



FY 2021-FY 2025



Capital Improvement Program

Approved
June 11, 2020

**CAPITAL IMPROVEMENT PROGRAM
FISCAL YEARS 2021 - 2025**



Service Authority
Prince William County

June 11, 2020

CAPITAL IMPROVEMENT PROGRAM

FISCAL YEARS 2021 – 2025



Service Authority
Prince William County

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CAPITAL IMPROVEMENT PROGRAM FISCAL YEARS 2021-2025

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CAPITAL IMPROVEMENT PROGRAM

PURPOSE

The Capital Improvement Program (CIP) is presented annually to the Board of Directors as a planning document for the express purpose of identifying future capital projects and schedules of capital project activity as projected by all Divisions within the Service Authority. The CIP Program is not intended to commit funding but to schedule funding and resources.

The timing of many projects is heavily dependent on development activity throughout various areas of the county. As often occurs, CIP projects may be postponed due to reprioritization of other projects or low development activity in a specific area. The General Manager may adjust the timing and spending schedule for projects as needed. Preliminary engineering design and the purchase of needed land can be initiated as a phased and timely effort in advance of development activity to prevent delays in construction when the associated development occurs. Project funds are encumbered through the Purchase Order process. As projects can span several fiscal years, unspent encumbered funds are rolled-over at the end of each fiscal year. Note that for accounting purposes, any projects not resulting in a capital asset, or any costs that do not meet the accounting criteria to be capitalized will be reclassified from capital to expense, as a year-end closing adjustment. The CIP is updated on a regular basis to reflect the latest project priorities, cost estimates and spending schedules.

CIP DOCUMENT FORMAT

The CIP is presented for a five-year cycle for Fiscal Years 2021 through 2025 in three sections: Section A (Program Summary), Section B (Project Data Sheets), and Section C (Project Maps). The following discussion describes the contents of each Section within this report.

Section A - Program Summary

This section provides a financial summary of each project including the project's expenditures prior to FY21, proposed expenditure schedule and respective funding source. Several projects in this year's CIP will be funded through a bond issue – these are identified with an asterisk in the project name. The first three pages of this section provide overall program summaries including: totals for all projects, totals for debt funded projects, and totals for non-debt funded projects. The projects are organized into categories, which are defined in Table 1, CIP Project Categories.

This section includes all existing and proposed CIP projects that have design or construction activity in the current five-year cycle. Projects constructed by developers and contributed to the Service Authority are not included in the document, unless the project comprises a system improvement in which the Service Authority plans financial participation.

CIP PROJECT CATEGORIES

The CIP is organized with respect to project categories. This arrangement facilitates locating project data sheets for comparison or study. The functional categories are listed in Table 1 below.

Table 1. CIP Project Categories

Project Category	Description
Water Supply Projects (WSUP)	Booster pumping stations and water source projects are presented under this category.
Water Storage Projects (WST)	Tanks maintain system pressures, provide fire and reserve storage, and provide water during peak demands. This project category includes tank maintenance and rehabilitation programs.
Water Transmission Projects (WAT)	Water main projects are presented under this category. Transmission mains are pipes sized 16-inches and larger to convey large volumes of water to booster pumping stations, storage tanks and regional demand areas. Distribution mains are pipes sized 12-inches and smaller to provide water service and fire protection to localized areas.
Sewage Pumping Stations Projects (SPS)	Sewage pumping stations pump sewage from a low point in one gravity sewer shed to another gravity sewer shed for conveyance to either the UOSA or H.L. Mooney advanced water reclamation facilities. This category includes replacements, upgrades or modifications to existing sewage pumping stations and associated force mains to meet future capacity needs within the sewer shed, improve safety conditions and to continue meeting DEQ regulations.
Sewage Collection System Projects (SEW)	New sewer mains and replacement/upgrades to existing sewer mains that convey sewage from commercial and residential customers to sewage pumping stations or water reclamation facilities are presented under this category.
Water Reclamation Facility Projects (WRF)	Construction projects and facility modifications at the H.L. Mooney Advanced Water Reclamation Facility (AWRF) are presented in this section.
Miscellaneous Projects (MISC)	Projects that are not directly related to any of the previous six categories are included in this section. Several projects include upgrades or expansions to office complexes and maintenance facilities.
Information Technology (IT)	Projects that involve improvements to Information Technology application, infrastructure, security, support, and data analytics. Examples include: financial systems, work order management, and Supervisory Control and Data Acquisition (SCADA) upgrades and modifications; IT server, database, and communications equipment upgrades; and system integration and business analytics software improvements.
Regional Utility Projects (REG)	Major expansion or upgrade projects to regional treatment facilities at which the Service Authority has purchased capacity rights, such as UOSA's Water Reclamation Facility and the City of Manassas' and/or Fairfax Water's Water Treatment Plant. This category also includes a new Occoquan River crossing to increase transmission capacity and reliability of the potable water supply to eastern Prince William County.

Section B – Project Data Sheets

This section provides detailed information for each CIP project, which are grouped by project category. Table 2 defines all the information included on the project’s data sheet.

Table 2. CIP Project Data Sheet Fields

Data Sheet Field	Description
Project Title	Provides a name for the project.
Project CIP	Identifies the project category and “Engineering” project number(s).
JDE Job Number(s)	The job cost coding to be utilized within JD Edwards tracking system.
Location	A description of where the project will be located in Prince William County.
Pressure Zone	This identifies the Pressure Zone, Sewershed and Magisterial District where the project will occur. If the project is marked as “multiple”, this indicates that the project falls within more than one area of service.
Sewershed	
Magisterial District	
Project Description	The scope and/or justification of the project are identified.
Project Benefit	The benefit of the project is described.
Source Derivation	Details the engineering/planning study, wherein the project need was identified. In some cases, in-house analyses have recommended projects and these are identified by the respective division.
Estimate By	Identifies the Division within the Service Authority and/or Engineering Consultant that prepared the cost estimate.
Project Estimate	An "Order of Magnitude" estimate is generally used in the early stages of a project when only concepts, maps and historical project data are available, without the benefit of detailed engineering reports or preliminary plans. Order of Magnitude Estimates are also appropriate when anticipated construction is beyond the five-year period of the CIP. As such, “Order of Magnitude” cost estimates are accurate within +50 and -30 percent.
	When available, more accurate cost estimates as a result of a Preliminary Engineering Report (PER) are utilized.

Table 2. CIP Project Data Sheet Fields (cont.)

Data Sheet Field	Description
Proposed Funding Sources	This section provides the breakdown of funding of the total cost by Fund, e.g. Expansion Fund 02 – from Availability Fees, Commitment Fund 03 – from Availability Fees, Replacement Fund 04 – from User Rates, or Developer or Other Source Financial Contribution.
Project Total	Total project costs include anticipated land acquisition, design and construction costs, and Service Authority inspection and project management costs. A review of the construction and materials costs over the previous year has indicated increases, and consequently, estimates from the previous year's CIP have been adjusted upward for inflation this year. Staff feels that the conservative nature of the estimates will absorb these minor increases for ensuing years.
Project Map	Maps are produced from the Service Authority's Mapping System. The maps are annotated to detail information about the various projects. Photographs are also used for many countywide type projects.

Section C – Project Maps

This section provides overall county maps showing the location of the projects, giving the “big picture” of the Capital Improvement Program. The maps prove useful when correlating the information about Pressure Zone and Sewershed on the project data sheet with the project’s location in Prince William County.

CIP PROJECT PRIORITIZATION

The Service Authority’s Strategic Plan plays an ongoing critical role in the management and operations of the Authority. All CIP projects must align with the Authority’s immediate business needs and remain well aligned with the short and long-term outcomes the Authority strives to achieve.

Each CIP project requires a business case that documents its alignment with the Strategic Plan Areas of Excellence, Strategic Objectives, and Strategic Goals. In addition, CIP projects are prioritized according to the CIP Project Prioritization Criteria shown in Table 3 below. The prioritization process involves round table evaluation and scoring of CIP projects by the Authority’s Work Coordination Council (WCC), consisting of Service Authority leadership and subject matter experts. The WCC uses the outcomes of this evaluation process in conjunction with consideration of available funding to develop the CIP fiscal year schedule, as reflected in Section A (CIP Program Summary).

Table 3 - CIP Project Prioritization Criteria

Criteria	Criteria/Factors	Criteria Description and Objectives
1	Physical Condition of Asset <ul style="list-style-type: none"> • Physical Condition Assessment • Operating/Maintenance History • Probability/Consequence of Failure • Age/Useful Life 	Protect the health, safety and service to customers by replacing assets or information systems that have a high risk of failure due to age, condition or obsolescence.
2	Regulatory/Environmental Requirement <ul style="list-style-type: none"> • Permit/Regulatory Compliance • Water Quality • Health and Safety • Environmental Impact • Compliance Data Accuracy 	Protect public health and the environment by reducing the risk of regulatory non-compliance or negative environmental impact due to the failure of an asset or information system.
3	Service Level/Reliability Requirements <ul style="list-style-type: none"> • Workforce Productivity • Service interruption History • Health and Safety Risks • Water and Air Quality • Water Main Breaks or Sewer Backups • Noise or Odor Complaints 	Increase the reliability and redundancy of service to our customers by replacing and augmenting facilities and/or information systems that do not fully meet Service Authority standards.
4	Capacity/Technical Obsolescence Issues <ul style="list-style-type: none"> • Workforce Productivity • Probability of Failure • Single Point of Failure • Customer Service Needs • Capacity for New Customers • Future Support for Equipment/Systems 	Meet current and future technical, capacity, operational, health, safety, security and level of service requirements.
5	Operations and Maintenance Issues <ul style="list-style-type: none"> • Maintenance Requirements • Breakdowns and Downtime • Reactive Maintenance • Equipment Obsolescence • Manufacturer/Supplier Support • Labor and Operating Cost Savings 	Optimizing operational efficiency and reliability by replacing or enhancing the Service Authority's plant, water and sewer facilities and information systems.

FISCAL YEAR 2021 Summary of CIP Projects

The following is a list of Projects slated for study, design or construction during Fiscal Year 2021.

<i>WATER SUPPLY PROJECTS</i>		
CIP Number	PROJECT NAME	PROJECT LOCATION
WSUP-103	Water Meter Vault Improvements	Commercial Meter Vault Locations
WSUP-105	Montclair/Four Seasons Water System Improvements	17361 Four Seasons Drive, Dumfries
WSUP-111	Bull Run Mountain Well Upgrades	Bull Run Upper & Lower and Evergreen Pressure Zones
WSUP-112	Manassas Southside Booster Pumping Station Modifications	Blooms Quarry Lane, Manassas
WSUP-114	Capital Meter Program	County Wide
WSUP-116	Stonewall Jackson BPS Upgrades and Discharge Main	8814 Rixlew Lane

<i>WATER STORAGE PROJECTS</i>		
CIP Number	PROJECT NAME	PROJECT LOCATION
WST-110	Water Storage Tank Rehabilitation Program	Braemar, T-26
WST-111	Tank Re-chlorination Program	Dominion Valley, T-30

<i>WATER TRANSMISSION PROJECTS</i>		
CIP Number	PROJECT NAME	PROJECT LOCATION
WAT-104	Potomac Shores Parkway Transmission Main	Rt. 234/Rt. 1 Intersection, Rt. 1 to River Heritage Blvd.
WAT-115	Dawkins Branch Transmission Main	University Blvd. from Sudley Manor Dr. to Devlin Rd.
WAT-116	Montclair Pressure Zone Improvements-Rt 234	Brittany to First Mt Zion Baptist Church, Mt. Zion and Fortuna Shopping Center
WAT-129	Route 1 Water Main Reinforcement, North	Route 1, From Featherstone Road to Annapolis Way
WAT-137	Possum Point Road Water Main Replacement - Phase 1	Summer Duck Drive to Town Limits
WAT-181	Route 1 Transmission Main – Garfield BPS to Route 234	Route 1
WAT-182	Rt. 1 Trans. Main - Rt. 234 to Fuller Heights Rd.	Route 1
WAT-200	Water Distribution Asset Replacement Program	County Wide

<i>SEWAGE PUMPING STATION PROJECTS</i>		
CIP Number	PROJECT NAME	PROJECT LOCATION
SPS-100	Generator Replacement Program	County Wide
SPS-107	Replace Occoquan Forest SPS's, OQL36 and OQL37	Split Rail Dr. and Ramblewood Tr,
SPS-108	Replace Nokesville Sewage Pumping Station, L20	12829 Fitzwater Drive, Nokesville
SPS-109	Featherstone SPS Flood Protection Assessment, L16	Farm Creek Road, Woodbridge
SPS-112	Replace Graham Park Sewage Pumping Station, L13	3196 Shoreview Road, Dumfries
SPS-113	Heritage Hunt Sewage Pumping Station, L52, Force Main	Heritage Hunt SPS Force Main
SPS-114	Replace Heritage Hunt Sewage Pumping Station, L52	6588 Alderwood Way, Gainesville
SPS-115	Upgrade Belmont SPS, L17 & Force Main Extension	13760 Dabney Rd., Woodbridge
SPS-118	Replace Koon's Sewage Pumping Station, L28	10640 Automotive Dr., Manassas
SPS-119	Replace Airport Sewage Pumping Station Pumps, L15	Cotton Mill Drive, Woodbridge
SPS-123	Replace Spinnaker Court Sewage Pumping Station, L02	2280 Spinnaker Ct., Woodbridge
SPS-125	Occoquan Creek SPS Rehabilitation, L04	13221 Marina Way, Woodbridge
SPS-127	Dumfries Lift Station Flood Protection, L18	3458 Canal Road, Dumfries
SPS-129	Occoquan Plant Lift Station Flood Protection, L14	12715 Sea Ray Ln., Woodbridge

<i>SEWAGE COLLECTION PROJECTS</i>		
CIP Number	PROJECT NAME	PROJECT LOCATION
SEW-106	Dumfries Force Main Replacement	Dumfries
SEW-157	Sudley Rd. Sewer Main Replacement & Upgrade	Sudley Rd. south of I-66
SEW-200	Sewer Collection Rehabilitation & Replacement Program	County Wide

<i>WATER RECLAMATION FACILITY PROJECTS</i>		
CIP Number	PROJECT NAME	PROJECT LOCATION
WRF-123	Ongoing Renewal and Replacement	H.L. Mooney AWRF
WRF-126	Dynamic Hydraulic Model and Instrumentation	H.L. Mooney AWRF
WRF-131	FBI and Solids Building Repairs and Modifications	H.L. Mooney AWRF
WRF-134	Bioreactor Basin Improvements	H.L. Mooney AWRF
WRF-138	Facility Wide Improvement – Design-Build Project	H.L. Mooney AWRF
WRF-142	Replace/Upgrade Freight Elevators	H.L. Mooney AWRF

MISCELLANEOUS PROJECTS		
CIP Number	PROJECT NAME	PROJECT LOCATION
MISC-100	Water and Sewer Master Plan Utility Adjustments	County Wide
MISC-101	PWCSA Water and Sewer Fac. Security Enhancements	County Wide
MISC-102	Wellington Road Operations Center Expansion	Virginia Meadows Industrial Park
MISC-103	PWCSA Facilities Renewals and Upgrades	County Wide
MISC-113	Occoquan Forest WWTP Closure & Site Restoration	Occoquan Forest WWTP
MISC-114	System Wide Master Plan	County Wide
MISC-115	Emergency Capital Work	County Wide
MISC-116	English Gardens Property Bldg Addition & Improvements	14195 Dumfries Road
MISC-117	Studies and PER's – Organization Wide	County Wide
MISC-200	Vehicle Replacement Program	County Wide
MISC-201	Mechanical Equipment Replacement Program	County Wide
MISC-202	Computer and Other Replacement Program	County Wide

INFORMATION TECHNOLOGY PROJECTS		
CIP Number	PROJECT NAME	PROJECT LOCATION
IT-105	JD Edwards Upgrade	County Wide
IT-106	Cayenta - CIS	County Wide
IT-107	Computerized Maintenance Mgmt System (CMMS)	County Wide
IT-110	Document Management System Implementation	County Wide
IT-117	Vertical Asset Data Management Development	County Wide
IT-118	System Integration	County Wide
IT-121	Asset Management Analytics	County Wide
IT-122	Project Management Information System (PMIS)	County Wide
IT-125	IT Cybersecurity Program	County Wide
IT-126	SCADA System Upgrade	County Wide

REGIONAL UTILITY PROJECTS		
CIP Number	PROJECT NAME	PROJECT LOCATION
REG-1	Occoquan River Crossing	Occoquan River at Griffith WTP

GLOSSARY OF TERMS AND ACRONYMS

The following is a list of acronyms and abbreviations frequently used by Prince William County Service Authority

<i>Acronym/Abbreviation List</i>	
PWCSA	Prince William County Service Authority
PWC	Prince William County
AT&T	American Telephone and Telegraph Company
AWRF	Advanced Water Reclamation Facility
BAKER	Michael Baker International, Inc. (Engineers)
BI	Business Intelligence
BNR	Biological Nitrogen Removal
BOCS	Board of County Supervisors
BPS	Booster Pumping Station
CBA	Chesapeake Bay Agreement
CCL	Christopher Consultants, LLC (Engineers)
CDM	Camp, Dresser and McKee, Inc. (Engineers)
CIP	Capital Improvement Program
CIP	Cast Iron Pipe
CIPP	Cured In Place Pipe
CMMS	Computerized Maintenance Management System
COM	City of Manassas
COMP	City of Manassas Park
CSX	Chesapeake-Seaboard Corporation (Railroad)
DIP	Ductile Iron Pipe
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FM	Force Main
FUND 02	Expansion Fund
FUND 03	Commitment Fund
FUND 04	Replacement Fund
FW	Fairfax Water
FY	Fiscal Year
GFI	Gannett, Fleming, Inc. (Engineers)
GIS	Geographic Information System
GLA	G. L. Associates

Acronym/Abbreviation List (Cont.)

