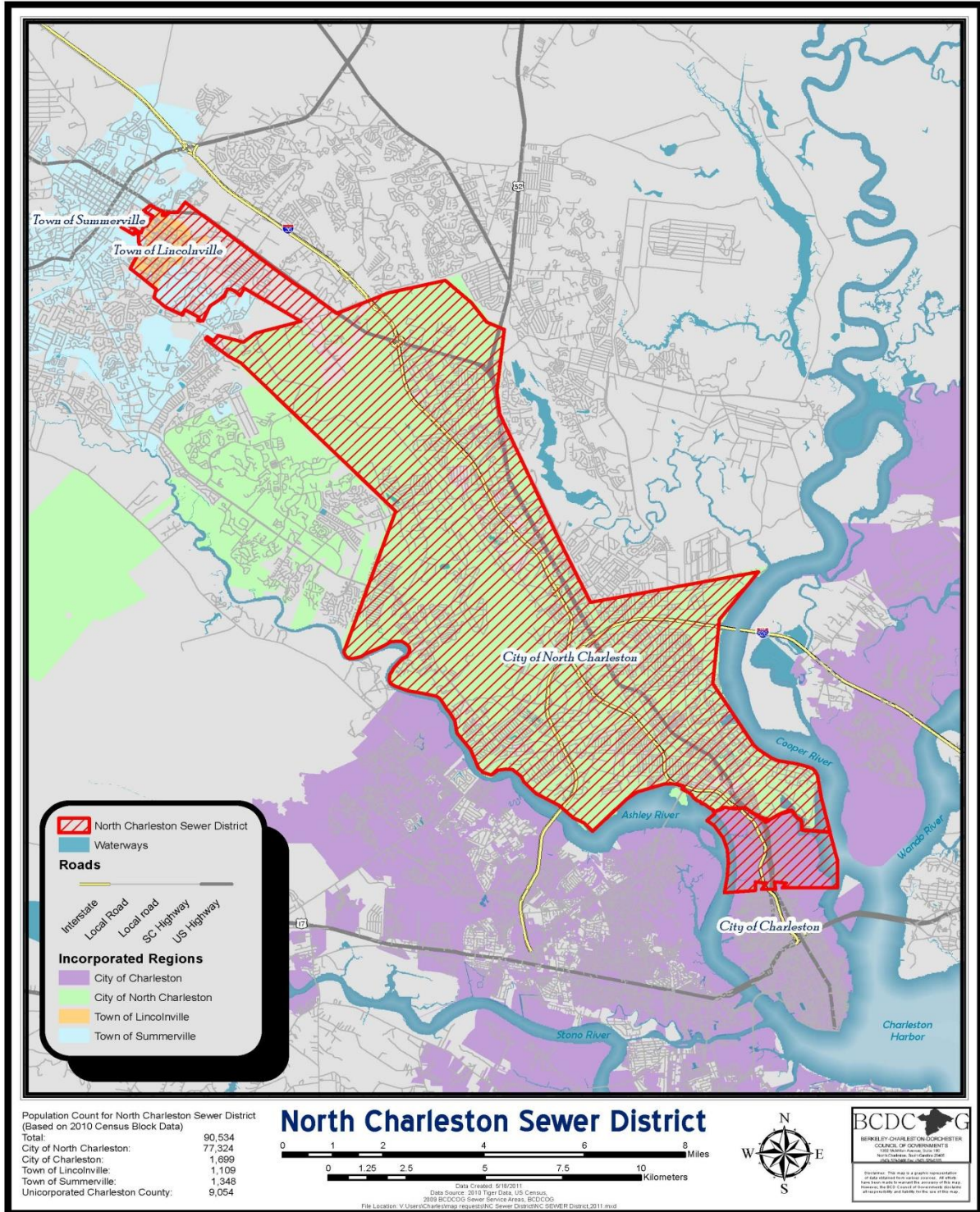
Services Provided

The North Charleston Sewer District provides sanitary sewer service and industrial pretreatment programs to the residential, commercial, and industrial customers of the Sewer District. By state statute the Sewer District may build, operate, and maintain a water system, however at the present time does not do so.

Method of Selecting Members of Governing Body

The Governor of the State of South Carolina appoints the North Charleston Sewer District's nine (9) Commissioners for two-year terms. The Commission elects officers for two-year terms.

Service Area Map



Regional Demographics

Area (Square Miles)

NCSD Service Area	59.3
-------------------	------

Land Use (%)*

Residential	55%
Commercial/Industrial	30%
Undeveloped	10%
Public	5%

Climate

Average Temperature Daily Max	75.7°F
Average Temperature Daily Min	56.1°F
Possibility of Sunshine	63%
Relative Humidity at 7am	86%

Population

City of North Charleston	109,298
Charleston – North Charleston MSA**	761,155
# of customers	30,341

Age Composition*

Under 5 Years	7.8%
5-18	23.9%
19-64	58.9%
65+	9.4%

Median Income (\$)

Family Median Income*	44,998
Household Income**	57,659

*Estimates from 2016 US Census

**US Dept of Commerce

Local economy: The Charleston metropolitan area has remained stable throughout the 2017-2018 year. Forecasts predict the steady growth and low unemployment for the 2018-2019 year.

Regional Demographics

North Charleston Sewer District, North Charleston, SC Demographic and Economic Statistics For the City of North Charleston* (Unaudited)

Year	Population (1)	Chas- N Chas MSA Personal Income In Thousands of \$(2)	Per Capita Personal Income(2)	CNC School Enrollment(3)	Chas- N Chas MSA Unemployment Rate(4)
2008	91,421	23,857,183	37,068	20,560	5.2%
2009	94,407	24,137,485	36,826	21,661	10.2%
2010	95,601	24,817,777	37,168	29,812	9.3%
2011	97,471	26,306,568	38,594	29,954	8.4%
2012	99,727	28,418,507	40,744	30,142	8.1%
2013	101,989	29,167,420	40,953	30,425	7.3%
2014	104,054	30,057,328	41,305	31,066	5.1%
2015	106,749	32,306,872	43,393	31,112	5.8%
2016	108,304	34,250,369	44,998	31,095	4.7%
2017	109,298	**	**	**	3.6%

Note: Data sources include.

(1) City of North Charleston

(2) U.S. Bureau of Economic Analysis

(3) Charleston & Dorchester County School Dist.

(4) SC Department of Employment and Workforce

* Largest Municipality within NCSD

** Data not available at this time

Chas- N Chas MSA- Charleston-North Charleston, SC Metropolitan Statistical Area

Principal Employers

Current Year and Ten Years Ago

(Unaudited)

2017 (1)

2008

Employer	2017 (1)			2008		
	Employees	Rank	Percentage of Total Employment (2)	Employees	Rank	Percentage of Total Employment (2)
Boeing Commercial Airplanes	7,400	1	1.93%			
Charleston County -Executive Offices	2,100	2	0.55%	2,100	1	0.72%
Trident Medical Center	2,000	3	0.52%	2,000	2	0.68%
US Postal Service	2,000	4	0.52%			
SAIC, Inc.	1,500	5	0.39%			
Verizon Wireless	1,200	6	0.31%	1,050	5	0.36%
City of North Charleston	1,200	7	0.31%	1,001	6	0.34%
Trident Technical College	1,000	8	0.26%			
KapStone Charleston Craft LLC	950	9	0.25%	1,370	4	0.47%
Scientific Research Corporation SRC	855	10	0.22%			
Force Protection Inc.				1,550	3	0.53%
Cummins Engine				450	8	0.15%
Global Aeronautica				690	7	0.24%
Deytens Shipyard				400	9	0.14%
Charleston Southern University				350	10	0.12%

Note: We serve the Charleston Air Force by contract - number of employees is 20,000. The Sewer District's service area surrounds the base.

Accordingly, many of their employees are Sewer District customers.

(1) Source: Charleston Metro Chamber of Commerce and City of North Charleston

(2) Total employment represents total for Charleston MSA area per US Department of Labor - Bureau of Labor Statistics. Total employment not available for North Charleston, SC location only.

Life in the Lowcountry

The North Charleston Sewer District lies in the heart of the Lowcountry and serves citizens, businesses, and industries primarily in North Charleston, South Carolina. For many reasons this region has become a much sought-after place to visit and even call home. Tourism brings over 4 million visitors a year to the region, attracting outsiders to the things that the people who live here enjoy daily. Living here affords the residents virtually unlimited recreation and entertainment options; whether your day includes a trip to the beach, a golf course, or even an aquarium, everything is within a short distance. Easily, the beauty of the area, which includes many tranquil settings can be appreciated and enjoyed by both visitors and residents.



Annual Events:

- January** New Year Celebrations, Lowcountry Oyster Festival
- February** Lowcountry Blues Bash, Southeastern Wildlife Exposition (SEWE)
- March-April** Festival of Houses and Gardens, Cooper River Bridge Run/Walk, Flowertown Festival, Family Circle Cup Tennis Tournament, Lowcountry Cajun Festival, St. Patrick's Day Block Party in Park Circle
- May-June** Spoleto Festival USA, Piccolo Spoleto
- July** Fourth of July Celebrations
- September-October** Annual Fall Tours of Houses & Gardens, Scottish Games and Highland Gathering, Festival Hispano, Moja Arts Festival, Taste of Charleston, Charleston Garden Festival, Jazz Festival
- November** Coastal Carolina Fair, Holiday Festival of Lights (thru Jan)
- December** Christmas in Charleston, Holiday Parade of Boats

Strategic Plan

During FY 15, the District developed a strategic plan as a tool to help assess our current condition and ensure we are taking the proper steps to achieve long-term goals. The process included gathering feedback from employees, management, and other stakeholders through team meetings and surveys.

With the assistance of facilitators, a Strengths, Weaknesses, Opportunities and Treats analysis (“SWOT”) was developed:



The information was then compiled into the original strategic plan. Each year, during the budget cycle, meetings are held between departments, division heads and the District Manager to meet to discuss the progress on the current goals and update with new benchmarks for the upcoming year.

The Plan focuses on 5 strategic issues:

- Fiscal Stability
- Strong Infrastructure
- Operational Effectiveness
- Community
- Workforce Development

Strategic Plan

Core Values

- Focus on serving the customer and community
- Protect the environment
- Promote innovation and continuous improvement
- Encourage open communication and teamwork
- Act with integrity
- Deliver exceptional results

Purpose

To provide a sanitary sewer system that ensures the health and safety of our stakeholders.

Vision

The North Charleston Sewer District is comprised of dedicated and skilled employees who use best practices and innovative technology to provide quality and accessible services and a strong infrastructure at reasonable rates. It is a well-managed, efficiently run and fiscally stable organization that is transparent in the conduct of its business.

Commitments and Values



Public Partnerships: The Sewer District holds the public’s trust as one of its highest values. It is our responsibility to ensure that decisions are made in consideration of the entire Sewer District and the welfare of the surrounding community. The public’s understanding of why decisions are made is important and we strive to be available and responsive in dealing with issues of concern to our citizens. We also participate in and support area economic development. We welcome our citizen’s comments and concerns.

Environmental Quality: The Sewer District is an active participant in environmental protection. We are charged with the responsibility of providing for the environmentally sound management of the Sewer District’s wastewater. This is accomplished through high standards of operation, and a policy of meeting or exceeding all federal, state, and local regulations. We are committed to providing the Sewer District with safe wastewater treatment today and in the future.

Strategic Plan

Commitments and Values, continued

Staff Excellence: The Sewer District is committed to maintaining and developing a highly professional and technically competent staff to provide creative and innovative solutions to wastewater management issues. A staff with a balance of experience, diversity, initiative, and a willingness to evaluate risks is the key to our ability to serve.

Plan Initiatives:

Fiscal Stability

The District has the financial capacity to meet short and long-term needs.

1. Fund operations without significant rate fluctuations
 - a. Explore cost saving strategies
2. Maintain sufficient unrestricted cash to sustain operations in the event of an emergency
 - a. Keep six months of unrestricted cash reserves
3. Be good stewards of stakeholders' resources
 - a. Maintain strong internal controls
 - b. Regularly inform Commissioners on operations
 - c. Prepare quality financial reports
 - d. Operate within budget

Strong Infrastructure

The District is able to rehabilitate, maintain, and expand its transportation, collection; and treatment systems to safeguard the environment.

1. Reliability
 - a. Build inventory of spare parts
 - b. Minimize outages and improve redundancy
 - c. Complete all required preventive maintenance
2. No regulatory violations
 - a. Identify and modernize lab equipment and techniques
 - b. Submit DMR to DHEC monthly
 - c. Increase inspections/samples of industries
 - d. Continually monitor flows to pump stations and plant
3. Minimize sanitary sewer overflows to less than 2 per 100 miles of lines
 - a. Continue grease initiative
 - b. Increase food service establishment (FSE) reporting and inspections
 - c. Complete inflow and infiltration (I&I) study and repairs of one basin every two years
 - d. Inspect all infrastructure every 8.5 years
 - e. Continue to rehabilitate large diameter lines

Operational Effectiveness

The District is able to operate more efficiently and effectively.

1. Promote resource conservation
 - a. Reduce paper usage
 - b. Minimize surplus inventory

Strategic Plan

Operational Effectiveness, continued

2. Effectively use technology
 - a. Improve mobile usage
 - b. Submit electronic documents via website
 - c. Increase efficiency
3. Efficient use of computer maintenance management software (CMMS)
 - a. Complete corrective maintenance timely

Community

The community understands the need for their cooperation in maintaining the District's infrastructure and the District is committed to providing citizens with excellent customer service.

1. Increase transparency and visibility
 - a. Improve website
 - b. Employees participate in community activities
 - c. Promote plant tours
2. Educate the public
 - a. Interact with community leaders
 - b. Develop informational programs for local schools
 - c. Increase FOG Awareness
 - d. Effectively use social media
3. Provide outstanding customer service
 - a. Provide 24/7 assistance
 - b. Gather customer feedback

Workforce Development

The District employs a skilled, capable workforce who strive to improve themselves.

1. Well trained workforce
 - a. Expand NCSU University
 - b. Host meaningful trainings
 - c. Provide educational opportunities
 - d. Increase cross training
2. Provide safe working environment
 - a. Provide yearly safety training
 - b. Perform safety audits
3. Preserve morale and maintain positive work experience
 - a. Conduct lunch and learns
 - b. Create and promote opportunities for employee feedback



Significant Strategies

This section provides detail for strategies listed in the previous section that require multiple steps over several years to complete. The ** symbol signifies the step is to be completed in FY 2019.

Strategic Issue: Strong infrastructure		Target Completion date
Goal: Minimize sanitary sewer overflows to less than 2 per 100 miles of lines		
Strategy: Continue grease initiative – <i>Fats, Oils and Grease (FOG) is a leading cause of sewer blockages and significantly increases transportation and treatment costs. The District started a program in 2014 specifically designed to fight FOG and continues to build and enhance the program each year.</i>		
Require establishments with grease traps to submit best management practice (BMPs) and monthly disposal logs		Completed Sept 2014
Increase public awareness: develop grease education presentations, distribute lesson plans to 10 local elementary and middle schools, and wrap 2 large vehicles with FOG education signs		Completed Nov 2015
Expand program to residential areas by adding 3 grease collection containers around the City		Completed Dec 2015
FOG master plan developed by engineering firm		Completed Jan 2016
Pilot testing of strategies from FOG master plan at several pump stations and change Use Resolution for grease violation penalties		Completed June 2017
** Implementation of selected strategy from pilot testing at pump stations - 10 wet well wizards installed		Goal of Dec 2018
** Expand FOG awareness throughout community by developing FOG campaign		Goal of June 2019
** Develop meaningful measurables to test the effectiveness of FOG awareness strategies		Goal of June 2019
Goal: Minimize Inflow and Infiltration (I&I)		
Strategy: Rehabilitate large diameter gravity lines – <i>Many of our largest transportation lines are nearing 50 years in age. Age and exposure to gases have made these lines fragile and increase the risk of failure. The Sewer District has been aggressively rehabilitating these lines since 2009, with the last major rehabilitation scheduled for 2019.</i>		
Step 1: Study to determine critical areas for large rehabilitation		Completed Nov 2010
Step 2: Engineering and construction of critical areas		
	Northwoods to Turkey Creek	Completed Apr 2009
	Cooper Interceptor (Orvid to Junction Box)	Completed Jan 2012
	Filbin Creek area	Completed Apr 2014
	Filbin to Noisette	Completed Jun 2014
	Old Popperdam, Brickyard, VC areas	Completed Apr 2014
	Noisette to Cooper interceptor	Completed Mar 2016
	Cooper interceptor to Plant	Completed May 2017
	Brickyard to VC/Navy junction box	Completed Dec 2017
**	Watkins to Brickyard	Goal of Dec 2018
	Ingleside to Northwoods	Goal of Dec 2019

Significant Strategies

Strategic Issue: Strong Infrastructure, continued		Target Completion date
Goal: Reliability		
Strategy: Build inventory of spare parts – <i>Having critical parts and equipment, like spare pumps, on hand greatly reduce the time and severity of emergency situations. Prior to 2018 the District did not have a facility to accommodate large materials. Now that the Stall Rd. warehouse is complete, the District can stock these critical parts.</i>		
Step 1: Engineering and design new warehouse		Completed May 2016
Step 2: Stall Rd. warehouse construction completed		Completed Feb 2018
** Step 3: % of pump stations covered by emergency reserve pumps in inventory		25% coverage by June 2019
** Step 3: # of days waiting on emergency parts		Goal of less than 30 by June 2019
Goal: No regulatory violations		
Strategy: Identify and modernize the Treatment Plant Laboratory		
Step 1: Research modern laboratory advancements and designs		Completed Dec 2017
** Step 2: Engineering for remodeling current laboratory		Goal of Sept 2018
Step 3: Construction for remodeling current laboratory		Goal of Jul 2019

Strategic Issue: Operational Effectiveness		Target Completion date
Goal: Effective use of technology		
Strategy: Improve Utilization of CMMS (Computer Maintenance Management System) – <i>In 2015, the District began implementation of a new CMMS system. This System digitizes and organizes all the District's assets and generates corrective and preventative maintenance work orders. Now that the System is in place, the District is focusing its efforts on better utilization of all the System's functions.</i>		
Roll out new version of Computer management workorder system capable of supporting mobile usage.		Completed Jan 2016
Begin populating the system asset records and setting up maintenance schedules.		Completed 2016
Roll out tablets for mobile entry of workorders.		Completed Fall 2017
** Ensure CMMS is populated with 100% of the District's assets and the asset lists are updated timely for changes.		Goal of June 2019
Reconcile expenses from financial system to CCMS workorders to ensure all costs are accurately captured on work orders		Goal of June 2020

Financial Policies

The North Charleston Sewer District's financial policies are the basic guidelines that direct the financial management of the Sewer District. The following policies, with the exception of the rate setting and net position policies, are required by bond covenants and/or formally approved by the Sewer District's Commission. The rate setting policy is management's internal policy used as a guide in rate setting. The net position policies define management's classifications for net position in the budget document.

General Policies

1. An independent audit of the Sewer District's financial statements will be performed annually.
2. Annual financial reports will be prepared in accordance with GAAP as outlined by the Governmental Accounting Standards Board (GASB).

Basis of Accounting

The Sewer District accounts for all financial activity associated with the operation of the Sewer District in one enterprise fund. As an enterprise fund, financial reports are on the full accrual basis of accounting, much like that of a private sector business. Revenues are recognized as they are earned and expenses recorded as soon as the liability is incurred, regardless of when cash is received. In accordance with Generally Accepted Accounting Principles (GAAP), capital purchases are not expenses within this fund; rather depreciation expense is recorded over each asset's useful life.

Cash/Investment Policies

1. Investments will be made in accordance with South Carolina Code of Laws Section 6-5-10 "*Authorized Investments by Political Subdivisions*" and the Sewer District's Investment Policy adopted in 2007.
2. Cash balances will be maintained in accordance to the Sewer District's Deposit policy adopted in 2007. The policy allows for sufficient liquidity of funds to meet the Sewer District's projected operating and capital expenses to insure the timely satisfaction of financial obligations.

Reserve Policies

1. A minimum level of unrestricted reserves equaling 3 months of the current year's budgeted operating expenditures (excluding depreciation) will be maintained.
 - a. Use of reserve – The Commission must authorize use of the reserves. Reserves will be used for extreme events, cash fluctuations, rate stability, and funding capital investments. The District Manager will notify the Commission in advance if there are indications that the reserve will fall below the minimum level and will identify actions to be taken to avoid or mitigate the situation. Should reserves fall below the minimum level, it is the District's intent to replenish reserves within two fiscal years.

Revenue Policies

1. Rates will be sufficient to meet all minimum outflows.
2. Free services will not be provided.

Financial Policies

Rate Setting Policies

1. Rates should be established utilizing a “Generally Accepted” rate setting methodology.
2. The following approaches will be used to establish rates:
 - a. Revenue Requirement Analysis
 - i. Revenue requirements will be established on a “cash basis” approach that reviews operation & maintenance expenses, debt service, rate stabilization, and capital improvements funded from rates.
 - ii. Costs will be projected for a minimum of a three-year projected test period.
 - b. Cost of Service
 - i. A cost of service study will be utilized to allocate cost to customer classes.
 - ii. The cost allocation methodology utilizes techniques that are generally accepted by the industry (e.g. Water Environment Federation, America Water Works Association).
 - c. Rate Design
 - i. Rate designs will be reflective of the District’s needs and also reflect the greater public purpose (e.g. economic development, conservation, etc.).
 - ii. Rates may recognize a fixed charge for the up-front fixed costs associated with serving customers and a usage or volumetric charge that attempts to recover the variable costs of operating the utility.
 - iii. Rates will be set at a level that recovers necessary overall costs, yet flexible enough to accomplish District objectives (e.g. competitiveness).
3. Rates must support stability
 - a. Reserves – rates will be set to maintain the minimum reserve funds as outlined in the District’s reserve policy.
 - b. Maintenance of minimum reserves should not, on its own, trigger the need for a rate adjustment (e.g. rates shall be adjusted after two consecutive years of loss of revenue or diminishing reserves as a result of covering costs).
 - c. Cash Flow
 - i. The annual debt service coverage ratio should be ≥ 1.50 on revenue bonds and ≥ 1.30 on all outstanding debt service. (this is greater than required bond covenants)
 - ii. The District should strive to fund capital reserves from rates in an amount equal to annual depreciation expense – depending upon the competitiveness of the rates.
4. Rates will be reviewed on an annual basis.
5. The District strives for minimum impacts to customers when adjusting rates, as such:
 - a. Rates should be structured to promote customer understanding and transparency (e.g. bills that are easy to understand).
 - b. Rate adjustments, if possible, will be phased-in over time, when large financial impacts to customers are expected (e.g. eliminate rate shock).
 - c. Rate adjustments should consider the “competitiveness” of the District’s rates to surrounding communities.

Financial Policies

Operating Budget Philosophy and Policies

1. The District shall annually adopt a balanced budget where all revenues (operating and non-operating) are equal to, or exceed, all expenses (operating and non-operating). State law requires that estimated revenues and appropriated fund equity be equal to appropriations.
2. In accordance with bond resolutions, the operating budget will include property, casualty, tort, surety, and Worker's Compensation insurances.
3. The Sewer District will purchase goods and services in accordance with State policy and/or the Sewer District's procurement resolution, which encourages competitive pricing.
4. All monies properly encumbered as of June 30th may be re-appropriated to the applicable budget line in the following year's budget.

Debt Policies

1. A formal debt policy was approved in January 2004. Below are the key points of the policy:
 - a. The District is authorized to issue General Obligation Bonds under the applicable debt limitation provisions of Article X of the South Carolina Constitution.
 - b. The District is subject to the State General Obligation Bond debt limitation provisions of Article X of the South Carolina Constitution.
 - c. The District is authorized to issue Revenue Bonds under the statutory authority of the Enabling Statute.
 - d. The District will meet all bond covenants, which includes a coverage factor of 125%.
 - e. The District will seek to maintain or improve current bond ratings.
 - f. The District will prepare annually a comprehensive capital improvement plan that includes funding strategies.
 - g. The District will not issue bonds to finance operating budgets.

Capital Budget Policies

1. The District will have a multi-year capital improvement plan, which will be updated annually.
2. The annual budget for capital improvements will be equal to at least one half of the depreciation expense.

Net Position (Retained Earnings)

1. Debt service funds required to be transferred to the trustee will be shown as reserved. (Note not all reserves to pay debt service are required to be transferred to the trustee.) There are no debt service fund requirements on the current outstanding debt.
2. Connection permit fees and monies set aside for the Five-Year Capital Improvement Plan (CIP) will be shown as Designated for CIP. The designation does not authorize or fund the projects.

Budget Process

Fiscal Year

The District operates on a fiscal year rather than a calendar year. The fiscal year begins July 1 and ends June 30.

Statutory and Bond Covenant Requirements

State law requires: the budget to be adopted by resolution, estimated revenues and appropriated fund equity be equal to appropriations, and a public hearing must be held prior to adopting the next fiscal year's budget. Notice of the public hearing are published not less than fifteen days prior to the date of the public hearing in a newspaper of general circulation in the area. The notice contains information on the upcoming budget and any proposed rate or fee changes.

In addition, bond covenants require rates to be set to sufficiently meet a list of minimum outflows, (i.e. O&M expenses, principal and interest payments, and allowances for contingencies); keep required insurance; not pledge the system or any part of it (except as provided for in the bond resolution); and not furnish service free of charge. The adopted annual budget is forwarded to the Trustee. An annual audit must be provided to the Trustee within 120 days after the close of the fiscal year.

Basis of Budgeting

The District budgets on the same accrual basis as the audited financial statements. Therefore, budgeted revenues are based on when they have been earned, not when payments are received, and budgeted expenses are based on when money is owed for goods and services. To calculate rates the budget is adjusted for cash flow needs (basically what cash is needed to meet actual cash outflows), cash needed for total bond payments (principal and interest, not just interest), cash needed for capital instead of depreciation expense, plus the budgeted stabilization funding.

Adoption Process

The District's budget process begins in December when the five-year capital improvement plan review begins.

Each department reviews and updates the four years included in the prior year's capital improvement plan by and prepares new items for year five. Costs are adjusted based on more recent information, items may be deleted or moved to other years, and new items may be added.

Departments then meet with the Capital Projects Director to review and prioritize. The Capital Projects Director then compiles the results and meets with the other Division heads and District Manager to discuss. Final edits are made and then the plan is presented to the Commission.

Operational budgets are prepared during January and February by departments. To start the process guidance is given to departments on budget constraints, goals, and initiatives, along with a timeline for completion. When entered, each department meets with the District Manager and CFO to discuss.

The CFO then presents the operating budget to the Commission Budget and Finance Committee. After the Committee finishes their review, a public hearing is held. The budget is then finalized and approved. In the event that the budget is not approved prior to the beginning of the fiscal year, the Commission will pass a temporary budget.

Budget Calendar

January 3, 2018	Departments begin review and update of 5 year Capital Plan
January 22, 2018	Commission presentation and discussion on budget timeline, goals, and constraints
January 23, 2018	Budget kickoff meeting with departments Departments begin entering operating budgets and updating goals
January 29 – February 8, 2018	Department meetings with Capital Projects Director on 5 year Capital plan
February 13, 2018	District Manager and Division head review and edit of 5 year Capital Plan
February 21 – March 8, 2018	Department meetings with District Manager and CFO to discuss budgets and goals
March 19 – 22, 2018	CFO updates revenue projections and rate model
March 26, 2018	Presentation to Finance and Budget Committee on 5 year Capital Plan and Revenue outlook
April 9, 2018	Presentation to Finance and Budget Committee on the Operating Budget
April 23, 2018	Recap of budget and recommendation to approve FY 2019 Operating and Capital budgets by the Finance and Budget Committee
April 28, 2018	Public budget notice published in newspaper
May 14, 2018	Public hearing and Commission approval of FY 2019 Operating and Capital budgets
July 1, 2018	Start of FY 2019 budget year

Budget Monitoring & Amendment Procedures

General

- Each department maintains a line item budget. Budget transfers are required when encumbrances and expenses exceed the line item budget appropriation.
- Each approved capital improvement project is assigned a project number. Budget transfers are required when encumbrances and expenses exceed the project budget.
- Budget-to-actual financial reports are prepared by the CFO and provided to the Commission each month.
- Outstanding encumbrances and their related budgets that are properly encumbered as of June 30th may be re-appropriated to the applicable budget line in the following year's budget.

