

WSSC Water **PROPOSED CIP**

Capital Improvements Program

FY 2023 - 2028

Bioenergy Project at the Piscataway WRRF



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**WSSC WATER
PROPOSED CAPITAL IMPROVEMENTS PROGRAM
FISCAL YEARS 2023-2028**

LEGAL AUTHORITY AND RESPONSIBILITY

Statutory Basis

Under Section 23-304 of the Public Utilities Article of the Annotated Code of Maryland, the Washington Suburban Sanitary Commission (WSSC Water) is responsible for annually preparing a Six-Year Capital Improvements Program (CIP) for major water and sanitary sewerage facilities and transmitting it to the County Council and the County Executive of Montgomery County and the County Executive of Prince George's County by October 1 each year. WSSC Water, where required by the two County Councils' final action on the program, must revise the same and then, prior to the commencement of the first fiscal year of the six-year program, adopt the CIP.

Section 23-301 defines major projects for inclusion in the CIP as water mains at least 16 inches in diameter, sewer mains at least 15 inches in diameter, water or sewage pumping stations, force mains, storage facilities, and other major facilities. Project information presented in this document complies with all legal requirements of the 10-year water and sewerage plans and is in direct support of the two Counties' approved land use plans and policies for orderly growth and development. By Resolution No. 2021-2290 dated June 16, 2021, the Commissioners adopted the FYs 2022-2027 CIP.

WSSC Water's Role

Established as a bi-county agency more than 100 years ago, in 1918, by an act of the Maryland General Assembly, WSSC Water is responsible for planning, designing, constructing, operating, and maintaining water and sewerage systems, and acquiring facility sites and rights-of-way in order to provide potable water and sanitary sewer services to residents, businesses, and Federal, State, and local municipalities within the Washington Suburban Sanitary District (WSSD). The WSSD encompasses nearly all of Montgomery and Prince George's Counties and provides water and sewer service to approximately 1.8 million customers in an area of nearly 1,000 square miles. A board of six Commissioners directs WSSC Water, three appointed by the County Executive of Prince George's County and confirmed by the Prince George's County Council, and three appointed by the County Executive of Montgomery County and confirmed by the Montgomery County Council. Commissioners serve four-year staggered terms.

WSSC Water's Mission

We are entrusted by our community to provide safe and reliable water, life's most precious resource, and return clean water to our environment, all in an ethical, sustainable, and financially responsible manner.

WSSC Water's Responsibilities

Primary responsibilities include:

- protecting the health and safety of the residents of both Counties by providing an adequate supply of safe drinking water;
- meeting fire-fighting requirements;
- collecting and treating wastewater before it is returned to the waters of the State of Maryland;
- managing and safeguarding the watershed and the water supply by implementing sound forestation and land use practices;
- monitoring the collection and treatment of wastewater;
- discharging an effluent cleansed of nutrients, pollutants, and hazardous materials;
- managing treated wastewater biosolids responsibly and cost effectively;
- maintaining the existing water and wastewater infrastructures;
- planning for the orderly growth of the sanitary district and WSSC Water services to meet the needs of the communities we serve;
- monitoring adherence to all plumbing and gas-fitting standards and ensuring proper coordination with other public utilities; and
- managing operations to provide efficient service to its customers while keeping costs as low as possible.

The projects contained in this CIP represent WSSC Water's plan to successfully meet its responsibilities. WSSC Water strives to maintain a balance between the use of valuable resources and the public's demand for clean water. Meeting these responsibilities helps ensure that we fulfill our core mission and strengthen our local economies while assuring that we maintain fair, ethical, and equitable contracting practices. This will allow us to secure high quality and competitively priced goods and services from our diverse and talented local businesses in Prince George's and Montgomery Counties.

PROGRAM OVERVIEW

Objective

The principal objective of the CIP is the six-year programming of planning, design, land acquisition, and construction activities for major water and sewerage infrastructure projects and programs. These projects and programs may be necessary for system improvements for service to existing customers, to comply with Federal and/or State environmental mandates, or to support new development in accordance with the Counties' approved plans and policies for orderly growth and development.

