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HEALTHY ENVIRONMENT

Project Title	Budget Year 2021-2022	Planning Year 2022-2023	Planning Year 2023-2024	Planning Year 2024-2025	Planning Year 2025-2026	Planning Year 2026-2027	Total Planned
Solid Waste Disposal:							
Hanes Mill Road Landfill - Gas Collection and Extraction System	0	620,000	0	0	649,000	0	1,269,000
Hanes Mill Road Landfill - Mechanically Stabilized Earthen Retaining Wall	449,000	7,294,000	7,409,000	0	0	0	15,152,000
Water and Wastewater Treatment:							
Archie Elledge Wastewater Treatment Plant Rehabilitation and Upgrades	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,500,000
Biosolids Dryer Facility Upgrade	500,000	250,000	250,000	250,000	250,000	250,000	1,750,000
Muddy Creek Wastewater Treatment Plant Rehabilitation and Upgrades	250,000	250,000	250,000	250,000	250,000	250,000	1,500,000
R.W. Neilson Water Treatment Plant Rehabilitation and Upgrades	40,000,000	0	0	0	0	0	40,000,000
Water Treatment Rehabilitation and Upgrades	3,000,000	500,000	500,000	500,000	500,000	500,000	5,500,000
Wastewater Treatment Plant Expansion / Nutrient Removal Upgrade	0	0	5,000,000	5,000,000	5,000,000	5,000,000	20,000,000
Water Distribution and Wastewater Collection:							
Asset Management Program / Studies	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$9,000,000
Collection System Improvement Program	15,000,000	15,000,000	12,000,000	12,000,000	12,000,000	12,000,000	78,000,000
Elledge Basin Capacity Improvements	0	250,000	0	250,000	0	250,000	750,000
Facility Improvements Program	300,000	100,000	100,000	100,000	100,000	100,000	800,000
Lift Station Capacity / Condition Improvements	750,000	1,500,000	4,000,000	750,000	750,000	750,000	8,500,000
Muddy Creek Basin Capacity Improvements	0	250,000	0	250,000	0	250,000	750,000
NCDOT Road Widening Project Utility Relocations	2,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,000,000
South Fork Basin Capacity Improvements	0	250,000	0	250,000	0	250,000	750,000
Water Distribution System Improvements	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	60,000,000
Water Tank Rehabilitation	250,000	250,000	250,000	250,000	250,000	250,000	1,500,000
Stormwater Management:							
Basin Study Updates	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$1,800,000
City Yard Remediation	0	0	0	0	0	3,095,100	3,095,100
Drainage Improvements on Private Property	250,000	250,000	250,000	250,000	250,000	250,000	1,500,000
Stormwater Infrastructure Renovations	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	2,507,400	7,507,400
Total Expenditures	\$75,799,000	\$40,814,000	\$44,059,000	\$34,150,000	\$34,049,000	\$38,752,500	\$267,623,500
Funding Sources							
Bonds:							
Revenue Bonds	\$22,000,000	\$750,000	\$5,000,000	\$5,750,000	\$5,000,000	\$5,750,000	\$44,250,000
Intergovernmental Resources:							
State Revolving Loan	\$20,000,000	\$0	\$0	\$0	\$0	\$0	\$20,000,000
Reserves:							
Capital Project Reserves							\$0
Solid Waste Disposal Fund	\$449,000	\$7,914,000	\$7,409,000	\$0	\$649,000	\$0	\$16,421,000
Stormwater Management Fund	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000	6,152,500	13,902,500
Water and Sewer Fund	31,800,000	30,600,000	30,100,000	26,850,000	26,850,000	26,850,000	297,675,760
Total Funding Sources	\$75,799,000	\$40,814,000	\$44,059,000	\$34,150,000	\$34,049,000	\$38,752,500	\$267,623,500

PROJECT TITLE Hanes Mill Road Landfill - Gas Collection and Extraction System	DEPARTMENT/DIVISION Utilities / Solid Waste
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PROJECT DESCRIPTION/JUSTIFICATION