GPM	Gallons Per Minute
GPS	Global Positioning System
H&S	Hazen and Sawyer Environmental Engineers and Scientists
HDPE	High Density Polyethylene Pipe
HOA	Home Owner Association
HP	Horsepower
HVAC	Heating Ventilation Air Conditioning
I&I	Inflow and Infiltration
IT	Information Technology
LFC	Local Facilities Charge
LS	Lift Station (Sewer)
MCB	Marine Corps Base
MCBQ	Marine Corps Base, Quantico
MG	Million Gallons
MGD	Million Gallons Per Day
MHI	Multiple Hearth Incinerator
MISC	Miscellaneous
MPUA	Master Plan Utility Adjustment
MSL	Mean Sea Level
MWH	MWH Global Consulting Firm (Engineers)
N-S RWY	Norfolk-Southern Railway Company
O&M	Operations and Maintenance Division
PER	Preliminary Engineering Report
PES	Potomac Embayment Standards
PFR	Public Facilities Review
PH	Phase
PO	Purchase Order
PRV	Pressure Reducing Valve
PS	Pumping Station
PVC	Polyvinyl Chloride (Plastic Pipe)
PWP	Prince William Pipeline, Corp.

Acronym/Abbreviation List (Cont.)

PZ	Pressure Zone
RCP	Reinforced Concrete Pipe
RDA	Rinker Design Associates (Engineers)
RF&P	Richmond, Fredericksburg and Petersburg Railroad
RK&K	Rummel, Klepper and Kahl Consulting Engineers
RPM	Revolutions Per Minute
SA	Service Authority
SCADA	Supervisory Control and Data Acquisition
SEW	Sewer (Collection Mains)
SPS	Sewage Pumping Station
SS	Sanitary Sewer
SSES	Sanitary Sewer Evaluation Study
TDH	Total Dynamic Head
UOSA	Upper Occoquan Service Authority
UV	Ultraviolet
VDOT	Virginia Department of Transportation
WAT	Water (Transmission and Distribution)
WL	Water Line
WRA	Whitman, Requardt and Associates, LLP (Engineers)
WRF	Water Reclamation Facility (Now AWRF)
WST	Water Storage Tank
WSUP	Water Supply
WWTP	Wastewater Treatment Plant (Now AWRF)

Water Pressure Zones

BH	Bull Run Mountain High
BW	Bull Run Mountain Low
DT	Dumfries
EG	Evergreen
FW	Fairfax Water
GM	Greater Manassas
GW	Gainesville
HM	Haymarket
HO	Hoadly
LR	Lake Ridge
MO	Montclair
MS	Manassas South
OF	Occoquan Forest
OR	Oak Ridge
WL	Woodbridge

Water Pressure Sub-Zones (Primary Zone)

DV	Dominion Valley Boosted (Haymarket)
OF	Occoquan Forest Reduced (Hoadly)
PC	Powell's Creek Reduced (Dumfries)

Sewersheds

BM	Belmont Lift Station
BR	Broad Run
BU	Bull Run
CB	Cabin Branch Lift Station
CC	Catharpin Creek
DE	Deweys Branch Lift Station
DM	Dumfries Lift Station
FB	Flat Branch
FS	Featherstone Lift Station
GD	Godwin Drive Lift Station
HS	Harbor Station
HB	Holkums Branch
HR	Hooes Run Lift Station
LB	Little Bull Run
LC	Little Creek Lift Station
MR	Melrose Lift Station
NB	North Branch
NE	Neabsco Creek Lift Station
NK	Nokesville Sewershed
OC	Occoquan Creek Lift Station
OQ	Occoquan Forest
OS	Occoquan STP Lift Station
OT	Occoquan Town Lift Station
PB	Piney Branch
PC	Powells Creek
PU	Purcell Branch
RU	Russia Branch Lift Station
UO	UOSA
WA	Airport Lift Station
YB	Youngs Branch
YS	Yorkshire Lift Station

Magisterial Districts

BR	Brentsville
CO	Coles
GN	Gainesville
NE	Neabsco
OC	Occoquan
PO	Potomac
WB	Woodbridge

**CAPITAL IMPROVEMENT PROGRAM
FISCAL YEARS 2021 - 2025**



Service Authority
Prince William County

SECTION A

PROGRAM SUMMARY

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
CAPITAL IMPROVEMENT PROGRAM, FISCAL YEARS 2021-2025**

FUNDING SOURCE SUMMARY - ALL PROJECTS

	TOTAL EXPENDITURES (\$1,000's)	SPENDING SCHEDULE (\$1,000's)						BEYOND FY-25
		PRE FY-21	FY-21	FY-22	FY-23	FY-24	FY-25	
WATER SUPPLY PROJECTS (WSUP)								
Exp Fund 002	6300	371	1550	459	360	1780	1780	0
Fund 003	5178	305	455	1138	1138	1138	1006	0
Rep Fund 004	24762	1737	4120	4527	4428	5098	4854	0
Other	0	0	0	0	0	0	0	0
TOTAL	36240	2412	6125	6123	5925	8015	7640	0
WATER STORAGE PROJECTS (WST)								
Exp Fund 002	10964	688	0	0	0	0	5138	5138
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	10950	0	2750	1650	2450	1650	2450	0
Other	0	0	0	0	0	0	0	0
TOTAL	21914	688	2750	1650	2450	1650	7588	5138
WATER TRANSMISSION PROJECTS (WAT)								
Exp Fund 002	9977	4114	276	0	0	2059	3529	0
Fund 003	14612	850	5000	6000	2762	0	0	0
Rep Fund 004	36309	5681	9471	8194	4762	3338	4864	0
Other	564	70	0	0	0	0	494	0
TOTAL	61461	10715	14746	14194	7523	5397	8886	0
SEWAGE PUMPING STATION PROJECTS (SPS)								
Exp Fund 002	21405	1374	492	7167	6536	5200	636	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	51090	7240	6362	17300	10286	8462	1440	0
Other	265	0	0	0	265	0	0	0
TOTAL	72760	8614	6854	24467	17087	13662	2076	0
SEWER COLLECTION PROJECTS (SEW)								
Exp Fund 002	4295	383	1313	1313	1288	0	0	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	12747	643	3163	3163	2779	1500	1500	0
Other	0	0	0	0	0	0	0	0
TOTAL	17042	1025	4475	4475	4067	1500	1500	0
WATER RECLAMATION FACILITY PROJECTS (WRF)								
Exp Fund 002	2744	404	540	690	630	420	60	0
Fund 003	25633	133	390	2550	5100	7650	7650	2160
Rep Fund 004	78871	1811	4820	9710	15470	21430	20590	5040
Other	0	0	0	0	0	0	0	0
TOTAL	107248	2348	5750	12950	21200	29500	28300	7200
MISCELLANEOUS PROJECTS (MISC)								
Exp Fund 002	16102	595	1749	1780	4700	5539	1739	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	43639	1795	8876	7190	9300	10139	6339	0
Other	0	0	0	0	0	0	0	0
TOTAL	59740	2389	10625	8970	14000	15678	8078	0
INFORMATION TECHNOLOGY (IT)								
Exp Fund 002	905	80	325	325	175	0	0	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	35383	5474	7960	6302	6485	4127	5035	0
Other	0	0	0	0	0	0	0	0
TOTAL	36288	5554	8285	6627	6660	4127	5035	0
REGIONAL UTILITY PROJECTS (REG)								
Exp Fund 002	0	0	0	0	0	0	0	0
Fund 003	4091	0	150	244	1500	1500	698	0
Rep Fund 004	9546	0	350	568	3500	3500	1628	0
Other	0	0	0	0	0	0	0	0
TOTAL	13637	0	500	812	5000	5000	2325	0
TOTAL EXPANSION FUND 002	72691	8008	6244	11733	13689	14998	12882	5138
TOTAL COMMITMENT FUND 003	49514	1287	5995	9931	10499	10288	9354	2160
TOTAL REPLACEMENT FUND 004	303296	24380	47871	58604	59459	59244	48699	5040
TOTAL DEVELOPER/OTHER FUND	829	70	0	0	265	0	494	0
GRAND TOTAL - ALL CIP PROJECTS	426330	33745	60110	80268	83912	84529	71428	12338

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
CAPITAL IMPROVEMENT PROGRAM, FISCAL YEARS 2021-2025**

FUNDING SOURCE SUMMARY - DEBT FUNDED PROJECTS

	TOTAL EXPENDITURES (\$1,000's)	SPENDING SCHEDULE (\$1,000's)						
		PRE FY-21	FY-21	FY-22	FY-23	FY-24	FY-25	BEYOND FY-25
WATER SUPPLY PROJECTS (WSUP)								
Exp Fund 002	0	0	0	0	0	0	0	0
Fund 003	5178	305	455	1138	1138	1138	1006	0
Rep Fund 004	9617	566	845	2113	2113	2113	1869	0
Other	0	0	0	0	0	0	0	0
TOTAL	14795	870	1300	3250	3250	3250	2875	0
WATER STORAGE PROJECTS (WST)								
Exp Fund 002	0	0	0	0	0	0	0	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0
WATER TRANSMISSION PROJECTS (WAT)								
Exp Fund 002	0	0	0	0	0	0	0	0
Fund 003	14612	850	5000	6000	2762	0	0	0
Rep Fund 004	14612	850	5000	6000	2762	0	0	0
Other	0	0	0	0	0	0	0	0
TOTAL	29223	1700	10000	12000	5523	0	0	0
SEWAGE PUMPING STATION PROJECTS (SPS)								
Exp Fund 002	0	0	0	0	0	0	0	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0
SEWER COLLECTION PROJECTS (SEW)								
Exp Fund 002	0	0	0	0	0	0	0	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0
WATER RECLAMATION FACILITY PROJECTS (WRF)								
Exp Fund 002	0	0	0	0	0	0	0	0
Fund 003	25633	133	390	2550	5100	7650	7650	2160
Rep Fund 004	59810	310	910	5950	11900	17850	17850	5040
Other	0	0	0	0	0	0	0	0
TOTAL	85443	443	1300	8500	17000	25500	25500	7200
MISCELLANEOUS PROJECTS (MISC)								
Exp Fund 002	0	0	0	0	0	0	0	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0
INFORMATION TECHNOLOGY (IT)								
Exp Fund 002	0	0	0	0	0	0	0	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	20859	0	4685	3727	4435	3577	4435	0
Other	0	0	0	0	0	0	0	0
TOTAL	20859	0	4685	3727	4435	3577	4435	0
REGIONAL UTILITY PROJECTS (REG)								
Exp Fund 002	0	0	0	0	0	0	0	0
Fund 003	4091	0	150	244	1500	1500	698	0
Rep Fund 004	9546	0	350	568	3500	3500	1628	0
Other	0	0	0	0	0	0	0	0
TOTAL	13637	0	500	812	5000	5000	2325	0
TOTAL EXPANSION FUND 002	0	0	0	0	0	0	0	0
TOTAL COMMITMENT FUND 003	49514	1287	5995	9931	10499	10288	9354	2160
TOTAL REPLACEMENT FUND 004	114443	1726	11790	18358	24709	27040	25781	5040
TOTAL DEVELOPER/OTHER FUND	0	0	0	0	0	0	0	0
GRAND TOTAL - DEBT FUNDED PROJECTS	163957	3013	17785	28289	35208	37327	35135	7200

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
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FUNDING SOURCE SUMMARY - NON DEBT FUNDED PROJECTS

	TOTAL EXPENDITURES (\$1,000's)	SPENDING SCHEDULE (\$1,000's)						
		PRE FY-21	FY-21	FY-22	FY-23	FY-24	FY-25	BEYOND FY-25
WATER SUPPLY PROJECTS (WSUP)								
Exp Fund 002	6300	371	1550	459	360	1780	1780	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	15145	1171	3275	2414	2315	2985	2985	0
Other	0	0	0	0	0	0	0	0
TOTAL	21445	1542	4825	2873	2675	4765	4765	0
WATER STORAGE PROJECTS (WST)								
Exp Fund 002	10964	688	0	0	0	0	5138	5138
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	10950	0	2750	1650	2450	1650	2450	0
Other	0	0	0	0	0	0	0	0
TOTAL	21914	688	2750	1650	2450	1650	7588	5138
WATER TRANSMISSION PROJECTS (WAT)								
Exp Fund 002	9977	4114	276	0	0	2059	3529	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	21697	4831	4471	2194	2000	3338	4864	0
Other	564	70	0	0	0	0	494	0
TOTAL	32238	9015	4746	2194	2000	5397	8886	0
SEWAGE PUMPING STATION PROJECTS (SPS)								
Exp Fund 002	21405	1374	492	7167	6536	5200	636	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	51090	7240	6362	17300	10286	8462	1440	0
Other	265	0	0	0	265	0	0	0
TOTAL	72760	8614	6854	24467	17087	13662	2076	0
SEWER COLLECTION PROJECTS (SEW)								
Exp Fund 002	4295	383	1313	1313	1288	0	0	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	12747	643	3163	3163	2779	1500	1500	0
Other	0	0	0	0	0	0	0	0
TOTAL	17042	1025	4475	4475	4067	1500	1500	0
WATER RECLAMATION FACILITY PROJECTS (WRF)								
Exp Fund 002	2744	404	540	690	630	420	60	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	19061	1501	3910	3760	3570	3580	2740	0
Other	0	0	0	0	0	0	0	0
TOTAL	21805	1905	4450	4450	4200	4000	2800	0
MISCELLANEOUS PROJECTS (MISC)								
Exp Fund 002	16102	595	1749	1780	4700	5539	1739	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	43639	1795	8876	7190	9300	10139	6339	0
Other	0	0	0	0	0	0	0	0
TOTAL	59740	2389	10625	8970	14000	15678	8078	0
INFORMATION TECHNOLOGY (IT)								
Exp Fund 002	905	80	325	325	175	0	0	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	14524	5474	3275	2575	2050	550	600	0
Other	0	0	0	0	0	0	0	0
TOTAL	15429	5554	3600	2900	2225	550	600	0
REGIONAL UTILITY PROJECTS (REG)								
Exp Fund 002	0	0	0	0	0	0	0	0
Fund 003	0	0	0	0	0	0	0	0
Rep Fund 004	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0
TOTAL EXPANSION FUND 002	72691	8008	6244	11733	13689	14998	12882	5138
TOTAL COMMITMENT FUND 003	0	0	0	0	0	0	0	0
TOTAL REPLACEMENT FUND 004	188853	22654	36081	40246	34750	32204	22918	0
TOTAL DEVELOPER/OTHER FUND	829	70	0	0	265	0	494	0
GRAND TOTAL NON-DEBT FUNDED PROJECTS	262373	30732	42325	51979	48704	47202	36293	5138

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
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WATER SUPPLY PROJECTS