The water supply and sewage disposal bonds are repaid to bond holders over a 30-year period by annual principal and interest payments (debt service). In this manner, the initial high cost of capital improvements is spread over time and paid for by future customers who will benefit from the facilities, as well as by current customers. The annual debt service on outstanding bonds is paid from operating funds. The primary funding source for the repayment of debt is the revenue generated by water consumption and sewer use charges. Water and sewer charges are set on an annual basis to cover both operational and debt service costs (associated with the water supply and sewage disposal bonds). It is through this capital project financing process that the size of the CIP impacts the size of water and sewer bond issues, the associated debt service costs, and, ultimately, our customers' water and sewer bills.

Several capital spending and funding practices are noteworthy. WSSC Water:

- continues an aggressive program to rehabilitate or replace the older portions of our 6,000 miles of water main and more than 5,700 miles of sewer main infrastructure;
- funds capital facilities needed to accommodate growth with the System Development Charge (SDC). This charge is reviewed annually by the County Councils. (Refer to Appendices A and B for details. A comparison of SDC revenues and estimated growth spending for the six-year program period is displayed on the table titled "Growth Funding Gap" in the Funding Growth section of this document.);
- uses PAYGO (Pay-As-You-Go): the practice of using current revenues, when budgeted, to the extent practical to help fund the capital program, thereby reducing the need for debt financing;
- maximizes and manages the collection of funding from alternative sources including State and Federal grants, and payments from other jurisdictions for projects which specifically benefit them. The amount of these collections varies from year to year. WSSC Water's reliance on rate-supported debt to build the capital program is reduced to the extent that these sources are available to help fund capital projects; and

- does not allow the use of rate-supported debt to fund CIP-sized water and sewer projects requested by Applicants in support of new development. These projects, identified as System Extension Process (SEP) projects, may only proceed if built at the Applicant's expense. (An explanation of the SEP process is included in the System Extension Process section of this document.) However, since these projects are eligible for SDC credits (to the extent that SDC funds are available), the Applicants should eventually recoup their costs. (Refer to Appendix B for definitions and details.)

In May 1993, the Montgomery and Prince George's County Councils created the Bi-County Working Group on WSSC Spending Controls (Working Group) to review WSSC Water finances and recommend spending control limits. The Working Group's January 1994 report recommended "the creation of a spending affordability process that requires the Counties to set annual ceilings on WSSC Water's rates and debt (debt in this context means both bonded indebtedness and debt service), and then place corresponding limits on the size of the capital and operating budgets of the Commission." The objective of this process is to create a framework for controlling costs and achieving low or moderate water/sewer bill increases, as well as slowing the rate at which WSSC Water is incurring debt, thus reducing the portion of WSSC Water water/sewer bills dedicated to paying off debt. This valuable, annual process focuses debate on the need to balance affordability considerations against providing the resources necessary to serve existing customers, meet environmental mandates, and provide the facilities needed for growth.

WSSC Water has submitted a CIP and budget, which generally conforms to the Spending Affordability Guidelines (SAG) established by both County governments every year since 1994. Through FY'22, projects were reduced or deferred by nearly \$272 million. For FY'23, CIP and Information Only combined spending was within guidelines as submitted.

The FY'23 combined expenditures (CIP & Information Only projects) are estimated at \$736.0 million, which represents an increase of approximately \$24.1 million above the approved funding level for FY'22. The increase is primarily due to the addition of 13 new projects in FY'23.

Funding Sources

The projects included in this Combined Program are funded primarily by issuance of water and sewer rate-supported debt (WSSC Bonds). To a lesser degree, projects may also be funded by the following:

- State Grants – a share of the support provided on a local level. The State of Maryland provides funding under a separate grants program for enhanced nutrient removal at existing wastewater treatment plants (water resource recovery facilities) and for the rehabilitation of sewer mains as part of the Chesapeake Bay Program;
- Federal Grants – Department of Energy grants related to the Energy Performance Program and Piscataway Bioenergy projects to promote and develop green energy sources;
- Local Government Contributions – payments to WSSC Water for co-use of regional facilities, or funding provided by County governments for projects they are sponsoring;
- PAYGO – when budgeted, the practice of using current revenues to the extent practical to help fund the capital program, thereby reducing the need for debt financing;
- SDC – anticipated revenue from the System Development Charge; and
- Contribution/Other – projects funded by Applicants for growth projects where the County Councils have directed that no WSSC Water rate-supported debt be used to pay for the project.