This project (650612) provides for improvements to the landfill gas extraction system required by air quality regulations and permit. Work planned for future years includes design and construction of additional vertical wells and associated piping to be installed in the active landfill footprint. These periodic system improvements are required by federal code and air permit requirements.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Construction	\$846,156	\$0	\$620,000	\$0	\$0	\$649,000	\$0	\$2,115,156
Total Project Expenditures	\$846,156	\$0	\$620,000	\$0	\$0	\$649,000	\$0	\$2,115,156
Funding Sources								
Solid Waste Disposal Fund	\$846,156	\$0	\$620,000	\$0	\$0	\$649,000	\$0	\$2,115,156
Total Project Funding Sources	\$846,156	\$0	\$620,000	\$0	\$0	\$649,000	\$0	\$2,115,156

PROJECT TITLE Hanes Mill Road Landfill - Mechanically Stabilized Earthen Retaining Wall	DEPARTMENT/DIVISION Utilities / Solid Waste
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PROJECT DESCRIPTION/JUSTIFICATION

This project (650618) is for the design, permitting and construction of a mechanically stabilized earthen (MSE) retaining wall to be constructed around the perimeter of Hanes Mill Road Landfill's active cells (1-5). This wall will expand the capacity of the landfill and add several years to its life. No significant impact to the landfill's operational budget is anticipated at this time. Preliminary design and permitting is planned to occur during FY 20-23, with construction tentatively scheduled to begin in 2023.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$541,000	\$449,000	\$322,000	\$327,000	\$0	\$0	\$0	\$1,639,000
Construction	0	0	6,972,000	7,082,000	0	0	0	14,054,000
Total Project Expenditures	\$541,000	\$449,000	\$7,294,000	\$7,409,000	\$0	\$0	\$0	\$15,693,000
Funding Sources								
Solid Waste Disposal Fund	\$541,000	\$449,000	\$7,294,000	\$7,409,000	\$0	\$0	\$0	\$15,693,000
Total Project Funding Sources	\$541,000	\$449,000	\$7,294,000	\$7,409,000	\$0	\$0	\$0	\$15,693,000

PROJECT TITLE Archie Elledge Wastewater Treatment Plant Rehabilitation and Upgrades	DEPARTMENT/DIVISION Utilities / Water and Wastewater Treatment
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PROJECT DESCRIPTION/JUSTIFICATION

This project provides for general building, grounds, and equipment maintenance at the Archie Elledge Wastewater Treatment Plant. The project also provides for the purchase of costly replacement parts and repairs that are needed for the continuous operation and maintenance of the plant. FY 21-22 improvements include replacement of several PLC platforms that have become obsolete at Archie Elledge and digester mixer repair and replacement.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$150,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$300,000
Construction	950,000	175,000	175,000	175,000	175,000	175,000	175,000	2,000,000
Equipment & Furnishings	225,000	37,500	37,500	37,500	37,500	37,500	37,500	450,000
Contingency	75,000	12,500	12,500	12,500	12,500	12,500	12,500	150,000
Total Project Expenditures	\$1,400,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$2,900,000
Funding Sources								
Water and Sewer Fund	\$1,400,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$2,900,000
Total Project Funding Sources	\$1,400,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$2,900,000

PROJECT TITLE Biosolids Dryer Facility Upgrade	DEPARTMENT/DIVISION Utilities / Water and Wastewater Treatment
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PROJECT DESCRIPTION/JUSTIFICATION

This project provides for general building, grounds, and equipment maintenance at the Archie Elledge Regional Biosolids Dryer Facility. The project also provides for the purchase of costly replacement parts and repairs that are needed for the continuous operation and maintenance of the facility. FY 21-22 improvements include manufacturer recommendation of rebuild of Regenerative Thermal Oxidizer (RTO) and continued implementation of several recommendations identified in the National Fire Protection Association (NFPA) 652 Dust Hazard analysis study conducted in FY 18-19.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$100,000	\$75,000	\$37,500	\$37,500	\$37,500	\$37,500	\$37,500	\$362,500
Construction	2,500,000	400,000	200,000	200,000	200,000	200,000	200,000	3,900,000
Contingency	400,000	25,000	12,500	12,500	12,500	12,500	12,500	487,500
Total Project Expenditures	\$3,000,000	\$500,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$4,750,000
Funding Sources								
Water and Sewer Fund	\$3,000,000	\$500,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$4,750,000
Total Project Funding Sources	\$3,000,000	\$500,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$4,750,000