Requires Commission Approval—Simple Majority is Required

- Increase or decrease in sewer fund appropriations.
- Transfers from one department to another department.
- Transfers from one category to another category.
- Changes in capital budget scope.
- Purchases in the amount of fifty thousand (\$50,000) dollars or more
- Increases in pay grades for authorized positions.
- Increases in authorized positions.

Requires District Manager Approval & Commission Notification

- Emergency procurements of \$25,000 or more must be approved by District Manager and require the Commission Chairman to be notified immediately and full Commission to be notified at the next Commission meeting following such action.

Requires District Manager or Division Head Approval

- Overnight travel and/or out of state travel.
- All capital improvement purchases.
- Capital overruns that are under \$5,000 and less than 10% of project budget.
- Transfers within a category (Insurance) from one specific subcategory to another subcategory (e.g. tort insurance, vehicle insurance, equipment insurance, etc.).

Fund Structure

Per governmental accounting standards, the District constitutes a single proprietary fund type known as an enterprise fund. All the Sewer District's transactions are reported in this one enterprise fund and the budget appropriates resources for this fund.

The District segregates monies in several accounts within the enterprise fund as described in the bond resolution. The accounts used are: Gross Revenue, Operations & Maintenance, Utility General, Rate Stabilization, and Debt Service.

Gross Revenue: This account receives all revenues from user charges and fees. Funds are then transferred out of this account on or before the 15th of each month to the other accounts in accordance with the annual budget.

The order of priority is: operation and maintenance, debt service, rate stabilization, and utility general.

Operation and Maintenance: This account is used for payments of all operating and capital expenses. Capital items are reimbursed by other accounts in accordance with the annual budget. Excess working capital is transferred out to the utility general account.

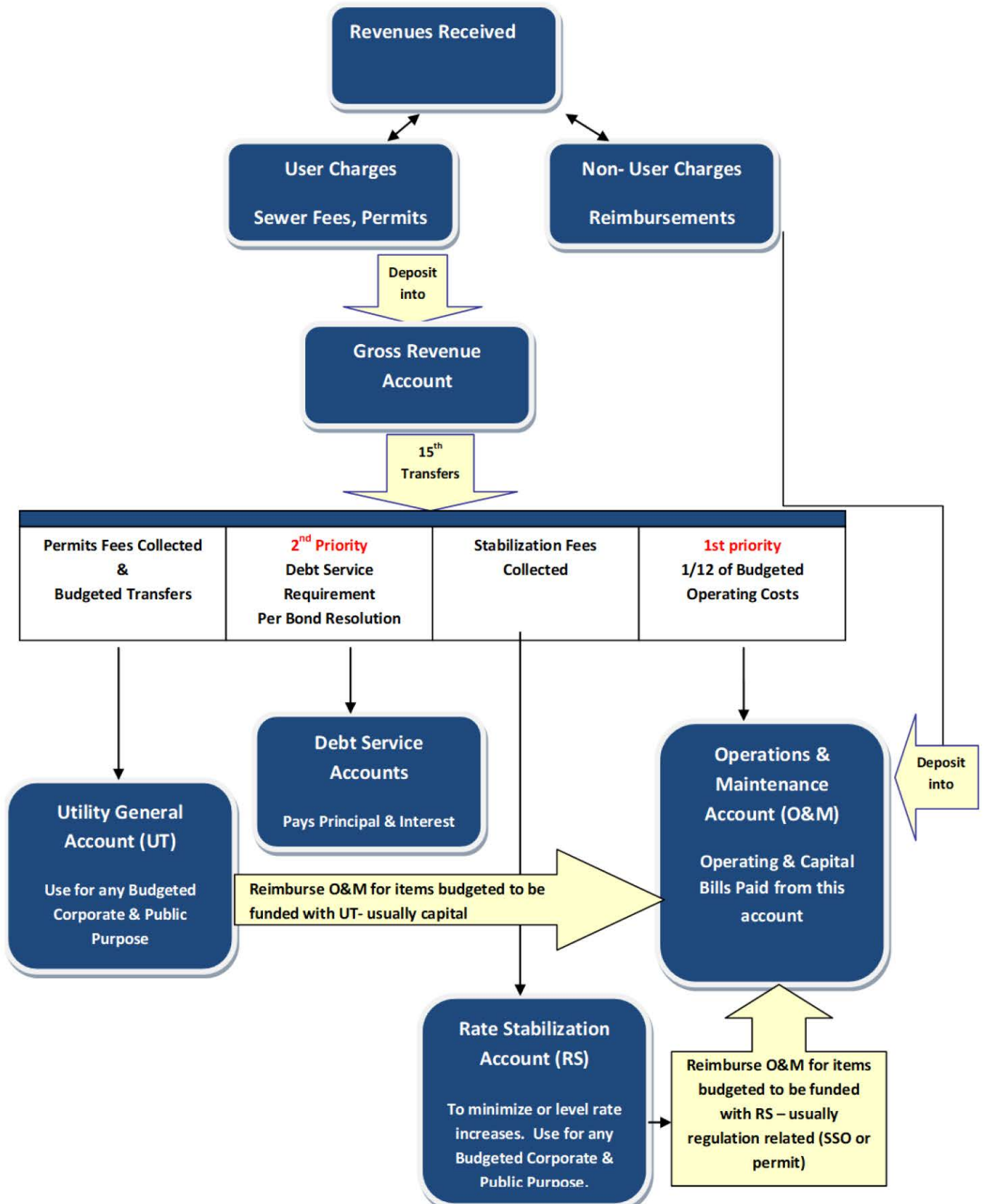
Debt Service: Debt service accounts are held by a trustee for each bond obligation outstanding. No later than the fifth day preceding an interest and/or a principal payment, money sufficient to make that payment is transferred to the Trustee. The District's standard operating procedure is to transfer funds monthly to debt service so that the amount needed for an upcoming payment is on hand at the time the payment is due.

Rate Stabilization: This account was established for the purpose of minimizing or leveling rate increases. The annual budget establishes the portion of revenue for the year to be deposited into the account. Each month, 1/12 of the annual amount is transferred in. If the budget appropriates rate stabilization funds to be used for expenses, that amount is transferred out. The District has funded the rate stabilization account since 2000 and appropriated from the account to meet the regulations and capital requirements.

Utility General Account: Funds remaining after transferring to operation and maintenance, debt service, and rate stabilization account are moved to this account. The annual budget, may appropriate funds from this account for capital improvements or other corporate and public expenses.

Fund Structure

Monthly Funding Cycle



Section 2

Budget Summary

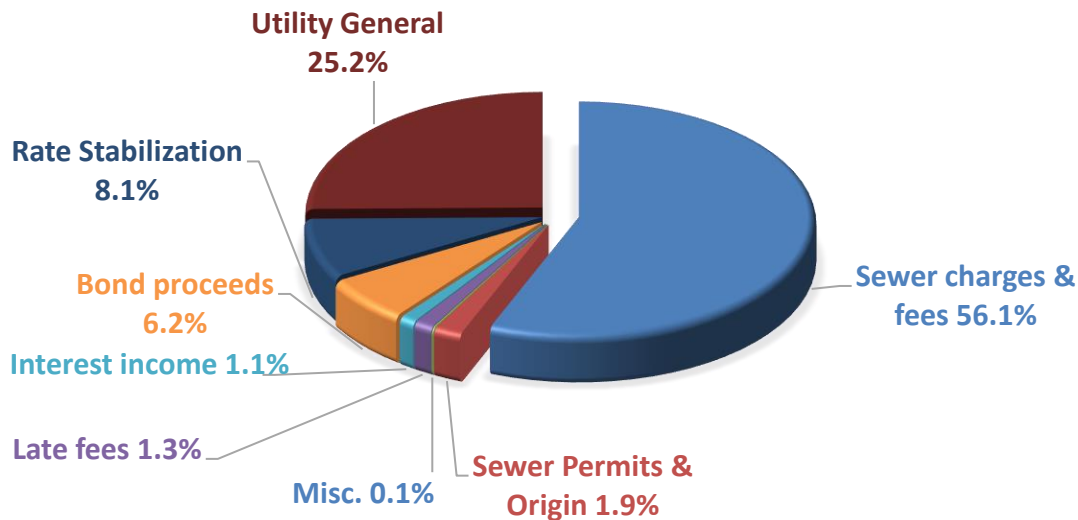
Summary of Revenues, Expenses and Changes in Net Position

	<u>FY 2017 Actual</u>	<u>Original FY 2018 Budget</u>	<u>FY 2018 Estimated</u>	<u>FY 2019 Budget</u>	<u>Changes from FY 18 Budget</u>
Revenues/Sources					
<i>Operating Revenues</i>					
Sewer service charges	\$ 27,376,746	\$ 27,470,871	\$ 28,090,955	\$ 28,229,079	\$ 758,208
Sewer permits & origin fees	1,708,838	951,600	1,210,421	960,000	8,400
Late fees	669,522	672,600	675,000	672,600	-
Miscellaneous revenue	33,615	27,756	50,211	31,000	3,244
<i>Non-Operating Revenues</i>					
Interest income	371,504	231,000	468,548	550,000	319,000
Gain on disposal of assets	20,316	-	11,635	-	-
Capital contributions	29,900	-	-	-	-
Total Revenues	<u>\$ 30,210,441</u>	<u>\$ 29,353,827</u>	<u>\$ 30,506,770</u>	<u>\$ 30,442,679</u>	<u>\$ 1,088,852</u>
<i>Operating Expenses</i>					
Administration	\$ 3,712,111	\$ 4,403,645	\$ 3,897,717	\$ 4,410,232	\$ 6,587
Plant operations	5,550,783	6,156,489	5,828,322	6,222,721	66,232
Systems operations	1,155,390	1,231,873	1,213,160	1,280,766	48,893
Capital Projects	4,804,597	5,562,554	5,044,827	5,854,562	292,008
Depreciation	8,019,963	8,558,821	8,558,821	8,950,000	391,179
<i>Non-Operating Expenses</i>					
Interest expense	1,038,510	1,047,674	1,047,674	1,027,078	(20,596)
Total Expenses	<u>\$ 24,281,354</u>	<u>\$ 26,961,056</u>	<u>\$ 25,590,520</u>	<u>\$ 27,745,359</u>	<u>\$ 784,303</u>
Change in Net Position	\$ 5,929,087	\$ 2,392,771	\$ 4,916,250	\$ 2,697,320	\$ 304,549
Total Net Position-Beginning	108,932,435	114,861,522	114,861,522	119,777,772	4,916,250
Total Net Position-Ending	<u>\$ 114,861,522</u>	<u>\$ 117,254,293</u>	<u>\$ 119,777,772</u>	<u>\$ 122,475,092</u>	<u>\$ 5,220,799</u>
Invested in Capital Assets *					
Unrestricted					
Designated for CIP	12,998,764	12,163,477	17,818,959	13,400,000	1,236,523
Rate Stabilization	6,517,873	7,317,207	6,667,873	5,447,873	(1,869,334)
Undesignated	10,222,596	14,348,060	6,794,846	12,289,190	(2,058,870)
Total Unrestricted	29,739,233	33,828,744	31,281,678	31,137,063	(2,691,681)
Net Position Totals	<u>\$ 114,861,522</u>	<u>\$ 117,254,293</u>	<u>\$ 119,777,772</u>	<u>\$ 122,475,092</u>	<u>\$ 5,220,799</u>

Sources and Uses Appropriation Schedule (Cash Basis)

	FY 2017 Actual	FY 2018 Estimated	FY 2019 Budget
Sources			
Operating			
Operating revenue	28,079,883	28,816,166	28,932,679
Connection/Permit fees	1,708,838	1,210,421	960,000
Non-operating sources			
Interest income	371,504	468,548	550,000
Proceeds from sale of assets	20,316	15,500	-
Rate Stabilization funds	3,637,139	2,450,000	4,085,000
Utility General funds	3,401,912	5,500,000	12,668,959
Bond proceeds	6,486,655	5,250,000	3,143,575
Total Sources	43,706,247	43,710,635	50,340,213
Uses			
Operating			
Operating expenses (not incl. depreciation)	15,222,881	15,984,025	17,768,281
Non-operating uses			
Debt service - principal	4,050,000	4,180,000	1,460,000
Debt service - interest	1,526,188	1,371,188	1,157,938
Capital - current year projects	2,919,138	3,068,575	13,423,985
Capital - prior year carry over	9,906,568	9,431,425	6,473,549
Rate Stabilization fund	2,513,783	2,518,811	2,525,108
Utility General fund	7,567,689	7,156,611	7,531,352
Total Uses	43,706,247	43,710,635	50,340,213

2018-19 Budget Funding Sources:



Sewer charges and fees are collected for the transportation and treatment of wastewater. Charges are mainly comprised of sewer service charges, late fees, night soil fees, industrial pretreatment and surcharges, FOG program and inspections, and line inspections.

Permit and origin fees are assessed for connecting into the sewer system. Permit fees are reserved for plant and transportation system improvements and upgrades. Origin fees are a non-refundable charge to set up a new account.

Interest income is earned from funds on hand and subject to the availability of funds to invest and interest rates. South Carolina state law limits a local government's investment options. These types of investments usually yield a lower rate of return but are lower risk.

Miscellaneous are any receipts not included in the other categories. The most significant receipt in this category is the generator utility credit from South Carolina Electric & Gas ("SCE&G").

Utility General Account: Funds on hand from this account along with the Rate Stabilization Account are budgeted to pay for the FY 2019 capital expenditures and the capital projects in process at the end of FY 18 that will roll into FY 19 for completion.

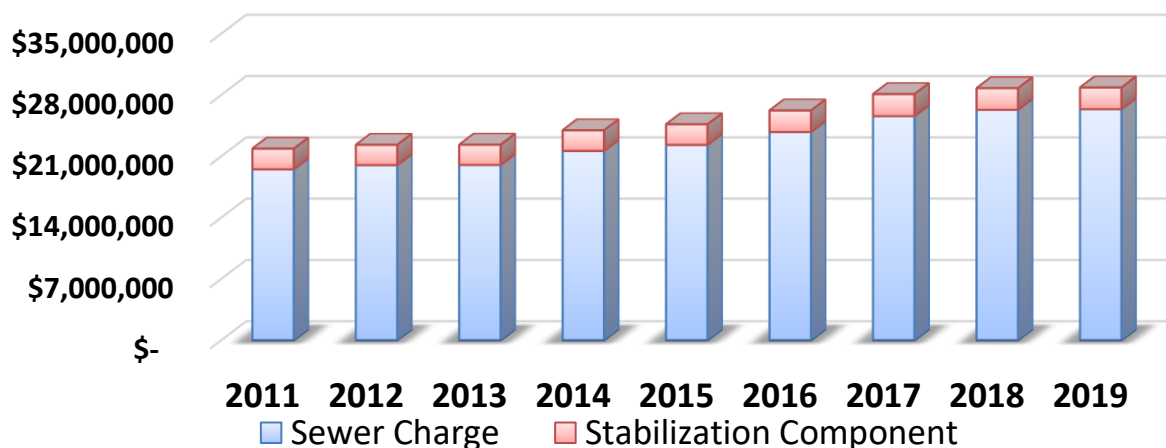
Rate Stabilization Account: Funds on hand from this account along with the Utility General Account are budgeted to pay for the FY 19 capital expenditures and the capital projects in process at the end of FY 18 that will roll into FY 19 for completion.

Bond Proceeds: The District issued new bonds in 2014 to fund our large diameter trunk line rehabilitations. The last of the proceeds were budgeted for the FY 18 rehabilitation project that is currently in process and will be completed in FY 19. The District does not have plans to issue new debt in FY 2019.

Funding Sources:

Sewer Service Charges and Fees Analysis

Sewer service charges and fees are the District’s largest source of revenue at 56%. Sewer service revenue is obtained through user-charges for the transportation and treatment of wastewater. Economic conditions impact these revenues directly. Sewer service charges are comprised of sewer charges, surcharges, Operations & Maintenance (O&M) fees, night soil fees, pretreatment fees, and rate stabilization fees. This revenue source is expended for debt service, capital projects, and operating expenses, plus funds the rate stabilization account.



Sewer service revenue for the 2019 budget is projected to increase by 2.6% from the 2018 budget. The increase is a result of the continued growth in the North Charleston area. Billable consumption growth in FY 2018 came mainly from commercial customers, while slow but steady growth continued in the number of residential accounts.

Wastewater volume (in CCFs): (estimated for 2018 and 2019)

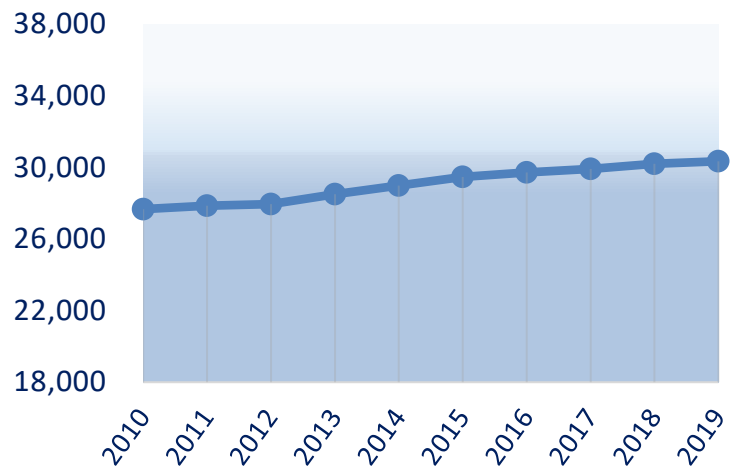


Funding Sources:

Sewer Service Charges and Fees Analysis

Customer Accounts:

Residential	25,707
Commercial & Industry	4,631
Wholesale	1
Military	2
Total Customers	30,341



Residential accounts comprise approximately 85% of the customer base and approximately 40% of the billed wastewater charges. Historically, residential revenues have been easier to project since it is tied closely to population growth. The local area has experienced stable and slow growth over the previous 10 years and is projected to continue that trend. Residential accounts for the previous 5 years averaged approximately 1.5% growth each year. Our FY 19 budget anticipates this pattern to continue with a 1% growth in customers and accordingly a slight increase to consumption.

Commercial & Industry comprise approximately 15% of the District’s customer base and 45% of the District’s billed wastewater volume. During the economic downturn in 2009, this category’s consumption fell significantly as businesses reduced hours and residential properties had vacancies. Fortunately, our local economy has shown steady signs of recovery and since 2013 this category has steadily increased in billable flows each year. FY 18 is projected to end the year with a 3% consumption growth.

Heavy industry is also included in this category. Some of our largest customers are heavy industrial users. Industrial revenue has a history of fluctuation and varies greatly depending on product lines and production schedules. During FY 18, Mercedes-Benz began operation in North Charleston to assemble Sprinter Vans for the U.S. market. Production is expected to slowly ramp up so the full impact for the Sewer District is not yet known. We do anticipate the Plant moving into our top ten customers when they are fully operational.

Industrial and Commercial customers may also be subject to additional sewer surcharges and/or night soil fees, which are fees charged when wastewater requires additional treatment and monitoring. The additional fees, charged on their wastewater volume, are based on laboratory analysis.

Approximately 36 customers are in our industrial pretreatment program. Fees are charged to these industries that are subject to National Pretreatment Standards. The District is required to implement, administer, and enforce the National Pretreatment Standards and the costs associated with this regulation are charged to the participating customers. In this budget, FY 19 pretreatment rates increased from \$0.28/CCF to \$0.33/CCF of permitted flows. Annual pretreatment fees are projected to total approximately \$304,000.

Funding Sources:

Sewer Service Charges and Fees Analysis

Military: The District provides services to the Naval Weapons Station South Annex and the Charleston Air Force Base (“AFB”). The Charleston Air Force Base is under a long-term contract with the District. The military is the District’s largest customer and comprises approximately 3% of sewer service revenues.

Military revenue fluctuates significantly from year to year mainly from the Air Force contract fee calculation which varies depending on audited capital rehabilitations (prior year’s audit). The Air Force does not participate in the capital costs during construction, but only after the item is completed and the costs have been audited. Therefore, their rates and subsequently revenue can spike up in years that follow heavy capital expenditures and fall in years following lower capital expenditures.

The AFB rate is expected to decrease in FY 19 as capital projects paid for by FY 18 rates fall out of the rate calculation. The rate decrease is anticipated to lower 2019 AFB revenues by approximately 15%.

Wholesale: The District treats wastewater for county and regional utility providers located adjacent to our service areas. These providers have contracted for the District to treat their wastewater and are charged fees for the portion of the transportation system and plant capacity they use. Since 2010, Berkeley County has been the District’s only wholesale customer. Consumption received from Berkeley County is mainly residential and does not vary significantly from year to year.

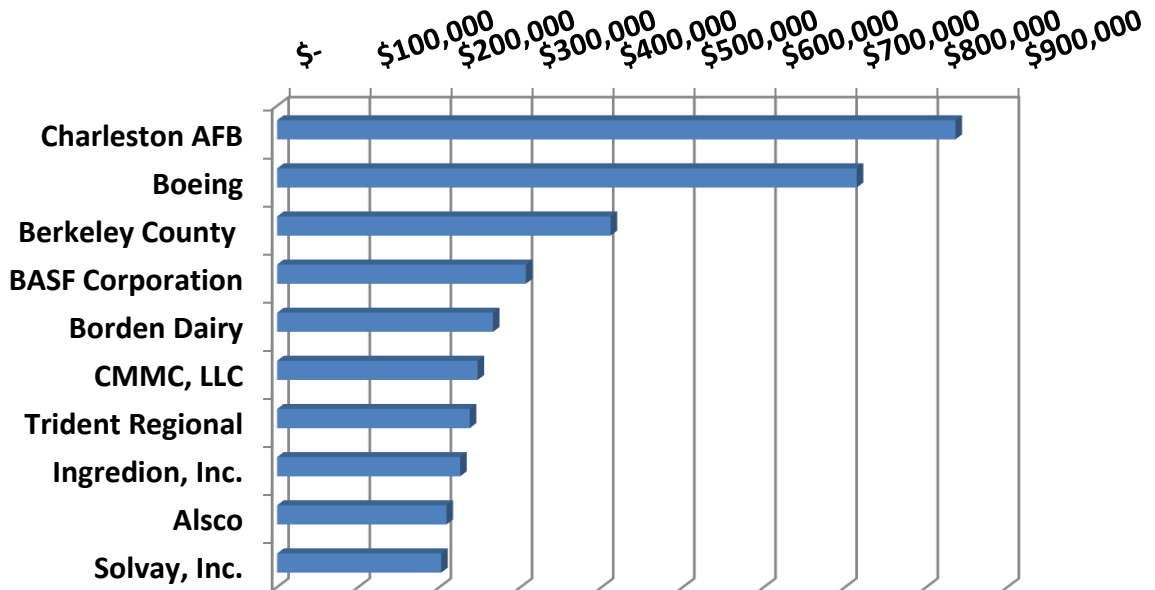
Their flow represents approximately 1% of total sewer charge revenue. The FY 19 wholesale rate is not expected to significantly change, and revenue is projected to be similar to FY 18.

Per their contract, Berkeley County does not participate in the stabilization rate component. Instead, their contract includes a contractual capital improvement clause that allows the District to bill them for their portion of construction costs funded with stabilization fees. The amount billed is based on the portion of the transportation system and plant capacity they use.

Funding Sources: Top 10 Customers

For Fiscal Year Ending June 30, 2017

Customer	Type of business	Total Amount Billed	% of Operating Revenues
Charleston Air Force Base	Military	\$ 835,951	2.81%
Boeing	Aerospace	714,342	2.40%
Berkeley County	Water & sewer utility	410,999	1.38%
BASF Corporation	Manufacturing	306,544	1.03%
Borden Dairy	Dairy	266,025	0.89%
CMMC, LLC	Marine repair	247,107	0.83%
Trident Regional Hospital	Healthcare	237,378	0.80%
Ingredion Inc.	Product ingredients	225,543	0.76%
AlSCO	Uniform Rental	208,755	0.70%
Solvay USA, Inc	Chemical manufacturer	202,231	0.68%
Total		\$ 3,654,875	12.28%



Funding Sources: Other

	FY 2015 Actual	FY 2016 Actual	FY 2017 Actual	FY 2018 Estimate	FY 2019 Budgeted
Permits	\$ 895,837	\$ 950,909	\$ 1,487,156	\$ 1,000,000	\$ 750,000
Origins	\$ 229,071	\$ 221,560	\$ 221,682	\$ 210,000	\$ 210,000

Permit fees are assessed for connecting into the North Charleston Sewer District sewer system. The permit fee is calculated on the number of residential equivalent units (REU = 250 gallons per day) of wastewater the location is estimated to produce. Permit fees are reserved for plant and transportation system improvements and upgrades.

Permit revenues have averaged over \$1,000,000 for the previous 3 years and are expected to be around \$1,000,000 for FY 2018. With local economic conditions forecasted to remain stable, we anticipate revenues in this category to continue to be steady. FY 19's budget is conservatively estimated at \$750,000. Permit connection fees will remain at \$1,400 per REU.

Origin fees are a non-refundable charge to set up a new account and to allow the customer to pay after service has been provided (we bill the customer at the end of each month) in lieu of a deposit. Origin fees will remain at \$30. FY 19 projections remain similar to FY 18.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Actual	FY 2018 Estimate	FY 2019 Budgeted
Interest income	\$ 99,553	\$ 216,878	\$ 371,504	\$ 468,000	\$ 550,000

Interest rates steadily increased during FY 2018. Current year interest income is projected to be \$468,000 which exceeded the original budget projection by \$237,000. The FY 2019 budget was increased to \$550,000 as interest rates are expected to continue their rise and the District plans to keep investments on hand at a similar level.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Actual	FY 2018 Estimate	FY 2019 Budgeted
Late Fees	\$ 368,408	\$ 525,638	\$ 669,522	\$ 675,000	\$ 672,600

Late fee charges are added to accounts when payment for service is not received within 20 days of the bill date. Late fees are based on the amount of outstanding balance. Outstanding balances between \$10.01 - \$250.00 are charged a flat \$5.00 fee while outstanding balances below or above that threshold are charged 2% of the outstanding amount. To avoid confusion for our customers, accounts billed by third parties are charged based on the third party's late fee policy.

Late fees increased in 2016 due to our main third-party biller increasing the amount they charge for late fees. Revenue from late fees for FY 2019 is expected to be similar to FY 2018.

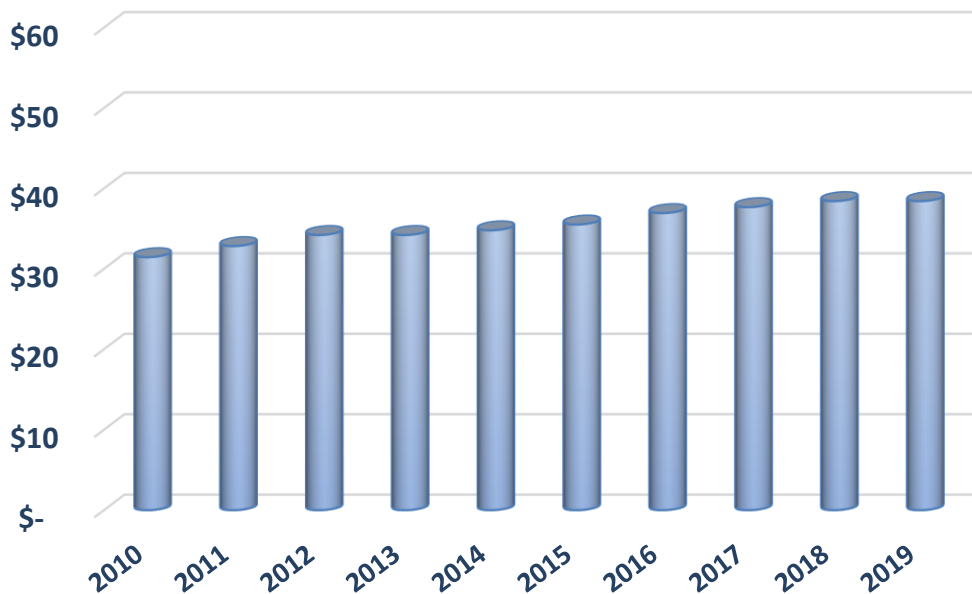
Sewer Service Rates

Sewer service rates will remain unchanged for the FY 19 year. Pretreatment rates were increased by \$.05 per CCF. All other fees remained unchanged.