CIP Number	PROJECT NAME	ESTIMATED PROJECT COST (\$1,000's)	FUNDING SOURCES				SPENDING SCHEDULE						
			E 002	003	R 004	OTHER	PRE FY-21	FY-21	FY-22	FY-23	FY-24	FY-25	BEYOND FY-25
WSUP-103	Water Meter Vault Improvements	625	0	0	625	0	0	125	125	125	125	125	0
WSUP-105	Montclair/Four Seasons Water System Improvements *	14795	0	5178	9617	0	870	1300	3250	3250	3250	2875	0
WSUP-111	Bull Run Mountain Well Upgrades	2700	0	0	2700	0	800	400	750	750	0	0	0
WSUP-112	Manassas Southside Booster Pumping Station Upgrades	2273	1137	0	1137	0	525	1550	198	0	0	0	0
WSUP-114	Capital Meter Program	9200	1840	0	7360	0	0	2000	1800	1800	1800	1800	0
WSUP-116	Stonewall Jackson BPS Upgrades and Discharge Main	6647	3324	0	3324	0	217	750	0	0	2840	2840	0
TOTAL: WATER SUPPLY PROJECTS		36240	6300	5178	24762	0	2412	6125	6123	5925	8015	7640	0

* Debt Funded Project

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
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WATER STORAGE PROJECTS

CIP Number	PROJECT NAME	ESTIMATED PROJECT COST	FUNDING SOURCES				SPENDING SCHEDULE						
		(\$1,000's)	E 002	003	R 004	OTHER	PRE FY-21	FY-21	FY22	FY-23	FY-24	FY-25	BEYOND FY-25
WST-104	Potomac Shores Water Storage Tank	10964	10964	0	0	0	688	0	0	0	0	5138	5138
WST-110	Water Storage Tank Rehabilitation Program	7800	0	0	7800	0	0	1800	1500	1500	1500	1500	0
WST-111	Tank Re-chlorination Program	3150	0	0	3150	0	0	950	150	950	150	950	0
TOTAL: WATER STORAGE PROJECTS		21914	10964	0	10950	0	688	2750	1650	2450	1650	7588	5138

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
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WATER TRANSMISSION PROJECTS

CIP Number	PROJECT NAME	ESTIMATED PROJECT COST	FUNDING SOURCES				SPENDING SCHEDULE						
		(\$1,000's)	E 002	003	R 004	OTHER	PRE FY-21	FY-21	FY-22	FY-23	FY-24	FY-25	BEYOND FY-25
WAT-104	Potomac Shores Parkway Transmission Main	2849	1140	0	1709	0	538	100	0	0	1397	814	0
WAT-115	Dawkins Branch Transmission Main (Edmonston Drive to Devlin Road)	4727	2836	0	1891	0	590	0	0	0	2500	1637	0
WAT-116	Montclair Pressure Zone Improvements - Route 234	1899	0	0	1899	0	430	1275	194	0	0	0	0
WAT-122	Gainesville to Manassas South Connector	5635	2536	0	2536	564	700	0	0	0	0	4935	0
WAT-129	Route 1 Water Main Reinforcement, North	6931	3466	0	3466	0	6460	471	0	0	0	0	0
WAT-137	Possum Point Road Water Main Replacement - Phase 1	2697	0	0	2697	0	297	1400	500	500	0	0	0
WAT-181	Rt. 1 Trans. Main - Garfield BPS to Rt. 234 *	14869	0	7435	7435	0	900	5000	6000	2969	0	0	0
WAT-182	Rt. 1 Trans. Main - Rt. 234 to Fuller Heights Road *	14354	0	7177	7177	0	800	5000	6000	2554	0	0	0
WAT-200	Water Distribution Asset Replacement Program	7500	0	0	7500	0	0	1500	1500	1500	1500	1500	0
TOTAL: WATER TRANSMISSION PROJECTS		61461	9977	14612	36309	564	10715	14746	14194	7523	5397	8886	0

* Debt Funded Project

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
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SEWAGE PUMPING STATION PROJECTS

CIP Number	PROJECT NAME	ESTIMATED PROJECT COST	FUNDING SOURCES				SPENDING SCHEDULE						
		(\$1,000's)	E 002	003	R 004	OTHER	PRE FY-21	FY-21	FY-22	FY-23	FY-24	FY-25	BEYOND FY-25
SPS-100	Generator Replacement Program	2200	0	0	2200	0	0	200	500	500	500	500	0
SPS-107	Replace Occoquan Forest Sewage Pumping Stations, OQL36 & OQL37	7477	0	0	7477	0	1515	2000	1500	1300	1162	0	0
SPS-108	Replace Nokesville Sewage Pumping Station, L20	3573	0	0	3573	0	605	1000	985	983	0	0	0
SPS-109	Featherstone Sewage Pumping Station (L16), Flood Protection	1190	0	0	1190	0	200	190	800	0	0	0	0
SPS-112	Replace Graham Park Sewage Pumping Station, L13	4246	0	0	4246	0	910	1200	1336	800	0	0	0
SPS-113	Heritage Hunt Sewage Pumping Station, L52, Force Main	15419	10793	0	4626	0	1000	400	5000	5000	4000	19	0
SPS-114	Replace Heritage Hunt Sewage Pumping Station, L52	20407	8163	0	12244	0	1600	100	5150	6000	6000	1557	0
SPS-115	Upgrade Belmont Sewage Pumping Station, L17 & Force Main Extension	5133	1540	0	3593	0	77	440	4616	0	0	0	0
SPS-118	Replace Koon's Sewage Pumping Station, L28	1364	273	0	1091	0	55	200	1109	0	0	0	0
SPS-119	Replace Airport Sewage Pumping Station Pumps, L15	2958	0	0	2958	0	2458	500	0	0	0	0	0
SPS-123	Replace Spinnaker Court Sewage Pumping Station, L02	1448	0	0	1448	0	46	200	1202	0	0	0	0
SPS-125	Occoquan Creek Sewage Pumping Station Rehabilitation, L04	6159	0	0	6159	0	95	420	2200	1444	2000	0	0
SPS-126	Piney Branch Sewage Pumping Station Demolition & Gravity Sewer Extension	1060	636	0	159	265	0	0	0	1060	0	0	0
SPS-127	Dumfries Lift Station Flood Protection, L18	126	0	0	126	0	53	4	69	0	0	0	0
TOTAL: SEWAGE PUMPING STATION PROJECTS		72760	21405	0	51090	265	8614	6854	24467	17087	13662	2076	0

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
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SEWER COLLECTION PROJECTS

CIP Number	PROJECT NAME	ESTIMATED PROJECT COST	FUNDING SOURCES				SPENDING SCHEDULE						
		(\$1,000's)	E 002	003	R 004	OTHER	PRE FY-21	FY-21	FY-22	FY-23	FY-24	FY-25	BEYOND FY-25
SEW-106	Dumfries Force Main Replacement	3815	0	0	3815	0	515	1225	1225	850	0	0	0
SEW-157	Sudley Road Sewer Main Replacement & Upgrade	5727	4295	0	1432	0	510	1750	1750	1717	0	0	0
SEW-200	Sewer Collection Rehabilitation & Replacement Program	7500	0	0	7500	0	0	1500	1500	1500	1500	1500	0
TOTAL: SEWER COLLECTION PROJECTS		17042	4295	0	12747	0	1025	4475	4475	4067	1500	1500	0

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
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WATER RECLAMATION FACILITY PROJECTS

CIP Number	PROJECT NAME	ESTIMATED PROJECT COST	FUNDING SOURCES				SPENDING SCHEDULE						
		(\$1,000's)	E 002	003	R 004	OTHER	PRE FY-21	FY-21	FY-22	FY-23	FY-24	FY-25	BEYOND FY-25
WRF-123	Ongoing Renewal and Replacement	11959	0	0	11959	0	509	2050	2100	2100	2600	2600	0
WRF-126	Dynamic Hydraulic Model and Instrumentation	1369	411	0	958	0	469	300	300	300	0	0	0
WRF-131	FBI and Solids Building Repairs and Modifications	3450	1035	0	2415	0	50	1000	1000	800	400	200	0
WRF-134	Bioreactor Basin Improvements	4327	1298	0	3029	0	827	500	1000	1000	1000	0	0
WRF-138	Facility Wide Improvements - Design-Build Project *	85443	0	25633	59810	0	443	1300	8500	17000	25500	25500	7200
WRF-142	Replace/Upgrade Freight Elevators	700	0	0	700	0	50	600	50	0	0	0	0
TOTAL: WATER RECLAMATION FACILITY PROJECTS		107248	2744	25633	78871	0	2348	5750	12950	21200	29500	28300	7200

* Debt Funded Project

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
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MISCELLANEOUS PROJECTS

CIP Number	PROJECT NAME	ESTIMATED PROJECT COST	FUNDING SOURCES				SPENDING SCHEDULE						
		(\$1,000's)	E 002	003	R 004	OTHER	PRE FY-21	FY-21	FY-22	FY-23	FY-24	FY-25	BEYOND FY-25
MISC-100	Water and Sewer Master Plan Utility Adjustments (MPUA)	10000	5000	0	5000	0	0	2000	2000	2000	2000	2000	0
MISC-101	PWCSA Water & Sewer Facility Security Enhancements	1500	0	0	1500	0	0	300	300	300	300	300	0
MISC-102	Wellington Road Operations Center Expansion	1753	877	0	877	0	69	328	0	0	678	678	0
MISC-103	PWCSA Facility Renewals and Upgrades	3000	0	0	3000	0	500	500	500	500	500	500	0
MISC-112	Spittle Office Building Addition	16850	8425	0	8425	0	1050	0	400	7000	8000	400	0
MISC-113	Occoquan Forest WWTP Closure & Site Restoration	1574	0	0	1574	0	700	874	0	0	0	0	0
MISC-114	System Wide Master Plan	600	600	0	0	0	0	300	300	0	0	0	0
MISC-115	Emergency Capital Work	6500	0	0	6500	0	0	1300	1300	1300	1300	1300	0
MISC-116	English Gardens Property Building Addition & Improvements	400	200	0	200	0	70	170	160	0	0	0	0
MISC-117	Studies and PER's - Organization Wide	2000	1000	0	1000	0	0	400	400	400	400	400	0
MISC-200	Vehicle Replacement Program	2815	0	0	2815	0	0	615	700	500	500	500	0
MISC-201	Mechanical Equipment Replacement Program	9250	0	0	9250	0	0	2750	2000	1500	1500	1500	0
MISC-202	Computer and Other Replacement Program	3498	0	0	3498	0	0	1088	910	500	500	500	0
TOTAL: MISCELLANEOUS PROJECTS		59740	16102	0	43639	0	2389	10625	8970	14000	15678	8078	0

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
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INFORMATION TECHNOLOGY PROJECTS

CIP Number	PROJECT NAME	ESTIMATED PROJECT COST	FUNDING SOURCES				SPENDING SCHEDULE						
		(\$1,000's)	E 002	003	R 004	OTHER	PRE FY-21	FY-21	FY-22	FY-23	FY-24	FY-25	BEYOND FY-25
IT-105	JD Edwards Upgrade	530	0	0	530	0	330	200	0	0	0	0	0
IT-106	Cayenta - CIS	905	0	0	905	0	330	200	0	375	0	0	0
IT-107	Computerized Maintenance Management System (CMMS) Implementation	7256	0	0	7256	0	4206	1300	1000	750	0	0	0
IT-110	Document Management System Implementation	538	0	0	538	0	88	300	150	0	0	0	0
IT-117	Vertical Asset Data Management Development	790	0	0	790	0	90	250	300	150	0	0	0
IT-118	System Integration	2150	0	0	2150	0	350	350	350	400	350	350	0
IT-121	Asset Management Analytics	300	0	0	300	0	0	100	200	0	0	0	0
IT-122	Project Management Information System (PMIS) Implementation	1810	905	0	905	0	160	650	650	350	0	0	0
IT-125	IT Cybersecurity Program	1150	0	0	1150	0	0	250	250	200	200	250	0
IT-126	SCADA System Upgrade *	20859	0	0	20859	0	0	4685	3727	4435	3577	4435	0
TOTAL: INFORMATION AND TECHNOLOGY PROJECTS		36288	905	0	35383	0	5554	8285	6627	6660	4127	5035	0

* Debt Funded Project

**PRINCE WILLIAM COUNTY SERVICE AUTHORITY
CAPITAL IMPROVEMENT PROGRAM, FISCAL YEARS 2021-2025**

REGIONAL UTILITY PROJECTS

CIP Number	PROJECT NAME	ESTIMATED PROJECT COST	FUNDING SOURCES				SPENDING SCHEDULE						
		(\$1,000's)	E 002	003	R 004	OTHER	PRE FY-21	FY-21	FY-22	FY-23	FY-24	FY-25	BEYOND FY-25
REG-1	Occoquan River Crossing *	13637	0	4091	9546	0	0	500	812	5000	5000	2325	0
TOTAL: REGIONAL UTILITY PROJECTS		13637	0	4091	9546	0	0	500	812	5000	5000	2325	0

* Debt Funded Project

**CAPITAL IMPROVEMENT PROGRAM
FISCAL YEARS 2021 - 2025**



Service Authority
Prince William County

SECTION B

PROJECT DATA SHEETS



Service Authority

Prince William County



Water Supply Projects

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Water Meter Vault Improvements
CIP Number: WSUP-103
JDE Number(s): 24WCWV0001, 24WWLZ0001
Location: Commercial Meter Vault Locations
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Finance - Field Services

PROJECT DESCRIPTION

Project Description: Repair and replacement of commercial meter vaults county wide as needed.
Project Benefit: Aging meter vaults pose a safety issue for Field Services personnel servicing the respective meters. Maintenance of these facilities will provide a safe environment for the repair, replacement, and necessary customer service.
Source Derivation: Operations and Maintenance Division, Finance – Field Services; Managed By Finance – Field Services

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	125	125	125	125	125	0	625

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Montclair / Four Seasons Water System Improvements
CIP Number: WSUP-105
JDE Number(s): 22_24WMOF2201, 22_24WMOM0801
Location: 17361 Four Seasons Dr., Dumfries
Pressure Zone: MO – Montclair
Sewershed: DM – Dumfries
Magisterial District: PO – Potomac
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division, Hazen and Sawyer

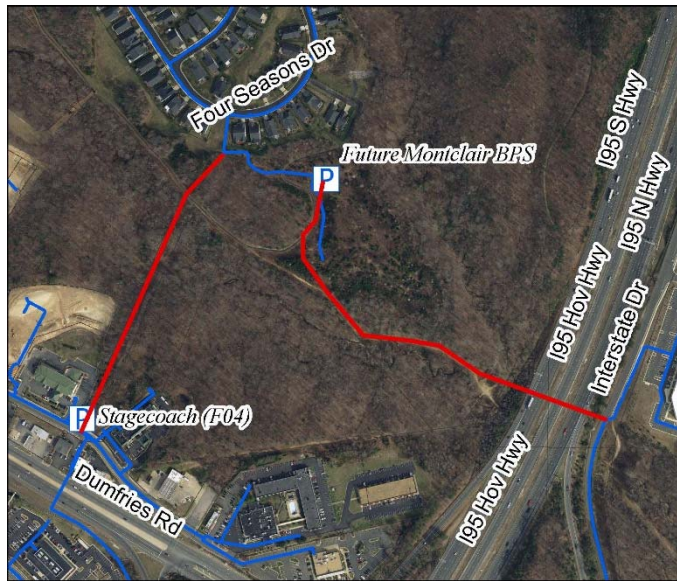
PROJECT DESCRIPTION

Project Description: Construction of a new booster pumping station with associated power and control accessories, including an emergency generator. This project also includes the construction of a 4,000-foot long supply line crossing Dewey's Creek and I-95, and the construction of a 1,400-foot long 16-inch diameter discharge main from the new station to Old Stage Road.

Project Benefit: This project will provide auxiliary pumping capacity to the Cow Branch Water Booster Pumping Station, improve system reliability, as well as accommodate the anticipated build-out demands in the Montclair and Oak Ridge Pressure Zones. This project will also enable the Old Stage Booster Pumping Station, which is outdated with limited capacity, to be removed from service.