(Please refer to Figure 3 near the end of this section, which displays the funding allocations for the major funding sources.)

Funding Growth

The portion of the Combined Program needed to accommodate growth is approximately \$214.4 million, which equals 5% of the six-year total expenditures, and \$52.4 million or 7% of the FY'23 budget. The funding sources for this part of the program are SDC revenues and payments by Applicants. In the event that growth costs are greater than the income generated by growth funding sources, either SDC supported or rate-supported water/sewer bonds may be used to close any gap.

The Maryland General Assembly, in 1993, first approved legislation authorizing the Montgomery and Prince George's County Councils to establish, and WSSC Water to impose, a System Development Charge. This is a charge on new development to pay for that part of the CIP needed to accommodate growth in WSSC Water's customer base. In accordance with the enabling legislation,

the Councils approved, and WSSC Water began to phase in, this charge beginning in FY'94. The SDC was approved at the maximum rate of \$160 per fixture unit by Commission Resolution No. 95-1457, adopted May 24, 1995, and became effective July 1, 1995. In the 1998 legislative session, the General Assembly modified the charge by passage of House Bill 832 setting the fee at \$200 per fixture unit with a provision for annual inflation adjustments. Subsequent resolutions have established a process for approving partial and full exemptions for elderly housing and biotechnology properties, as well as exemptions for properties in designated economic revitalization areas and properties used primarily for recreational and educational programs and services to youth. For FY'22, the Montgomery County and Prince George's Councils increased the maximum allowable charge by the 1.6% increase in the CPI-U but maintained the current rate of \$203 per fixture unit. The Commissioners adopted the Councils' actions by Resolution Number 2021-2287 dated June 16, 2021. Policies and other information associated with the SDC are included in this document in Appendices A through D.

It is estimated that there will be an overall growth funding shortfall of \$65.1 million over the six-year program period. The surplus or shortfall between growth funding sources (SDC, developer contributions, and Applicant payments under System Extension Permits) and the estimated growth-related expenditures vary over the six-year period. If growth-related expenditures were to exceed the available SDC account balance in any given fiscal year, it is anticipated that new SDC-supported debt would be issued to cover this temporary gap. The debt will be repaid through future SDC collections, as allowed by State Law. Further, it is currently anticipated that no significant additional growth projects will evolve in the later years of the six-year period. (A listing of SDC-eligible projects is included in Appendix D.)

An estimate of the surplus or shortfall for each fiscal year is presented in the table on the following page. To estimate the surplus or shortfall for an individual fiscal year, it is assumed that approximately 65% of the eligible expenditures will actually be incurred in a given year due to scheduling and other delays. The projected surplus or shortfall is the difference between the eligible expenditures adjusted for completion and the sum of the various funding sources.

GROWTH FUNDING

(In Millions)

	FY'23	FY'24	FY'25	FY'26	FY'27	FY'28	Total 6 Years
CIP GROWTH EXPENDITURES	\$ 52.4	\$ 47.2	\$ 29.5	\$ 38.1	\$ 32.3	\$ 14.9	\$ 214.4
Expenditures Adjusted for Completion	33.6	48.4	36.4	36.0	34.4	20.3	209.1
FUNDING SOURCES							
Privately Funded Projects	8.9	13.0	8.3	3.2	1.2	0.8	35.4
Estimated SDC Revenue	22.6	22.6	22.6	22.6	22.6	22.6	135.6
Less SDC Developer Credits	(4.5)	(4.5)	(3.5)	(3.5)	(2.5)	(2.5)	(21.0)
Less SDC Exemptions ¹	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(6.0)
Total Funding Sources	\$ 26.0	\$ 30.1	\$ 26.4	\$ 21.3	\$ 20.3	\$ 19.9	\$ 144.0
FUNDING SURPLUS/(SHORTFALL) ADJUSTED FOR COMPLETION	\$ (7.6)	\$ (18.3)	\$ (10.0)	\$ (14.7)	\$ (14.1)	\$ (0.4)	\$ (65.1)