Rate Comparison

Category	FY 19 Rates (\$)	FY 18 Rates (\$)	Change (\$)
Minimum Rate – Water Meter	24.59	24.59	-
Minimum Rate – Sewer Meter	25.97	25.97	-
Volumetric Rates			
Water Meter	4.61	4.61	-
Sewer Meter	5.07	5.07	-
Single Unit Flat Rate	38.42	38.42	-
Pretreatment Rate – Per CCF	0.33	0.28	0.05
Grease Trap Inspection	40.00	40.00	-
Industrial Surcharges			
BOD per 200 mg/L	0.33	0.33	-
TSS per 200 mg/L	0.36	0.36	-

10-year trend of an average residential bill - 6 CCFs per month:

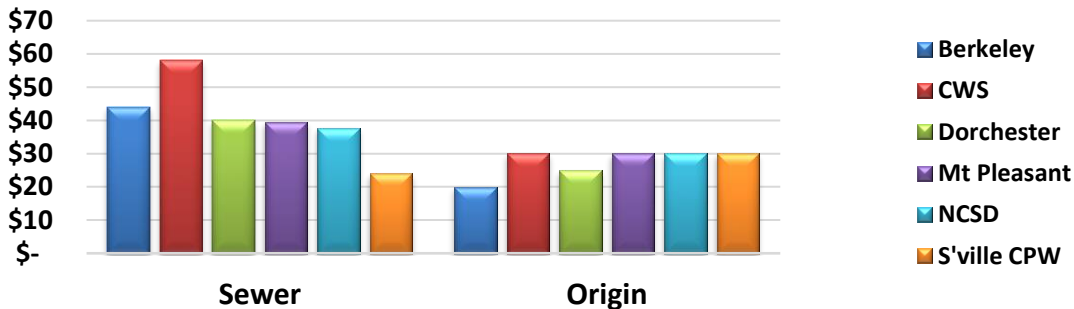


Rate Comparison

Sewer, Connection, & Origin Fees for Fiscal Year 2018 Tri-County Area

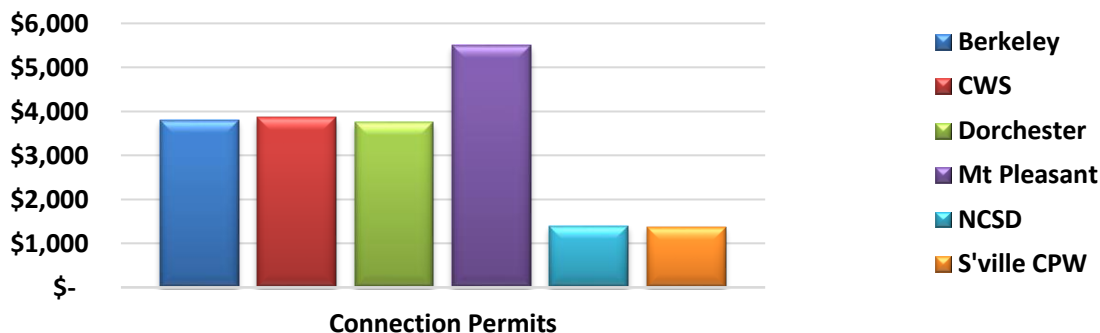
Sewer charges throughout the Tri-County area range from \$24.00 to \$57.91 while origin fees range from \$20 to \$30. Sewer charges are the amount charged for a typical residential customer consuming 6 CCFs per month. The sewer charges for Berkeley, Dorchester, and Summerville CPW are a flat rate, whereby the customer is billed a set fee no matter the consumption. Origin fees are assessed for each new service billing and used to offset the administrative costs incurred in establishing new service accounts. It is a non-refundable fee. The applicable rates per service provider are as follows:

	<u>Sewer</u>	<u>Origin</u>
Berkeley County Water & Sanitation Authority	\$ 44.00	\$ 20.00
Charleston Water Systems	\$ 57.91	\$ 30.00
Dorchester County Water & Sewer Authority	\$ 40.00	\$ 25.00
Mount Pleasant Waterworks	\$ 39.47	\$ 30.00
North Charleston Sewer District	\$ 37.67	\$ 30.00
Summerville Commissioners of Public Works	\$ 24.00	\$ 30.00

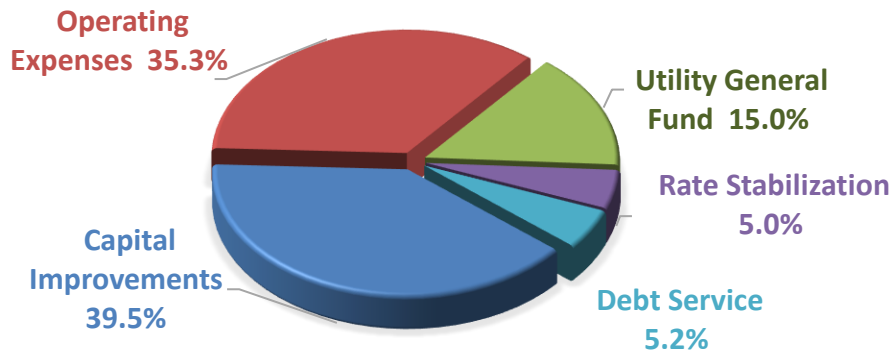


Connection charges are payable by customers initially connecting to the Sewer System. NCS charges \$1,400 per residential equivalent unit (REU). Residential customers are charged one (1) REU, while commercial customers are charged \$1,400 for each 250-gallon multiple of daily estimated consumption. The costs of connection per sewer provider for a typical residential customer are as follows:

Berkeley County Water & Sanitation Authority	\$ 3,800
Charleston Water Systems	\$ 3,870
Dorchester County Public Works	\$ 3,745
Mount Pleasant Waterworks	\$ 5,490
North Charleston Sewer District	\$ 1,400
Summerville Commissioners of Public Works	\$ 1,370



2018-19 Budget Funding Uses: Where the Money Goes



Operations includes all expenses for operating the transportation and treatment of wastewater. This is the most constant use from year to year.

Capital improvements are expenses for physical assets that cost more than \$5,000 and have a useful life of greater than one year. These are detailed in Section 4: Capital Improvement Plan. This group includes the FY 19 capital projects as well as the 2018 projects that will be in progress at year end and roll into FY 19 to complete. The FY 19 Capital improvements are funded with cash on hand from the Utility General account, Rate Stabilization account, and the remaining bond proceeds.

Debt service is principal and interest payments made on the District's outstanding bond obligations.

Rate Stabilization Account receives a portion of each month's sewer service revenue to help with future large capital projects and mandated permit requirements. The rate stabilization portion of the volumetric sewer service rate remains at \$0.55/CCF for FY 2019.

Utility General Account receives the excess working capital after paying all other obligations. The funds are then used for future year capital improvements. Connection permit revenue is also deposited into this account and reserved for future capital improvements that increase system capacity.

Funding Uses:

Operating Expenses by Category

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 5,770,750	\$ 6,099,478	\$ 4,181,079	\$ 6,509,807
Benefits	3,908,124	3,881,254	2,505,290	3,889,060
Staff Incentives	9,793	176,036	18,471	150,322
Utilities	1,621,775	1,866,449	1,060,368	1,924,409
Insurance	228,156	314,765	268,044	332,796
Engineering	168,271	305,200	118,883	271,400
Legal	32,114	57,865	29,058	57,865
Financial	35,447	43,800	28,113	44,535
Other Contract Services	244,510	260,075	72,966	241,933
Billing Agents	752,975	802,095	485,764	829,280
Office Expense	376,980	617,579	423,655	611,884
Education & Training	105,640	201,591	89,693	209,223
Safety	61,447	97,244	37,623	32,899
Communications	66,016	93,082	53,593	93,261
Facility Upkeep	621,193	902,045	406,244	970,783
Sludge	411,223	465,000	320,685	464,100
Vehicular Expense	81,732	171,225	80,566	162,595
Fuel	131,034	226,241	103,495	223,926
Departmental Supplies	595,701	773,537	375,958	748,203
Total	\$ 15,222,881	\$ 17,354,561	\$ 10,659,548	\$ 17,768,281

Funding Uses:

Operating Expenses-Personnel

Personnel costs represent 59% of the District's budgeted operating costs. These costs are a major portion of the District's service related industry.

FY 2019 budgeted full-time equivalents remains the same at 116.

Position changes for FY 19 include:

- Unfunding the Accountant I Accounts Receivable position. This position was unfilled for the entire FY 18 year.
- Adding an additional Pump Stations Mechanical Technician position. The new position's primary role will be the collection and transportation of FOG from our largest pump stations to the Treatment Plant.
- The Human Resource Assistant has been promoted to the Human Resource Manager position. The HR Assistant position remains authorized but unfunded for FY 19.

**See the full time equivalent schedule by department in Section 3.

Fringe benefits offered have not changed from FY 18 and include health, life, vision, dental, short-term disability insurance, participation in the South Carolina Retirement system, a pay-for-performance incentive program, service award program, Paid Time Off ("PTO") program, tuition reimbursement, and funding of a trust for other post-employment benefits.

FY 2019 significant personnel budget items include:

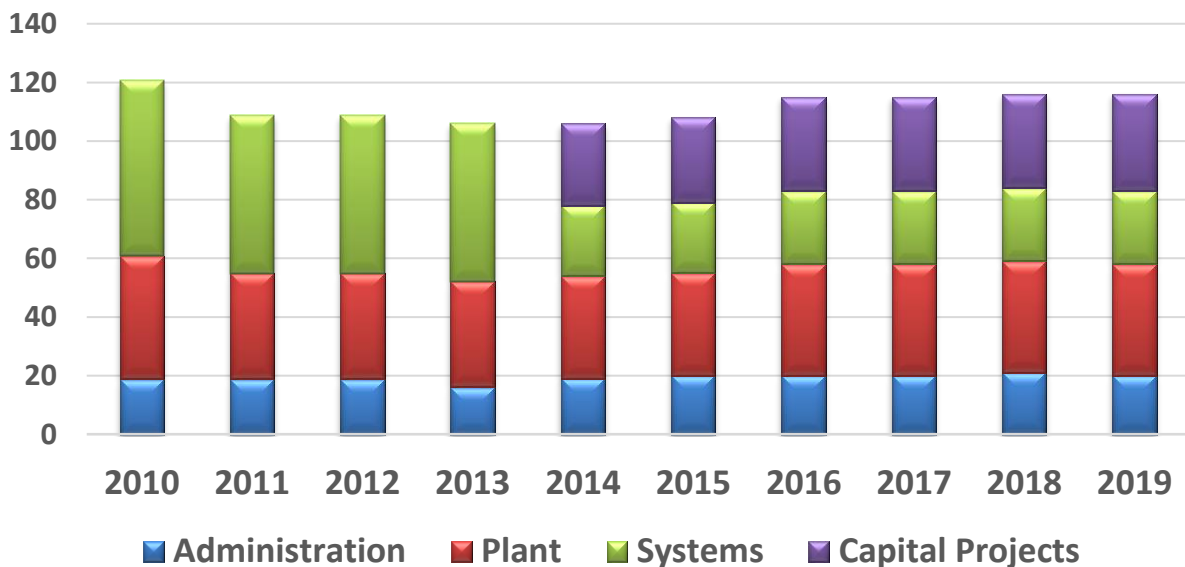
- ❖ **Compensation** increased approximately \$410,000, or 6.7%, mainly attributable to the following:
 - 3.09% FY 2018 Pay-for-performance increased salaries in FY 19
 - \$125,000 budgeted for implementation of recommendations from the 2018 salary study. This amount will be added to the positions whose current salary is below the recommended grade minimum for that position.
 - \$84,000 in Lines department salaries was budgeted in the Capital budget for in-house capital projects in FY 2018. In FY 2019 all salaries will be budgeted in the operations budget.
- ❖ **Employee Benefits** were basically flat, increasing 0.2%, this was a net result of increases to some line items offset with decreases in others as noted below:
 - South Carolina Retirement System employer contributions increased \$91,000 or 11% as the employer contribution increased to 14.56% of employee salaries. 1% increases per year are scheduled until the employer match reaches 18.56%. Employee contributions have been capped at 9%.
 - Health, dental, vision, short-term disability, and life insurance actual premiums remained unchanged from FY 18. The budget decreased as the FY 18 actual premiums were below budget, so the budget has been reduced for FY 19.
 - Workers compensation decreased approximately \$56,000 from FY 18. During FY 18 the District received favorable competitive bids and changed carriers to reduce premiums.

Funding Uses:

Operating Expenses-Personnel

- ❖ **Employee Incentives** – decreased approximately \$26,000
 - Pay-for-performance incentive, budgeted at \$95,000, is 2.5% of salaries to be added to salaries after mid-year performance evaluations. The District will continue the Pay-For-Performance evaluation system. This system will be used to evaluate employees’ performances in November and the incentives will be awarded based on their overall scores. The incentive pool was determined by calculating 2.5% of salaries and fringe benefits. The Pay-For-Performance incentive increases are budgeted in department 5010 but will be transferred to the appropriate departments when awarded. Individuals that are above their pay grade in the new pay schedule will receive a lump sum Pay-for-Performance incentive. Pay-for-Performance decreased \$25,000 from FY 18.
 - Employee Emergency pay incentive: \$21,000 (an increase of \$1,000 from FY 18) was budgeted to provide an incentive to salaried employees who work during emergency situations. The incentive would only be awarded during declared emergencies per the guidelines set out in the emergency policy.
 - Service awards decreased by \$4,000 from FY 18 at \$20,000 (includes fringes). Service awards are given at the following milestones to those employees who have received satisfactory performance evaluations: 5, 10, 15, 20, 25, 30, etc. years). Lump sum payments start at \$500 and increase for each 5-year milestone. The awards are budgeted in the Management and Staff Department and will be transferred to the appropriate department as awarded.
 - The remaining employee incentives increased by a net of \$2,000.

**Budgeted FTEs Trend Analysis by Division
(Capital Projects Division added in 2014)**



Funding Uses: Other Operating Expenses-Non-Payroll Related

Administrative Expenses: Total budget \$1,740,000 (net decrease of approximately \$44,000, or 2.4%)

- ❖ Engineering fees decreased approximately \$44,000, as consulting projects decreased.
- ❖ Other contract services decreased approximately \$28,000 mainly from not renewing the Human Resource consulting contract with the City of North Charleston. The District has not needed the City during the current year as the District's HR Assistant has gained experience. Beginning in FY 19 the current HR Assistant will be promoted to HR Manager and the consulting service agreement will be terminated.
- ❖ Billing agent fees increased approximately \$27,000 or 3.4%. A new 10-year contract will become effective with Charleston Water at the beginning of FY 19 and rates for billing services increased from the previous 10-year agreement. Rates are now locked in to a flat fee for the next ten years.
- ❖ All other Administrative categories combined for a net increase of \$1,000.

Plant Expenses: Total budget \$2,836,000 (net increase of approximately \$25,000, or 1%)

- ❖ Insurance premium budget was decreased by 14% or \$17,000. The State Insurance Reserve Fund audit lowering the insured values on certain facilities.
- ❖ Disposal sludge costs increased \$39,000 or 9%. Landfill fees have increased.
- ❖ Chemicals decreased approximately \$37,000. The treatment process requires less polymer usage with centrifuges installed in 2016.
- ❖ \$10,000 was added for a grit chamber and effluent study.
- ❖ Education and training increased approximately \$11,000. Travel costs, Plant operator training material, and additional national trainings was added.
- ❖ Facility upkeep increased \$17,000 or 5% mainly for 2-year preventative maintenance centrifuge service.
- ❖ Other expense categories had a net increase of \$2,000.

System Expenses: Total budget \$425,000 (net increase of approximately \$53,000 or 14%)

- ❖ Facility upkeep increased \$45,000. Additional building and grounds projects were added to paint the systems building interior, the treatment plant walkway and loading dock, and correct leaking problems in the Commission Chambers.
- ❖ Communications were increased \$6,000. 25 additional GPS units were added to fleet vehicles.
- ❖ Other expense categories had smaller changes netting to an increase of \$2,000.

Capital Expenses: Total budget \$2,218,000 (net decrease of approximately \$13,000 or 0.6%)

- ❖ Chemical budget was reduced by \$16,000 or 6%. The Pump station department is using less odor control bioxide as a result of implementing other forms of FOG control.
- ❖ Training budgets decreased \$17,000, mainly from removing one-time trainings done in FY 18 like surveyor training.
- ❖ Insurance increased \$21,000 or 17%. The State insurance reserve fund has notified all public entities in fund that property insurances will increase in FY 19.
- ❖ Other expense categories had only small changes with a net decrease of \$1,000.

Funding Uses: Capital Improvements and Depreciation

Capital improvements are additions or major improvements made to the District's property, equipment, or infrastructure.

The District, in accordance with Generally Accepted Accounting Principles (GAAP), does not budget capital purchases as expenses; rather depreciation expense is recorded over each asset's useful life. Although not recognized as expenses, cash flows for capital improvements are appropriated each year in the budget process.

Total appropriated funds for capital are \$19,897,534 comprised of \$13,423,985 for new FY 19 projects and an estimated \$6,473,549 of FY 2018 projects in process at year end that will be completed in FY 2019. This is a \$1,153,466 or 5% decrease from FY 2018 appropriated capital funds. Large CIPP projects started in FY 17 and 18 are being completing and no new large CIPP construction will start in FY 19.

Offsetting some of the decrease from those projects is an addition of a land purchase. See Section 4 for a complete list of FY 19 capital projects.

Depreciation expense is estimated to increase as the District's capital additions exceed the older assets becoming fully depreciated. The budget has estimated that the depreciation expenses will be approximately \$391,000 higher than fiscal year 2018 budget.

Funding Uses: Debt Service

Debt service principal and interest are budgeted at \$2,617,938 a decrease of \$2,933,250 when compared to FY 18 and includes \$1,460,000 in principal and \$1,157,938 for bond interest. The decrease is from final payment on the 2012 Revenue Refunding Bonds scheduled for 7/1/2018. The 7/1/2018 payment was budgeted in FY 18 so funds are on hand when payment becomes due.

Accrual based interest expense is estimated at \$1,197,188. Amortizations of premiums and deferred losses along with estimated capitalized interest brings the net interest expense to \$1,027,078, which is a decrease of \$20,596 from FY 18.

Authorization and Legal Debt Limit

The Sewer District is authorized to issue General Obligation Bonds under the applicable debt limitation provisions of Article X of the South Carolina Constitution. Authorization is required from a majority vote of the qualified electors by referendum without limitation as to the amount; or the Sewer District may incur general obligation debt without an election in an amount not exceeding 8% of the assessed value of all taxable property therein. Calculated as follows:

2017 tax year assessed valuation	\$ 556,064,317
Statutory debt limit rate	8%
Statutory debt limit	44,485,145
Less: GO Debt outstanding at 6/30/17	<u>(13,553,246)</u>
Legal Debt Margin	\$ 30,931,899

The Sewer District is authorized to issue revenue bonds under the statutory authority of the Enabling Statute. There is no formal revenue debt limitation, so the Sewer District can issue bonds as needed in an amount that is supported by the bond market. The Sewer District states in the Debt Policy that long term financing will be considered to finance capital improvements with a useful life of more than four years and refunding of prior bond issues. Financing for operating costs will only be considered in extreme financial emergencies (beyond the Sewer District's control).

Covenants

The Sewer District is in compliance with all applicable bond covenants. Key covenants in the Sewer District Bond Resolution include: rates will be sufficient to meet a list of minimum outflows (i.e. O&M expenses, principal and interest, and allowances for contingencies); coverage factor of 1.25%; the System or any part of it will not be pledged except as provided for in the bond resolution; that the Sewer District will keep property, tort, Workers Compensation, and surety insurance; that the Sewer District will not furnish service free of charge; an annual budget must be adopted; and annual audit must be performed and sent to Trustee within 120 days of fiscal year end.

Revenue Bond Rating

Standard & Poor's, AA+

GO Bond Rating

Moody's Investors Service, Aa2

Bond Retirements

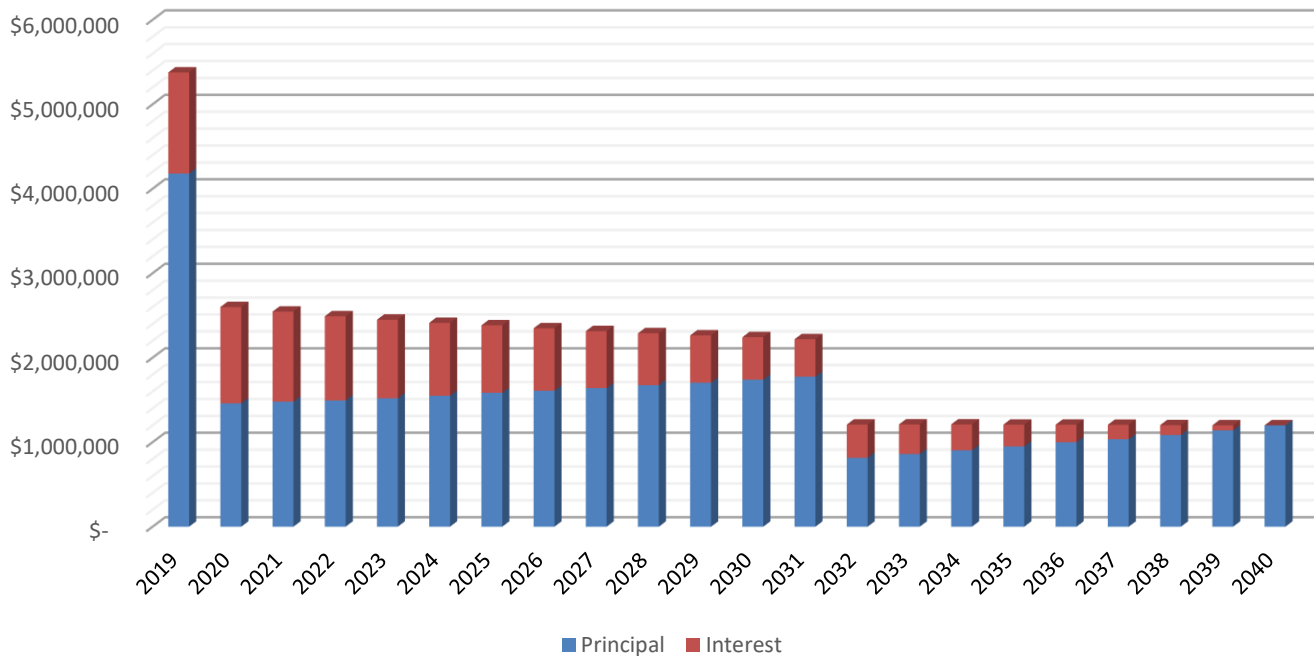
The final payment on the 2012 Revenue Refunding bonds will be made on July 1, 2018.

Funding Uses: Debt Service

Debt Service Obligations:

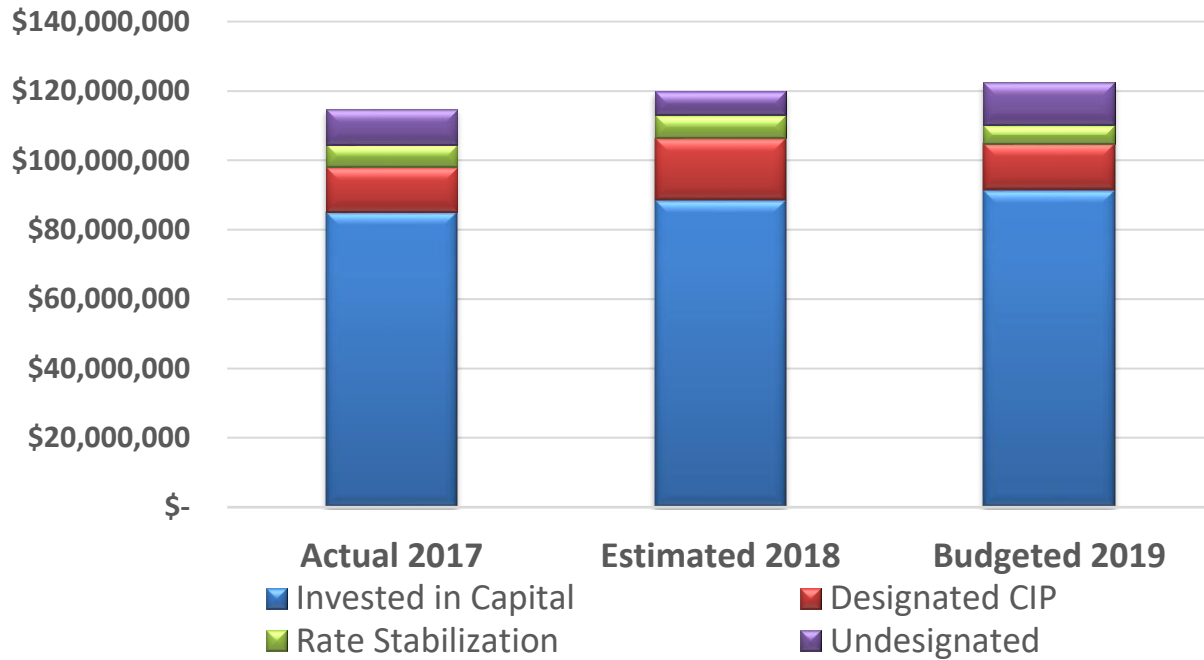
Series issue	Amount issued	Outstanding 6/30/18	FY 2019 Principal Payments	Outstanding 6/30/19	FY 2019 Interest Payments	Total FY 19 Payments
General Obligation Bonds, Series 2011	\$ 16,945,000	\$ 12,745,000	\$ 700,000	\$ 12,045,000	\$ 422,213	\$ 1,122,213
Refunding Revenue Bonds, Series 2012	19,130,000	3,480,000	3,480,000	-	87,000	3,567,000
Revenue Bonds Series 2014	16,180,000	16,180,000	-	16,180,000	788,975	788,975
Total	\$ 52,255,000	\$ 32,405,000	\$ 4,180,000	\$ 28,225,000	\$ 1,298,188	\$ 5,478,188

Fiscal Year Debt Service



Note: This graph represents debt service payments in the fiscal year they are paid. The District budgets debt service payments a year in advance so they are on hand when they become due.

Net Position (Equity)



Net position, or fund equity, is defined as the difference between assets such as cash, investments, buildings, equipment, land, vehicles, infrastructure, and liabilities or debt associated with those assets.

Net position is classified as restricted, unrestricted, or invested in capital assets. In the District’s budget, unrestricted amounts are additionally classified as rate stabilization, designated CIP, or undesignated. Rate stabilization represents the amount in the rate stabilization fund. Designated CIP represents connection permit funds on hand and the subsequent year’s planned capital expenditures from the utility general account.

Funds on-hand for bond payments, issued after 1992, are also categorized as unrestricted as there is no requirement to deposit funds with the trustee.

As compared to the estimated ending FY 2018 balances, the 2019 budget increases total net position by \$2,697,320.

- Invested in Capital Assets is expected to increase as the District’s capital expenditures exceed annual depreciation.
- Designated CIP is expected to decrease as planned 2020 Utility General capital expenditures decrease.
- Rate Stabilization is expected to decrease as rate stabilization funds used for capital expenditures are estimated to exceed the annual amount added from rates.
- Unrestricted/Undesignated is projected to increase due to positive cash flow from operations.