Source Derivation: WRA East End Water System Technical Memorandum, 2001, Hazen and Sawyer PER, 2016; Managed by Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
870	1300	3250	3250	3250	2875	0	14795

Proposed Funding Sources	
Exp. Fund (02) – Availability Rates	-
Commit. Fund (03) – Availability Rates	35%
Repl. Fund (04) – User Rates	65%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Bull Run Mountain Well Upgrades
CIP Number: WSUP-111
JDE Number(s): 24WBHW0101
Location: Bull Run Mountain / Evergreen Well Systems
Pressure Zone: BH – Bull Run Mountain High, BW – Bull Run Mountain Low
Sewershed: None
Magisterial District: GN – Gainesville
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division, Operations and Maintenance Division

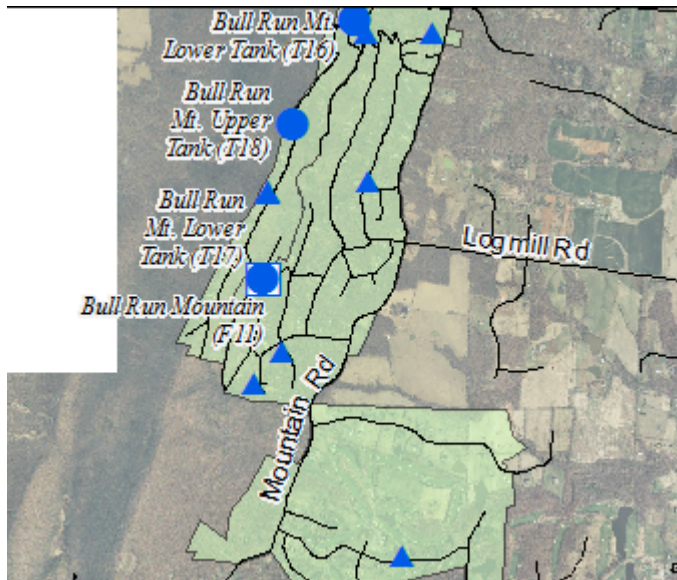
PROJECT DESCRIPTION

Project Description: The evaluation, design, and construction of improvements in the Bull Run Mountain Well Systems to continue to meet demands. The project scope consists of: Structural modifications for updated chemical feed equipment and the installation of disinfection facilities at various well sites; design of a replacement PRV vault to control flows and pressures between service zones; the investigation, design, and construction of new well sites, piping, and a booster pump to increase capacity in the system.

Project Benefit: These modifications and improvements will increase reliability and enhance system operations, and ensure there is adequate capacity to meet future demands.

Source Derivation: Operations and Maintenance Division, Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
800	400	750	750	0	0	0	2700

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Manassas Southside Booster Pumping Station Modifications
CIP Number: WSUP-112
JDE Number(s): 22WMSF1851, 24SMWF1851
Location: Blooms Quarry Ln., Manassas
Pressure Zone: MS – Manassas Southside
Sewershed: YS – Yorkshire
Magisterial District: CO – Coles
Project Estimate: PER
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Design and construction of modifications and upgrades including new larger impellers for the two existing pumps, a new 3rd pump in kind, VFD controllers and new pump control valves. A standby generator will be installed, the HVAC system will be modified for easier maintenance, and the SCADA and electrical systems will be updated to current standards. This project also includes a new offsite pressure reducing valve to improve hydraulic conditions upstream of the station.

Project Benefit: The increased pumping capacity at the booster pumping station will improve pumping efficiencies and provide better service and reliability to existing and future customers within the Manassas South Pressure Zone.

Source Derivation: Engineering and Planning Division, Operations and Maintenance Division, Manassas Southside Booster Pumping Station PER – Hazen and Sawyer (January 2018, Revision July 27, 2018); Managed By Engineering and Planning Division.

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
525	1550	198	0	0	0	0	2273

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	50%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	50%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Capital Meter Program
CIP Number: WSUP-114
JDE Number(s): 22WCWZ0001, 24WCWZ0001
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Finance – Field Services

PROJECT DESCRIPTION

Project Description: The Service Authority installs new meters as a result of growth, or to replace existing meters that have reached the end of their service life. Owners/Developers pay a meter fee at the time of certification - these offsetting revenues are recorded to the Expansion Fund. Existing meters are typically replaced after 15-years of service or 1.5 million gallons of consumption. The service life of larger meters is variable and they are often repaired or rebuilt as needed. On average, 5,500 meters require repair or replacement annually and are recorded to the Replacement Fund.

Project Benefit: The goal of this project is to account for all new meter expenditures related to growth for asset capitalization purposes. Proper maintenance and timely replacement of existing meters minimizes water loss and maximizes revenue by accurately capturing consumption. Additionally, the meter reading process becomes more efficient as the older manual and touch-read meters are replaced with radio-read meters.

Source Derivation: Finance – Customer Service Department; Managed By Finance – Field Services

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	2000	1800	1800	1800	1800	0	9200

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	20%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	80%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Stonewall Jackson Booster Pumping Station Upgrades and Discharge Main
CIP Number: WSUP-116
JDE Number(s): 24WGWM0901
Location: 8814 Rixlew Lane, Manassas
Pressure Zone: GW - Gainesville
Sewershed: FB – Flat Branch
Magisterial District: BR - Brentsville
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Design and construction of modifications and upgrades including replacement of several existing pump impellers to increase station capacity, new control room, new SCADA and electrical systems, new generator, storm water management facility, and surge mitigation features. This project also includes the design and construction of a new 2,100-foot long 36-inch diameter discharge main for increased redundancy and operational flexibility.

Project Benefit: The capacity increase of the Stonewall Jackson BPS will satisfy future projected demands, improve efficiency and provide better service and reliability to existing and future customers within the Gainesville and Haymarket Pressure Zones. The additional discharge main will increase reliability in these zones should a break occur in the existing 42-inch discharge main.

Source Derivation: Engineering and Planning Division. Gainesville Discharge Main PER - Michael Baker, July 2019. Managed by Engineering and Planning Division.

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
217	750	0	0	2840	2840	0	6647

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	50%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	50%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%



Service Authority
Prince William County



Water Storage Projects

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Potomac Shores Water Storage Tank
CIP Number: WST-104
JDE Number(s): 22WDTT3501, 24WDTT3501
Location: Dumfries Pressure Zone
Pressure Zone: DT – Dumfries
Sewershed: DM – Dumfries
Magisterial District: PO – Potomac
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Design and construction of a 2 MG elevated steel water storage tank in the Potomac Shores community of the Dumfries Pressure Zone. The easement for the tank site, access road, and water main were proffered with the new middle school in Potomac Shores. The final PER evaluated several options and concluded this site to be the optimal location.

Project Benefit: This tank will help maintain system pressures, improve reliability, and increase fire flows to the area by providing additional equalization, emergency, and fire protection storage.

Source Derivation: Engineering and Planning Division, Cherry Hill Elevated Water Storage Tank PER, Hazen and Sawyer, October 2016; Managed By Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
688	0	0	0	0	5138	5138	10964

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	100%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	-
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Water Storage Tank Rehabilitation Program
CIP Number: WST-110
JDE Number(s): Not Assigned
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Operations and Management Division

PROJECT DESCRIPTION

Project Description: Repair and rehabilitation of water storage tanks from defects including peeling paint, rust, pitting, and delaminating of the surface coat from the primer coat. In addition, this project will install mixing systems as required while tanks undergo refurbishment. Other components that are upgraded as needed include lighting, fencing, control valves, and SCADA systems. The storage tanks scheduled for rehabilitation during this 5-year CIP period include Braemar (T26), Interstate (T22), Dominion Valley (T30), Nottoway (T28), and Locust Shade (T29). The timing and execution are subject to change based on operational needs and priorities.

Project Benefit: Preserve and extend the economic life of each water tank. In addition, the project will prevent stagnation of water within the tank with the installation of mixing systems.

Source Derivation: Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	1800	1500	1500	1500	1500	0	7800

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Tank Re-Chlorination Program
CIP Number: WST-111
JDE Number(s): Not Assigned
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Operations and Management Division

PROJECT DESCRIPTION

Project Description: Residual Control System is a management system that provides an intelligent, automated disinfectant boosting system that provides the ability to set, control, and maintain cost-effective chlorine residual levels in water storage tanks. In addition, the project will install the management system, controls, and ancillary equipment. Other components that are upgraded as needed are electrical equipment, tank mixing systems, and include thermal probes to monitor mixing. The timing and execution are subject to change based on operational needs and priorities.

Project Benefit: This project provides an important safeguard against the risk of subsequent contamination after treatment, a unique and significant benefit for public health.

Source Derivation: Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	950	150	950	150	950	0	3150

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%



Service Authority
Prince William County



Water Transmission Projects

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Potomac Shores Parkway Transmission Main
CIP Number: WAT-104
JDE Number(s): 22WDTM8602, 24WDTM8602
Location: Future Potomac Shores Pkwy. from Rt. 1 to River Heritage Blvd.
Pressure Zone: DT – Dumfries
Sewershed: DM – Dumfries
Magisterial District: PO – Potomac
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Design and construction of approximately 7,450 feet of 16-inch and 1,140 feet of 12-inch water main along the future Potomac Shores Parkway from Route 1 to River Heritage Boulevard.
Project Benefit: This project will increase the transmission capacity and reinforce the existing network grid within the Dumfries pressure zone as well as serve new development in Potomac Shores. Coordinating the construction of water main with the proposed road projects will save in pavement restoration costs and minimize traffic disruptions.
Source Derivation: Engineering and Planning Division.

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
538	100	0	0	1397	814	0	2849

Proposed Funding Sources	
Exp. Fund (02) – Availability Funds	40%
Commit. Fund (03) – Availability Funds	-
Repl. Fund (04) – User Rates	60%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Dawkins Branch Transmission Main
CIP Number: WAT-115
JDE Number(s): 22WBRM0101, 24WBRM0101
Location: Edmonston Dr. to Devlin Rd. via University Blvd.
Pressure Zone: GW – Gainesville
Sewershed: BR – Broad Run
Magisterial District: BR – Brentsville
Project Estimate: PER
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: This project is the design and construction of a total of 6,550 feet of 30-inch water main along University Boulevard from Sudley Manor Drive to Devlin Road. The project is comprised of 2 segments: 2,400 feet of 30-inch to be constructed with the County’s University Boulevard Road Extension project from Sudley Manor Drive to Edmonston Drive; and this portion of the project which consists of 4,150 feet of 30-inch from Edmonston Drive to Devlin Road. The water main design for the County’s portion of the road project began in August 2019, and has a total estimated cost of \$1,870,000.

Project Benefit: This project will extend a major transmission main through the center of the Gainesville Pressure Zone to convey additional pump discharge from the Stonewall Jackson Booster Pumping Station. This project will increase the transmission capacity throughout the pressure zone and strengthen the supply to the Haymarket Pressure Zone.

Source Derivation: Gannett Fleming Western Zone Water Transmission Main Study, 1992.

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
590	0	0	0	2500	1637	0	4727

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	60%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	40%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

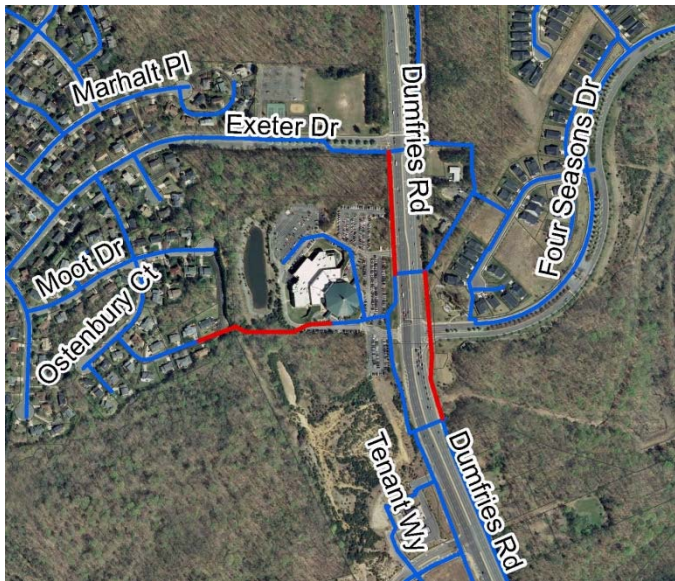
PROJECT INFORMATION

Project Name: Montclair Pressure Zone Improvements – Route 234
CIP Number: WAT-116
JDE Number(s): 24WMOM0203
Location: Near First Mount Zion Baptist Church and Four Seasons Dr. along Rt. 234
Pressure Zone: MO – Montclair
Sewershed: DE – Deweys Branch
Magisterial District: PO – Potomac
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Construction of approximately 760 feet of 8-inch and 1,450 feet of 12-inch water main along the Dumfries Road corridor to reinforce the distribution system in the area of Mount Zion Church, Brittany Subdivision and Fortuna Shopping Center.
Project Benefit: Increase transmission capacity to provide better service to existing customers as well as redundancy along the Dumfries Road corridor. This will benefit the Mount Zion Church, the Fortuna Shopping Center and Brittany Subdivision, and eliminate dead-end mains for improved circulation and water quality.
Source Derivation: Engineering and Planning Division, Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
430	1275	194	0	0	0	0	1899

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contribution	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Gainesville to Manassas South Connector
CIP Number: WAT-122
JDE Number(s): Not Assigned
Location: Rt. 28 Corridor to Godwin Dr.
Pressure Zone: MS – Manassas South and GW – Gainesville
Sewershed: GD – Godwin Drive Lift Station
Magisterial District: BR – Brentsville and CO – Coles
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division, CH2M

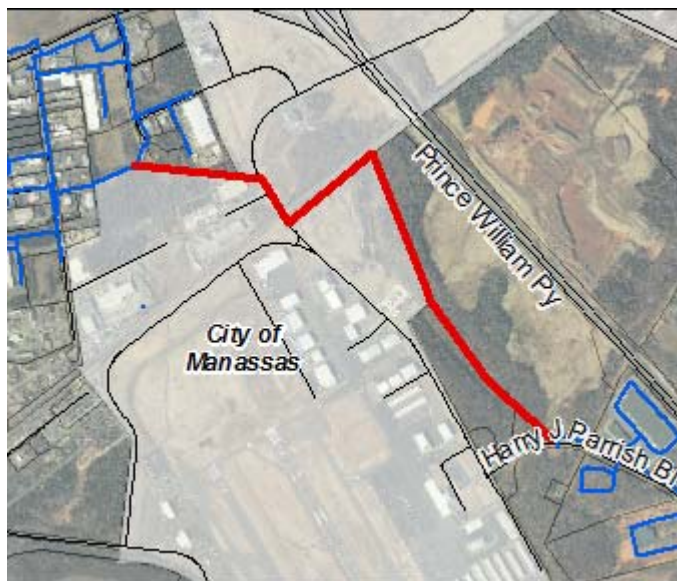
PROJECT DESCRIPTION

Project Description: Construction of approximately 6,500 feet of 16-inch water main to interconnect the Manassas South and Gainesville Pressure Zones. This project also includes the construction of a pressure control valve vault to regulate the flows and pressures between zones.

Project Benefit: Provides the capability to convey water between pressure zones at the same hydraulic gradient for increased reliability and redundancy. Additionally, this project will provide a secondary route for the transmission of water from Fairfax Water to all areas surrounding the City of Manassas served by the SA.

Source Derivation: Engineering and Planning Division , WRA Water Supply and Distribution System Optimization Study, 2002

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
700	0	0	0	0	4935	0	5635

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	45%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	45%
Other Contrib. – Development Contributions	10%
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Route 1 Water Main Reinforcement, North
CIP Number: WAT- 129
JDE Number(s): 22WWLM8101, 24WWWLM8101
Location: Rt. 1, from Featherstone Rd. to Annapolis Way
Pressure Zone: WL – Woodbridge
Sewershed: BM – Belmont
Magisterial District: WB – Woodbridge
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

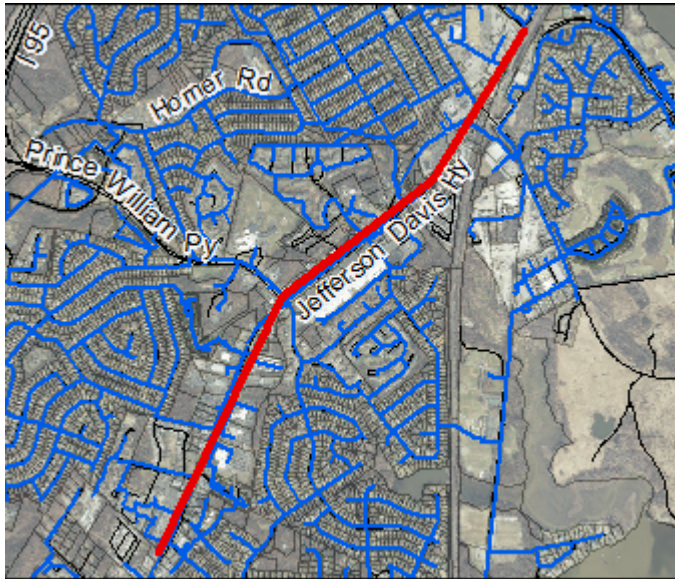
PROJECT DESCRIPTION

Project Description: Construction of approximately 15,000 feet of 16-inch, 12-inch and 8-inch water main along the Route 1 corridor from Featherstone Road north to Annapolis Way. This phase is from Mary’s Way to Annapolis Way with the remainder to be constructed in a future phase. The project will connect to the 16-inch main constructed with a prior CIP Project. This project will be constructed in conjunction with VDOT Route 1 improvements.

