

City Council's Introductory - FY 2020

Wastewater

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

	Adopted Budget FY 2019	City Council's Introductory FY 2020
Estimated Revenue		
Rev-Use Money/Property	104,000	118,540
Charges for Services	9,644,240	9,158,550
Miscellaneous Revenue	86,800	81,020
Total Estimated Revenue	9,835,040	9,358,110
Operating Expenses		
Administration Services	1,877,380	1,928,790
Treatment Plants	2,984,790	3,050,270
Sewer Capital Projects	1,350,000	1,350,000
Public Works	2,739,240	2,440,720
Capital Expenses	540,860	698,420
Capital Projects	0	0
Total Operating Expenses	9,492,270	9,468,200
Net Operating Income (Loss)	342,770	-110,090
Add:		
Depreciation	2,083,000	2,115,000
Deduct:		
Debt Service Principal	1,038,450	727,290
Capital Expenditures from Current Operating Funds	0	0
Contribution to City's General Fund	693,760	705,760
Contribution To(From) Retained Earnings	693,560	571,860

WASTEWATER FUND

CITY COUNCIL'S INTRODUCTORY BUDGET - CAPITAL & SPECIAL PROJECTS - FY 2020-2024

Project/Source	PL#	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	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		800,000	800,000	-	-	-	1,600,000
Fall Creek Sewer Reconstruction		-	-	800,000	800,000	-	1,600,000
Luna Lake Road Sewers		-	-	-	-	800,000	800,000
Public Works Sewers Total		\$ 1,350,000	\$ 1,350,000	\$ 1,350,000	\$ 1,350,000	\$ 1,350,000	\$ 6,750,000
Wastewater Treatment Plant							
Northside Plant Process Modifications Phase III	61177	\$ 600,000	\$ 600,000	\$ 600,000	\$ -	\$ -	\$ 1,800,000
Wastewater Treatment Plant Total		\$ 600,000	\$ 600,000	\$ 600,000	\$ -	\$ -	\$ 1,800,000
Total Projects:		\$ 1,950,000	\$ 1,950,000	\$ 1,950,000	\$ 1,350,000	\$ 1,350,000	\$ 8,550,000
Funding Source:							
Utility Fund Revenues		\$ 1,350,000	\$ 1,950,000	\$ 1,950,000	\$ 1,350,000	\$ 1,350,000	\$ 7,950,000
Reprogrammed Funds		600,000	-	-	-	-	600,000
Total Funding		\$ 1,950,000	\$ 1,950,000	\$ 1,950,000	\$ 1,350,000	\$ 1,350,000	\$ 8,550,000

**WASTEWATER FUND
CITY COUNCIL'S INTRODUCTORY BUDGET - CAPITAL & SPECIAL PROJECTS - FY 2020
FUNDING SOURCES**

	Current Revenues	Fund Balance	Debt Financing	Grants/CIA	Other	Project Total
<i>Public Works Sewers</i>						
Apple Branch Sewer Line Replacement	\$ 800,000	\$ -	\$ -	\$ -	\$ -	\$ 800,000
Water Line Reconstruction	300,000	-	-	-	-	300,000
New Sewer Lines/Inflow Infiltration Red	250,000	-	-	-	-	250,000
Total Water Distribution	\$ 1,350,000	\$ -	\$ -	\$ -	\$ -	\$ 1,350,000
<i>Wastewater Treatment</i>						
Norside Process Plant Modifications	\$ -	\$ -	\$ -	\$ -	\$ 600,000	\$ 600,000
Total Water Treatment Plant	\$ -	\$ -	\$ -	\$ -	\$ 600,000	\$ 600,000
Total Projects:	\$ 1,350,000	\$ -	\$ -	\$ -	\$ 600,000	\$ 1,950,000

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 2017 Actual	FY 2018 Actual	FY 2019 Adopted	FY 2020 Introductory	Increase/ (Decrease)
Revenues:					
Rev-Use Money & Property	\$ 109,256	\$ 149,661	\$ 104,000	\$ 118,540	\$ 14,540
Charges for Services	9,695,617	9,588,633	9,644,240	9,158,550	(485,690)
Miscellaneous Rev	70,032	64,537	86,800	81,020	(5,780)
Totals	\$ 9,874,905	\$ 9,802,831	\$ 9,835,040	\$ 9,358,110	\$ (476,930)