PROJECT TITLE Muddy Creek Wastewater Treatment Plant Rehabilitation and Upgrades	DEPARTMENT/DIVISION Utilities / Water and Wastewater Treatment
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PROJECT DESCRIPTION/JUSTIFICATION

This project provides for general building, grounds, and equipment maintenance at the Muddy Creek Wastewater Treatment Plant. The project also provides for the purchase of costly replacement parts and repairs that are needed for the continuous operation and maintenance of the plant.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$105,000	\$43,750	\$43,750	\$43,750	\$43,750	\$43,750	\$43,750	\$367,500
Construction	400,000	162,500	162,500	162,500	162,500	162,500	162,500	1,375,000
Equipment and Furnishings	80,000	37,500	37,500	37,500	37,500	37,500	37,500	305,000
Contingency	15,000	6,250	6,250	6,250	6,250	6,250	6,250	52,500
Total Project Expenditures	\$600,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$2,100,000
Funding Sources								
Water and Sewer Fund	\$600,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$2,100,000
Total Project Funding Sources	\$600,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$2,100,000

PROJECT TITLE R.W. Neilson Water Treatment Plant Rehabilitation and Upgrades	DEPARTMENT/DIVISION Utilities / Water and Wastewater Treatment
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PROJECT DESCRIPTION/JUSTIFICATION

The Neilson Water Treatment Plant is the largest water treatment plant in the system with a treatment capacity of 48 mgd. Two major expansions have occurred since the construction of the original 24 mgd plant in 1964. Despite several small miscellaneous improvement projects, significant capital investment is required to replace aging infrastructure, improve treatment to meet current and future regulatory requirements, and ensure the continued reliability in the distribution system supplied by this critical facility. This project will evaluate and upgrade the electrical distribution system of the plant, overhaul the filters and wash water system, replace aging pumps, mixers, and valves, upgrade the instrumentation and control systems, and modify the treatment trains to optimize the plant's process.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning/Design/Engineering	\$7,874,000	\$0	\$0	\$0	\$0	\$0	\$0	\$7,874,000
Construction	73,996,000	40,000,000	0	0	0	0	0	113,996,000
Total Project Expenditures	\$81,870,000	\$40,000,000	\$0	\$0	\$0	\$0	\$0	\$121,870,000
Funding Sources								
Revenue Bonds	\$21,870,000	\$20,000,000	\$0	\$0	\$0	\$0	\$0	\$41,870,000
State Revolving Loan	60,000,000	20,000,000	0	0	0	0	0	80,000,000
Total Project Funding Sources	\$81,870,000	\$40,000,000	\$0	\$0	\$0	\$0	\$0	\$121,870,000

PROJECT TITLE Water Treatment Rehabilitation and Upgrades	DEPARTMENT/DIVISION Utilities / Water and Wastewater Treatment
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PROJECT DESCRIPTION/JUSTIFICATION

This project provides for general building, grounds, and equipment maintenance at the system's three water treatment plants. The project also provides for the purchase of costly replacement parts and repairs that are needed for the continuous operation and maintenance of the plants. FY 21-22 improvements include implementation of the recommendations from the Water Facilities Master Plan and the AWIA Risk and Resiliency Assessment including security & cybersecurity recommendations for the three water treatment plants, as well as funding for Idol's Dam sediment removal & control measures.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$387,500	\$450,000	\$62,500	\$62,500	\$62,500	\$62,500	\$62,500	\$1,150,000
Construction	2,566,680	2,400,000	375,000	375,000	375,000	375,000	375,000	6,841,680
Contingency	295,820	150,000	62,500	62,500	62,500	62,500	62,500	758,320
Total Project Expenditures	\$3,250,000	\$3,000,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$8,750,000
Funding Sources								
Water and Sewer Fund	\$3,250,000	\$3,000,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$8,750,000
Total Project Funding Sources	\$3,250,000	\$3,000,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$8,750,000

