

Wastewater Summary

Revenue

Revenues are forecasted based upon the results of the 2021 biennial rate review which evaluated 2017 – 2019 statistics obtained from our customer information system and evaluation of FY 2021 realized revenue. Including the projected decrease in gross revenue for FY 2022 of \$343,770, Charges for Services are within 3% of both Budget 2021 and Realized 2020 Charges for Services.

Wastewater Expenditures

Treatment Plants: Decrease of \$430 primarily in maintenance service contracts.

Public Works: Increase of \$36,770 primarily attributed to the request for vehicles and equipment in the motor pool.

Administration Services: Decrease of \$2,310 due to a decrease in dues & memberships.

Debt Service: Reflects retirement of general obligation bonds in FY 2022

Capital Expenses

Regular Capital

SCADA Upgrades	\$ 50,000
Engineering for treatment modifications	\$ 30,330
Pump replacements	\$120,000
Stormwater Improvements	\$500,000

Projects

- \$2 million for the Fall Creek Sanitary Sewer Reconstruction & Rehabilitation project and \$1 million for the Apple Branch Sewer Line Replacement project for the Public Works Department.
- New Sewer Lines \$250,000 (Public Works)
- Sewer Line Reconstruction \$300,000 (Public Works)

Adopted Budget - FY 2022

Wastewater

Calculation of Contribution to(from) Fund Balance/General Fund

	Adopted Budget FY 2021	Adopted Budget FY 2022
Estimated Revenue		
Rev-Use Money/Property	118,200	35,300
Charges for Services	9,118,040	8,861,030
Miscellaneous Revenue	86,500	82,640
Transfer from Fund Balance	0	0
Total Estimated Revenue	9,322,740	8,978,970
Operating Expenses		
Administration Services	1,897,400	1,933,520
Treatment Plants	3,088,200	3,087,770
Sewer Capital Projects	4,150,000	3,550,000
Public Works	2,674,680	2,717,340
Capital Expenses	126,300	811,920
Capital Projects	0	0
Total Operating Expenses	11,936,580	12,100,550
Net Operating Income (Loss)	-2,613,840	-3,121,580
Add:		
Depreciation	2,145,750	2,048,820
Deduct:		
Debt Service Principal	333,340	362,730
Capital Expenditures from Current Operating Funds	0	0
Contribution to City's General Fund	705,760	705,760
Contribution To(From) Retained Earnings	(1,507,190)	(2,141,250)

WASTEWATER FUND
ADOPTED - CAPITAL & SPECIAL PROJECTS - FY 2022-2026

Project/Source	PL#	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	5 Yr Total
Public Works Sewers							
Sewer Line Reconstruction	60041	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 1,500,000
New Sewer Lines/Inflow & Infiltration Reduction	60048	250,000	250,000	250,000	250,000	250,000	1,250,000
Apple Branch Sewer Line Replacement		1,000,000					1,000,000
Tributary Line to Sandy Creek Outfall					800,000		800,000
Fall Creek Sewer Reconstruction		2,000,000	1,000,000				3,000,000
Tributary Line to Jackson Branch Outfall				800,000			800,000
Luna Lake Road Sewers						800,000	800,000
Public Works Sewers Total		\$ 3,550,000	\$ 1,550,000	\$ 1,350,000	\$ 1,350,000	\$ 1,350,000	\$ 9,150,000
Total Projects:		\$ 3,550,000	\$ 1,550,000	\$ 1,350,000	\$ 1,350,000	\$ 1,350,000	\$ 9,150,000
Funding Source:							
Utility Fund Revenues		\$ 1,550,000	\$ 550,000	\$ 1,350,000	\$ 1,350,000	\$ 1,350,000	\$ 6,150,000
Fund Balance		2,000,000	1,000,000	-	-	-	3,000,000
Total Funding		\$ 3,550,000	\$ 1,550,000	\$ 1,350,000	\$ 1,350,000	\$ 1,350,000	\$ 9,150,000

**WASTEWATER FUND
ADOPTED BUDGET - CAPITAL & SPECIAL PROJECTS - FY 2022
FUNDING SOURCES**

	Current Revenues	Fund Balance	Debt Financing	Grants/CIA	Other	Project Total
<i><u>Public Works Sewers</u></i>						
Sewer Line Reconstruction	\$ 300,000					\$ 300,000
New Sewer Lines/Inflow Infiltration Red	250,000					250,000
Fall Creek Sewer Reconstruction		2,000,000				2,000,000
Apple Branch Sewer Line Replacement		1,000,000				1,000,000
Total Water Distribution	\$ 550,000	\$ 3,000,000	\$ -	\$ -	\$ -	\$ 3,550,000
Total Projects:	\$ 550,000	\$ 3,000,000	\$ -	\$ -	\$ -	\$ 3,550,000