Net Position: Estimated Fiscal Year 2019 Activity

Beginning Net Position	\$ 119,777,772
<u>Invested in Capital Assets</u>	
Beginning balance	88,496,094
Assets added	11,000,000
Depreciation	(8,950,000)
Debt added from spent proceeds	(3,500,000)
Long-term debt paid	4,180,000
Premium/loss amortization	111,935
Ending FY 2019	91,338,029
<u>Designated for CIP</u>	
Beginning balance	17,818,959
New permit fees	750,000
Estimated capital exp. or reclass	(9,668,959)
Appropriated capital	4,500,000
Ending FY 2019	13,400,000
<u>Rate Stabilization</u>	
Beginning balance	6,667,873
Transfers in from rate revenue	2,525,108
Estimated capital expenditures	(3,183,108)
Debt payment	(700,000)
Interest income	138,000
Ending FY 2019	5,447,873
<u>Undesignated</u>	
Beginning balance	6,794,846
Increase from operations, net of reclasses	5,494,344
Ending FY 2019	12,289,190
Ending Net Position	\$ 122,475,092

Rate Projections & Long-Range Forecast

Purpose of long-range forecasting

Long-range financial planning is an integral part of the budgeting process. Management analyzes projections and what-if scenarios to determine:

- Do estimated revenues support operational, capital, and debt service requirements?
- Are sufficient unrestricted cash reserves maintained?
- Will a proposed operational change be sustainable?
- Are rate adjustments needed, and if so, can they be phased-in to minimize customer impact?

5 Year Forecast (in \$ Millions):

	Actual FY 2017	Estimated FY 2018	Projected FY 2019	Projected FY 2020	Projected FY 2021	Projected FY 2022	Projected FY 2023
Revenues							
Sewer Service Charges	27.38	28.09	28.19	28.46	28.74	29.02	29.30
Permits & Origin Fees	1.71	1.21	0.96	0.90	0.85	0.85	0.85
Other operating	0.70	0.73	0.70	0.70	0.70	0.70	0.70
Non-operating	0.42	0.48	0.55	0.55	0.55	0.55	0.55
Total Revenues	30.21	30.51	30.40	30.61	30.84	31.12	31.40
Expenses							
Operations	15.22	15.98	16.22	17.04	17.89	18.80	19.76
Depreciation	8.02	8.56	8.95	8.80	8.36	8.43	8.33
Non-operating	1.04	1.05	1.03	1.03	0.95	0.88	0.82
Total expenses	24.28	25.59	26.20	26.87	27.20	28.11	28.91
Change in Net Position	5.93	4.92	4.20	3.74	3.64	3.01	2.49
Debt							
Debt service Coverage	2.69	2.71	5.42	5.31	5.19	5.02	4.82

Factors considered when developing our long-range forecast:

Local economy: The Charleston metropolitan area has remained stable throughout the 2017-2018 year and steady growth and low unemployment is expected to continue for the 2018-2019 year. Connection permits exceeded the forecast in FY 2018 and the Capital Projects Division is currently working with developers on multiple new permits expected in FY 2019. Volvo Car Corporation plans to invest more than \$1 billion and create 3,900 jobs over the next decade in our area. Although their main manufacturing plant is located in our neighboring County, we anticipate related suppliers and employees to locate in the District's service area. The District's two largest customers, Boeing and Joint Base Charleston, remain stable and continue to be significant economic drivers.

Historical trends:

Management reviews no less than 10 years of historical trends for revenue streams and expenses. Since 2013 our area has been in recovery from the recession. Sewer revenue has averaged 2.3% annual growth in that time period without factoring in rate increases.

Rate Projections & Long-Range Forecast

Revenue Projection Assumptions

- Sewer revenue is projected to grow at 1% each year without sewer rate increases from growth in customer accounts and billable consumption. The projections assume no loss or addition of a top ten customer.
- Connection and origin fees are forecasted at \$960,000 for 2019, then decrease to \$900,000 in 2020 and \$850,000 for 2021 – 2023 to account for the potential slowdown in new construction from the current year's busy pace.
- Interest income is based on projected cash on hand and interest rates. Our projection assumes a steady cash balance throughout the 5 years and a 0.5% increase annually to rates.
- Late fees are projected to remain flat throughout the 5-year period, at \$675,000.

Expenditure Projection Assumptions

- Personnel costs will increase at 5.2% per year. The main driver being benefit costs increases from rising State Retirement contributions. Also contributing is anticipated increases to health insurance premiums and annual pay-for-performance incentives. There are no planned increases or decreases to FTEs in the 5-year plan.
- Non-personnel costs assumptions vary from 3.5% to 7.5% depending on the category. We have no plans on significant operating changes. The increases are derived from historical trends for the area and anticipated inflation. In total, operating expenses average a 5% increase per year in the model.
- Depreciation expense is projected to see only minor changes throughout the forecast as planned capital additions keep pace with depreciating assets.
- Interest expense is based on the current debt payment schedule. Current debt interest rates are fixed. No new debt is planned in the 5-year forecast.

Outlook/Conclusions

Debt coverage remains manageable throughout the forecast and well above our target of 2.0; aided by the retirement of the 2012 Revenue Refunding bonds.

Change in net position is positive for all years and maintains a consistent level. Positive cash flows will allow the District to fund years 2 – 5 of the capital plan with cash on hand instead of debt, resulting in significant savings from interest expense and debt issuance costs.

Throughout the forecast period, the District anticipates maintaining a healthy financial position. This will provide flexibility to address emergencies, new regulatory requirements, and keep a strong bond rating.

Sewer service rates will be reviewed each year and the forecast changed accordingly. Actual billable growth higher than the assumption could result in lower or no future rate increases while less growth or higher operational costs could result in higher rate increases.



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Section 3

Budget by Department

District Facilities



Felix C Davis Treatment Plant
Herbert Street, Charleston, SC

Departments located at the Plant:

	<u>Dept. #</u>
Plant Administration	5110
Operations	5130
Quality Control	5140, 5141, 5142
Plant Maintenance	5150

Administrative & Maintenance Buildings
Stall Road, North Charleston



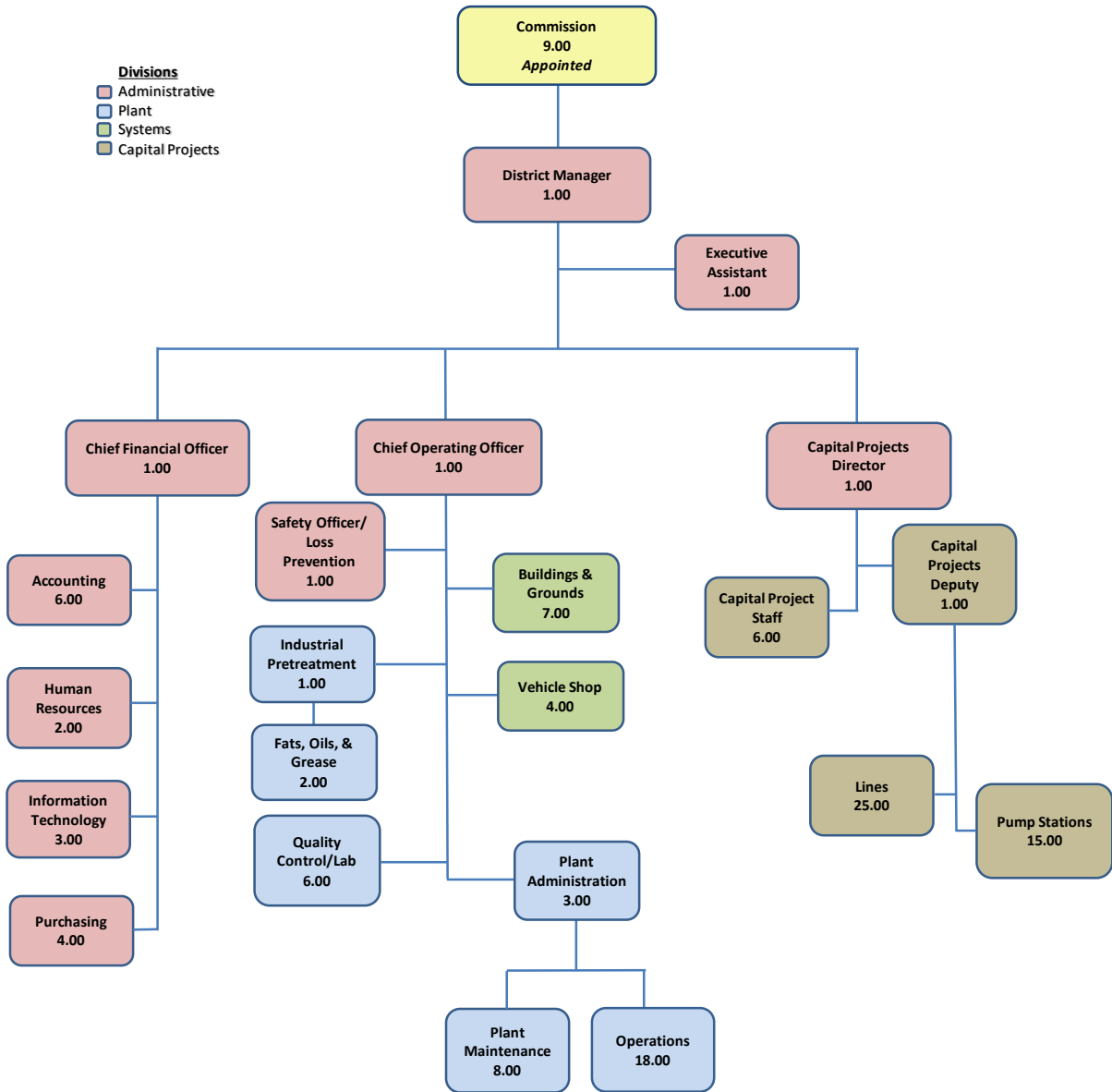
Departments Located at Stall Road

	<u>Dept. #</u>		<u>Dept. #</u>
Manager & Staff	5010	Systems Administration	5210
Human Resources	5020	Vehicle Shop	5250
Accounting	5030	Buildings & Grounds	5270
Information Technology	5040	Capital Projects	5320
Purchasing	5050	Lines	5330
Industrial Pretreatment	5160	Pump Stations	5340
Fats, Oils, & Grease	5161		

The District also has 60 pump stations located throughout the service area.

Organizational Chart

(Authorized FTEs)



Full-Time Equivalents by Department

Description	FY 17 Actual FTE	FY 18 Actual FTE	FY 19 Budgeted FTE	FY 19 Unfunded FTE	FY 19 Authorized FTE
Administrative Division					
<i>Administration</i>					
District Manager	1	1	1		1
Chief Operating Officer	1	1	1		1
Chief Financial Officer	1	1	1		1
Capital Projects Director	1	1	1		1
Safety Officer/Loss Prevention	1	1	1		1
Executive Assistant	1	1	1		1
<i>Human Resources</i>					
Human Resources Manager	0	0	1		1
Human Resource Assistant	0	1	0	1	1
<i>Accounting</i>					
Accounting Manager	1	1	1		1
Accounting Staff	6	6	5		5
<i>Information Technology</i>					
Information Technology Manager	1	1	1		1
IT Staff	2	2	2		2
<i>Purchasing</i>					
Purchasing Manager	1	1	1		1
Purchasing Staff	3	3	3		3
Total Administrative	20	21	20	1	21

Description	FY 17 Actual FTE	FY 18 Actual FTE	FY 19 Budgeted FTE	FY 19 Unfunded FTE	FY 19 Authorized FTE
Plant Division					
<i>Administration</i>					
Plant Superintendent	1	1	1		1
Assistant Plant Superintendent	1	1	1		1
Admin Staff	1	1	1		1
<i>Plant Operations</i>					
Shift Supervisors	4	4	4		4
Operations Staff	15	15	14		14
<i>Quality Control</i>					
Laboratory Director	1	1	1		1
Assistant Laboratory Director	1	1	1		1
Lab Technicians	4	4	4		4
<i>Plant Maintenance</i>					
Supervisor	1	1	1		1
Mechanics, Machinist & Electricians	5	5	6		6
Administrative Assistant	1	1	1		1
<i>Pretreatment & FOG</i>					
Pretreatment Supervisor	1	1	1		1
FOG Program Manager	1	1	1		1
Inspector	1	1	1		1
Total Plant	38	38	38	0	38

Full-Time Equivalents by Department

Description	FY 17 Actual FTE	FY 18 Actual FTE	FY 19 Budgeted FTE	FY 19 Unfunded FTE	FY 19 Authorized FTE
Systems Division					
<i>Vehicle Shop</i>					
Supervisor	1	1	1		1
Mechanics	3	3	3		3
<i>Buildings & Grounds</i>					
Supervisor	1	1	1		1
Mechanics & Custodians	6	6	6		6
Total Systems	11	11	11	0	11

Description	FY 17 Actual FTE	FY 18 Actual FTE	FY 19 Budgeted FTE	FY 19 Unfunded FTE	FY 19 Authorized FTE
Capital Projects Division					
<i>Capital Projects</i>					
Capital Projects Deputy	1	1	1		1
Capital Projects Specialist	2	1	1		1
Asset Management Specialist	n/a	1	1		1
Capital Projects Staff	4	4	4		4
<i>Lines</i>					
Supervisor	1	1	1		1
Operators & Technicians	23	23	23		23
Administrative Assistant	1	1	1		1
<i>Pump Stations</i>					
Supervisor	1	1	1		1
Mechanics, Machinist & Electricians	12	12	13		13
Administrative Assistant	1	1	1		1
Total Capital Projects	46	46	47	0	47
All Divisions	115	116	116	1	117

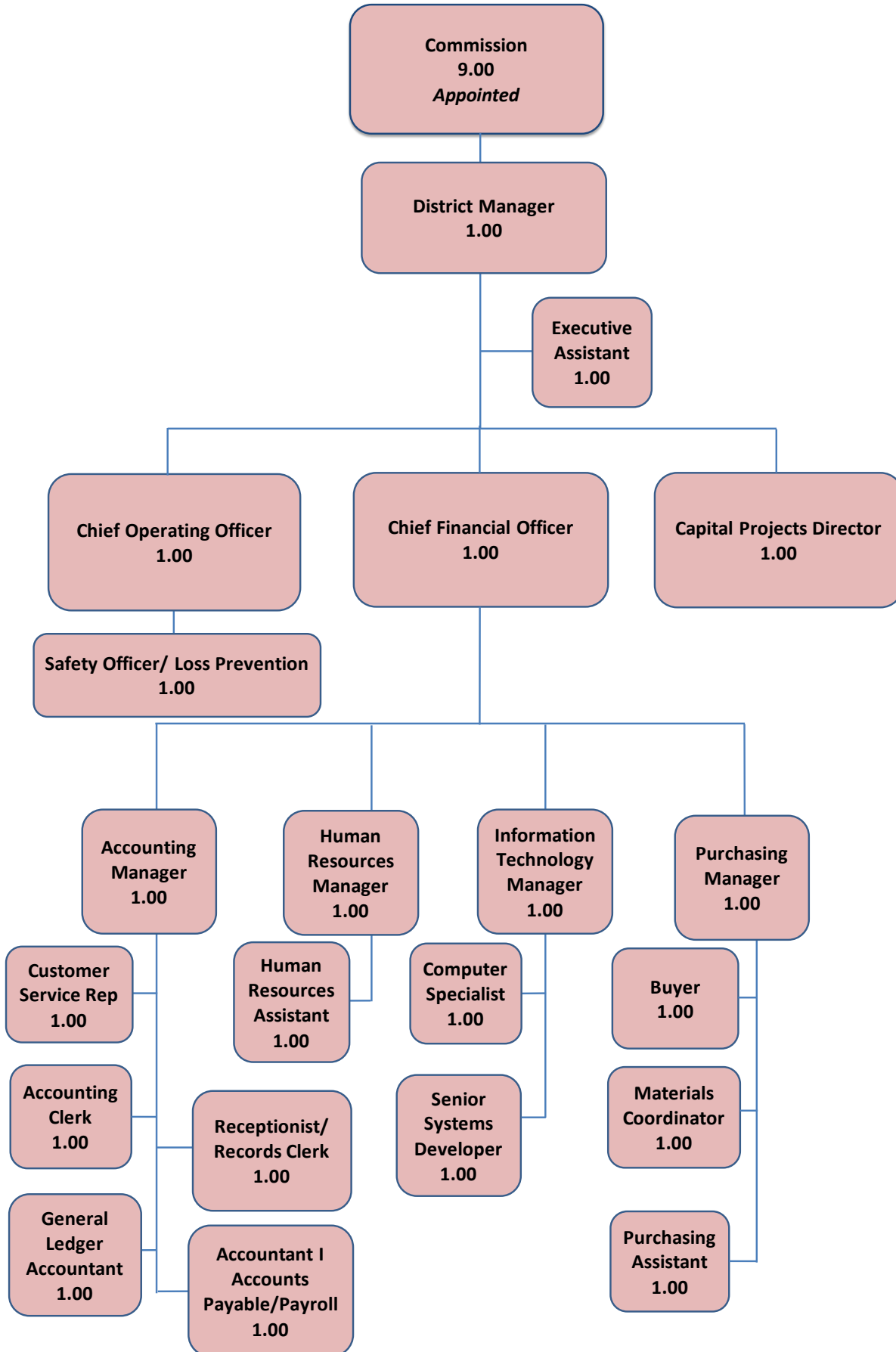
FY 2019 budgeted full-time equivalents remains the same at 116.

Position changes for FY 19 include:

- Unfunding the Accountant I Accounts Receivable position. This position was unfilled for the entire FY 18 year.
- Adding an additional Pump Stations Mechanical Technician position. The new position’s primary role will be the collection and transportation of FOG from our largest pump stations to the Treatment Plant.
- The Human Resource Assistant has been promoted to the Human Resource Manager position. The HR Assistant position remains authorized but unfunded for FY 19.

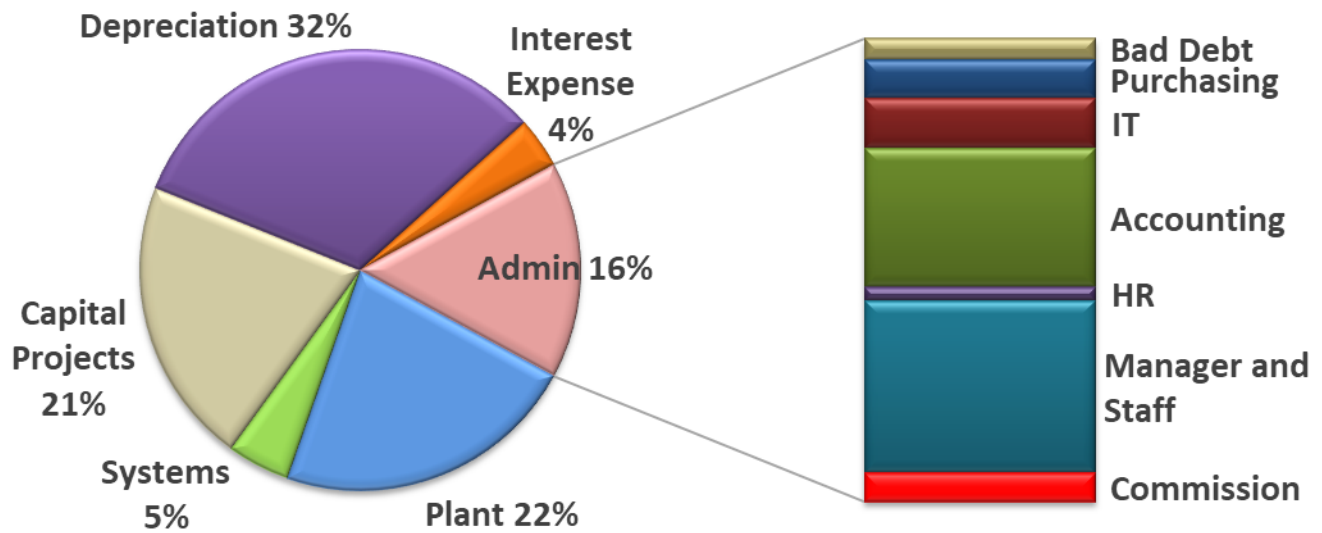
Administrative Division

(Authorized FTEs)



Administrative Division

Fiscal Year 2019 Expenses



Administrative Division

Division Budget Summary:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 1,390,578	\$ 1,442,475	\$ 991,783	\$ 1,614,824
Benefits	933,673	939,520	577,712	904,944
Staff Incentives	9,793	176,036	18,471	150,322
Utilities	39,790	58,842	33,155	60,825
Insurance	47,712	72,938	52,749	66,874
Engineering	23,477	119,000	73,152	75,200
Legal	32,114	52,865	29,058	57,865
Financial	35,447	43,800	28,113	44,535
Other Contract Services	155,829	74,310	29,911	46,300
Billing Agents	752,975	802,095	485,764	829,280
Office Expense	108,784	232,819	123,102	230,625
Education & Training	38,790	77,140	33,661	84,670
Safety	8,887	11,505	5,382	15,632
Communications	13,381	14,960	7,036	12,376
Facility Upkeep	280	600	280	600
Vehicular Expense	1,048	3,560	1,214	2,490
Fuel	4,061	7,913	3,176	7,170
Departmental Supplies	4,484	11,409	1,742	5,700
Subtotal for Operations	\$ 3,601,103	\$ 4,141,787	\$ 2,495,461	\$ 4,210,232
Bad Debt Allowance Expense	111,008	200,000	165,111	200,000
Total	\$ 3,712,111	\$ 4,341,787	\$ 2,660,572	\$ 4,410,232

Division Function:

The Administrative Division is responsible for all formal representations of the District, the coordination of Commission directed efforts, customer inquiries, human resources, information technology, financial, and procurement services. The Division coordinates District-wide plans, policies, and procedures and ensures that all applicable Federal, State, and Local laws are enforced.

The following departments are included in the Administrative Division:

- Commission
- Manager and Staff
- Human Resources
- Accounting
- Information Technology
- Purchasing

Commission

Department Budget:

Category	FY 2017	FY 2018	FY 2018	FY 2019
	Actual	Adjusted Budget	Actual as of 3/31/2018	Budget
Compensation	\$ 65,825	\$ 66,665	\$ 49,401	\$ 66,665
Benefits	126,605	191,216	101,604	185,026
Other Contract Services	2,088	2,300	1,600	2,300
Office Expense	7,070	8,023	5,400	8,097
Education & Training	3,510	10,208	1,686	5,869
Departmental Supplies	2	6,800	-	2,000
Total	\$ 205,100	\$ 285,212	\$ 159,691	\$ 269,957

Department Function:

The Commission has the responsibility of directing the District’s response to the community’s needs, regulatory standards, and the overall vision of the District. The Commission promotes the health and safety of the North Charleston area by providing a sanitary sewer system that supports the citizens and the economic centers. The Commission is empowered to set policies and bylaws for the management of the District, prescribe regulations for citizens to receive sewer service, borrow money and/or issue bonds, make use of state highway rights-of-way, and many other functions listed in *Section 7 Act 1768 of 1972* (Enabling Act).

FY 2019 Commission Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Fiscal Stability					
Goal: Be good stewards of stakeholders’ resources					
Objective: Regularly inform Commissioners on operations					
Measurement: # of reports submitted to Commission	12	12	12	12	12
Measurement: # of presentations to Commission	5	5	5	5	5
Strategic Issue: Community					
Goal: Educate the Public					
Objective: Interact with Community Leaders					
Measurement: # of community organizations Commissioners actively participate in	12	12	12	12	12

FY 18 Highlights and Accomplishments:

In an effort to increase the District’s visibility, Commissioners were involved with multiple community organizations including: the board of the Berkeley, Charleston, and Dorchester County Council of Government, SC Special Purpose Districts, neighborhood associations, and several nonprofit boards. Additionally, the Chairman attended numerous City and County council meetings.

Manager & Staff

Department Budget:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 596,635	\$ 671,232	\$ 477,761	\$ 825,070
Benefits	398,311	322,292	190,475	302,129
Staff Incentives	240	161,186	9,685	116,525
Utilities	39,790	58,842	33,155	60,825
Insurance	47,230	72,431	52,267	66,874
Engineering	23,477	119,000	73,152	75,200
Legal	32,114	52,865	29,058	57,865
Financial	35,447	43,800	28,113	44,535
Other Contract Services	3,741	12,010	3,620	9,000
Office Expense	25,661	34,078	24,412	34,117
Education & Training	21,737	37,233	21,706	32,362
Safety	58	260	-	225
Communications	13,381	14,760	7,036	10,768
Vehicular Expense	419	2,490	992	2,490
Fuel	3,649	7,313	3,115	7,170
Departmental Supplies	2,550	1,259	1,204	500
Total	\$ 1,244,440	\$ 1,611,051	\$ 955,751	\$ 1,645,655

Department Function:

The Manager and Staff are responsible for the administration and the implementation of the Commission policies, and federal and state laws and regulations. The Manager and Staff implements and administers the annual budget and capital improvements, as well as, recommends new policies and procedures to meet the ever changing needs of the District.

FY 2019 Manager & Staff Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Fiscal Stability					
Goal: Maintain sufficient unrestricted cash to sustain operations in the event of an emergency					
Objective: Keep six months of unrestricted cash reserves					
Measurement: # of days cash reserves	500	790	500	800	500
Measurement: Bond coverage ratio	1.5	3.4	1.5	3.1	1.5
Goal: Be good stewards of stakeholders' resources					
Objective: Prepare quality financial reports					
Measurement: Prepare annual budget and receive GFOA award	Yes	Yes	Yes	Yes	Yes
Objective: Operate within budget					
Measurement: % O&M costs increased (not including personnel and depreciation)	< 3	(4%)	> 3	2%	< 3

Manager & Staff

FY 2019 Manager & Staff Objectives, continued:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Operational Effectiveness					
Goal: Effectively use technology					
Objective: Increase efficiency					
Measurement: CMMS is populated with 100% of the District's assets and the asset lists are updated timely for changes	n/a	n/a	n/a	n/a	Jun-19
Strategic Issue: Community					
Goal: Increase transparency and visibility					
Objective: Employees participate in community activities					
Measurement: # of employees serving on local boards	9	8	5	8	5
Goal: Educate the public					
Objective: Effectively use social media					
Measurement: # of post on social media platforms	n/a	n/a	24	20	24
Strategic Issue:					
Goal: Well trained workforce					
Objective: Objective: Expand NCSU University					
Measurement: # of classes offered	4	4	4	0	2
Objective: Provide educational opportunities					
Measurement: # of participants in tuition reimbursement program	3	3	4	3	3
Goal: Preserve morale and maintain positive work experience					
Objective: Conduct lunch and learns					
Measurement: # of lunch and learns	n/a	n/a	5	2	2
Objective: Create and promote opportunities for employee feedback					
Measurement: # of department head meetings	n/a	n/a	5	5	5
Measurement: # of division head meetings	n/a	n/a	10	5	6

FY 18 Highlights and Accomplishments:

Management continued employee related initiatives in FY 18 introducing employee appreciation and family day events. Supervisor training was expanded to include front line supervisors. All employees completed team building training. The events committee hosted events such as a holiday door decorating contest, adoption of HALOS families, and the Christmas luncheon.

Technology continues to be at the forefront for the District. The Building and Grounds Departments completed the modernization of our meeting rooms at Stall Road and the WWTP to making them more training oriented. Tablets were rolled out in most departments to increase efficiency with Lucity/CMMS, the work order management software purchased in FY 16.

The Grease Initiative Program continues to evolve. In a continued effort to raise public awareness, staff held workshops, visited schools, and worked with community groups to reduce the amount of FOG entering the sewer system. Additionally, a small advertising campaign was run in local movie theaters during the spring.

Human Resources

Department Budget:

Category	FY 2017	FY 2018	FY 2018	FY 2019
	Actual	Adjusted Budget	Actual as of 3/31/2018	Budget
Staff Incentives	9,553	14,850	8,786	33,797
Other Contract Services	150,000	60,000	24,691	35,000
Office Expense	1,995	3,899	2,854	8,064
Education & Training	11,492	21,700	6,903	34,972
Safety	8,619	10,800	5,170	15,000
Departmental Supplies	130	1,500	70	300
Total	\$ 181,789	\$ 112,749	\$ 48,474	\$ 127,133

Department Function:

Human Resources is responsible for recruitment of qualified applicants into a diverse workforce; employment and orientation services; retirement processing; administration of employee benefits such as health, dental, and vision; policy development and administration; job classification, compensation and labor market research; employee relations; employee assistance programs; maintenance of personnel records; maintenance of the Districts personnel database; the administration of the performance management program; and the staff employee appeal process.