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 2017 Actual	FY 2018 Actual	FY 2019 Adopted	FY 2020 Introductory	Increase/ (Decrease)
Expenditures:					
Debt Service	\$579,103	\$588,463	\$615,460	\$ 540,300	\$ (75,160)
Totals	\$579,103	\$588,463	\$615,460	\$ 540,300	\$ (75,160)

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

The reduction in Capital Outlay reflects the difference between the cost of a sewer jet vacuum truck in FY 19 and a mini-excavator in FY 20.

Sewer Street Maint	5124703-05; 5127701				
	FY 2017 Actual	FY 2018 Actual	FY 2019 Adopted	FY 2020 Introductory	Increase/ (Decrease)
Expenditures:					
Personnel Services	\$ 479,599	\$ 503,036	\$ 541,070	\$ 570,290	\$ 29,220
Employee Benefits	73,654	81,123	77,960	85,250	7,290
Purchased Services	1,108,217	1,129,615	201,090	201,860	770
Internal Service	235,021	189,116	267,350	275,460	8,110
Other Operating Exp	124,028	101,423	112,460	112,690	230
Cost Allocation	142,330	140,990	183,080	226,750	43,670
Capital Outlay	-	899	414,070	110,000	(304,070)
Capital Projects	-	-	1,350,000	1,350,000	-
Depreciation	783,279	789,108	943,000	900,000	(43,000)
Debt Service	125,939	105,279	95,020	66,840	(28,180)
Totals	\$3,072,067	\$3,040,589	\$4,185,100	\$ 3,899,140	\$ (285,960)

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
TRAINING & SAFETY MANAGER	0.07	0.07
PUBLIC SERVICE WORKER/OPERATOR	3.42	3.63
MOTOR EQUIPMENT OPERATOR I	2.56	3.49
MOTOR EQUIPMENT OPERATOR II	3.63	3.49
MOTOR EQUIPMENT OPERATOR III	0.21	0.28
CREW SUPERVISOR	1.21	1.21
GENERAL SUPERVISOR	1.14	1.14
DIVISION DIRECTOR OF STREETS	0.07	0.07
CCTV TECHNICIAN	1.00	1.00
DIVISION DIR OF SANITATION	0.30	0.30
Total	13.61	14.68

Accomplishments:

Public Works began using acoustic inspection of sewer lines that uses sonic sound waves to inspect up to 5,000 feet of sewer main per day. The system bounces sound waves between manholes and uses the data to determine which lines need cleaning or repair. This EPA approved new tool will help reduce sewer overflows.

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 24 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 7 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 affluent 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 Sky Valley Foods. The two affluent 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 2017 Actual	FY 2018 Actual	FY 2019 Adopted	FY 2020 Introductory	Increase/ (Decrease)
Expenditures:					
Personnel Services	\$ 63,304	\$ 18,051	\$ 68,070	\$ 66,830	\$ (1,240)
Employee Benefits	8,816	2,472	10,170	10,310	140
Purchased Services	2,337,763	2,281,264	2,803,270	2,787,690	(15,580)
Internal Service	456,808	526,119	492,920	492,980	60
Other Operating Exp	84,709	82,305	106,450	109,850	3,400
Cost Allocation	440,754	451,855	502,360	491,120	(11,240)
Capital Outlay	-	-	10,000	235,000	225,000
Depreciation	1,197,962	1,189,054	1,140,000	1,215,000	75,000
Debt Service	116,942	89,332	73,930	60,280	(13,650)
Transfer Out	685,760	693,760	693,760	705,760	12,000
Contingency Approp	-	-	100,000	100,000	-
Totals	\$5,392,818	\$5,334,212	\$6,000,930	\$ 6,274,820	\$ 273,890

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.

Two positions are shared between Wastewater Administration and Water Treatment Administration: 50% Division Director of Water and Wastewater Treatment and 50% of a Senior Secretary.