Revenue categories for this fund are as follows:

REVENUE – USE OF MONEY/PROPERTY: This revenue category includes:

- **Interest on Investments** - All of the City's funds are invested in secured accounts in an attempt to earn the highest possible return. Investments earnings are a function of the money marketplace and swings in the revenues reflect higher or lower interest rates.
- **Sale-Salvage and Surplus Property** - This revenue represents the sale of surplus vehicles and equipment and funds received from the sale of scrap metal.

CHARGES FOR SERVICES: This revenue category include consumer fees and is the major revenue source for the Wastewater Fund. The residential category is the largest part of that revenue stream, representing 14,076 customers. The commercial base represents 2,009 customers and the industrial base has 31 customers. The municipal class represents charges to the City for its municipal facilities. Other revenues in this category include Industrial Pretreatment fees and Rural Strong Waste Surcharges, penalties for non-payment and reconnection fees. Other revenues in this category include penalties for non-payment.

In the 2019 biennial rate study, the recommendation is for wastewater rates be lowered to directly offset the increase in water rates. The current wastewater consumption rate is \$2.58/100 cubic feet. The proposed FY20/21 rate is \$2.38/100 cubic feet. The wastewater fund is in good financial health and meets current unrestricted fund policies. The wastewater fund has also recently completed the majority of the plant improvements at the Northside Plant. There are annual distribution projects that Public Works plans for on an annual basis.

MISCELLANEOUS REVENUE: Miscellaneous revenue includes fees charged to customers who request alternation to their services, as well as fees collected from septic haulers.

REVENUES

	FY 2019 Actual	FY 2020 Actual	FY 2021 Adopted	FY 2022 Adopted	Increase/ (Decrease)
Revenues:					
Rev-Use Money & Property	\$ 211,864	\$ 210,406	\$ 118,200	\$ 35,300	\$ (82,900)
Charges for Services	9,956,337	8,771,225	9,118,040	8,861,030	(257,010)
Miscellaneous Rev	101,120	81,316	86,500	82,640	(3,860)
Totals	\$ 10,269,321	\$ 9,062,947	\$ 9,322,740	\$ 8,978,970	\$ (343,770)

Description

The Public Works Department Sanitary Sewer Maintenance Section of the Wastewater fund has the responsibility to maintain 381 miles of sanitary sewer lines. Sewer maintenance includes routine inspecting, televising, cleaning, and repairing. The Sanitary Sewer Maintenance Section also maintains over 9,000 manholes, several pump station outfall lines, as well as sewer easements throughout the City. Sewer Maintenance is supported by the Street Maintenance Division including the installation of sewer cap-offs, sanitary sewer taps, repairs to sanitary sewer lines, reconstruction/rehabilitation of sewer lines, and creek and river crossings.

Capital Projects include new sewer lines, sewer connections, inflow & infiltration reduction studies, and sewer line reconstruction and replacement as outlined in the CSP.

Expenditures

	FY 2019 Actual	FY 2020 Actual	FY 2021 Adopted	FY 2022 Adopted	Increase/ (Decrease)
Expenditures:					
Personnel Services	\$ 479,038	\$ 577,524	\$ 711,320	\$ 785,110	\$ 73,790
Employee Benefits	84,375	74,733	98,040	118,170	20,130
Purchased Services	441,602	1,187,679	202,180	210,140	7,960
Internal Service	206,300	236,868	214,570	290,350	75,780
Other Operating Exp	275,154	181,909	116,350	116,420	70
Cost Allocation	183,080	226,750	280,430	263,770	(16,660)
Capital Outlay	451,037	154,316	110,000	55,000	(55,000)
Capital Projects	-	-	4,150,000	3,550,000	(600,000)
Depreciation	808,169	845,498	972,710	975,790	3,080
Debt Service	77,250	44,132	25,380	14,180	(11,200)
Totals	\$ 3,006,005	\$ 3,529,409	\$ 6,880,980	\$ 6,378,930	\$ (502,050)

Personnel

Sanitary Sewer Maintenance Section is funded by the Utilities Wastewater Fund and includes support staff from Street Maintenance Division.