PROJECT TITLE Wastewater Treatment Plant Expansion / Nutrient Removal Upgrade	DEPARTMENT/DIVISION Utilities / Water and Wastewater Treatment
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PROJECT DESCRIPTION/JUSTIFICATION

This project will provide for nutrient removal treatment upgrades at the Elledge and Muddy Creek Wastewater Treatment Plants. These improvements are necessary for the plants to comply with effluent nutrient limits that are expected to be implemented by the North Carolina Department of Environmental Quality at both plants when total maximum daily loads for nutrients are enacted for High Rock Lake and the Yadkin River Watershed. It will also provide for additional treatment capacity at the Elledge Wastewater Treatment Plant to accommodate future wastewater flows.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Construction	\$0	\$0	\$0	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$20,000,000
Total Project Expenditures	\$0	\$0	\$0	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$20,000,000
Funding Sources								
Revenue Bonds	\$0	\$0	\$0	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$20,000,000
Total Project Funding Sources	\$0	\$0	\$0	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$20,000,000

PROJECT TITLE Asset Management Program / Studies	DEPARTMENT/DIVISION Utilities / Water Distribution and Wastewater Collection
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PROJECT DESCRIPTION/JUSTIFICATION

This project will include an asset management program that will incorporate strategic planning and a framework utilizing risk-based and fact-based methodologies to make educated decisions regarding management and maintenance of system assets. The asset management program will assist staff in making improved operational and financial decisions, and provide a more systematic method for managing risks. The scope will also include funding for asset/work order management software replacement, asset collection inventory, and fund master plan updates for both water and wastewater. FY 21-22 improvements include a Collection System Master Plan update and the Wastewater Facilities Master Plan Update in FY22-23.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$2,700,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$11,700,000
Total Project Expenditures	\$2,700,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$11,700,000
Funding Sources								
Water and Sewer Fund	\$2,700,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$11,700,000
Total Project Funding Sources	\$2,700,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$11,700,000

PROJECT TITLE Collection System Improvement Program	DEPARTMENT/DIVISION Utilities / Water Distribution and Wastewater Collection
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PROJECT DESCRIPTION/JUSTIFICATION

This program provides multi-year funding for wastewater collection system improvements throughout the City and County. This program will focus on system defects and utilize a "Find and Fix" approach to sewer line rehabilitation to fund inspection, evaluation, design, and construction of sanitary sewer projects throughout the system. This program will continue to fund the Collection System Improvement Program (CSIP), as well as unanticipated projects that arise throughout the fiscal year, such as sewer main relocations or replacements, structure adjustments or replacements, and other miscellaneous system improvements. FY 21-22 improvements include Year 6 of the CSIP, Washington Park, and West Highlands Sewer Rehabilitation Projects.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning/Design/Engineering	\$18,160,870	\$3,000,000	\$3,000,000	\$2,100,000	\$2,100,000	\$2,100,000	\$2,100,000	\$32,560,870
Construction	44,778,250	11,250,000	11,250,000	9,600,000	9,600,000	9,600,000	9,600,000	105,678,250
Contingency	2,960,880	750,000	750,000	300,000	300,000	300,000	300,000	5,660,880
Total Project Expenditures	\$65,900,000	\$15,000,000	\$15,000,000	\$12,000,000	\$12,000,000	\$12,000,000	\$12,000,000	\$143,900,000
Funding Sources								
Water and Sewer Fund	\$65,900,000	\$15,000,000	\$15,000,000	\$12,000,000	\$12,000,000	\$12,000,000	\$12,000,000	\$143,900,000
Total Project Funding Sources	\$65,900,000	\$15,000,000	\$15,000,000	\$12,000,000	\$12,000,000	\$12,000,000	\$12,000,000	\$143,900,000