FY 2019 Human Resources Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Fiscal Stability					
Goal: Fund operations without significant rate fluctuations					
Objective: Explore cost saving strategies					
Measurement: % increase of health insurance premiums	< 5%	7.5%	< 5%	0%	< 5%
Strategic Issue: Operational Effectiveness					
Goal: Effectively use technology					
Objective: Submit electronic documents via website					
Measurement: explore feasibility of online applicant submission	n/a	n/a	By June 2018	Not met	By June 2019

Human Resources

FY 18 Highlights and Accomplishments:

The Events Committee was responsible for planning the Employee Appreciation Day and Family Fun Day. At Christmas, the Committee adopted two families through Helping and Lending Outreach Support (HALOS) program, garnering an outpouring of support and generosity from the staff.



2017 Sports themed Christmas Luncheon

Accounting

Department Budget:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 335,725	\$ 310,378	\$ 209,176	\$ 289,797
Benefits	204,384	202,768	137,181	182,601
Insurance	482	507	482	-
Billing Agents	752,975	802,095	485,764	829,280
Office Expense	7,657	12,687	5,336	12,672
Education & Training	125	2,506	1,874	3,966
Communications	-	-	-	620
Vehicular Expense	629	1,070	222	-
Fuel	412	600	61	-
Departmental Supplies	30	50	24	50
Total	\$ 1,302,419	\$ 1,332,661	\$ 840,120	\$ 1,318,986

Department Function:

The Accounting Department is responsible for financial record keeping and reporting, payroll, cash and investment management, billing and collections, customer service, cash disbursements, budgeting, safeguarding of assets, and the coordination of the external audit. We maintain internal controls that ensure accurate and timely financial reporting.

FY 2019 Accounting Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Fiscal stability					
Goal: Be good stewards of stakeholders' resources					
Objective: Maintain strong internal controls					
Measurement: # of internal control deficiencies noted in auditor's management letter	0	0	0	0	0
Measurement: # of adjusting entries proposed by external auditor	0	0	0	0	0
Objective: Prepare quality financial reports					
Measurement: Timely close year end	n/a	n/a	By 3rd week of Aug	By 3rd week of Aug	By 3rd week of Aug
Measurement: % of months that were closed by the 10th	100%	100%	100%	100%	100%
Measurement: Received both the GFOA Budget and CAFR awards	Yes	Yes	Yes	Yes	Yes

Accounting

FY 2019 Accounting Objectives, continued:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Community					
Goal: Provide outstanding customer service					
Objective: Gather customer feedback					
Measurement: % of service requests surveyed	20%	20%	20%	20%	20%

FY 18 Highlights and Accomplishments:

The Accounting department completed their first audit involving the new financial software for FY 17 with no findings, meaning there were no errors found or corrections that needed to be made. During FY 18, the department focused on moving toward a more paperless environment, beginning two scanning projects that will allow the destruction of many paper records once complete.

Information Technology

Department Budget:

Category	FY 2017		FY 2018		FY 2019	
	Actual	Budget	Adjusted Budget	Actual as of 3/31/2018	Budget	Budget
Compensation	\$ 173,350	\$ 173,350	\$ 175,328	\$ 98,194	\$ 206,544	\$ 206,544
Benefits	82,564	82,564	94,057	51,329	105,605	105,605
Office Expense	62,955	62,955	168,317	83,385	162,400	162,400
Education & Training	662	662	2,440	-	4,454	4,454
Departmental Supplies	85	85	200	-	600	600
Total	\$ 319,616	\$ 319,616	\$ 440,342	\$ 232,908	\$ 479,603	\$ 479,603

Department Function:

The Information Technology Department coordinates all the Information Technology Systems located throughout the District. The IT staff is continuing to expand its level of advisory support provided to other Departments as well as its program of scheduled replacement of computer hardware and software. This approach, combined with additional training, is designed to leverage our investment and maximize the staff's usage of new technology.

FY 2019 Information Technology Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Strong Infrastructure					
Goal: Reliability					
Objective: Minimize outages and improve redundancy					
Measurement: # of full workdays any critical system is not available	0	0	0	0	0
Measurement: # of occurrences of data lost due to system/hardware failures, data breaches, etc.	0	0	0	0	0
Strategic Issue: Community					
Goal: Increase transparency and visibility					
Objective: Improve website					
Measurement: Update website to allow additional functionality	n/a	n/a	Dec 2017	Not complete	Dec 2018

FY 18 Highlights and Accomplishments:

Yet another eventful year for the IT Department, rollout of 30 mobile tablets in Lines, Pump Stations, Buildings and Grounds as well as Fleet, Capital Projects, FOG, and Admin (for commercial meter reads) was completed. Supported the expansion to the new Stall Rd. Warehouse, improved internet speed and reliability by switching to a new ISP, and are on track to complete the email migration and a security "gap assessment" covering all computer systems at the District by end of year. The department is now fully staffed with the addition of a new System Analyst.

Purchasing

Department Budget:

Category	FY 2017	FY 2018	FY 2018	FY 2019
	Actual	Adjusted Budget	Actual as of 3/31/2018	Budget
Compensation	\$ 219,043	\$ 218,872	\$ 157,251	\$ 226,748
Benefits	121,809	129,187	97,123	129,583
Office Expense	3,446	5,815	1,715	5,275
Education & Training	1,264	3,053	1,492	3,047
Safety	210	445	212	407
Communications	-	200	-	988
Facility Upkeep	280	600	280	600
Departmental Supplies	1,687	1,600	444	2,250
Total	\$ 347,739	\$ 359,772	\$ 258,517	\$ 368,898

Department Function:

The Purchasing Department is responsible for procuring all goods and services for the District. This Department strives to acquire the best value in goods and services efficiently while meeting all legal and District procurement regulations.

FY 2019 Purchasing Objectives:

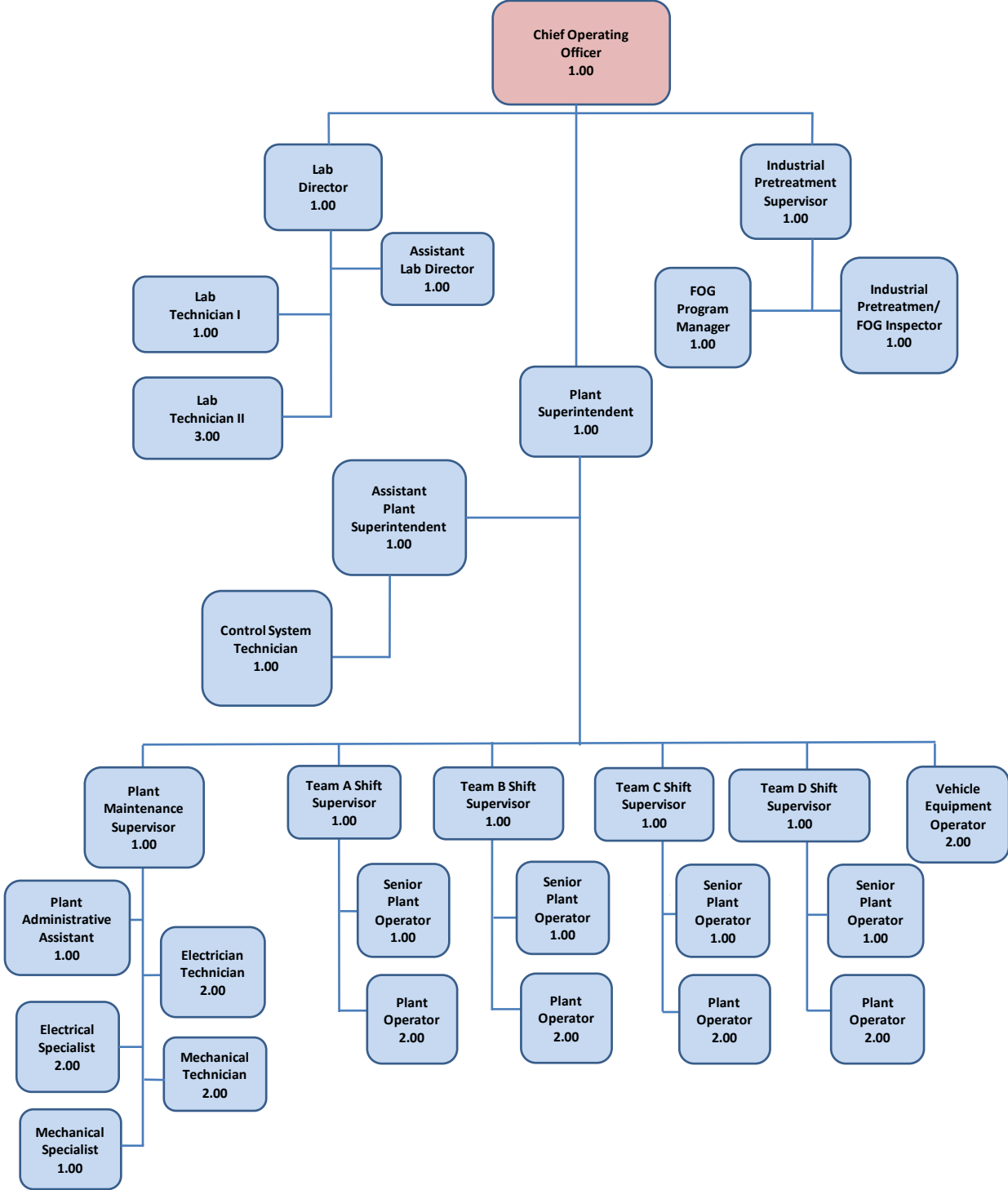
	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Fiscal Stability					
Goal: Fund operation without significant rate fluctuations					
Objective: Explore cost saving strategies					
Measurement: % of projects bid with over 3 bidders	n/a	n/a	n/a	n/a	90%
Goal: Be good stewards of stakeholders' resources					
Objective: Maintain strong internal controls					
Measurement: # of tagged equipment inventories	52	24	24	24	24
Strategic Issue: Operational Effectiveness					
Goal: Promote Resource Conservation					
Objective: Minimize surplus inventory					
Measurement: # of days from surplus to sold/disposed	n/a	n/a	< 90	45	< 30

FY 18 Highlights and Accomplishments:

Purchasing moved all stocked items into new warehouse and began receiving for supplies and equipment. We continued training with all Departments on software capabilities, utilized the new software to identify no/slow moving stocked items, and brought in over \$13,000 by selling surplus equipment and supplies.

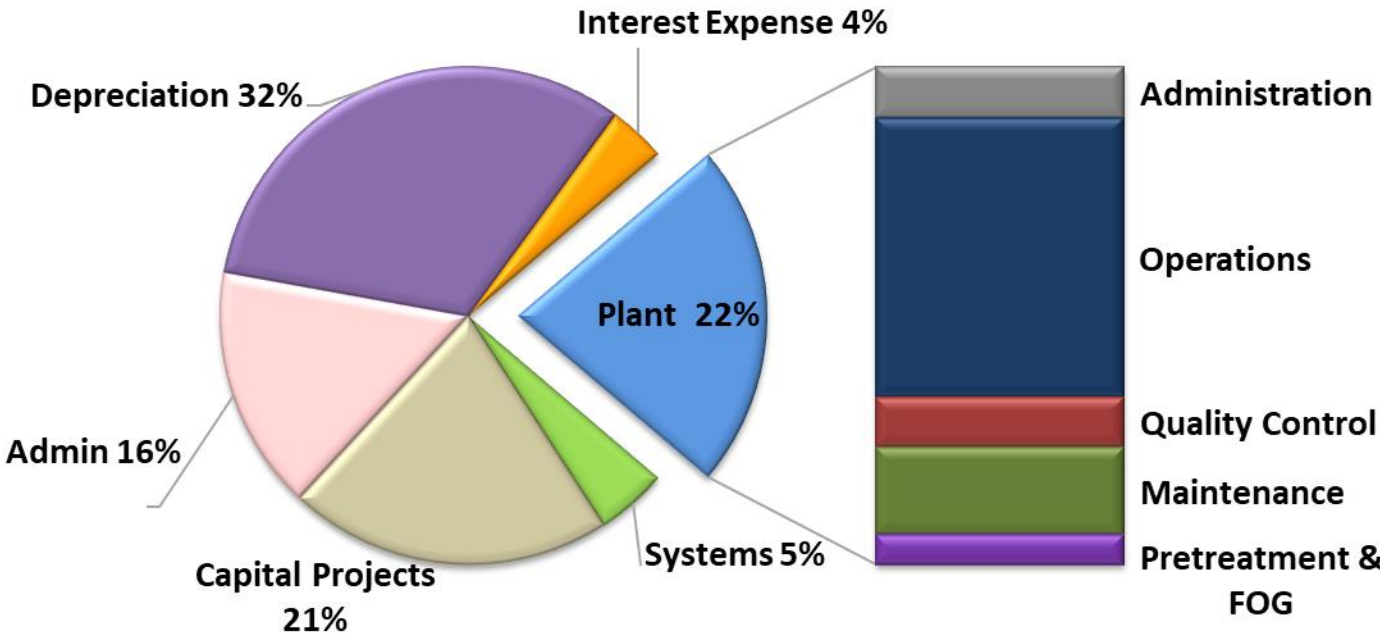
Plant Division

(Authorized FTEs)



Plant Division

Fiscal Year 2019 Expenses



Plant Division

Division Budget Summary:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 1,968,910	\$ 2,082,066	\$ 1,491,227	\$ 2,162,764
Benefits	1,305,111	1,264,106	866,409	1,224,297
Utilities	981,662	1,036,706	594,401	1,084,206
Insurance	71,331	94,527	83,664	98,220
Engineering	134,149	126,200	39,531	136,200
Legal	-	5,000	-	-
Other Contract Services	52,535	77,762	29,573	79,042
Office Expense	64,491	93,763	71,651	97,493
Education & Training	26,995	44,210	22,941	55,227
Safety	10,775	21,781	6,511	6,365
Communications	7,001	10,464	5,404	11,457
Facility Upkeep	247,920	357,495	182,628	374,695
Sludge	411,223	465,000	320,685	464,100
Vehicular Expense	16,542	57,187	32,374	49,480
Fuel	35,942	69,978	30,499	65,330
Departmental Supplies	216,196	345,519	147,411	313,845
Total	\$ 5,550,783	\$ 6,151,764	\$ 3,924,909	\$ 6,222,721

Division Function:

The Plant Division is responsible for the operation, maintenance, and quality assurance of the Felix C. Davis Wastewater Treatment Facility. The Division assures that the treatment facility operates in a manner necessary to discharge wastewater in accordance with the National Pollutant Discharge Elimination System (NPDES) permitted parameters enforced by the EPA and South Carolina Department of Health and Environmental Control (SCDHEC).

The following departments are included in the Plant Division:

Plant Administration
 Quality Control:
 Non-Domestic
 Domestic

Operations
 Plant Maintenance
 Industrial Pretreatment
 Fats, Oils, & Grease

Plant Administration

Department Budget:

Category	FY 2017		FY 2018		FY 2019	
	Actual	Budget	Adjusted Budget	Actual as of 3/31/2018	Budget	Budget
Compensation	\$ 317,327	\$ 317,317	\$ 317,317	\$ 228,859	\$ 242,153	
Benefits	383,495	190,059	190,059	122,232	140,357	
Utilities	3,858	5,206	5,206	2,682	5,206	
Insurance	61,110	82,305	82,305	72,350	84,790	
Engineering	128,050	65,000	65,000	6,525	75,000	
Other Contract Services	5,252	9,862	9,862	5,745	9,862	
Office Expense	52,766	65,736	65,736	57,597	64,049	
Education & Training	12,524	13,430	13,430	5,584	14,396	
Safety	-	308	308	62	150	
Communications	5,780	7,774	7,774	4,705	2,299	
Vehicular Expense	217	3,050	3,050	727	1,200	
Fuel	966	2,363	2,363	1,115	2,700	
Departmental Supplies	312	140	140	62	140	
Total	\$ 971,657	\$ 762,550	\$ 762,550	\$ 508,245	\$ 642,302	

Department Function:

The Plant Administration Department is responsible for coordinating the efforts of the various departments in the Plant Division to maintain regulatory compliance, accomplish division goals, and develop, recommend, support, and conduct programs to promote the overall understanding of facility activities while keeping abreast of new technology and environmental methods and regulations.

FY 2019 Plant Administration Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Operational Effectiveness					
Goal: Effectively use technology					
Objective: Improve mobile usage					
Measurement: Purchase and install Plant software and hardware to facilitate remote access and enhanced security	n/a	n/a	n/a	n/a	By June 2019
Strategic Issue: Community					
Goal: Increase transparency and visibility					
Objective: Promote plant tours					
Measurement: # of plant tours	4	4	4	4	4

Plant Administration

FY 18 Highlights and Accomplishments:

The Plant received the 2018 DHEC Facility Excellence Award during the South Carolina Environmental Conference held in Myrtle Beach, SC in March. The demolition of the Fluid Bed Incinerator completed and engineering services were acquired to begin the design phase of the new Maintenance Shop Facility to be constructed in its place. The Energy Utilization and Tertiary Treatment studies have been completed and recommendations have been budgeted to implement future treatment options. Efforts have been initiated as part of a future development to enhance facility process monitoring and identification of potential security issues associated with migrating to possible non-staffing of the facility during early morning hours.

Operations

Department Budget:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 964,418	\$ 1,004,590	\$ 724,571	\$ 1,047,796
Benefits	524,179	570,444	415,210	559,866
Utilities	977,804	1,031,500	591,719	1,079,000
Insurance	5,346	6,335	5,750	6,363
Other Contract Services	-	3,000	-	3,000
Office Expense	1,526	3,219	1,433	3,585
Education & Training	6,305	16,130	11,084	18,676
Safety	4,049	9,578	2,975	3,368
Communications	-	510	-	3,532
Sludge	411,223	465,000	320,685	464,100
Vehicular Expense	14,937	43,547	29,971	39,750
Fuel	28,829	55,240	24,183	50,580
Departmental Supplies	152,677	237,415	100,307	204,091
Total	\$ 3,091,293	\$ 3,446,508	\$ 2,227,888	\$ 3,483,707

Department Function:

The Operations Department is committed to ensuring the successful operation of the treatment facility by providing hands on technical support to our maintenance and other support groups, by monitoring all permitted parameters, and by initiating the necessary adjustments to the wastewater treatment processes to meet the National Pollutant Discharge Elimination System (NPDES) permitted parameters.

FY 2019 Operations Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Strong infrastructure					
Goal: Reliability					
Objective: Complete all required preventative maintenance					
Measurement: Complete 100% of all scheduled PMs within 15 days of due date	n/a	n/a	n/a	n/a	100%

Operations

FY 2019 Operations Objectives, continued:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Operational Effectiveness					
Goal: Promote Resource Conservation					
Objective: Reduce paper usage					
Measurement: Complete 100% of daily log books electronically	n/a	n/a	n/a	n/a	100%
Strategic Issue: Workforce Development					
Goal: Well trained workforce					
Objective: Provide educational opportunities					
Measurement: Compete in Field Operations Challenge Team	n/a	no	n/a	no	yes

FY 18 Highlights and Accomplishments:

Hurricane Irma and one winter storm event created hazardous conditions and caused extremely high flows to enter the treatment facility. Operations personnel staffed the facility to maintain operations and to ensure protection of facility assets during and after each storm event. Analytical samples collected pre and post storm showed that the facility maintained effective treatment levels during the events.

An industry creating operational interference was identified and a noncompliance hearing was conducted by the Chief Operations Officer and Industrial Pretreatment Supervisor.

Operations Shift Supervisor Larry Hagan was recognized and awarded the status of “Operator of the Year” by the Low Country District of the Water Environment Association of South Carolina.

Quality Control

Quality control is subdivided into three units: quality control (5140), quality control – domestic (5141), and quality control – industrial (5142), for the purpose of allocating costs between industry and domestic testing.

Quality Control (5140) Budget:

Category	FY 2017	FY 2018	FY 2018	FY 2019
	Actual	Adjusted Budget	Actual as of 3/31/2018	Budget
Compensation	\$ 202,639	\$ 220,185	\$ 154,407	\$ 317,154
Benefits	111,734	144,831	86,641	184,260
Insurance	894	1,816	1,726	2,415
Office Expense	204	910	105	3,070
Education & Training	740	4,000	1,242	7,678
Safety	508	906	327	855
Communications	-	200	-	1,080
Vehicular Expense	531	2,090	703	2,380
Fuel	2,097	3,375	1,594	4,050
Total	\$ 319,347	\$ 378,313	\$ 246,745	\$ 522,942

Quality Control – Domestic (5141) Budget:

Category	FY 2017	FY 2018	FY 2018	FY 2019
	Actual	Adjusted Budget	Actual as of 3/31/2018	Budget
Other Contract Services	\$ 19,290	\$ 18,400	\$ 6,158	\$ 18,430
Office Expense	628	1,948	594	1,849
Safety	-	270	27	-
Departmental Supplies	32,053	53,730	20,460	56,115
Total	\$ 51,971	\$ 74,348	\$ 27,239	\$ 76,394

Quality Control – Industrial (5142) Budget:

Category	FY 2017	FY 2018	FY 2018	FY 2019
	Actual	Adjusted Budget	Actual as of 3/31/2018	Budget
Other Contract Services	\$ 1,561	\$ 9,000	\$ 445	\$ 9,000
Departmental Supplies	6,388	17,254	4,805	14,994
Total	\$ 7,949	\$ 26,254	\$ 5,250	\$ 23,994

Quality Control

Department Function:

Provides all laboratory analyses required under the National Pollutant Discharge Elimination System (NPDES) permit. The department strives to meet its obligation by providing the most accurate laboratory data in a timely manner.

FY 2019 Quality Control Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Strong infrastructure					
Goal: No regulatory violations					
Objective: Identify and modernize lab equipment and techniques					
Measurement: WP Study - Proficiency Testing (annually)	6/1/17	6/1/17	5/31/18	5/31/18	5/30/19
Measurement: Laboratory Certification received (every 3 years)	n/a	n/a	May 2018	May 2018	n/a
Measurement: Research modern laboratory advancements and designs	Dec 2016	Not completed	Dec 2017	Not completed	Dec 2018
Measurement: Engineering for remodeling current laboratory	n/a	n/a	n/a	n/a	Jun 2019
Objective: Submit DMR to DHEC monthly					
Measurement: # of DMR report violations	0	0	0	0	0
Objective: Increase inspections/samples of industries					
Measurement: # of samples for high risk industries	9	8	9	9	10
Strategic Issue: Workforce Development					
Goal: Well trained workforce					
Objective: Provide educational opportunities					
Measurement: # of conferences attended by lab staff	2	5	2	4	5
Objective: Increase cross-training					
Measurement: Start cross-training for operator performing field parameters on the weekends	Dec 2016	Not done	Dec 2017	Not done	Dec 2018

FY 18 Highlights and Accomplishments:

The Laboratory was recognized as a Laboratory of Excellence, out of 945 participating laboratories, for achieving 100% acceptable data in Proficiency Testing Study Water Pollution-267. The Laboratory obtained lab certification in Enterococci testing, which detects fecal pollution and other pathogens in water. Industrial monitoring methodology has been revised to support the pretreatment program and has increased major industries sampling.

Plant Maintenance

Department Budget:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 336,389	\$ 390,888	\$ 276,271	\$ 401,176
Benefits	204,123	259,531	179,110	254,231
Insurance	2,475	2,351	2,201	2,821
Other Contract Services	-	-	-	1,250
Office Expense	3,779	4,650	3,601	4,965
Education & Training	5,092	8,000	4,301	11,345
Safety	6,106	10,237	2,991	1,767
Communications	-	400	-	2,429
Facility Upkeep	247,920	357,495	182,628	374,695
Vehicular Expense	457	5,700	853	3,750
Fuel	2,224	4,000	1,958	4,250
Departmental Supplies	22,923	33,310	19,271	35,175
Total	\$ 831,488	\$ 1,076,562	\$ 673,185	\$ 1,097,854

Department Function:

The Plant Maintenance Department provides the necessary support to the Operations Department through communication, and timely, efficient responses to all service needs. This is accomplished using preventative maintenance measures and by providing the necessary technical training to further enhance the technical expertise of maintenance personnel in this ever-changing industry. This approach will decrease the dependency on outside vendors and increase the longevity of plant equipment, with the ultimate goal in mind to provide a significant reduction in equipment repair, replacement costs, and prevent costly process downtime.

FY 2019 Plant Maintenance Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Strong Infrastructure					
Goal: Reliability					
Objective: Complete all required preventative maintenance					
Measurement: % of preventative work orders completed by CMMS due date	100%	100%	100%	100%	100%

Plant Maintenance

FY 2019 Plant Maintenance Objectives, continued:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Workforce Development					
Goal: Well trained workforce					
Objective: Provide educational opportunities					
Measurement: # of training sessions	5	7	5	7	6
Objective: Increase cross-training					
Measurement: # of days spent cross-training with systems maintenance	2	8	8	8	8

FY 18 Highlights and Accomplishments:

Some of the major projects during 2018 the Plant Maintenance Department undertook were the replacement of all ceramic disc diffusers in three aeration basins with membrane style diffusers; replacement of all plug valves in the blended sludge storage building; replacement of two (2) effluent water strainers for the plant reuse water system; installation of controller with UVT, DO, & pH sensors at the UV building; replacement of three (3) 24" pinch valve bladders for the secondary RAS system; and replacement of four (4) double disc pumps for the dewatering centrifuge sludge feed.

Industrial Pretreatment

Department Budget:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 148,137	\$ 149,086	\$ 107,119	\$ 154,485
Benefits	81,580	99,241	63,216	85,583
Insurance	1,506	1,720	1,637	1,831
Engineering	6,099	61,200	33,006	60,200
Legal	-	5,000	-	-
Other Contract Services	26,432	37,500	17,225	35,000
Office Expense	5,588	17,300	8,321	6,235
Education & Training	2,334	2,650	730	300
Safety	112	482	129	75
Communications	1,221	1,580	699	528
Vehicular Expense	400	2,800	120	900
Fuel	1,826	5,000	1,649	3,750
Departmental Supplies	1,843	3,670	2,506	3,030
Total	\$ 277,078	\$ 387,229	\$ 236,357	\$ 351,917

Department Function:

The Industrial Pretreatment Department is committed to preventing the introduction of pollutants into the District's sewer system that will interfere with the operation of the plant or pass through the treatment works to the receiving stream, including interference with the desired use or disposal of municipal sludge. The department works to improve opportunities to reclaim and recycle municipal and industrial wastewater and sludge, and to reduce the health and environmental risk of pollution caused by the discharge of toxic pollutants into the District's sewer system.

Industrial Pretreatment

FY 2019 Industrial Pretreatment Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Strong Infrastructure					
Goal: No regulatory violations					
Objective: Submit DMR to DHEC monthly					
Measurement: % of industries inspected every 2 years	97%	95%	94%	94%	97%
Objective: Increase inspections/samples of industries					
Measurement: % of SCDHEC reports submitted on time	100%	100%	100%	100%	100%
Strategic Issue: Community					
Goal: Increase transparency and visibility					
Objective: Promote plant tours					
Measurement: # of plant tours for industrial users	1	1	2	3	4

FY 18 Industrial Pretreatment Highlights and Accomplishments:

Permits were re-issued during FY 18. After reviewing applications, four non-significant industries were upgraded to significant, three remained non-significant, and six were down-graded to Letters of Authorization. A new significant industrial user was permitted, and a new LOA was issued. Instead of one Pretreatment Workshop being held during the year, the industries were divided into four smaller group sessions to focus more on individual issues. All of the Pretreatment forms were added to the website in fillable format. Documents such as current limits and regulations were also added to the website.