Position Title	FY 2019 FTEs	FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs
SR PUBLIC WORKS GIS/CAD TECH	-	-	0.250	0.250
PUBLIC WORKS CHIEF ENGINEER	-	-	0.750	0.750
ASST DIR OF PUBLC WRKS/CTY ENG	-	-	0.250	0.250
TRAINING & SAFETY MANAGER	0.070	0.070	0.075	0.080
APPLICATIONS SPECIALIST I	-	-	0.070	0.200
PUBLIC SERVICE WORKER	-	-	-	0.070
PUBLIC SERVICE WORKER/OPERATOR	3.420	3.630	3.560	3.560
MOTOR EQUIPMENT OPERATOR I	2.560	3.490	1.420	2.490
MOTOR EQUIPMENT OPERATOR II	3.630	3.490	3.420	3.420
MOTOR EQUIPMENT OPERATOR III	0.210	0.280	1.070	-
HEAVY EQUIPMENT OPERATOR	-	-	0.280	0.140
CREW SUPERVISOR	1.210	1.210	1.140	1.210
GENERAL SUPERVISOR	1.140	1.140	1.140	1.140
CONSTRUCTION INSPECTOR	-	-	-	0.250
DIVISION DIRECTOR OF STREETS	0.070	0.070	0.070	0.070
SENIOR SECRETARY	-	-	-	0.200
ADMINISTRATIVE ASSISTANT	-	-	-	0.200
SR ADMINISTRATIVE ASSISTANT	-	-	-	0.200
ACCOUNT CLERK	-	-	-	0.600
SENIOR ACCOUNT CLERK	-	-	-	0.200
CCTV TECHNICIAN	1.000	1.000	1.000	1.000
DIVISION DIR OF SANITATION	0.300	0.300	0.300	0.300
Total	13.610	14.680	14.795	16.580

Description

Sewer Debt Service budgets and accounts for the retirement of principal for general obligation and revenue bonds for the Public Works portion of the Wastewater fund.

Expenditures

	FY 2019 Actual	FY 2020 Actual	FY 2021 Adopted	FY 2022 Adopted	Increase/ (Decrease)
Expenditures:					
Debt Service	\$ 615,453	\$ 469,155	\$ 195,140	\$ 215,040	\$ 19,900
Totals	\$ 615,453	\$ 469,155	\$ 195,140	\$ 215,040	\$ 19,900

Description

Wastewater Debt Service budgets and accounts for the retirement of principal for general obligation and revenue bonds for the Wastewater fund.

Expenditures

	FY 2019 Actual	FY 2020 Actual	FY 2021 Adopted	FY 2022 Adopted	Increase/ (Decrease)
Expenditures:					
Debt Service	\$ 422,971	\$ 173,111	\$ 138,200	\$ 147,690	\$ 9,490
Totals	\$ 422,971	\$ 173,111	\$ 138,200	\$ 147,690	\$ 9,490

Description

The Wastewater Fund's mission is to provide reliable wastewater services to Danville's customers and collect and treat wastewater as cost effectively as possible while complying with the Virginia Department of Environmental Quality and the Environmental Protection Agency permit.

The Wastewater Fund provides for the operations and maintenance of the Northside Wastewater Treatment Plant, the Southside Treatment Plant, nine wastewater pumping stations, and wastewater collection lines. The operation of treatment plants and pumping stations is the responsibility of the Utilities Department. The Public Works Department maintains 340 miles of sewer lines and handles customer connections. The Northside Plant is 20 million gallons per day facility built in the early 1970s. Due to a loss of major industrial customers through closures of tobacco and textile facilities, the plant is currently treating only 8.3 million gallons per day. The Southside Plant functions as a pumping station and storage facility for waste sludge biosolids.

The capital-funding request for FY2020 is for two RAS pumps at the Northside Wastewater Plant and a motor control center for the Airside Lift Station. The motor control center at Airside controls the wastewater pumps at that lift station that serves Nestle and Litehouse. The two RAS pumps requested are the last of six to be replaced at the Northside plant. They will be more reliable and operate more efficiently.