PROJECT TITLE Elledge Basin Capacity Improvements	DEPARTMENT/DIVISION Utilities / Water Distribution and Wastewater Collection
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PROJECT DESCRIPTION/JUSTIFICATION

The Utilities Department has completed a Wastewater Collection System Master Plan to review the capacity needs in all three (3) drainage basins (South Fork, Elledge, and Muddy Creek) within the system service area. The Elledge Basin includes over 539 miles of gravity sewer main. This project will fund field verification support, design, and construction projects to provide additional capacity in the Elledge Basin.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$1,747,600	\$0	\$50,000	\$0	\$50,000	\$0	\$50,000	\$1,897,600
Construction	4,753,700	0	175,000	0	175,000	0	175,000	5,278,700
Contingency	264,700	0	25,000	0	25,000	0	25,000	339,700
Total Project Expenditures	\$6,766,000	\$0	\$250,000	\$0	\$250,000	\$0	\$250,000	\$7,516,000
Funding Sources								
Revenue Bonds	\$6,250,000	\$0	\$250,000	\$0	\$250,000	\$0	\$250,000	\$7,000,000
Water and Sewer Fund	516,000	0	0	0	0	0	0	516,000
Total Project Funding Sources	\$6,766,000	\$0	\$250,000	\$0	\$250,000	\$0	\$250,000	\$7,516,000

PROJECT TITLE Facility Improvement Program	DEPARTMENT/DIVISION Utilities / Water Distribution and Wastewater Collection
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PROJECT DESCRIPTION/JUSTIFICATION

This program will fund miscellaneous improvements at our Field Operations and Meter Shop facilities. FY 21-22 improvements include improvements at the Utilities Field Operations (UFO) facility including improvements to enclose the open bays in the jet shed area to protect the equipment and increase longevity of equipment and installation of an emergency generator at UFO.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning/Design/Engineering	\$700,000	\$45,000	\$0	\$0	\$0	\$0	\$0	\$745,000
Construction	2,625,000	240,000	100,000	100,000	100,000	100,000	100,000	3,365,000
Contingency	175,000	15,000	0	0	0	0	0	190,000
Total Project Expenditures	\$3,500,000	\$300,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$4,300,000
Funding Sources								
Water and Sewer Fund	\$3,500,000	\$300,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$4,300,000
Total Project Funding Sources	\$3,500,000	\$300,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$4,300,000

PROJECT TITLE Lift Station Capacity / Condition Improvements	DEPARTMENT/DIVISION Utilities / Water Distribution and Wastewater Collection
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PROJECT DESCRIPTION/JUSTIFICATION

The Wastewater Collection System Master Plan includes condition assessments for select lift stations located within the sewer collection system that are aging or out of capacity. The plan identifies and prioritizes needs at each of the lift stations. This project provides for upgrades and replacements of the lift stations to address the identified needs. This project also provides multi-year funding for general building, grounds, and equipment maintenance and repairs needed for the continuous operation of the stations. FY21-22 improvements include Abbott's Creek lift station PLC control panel upgrade and Kerners Mill Lift Station wet well coating.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$1,467,900	\$112,500	\$262,500	\$700,000	\$131,250	\$131,250	\$131,250	\$2,936,650
Construction	6,667,950	600,000	1,200,000	3,200,000	600,000	600,000	600,000	13,467,950
Contingency	235,150	37,500	37,500	100,000	18,750	18,750	18,750	466,400
Total Project Expenditures	\$8,371,000	\$750,000	\$1,500,000	\$4,000,000	\$750,000	\$750,000	\$750,000	\$16,871,000
Funding Sources								
Water and Sewer Fund	\$8,371,000	\$750,000	\$1,500,000	\$4,000,000	\$750,000	\$750,000	\$750,000	\$16,871,000
Total Project Funding Sources	\$8,371,000	\$750,000	\$1,500,000	\$4,000,000	\$750,000	\$750,000	\$750,000	\$16,871,000

