













**CAPITAL IMPROVEMENT PLAN FOR THE FIVE YEAR PERIOD ENDING JUNE 30, 2024  
ESTIMATED COST REQUIREMENTS**

Project Name	Project #	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	5 Year Total
Public Safety Two Factor Authentication System Upgrade	17-230	-	100,000	-	-	-	100,000
<b>Public Safety Total</b>		<b>4,250,000</b>	<b>2,968,500</b>	<b>8,183,000</b>	<b>2,016,000</b>	<b>4,929,000</b>	<b>22,346,500</b>
<b>Public Utilities</b>							
Automated Meter Reading Equipment and Software	53-120	2,000,000	4,000,000	4,000,000	4,000,000	2,000,000	16,000,000
Cavalier Elevated and Ground Storage Tanks Rehabilitation	19-220	-	-	1,595,000	-	-	1,595,000
Centerville Turnpike Loop 3	43-120	3,854,000	-	-	-	-	3,854,000
Chesapeake Connector Water Pipeline	20-230	-	-	2,000,000	-	-	2,000,000
Fentress NALF Water Transmission Main	37-240	3,000,000	10,000,000	-	-	-	13,000,000
Great Bridge Force Main Redundancy Study	21-230	-	-	-	300,000	-	300,000
Lake Gaston Pipeline - Capital Cost Sharing with Virginia Beach	22-230	340,000	340,000	350,000	350,000	350,000	1,730,000
Lake Gaston WTP - Membrane Replacement - Phase II	21-130	-	-	-	-	2,200,000	2,200,000
Lake Gaston WTP - Miscellaneous Modifications	37-200	500,000	-	-	500,000	2,700,000	3,700,000
Norfolk Highlands Elevated Tank Rehabilitation	28-200	-	-	-	1,500,000	-	1,500,000
Northwest River Lakes & Pump Station	23-230	1,000,000	1,000,000	-	1,000,000	-	3,000,000
Northwest River WTP - Miscellaneous Modifications	19-130	500,000	-	500,000	3,200,000	2,000,000	6,200,000

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Northwest River WTP - Switchgear Replacement	20-220	-	-	5,982,000	-	-	5,982,000
Red Top Raw Water Transmission Main	39-120	-	2,717,000	-	-	-	2,717,000
Replacement of Lead Service Lines	24-230	-	-	-	500,000	500,000	1,000,000
Sewer Pump Station Safety Improvements	35-200	-	500,000	500,000	500,000	500,000	2,000,000
Sewer Pump Station: Replacement and Rehabilitation	21-220	-	-	-	2,700,000	3,000,000	5,700,000
Sewer Renewal: Additional Consent Order Capital Requirement	05-180	2,000,000	5,000,000	5,500,000	8,000,000	6,000,000	26,500,000
Sewer Renewal: Raleigh Place (Pump Station #7 Basin)	33-170	600,000	3,800,000	-	-	-	4,400,000
South Central Water Transmission Main & Loop - Phase I	31-240	2,000,000	15,607,000	-	-	-	17,607,000
Supervisory Control and Data Acquisition (SCADA) Upgrade	23-240	-	-	1,500,000	1,500,000	1,500,000	4,500,000
Unserved Areas/Cost Participation-Ph. II: Cedar Rd. Sewer Extension	25-200	1,629,200	-	-	-	-	1,629,200
Unserved Areas/Cost Participation-Ph. II: Willow Lakes Utility	25-202	3,100,000	-	-	-	-	3,100,000
Water Renewal: Buchanan St. Area	24-200	1,050,000	-	-	-	-	1,050,000
Water Renewals: Waterline Upgrades - Phase II	14-160	-	-	-	2,000,000	2,000,000	4,000,000
Water System Planning and Upgrades	33-210	-	250,000	250,000	400,000	-	900,000
Western Branch Elevated Tank Rehabilitation	33-200	1,200,000	-	-	-	-	1,200,000



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Project Name	Project #	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	5 Year Total
<b>Public Utilities Total</b>		<b>22,773,200</b>	<b>43,214,000</b>	<b>22,177,000</b>	<b>26,450,000</b>	<b>22,750,000</b>	<b>137,364,200</b>
<b>Storm Water</b>							
BMP Restoration Citywide	73-120	100,000	100,000	100,000	100,000	-	400,000
Citywide Outfall Re-Grading and Restoration	03-160	750,000	925,000	1,000,000	1,000,000	800,000	4,475,000
Citywide System Rehab	43-170	500,000	300,000	-	-	700,000	1,500,000
Citywide Undesignated Drainage - Phase III	07-150	50,000	50,000	50,000	50,000	-	200,000
Drum Creek Farms Drainage Improvements - Phase II	24-240	-	-	-	-	1,400,000	1,400,000
Elmwood Landing Area Drainage Improvements	25-230	1,400,000	-	-	-	-	1,400,000
Forest Lakes Outfall Improvements	26-230	800,000	-	-	-	-	800,000
Greenbrier Outfall Improvements	26-240	1,100,000	-	-	-	-	1,100,000
Hickory Ridge Outfall Improvements	27-230	-	-	200,000	650,000	-	850,000
John Street Area Outfall Improvements	25-240	-	800,000	-	-	-	800,000
Liberty St. Drainage System Replacement & Upgrade	34-210	850,000	-	-	-	-	850,000
Loxley Gardens Drainage Improvements - Phase II	23-220	-	-	1,100,000	-	-	1,100,000
Major Equipment Purchases - PW Stormwater Division	07-180	200,000	200,000	200,000	200,000	-	800,000