Fats, Oils, and Grease

Department Budget:

Category	FY 2019 Budget
Engineering	\$ 1,000
Other Contract Services	2,500
Office Expense	13,740
Education & Training	2,832
Safety	150
Communications	1,589
Vehicular Expense	1,500
Departmental Supplies	300
Total	\$ 23,611

** FY 19 is the first year breaking out FOG budget separately

Department Function:

The Fats, Oils, and Grease (FOG) Program works to prevent the discharge of FOG into the treatment system with a combination of regulation and public education. Through community engagement and a streamlined commercial inspection program, the FOG Program reduces environmental and monetary costs by reducing sanitary sewer overflows and equipment damage due to fats, oils, and grease in the District's sewer system.

FY 2019 Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Strong Infrastructure					
Goal: Minimize sanitary sewer overflows to less than 2 per 100 miles of lines					
Objective: Continue grease initiative					
Measurement: % of SSOs caused by FOG	50%	52%	45%	37%	40%
Measurement: Hold food service establishment ("FSE") training sessions	n/a	n/a	4	1	4
Objective: Increase FSE reporting and inspections					
Measurement: # of grease traps inspected	450	453	450	500	800
Strategic Issue: Community					
Goal: Increase transparency and visibility					
Objective: Employees participate in community activities					
Measurement: # of community events attended by FOG personnel	3	3	4	4	5

Fats, Oils, and Grease

FY 2019 Objectives, continued:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Goal: Educate the public					
Objective: Increase FOG Awareness					
Measurement: Expand FOG awareness throughout community by developing FOG campaign	n/a	n/a	n/a	n/a	Jun 2019
Measurement: Develop meaningful measurables to test the effectiveness of FOG awareness strategies	n/a	n/a	n/a	n/a	Jun 2019

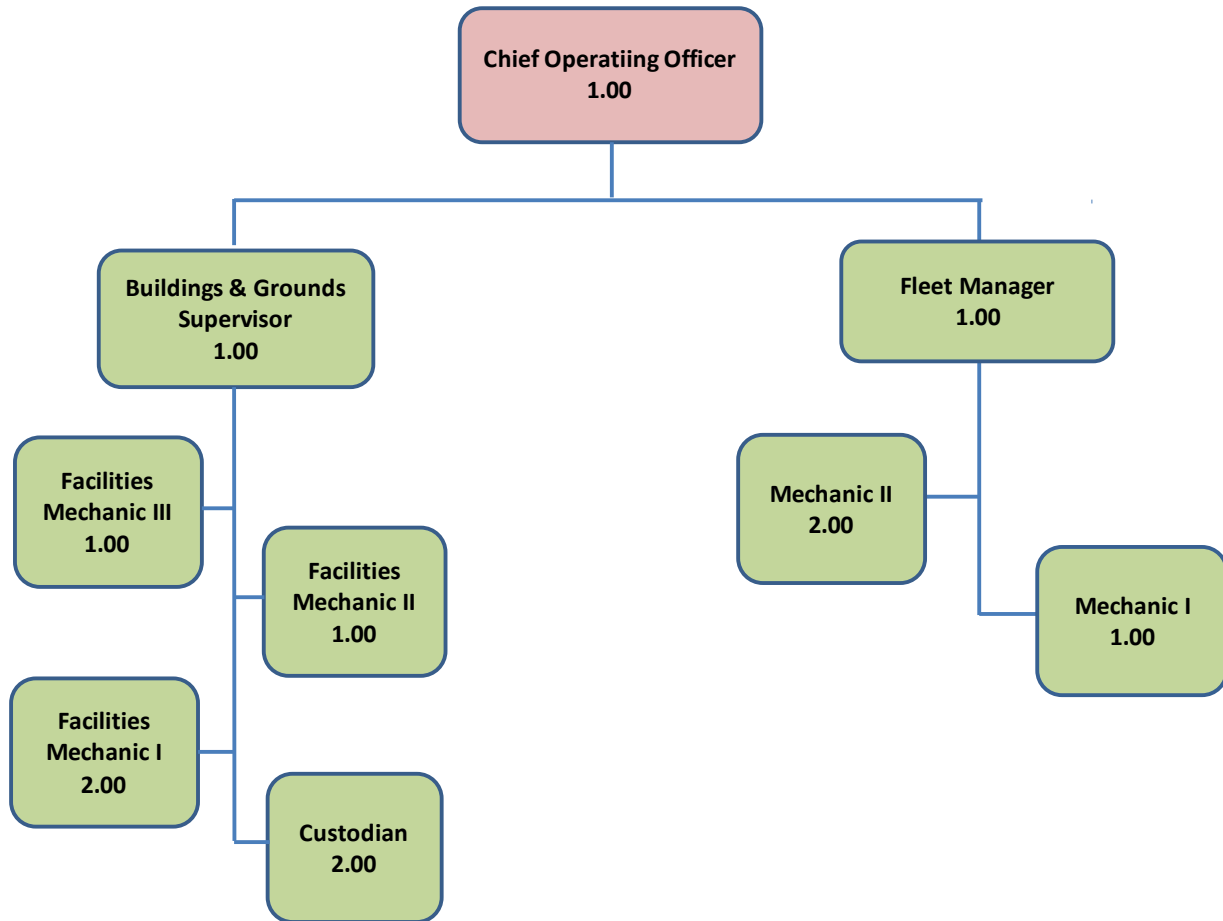
FY 18 Highlights and Accomplishments:

The FOG Program has streamlined FSE reporting requirements, allowing for facilities to keep all required documentation on-site for inspector review, rather than sending it in to the District monthly. Additionally, all required FSE documentation is now available for download in fillable electronic format on the NCSD website, thus greatly reducing the amount of paper used by the District and our customers. A rapid response education initiative has been implemented within the FOG Program to help curb residential grease sanitary sewer overflows (SSOs). This method requires the distribution of public education material to the vicinity of an SSO within two weeks after the overflow, to give customers the information they need to avoid grease and wet-wipe related overflows in the future. To increase visibility and education about the FOG program, the FOG fleet vehicles have had their tailgates wrapped with educational messages.



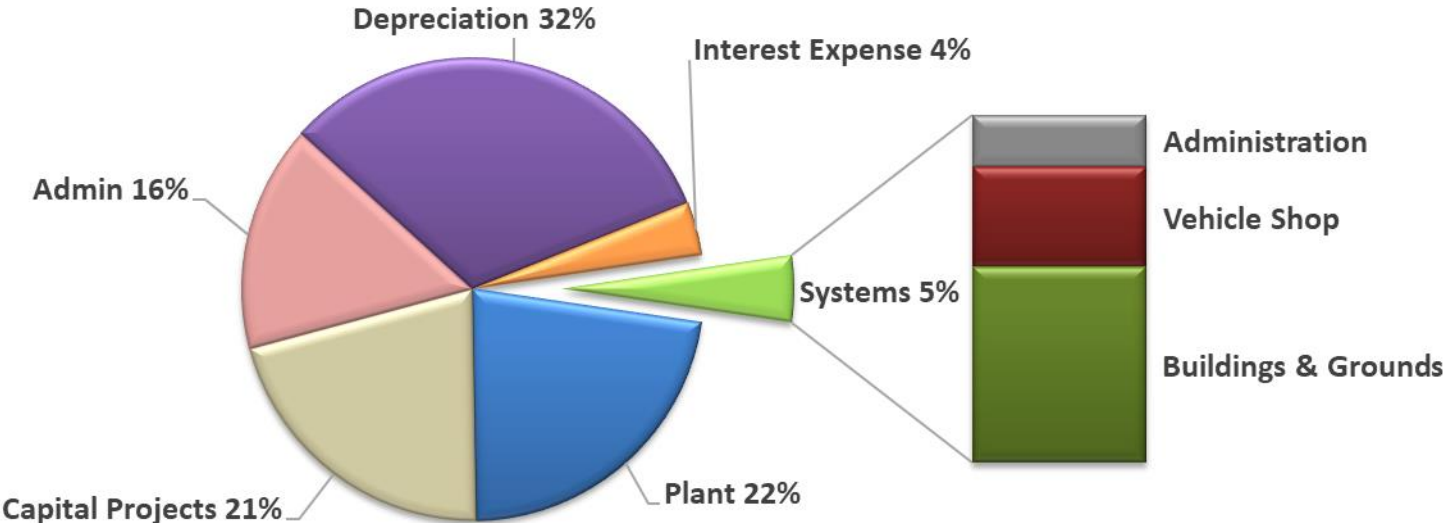
Systems Division

(Authorized FTEs)



Systems Division

Fiscal Year 2019 Expenses



Systems Division

Division Budget Summary:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 487,134	\$ 490,977	\$ 341,003	\$ 495,244
Benefits	372,789	369,194	228,464	360,396
Utilities	33,678	40,915	22,441	40,915
Insurance	70,060	18,152	16,699	21,756
Engineering	4,500	35,000	2,400	35,000
Other Contract Services	11,136	24,303	8,972	26,016
Office Expense	35,358	21,326	9,830	16,805
Education & Training	6,386	17,355	8,832	23,337
Safety	6,201	12,213	4,072	1,871
Communications	18,471	27,402	15,276	33,613
Facility Upkeep	62,841	105,150	65,320	150,000
Vehicular Expense	3,838	11,670	4,591	14,640
Fuel	8,624	17,300	6,692	18,013
Departmental Supplies	34,374	41,685	23,349	43,160
Total	\$ 1,155,390	\$ 1,232,642	\$ 757,941	\$ 1,280,766

The following departments are included in the Systems Division:

Systems Administration
Vehicle Shop

Buildings and Grounds

Division Function:

The Systems Division is responsible for the operation and maintenance of the District's vehicle fleet; upkeep, maintenance, refurbishment, and expansion of all the District's buildings and grounds; reviewing tort claims; and training in CPR, first aid, defensive driving, and other courses related to safety, compliance, and workplace procedures. The Division plans for replacement of our fleet and building modifications.

Systems Administration

Department Budget:

Category	FY 2017	FY 2018	FY 2018	FY 2019
	Actual	Adjusted Budget	Actual as of 3/31/2018	Budget
Benefits	77,250	33,053	-	34,268
Utilities	33,678	40,915	22,441	40,915
Insurance	64,520	11,055	10,495	12,345
Engineering	4,500	35,000	2,400	35,000
Other Contract Services	2,533	5,620	2,994	8,820
Office Expense	33,377	8,611	5,679	9,766
Education & Training	6,089	9,555	3,684	16,842
Safety	45	300	-	-
Communications	18,471	27,002	15,276	28,396
Vehicular Expense	-	-	-	700
Fuel	-	-	-	600
Departmental Supplies	7	100	1	3,520
Total	\$ 240,470	\$ 171,211	\$ 62,970	\$ 191,172

Department Function:

The Systems Administration Department is responsible for coordinating the efforts of the various departments in the Systems Division to accomplish division goals and to keep the transportation system abreast of new technology and environmental methods and regulations. Systems Administration is also responsible for safety training.

FY 2019 Systems Administration Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Workforce Development					
Goal: Provide safe working environment					
Objective: Provide yearly safety training					
Measurement: # of OSHA citations	0	0	0	0	0
Measurement: # of accidents resulting in lost time	5	8	5	7	5
Objective: Perform safety audits					
Measurement: # of safety audits completed	3	5	6	6	7

FY 18 Highlights and Accomplishments:

Systems Administration worked with SCDHEC to reduce sampling frequency conducted by District lab personnel. SCDHEC will issue a new NPDES Permit in early May to reflect the reduced sampling. This will reduce costs and man-hours in the lab, and will allow lab personnel to work closer with industries.

Vehicle Shop

Department Budget:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 199,104	\$ 199,122	\$ 133,351	\$ 202,331
Benefits	102,372	120,297	72,984	115,842
Insurance	2,590	3,895	3,289	5,598
Office Expense	1,886	4,520	908	6,699
Education & Training	50	4,300	3,583	4,995
Safety	1,274	1,967	736	764
Communications	-	200	-	1,531
Vehicular Expense	3,140	8,120	3,251	9,740
Fuel	2,138	4,300	1,472	4,968
Departmental Supplies	6,786	14,525	6,346	15,150
Total	\$ 319,340	\$ 361,246	\$ 225,920	\$ 367,618

Department Function:

The Vehicle Shop Department is responsible for the maintenance and safety conditions of the District's fleet of vehicles, trailers, and off road equipment.

FY 2019 Vehicle Shop Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Strong infrastructure					
Goal: Reliability					
Objective: Complete all required preventative maintenance					
Measurement: % of Preventative work orders completed in 7 days	95%	81%	95%	90%	95%
Strategic Issue: Operational Effectiveness					
Goal: Efficient use of computer maintenance management software (CMMS)					
Objective: Complete corrective maintenance timely					
Measurement: % of Corrective work orders completed in 7 days	95%	90%	95%	90%	95%

FY 18 Highlights and Accomplishments:

CMMS continues to be updated with current fleet information and stock items were updated to include all filters for PMs. All rolling fleet has been equipped with GPS and vehicle markers were redesigned to reflective striping for better night time visibility.

Buildings and Grounds

Department Budget:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 288,030	\$ 291,855	\$ 207,652	\$ 292,913
Benefits	193,167	215,844	155,480	210,286
Insurance	2,950	3,202	2,915	3,813
Other Contract Services	8,603	18,683	5,978	17,196
Office Expense	95	8,195	3,243	340
Education & Training	247	3,500	1,565	1,500
Safety	4,882	9,946	3,336	1,107
Communications	-	200	-	3,686
Facility Upkeep	62,841	105,150	65,320	150,000
Vehicular Expense	698	3,550	1,340	4,200
Fuel	6,486	13,000	5,220	12,445
Departmental Supplies	27,581	27,060	17,002	24,490
Total	\$ 595,580	\$ 700,185	\$ 469,051	\$ 721,976

Department Function:

The Buildings & Grounds Department is responsible for the maintenance of the District's buildings and all grounds surrounding District properties.

FY 2019 Buildings & Grounds Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Strong Infrastructure					
Goal: Reliability					
Objective: Complete all required preventative maintenance					
Measurement: Enter all assets into CMMS	n/a	n/a	Dec 2017	Not completed	Dec 2018
Measurement: % of preventative work orders completed in 7 days	n/a	n/a	95%	95%	95%
Strategic Issue: Workforce Development					
Goal: Well trained workforce					
Objective: Provide educational opportunities					
Measurement: # of tailgate trainings	n/a	n/a	n/a	n/a	12

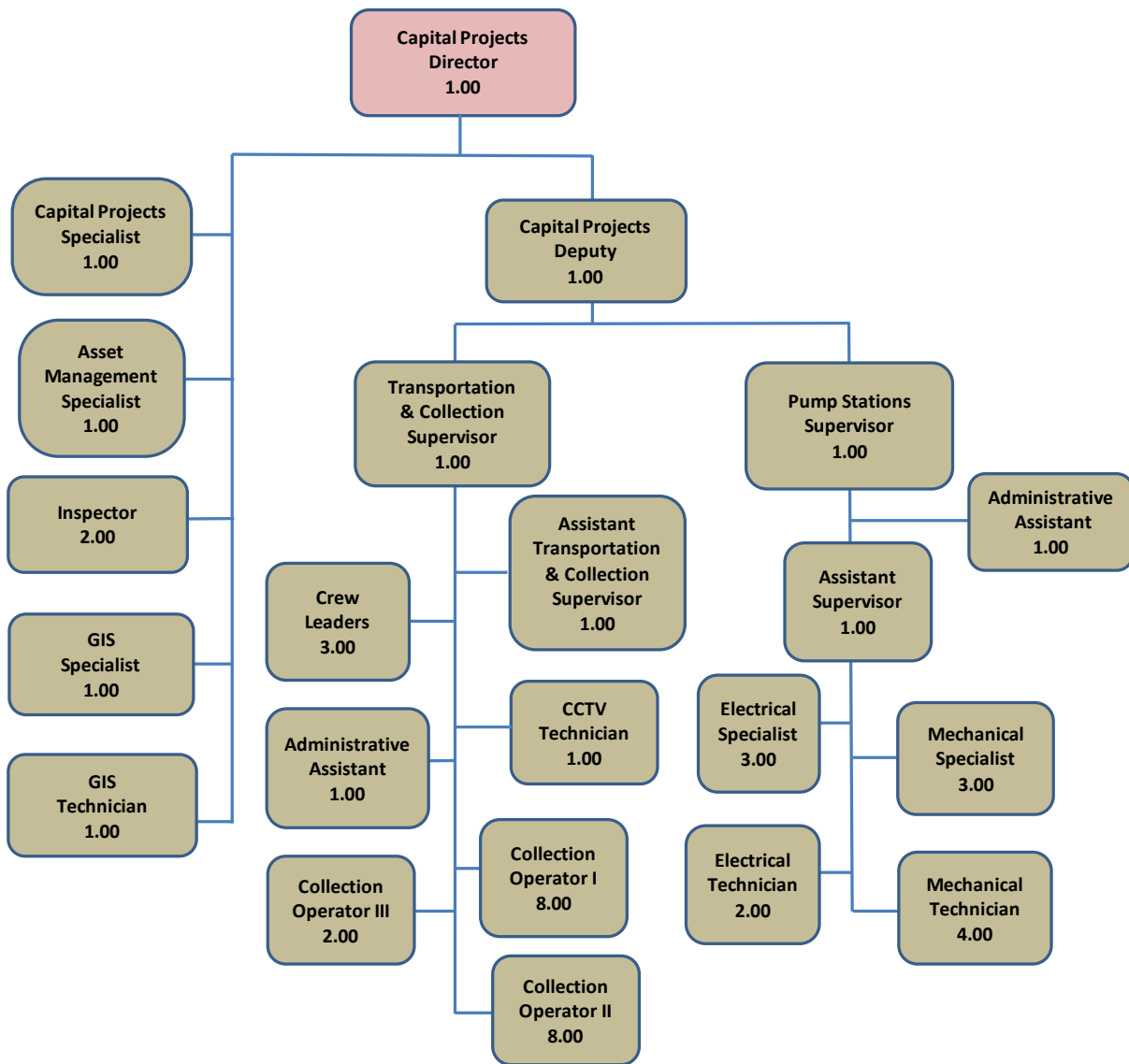
Buildings and Grounds

FY 18 Highlights and Accomplishments:

In an ongoing effort to reduce the District's carbon footprint, projects to switch lighting from incandescent to LED have been completed at the Plant and Stall Rd. The CMMS system was expanded so that the custodians could use tablets to update daily logs and receive work orders. Two employees took advantage of trench box safety training and one employee took advantage of Confined Space Safety Training. Two employees successfully earned their class B CDL. The entire Buildings and Grounds department participated in team building training.

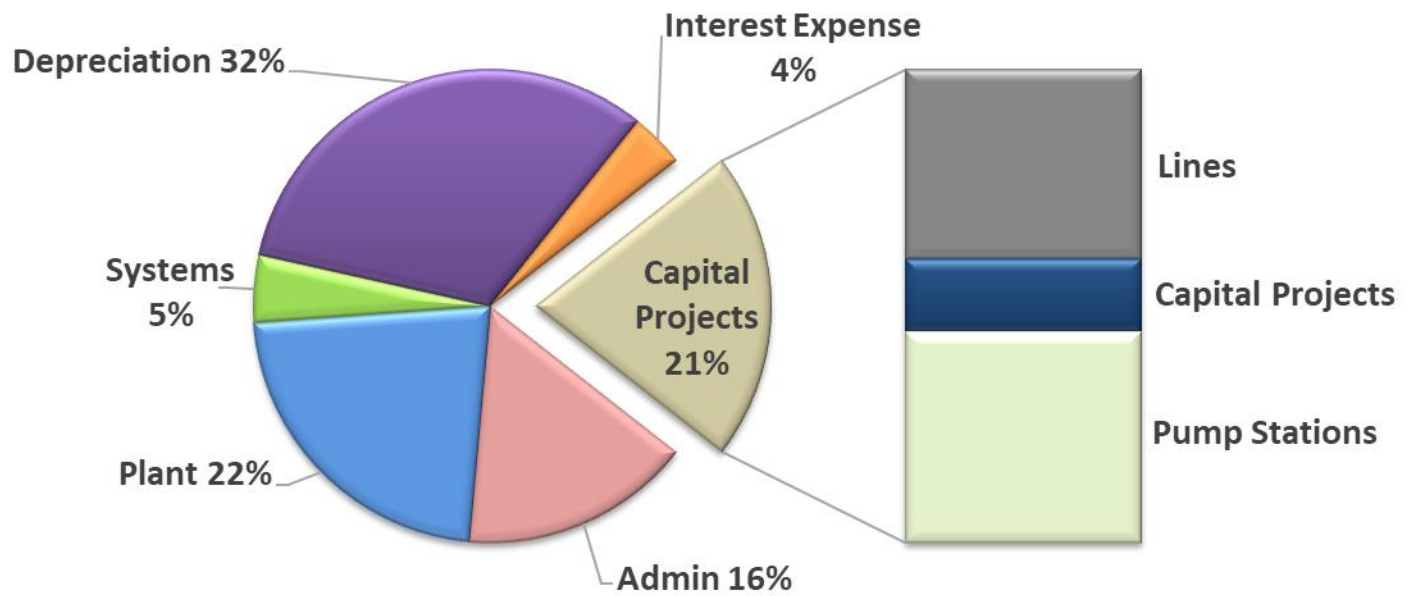
Capital Project Division

(Authorized FTEs)



Capital Project Division

Fiscal Year 2019 Expenses



Capital Project Division

Division Budget Summary:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 1,924,128	\$ 2,083,960	\$ 1,357,066	\$ 2,236,975
Benefits	1,296,551	1,308,434	832,705	1,399,423
Utilities	566,645	729,986	410,371	738,463
Insurance	39,053	129,148	114,932	145,946
Engineering	6,145	25,000	3,800	25,000
Other Contract Services	25,010	83,700	4,510	90,575
Office Expense	57,339	69,671	53,961	66,961
Education & Training	33,469	62,886	24,259	45,989
Safety	35,584	51,745	21,658	9,031
Communications	27,163	40,256	25,877	35,815
Facility Upkeep	310,152	438,800	158,016	445,488
Vehicular Expense	60,304	98,808	42,387	95,985
Fuel	82,407	131,050	63,128	133,413
Departmental Supplies	340,647	374,924	203,456	385,498
Total	\$ 4,804,597	\$ 5,628,368	\$ 3,316,126	\$ 5,854,562

The Following departments are included in the Capital Projects Division:

Capital Projects	Lines
Pump Stations	

Division Function:

The Capital Project Division directs, plans, and administers the operations of all engineering, construction, maintenance, surveying, and geographic information system responsibilities. The Division is also responsible for the development, operation, and maintenance of the District's sewer pump stations. The Division oversees the development and implementation of the Five Year Capital Improvement Plan, specifically focusing on the rehabilitation of the District's aging infrastructure, system modifications for economic growth, and prevention of sanitary sewer overflows (SSO's). The Division also assists customers and developers with various permitting and construction projects.

Capital Projects

Department Budget:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 318,607	\$ 384,890	\$ 248,626	\$ 388,800
Benefits	405,764	229,691	157,993	232,368
Insurance	10,539	77,133	76,074	93,462
Consultation	6,145	25,000	3,800	25,000
Other Contract Services	18,000	75,000	1500	75,000
Office Expense	49,824	57,600	47,983	56,739
Education & Training	2,024	12,435	8,201	9,685
Safety	175	1,275	488	1,715
Communications	19,221	25,456	16,179	3,907
Vehicular Expense	2,672	5,790	2,349	4,360
Fuel	5,232	9,250	4,093	7,900
Departmental Supplies	2,453	9,200	2,284	4,900
Total	\$ 840,656	\$ 912,720	\$ 569,570	\$ 903,836

Department Function:

The Capital Projects Department directs, plans, and administers the operations of all components of capital projects including planning, engineering, specification development, and construction management. The Department also assists developers with various permitting and construction projects.

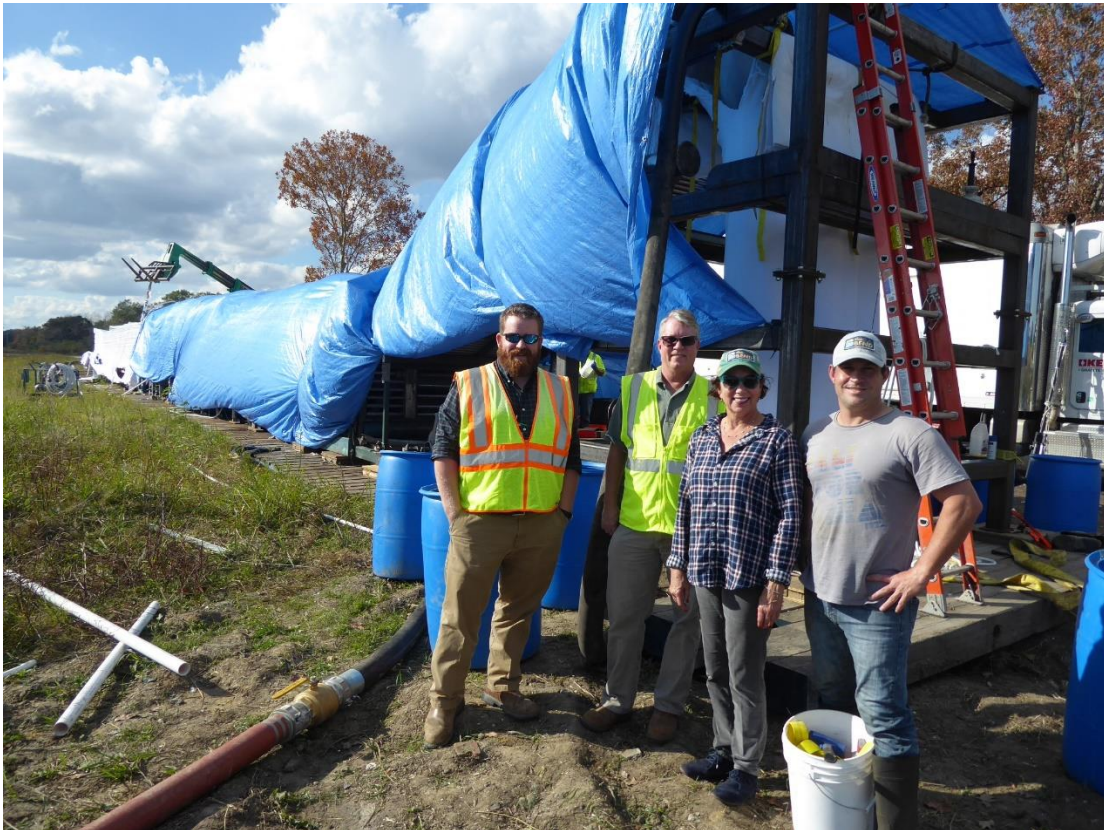
FY 2019 Capital Projects Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Strong Infrastructure					
Goal: Minimize sanitary sewer overflows to less than 2 per 100 miles of lines					
Objective: Complete inflow and infiltration (I&I) study and repairs of one basin every two years					
Measurement: # of I&I problems identified for corrective maintenance	500	370	500	370	800
Objective: Inspect all infrastructure every 8.5 years					
Measurement: # of manholes inspected (annually)	1,000	1,831	2,100	1,000	1,500
Objective: Continue to rehabilitate large diameter lines					
Measurement: Feet of Pipe Rehabilitated	9,000	9,000	10,000	10,000	4,000

Capital Projects

FY 18 Highlights and Accomplishments:

In FY 18, the Capital Projects group documented an additional 1,500 easements on file at Charleston County's RMC. Regarding easement clearing, we cleared approximately 1.6 acres for an easement in Ladson for the Lincolville trunk line heading towards the Lincolville pump station. We continued additional training for staff including: the 2018 ESRI Public Sector GIS conference in Charlotte, NC; the 2018 CGA conference in Phoenix, AZ; the 2018 SCEC conference in Myrtle Beach, SC; the 2017 WEFTEC conference in Chicago, IL; and InfoMaster training in Wilmington, NC. We also got certified and re-certified in NASSCO's PACP/LACP/MACP.



Capital Projects Director Phillip Sexton at the Ashely Interceptor Job site with an engineer and the property owner.