PROJECT TITLE Muddy Creek Basin Capacity Improvements	DEPARTMENT/DIVISION Utilities / Water Distribution and Wastewater Collection
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PROJECT DESCRIPTION/JUSTIFICATION

The Utilities Department has completed a Wastewater Collection System Master Plan to review the capacity needs in all three drainage basins (South Fork, Elledge, and Muddy Creek) within the system service area. The Muddy Creek Basin includes over 758 miles of gravity sewer main. This project will fund field verification support, design, and construction projects to provide additional capacity in the Muddy Creek Basin.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$12,138,280	\$0	\$50,000	\$0	\$50,000	\$0	\$50,000	\$12,288,280
Land / Right-of-Way Acquisition	344,400	0	0	0	0	0	0	344,400
Construction	37,545,330	0	175,000	0	175,000	0	175,000	38,070,330
Contingency	2,887,990	0	25,000	0	25,000	0	25,000	2,962,990
Total Project Expenditures	\$52,916,000	\$0	\$250,000	\$0	\$250,000	\$0	\$250,000	\$53,666,000
Funding Sources								
Revenue Bonds	\$52,916,000	\$0	\$250,000	\$0	\$250,000	\$0	\$250,000	\$53,666,000
Total Project Funding Sources	\$52,916,000	\$0	\$250,000	\$0	\$250,000	\$0	\$250,000	\$53,666,000

PROJECT TITLE NCDOT Road Widening Project Utility Relocations	DEPARTMENT/DIVISION Utilities / Water Distribution and Wastewater Collection
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PROJECT DESCRIPTION/JUSTIFICATION

The North Carolina Department of Transportation has identified various road widening projects in Forsyth County scheduled for construction during the city's six-year capital planning window. In accordance with NCDOT policies, the water and sewer lines in the project right-of-ways may need to be relocated. This project will fund the water and sewer relocations for these projects. The current project includes the Northern Beltway - Eastern Section. Other projects will be identified in future years.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$2,055,000	\$300,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$3,005,000
Construction	9,600,000	1,600,000	800,000	800,000	800,000	800,000	800,000	15,200,000
Contingency	345,000	100,000	70,000	70,000	70,000	70,000	70,000	795,000
Total Project Expenditures	\$12,000,000	\$2,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$19,000,000
Funding Sources								
Water and Sewer Fund	\$12,000,000	\$2,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$19,000,000
Total Project Funding Sources	\$12,000,000	\$2,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$19,000,000

PROJECT TITLE South Fork Basin Capacity Improvements	DEPARTMENT/DIVISION Utilities / Water Distribution and Wastewater Collection
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PROJECT DESCRIPTION/JUSTIFICATION

The Utilities Department has completed a Wastewater Collection System Master Plan to review the capacity needs in all three (3) drainage basins (South Fork, Elledge, and Muddy Creek) within the system service area. The South Fork Basin includes over 386 miles of gravity sewer main. This project will fund field verification support, design, and construction projects to provide additional capacity in the South Fork Basin.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$4,235,530	\$0	\$50,000	\$0	\$50,000	\$0	\$50,000	\$4,385,530
Land / Right-of-Way Acquisition	359,000	0	0	0	0	0	0	359,000
Construction	22,156,480	0	175,000	0	175,000	0	175,000	22,681,480
Contingency	2,510,990	0	25,000	0	25,000	0	25,000	2,585,990
Total Project Expenditures	\$29,262,000	\$0	\$250,000	\$0	\$250,000	\$0	\$250,000	\$30,012,000
Funding Sources								
Revenue Bonds	\$29,262,000	\$0	\$250,000	\$0	\$250,000	\$0	\$250,000	\$30,012,000
Total Project Funding Sources	\$29,262,000	\$0	\$250,000	\$0	\$250,000	\$0	\$250,000	\$30,012,000

PROJECT TITLE Water Distribution System Improvements	DEPARTMENT/DIVISION Utilities / Water Distribution and Wastewater Collection
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PROJECT DESCRIPTION/JUSTIFICATION