¹ Each County may grant SDC exemptions, as identified in Appendix A, totaling up to \$500,000 per fiscal year as provided for in Maryland State Law (Public Utilities Article, Section 25-403(b)). Unused exemption amounts are available for use in future fiscal years. Cumulative unused SDC exemptions totaled approximately \$7.8 million for Montgomery County and \$1.8 million for Prince George's County through June 30, 2021.

Expenditures

The Proposed FYs 2023-2028 Combined Program includes 62 CIP and 11 Information Only projects for a grand total of \$5.9 billion. The grand total is \$362.4 million greater than the Adopted FYs 2022-2027 Combined Program primarily due to the addition of 13 new projects in FY'23. Expenditures for the six-year program period are estimated at \$4.2 billion. FY'23 expenditures are estimated at \$736.0 million, of which \$189.3 million is for the Water Program, \$294.7 million is for the Sewerage Program, and \$252.0 million is for the Information Only projects. System Extension Process (SEP) growth projects are estimated at \$39.1 million in the six-year program with approximately \$11.2 million programmed in FY'23. There are 13 new projects this cycle. New projects are shown on the New Projects Listing near the end of this section.

A table comparing the Adopted FYs 2022-2027 CIP to the Proposed FYs 2023-2028 CIP follows:

CIP COMPARISON

(In Thousands)

CIP	Combined Program	Total 6 Years	Budget Years
Adopted FYs 2022-2027	\$ 5,584,388	\$ 3,806,072	\$ 711,863
Proposed FYs 2023-2028	5,946,771	4,248,332	735,985
Change	\$ 362,383	\$ 442,260	\$ 24,122

The six-year expenditures for the Combined Program are estimated at \$4.2 billion, with approximately \$1.2 billion for the Water Program, \$1.3 billion for the Sewerage Program, and \$1.8 billion for the Information Only projects. This is a \$442.3 million increase from the six-year total for the Combined Program in the Adopted FYs 2022-2027 CIP. The overall increase is primarily due to the addition of 13 new projects.

Expenditure Categories

Expenditures are divided into three main categories: projects needed for growth, projects needed to implement environmental regulations, and projects needed for system improvements. The categories are defined as follows:

- Growth – any project, or part of a project, that increases the demand for treatment and delivery of potable water and/or increases system requirements to collect and treat more sewage in response to new, first time, service hookups to the existing customer base.
- Environmental Regulations – any project which is required to meet changes in Federal regulations, such as the Clean Water Act, or in response to more stringent State operating permit requirements, but does not increase system capacity. Any part of this type of a project that provides for additional capacity is for growth.
- System Improvements – any project which improves or replaces components of existing water and sewerage systems or provides for mainline relocations required in response to County or State transportation department road or transit projects where the intended purpose is not to increase the capacity of any system components. This category also includes program-sized water main extensions for which the primary function is to provide water supply redundancy to pressure zones or smaller areas in the WSSD or for system loops to improve maintainability and reliability. Any part of this type of a project not dictated by maintenance or rehabilitation needs and that provides for additional capacity is for growth. (Please refer to Figure 4 near the end of this section, which displays funding allocations for all three categories.)

CIP Development Schedule

The CIP production cycle spans 13 months, beginning in May of each year. The organizational units responsible for project initiation submit project description forms (commonly referred to as PDFs) to the Finance Department (Budget Division). The expenditures and schedules displayed on each PDF represent the best estimate of the cost and the time it will take to plan, design, and construct a project. These submittals are comprehensively reviewed with the General Manager/CEO and senior staff each June to assess the addition of new projects, changes in cost or scope, criticality, priority, environmental sensitivity, adherence to County growth and public outreach policies, construction schedule changes, and spending affordability considerations.