Lines

Department Budget:

Category	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 3/31/2018	FY 2019 Budget
Compensation	\$ 944,018	\$ 993,435	\$ 656,463	\$ 1,086,428
Benefits	517,986	631,409	401,118	701,469
Insurance	17,004	34,800	24,882	34,256
Other Contract Services	7,010	8,700	3,010	10,075
Office Expense	4,378	7,456	4,132	7,112
Education & Training	15,545	29,557	6,442	12,060
Safety	19,955	25,061	9,937	3,987
Communications	-	400	22	8,636
Facility Upkeep	170,942	251,814	71,695	258,076
Vehicular Expense	50,560	73,758	32,883	74,115
Fuel	40,106	75,580	32,708	71,125
Departmental Supplies	60,505	62,869	22,510	69,764
Total	\$ 1,848,009	\$ 2,194,839	\$ 1,265,802	\$ 2,337,103

Department Function:

The Lines Department is committed to the efficient operation and maintenance of the transportation lines. The department responds to customer service calls in a timely manner and performs inspections, repairs, prioritization, and rehabilitation of the sewer system by the most cost-effective methods available.

FY 2019 Lines Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Issue: Strong Infrastructure					
Goal: Reliability					
Objective: Build inventory of spare parts					
Measurement: # of days waiting on emergency parts	5	4	5	2	5
Objective: Complete all required preventative maintenance					
Measurement: % of P.M. work orders completed within one week of generating	n/a	n/a	95%	80%	95%
Goal: Minimize sanitary sewer overflows to less than 2 per 100 miles of lines					
Objective: Continue grease initiative					
Measurement: % of service calls related to grease	50%	52%	45%	37%	40%

Lines

FY 2019 Lines Objectives, continued:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Objective: Inspect all infrastructure every 8.5 years					
Measurement: measurement of linear feet of lines CCTV inspected	312,000	75,622	150,000	93,703	150,000
Measurement: Total # of reportable SSO system wide	0	12	0	8	0
Strategic Issue: Community					
Goal: Provide outstanding customer service					
Objective: Provide 24/7 assistance					
Measurement: % of service calls responded in less than 1 hour	95%	82%	95%	90%	95%
Objective: Gather customer feedback					
Measurement: % of customers surveyed that were satisfied	95%	95%	95%	95%	95%
Strategic Issue: Workforce Development					
Goal: Well trained workforce					
Objective: Host meaningful trainings					
Measurement: # of training sessions	16	16	16	17	14

FY 18 Highlights and Accomplishments:

Projects performed inhouse this year thanks to ongoing training and new equipment include: replacement of a manhole on the North Woods trunk line, cleaning of the Otranto force main, a repair to a 48-inch line at the Plant, and an emergency repair to the gravity main outside the Woodside pump station.

Fifty percent of the department staff has a Class A CDL. Three employees are NASSCO certified. All crews have tablets and enter information remotely into the CMMS.

After Hurricane Irma in 2017, crews responded to service calls, identified SSO locations, preformed clean up, and assigned all work orders to the corresponding CMMS project code.

Pump Stations

Department Budget:

Category	FY 2017		FY 2018		FY 2019	
	Actual	Budget	Adjusted Budget	Actual as of 3/31/2018	Budget	Budget
Compensation	\$ 661,503	\$ 705,635	\$ 705,635	\$ 451,977	\$ 761,747	\$ 761,747
Benefits	372,801	447,334	447,334	273,594	465,586	465,586
Utilities	566,645	729,986	729,986	410,371	738,463	738,463
Insurance	11,510	17,215	17,215	13,976	18,228	18,228
Other Contract Services	-	-	-	-	5,500	5,500
Office Expense	3,137	4,615	4,615	1,846	3,110	3,110
Education & Training	15,900	20,894	20,894	9,616	24,244	24,244
Safety	15,454	25,409	25,409	11,233	3,329	3,329
Communications	7,942	14,400	14,400	9,676	23,272	23,272
Facility Upkeep	139,210	186,986	186,986	86,321	187,412	187,412
Vehicular Expense	7,072	19,260	19,260	7,155	17,510	17,510
Fuel	37,069	46,220	46,220	26,327	54,388	54,388
Departmental Supplies	277,689	302,855	302,855	178,662	310,834	310,834
Total	\$ 2,115,932	\$ 2,520,809	\$ 2,520,809	\$ 1,480,754	\$ 2,613,623	\$ 2,613,623

Department Function:

The Pump Stations Department is committed to NPDES permit compliance in the operation and maintenance of 60 wastewater pumping stations. The Department achieves this through sound preventative and corrective maintenance techniques and robust training efforts. The result is maximized efficiency, improved equipment longevity, and minimized reliance upon outside vendors, thus reducing overall downtime and O&M costs.

FY 2019 Pump Stations Objectives:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Strategic Goal: Strong Infrastructure					
Goal: Reliability					
Objective: Build inventory of spare parts					
Measurement: % of pump stations covered by emergency reserve pumps in inventory	25%	15%	50%	25%	40%

Pump Stations

FY 2019 Pump Stations Objectives, continued:

	FY 17 Target	FY 17 Actual	FY 18 Target	FY 18 Projected	FY19 Target
Goal: No regulatory violations					
Objective: Continually monitor flows to pump stations and plant					
Measurement: # of pump station and related equipment failure resulting in SSO's	0	12*	0	0	0
Goal: Minimize sanitary sewer overflows to less than 2 per 100 miles of lines					
Objective: Continue grease initiative					
Measurement: # of wet well wizards installed	n/a	n/a	15	4	10
Strategic Issue: Operational Effectiveness					
Goal: Efficient use of computer maintenance management software (CMMS)					
Objective: Complete corrective maintenance timely					
Measurement: % of corrective maintenance work orders completed by due date	90%	90%	90%	90%	90%
Strategic Issue: Workforce Development					
Goal: Well trained workforce					
Objective: Host meaningful trainings					
Measurement: # of training sessions	12	10	10	10	10
Objective: Increase cross-training					
Measurement: # of days spent cross-training with systems maintenance	2	2	5	15	16
Goal: Provide safe working environment					
Objective: Provide yearly safety training					
Measurement: # of Toolbox Safety training sessions	12	12	18	12	12

*Hurricane Matthew resulted in 10 other SSO locations from inundation due to flooding.

FY 18 Highlights and Accomplishments:

The department filled the following vacancies: Assistant Systems Maintenance Supervisor, Electrical Specialist and Mechanical Specialist positions. Efforts continued to move the department to paperless operations through the utilization of the mobile tablet platform and LUCITY CMMS. This was accomplished via generation and completion of inspections, preventive work orders, and corrective maintenance work orders in the CMMS system.

Multiple trainings such as conferences, cross-training, specialized systems & equipment training as well as lunch-n-learns were used to expand the knowledge and abilities of staff. In-house projects completed included: International Boulevard pump station and Golf Course pump station upgrades.

Section 4

Capital

Capital Improvement Plan Philosophy & Process

Why do we have a Capital Plan?

The District provides necessary and required wastewater treatment for the citizens of the District and surrounding areas. To provide this service, the District must furnish and maintain capital assets such as pump stations, transportation lines, treatment facilities, and service fleets. The District, as part of its budget process, prepares a Five-Year Capital Improvement Plan (CIP) beginning with the next fiscal year. The Five-Year Capital Improvement Plan is a planning document and does not authorize or fund the improvements. The District includes all the improvements in the first year of the plan in next fiscal year's (FY 2019) budget.

Benefits of Capital Planning:

- It establishes a system of examining and prioritizing the needs of the District to assure that critical improvements are provided for first.
- Provides a mechanism for coordinating and organizing the District's departmental requests, thereby maximizing the use of equipment and facilities throughout the District.
- Provides an important implementation device for growth management.
- Coordinates physical asset needs with financial planning to minimize the impact to our citizens.

Capital Planning Process:

The District's budget process begins in January when the Capital Project Director provides guidelines for each department to review and update the prior year's Capital Improvement Plan and submit requests for the new fifth year. The Capital Projects Director meets with each department head to discuss and approve their Capital Improvement Requests and justifications. The approved requests are then compiled for the District Manager and Division heads to review. During this phase, items are prioritized, and departmental and District growth needs are coordinated. In wastewater treatment, **environmental safeguards and regulations have a higher priority than the cost of a project.** A final review of the Capital Improvement Plan occurs after revenue projections are completed for the next fiscal year. At this phase, improvements may be reprioritized based on funding.

Relationship Between Operating Budget & the Capital Plan:

The Operation and Maintenance (O&M) budget appropriates each year's general operating and maintenance expenses. These expenses are usually recurring in nature and directly involved in providing wastewater services. Operation and Maintenance expenses are funded through user fees. Capital expenses, physical assets that cost more than \$5,000 and that have a useful life of more than a year, are not included in the O&M budget. Instead, they are budgeted in the Fiscal Year Capital Improvement Plan.

The Capital Improvement Plan includes the purchase or improvement costs for assets that will last for many years. The improvements result in the procurement, construction, or renewal of major physical assets of the District. The funding for capital improvements can come from user fees (like operation and maintenance costs) or funds on-hand. The costlier assets are usually funded with bond proceeds.

Despite the differences, the Operation and Maintenance budget and the Capital Improvement Plan are closely linked. The Operations and Maintenance budget assumes the cost of maintaining and operating new facilities and equipment purchased or built under the Capital Improvement Plan. The need to provide additional or improved services to our citizens and/or meet regulatory requirements drives the Capital Improvement Plan.

Five Year Capital Improvement Plan

Fiscal Years 2019-2023

Asset Group	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	Grand Total
Lines	\$ 3,535,000	\$ 6,500,000	\$ 2,750,000	\$ 2,900,000	\$ 3,500,000	\$ 19,185,000
Pump Stations	1,983,985	2,183,485	1,958,485	1,963,485	1,885,000	\$ 9,974,440
Plant	1,683,000	1,642,700	2,147,200	2,895,700	1,381,200	\$ 9,749,800
Buildings & Grounds	5,462,000	1,888,000	499,000	680,500	335,000	\$ 8,864,500
Rolling Fleet	428,500	626,750	572,380	824,500	724,000	\$ 3,176,130
IT	331,500	147,500	48,000	58,000	139,000	\$ 724,000
Total	\$13,423,985	\$12,988,435	\$7,975,065	\$9,322,185	\$7,964,200	\$51,673,870

Current Fiscal Year Capital Improvements

\$13,423,985

FY 19 Capital Improvement Plan

FISCAL YEAR 2019 SUMMARY

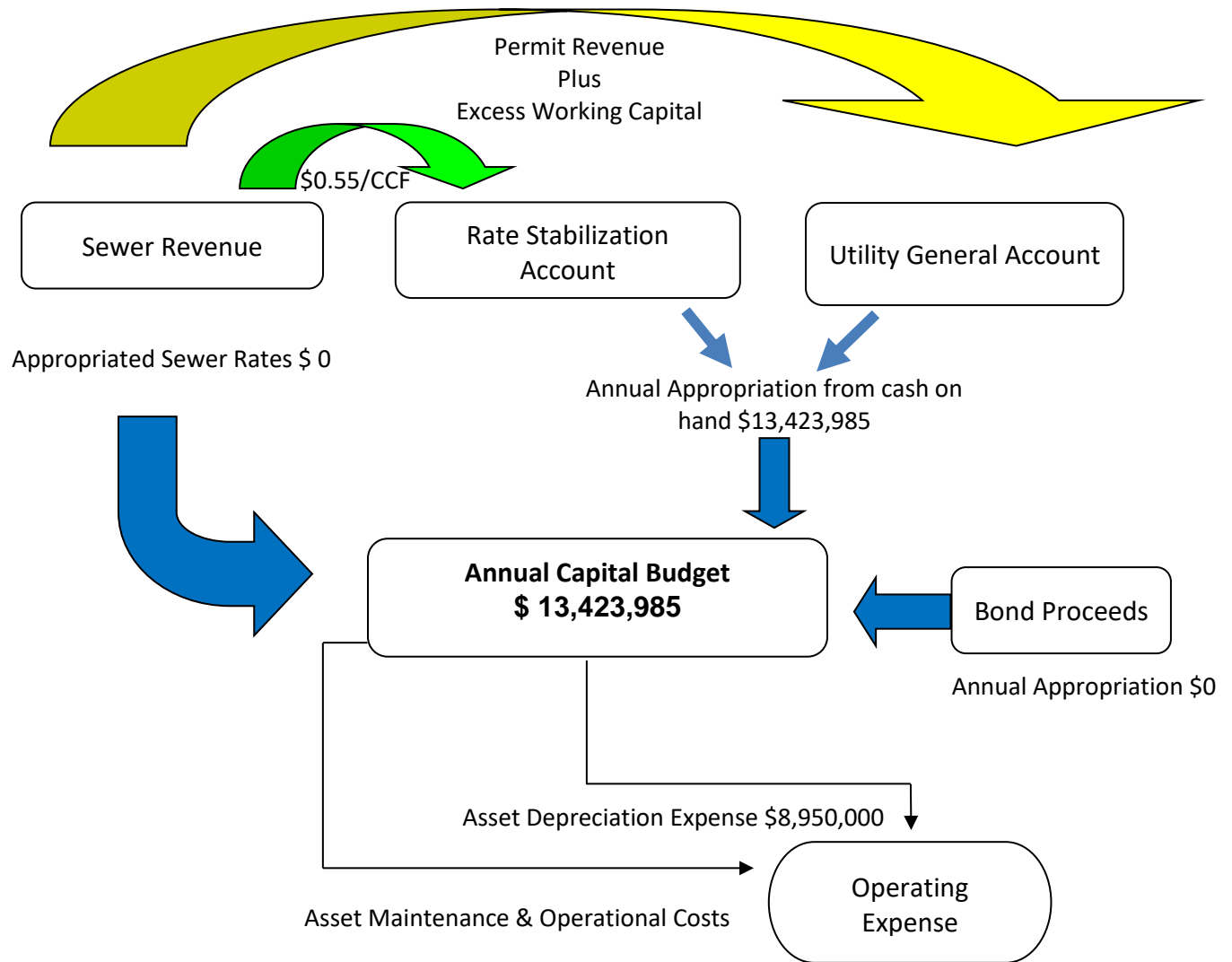
The District includes all the improvements in the first year of the Five-Year Capital Improvement Plan in next fiscal year's budget. The following summarizes the capital improvements that are appropriated in the District's fiscal year 2019 budget and the sources from which they will be funded.

USES	TOTAL
Lines	\$3,535,000
Pump Stations	1,983,985
Plant	1,683,000
Buildings & Grounds	5,462,000
Rolling Fleet	428,500
IT	331,500
TOTAL FISCAL YEAR IMPROVEMENTS	<u>\$13,423,985</u>

FUNDING SOURCES	TOTAL
Cash on hand from Rate Stabilization and Utility General	<u>\$ 13,423,985</u>

FY 19 Capital Improvement Plan

Capital Funding Cycle



FY 19 Capital Improvement Plan

Asset Group: Lines

The Sewer district owns and maintains approximately 495 miles of sewer transportation lines. This includes approximately 35 miles of force mains and 10,500 manholes.

Significant Projects:

- Large Diameter Pipe Rehab:
 - The Sewer District has been aggressively rehabilitating its large diameter lines for the past 13 years. FY19 includes \$3.2 million for rehabilitation from Watkins PS to Brickyard PS. This is the next to last section of large diameter rehabilitation identified in the 2010 study.
- Aerial Pile Replacement:
 - The Sewer District has been replacing identified defective piles for the last 2 years. FY19 projects will replace the remaining sections identified in the study.
- Force Main Rehab:
 - Navy Pump Station Force Main needs rehabilitation and will require work in FY19 due to defects found during FY18.

FY 2018 Accomplishments:

The District completed the Ashley Interceptor Rehabilitation Project which is the seventh phase of our large diameter rehabilitation program. This included approximately 10,700 linear feet of 54" RCP sanitary sewer line. The District also completed repairs identified in the Navy basin through FY15 I&I.



A view from above: Ashley Interceptor Bypass Lines looking South towards Charleston

FY 19 Capital Improvement Plan

FY 2019 Lines Detail:

Projects	Capital Cost	Operating Budget Impact
Large Diameter Rehab:		
Engineering for Rehab of Trunkline Ingleside to Northwoods	\$ 320,000	N/A
I&I Engineering/Construction/Rehab Lincolnville	50,000	N/A
Rehabilitation of Lines (small CIPP):		
Rehab of Lines	500,000	Reduction of I&I, thus reducing treatment costs for unbilled flow.
Aerial Replacements:		
Construction of Spruill, Chicora, Orvid, & Troy Pile Replacements	1,060,000	N/A
Force Main Rehab:		
Navy Force Main Rehab	650,000	N/A
Other:		
Emergency Line Repair (if needed)	400,000	N/A
Construct Gravity Line Little St PS Abandonment	390,000	Eliminating this pump station will save \$5,000 annually in operating costs.
Repair Asphalt Damaged in Combined Interceptor/Little St Basin Rehab	65,000	N/A
In-House Projects	100,000	N/A
	\$ 3,535,000	

FY 19 Capital Improvement Plan

Asset Group: Pump Stations

The Sewer District maintains 60 wastewater pumping stations ranging from 45,000 GPD to 31 MGD.

Capital projects for this group generally include upgrading pump stations to meet increased demand, rehabilitations of older stations, and general replacement and repair of pumps, grinders, and electrical equipment.

Significant Projects:

- Large Pump Station Rehab:
 - The Sewer District is planning to rehabilitate all 5 of its large pump stations, 1 per year over the next 4 years. The first of which was completed was FY18.
- Small Pump Station Upgrade:
 - Over the next 15 years, the Sewer District is planning to upgrade a small pump station annually.

FY 2018 Accomplishments:

- Finished rehabilitating one Large PS, Noisette.
- Finished upgrading the Lincolnville Pump Station per the 201 Plan, the DHEC study of growth for system upgrades.



Noisette PS Rehabilitation: new bar screens being installed into the channels

FY 19 Capital Improvement Plan

FY 2019 Pump Stations Detail:

Projects	Capital Cost	Operating Budget Impact
Rehabilitate/Upgrade Pump Stations:		
Rehab Large PS—Construction, 208 Filbin Creek	\$ 1,140,485	Replacing grinders with bar screens will save approx. \$5,000 annually on maintenance.
Upgrade PS 232 Barkley BioRem Unit Refurbish	135,000	N/A
Upgrade Small PS, 254 Ballfield	100,000	New energy efficient pumps will save \$25,000 annually in utility costs.
Large PS—Engineering for FY20 Renovation, 201 VC	53,000	N/A
Other:		
Electrical Construction, PS 232 Barkley & PS 242 Stoney Rd	125,000	N/A
FOG Removal Equipment	100,000	New equipment reduces approx. \$28,000 in labor annually from reduced cleaning.
Emergency PS Repairs (if needed)	100,000	N/A
Replace Valves PS 208 Filbin Creek	60,000	N/A
Wet Well Rehab PS 237 International Blvd	47,000	N/A
Grinder Rehab, Submersible	40,000	N/A
Emergency Generator Loadbank Panels, 5 Stations	35,000	N/A
SCADA System Additions Hub Redundancy & SEM Improvements	30,000	N/A
Emergency Bypass Circuit Upgrade, 1 Station	12,500	N/A
Emergency Generator Platform, PS 201 VC	6,000	Slight reduction of labor with new platform, approx. \$1,000 per year.
	\$ 1,983,985	

FY 19 Capital Improvement Plan

Asset Group: Plant

The District has one 32MGD wastewater treatment plant, Felix C. Davis, which is located at 1000 Herbert Street, Charleston SC.

Plant rehabilitations and replacements for equipment related to primary and secondary clarifiers, dewatering, aeration, safety, Quality Control (lab), Pretreatment, and other areas are planned based on the maintenance records and their overall conditions. Plant equipment is subject to the wear and tear of many elements that reduce their overall life. It is critical to the plant's operations to plan for their regular replacement. The types of replacements included in this area are: pumps, bar screens, belts, chains, hoists, skimmer arms, process monitoring computer equipment, VFDs, lab equipment, and samplers.

FY 2018 Accomplishments:

Capital Projects completed at our Felix C. Davis Wastewater Treatment Plant include the rehabilitation of Screw Lift screws, replacement of 4 sludge pumps, and a new UVT Probe was purchased.

FY 2019 Plant Detail:

Projects	\$ Amt.	Operating Budget Impact
Rehab Secondary Clarifier (collector arms, catwalks, piping)	\$ 293,000	N/A
Replace MCC in Operations & Mechanical Shop Buildings	180,000	N/A
Install New Mixing System in BSSB Tanks	163,000	Reduction in maintenance due to replacing old equipment. Approx. savings of \$1,000 per year.
Clean and Coat Primary & Secondary Scum Wells	163,000	N/A
New Bar screen Rakes	157,000	N/A
Effluent Continuous Monitoring Equipment	155,000	The District has a 5-year plan to transition away from 24-hour Plant staffing. Monitoring equipment is one of the first steps. When implemented, Plant Operations FTEs will reduce by 3 to 4.
Blower Cabinet Upgrade Channel Blowers 3 & 4	100,000	N/A
Install Influent Flow Meters MPS	100,000	N/A
Emergency Fund Maintenance Equipment (if needed)	100,000	N/A
Rehab Screw Lift Gear Boxes	75,000	N/A
Construction to Install new 5kV Switch Gear and Transformers	75,000	N/A
Engineering for FOG/Solid Handling	50,000	N/A
Install Flow Meters for Secondary Clarifiers	32,000	N/A
Replace DO Controllers	28,000	N/A
New Thermo Scientific Refrigerator/Freezer	12,000	N/A
	\$ 1,683,000	

FY 19 Capital Improvement Plan

Asset Group: Buildings and Grounds

Buildings and improvements are staggered over the District's Five-Year Capital Improvement Plan to balance total capital cost over several years. The types of improvements included in this category are roofing, fencing, heating and air conditioning units, venting, lighting, paving, and building additions for buildings at Stall Rd and Herbert St. The building capital budget typically varies significantly from year to year depending on the scope of projects.

Significant Projects:

- Plant Remodel
 - Starting in FY 17, the treatment plant began to remodel several spaces within its footprint. First was the demolition of the incinerator, then moving and increasing the capabilities of the plant maintenance department, last was expanding and modernizing the lab. The demolition of the incinerator was completed in FY 17. The moving and expansion of the plant maintenance department started in FY18 and will be completed in FY19. The engineering for the expansion of the lab will start in FY19 and the construction is scheduled to take place in FY20.

FY 2018 Accomplishments:

Vehicle Shop lighting was updated, the Systems building siding was painted, the roof resurfaced, and the gutters were replaced. A handicap accessible door was installed at the entrance of the Administration building. (4) HVAC units were replaced in the Systems Admin building and 1 at Northwoods PS. Fencing was replaced at Baker PS and Colony North PS. Replacement of the fuel tanks at Stall Road facilities started in FY18 and will be completed in FY19. Improvements to drainage and sight distance at the entrance to Stall Road facilities were completed in FY18.



FY 19 Capital Improvement Plan

FY 2019 Building Detail:

Projects	Capital Cost	Operating Budget Impact
Property:		
Land near Treatment Plant	\$ 4,500,000	N/A
Stall Rd:		
Replace Carpet Admin Building, Office Space	35,000	N/A
Replace Lights Front Lot	12,000	Energy efficient lights will reduce utility costs by \$2,000 annually.
Replace Fire Alarm Systems Maintenance Building	12,000	N/A
Plant:		
Equipment Upfit Maintenance Shop	250,000	N/A
Engineering, Lab Expansion	100,000	N/A
Replace Floor Drain Lines, Polymer Room	50,000	N/A
(6) Overhead Doors	40,000	N/A
Demo Breezeways at Sludge Thickening Building	30,000	N/A
(6) Entry Way Doors	20,000	N/A
Replace Water Lines WWTP, PPS1, PPS2, MPS, 2 nd Gallery	15,000	N/A
Replace Carpet Treatment Plant Offices	10,000	N/A
Pump Stations:		
Monorail Construction, Turkey Creek PS	185,000	Although primarily implemented for safety, the monorail reduces the time to remove pumps, saving approx. 120 manhours annually.
Asphalt Work, various PS, International & Noisette	48,000	N/A
Monorail Engineering, Brickyard PS	40,000	N/A
Replace Fencing, various PS	40,000	N/A
Replace Existing Roof, Turkey Creek PS	40,000	N/A
Install HVAC & Enclose Electric, Popperdam PS	25,000	N/A
Miscellaneous Improvements (if needed)	10,000	N/A
	\$ 5,462,000	

FY 19 Capital Improvement Plan

Asset Group: Rolling Fleet

The Rolling Fleet category consists of vehicles, rolling stock (trailers, etc.) and vehicle shop equipment. The District's general fleet vehicles are scheduled for replacement after 10 years or 150,000 miles. Special use vehicles are replaced on the average of every 12-15 years. Trailers are generally replaced as needed usually 15 – 25 years.

FY 2018 Accomplishments:

Purchased 2017 Freightliner 10 yd dump truck, (2) 2017 Half Round Dump Trailers, (4) Hudson Trailers, (5) trucks, and (1) SUV.

FY 2019 Rolling Fleet Detail:

Projects	Capital Cost	Operating Budget Impact
Replacement:		
Large Truck with Utility Body/Crew Cab	\$ 125,000	N/A
Medium Duty Service Truck	95,000	N/A
Service Truck/Pickup	40,000	N/A
Full Size Pickup Truck	29,500	N/A
¾ Ton Utility Truck	28,000	N/A
Other:		
6 in. Bypass Pump	75,000	Saves rental costs of approx. \$10,000 annually.
SUV	22,000	N/A
Skid Steer Sand Bagging Tool	14,000	Reduces time to bag sand approx. 80 manhours hours when preparing for flooding events.
	\$ 428,500	

FY 19 Capital Improvement Plan

Asset Group: Information Technology

The IT group includes our larger systems and servers for GIS, pump station telemetry, plant operations, and finance/budgeting/HR/payroll, and computerized work orders.

FY 2018 Accomplishments:

- Installation of magnetic card reader security system to enter all gates and buildings.
- New wide bed GIS Scanner.