Position Title	FY 2019 FTEs	FY 2020 FTEs
SENIOR SECRETARY	0.50	0.50
DIVISION DIR WTR/WSTWTR TRTMNT	0.50	0.50
Total	1.00	1.00

Description

Wastewater Capital plans and budgets for the capital expenditures at the Wastewater Treatment Plant. There was not budget in FY 2018 nor any request for FY 2019.

Expenditures

	FY 2017 Actual	FY 2018 Actual	FY 2019 Adopted	FY 2020 Introductory	Increase/ (Decrease)
Expenditures:					
Purchased Services	\$ 152,095	\$ 2,891	\$ -	\$ -	\$ -
Totals	\$ 152,095	\$ 2,891	\$ -	\$ -	\$ -

Description

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

Expenditures

	FY 2017 Actual	FY 2018 Actual	FY 2019 Adopted	FY 2020 Introductory	Increase/ (Decrease)
Expenditures:					
Debt Service	\$519,452	\$556,724	\$442,990	\$ 186,990	\$ (256,000)
Totals	\$519,452	\$556,724	\$442,990	\$ 186,990	\$ (256,000)

**FY 2020 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 2020	FY 2021	FY 2022	FY 2023	FY 2024	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 2020	Repairs to existing sanitary sewers.
FY 2021	Repairs to existing sanitary sewers.
FY 2022	Repairs to existing sanitary sewers.
FY 2023	Repairs to existing sanitary sewers.
FY 2024	Repairs to existing sanitary sewers.

**FY 2020 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 2020	FY 2021	FY 2022	FY 2023	FY 2024	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 2020	Design and construct sewer line extension as petitioned / I & I reduction.
FY 2021	Design and construct sewer line extension as petitioned / I & I reduction.
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 2020 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 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
Utility Revenues	800,000	800,000	-	-	-	1,600,000
Total Funding Sources	800,000	800,000	-	-	-	1,600,000

Goals/Milestones:

FY 2020	Reconstruct sanitary sewer lines.
FY 2021	Reconstruct sanitary sewer lines.
FY 2022	N/A
FY 2023	N/A
FY 2024	N/A

**FY 2020 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 sewer reconstruction of Fall Creek sanitary sewers between the junction at Eagle Springs Road and Kentuck Road.

Justification:

The Fall Creek 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	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
Utility Revenues		-	-	800,000	800,000	-	1,600,000
Total Funding Sources		-	-	800,000	800,000	-	1,600,000

Goals/Milestones:

FY 2020	N/A
FY 2021	N/A
FY 2022	Reconstruct sanitary sewer lines
FY 2023	Reconstruct sanitary sewer lines
FY 2024	N/A

**FY 2020 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 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
Utility Revenues		-	-	-	-	800,000	800,000
Total Funding Sources		-	-	-	-	800,000	800,000

Goals/Milestones:

FY 2020	N/A
FY 2021	N/A
FY 2022	N/A
FY 2023	N/A
FY 2024	Construction of sanitary sewer lines.

FY 2020 FIVE-YEAR CAPITAL & SPECIAL PROJECTS PLAN
PROJECT DESCRIPTION

Project Title: Northside Plant Process Modifications Phase III
Project No: 60911

Department: Utilities
Division: Wastewater Treatment
Section: N/A

Description:

Phase III consists of the installation of dual grit removal facilities, replacement of raw, return sludge and waste sludge pumps; alternate disinfection process and replacement of waste and sludge piping.

Justification:

Gaseous chlorination will be replaced due to liability issues regarding its usage and transportation.

Comments:

Various pumps have been on a replacement cycle of two pumps every other year and this is the final cycle of that replacement program. The replacement of the gaseous chlorine with a sodium hypochlorite feed system greatly reduces the potential risk to employees of the facility and those citizens that could be utilizing the walking trail or the recreational facilities adjacent to the treatment plant.

Funding	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
Utility Revenues	-	-	-	-	-	-
Reprogrammed Funds	-	600,000	600,000	-	-	1,200,000
Total Funding Sources	-	600,000	600,000	-	-	1,200,000

Goals/Milestones:

FY 2020	N/A
FY 2021	Construction and inspection
FY 2022	Construction and inspection
FY 2023	N/A
FY 2025	N/A