Following this comprehensive review, worksessions are conducted by the Budget Division with the Prince George's and Montgomery County governments, Maryland-National Capital Park and Planning Commission (M-NCP&PC), and local municipality representatives to solicit their input, and a draft document is presented to the Commissioners for their consideration. Draft CIP Public Hearing documents are published and distributed each August and the Commissioners' host public hearings in each County in September. The hearings are advertised in a major newspaper circulated in Prince George's and Montgomery Counties, through our webpage and social media, and special notices are sent to the Prince George's and Montgomery Counties' State Senators and Delegates, County Executives, County Council members, and County government staff. In addition, a notice is included with each water bill mailed to customers throughout the months of June, July, and August inviting them to participate in the public hearings. After considering all relevant comments, the Commissioners approve the Proposed CIP document and authorize transmittal to both County governments before October 1, in accordance with State law.

After January of the following year, the Prince George's and Montgomery County Executives transmit their recommendations to their respective County Councils. Each County Council conducts separate public hearings and worksessions to consider additional modifications to the Proposed CIP. On or before May 15th, the County Councils meet jointly to agree on required changes, and on or before June 1st each year, enact formal resolutions identifying project modifications and approving the addition of new projects. WSSC Water then adopts these changes and additions before the beginning of the new fiscal year on July 1st. If the Councils do not jointly agree on changes by June 1st, under law, the CIP is approved as proposed.

Program Description

Individual project information is displayed on the PDFs. The content of these PDFs, as prescribed under Section 23-303 of the Public Utilities Article of the Annotated Code of Maryland, includes as applicable: estimated diameter, length, and location of pipelines; design capacity; population and area to be served; project justification; project expenditure schedule showing the estimated cost and funding sources; and, where applicable, a map. PDFs are organized within the following major sections: Montgomery County Water,

Montgomery County Sewer, Bi-County Water, Bi-County Sewer, Prince George's County Water, Prince George's County Sewer, and Information Only. A financial summary of expenditures by major section is included at the end of this narrative. Project number prefixes indicate a water (W-), sewerage (S-), or administrative (A-) project. Administrative projects are included in the Information Only section and refer to projects that may be attributable to both water and sewerage. Each major section includes a financial summary for the projects in that section, a list of new projects, a PDF for each project, and a list of projects that are being closed out in the section.







Projected acquisition costs for land, rights-of-way, and any watershed buffer property are consolidated onto composite PDFs (W-202.00 and S-203.00). This format provides flexibility in expending funds in a specific fiscal year and permits WSSC Water to respond to the uncertainty of implementation schedules, unpredictable delays, unanticipated rights-of-way requirements, and the need to assure an equitable negotiation position by avoiding project-specific cost displays prior to contacting property owners. When a land purchase has been concluded, this cost is transferred back to the individual project.

A projects pending close-out list is included at the end of each major section when required. Each list contains projects which were approved and included in the prior adopted CIP, but which do not appear in this program for reasons such as expected construction completion or project cancellation.

This document also contains an Information Only projects section. Projects in this section are not required to be in the program under Section 23-303 of the Public Utilities Article of the Annotated Code of Maryland but may be included for any number of reasons such as: fiscal planning purposes; the reader's improved understanding of the full scope of a specific set of projects; or responding to requests from County governments. Expenditures for Information Only projects, shown separately on the financial summary, are not included as part of the CIP six-year program costs. The Combined Program is the sum of the CIP and Information Only projects and represents the entire capital budget request.

Expenditure projections for the first year of the six-year program, as shown on each PDF in Block B, column Year I, are included in the capital budget and the operating budget includes the requisite debt service. In addition to adopting a six-year CIP, the Montgomery and Prince George's County governments also annually review and approve WSSC Water's capital and operating budget.