FY 2019 IT Detail:

Projects	Capital Cost	Operating Budget Impact
Upgrade Domain Server/Software for Invensys Control System	\$ 185,000	The District has a 5-year plan to transition away from 24-hour Plant staffing. These upgrades are required for the monitoring equipment. When implemented, Plant Operations FTEs will reduce by 3 to 4.
Security Enhancements Plant Water, Cameras for Facility Grounds	50,000	The District has a 5-year plan to transition away from 24-hour Plant staffing. These upgrades are required for the monitoring equipment. When implemented, Plant Operations FTEs will reduce by 3 to 4.
Replace Hardware Invensys Control System	35,000	N/A
RTK 10 Unit Survey Equipment	28,000	N/A
(2) Geo-Explorers 7x GPS Units	17,000	N/A
Replace Network Storage Server #1	16,500	N/A
	\$ 331,500	

FY 19 Capital Improvement Plan

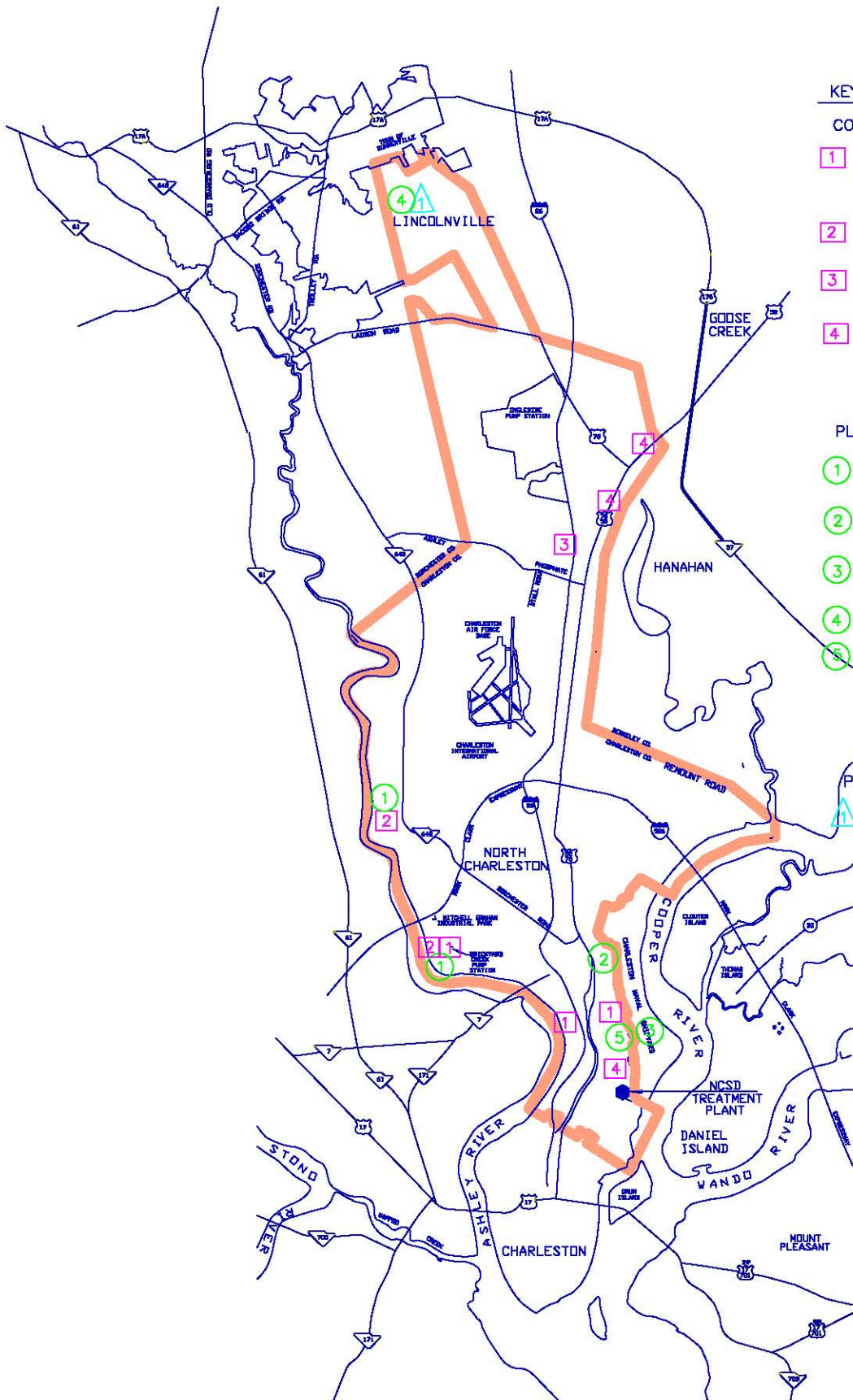
FY 2019 Capital by Category and Department

Department	Lines	Pump Stations	Plant	Buildings	Rolling Fleet	IT
Manager & Staff	\$ -	\$ -	\$ -	\$ 4,500,000	\$ 22,000	\$ -
IT	-	-	-	-	-	16,500
Administrative Division	-	-	-	4,500,000	22,000	16,500
Operations	-	-	205,000	250,000	-	270,000
Quality Control	-	-	12,000	-	-	-
Plant Maintenance	-	-	1,466,000	-	-	-
Industrial Pretreatment	-	-	-	-	-	-
Plant Division	-	-	1,683,000	250,000	-	270,000
Vehicle Shop	-	-	-	-	95,000	-
Buildings & Grounds	-	-	-	712,000	28,000	-
Systems Division	-	-	-	712,000	123,000	-
Capital Projects	-	-	-	-	29,500	45,000
Lines	3,535,000	-	-	-	214,000	-
Pump Stations	-	1,983,985	-	-	40,000	-
Capital Projects Division	3,535,000	1,983,985	-	-	283,500	45,000
Total By Asset Category	\$ 3,535,000	\$ 1,983,985	\$ 1,683,000	\$ 5,462,000	\$ 428,500	\$ 331,500

FY 19 Capital Improvement Plan

Capital by Department: Actual and Budgeted

Department	FY 2017 Actual	FY 2018 Adjusted Budget	FY 2018 Actual as of 2-28-18	FY 2019 Budget
Manager & Staff	\$ 30,180	\$ 28,300	\$ 25,832	\$ 4,522,000
IT	145,102	20,000	-	16,500
Purchasing	-	8,555	6,633	-
Administrative Division	175,281	56,855	32,465	4,538,500
Operations	310,203	207,445	40,422	725,000
Quality Control	29,375	27,000	21,097	12,000
Plant Maintenance	348,626	1,390,123	487,395	1,466,000
Industrial Pretreatment	-	10,000	7,726	-
Plant Division	688,204	1,634,568	556,640	2,203,000
Vehicle Shop	35,666	15,000	-	95,000
Buildings & Grounds	2,666,165	2,508,269	(120,539)	740,000
Systems Division	2,701,830	2,523,269	(120,539)	835,000
Capital Projects	22,318	20,000	19,981	74,500
Lines	7,975,625	12,773,587	5,167,113	3,749,000
Pump Stations	2,165,325	4,489,080	1,616,885	2,023,985
Capital Projects Division	10,163,268	17,282,667	6,803,979	5,847,485
Total	\$ 13,728,584	\$ 21,497,359	\$ 7,272,545	\$ 13,423,985



KEY – CAPITAL IMPROVEMENTS

COMPLETED REHABILITATION WORK FY-18

- 1 FY-18 REHAB OF TRUNK LINE FROM BRICKYARD TO VC AND REHAB OF THE NAVY FM DISCHARGE JUNCTION BOX
- 2 ENGINEERING FOR TRUNK LINE FROM WATKINS RD TO BRICKYARD
- 3 FRONTAGE ROAD PS ABANDONMENT ENGINEERING
- 4 FY 17 SMALL DIAMETER CIPP PROJECT IN THE OTRANTO, LITTLE STREET & NORTHWOODS BASINS

PLANNED REHABILITATION WORK FY-19

- 1 REHAB OF TRUNK LINE FROM WATKINS ROAD TO BRICKYARD
- 2 HELM/CHICORA AVENUE PILE REPLACEMENT PROJECT
- 3 SMALL DIAMETER CIPP – 2018 NAVY BASIN
- 4 LINCOLNVILLE SSES REPAIR
- 5 FY 17 & CY 18 CCTV REPAIRS

PLANNED INVESTIGATION WORK FY-19

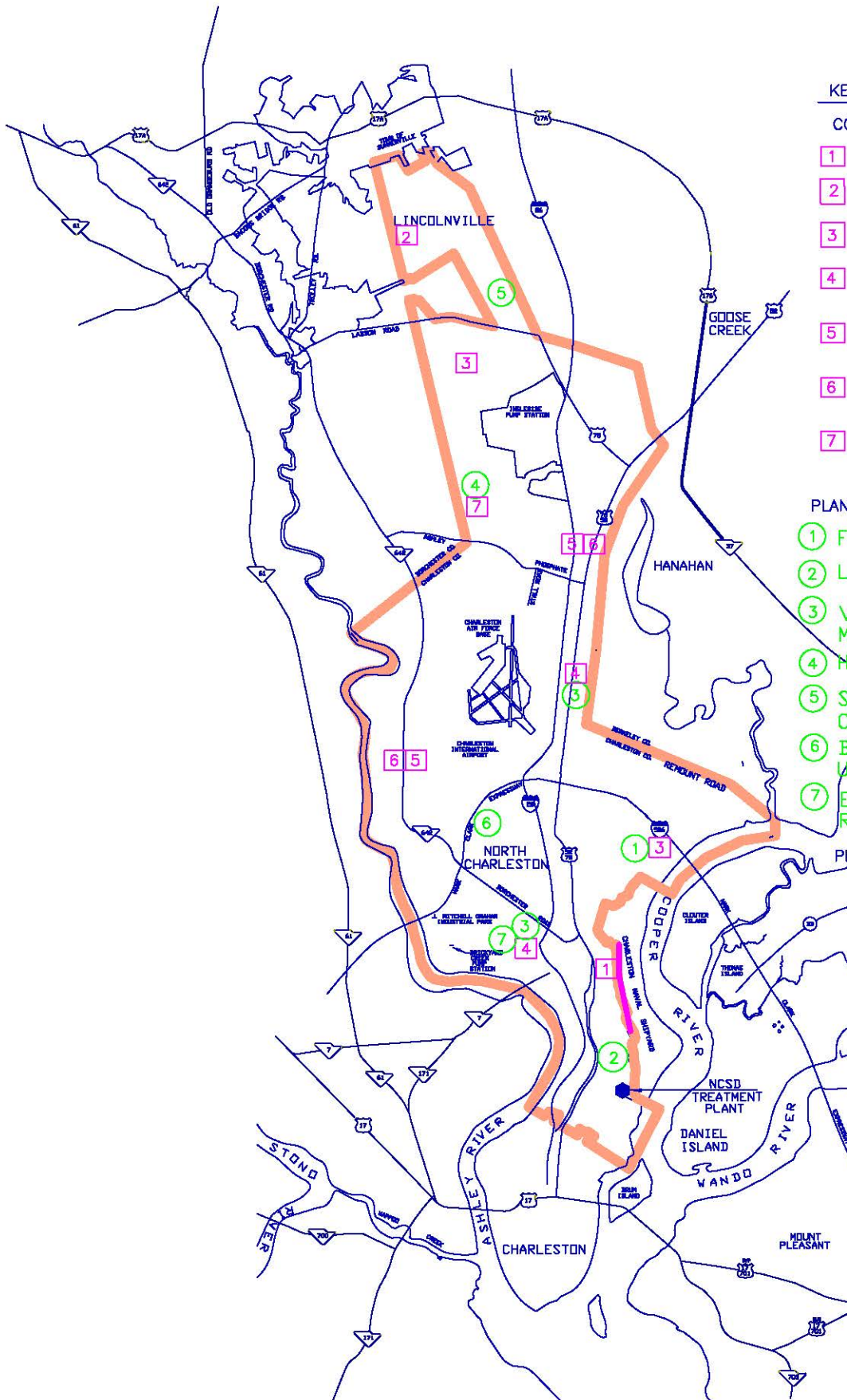
- 1 LINCOLNVILLE SMOKE TESTING CONTRACT AND POPPERDAM COLLECTION BASINS

LEGEND

— DISTRICT BOUNDARY



LINES DEPARTMENT
 SERVICE BOUNDARY MAP WITH
 FY 2019 CAPITAL IMPROVEMENTS
 NORTH CHARLESTON SEWER DISTRICT



KEY – CAPITAL IMPROVEMENTS

COMPLETED REHABILITATION WORK FY-18

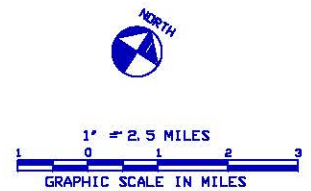
- 1 NOISETTE PS RENOVATIONS
- 2 LINCOLNVILLE PS IMPROVEMENTS & NEW 14" FORCE MAIN
- 3 ENGINEERING FILBIN CREEK PS RENOVATIONS
- 4 ENGINEERING VC & TURKEY CREEK MONORAIL PROJECT
- 5 ENGINEERING NORTHWOODS AND POPPERDAM PS SLAB MODIFICATIONS
- 6 NORTHWOODS AND POPPERDAM PS SLAB MODIFICATIONS
- 7 ENGINEERING HILLENDALE PS RELOCATION

PLANNED REHABILITATION WORK FY-19

- 1 FILBIN CREEK PS RENOVATIONS
- 2 LITTLE STREET PS ELIMINATION
- 3 VC AND TURKEY CREEK MONORAIL PROJECT
- 4 HILLENDALE PS RELOCATION
- 5 STONEY ROAD PS PUMPS AND CONTROLS UPGRADE
- 6 BARKELEY PS CONTROLS UPGRADE PROJECT
- 7 ENGINEERING VC PS RENOVATIONS

PLANNED INVESTIGATION WORK FY-19

LEGEND
 — DISTRICT BOUNDARY



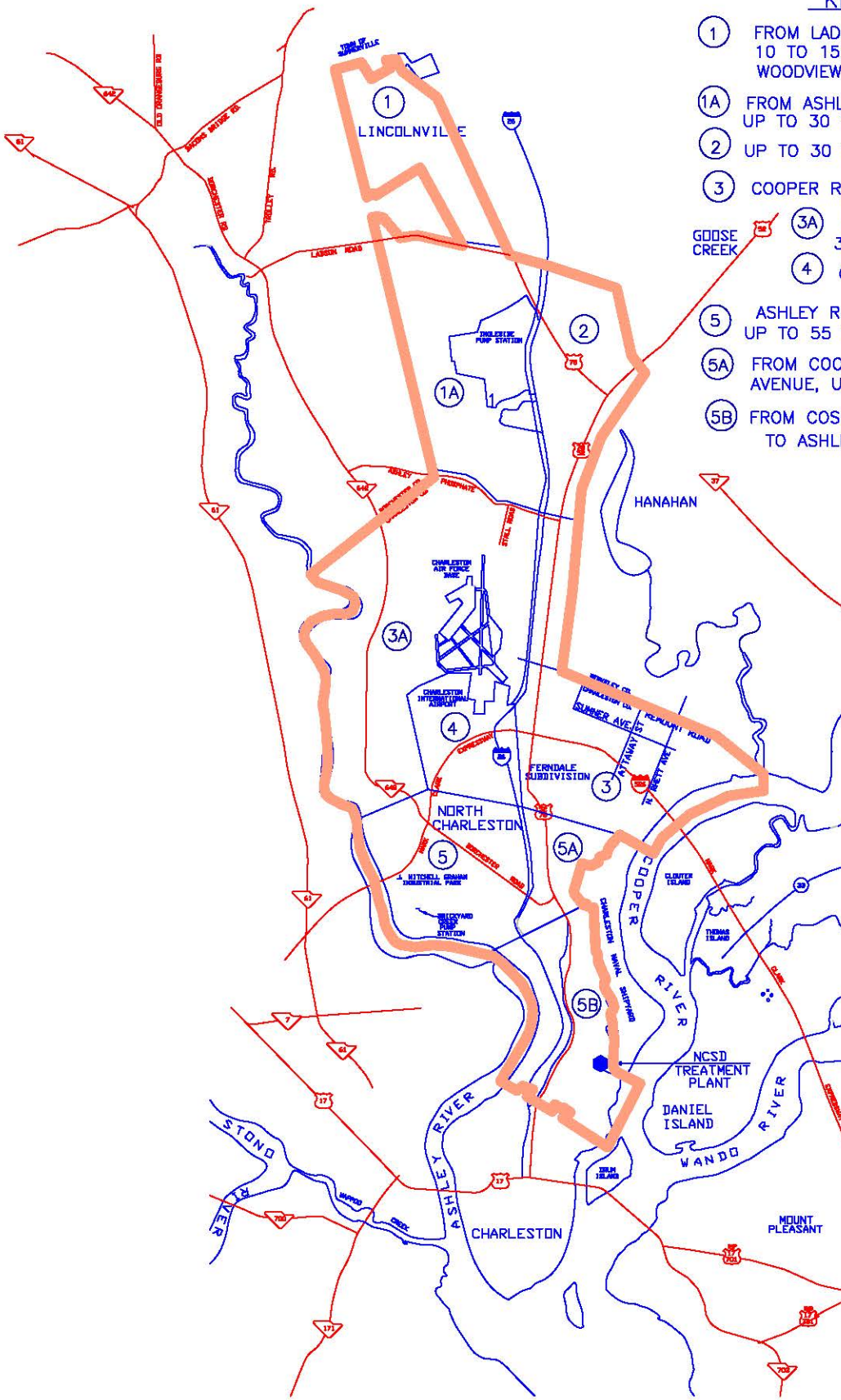
**SYSTEMS MAINTENANCE
 SERVICE BOUNDARY MAP WITH
 FY 2019 CAPITAL IMPROVEMENTS
 NORTH CHARLESTON SEWER DISTRICT**

KEY-ZONED AREAS

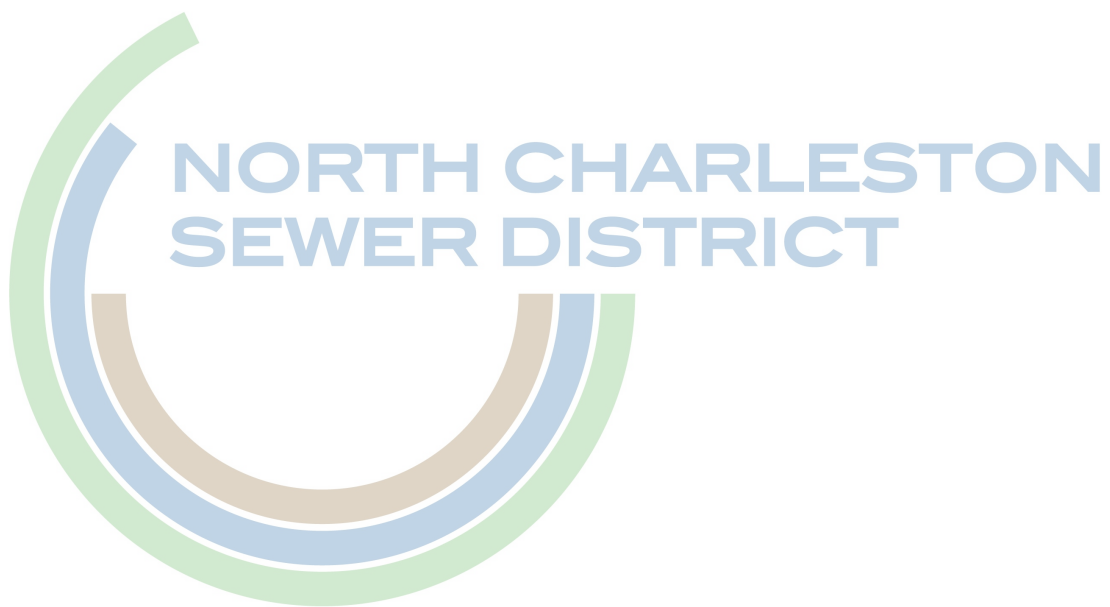
- ① FROM LADSON ROAD TO LINCOLNVILLE ROAD
10 TO 15 YEARS OLD (EXCEPTION: WOODSIDE
WOODVIEW AREA IS 45 YEARS OLD.)
- ①A FROM ASHLEY PHOSPHATE TO LADSON ROAD
UP TO 30 YEARS OLD
- ② UP TO 30 YEARS OLD
- ③ COOPER RIVER TO I-26 UP TO 60 YEARS OLD
- ③A ASHLEY RIVER TO I-26, UP TO
30 YEARS OLD
- ④ CENTER POINT, UP TO 15 YEARS OLD
- ⑤ ASHLEY RIVER TO I-26 TO COSGROVE AVENUE
UP TO 55 YEARS OLD
- ⑤A FROM COOPER RIVER TO I-26 TO COSGROVE
AVENUE, UP TO 60 YEARS OLD
- ⑤B FROM COSGROVE AVENUE FROM COOPER RIVER
TO ASHLEY RIVER, UP TO 60 YEARS OLD

LEGEND

-  DISTRICT BOUNDARY
-  ZONE BOUNDARY



SERVICE BOUNDARY MAP-BY ZONES WITH AGE
NORTH CHARLESTON SEWER DISTRICT



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Section 5

Appendix

Glossary of Terms

Accrual Basis

A method of accounting that recognizes the financial effect of transactions, events, and interfund activities when they occur, regardless of the timing of related cash flows.

Aeration

The process by which air is circulated through, mixed with, or dissolved in a liquid or substance.

Alkalinity

A measure of how much acid can be added to a liquid without causing a great change in pH.

Appropriations

Set aside for a specific use.

Appropriated Net Assets

A reclassification of net assets set aside for a specific use.

Balanced Budget

A budget where all revenues (operating and non-operating) are equal to or exceed all expenses (operating and non-operating).

BOD (Biochemical Oxygen Demand)

The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures in five (5) days at 20°C expressed in terms of weights and volume (mg/L).

Bond Covenant

A legally enforceable promise made by an issuer of bonds to the bondholders, normally contained in the bond resolution or indenture.

Budget

A plan of financial operations that provides a basis for the planning, controlling, and evaluating of governmental activities.

Budget Calendar

The schedule of key dates or milestones, which the District follows in the preparation and adoption of the budget.

Capital

Land, improvements to land, easements, building improvements, vehicles, machinery, equipment, 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.

Glossary of Terms

Cash Basis

Basis of accounting that recognizes transactions or events when related cash amounts are received or disbursed.

Capital Improvement Plan (CIP)

Capital projects that include construction, equipment purchases, and major renovations of buildings, sewer lines, or other structures.

CF (Cubic Feet)

Unit of volume representing cubic feet, equal to 7.48 gallons.

CCF (Hundred Cubic Feet)

Unit of volume representing hundred cubic feet, equal to 748 gallons.

Debt Service Requirement

The amount of money required to pay interest on outstanding debt, serial maturities of principal for serial bonds, and required contributions to accumulate monies for future retirement of term bonds.

Defeasance (In-substance)

In financial reporting, the netting of outstanding liabilities and related assets on the statement of position. Defeased debt is no longer reported as a liability on the face of the statement of position; only the new debt, if any, is reported as a liability.

Depreciation

A method of apportioning the cost of an asset over its estimated useful life. Each year operating expenses include the value of one year's life for each capitalized asset.

District

North Charleston Sewer District.

Enterococci Testing

Rapid and accurate laboratory test to determine presence of fecal pollution and possible pathogens in water.

Enterprise Fund

Proprietary fund type used to report an activity for which a fee is charged to external users for goods and services.

EPA

Environmental Protection Agency – federal governmental agency responsible for water and air quality.

Expenses

A recognition of transactions to another person or group for an item, service, or category of costs when they occur regardless of when they are paid.

Glossary of Terms

Fiscal Year

An accounting period extending from July 1 through the following June 30.

Fixed Assets

Long-lived tangible assets obtained or controlled as a result of past transactions, events, or circumstances.

Fund

A fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources, together with all related liabilities and residual equities or balances, and changes therein, which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations.

GAAP

Generally Accepted Accounting Principles that serve as standards for measuring and reporting financial data regulated by an authoritative body.

General Obligation Bond

Bonds backed by the full faith and credit of government.

GIS

Geographical Information System that uses computer technology to digitally map land and infrastructure

Infrastructure

Public domain fixed assets; such as roads, bridges, curbs, and gutters, sewerage systems, and similar assets that are immovable and of value only to the governmental unit.

MGD

Millions of gallons per day. Used in measuring volume of wastewater flow. One (1) mgd = 1.5 cubic feet per second.

Net Assets

The difference between fund assets and fund liabilities of a governmental fund. A negative fund balance is sometimes called a deficit. This is not a cash balance.

Nitrification

Biological oxidation of ammonia.

NPDES

National Pollutant Discharge Elimination System-permit to operate a wastewater treatment facility issued by the EPA.

Glossary of Terms

One Call

Utility locating service whereby a customer can call one number for the Palmetto Utility Protection Services. They notify all applicable utility companies to perform a locate at the specified location within a three-day time period.

Residential Equivalent Unit (REU)

Residential Equivalent Unit represents one single family dwelling unit and is defined as the injection of approximately two hundred fifty gallons of wastewater into the Sewer District's sewer system on a daily basis.

Revenue

Increase in the net current assets of a governmental fund type from sources other than expense refunds.

Revenue Bond

Bonds whose principal and interest are payable exclusively from earnings of an enterprise fund.

Setoff Debt

The Setoff Debt Collection Act, SC Code §12-56-10, authorizes the SC Department of Revenue to render assistance to collect any delinquent account or debt owing to any state agency, board, committee, commission, public institution of higher learning, political subdivision of the State of SC, SC Student Loan Corporation, a housing authority established pursuant to Articles 5, 7, and 9 of Chapter 3 of Title 31 of SC Code, or a member of SC Association of Counties by setting off any refunds due a debtor from the Dept of Revenue by the sum certified by the Claimant Agency as a delinquent debt.

Sewer Meter Rates

Sewer meters measure wastewater volume at the point that it enters the sewer system. Rates for these meters are based purely on the volume of wastewater received.

Tertiary

A third (3rd) level of treatment.

Trustee

A financial institution which is entrusted with the management of bond or other property.

TSS (Total Suspended Solids)

Solid matter that either floats on the surface of or is suspended in wastewater and which is removable by filtration.

SSO (Sanitary Sewer Overflow)

An event where untreated wastewater escapes from the collection system.

Glossary of Terms

Unfunded

An expense that has not been provided with funds in the budget.

Water Meter Rates

Water meters measure Residential and Business wastewater volume. Rates for these meters are adjusted to take into account that only 90% of this water produces wastewater.

Working Capital

The excess of current assets over current liabilities

Acronyms

ALPA	Aquatic Life Protection Act
BAQC	Bureau of Quality Control
BOD	Biochemical Oxygen Demand
BSSB	Blended Sludge Storage Building
CAFR	Comprehensive Annual Financial Report
CCF	Hundred Cubic Feet
CDL	Commercial Driver's License
CED	Continuing Education
CIPP	Cured-In-Place Pipe
CIP	Capital Improvement Plan
CMMS	Computerized Maintenance Management Systems
cMOM	Capacity, Management, Operation & Maintenance
COBRA	Consolidated Omnibus Budget Reconciliation Act
COG	Council of Governments
CWS	Charleston Water Systems
DO	Dissolved Oxygen
DCS	Distributed Control System
DDC	Defensive Driving Course
DMR-QA	Discharge Monitoring Report – Quality Assurance
EG	Emission Guidelines
EPA	Environmental Protection Agency
EPD	Emergency Preparedness Division
FEMA	Federal Emergency Management Agency

Acronyms

FOG	Fats, Oils & Grease
FOIA	Freedom of Information Act
FSEs	Food service establishments
FTE	Full Time Equivalent
FY	Fiscal Year
GAAP	Generally Accepted Accounting Principles
GASB	Governmental Accounting Standards Board
GFOA	Governmental Finance Officers Association
GIS	Geographical Information System
GPCD	Gallon Per Capita Per Day
GPS	Global Positioning System
HIPAA	Health Insurance Portability & Accountability Act
I/A	Instrumentation/Automation
I&I	Inflows & Infiltrations
IU	Industrial User
kV	Kilovolts
KWH	Kilowatt Hour
LACP	Lateral Assessment Certification Program
LMI	Low to Moderate Income
MACP	Manhole Assessment Certification Program
MCC	Motor Control Center
MD&A	Management, Discussion, & Analysis
MGD	Million Gallons per Day

Acronyms

MG/L	Milligrams per liter
MIS	Management Information System
MPS	Main Pump Station (Treatment Plant)
MSDS	Material Safety Data Sheet
NASSCO	National Association of Sewer Service Companies
NCSD	North Charleston Sewer District
NIGP	National Institute of Governmental Purchasing
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
O&M	Operation & Maintenance
OEM	Original Equipment Manufacturer
OSHA	Occupational Safety & Health Administration
PACP	Pipeline Assessment Certification Program
PPF	Pay for Performance
P&I	Principal & Interest
PS	Pump Station (s)
PLC	Programmable Logical Controller
PPS	Primary Pump Station
PQL	Practical Quantitation Limits
R&R	Renewal & Replacement
RAS	Returned Activated Sludge
RCP	Reinforced Concrete Pipe
RDA	Redevelopment Authority

Acronyms

REU	Residential Equivalent Unit
RFB	Request for Bid
RFP	Request for Proposal
RMP	Risk Management Plan
SCADA	Supervisory Control and Data Acquisition
SCDHEC	SC Dept of Health & Environmental Control
SEM	Storm Emergency Mode
SO₂	Sulfur Dioxide System
SOP	Standard Operating Procedures
SSES	Sewer System Evaluation Survey
SSI	Sewer Sludge Incineration
SSO	Sanitary Sewer Overflows
TMDL	Total Maximum Daily Loads
TRW	Thickener Recirculation Water
TSS	Total Suspended Solids
UOD	Ultimate Oxygen Demand
USEPA	United States Environmental Protection Agency
UV	Ultraviolet
UVT	Ultraviolet Transmittance
VFD	Variable Frequency Drives
WEASC	Water Environment Association of South Carolina
WET	Whole Effluent Toxicity
WWTP	Wastewater Treatment Plant