Project Benefit: Reinforce the Woodbridge Pressure Zone with a new, stronger transmission main backbone, which is currently served by an old 10-inch cast iron main. The project will improve service and fire flows and provides capacity consistent with the County Comprehensive Plan goals for Route 1 redevelopment.

Source Derivation: WRA East End Water System Technical Memorandum, 2001; Managed By Engineering and Planning Division - Development Department

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
6460	471	0	0	0	0	0	6931

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	50%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	50%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Possum Point Road Water Main Replacement – Phase 1
CIP Number: WAT-137
JDE Number(s): 24WDTM8501
Location: Summer Duck Dr. to Town Limits
Pressure Zone: DT – Dumfries
Sewershed: DM – Dumfries Lift Station
Magisterial District: PO – Potomac
Project Estimate: PER
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Replacement of approximately 4,950 feet of existing 12-inch water main with 12-inch DIP along Possum Point Road from Summer Duck Drive to the Town of Dumfries limits.
Project Benefit: Replacement of the existing water main that has corroded over time due to acidic soils will improve system reliability.
Source Derivation: Engineering and Planning Division; Managed By Engineering and Planning

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
297	1400	500	500	0	0	0	2697

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

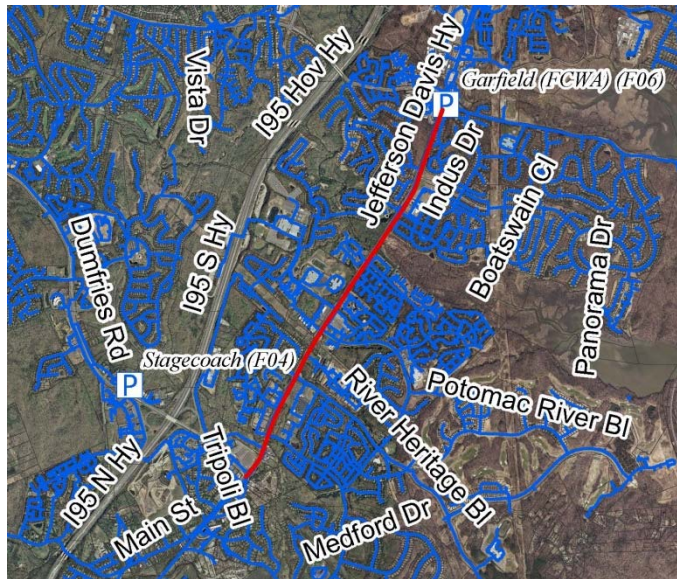
PROJECT INFORMATION

Project Name: Route 1 Transmission Main – Garfield BPS to Route 234
CIP Number: WAT-181
JDE Number(s): 22WDMM0001, 24WDMM0001
Location: Rt. 1 from Garfield BPS to Rt. 234
Pressure Zone: DM – Dumfries
Sewershed: Multiple
Magisterial District: PO – Potomac and WB – Woodbridge
Project Estimate: PER
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Design and construction of approximately 13,500 feet of 30-inch water main along Route 1 from the Garfield Booster Pumping Station to Route 234.
Project Benefit: This project will increase transmission capacity and reliability within the Dumfries Pressure Zone, increase pumping efficiency at the Garfield Booster Pumping Station and enhance the transfer of water into the Montclair Pressure Zone and Potomac Shores area. This project will also enable several existing, older concrete and cast iron mains that have experienced numerous breaks to be removed from service.
Source Derivation: Engineering and Planning Division, WRA East End Water System Tech. Memo 2001

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
900	5000	6000	2969	0	0	0	14869

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	50%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	50%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

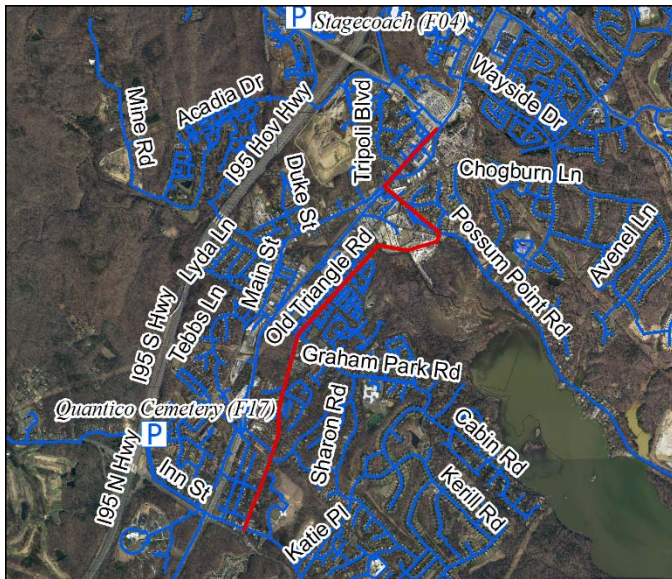
PROJECT INFORMATION

Project Name: Route 1 Transmission Main – Route 234 to Fuller Heights Road
CIP Number: WAT-182
JDE Number(s): 22WDMM0002, 24WDMM0002
Location: Rt. 1 & Old Triangle Rd. from Rt. 234 to Fuller Heights Rd.
Pressure Zone: DM – Dumfries
Sewershed: DM – Dumfries and LC – Little Creek
Magisterial District: PO – Potomac
Project Estimate: PER
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Design and construction of approximately 8,750 feet of 24-inch water main along Route 1 from Route 234 to Graham Park Road, and 5,500 feet of 16-inch water main along Old Triangle Road from Graham Park Road to Fuller Heights Road.
Project Benefit: This project will increase transmission capacity, reliability, and redundancy within the Dumfries Pressure Zone south of Route 234 and enable several existing older cast iron mains that have experienced numerous breaks to be removed from service.
Source Derivation: Engineering and Planning Division, WRA East End Water System Tech. Memo 2001

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
800	5000	6000	2554	0	0	0	14354

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	50%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	50%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Water Distribution Asset Replacement Program
CIP Number: WAT-200
JDE Number(s): Not Assigned
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Operations and Maintenance Division

PROJECT DESCRIPTION

Project Description: Replacement of water distribution assets including water main, hydrants, service lines, meter crocks and isolation valves. The assets scheduled for replacement during this 5-year CIP period include: water main in D Street, Colchester Road and Godwin Drive; a gap closure in Fettle Park Drive; replacement of service lines and water main in Westgate Apartments and Wetherburn Court; and replacement of miscellaneous valves and hydrants throughout the system. The timing and execution of these projects are subject to change based on operational needs and priorities.

Project Benefit: The replacement of water distribution assets will improve reliability, increase fire protection, reduce maintenance costs, and improve overall customer service.

Source Derivation: Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	1500	1500	1500	1500	1500	0	7500

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%



Service Authority

Prince William County



Sewage Pumping Station Projects

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Generator Replacement Program
CIP Number: SPS-100
JDE Number(s): Not Assigned
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Operations and Maintenance Division

PROJECT DESCRIPTION

Project Description: Upgrade or replace aging diesel generators, transfer switches and appurtenances at sewage pumping stations.
Project Benefit: Improve and maintain a reliable and operational system by replacing aging generators at SA owned and operated facilities. Eliminate the difficulty in obtaining replacement parts for old and outdated generators.
Source Derivation: Operations and Maintenance Division, Managed by Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	200	500	500	500	500	0	2200

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Replace Occoquan Forest Sewage Pumping Stations, OQL36 and OQL37
CIP Number: SPS-107
JDE Number(s): 24SOQL7501 (L36), 24SOQL3701 (L37)
Location: 10820 Split Rail Dr. and 6204 Ramblewood Tr., Manassas
Pressure Zone: HO – Hoadly
Sewershed: OQ – Occoquan Forest
Magisterial District: OC – Occoquan
Project Estimate: PER
Estimate By: Engineering and Planning Division

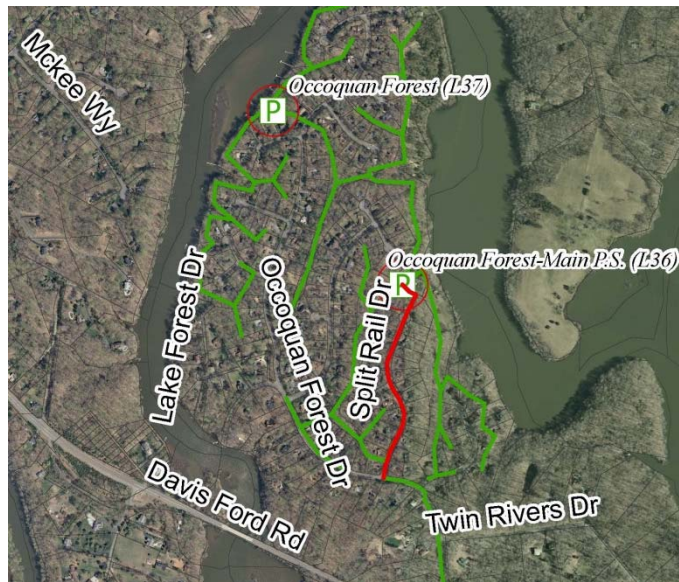
PROJECT DESCRIPTION

Project Description: Replacement of the existing antiquated sewage pumping stations and cast iron force mains that were constructed in the early 1970s. The new pumping stations will be equipped with emergency generators and by-pass connections on the force mains.

Project Benefit: The goal of the project is to replace the antiquated sewage pumping station in order to provide reliable service to the sewershed in compliance with the County Comprehensive Plan and DEQ Regulations. This project will reduce maintenance costs, provide new emergency backup power supplies, and improve safety conditions at the sewage pumping stations.

Source Derivation: Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
1515	2000	1500	1300	1162	0	0	7477

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Replace Nokesville Sewage Pumping Station L20
CIP Number: SPS-108
JDE Number(s): 24SNKL7701
Location: 12829 Fitzwater Dr., Nokesville
Pressure Zone: None
Sewershed: NK - Nokesville
Magisterial District: BR - Brentsville
Project Estimate: PER
Estimate By: Engineering and Planning Division

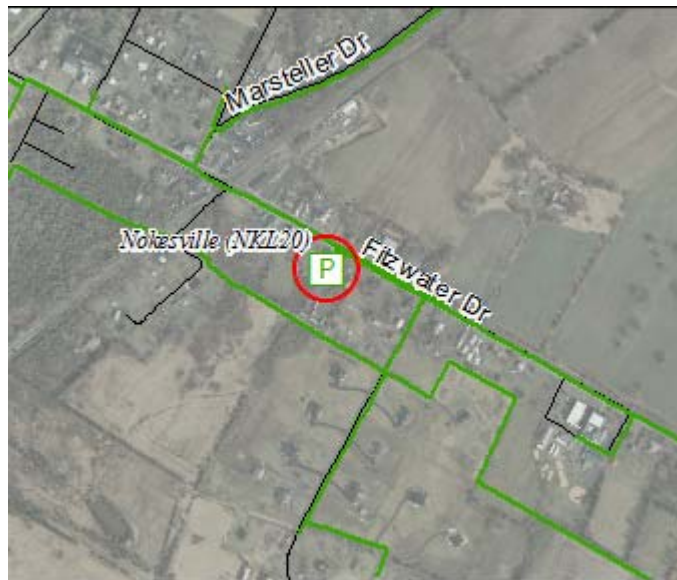
PROJECT DESCRIPTION

Project Description: Replacement of the existing antiquated sewage pumping station and force main. The new pumping station will be equipped with an emergency generator, bypass pumping facilities on the force main, and new flow monitoring equipment.

Project Benefit: The goal of this project is to replace the antiquated sewage pumping station in order to provide reliable service to the sewershed in compliance with the County Comprehensive Plan and DEQ Regulations. The Old Nokesville sewage pumping station was constructed around 1965 and has a capacity of 160 gallons per minute. Little, if any, capacity will be added to the new station since the Nokesville area is within the Rural Area. The project will reduce maintenance expenses, improve reliability, provide emergency backup power supply, and improve safety conditions at the sewage pumping station.

Source Derivation: Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
605	1000	985	983	0	0	0	3573

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

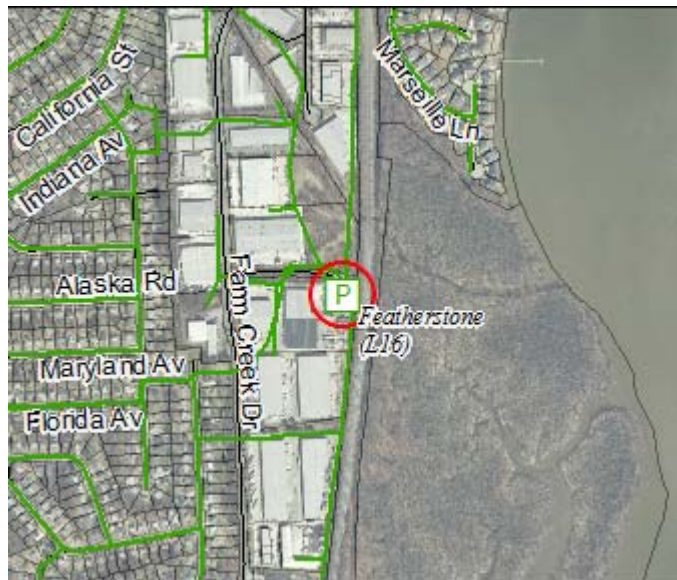
PROJECT INFORMATION

Project Name: Featherstone Lift Station Flood Protection Assessment, L16
CIP Number: SPS-109
JDE Number(s): 24SFSL1601
Location: 15023 Farm Creek Rd., Woodbridge
Pressure Zone: WL – Woodbridge
Sewershed: FS – Featherstone
Magisterial District: WB – Woodbridge
Project Estimate: PER
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Preparation of a preliminary engineering report (PER) for a condition assessment of the station and verification of flood protection need. Cost includes the design and construction of the recommended flood protection modifications.
Project Benefit: The SA must meet all Clean Water Act (CWA) requirements for all permitted facilities. The PER will determine how the station can be protected and then the improvements will be implemented.
Source Derivation: Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
200	190	800	0	0	0	0	1190

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Replace Graham Park Sewage Pumping Station, L13
CIP Number: SPS-112
JDE Number(s): 24SMRL7601
Location: 3196 Shoreview Rd., Dumfries
Pressure Zone: DT – Dumfries
Sewershed: MR – Melrose
Magisterial District: PO – Potomac
Project Estimate: PER
Estimate By: Engineering and Planning Division

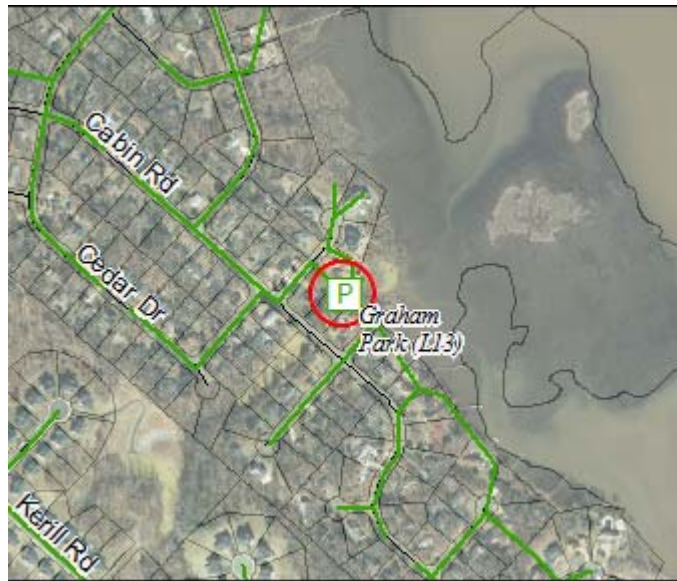
PROJECT DESCRIPTION

Project Description: Replacement of the existing antiquated Graham Park sewage pumping station. The project will include the installation of a new submersible pumps with new controls, motors, emergency generator, by-pass connection on force main, new flow metering, and SCADA equipment. The site layout will also be improved to protect the facilities from storm surge flooding and new fencing around the premises will be installed. Also included is the complete replacement of approximately 550 feet of existing 4-inch force main.