The following symbols are used on the individual project maps to represent different types of water and sewerage system components:

- Water Main/Gravity Sewer 
- Water/Wastewater Pumping Station 
- Sewage Force Main 
- Water/Sewage Storage Facility 
- Water Filtration Plant 
- Water Resource Recovery Facility 

CIP PLANNING PROCESS

Water Treatment/Distribution Systems

The provision of potable water involves three major areas: supply, treatment, and distribution. The Potomac and Patuxent Rivers are the two sources of water supply for the WSSD, with the majority of water coming from the Potomac. Raw water is taken directly from the natural flow of the Potomac River into the Potomac Water Filtration Plant in Montgomery County. Water from the Patuxent River is impounded in two reservoirs by the Brighton and T. Howard Duckett Dams, which are the sources of supply to the Patuxent Water Filtration Plant in northern Prince George's County. The Triadelphia and T. Howard Duckett reservoirs have a combined storage capacity of approximately 10.2 billion gallons of water. The two filtration plants have produced an average of 162.8 million gallons of potable water per day over the last five fiscal years.

The natural flow in the Potomac River can be augmented during low flow conditions by two other reservoirs. The Jennings Randolph Reservoir, impounding 13.0 billion gallons of emergency raw water supply, is located on the North Fork of the Potomac River in West Virginia, and is owned and operated by the U.S. Army Corps of Engineers. Little Seneca Lake in Montgomery County provides an additional 3.8 billion gallons of useable raw water storage, and is owned and operated by WSSC Water. Both reservoirs are shared by users in the Washington Metropolitan area, including the U.S. Army Corps of Engineers and the Fairfax County Water Authority. Withdrawal during low flow conditions is governed by the terms of the Potomac Low Flow Allocation Agreement of 1981, as amended, and is administered by the Interstate Commission on the Potomac River Basin.

As raw water enters a plant, it goes through several stages of filtration and purification. Much of the finished water produced at the plants has to be pumped into the distribution system. Water pumping stations are strategically located throughout the WSSD to move water to higher topographic elevations to maintain adequate system pressure. The WSSD is divided into 17 major pressure zones that represent hydraulically separated segments of the water system. The pipelines within each of the zones must be designed to serve not only customers within the confines of that zone, but also customers in adjacent interconnected zones. Water to zones at higher elevations must be pumped; water to lower elevations must be closely controlled with pressure regulating valves. A system under pressure enables the pipes to be laid uphill or downhill, with the flow direction independent of the slope of the ground. The design and operation of a water system is a complex task which requires detailed knowledge of the interrelationships between the source of supply, the location of pumping stations, pump characteristics, pressure reducing valves, storage facilities, pipe diameters and capacity characteristics, consumption patterns throughout the day, operating techniques and costs, and location of our 1.8 million customers spread out over our 1,000 square mile service area.

The 60 elevated tanks, standpipes, and ground-level storage structures in the distribution system are filled with finished, filtered water to meet daily peak customer demand and to provide reserves for fire protection and emergencies. A network of 6,000 miles of underground water pipeline delivers water to homes, apartments, schools, hospitals, businesses, and all other types of buildings where water meters measure the amount of water used. All customer accounts are metered and billed based upon individual usage. For over 100 years, these facilities have been operated and maintained by WSSC Water 24 hours a day, 7 days a week, including holidays, in order to provide safe and reliable service to our customers.

Water Resource Recovery Facilities/Wastewater Collection Systems

WSSC Water's water resource recovery facilities have been nationally recognized as a Utility of the Future Today by the National Association of Clean Water Agencies (NACWA), the Water Environment Federation (WEF), the Water Research Foundation (WRF), and the WaterReuse Association, with input from the U.S. Environmental Protection Agency (EPA), for transformational work in community engagement, watershed stewardship, and recovery of resources such as water, energy, and nutrients. The Utility of the Future Today designation recognizes water utilities that have transformed from the traditional wastewater treatment system to a resource recovery center and leader in the overall sustainability and resilience of the communities they serve, recovering resources from wastewater, engaging in their community, forming unique partnerships, and building an internal culture of innovation. As one of the country's most effective pollution control networks, WSSC Water facilities go beyond conventional, second-stage treatment to provide "tertiary treatment," which is an advanced treatment process. All of WSSC Water's facilities employ state of the art, integrated, enhanced nutrient removal processes that significantly reduce the amount of nitrogen and phosphorous reaching the Chesapeake Bay. These features ensure that the quality of the effluent (treated wastewater discharged from the facilities) is better than the natural waters into which it is returned.