Expenditures

	FY 2019 Actual	FY 2020 Actual	FY 2021 Adopted	FY 2022 Adopted	Increase/ (Decrease)
Expenditures:					
Personnel Services	\$ 18,638	\$ 69,224	\$ 72,520	\$ 71,950	\$ (570)
Employee Benefits	2,515	8,204	8,970	10,270	1,300
Purchased Services	2,193,905	2,374,394	2,560,900	3,189,700	628,800
Internal Service	540,648	547,451	522,000	522,000	-
Other Operating Exp	93,456	92,507	110,030	107,100	(2,930)
Cost Allocation	397,831	493,436	505,270	526,370	21,100
Capital Outlay	4,190	9,989	50,000	50,000	-
Depreciation	1,138,957	1,112,000	1,173,040	1,073,030	(100,010)
Debt Service	73,407	59,662	52,870	46,200	(6,670)
Transfer Out	693,760	705,760	705,760	830,760	125,000
Totals	\$ 5,157,307	\$ 5,472,627	\$ 5,761,360	\$ 6,427,380	\$ 666,020

Personnel

The City of Danville owns the treatment facility, but contracts with INFRAMARK (previously known as Severn Trent) to operate the treatment process and nine wastewater pumping stations located throughout the service area.

Position Title	FY 2019 FTEs	FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs
SENIOR SECRETARY	0.500	0.500	0.500	0.500
DIVISION DIR WTR/WSTWTR TRTMNT	0.500	0.500	0.500	0.500
Total	1.000	1.000	1.000	1.000

FY 2022 FIVE-YEAR CAPITAL & SPECIAL PROJECTS PLAN

PROJECT DESCRIPTION

Project Title: Sewer Line Reconstruction
Project No: 60041

Department: Public Works
Division: Sanitation
Section: N/A

Description:

This project is the reconstruction of various sewer lines that have major structural defects due to the age of the lines. These projects are heavily dependent on discovery of deteriorated sewer during routine sewer maintenance. Some projects require funding over multiple years and cannot be predicted. It is anticipated that the inflow and infiltration into the system will be re-evaluated in FY 2023.

Justification:

This provides funding for projects that will decrease sewer maintenance costs. The department makes repairs on sanitary sewers found to be leaking or deteriorated. This is mandated by the DEQ Consent Order to reduce infiltration/exfiltration.

Comments:

Study: October 2018 Sewer System Inflow and Infiltration Evaluation Report

Funding	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total
Utility Revenues	300,000	300,000	300,000	300,000	300,000	1,500,000
Total Funding Sources	300,000	300,000	300,000	300,000	300,000	1,500,000

Goals/Milestones:

FY 2022	Repairs to existing sanitary sewers.
FY 2023	Repairs to existing sanitary sewers.
FY 2024	Repairs to existing sanitary sewers.
FY 2025	Repairs to existing sanitary sewers.
FY 2026	Repairs to existing sanitary sewers.

FY 2022 FIVE-YEAR CAPITAL & SPECIAL PROJECTS PLAN

PROJECT DESCRIPTION

Project Title: New Sewer Lines/Inflow & Infiltration Reduction
Project No: 60048

Department: Public Works
Division: Sanitation
Section: N/A

Description:

This project is for short sanitary sewer extensions to serve areas in the City presently without sewer service which meet the City's extension guidelines. This project also provides funds for annual inspection and engineering costs for sewer projects and addressing sewer inflow and infiltration reduction studies and projects.

Justification:

Requests from property owners for sanitary sewer extensions are funded by this project. Increased sewer availability is provided and also reduction in sewer inflow and infiltration.

Comments:

Study: October 2018 Sewer System Inflow and Infiltration Evaluation Report.

Funding	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total
Utility Revenues	250,000	250,000	250,000	250,000	250,000	1,250,000
Total Funding Sources	250,000	250,000	250,000	250,000	250,000	1,250,000

Goals/Milestones:

FY 2022	Design and construct sewer line extension as petitioned / I & I reduction.
FY 2023	Design and construct sewer line extension as petitioned / I & I reduction.
FY 2024	Design and construct sewer line extension as petitioned / I & I reduction.
FY 2025	Design and construct sewer line extension as petitioned / I & I reduction.
FY 2026	Design and construct sewer line extension as petitioned / I & I reduction.

FY 2022 FIVE-YEAR CAPITAL & SPECIAL PROJECTS PLAN

PROJECT DESCRIPTION

Project Title: Fall Creek Sewer Reconstruction
Project No: TBD

Department: Public Works
Division: Sanitation
Section: N/A

Description:

This project is for the evaluation of and rehabilitation / reconstruction of Fall Creek sanitary sewer starting at Dan River and going to the Pittsylvania County line.

Justification:

The Fall Creek Sanitary Sewer Reconstruction & Rehabilitation project will increase improve sanitary conveyance and reduce infiltration of groundwater and surface water into the system by correcting any discovered problems in the system. The City is reconstructing old inadequate sewer main interceptors.