This project provides multi-year funding for water distribution improvements throughout the City and County. This project will fund planned work such as valve exercising, hydrant replacement, large meter rehabilitation and replacement, as well as unanticipated projects that arise throughout the fiscal year, such as projects for rehabilitating portions of the water system, chlorination booster projects, structure adjustments, and other miscellaneous system improvements. FY 21-22 projects include 15th Street Pump Station facility and electrical upgrades, water service line renewal, hydrant replacement, Cross Connection Control Inventory, and Lead Service Line Inventory.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$4,333,430	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$16,333,430
Construction	18,503,800	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	63,503,800
Contingency	1,273,770	500,000	500,000	500,000	500,000	500,000	500,000	4,273,770
Total Project Expenditures	\$24,111,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$84,111,000
Funding Sources								
Revenue Bonds	\$4,813,000	\$2,000,000	\$0	\$0	\$0	\$0	\$0	\$6,813,000
Water and Sewer Fund	19,298,000	8,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	77,298,000
Total Project Funding Sources	\$24,111,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$84,111,000

PROJECT TITLE Water Tank Rehabilitation	DEPARTMENT/DIVISION Utilities / Water Distribution and Wastewater Collection
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PROJECT DESCRIPTION/JUSTIFICATION

This project provides multi-year funding for repairs and rehabilitation to the 14 water tanks located throughout the distribution system. This project consists of structural repairs, lead paint abatement, and coating replacement for elevated and ground storage tanks. Each of the tanks included in this project has been in service at least 20 years. An engineering firm that specializes in tank maintenance has inspected all of the tanks and this repair program is based on the firm's recommendations. The goal of the project is to maximize the service life of these structures and to bring them into compliance with current Occupational Safety and Health Administration (OSHA) and American Water Works Association (AWWA) standards. FY 21-22 includes rehabilitation of Graves street tank and the condition assessment of Swann Finished Water Reservoir 1&2, Old Town, Stanleyville and Walkertown tanks.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$486,750	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$786,750
Construction	3,388,340	193,750	193,750	193,750	193,750	193,750	193,750	4,550,840
Contingency	215,670	6,250	6,250	6,250	6,250	6,250	6,250	253,170
Total Project Expenditures	\$4,090,760	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$5,590,760
Funding Sources								
Water and Sewer Fund	\$4,090,760	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$5,590,760
Total Project Funding Sources	\$4,090,760	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$5,590,760

PROJECT TITLE Basin Study Updates	DEPARTMENT/DIVISION Stormwater Management
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PROJECT DESCRIPTION/JUSTIFICATION

This project provides for a comprehensive update of existing public and private storm drainage systems in the annexed areas within all 15 sub-watersheds within the city limits. The storm sewer infrastructure will then be modeled to determine drainage system deficiencies (such as identification of an inadequate piping system that overflows and discharges water into the street). In addition to analyzing the capabilities of the right-of-way drainage system, master planning efforts also model the quality of the water using chemical analysis and an Index of Biotic Integrity (IBI) to yield an overall rating for each watershed. This information is used in tracking watershed degradation over time and targeting improvements.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$9,919,200	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$11,719,200
Total Project Expenditures	\$9,919,200	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$11,719,200
Funding Sources								
Stormwater Management Fund	\$9,919,200	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$11,719,200
Total Project Funding Sources	\$9,919,200	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$11,719,200

PROJECT TITLE City Yard Remediation	DEPARTMENT/DIVISION Stormwater Management
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PROJECT DESCRIPTION/JUSTIFICATION