Wastewater operations are divided into two functions: treatment and conveyance of sewage. Sewage treatment is accomplished through a network of facilities, the base of which is the regional water resource recovery facility. WSSC Water owns and operates six water resource recovery facilities, which receive and process waste from residences, businesses (where waste is a by-product of the manufacturing process), restaurants, hospitals, and other commercial and industrial users. During the water resource recovery process, solid material is removed, harmful organisms are destroyed, and excess disinfection products are neutralized before the remaining liquid, the effluent, is returned to the waters of Maryland.

WSSC Water's six facilities have a combined capacity of 95 million gallons per day (MGD). The six facilities are Piscataway, Western Branch, Parkway, Seneca, Damascus, and Hyattstown. Unlike the water system, operation of the sewerage system is highly dependent upon other area jurisdictions and, for this reason, WSSC Water has purchased 169.6 MGD of treatment capacity at the Blue Plains Advanced Wastewater Treatment Plant located in the District of Columbia, 3.0 MGD of capacity at the Mattawoman

Wastewater Treatment plant located in northern Charles County, and 20,000 gallons per day of capacity in the Town of Poolesville's wastewater treatment plant. The capital costs of the Blue Plains and Mattawoman plants are shared among the users based upon treatment capacity allocations. WSSC Water also pays to the District of Columbia and Charles County a share of the operating, maintenance, and overhead costs at each plant, in proportion to actual flows. These cost-sharing arrangements were agreed to in the Intermunicipal Agreement of 2012 and the Mattawoman Agreement of 1980, respectively. Sewer capacity purchased in the Poolesville plant is in accordance with the May 1984 agreement between the Town of Poolesville and the Montgomery County government.

The other function of the sewerage system is to convey waste flows from the point of origin (for example, from a customer's home) to a point of treatment. The sewerage network contains more than 5,700 miles of pipeline, with pipe sizes ranging from 6 to 102 inches in diameter and is predominantly a gravity system. This means the flow travels in a downhill direction without any other help and, therefore, sewers generally flow along streambeds towards the lowest elevation in a basin. The sewers in one drainage basin are independent of those in other basins. There are 13 major drainage basins in the WSSD.

The largest diameter pipelines (interceptor sewers) extend out from the treatment plant to the major lines (trunk lines) within individual drainage basins. Smaller diameter pipelines (outfalls) run up sub-basins from the major lines. Even smaller lines (laterals), usually built in or along subdivision streets to provide service to abutting properties, lead up to hundreds of thousands of individual service connections (hookups from the pipe in the street to a private home or building) to be served by the remainder of the conveyance system. Ideally, the entire system would provide for the gravitational flow of waste from the individual houses, businesses, and other sources through the laterals in the various subdivisions to the outfalls and through the larger diameter interceptors to the water resource recovery facility. Because gravity cannot always be used to accomplish this ideal pattern of flow, WSSC Water has more than 50 wastewater pumping stations in operation, and others in standby status, throughout the WSSD. These pumping stations range from 0.06 to 306 MGD in capacity. Pumping stations lift wastewater through a pressure line called a force main, over ridges or from stream valleys that have no continuous trunk sewer, into the gravity-flow system of an adjacent drainage basin that contains existing pipeline and water resource recovery facilities. All WSSC Water wastewater flows through enclosed trunk line systems and is completely separate and independent from the storm drain system. For over 100 years, these facilities have been operated and maintained by WSSC Water 24 hours a day, 7 days a week, including holidays, in order to provide safe and reliable service to all of our customers.

In addition, small pressure systems exist throughout the WSSD. A typical system is comprised of a grinder pump (one for each dwelling unit grouped in a small residential development) contained in a sump pumping through a plastic force main, and then connecting to a gravity sewer line located nearby. This type of system is limited in size and is necessary to overcome minor changes in topography to avoid the construction of a conventional gravity line in another direction where the distance to an existing sewer would be considerably greater and less cost effective.