Comments:

Study: October 2018 Sewer System Inflow and Infiltration Evaluation Report.

Funding	Prior Years	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total
Wastewater Fund Balance		2,000,000	1,000,000				3,000,000
Total Funding Sources		2,000,000	1,000,000	-	-	-	3,000,000

Goals/Milestones:

FY 2022	Evaluate and Rehabilitate/ Reconstruct sanitary sewer lines.
FY 2023	Evaluate and Rehabilitate/ Reconstruct sanitary sewer lines.
FY 2024	N/A
FY 2025	N/A
FY 2026	N/A

FY 2022 FIVE-YEAR CAPITAL & SPECIAL PROJECTS PLAN
PROJECT DESCRIPTION

Project Title: Apple Branch Sewer Line Replacement
Project No: TBD

Department: Public Works
Division: Sanitation
Section: N/A

Description:

This project is to reconstruct 4,700 feet of 12-inch sewer line which is in need of replacement. It is located on the Apple Branch stream from Guilford Street to Orchard Drive.

Justification:

The Apple Branch Sewer Reconstruction will increase sewer capacity and reduce infiltration of groundwater. The City is reconstructing old inadequate sewer main interceptors.

Comments:

Study: October 2018 Sewer System Inflow and Infiltration Evaluation Report

Funding	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total
Utility Revenues	1,000,000	-	-	-	-	1,000,000
Total Funding Sources	1,000,000	-	-	-	-	1,000,000

Goals/Milestones:

FY 2022	Reconstruct sanitary sewer lines.
FY 2023	N/A
FY 2024	N/A
FY 2025	N/A
FY 2026	N/A

FY 2022 FIVE-YEAR CAPITAL & SPECIAL PROJECTS PLAN
PROJECT DESCRIPTION

Project Title: Tributary Lines to Jackson Branch Outfall
Project No: TBD

Department: Public Works
Division: Sanitation
Section: N/A

Description:
 Investigate and rehabilitate/replace sanitary sewer tributary lines going to Jackson Branch Outfall.

Justification:
 The 2018 Inflow and infiltration study indicated increased flows during significant rainfall events. The outfall line has already been reconstructed.

Comments:

Funding	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total
Utility Revenues	-	-	800,000	-	-	800,000
Wastewater Fund Balance						-
Total Funding Sources	-	-	800,000	-	-	800,000

Goals/Milestones:

FY 2022	N/A
FY 2023	N/A
FY 2024	Rehabilitate & reconstruct tributary lines as necessary
FY 2025	N/A
FY 2026	N/A

**FY 2022 FIVE-YEAR CAPITAL & SPECIAL PROJECTS PLAN
PROJECT DESCRIPTION**

Project Title: Tributary Lines to Sandy Creek Outfall
Project No: TBD

Department: Public Works
Division: Sanitation
Section: N/A

Description:
Investigate and rehabilitate / reconstruct sanitary sewer tributary lines going to Sandy Creek Outfall.

Justification:
The 2018 Inflow and infiltration report indicated increased flows during significant rainfalls. Sandy Creek outfall was reconstructed in calendar year 2021.

Comments:

Funding	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total
Utility Revenues	-	-	-	800,000	-	800,000
						-
Total Funding Sources	-	-	-	800,000	-	800,000

Goals/Milestones:

FY 2022	N/A
FY 2023	N/A
FY 2024	N/A
FY 2025	Rehabilitate & Reconstruct tributary sanitary sewer lines as needed
FY 2026	N/A

FY 2022 FIVE-YEAR CAPITAL & SPECIAL PROJECTS PLAN
PROJECT DESCRIPTION

Project Title: Luna Lake Road Sewers
Project No: TBD

Department: Public Works
Division: Sanitation
Section: N/A

Description:

This project is the construction of 5,000 feet of sanitary sewer lines to serve residences and businesses in the Luna Lake Road area

Justification:

This City is extending sewer to serve additional areas which will increase sewer availability.

Comments:

Study: City's 1989 Sewer Needs Assessment Study.

Funding	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total
Utility Revenues	-	-	-	-	800,000	800,000
Total Funding Sources	-	-	-	-	800,000	800,000

Goals/Milestones:

FY 2022	N/A
FY 2023	N/A
FY 2024	N/A
FY 2025	N/A
FY 2026	Construction of sanitary sewer lines.