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Project Name	Project #	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	5 Year Total
Neighborhood Drainage Improvements - Phase II	08-150	500,000	500,000	400,000	-	500,000	1,900,000
Nina Drive Area Outfall Improvements	27-240	1,500,000	-	-	-	-	1,500,000
Oakdale Area BMP and Drainage Improvements	09-150	1,000,000	-	-	-	-	1,000,000
Parkview Area Drainage Improvements	28-230	200,000	250,000	250,000	350,000	-	1,050,000
Resiliency & Reliability Program	29-230	1,000,000	1,000,000	1,000,000	1,500,000	600,000	5,100,000
Stormwater Mapping & Master Drainage Plan III	10-150	-	100,000	-	100,000	-	200,000
Stormwater Quality Program - Phase II	11-150	100,000	100,000	100,000	100,000	-	400,000
<b>Storm Water Total</b>		<b>10,050,000</b>	<b>4,325,000</b>	<b>4,400,000</b>	<b>4,050,000</b>	<b>4,000,000</b>	<b>26,825,000</b>
<b>Transportation</b>							
Advanced Right-of-Way Acquisition Program	30-230	200,000	200,000	200,000	200,000	-	800,000
Centerville Turnpike Bridge Rehabilitation	03-190	300,000	86,000	-	-	-	386,000
Citywide Guardrail Installation & Replacement	25-220	100,000	100,000	100,000	-	-	300,000
Citywide Sidewalk Installation	26-220	300,000	300,000	300,000	300,000	300,000	1,500,000
Citywide Traffic Signal Retiming - Phase I	31-220	-	115,000	-	-	-	115,000
Citywide Traffic Signal Retiming - Phase II	62-230	-	415,000	-	-	-	415,000

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Project Name	Project #	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	5 Year Total
CTS - Chesapeake Expressway Renewals - Phase III - Variable Message Boards	32-230	-	-	720,000	-	-	720,000
CTS - Chesapeake Expressway Repaving - Phase I	28-240	-	-	2,950,000	-	-	2,950,000
CTS - Dominion Blvd./Veterans Bridge - Closed Circuit Television (CCTV)	34-230	200,000	140,000	-	-	-	340,000
Edwin Drive Improvements	29-240	518,000	1,282,000	-	-	-	1,800,000
Elbow Rd. Widening - Phase II	35-230	7,670,000	2,860,000	-	-	-	10,530,000
Flashing Yellow Arrow (FYA) Installation - Cedar Rd.	60-230	313,000	-	-	-	-	313,000
Flashing Yellow Arrow (FYA) Installation - Providence Rd./Mt. Pleasant Rd.	61-230	300,000	162,000	-	-	-	462,000
Flashing Yellow Arrow (FYA) Installation - Western Branch Blvd.	59-230	159,000	-	-	-	-	159,000
Freeman Ave. Railroad Overpass Bridge	09-180	-	1,500,000	23,925,000	-	-	25,425,000
George Washington Hwy. (US Route 17) Widening	37-230	2,500,000	1,500,000	21,000,000	-	-	25,000,000
Intersection Improvements: Battlefield Blvd. at Albemarle Dr.	39-230	1,000,000	-	-	-	-	1,000,000
Intersection Improvements: Battlefield Blvd. at Volvo Pkwy.	40-230	1,100,000	-	-	-	-	1,100,000
Intersection Improvements: Butts Station Rd. at Kempsville Rd.	41-230	1,000,000	-	-	-	-	1,000,000
Johnston Road Ditch and Shoulder Improvements	30-240	-	5,000,000	5,000,000	12,500,000	-	22,500,000
Mt. Pleasant Rd. Widening - Phase II	42-230	950,000	2,800,000	5,950,000	-	-	9,700,000

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Project Name	Project #	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	5 Year Total
Non-Arterial Street Repaving	07-190	2,000,000	2,000,000	-	-	2,000,000	6,000,000
Number 10 Lane Bridge - Replacement/Repairs	58-230	-	-	1,090,000	-	-	1,090,000
Oaklette Bridge (Indian River Road) - Replacement/Repairs	56-230	-	1,200,000	3,446,000	-	-	4,646,000
Old Mill Rd. Bridge - Replacement/Repairs		98,000	1,016,000	-	-	-	1,114,000
Pedestrian Sidewalk and Street Lighting - Poindexter St. at I-464 Overpass	44-230	428,500	-	-	-	-	428,500
Pedestrian Sidewalk for Industrial Ave. to Liberty St.	33-240	763,000	-	-	-	-	763,000
Repair & Maintenance Roads and Bridges - Phase IV	37-210	400,000	500,000	500,000	-	-	1,400,000
Right Turn Lane Extension: Greenbrier Pkwy. at Kempsville Rd.	45-230	200,000	-	-	-	-	200,000
Rural Roads Safety Improvement Program	41-210	450,000	500,000	-	-	-	950,000
Snowden St. Railroad Crossing Signals & Gates	32-240	250,000	-	-	-	-	250,000
Traffic Signals and Intersection Improvements - Phase III	28-220	100,000	100,000	100,000	-	-	300,000
Triple Decker Bridge Rehabilitation	46-170	947,000	5,766,000	-	-	-	6,713,000
Turn Lanes and Signal Modification: Hanbury Rd. at Johnstown Rd.	29-220	890,000	-	-	-	-	890,000
<b>Transportation Total</b>		<b>23,136,500</b>	<b>27,542,000</b>	<b>65,281,000</b>	<b>13,000,000</b>	<b>2,300,000</b>	<b>131,259,500</b>
<b>Total Resources</b>		<b>143,236,395</b>	<b>118,730,170</b>	<b>129,558,000</b>	<b>80,314,000</b>	<b>104,829,000</b>	<b>576,667,565</b>