Project Benefit: Improve service to existing customers in the Melrose sewer shed in compliance with the County Comprehensive Plan. This project will reduce maintenance costs, provide emergency backup power supply, and improve safety conditions at the sewage pumping station.

Source Derivation: Operations and Maintenance Division; Managed by Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
910	1200	1336	800	0	0	0	4246

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

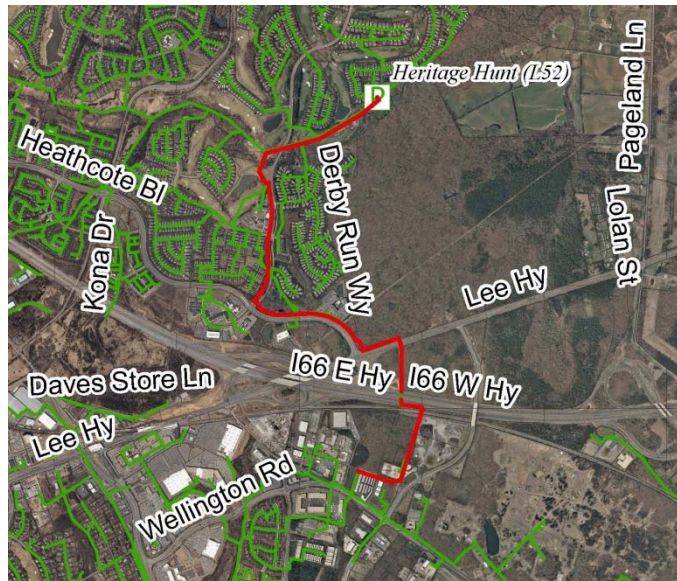
PROJECT INFORMATION

Project Name: Heritage Hunt Sewage Pumping Station, L52, Force Main
CIP Number: SPS-113
JDE Number(s): 22SLBM9001, 24SLBM9001
Location: Heritage Hunt SPS Force Main
Pressure Zone: HM – Haymarket
Sewershed: LB – Little Bull Run
Magisterial District: GN – Gainesville
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Construction of approximately 5,950 feet of 24-inch force main from the Heritage Hunt Sewage Pumping Station to the existing 24-inch force main south of I-66, parallel to the existing 10-inch and 16-inch force mains already in-service.
Project Benefit: Increase discharge capacity of the Heritage Hunt Sewage Pumping Station to meet current and future development needs, and reduce repair and maintenance costs attributed to the operation of the interim station.
Source Derivation: Engineering and Planning Division; PHR&A: Study of Alternative Routings of Wastewater from the Immediate Area of Haymarket, 1994. Managed by Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
1000	400	5000	5000	4000	19	0	15419

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	70%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	30%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Replace Heritage Hunt Sewage Pumping Station, L52
CIP Number: SPS-114
JDE Number(s): 22SLBL5202, 24SLBL5202
Location: 6588 Alderwood Way, Gainesville
Pressure Zone: HM – Haymarket
Sewershed: LB – Little Bull Run
Magisterial District: GN – Gainesville
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

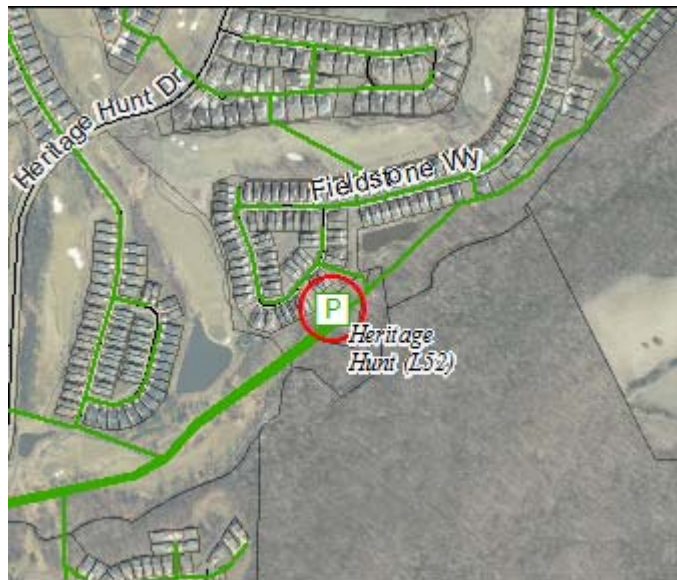
PROJECT DESCRIPTION

Project Description: Replacement of the existing Heritage Hunt sewage pumping station to increase pumping capacity from 5.0 MGD to approximately 8.0 MGD. The project will include the installation of a manual screen, dual channel grinders, dry-pit submersible pumps and associated piping and valves, bioxide odor control system, sump pumps, new flowmeters in a new vault, and a monorail crane system.

Project Benefit: Continue to provide public sewer service to residential and commercial developments occurring in the Little Bull Run and Catharpin Creek Sewersheds in conformance with the PWC Comprehensive Plan. This replacement project is required as the ultimate development of the service area will exceed the capacity of the existing station.

Source Derivation: Engineering and Planning Division; PHR&A: Study of Alternative Routings of Wastewater from the Immediate Area of Haymarket, 1994; Managed by Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
1600	100	5150	6000	6000	1557	0	20407

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	40%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	60%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Upgrade Belmont Sewage Pumping Station, L17 and Force Main Extension
CIP Number: SPS-115
JDE Number(s): 22SBML0201, 24SBML0201
Location: 13760 Dabney Rd., Woodbridge
Pressure Zone: WL – Woodbridge
Sewershed: BM – Belmont
Magisterial District: WB – Woodbridge
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

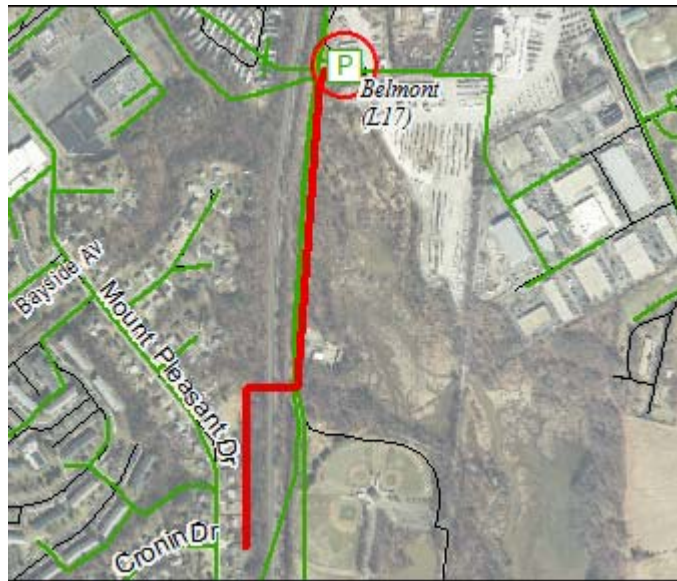
PROJECT DESCRIPTION

Project Description: Evaluation and rehabilitation of the existing Belmont Sewage Pumping Station to increase pumping capacity from 4.3 MGD to approximately 6 MGD, upgrade structural and mechanical systems as required, upgrade SCADA and electrical systems and replace flow metering equipment. This project also includes the evaluation of constructing a new force main to improve overall pumping operations in the collection system.

Project Benefit: This project will provide adequate pumping capacity and conveyance to serve future development within the sewershed in conformance with the County Comprehensive Plan.

Source Derivation: Greeley & Hansen Belmont Sewage Pumping Station/Colchester Interceptor Evaluation, 1998. Managed by Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
77	440	4616	0	0	0	0	5133

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	30%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	70%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

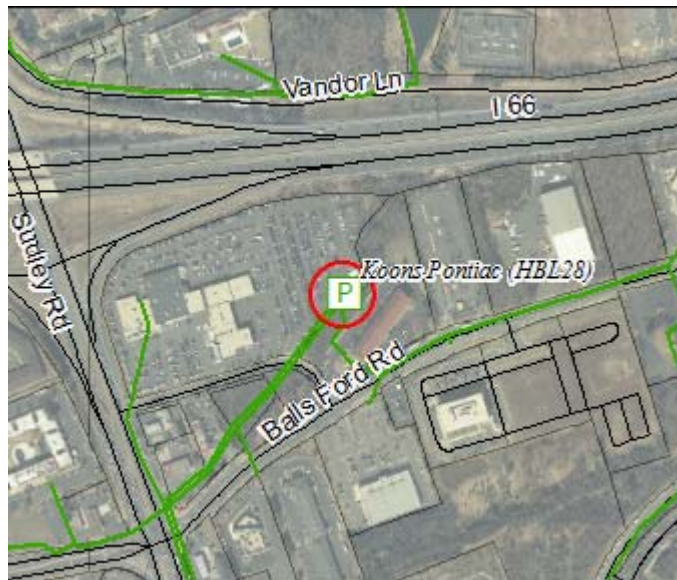
PROJECT INFORMATION

Project Name: Replace Koon's Sewage Pumping Station, L28
CIP Number: SPS-118
JDE Number(s): 22SBUL0101, 24SBUL0101
Location: 10640 Automotive Dr., Manassas
Pressure Zone: GW – Gainesville
Sewershed: HB – Holkums Branch
Magisterial District: GN – Gainesville
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Replacement of the existing antiquated Koon's Sewage Pumping Station. The preliminary engineering report (PER) will further define the scope of the project.
Project Benefit: This project will improve service and reliability to existing and future customers within the sewershed and reduce maintenance costs.
Source Derivation: Engineering and Planning Division, Managed by Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
55	200	1109	0	0	0	0	1364

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	20%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	80%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Replace Airport Sewage Pumping Station Pumps, L15
CIP Number: SPS-119
JDE Number(s): 24SWAL1501
Location: 12331 Cotton Mill Dr., Woodbridge
Pressure Zone: LR – Lake Ridge
Sewershed: WA – Airport
Magisterial District: OC – Occoquan
Project Estimate: PER
Estimate By: Engineering and Planning Division

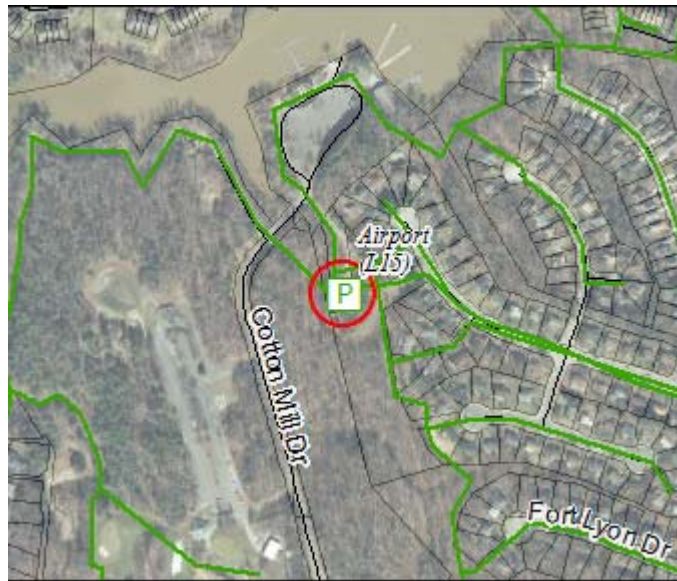
PROJECT DESCRIPTION

Project Description: Replacement of the existing antiquated pumping station. This project will replace the existing dry pit centrifugal pumps with dry pit mounted submersible pumps, replace the motor control center and automatic transfer switch, replace the emergency generator and fuel tank, install a new isolation valve and a flow meter on the discharge force main, and minor structural improvements.

Project Benefit: This project will reduce maintenance costs, and improve service and reliability to the existing customers within the sewershed.

Source Derivation: Operations and Maintenance Division; Managed by Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
2458	500	0	0	0	0	0	2958

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contribution	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Replace Spinnaker Court Sewage Pumping Station, L02
CIP Number: SPS-123
JDE Number(s): 24SHRL0101
Location: 2280 Spinnaker Ct., Woodbridge
Pressure Zone: LR – Lake Ridge
Sewershed: HR – Hoes Run
Magisterial District: OC – Occoquan
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Replacement or upgrade of the sewage pumping station to include security upgrades, installation of a by-pass connection on the force main and the installation of a new SCADA system. The preliminary engineering report (PER) will further define the scope of the project.

Project Benefit: Bring an antiqued sewage pumping station, which was built in 1970, to new standards to reduce costs of maintenance. The new station will have the same capacity since there is no new development potential. The project will improve pumping station operation, reliability, and security.

Source Derivation: Operations and Maintenance Division. Managed by Engineering and Planning Division.

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
46	200	1202	0	0	0	0	1448

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: **Occoquan Creek Sewage Pumping Station Rehabilitation, L04**
CIP Number: SPS-125
JDE Number(s): 24SOCL0701
Location: 13221 Marina Way, Woodbridge
Pressure Zone: WL – Woodbridge
Sewershed: OC – Occoquan Creek
Magisterial District: WB – Woodbridge
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Perform a full evaluation of the pumping station from architectural features, aged equipment and flood protection. Based on the evaluations, the design and construction of improvements recommended will be performed bringing the pumping station to the aesthetic and performance standards expected of all SA facilities while protecting the station and new equipment from floods.

Project Benefit: Provide flood protection of the sewage pumping station against the flow tides from the Occoquan Creek. The project will also bring the pumping station to current standards and reduce maintenance costs.

Source Derivation: Operations and Maintenance Division, Managed by Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
95	420	2200	1444	2000	0	0	6159

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Piney Branch Sewage Pumping Station Demolition and Gravity Sewer Extension
CIP Number: SPS-126
JDE Number(s): Not Assigned
Location: Piney Branch SPS (L26)
Pressure Zone: GW – Gainesville
Sewershed: PB – Piney Branch, BR – Broad Run
Magisterial District: BR – Brentsville
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

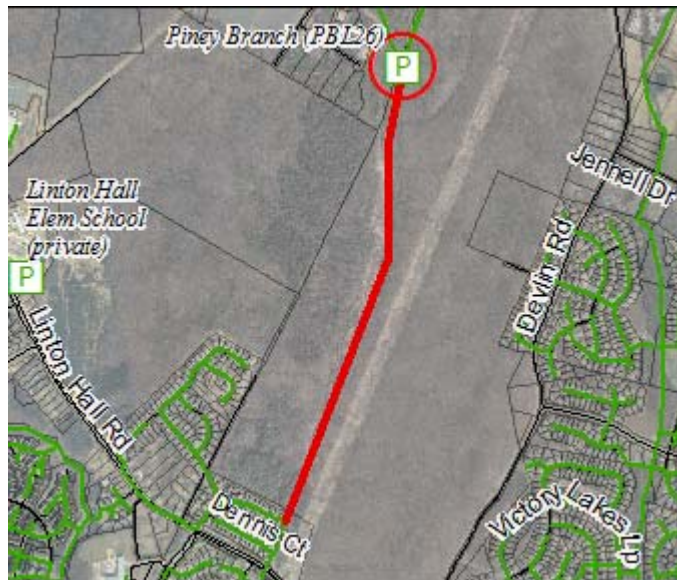
PROJECT DESCRIPTION

Project Description: Demolition of an existing sewage pumping station that is undersized and has reached the end of its service life, and construction of approximately 6,600 feet of 24-inch gravity sewer main to combine the Piney Branch sewershed into the Broad Run sewershed. This project will be constructed in conjunction with proposed future development through the MPAU process.

Project Benefit: Eliminate an antiqued sewage pumping station and provide a higher capacity gravity main in order to provide reliable service to the combined sewersheds in compliance with the PWC Comprehensive Plan and DEQ regulations.