This project involves a comprehensive environmental remediation plan for the lower section of City Yard. Approximately 27,000 tons of contaminated soil and fly ash will be removed from City Yard. Roughly 19,000 gallons of diesel fuel product will be recovered and/or oxidized from the underlying groundwater. Any remaining inert debris (e.g. brick, concrete, tires) will be properly disposed at an appropriate permitted landfill facility. The second phase of the project will involve construction of two stormwater ponds in parallel configuration – the total surface area of these ponds has been calculated to be 2.90 acres. In addition to designing a geosynthetic pond liner system, the ponds will be able to equalize incoming stormwater runoff flow in order to maximize pollutant removal efficiency. Up-gradient infrastructure designs have included a pretreatment vault (for removing incoming trash and soil), a splitter box for diverting stormwater runoff during intensive rain events, and replacing approximately 175 linear feet of 42” corrugated metal piping, which is severely deteriorated due to its age.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning/Design/Engineering	\$2,235,780	\$0	\$0	\$0	\$0	\$0	\$0	\$2,235,780
Construction	25,513,300	0	0	0	0	0	2,756,620	28,269,920
Other (Construction CA/CO)	1,471,820	0	0	0	0	0	338,480	1,810,300
Contingency	230,240	0	0	0	0	0	0	230,240
Total Project Expenditures	\$29,451,140	\$0	\$0	\$0	\$0	\$0	\$3,095,100	\$32,546,240
Funding Sources								
Revenue Bonds	\$13,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$13,000,000
Grants	3,000,000	0	0	0	0	0	0	3,000,000
Stormwater Management Fund	13,451,140	0	0	0	0	0	3,095,100	16,546,240
Total Project Funding Sources	\$29,451,140	\$0	\$0	\$0	\$0	\$0	\$3,095,100	\$32,546,240

PROJECT TITLE Drainage Improvements on Private Property	DEPARTMENT/DIVISION Stormwater Management
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PROJECT DESCRIPTION/JUSTIFICATION

City ordinances authorize the City to participate in the correction of storm drainage problems that occur on private residential property. The City's participation in eligible projects is limited to 70% of the total project costs or \$35,000 per affected owner, whichever is less. Each project request will be reviewed by City staff and presented to the Mayor and City Council for final approval.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Construction	\$3,150,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$4,650,000
Total Project Expenditures	\$3,150,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$4,650,000
Funding Sources								
Stormwater Management Fund	\$3,150,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$4,650,000
Total Project Funding Sources	\$3,150,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$4,650,000

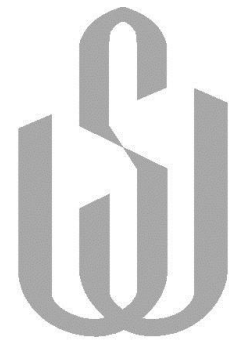
PROJECT TITLE Stormwater Infrastructure Renovations	DEPARTMENT/DIVISION Stormwater Management
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PROJECT DESCRIPTION/JUSTIFICATION

Through stormwater basin studies and City inspections, Stormwater staff have identified locations throughout the City where public stormwater infrastructure is deficient. The drainage systems in these locations are aging or inadequate in size to handle current stormwater volumes. Current projects include infrastructure improvements at Bennett Drive, Commonwealth Drive, Violet Street, 27th Street, Long Drive, Patterson Avenue, and Runnymede Drive where the piping systems are in need of replacment. Also, staff have identified an aged and deteriorated pipe culvert under the new connector road at City Yard. Continued degradation of this enclosed pipe drainage system could cause sink-holes in the travel lanes and road overtopping, both of which present safety issues for the public.

FINANCIAL SUMMARY:

	Prior Years	Planned Appropriations 2022-2027						Grand Total
	Total Approp To Date	Budget FY 21-22	Planning FY 22-23	Planning FY 23-24	Planning FY 24-25	Planning FY 25-26	Planning FY 26-27	
Expenditures								
Planning / Design / Engineering	\$160,000	\$0	\$0	\$0	\$0	\$0	\$0	\$160,000
Construction	13,902,090	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	2,507,400	21,409,490
Total Project Expenditures	\$14,062,090	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$2,507,400	\$21,569,490
Funding Sources								
Revenue Bonds	\$1,426,000	\$0	\$0	\$0	\$0	\$0	\$0	\$1,426,000
Stormwater Management Fund	12,636,090	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	2,507,400	20,143,490
Total Project Funding Sources	\$14,062,090	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$2,507,400	\$21,569,490



Winston-Salem