Source Derivation: Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	0	0	1060	0	0	0	1060

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	60%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	15%
Other Contrib. – Development Contributions	25%
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Dumfries Lift Station Flood Protection, L18
CIP Number: SPS-127
JDE Number(s): 24SDML0101
Location: 3458 Canal Rd., Dumfries
Pressure Zone: DT – Dumfries
Sewershed: DM – Dumfries Lift Station
Magisterial District: PO – Potomac
Project Estimate: PER
Estimate By: Operations and Maintenance Division

PROJECT DESCRIPTION

Project Description: Design and construction of flood protection modifications.
Project Benefit: Reduce seepage of floodwaters through walls and entrances and protect instrumentation inside the sewage pumping station.
Source Derivation: Operations and Maintenance Division, Vulnerability Assessment 2015, Managed by Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
53	4	69	0	0	0	0	126

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%



Service Authority
Prince William County



Sewage Collection Projects

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Dumfries Force Main Replacement
CIP Number: SEW-106
JDE Number(s): 24SDMM4502
Location: Dumfries
Pressure Zone: DT – Dumfries
Sewershed: DM – Dumfries
Magisterial District: PO – Potomac
Project Estimate: PER
Estimate By: Engineering and Planning Division

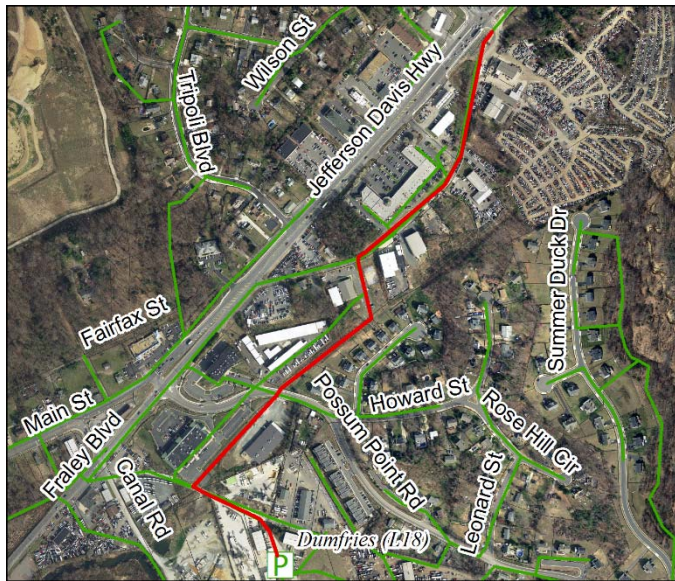
PROJECT DESCRIPTION

Project Description: Replacement and relocation of approximately 4,200 feet of existing 16-inch force main and replacement of approximately 700 feet of an existing 3-inch water main with new 6-inch DIP.

Project Benefit: The Dumfries Sewershed is one of the largest and oldest sheds in Eastern Prince William County. The flows from the Purcell Branch Sewershed flow to the H.L. Mooney AWRF. The replacement of the force main will increase the sewer capacity and reduce inflow and infiltration.

Source Derivation: Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
515	1225	1225	850	0	0	0	3815

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Sudley Road Sewer Main Replacement and Upgrade
CIP Number: SEW-157
JDE Number(s): 22SBUM0102
Location: Sudley Rd. at the intersection with Coverstone Dr.
Pressure Zone: GM – Greater Manassas
Sewershed: BR –Bull Run
Magisterial District: GN – Gainesville
Project Estimate: PER
Estimate By: Engineering and Planning Division, Baker

PROJECT DESCRIPTION

Project Description: Design and construction of approximately 2,250 feet of 21-inch gravity sewer main and 11 manholes south of Williamson Boulevard to replace an existing 12-inch gravity sewer main. This work includes a trenchless crossing of Williamson Boulevard.
Project Benefit: This project will increase capacity along this corridor to accommodate future anticipated growth.
Source Derivation: Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
510	1750	1750	1717	0	0	0	5727

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	75%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	25%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Sewer Collection Rehabilitation & Replacement Program
CIP Number: SEW-200
JDE Number(s): Not Assigned
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Operations and Maintenance Division

PROJECT DESCRIPTION

Project Description: Rehabilitation, replacement and/or stabilization of sewer collection system facilities including sewer main and manhole re-lining, isolation and air-release valve repair and replacement, sewer lateral repairs, and other miscellaneous system repairs. The facilities scheduled for rehabilitation during this 5-year CIP period include the re-lining of sewer main in Colby Drive, Deepford Drive, Rixlew Lane, Old Bridge Road, Sharon Drive, and Old Triangle Road, in addition to miscellaneous manhole rehabilitation and service line repairs. The timing and execution are subject to change based on operational needs and priorities.

Project Benefit: The rehabilitation or replacement of sewer collection system facilities will reduce maintenance costs, reduce inflow and infiltration, and extend the life of the assets.

Source Derivation: Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	1500	1500	1500	1500	1500	0	7500

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%



Service Authority
Prince William County



Water Reclamation Facility Projects

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Ongoing Renewal and Replacement
CIP Number: WRF-123
JDE Number(s): 24NMPP0501
Location: H.L. Mooney AWRF
Pressure Zone: WL - Woodbridge
Sewershed: NE – Neabsco Creek
Magisterial District: WB - Woodbridge
Project Estimate: Order of Magnitude
Estimate By: Environmental Services and Water Reclamation Division

PROJECT DESCRIPTION

Project Description: On-going major updating, restoration, and replacement projects for management of the H.L. Mooney AWRF to maintain and extend useful life of assets and address regular wear and asset aging.
Project Benefit: Maintain operations, permit compliance, and plant resilience.
Source Derivation: Environmental Services and Water Reclamation Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
509	2050	2100	2100	2600	2600	0	11959

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Dynamic Hydraulic Model and Instrumentation

CIP Number: WRF-126

JDE Number(s): 24SMPP0006

Location: H.L. Mooney AWRF

Pressure Zone: WL - Woodbridge

Sewershed: NE – Neabsco Creek

Magisterial District: WB - Woodbridge

Project Estimate: Order of Magnitude

Estimate By: Environmental Services and Water Reclamation Division

PROJECT DESCRIPTION

Project Description: A full-plant hydraulic simulation model representing existing facilities and controls will be developed for the H.L. Mooney AWRF. The project includes data collection, installation of metering, model development and calibration, and a PER for hydraulic improvements. The hydraulic modeling is phased, first from plant inlet through primary clarifiers, and then from bioreactor basins to the outfall.

Project Benefit: The instrumentation and dynamic simulation model facilitate selection of physical plant improvements to meet hydraulic capacity needs and address potential to overflow.

Source Derivation: Environmental Services and Water Reclamation Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
469	300	300	300	0	0	0	1369

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	30%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	70%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: FBI and Solids Building Repairs and Modifications
CIP Number: WRF-131
JDE Number(s): Not Assigned
Location: H.L. Mooney AWRF
Pressure Zone: WL – Woodbridge
Sewershed: NE – Neabsco Creek
Magisterial District: WB – Woodbridge
Project Estimate: Order of Magnitude
Estimate By: Environmental Services and Water Reclamation Division

PROJECT DESCRIPTION

Project Description: Repair and refurbishment of the existing Solids Building and Fluidized Bed Incinerator (FBI) equipment, including design and installation of new or replacement equipment from the cake pumps to the ash basins. Projects will include a condition assessment, ash basin improvements, solids handling equipment upgrades, new heat exchanger, ducts and plenums, and Solids Building modifications, repairs, and refurbishment.

Project Benefit: Necessary for operational resilience and regulatory compliance for solids handling.

Source Derivation: Environmental Services and Water Reclamation Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
50	1000	1000	800	400	200	0	3450

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	30%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	70%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Bioreactor Basin Improvements
CIP Number: WRF-134
JDE Number(s): 24SMPQ0101
Location: H.L. Mooney AWRP
Pressure Zone: WL – Woodbridge
Sewershed: NE – Neabsco Creek
Magisterial District: WB – Woodbridge
Project Estimate: Order of Magnitude
Estimate By: Environmental Services and Water Reclamation Division

PROJECT DESCRIPTION

Project Description: Major bioreactor basin equipment renewal including, but not limited to, mixers, meters, diffusers, baffles, gates, pumps, and blowers. Modification to the bioreactor basin equipment, instrumentation, and controls are to improve such things as, but not limited to, mixed liquor settling, improve process monitoring and control, adjust biological reactions, and reduce chemical dosages. Upgrades to blowers including, but not limited to, technology, motors, and various blower components and technology.

Project Benefit: Increased operational resiliency, permit compliance, and maximization of treatment capacity in existing infrastructure.

Source Derivation: Environmental Services and Water Reclamation Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
827	500	1000	1000	1000	0	0	4327

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	30%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	70%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Facility Wide Improvements – Design-Build Project
CIP Number: WRF-138
JDE Number(s): 22SMPP0012, 24SMPP0012
Location: H.L. Mooney AWRF
Pressure Zone: WL – Woodbridge
Sewershed: NE – Neabsco Creek
Magisterial District: WB – Woodbridge
Project Estimate: Order of Magnitude
Estimate By: RK&K

PROJECT DESCRIPTION

Project Description: Project includes improvements to several areas of the plant including: Primary Clarifier Odor Control Upgrades; Primary Clarifier Collection Equipment Upgrades; Primary Clarifier Electrical Improvements; Equalization Basin Modifications; Influent Flow Diversion Structure; UV Building – Additional UV Equipment; Yard Valves – Replacement; Methanol Storage Addition; Lime System Upgrades; Ferric System Improvements; Secondary Clarifier Improvements; Plant Structural Protection and Refurbishment; Polymer System Replacement.

Project Benefit: This project will provide improved plant resiliency, level of service, and allow the plant to continue to meet its NPDES permit requirements.

Source Derivation: Environmental Services and Water Reclamation Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
443	1300	8500	17000	25500	25500	7200	85443

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	30%
Repl. Fund (04) – User Rates	70%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Replace / Upgrade Freight Elevators
CIP Number: WRF-142
JDE Number(s): Not Assigned
Location: H.L. Mooney AWRP
Pressure Zone: WL – Woodbridge
Sewershed: NE – Neabsco Creek
Magisterial District: WB – Woodbridge
Project Estimate: Order of Magnitude
Estimate By: RK&K

PROJECT DESCRIPTION

Project Description: The project includes design and construction of refurbishments of the existing freight elevators in the Controls and Process Building and the Solids Handling Building.
Project Benefit: This project improves reliability and level of service for the freight elevators which are necessary for plant maintenance and operations, and will reduce elevator maintenance requirements.
Source Derivation: Environmental Services and Water Reclamation Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
50	600	50	0	0	0	0	700

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%



Service Authority

Prince William County



Miscellaneous Projects

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Water and Sewer Master Plan Utility Adjustments (MPUA)
CIP Number: MISC-100
JDE Number(s): Multiple
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: This project provides the funding for the SA to participate in the construction of water and sewer mains in conjunction with new development and VDOT/County road projects. This project also covers the cost for the SA to increase pipe sizes in accordance with the Master Plan and other studies to provide additional capacity and improve system operations and efficiencies.

Project Benefit: This project provides for a more efficient and effective way for the timely extension of infrastructure and improvement of system operations.

Source Derivation: Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	2000	2000	2000	2000	2000	0	10000

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	50%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	50%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: PWCSA Water and Sewer Facilities Security Enhancements
CIP Number: MISC-101
JDE Number(s): 24NCWU0004,74WHOF0001,74NLR0001
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Operations and Maintenance Division

PROJECT DESCRIPTION

Project Description: To mitigate risks and potential threats identified in the Vulnerability Assessment performed on the SA water distribution and sewer collection facilities by installing or upgrading security features or equipment at various SA owned and operated facilities throughout Prince William County. Security enhancements include but are not limited to fencing, security cameras, card readers, security gates, signage, security guards, bollards, locks, barriers, berms, lighting and alarms.

Project Benefit: This project will provide protection against unauthorized entry, vandalism and/or destruction of facilities. The enhancements will minimize potential threats to the water distribution and sewer collection systems, and help prevent endangerment of employees and the general public. This project will comply with the Federal mandate for security audit and security enhancement program.

Source Derivation: Federal Mandate of Vulnerability Study for Utility Systems, Operations and Maintenance; Managed by Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	300	300	300	300	300	0	1500

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Wellington Road Operations Center Expansion
CIP Number: MISC-102
JDE Number(s): 12NWCH0001, 14NWCH0001
Location: Virginia Meadows Industrial Park
Pressure Zone: GW – Gainesville
Sewershed: BR – Broad Run
Magisterial District: BR – Brentsville
Project Estimate: Order of Magnitude
Estimate By: RDA, Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Design and construction of a twenty-five thousand square foot maintenance building and expansion of the existing Wellington Road Operations Center. This project will relocate an existing storm water management pond for better space utilization to include more parking space, additional fuel storage and material storage, and an assessment of traffic flow. Funding for this project only covers site plan development and site work.

Project Benefit: Improve work conditions by providing additional space for construction vehicles, materials, fuel for emergency response, day-to-day maintenance, repair, and inspection operations. Additionally, the project will improve the flow of traffic through the facility

Source Derivation: Engineering and Planning Division, Operations and Maintenance Division, General Conditions Facility Assessment (2009); Managed by Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
69	328	0	0	678	678	0	1753

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	50%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	50%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: PWCSA Facilities Renewals and Upgrades
CIP Number: MISC-103
JDE Number(s): 24NWCU0002,74NGWH0001,24NSCU0102
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Operations and Maintenance

PROJECT DESCRIPTION

Project Description: Renovations to accommodate the reconfiguration of space at the Spittle Building, and change functions at facilities owned by the SA.
Project Benefit: This project will improve the functionality of SA facilities by reconfiguring existing space to accommodate staff requirements, change of functions at facilities, reduce energy costs, and ensure a safe and comfortable work environment for SA staff.
Source Derivation: Engineering and Planning Division; Managed by Operations and Maintenance

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
500	500	500	500	500	500	0	3000

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Spittle Office Building Addition
CIP Number: MISC-112
JDE Number(s): 12NSCH0009, 14NSCH009
Location: Spittle Complex
Pressure Zone: HO – Hoadly
Sewershed: WA – Airport Lift Station
Magisterial District: OC – Occoquan
Project Estimate: PER
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Design and construction of a three story, forty-two thousand square foot addition to the existing Spittle Building to accommodate the current and future space needs of the Service Authority. The project also includes one hundred parking spaces and associated drives.

Project Benefit: This project will improve the functionality of SA facilities by providing additional space for expansion of staff, reduce energy costs, and ensure a safe and comfortable work environment for SA staff.

Source Derivation: Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
1050	0	400	7000	8000	400	0	16850

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	50%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	50%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

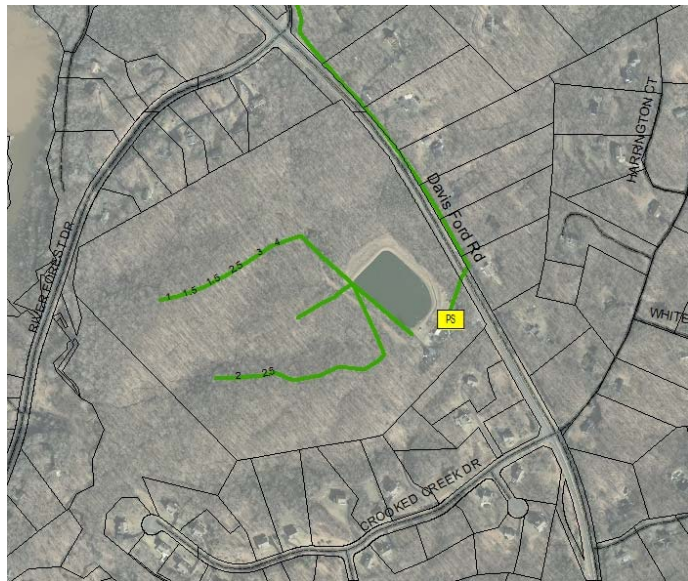
PROJECT INFORMATION

Project Name: Ocoquan Forest WWTP Closure & Site Restoration
CIP Number: MISC-113
JDE Number(s): 24SOQU0101
Location: Ocoquan Forest WWTP – Davis Ford Rd.
Pressure Zone: HO – Hoadly
Sewershed: OQ – Ocoquan Forest
Magisterial District: WB – Woodbridge
Project Estimate: PER
Estimate By: RK&K

PROJECT DESCRIPTION

Project Description: Design, permitting, and demolition for the decommissioning of the Ocoquan Forest Wastewater Treatment Plant (WWTP) and site restoration of the receiving pond in accordance with the Prince William County and Service Authority property sale agreement dated July 16, 2013. The discharge permit for the WWTP has expired and the plant has been replaced by a pumping station.
Project Benefit: This project is to meet DEQ requirements and land sale.
Source Derivation: Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
700	874	0	0	0	0	0	1574

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: System Wide Master Plan
CIP Number: MISC-114
JDE Number(s): 20N2405538
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Preparation of a comprehensive, system wide master plan that includes sewer collection, wastewater treatment, water distribution, and water source and supply options. This study covers the evaluation of existing systems and will provide recommendations on system improvements necessary to meet future projected demands and regulatory requirements. This project accounts for the capitalized portion of the Master Plan cost with the balance covered in the operational budget.

Project Benefit: The goal of this study is to establish long range utility needs in order to maintain service levels to existing customers and to plan for meeting future growth and demand.

Source Derivation: Engineering and Planning Division, Environmental Services and Water Reclamation Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	300	300	0	0	0	0	600

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	100%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	-
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: County Wide Emergency Capital Work
CIP Number: MISC-115
JDE Number(s): Multiple
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: This project covers emergency replacement or repair of water mains, sewer mains, manholes, and appurtenances county wide that could arise during the fiscal year. This project also includes funding for unforeseen emergency maintenance and repairs to capital facilities at the H.L. Mooney AWRF.

Project Benefit: The goal of this project is to maintain a reliable and operational system, and to account for emergency rehabilitation and / or replacements within a reasonable time frame. This project will improve hydraulic capacity, reliability, and service to the customers.

Source Derivation: Operations and Maintenance Division, Environmental Services and Water Reclamation Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	1300	1300	1300	1300	1300	0	6500

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: English Garden Property Building Addition and Improvements
CIP Number: MISC-116
JDE Number(s): Not Assigned
Location: 14195 Dumfries Rd.
Pressure Zone: OR – Oak Ridge / Independent Hill
Sewershed: PC – Powells Creek
Magisterial District: CO – Coles
Project Estimate: Order of Magnitude
Estimate By: Management and Budget Division

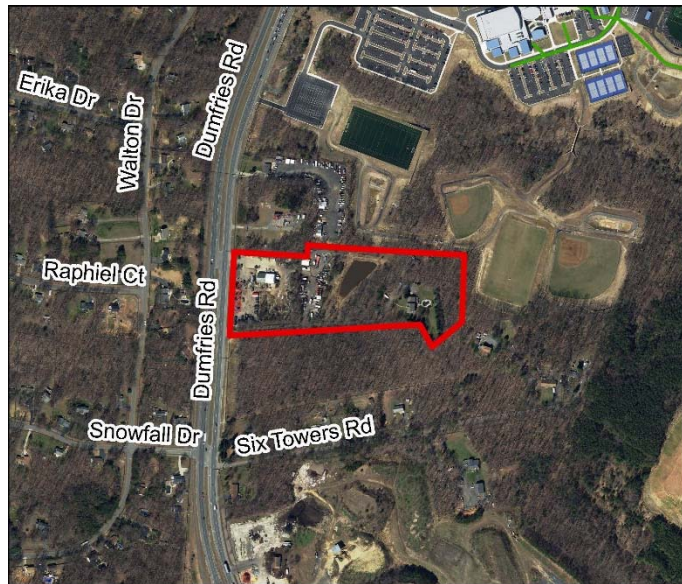
PROJECT DESCRIPTION

Project Description: Demolition of the existing buildings and the design and construction of new facilities to house Fleet Maintenance, Water & Wastewater Facilities and the Inflow & Infiltration Departments. The new building may also house equipment for the Metering Department. Funding for this project only covers site plan development and site work.

Project Benefit: This project will improve the functionality of SA facilities by providing additional and defined space for staff and ensure a safe and comfortable work environment. This site also provides better access to the Wellington and Neabsco facilities, which are in close proximity to Route 234.

Source Derivation: Management and Budget Division, Operations and Maintenance Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
70	170	160	0	0	0	0	400

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	50%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	50%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Studies and PER's – Organization Wide
CIP Number: MISC-117
JDE Number(s): Multiple
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: This project covers the funding for studies and preliminary engineering reports (PER's) organization-wide to evaluate existing business systems or facility assets, and provide recommendations on improvements, upgrades or replacements as necessary to increase efficiencies, improve employee safety, meet future projected demands or satisfy regulatory requirements.

Project Benefit: The goal of these studies is to identify alternatives for improvements to move into detailed design to maintain service levels to existing customers, and to plan for meeting future growth and demand.

Source Derivation: Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	400	400	400	400	400	0	2000

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	50%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	50%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Vehicle Replacement Program
CIP Number: MISC-200
JDE Number(s): Multiple
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Management and Budget Division

PROJECT DESCRIPTION

Project Description: The SA operates and maintains a fleet of vehicles in order to provide service to its customers. In addition, the SA evaluates each vehicle annually and retains vehicles that are still in good condition regardless of the replacement criteria. Vehicles identified for replacement over the next two years include tandem-axle flat beds, small high-side dump trucks, CCTV vehicle, SUV's and various equipped full and mid-sized pick-up trucks.

Project Benefit: This program provides guidelines for vehicle replacement that balances safety, reliability, and capital and maintenance costs.

Source Derivation: Management and Budget Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	615	700	500	500	500	0	2815

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Mechanical Equipment Replacement Program
CIP Number: MISC-201
JDE Number(s): Multiple
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Management and Budget Division

PROJECT DESCRIPTION

Project Description: Single equipment unit items with a cost value of \$5,000 or greater required for SA operations to perform duties and fulfil customer requirements. These items include pumping units, channel grinders, HVAC units, variable frequency drives and reduced voltage solid state starters.
Project Benefit: Reaching performance targets, compliance with regulatory requirements, maximization of the return on capital, and increased stakeholder value.
Source Derivation: Management and Budget Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	2750	2000	1500	1500	1500	0	9250

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Computer and Other Replacement Program
CIP Number: MISC-202
JDE Number(s): Multiple
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Management and Budget Division

PROJECT DESCRIPTION

Project Description: Single computer or other miscellaneous unit items with a cost value of \$5,000 or greater required for SA operations to perform duties and fulfil customer requirements. These items include server and network hardware, network storage, phone systems and SCADA servers.
Project Benefit: Replaces hardware and other miscellaneous capital equipment that is approaching the end of its service life within the next 15 months.
Source Derivation: Management and Budget Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	1088	910	500	500	500	0	3498

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%



Service Authority
Prince William County



Information Technology Projects

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: JD Edwards Upgrade
CIP Number: IT-105
JDE Number(s): 14NSCG0109
Location: Spittle
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Information Technology Division

PROJECT DESCRIPTION

Project Description: As part of the SA’s Organizational Strategic Plan and IT’s Strategic Plan, this project involves upgrades and custom design features to the JD Edwards system.
Project Benefit: This project will increase productivity and reporting capabilities.
Source Derivation: Information Technology Division; Managed by Information Technology Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
330	200	0	0	0	0	0	530

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Cayenta – CIS
CIP Number: IT-106
JDE Number(s): 14NSCG0110
Location: Spittle
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Information Technology Division

PROJECT DESCRIPTION

Project Description: As part of the SA's Organizational Strategic Plan and IT's Strategic Plan, this project involves upgrading Cayenta CIS system components and deploying new customer-focused functionality.

Project Benefit: This project will improve the SA customer experience by replacing the current bill-pay site with a modern, mobile ready, customer portal. Additionally, the project includes upgrades to the Cayenta CIS system for improved system reliability and capabilities.

Source Derivation: Information Technology Division; Managed by Information Technology Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
330	200	0	375	0	0	0	905

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Computerized Maintenance Management System (CMMS) Implementation
CIP Number: IT-107
JDE Number(s): 14NAAG0112
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Information Technology Division

PROJECT DESCRIPTION

Project Description: As part of the SA's Organizational Strategic Plan and IT's Strategic Plan, this project involves replacement of the current CMMS system (Hansen) to a CMMS better aligned with SA business needs (Cityworks).
Project Benefit: Cityworks provides improved work order management, inventory management, and asset management planning related to the SA's collection, distribution, facility, and information technology assets.
Source Derivation: Information Technology Division, Operations and Management Division; Managed by Information Technology Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
4206	1300	1000	750	0	0	0	7256

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Document Management System Implementation
CIP Number: IT-110
JDE Number(s): Not Assigned
Location: Spittle
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Information Technology Division

PROJECT DESCRIPTION

Project Description: As part of the SA’s Organizational Strategic Plan and IT’s Strategic Plan, this project will develop a SA-wide central document repository.
Project Benefit: A document management system will provide a governed, central repository to store the organization’s documents and improve document retrieval. Additionally, the Document Management System will provide improved control of document versioning and collaboration.
Source Derivation: Information Technology Division; Managed by Information Technology Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
88	300	150	0	0	0	0	538

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Vertical Asset Data Development
CIP Number: IT-117
JDE Number(s): 14NAAG0240
Location: Spittle
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: EAM Division

PROJECT DESCRIPTION

Project Description: Development of a GIS vertical asset register in support of work-order management (CMMS) and Asset Management Analytics. This project includes discovery, planning, database development, and preliminary data capture.

Project Benefit: GIS vertical asset data shall enable effective use of the SA's CMMS system for assets located within the SA's treatment facility (H.L. Mooney AWWRF) and WWF facilities. Additionally, vertical asset data shall enable data-driven asset management planning.

Source Derivation: Enterprise Asset Management Division; Managed By Enterprise Asset Management Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
90	250	300	150	0	0	0	790

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: System Integration
CIP Number: IT-118
JDE Number(s): 14NAAG0230
Location: Spittle
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: EAM Division

PROJECT DESCRIPTION

Project Description: Development, testing, and deployment of automated, scalable tools to efficiently integrate the SA's business systems. Components will consist of frameworks, standards, processes, and tools to support the deployment.

Project Benefit: Successful implementation of mature analytics that support data-driven decision making hinges on the ability to efficiently access critical data stored in multiple business systems across the enterprise. Systems Integration streamlines data accessibility by providing a scalable, consistent approach to integrating data in disparate business systems that meets the SA's current and future data needs.

Source Derivation: Enterprise Asset Management Division; Managed By Enterprise Asset Management Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
350	350	350	400	350	350	0	2150

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Asset Management Analytics
CIP Number: IT-121
JDE Number(s): 14NAAG0280
Location: Spittle
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: EAM Division

PROJECT DESCRIPTION

Project Description: Development of the frameworks, standards, processes, and tools necessary for data-driven asset management planning.
Project Benefit: Enterprise-wide Asset Management Analytics affords the SA the ability to plan work form a SA-wide perspective, understand cross-divisional dependencies and priorities, and develop data-driven asset management plans.
Source Derivation: Enterprise Asset Management Division; Managed By Enterprise Asset Management Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	100	200	0	0	0	0	300

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Project Management Information System (PMIS) Implementation
CIP Number: IT-122
JDE Number(s): Not Assigned
Location: Spittle
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Information Technology Division

PROJECT DESCRIPTION

Project Description: Design, configure, test, and implement a Project Management Information System (PMIS) to improve workflow efficiencies across the organization.
Project Benefit: A PMIS will provide a systematic approach to managing projects across all phases of the project life cycle from planning to project close-out. A PMIS will also afford the SA the ability to manage project documentation, schedules, and cost more efficiently.
Source Derivation: Information Technology Division; Managed by Information Technology Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
160	650	650	350	0	0	0	1810

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	50%
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	50%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: IT Cybersecurity Program
CIP Number: IT-125
JDE Number(s): Not Assigned
Location: Spittle
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Information Technology Division

PROJECT DESCRIPTION

Project Description: As part of the SA’s Organizational Strategic Plan and IT’s Strategic Plan, this project will develop and deploy a SA Cybersecurity program. The project will include hardware, software, and consulting services.

Project Benefit: This program will establish a well-defined cybersecurity program, increasing our existing security and establishing consistent, repeatable processes. The project will consist of building out the systems and processes defined in the Cybersecurity Roadmap.

Source Derivation: Information Technology Division; Managed by Information Technology Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	250	250	200	200	250	0	1150

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: SCADA System Upgrade
CIP Number: IT-126
JDE Number(s): Not Assigned
Location: County Wide
Pressure Zone: Multiple
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Information Technology Division

PROJECT DESCRIPTION

Project Description: As part of the SA’s Organizational Strategic Plan and IT’s Strategic Plan, this project involves planning, design, deployment, and owner services for the replacement of the SA’s legacy SCADA system.

Project Benefit: This project replaces obsolete SCADA equipment with current technology for improved SCADA system reliability and security, automation of manual processes, and real-time monitoring and reporting.

Source Derivation: Information Technology Division; Managed by Information Technology Division

PROJECT PICTURE



PROJECT FUNDING

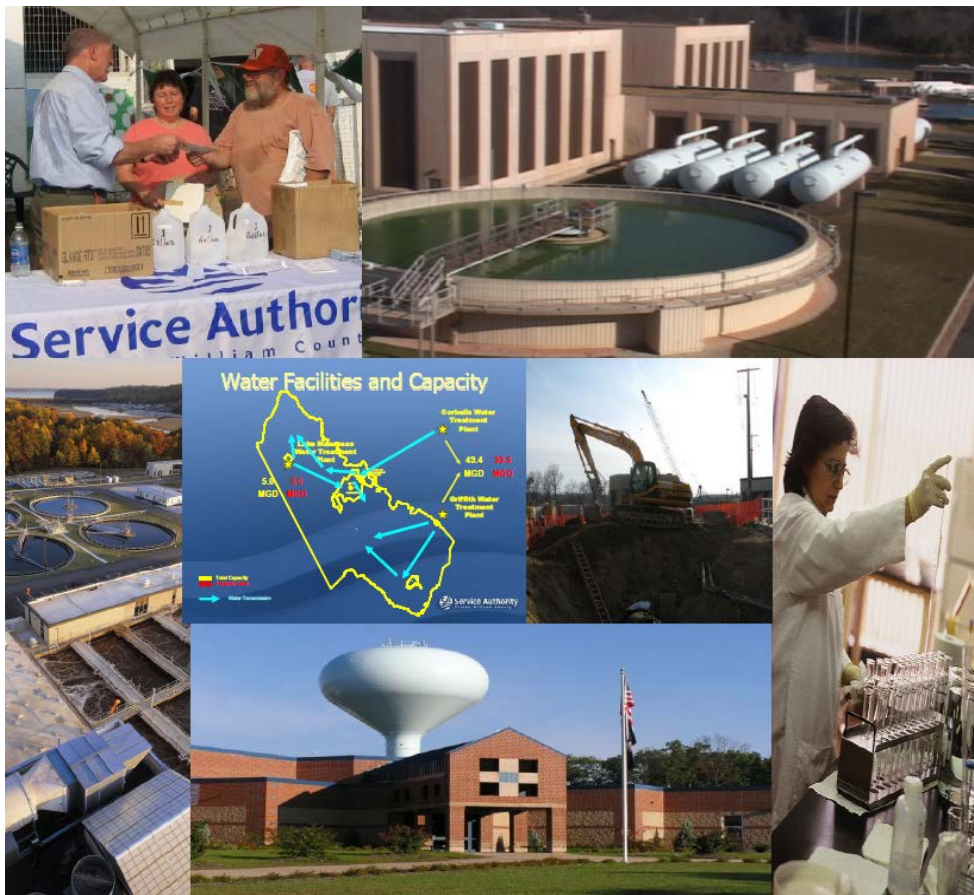
PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	4685	3727	4435	3577	4435	0	20859

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	-
Repl. Fund (04) – User Rates	100%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%



Service Authority

Prince William County



Regional Utility Projects

PWCSA CAPITAL IMPROVEMENT PROJECT DATA SHEET

PROJECT INFORMATION

Project Name: Occoquan River Crossing
CIP Number: REG-1
JDE Number(s): 22WFWM8104, 24WFWM8104
Location: Eastern PWC, Occoquan River
Pressure Zone: Eastern Water System
Sewershed: Multiple
Magisterial District: Multiple
Project Estimate: Order of Magnitude
Estimate By: Engineering and Planning Division

PROJECT DESCRIPTION

Project Description: Design and construction of dual 700-foot long 42-inch steel water mains within a 400-foot long tunnel, 2,400 feet of 36-inch water main for redundancy to an existing transmission main and a new finished water pump at Fairfax Water’s Griffith Water Treatment Plant for a subaqueous crossing of the Occoquan River. This project will connect transmission facilities on either side of the river that supply the Service Authority’s Eastern Water System.

Project Benefit: These facilities will replace two aging and pressure restricted transmission mains crossing the Occoquan River that are the sole supply source for the Service Authority’s Eastern Water System and Virginia-American Water Company’s Dale City service area. The new mains and pump will increase transmission capacity and enhance system reliability and availability to the Service Authority’s existing and future customers by eliminating a single point of failure due to an existing single pipe at the Griffith Plant that supplies eastern Prince William County.

Source Derivation: Engineering and Planning Division

PROJECT PICTURE



PROJECT FUNDING

PRE-FY21	FY21	FY22	FY23	FY24	FY25	POST-FY25	TOTAL
0	500	812	5000	5000	2325	0	13637

Proposed Funding Sources	
Exp. Fund (02) – Availability Fees	-
Commit. Fund (03) – Availability Fees	30%
Repl. Fund (04) – User Rates	70%
Other Contrib. – Development Contributions	-
PROJECT TOTAL	100%