Approximately 62% of all wastewater originating in Montgomery County and central Prince George's County follows the Anacostia, Rock Creek, and Potomac River Valleys, to the Blue Plains Advanced Wastewater Treatment Plant. WSSC Water's proportionate share of capital costs at Blue Plains, to meet suburban Maryland's treatment requirements, have represented some of the most significant planned expenditures in this document. The purpose of the projects contained in this document and their associated cost is to expand, replace, or rehabilitate the existing water and sewerage systems; to continue a very high level of continuous service and reliability; and to protect the health of current and new customers, while mitigating impacts on the environment.

Environmental Concerns

WSSC Water is committed to protecting the natural environment of Prince George's and Montgomery Counties as it carries out its mandate to provide sanitary sewer and drinking water services. This commitment focuses on those unique natural and manmade features (waterways, woodlands, and wetlands, as well as parklands, historical sites, and residential areas) that have been indicated by Federal, State, and local environmental protection laws and regulations. Specific impact information is included in the evaluation of alternatives by the Asset Management Program (AMP), if the environment features will be affected by the proposed construction of a project. Six primary areas are addressed as appropriate:

- Stream Valleys – identify the classification of the stream and, in general terms, the published water quality. From published maps, show the topography including the 100-year floodplain;
- Wetlands (Tidal and Non-tidal) – using published maps, show the locations of these and give their classification;
- Woodlands or Forested Areas – using aerial photographs or published maps, show the location of these and identify their type;
- Parklands – using published maps, show the location of all land holdings of the M-NCP&PC, the Department of Natural Resources, and the National Park Service;
- Steep Slopes – using published maps, show all slopes greater than 15%; and,
- Historical/Archaeological Sites – the Maryland Geological Survey (State Archaeologist) and Maryland Historical Trust will provide information on sites near the project alternatives. The M-NCP&PC or County government may provide additional information of local interest.

A further extension of these protections has been funded by the approximately \$242.9 million included in the six-year Combined Program which is attributable to meeting environmental regulations. These projects, currently estimated at 6% of the six-

year Combined Program costs, are mandated by the EPA under the Clean Water Act through the State of Maryland Department of the Environment in response to pollution controls in the form of more stringent State discharge permit requirements. The environmental component is allocated among the projects listed in the following table, and project details can be found on the individual PDFs included elsewhere in this document.

Environmental Spending

Project	Total 6 Years (In Millions)
W-73.33 Potomac WFP Consent Decree Program	\$ 139.7
W-202.00 Land & Rights-of-Way Acquisition - Bi-County Water	4.4
S-22.11 Blue Plains: Pipelines & Appurtenances	98.8
Combined Program Expenditures Allocated to Environmental Regulations	\$ 242.9

Green Bond Project Funding

The International Capital Market Association (ICMA) describes the Green Bond market as an opportunity to enable and develop the key role that debt markets can play in funding projects that contribute to environmental sustainability. WSSC Water is committed to protecting the natural environment of Prince George's and Montgomery Counties as it carries out its mandate to provide sanitary sewer services and safe, clean drinking water. This commitment is reflected in the organization's core values of accountability, innovation, and environmental stewardship, which serve to guide and incorporate behavior and decision making into the organization's investments into green buildings, pollution prevention and control, renewable energy, water quality, and climate change adaptation.

To be eligible for Green Bond proceeds, candidate green projects must meet criteria in one or more of the following areas:

Green buildings

- Installation of high-efficiency heating, ventilating, and air conditioning units;
- Installation of high-efficiency LED lighting fixtures;
- Use of cool roof materials; and
- Installation of high-efficiency water and wastewater processing equipment, pumps, motors, and valves.

Pollution prevention and control

- Lead clean-up and removal;
- Protection of environmentally sensitive areas from sewer overflow;
- Construction of new sewer, storm drain, and recycled water supply systems;
- Sewer system repair and rehabilitation to prevent overflow into waterways;
- Sewer line blockage assessments and remediation; and
- Enhance nutrient removal (nitrogen and phosphorus) and discharge processes to protect waterways.

Renewable energy

- Installation of new equipment and systems to produce biogas and electricity.

Water quality

- Sewer and water line reconstruction;
- Leak detection technologies;
- Advanced mixing systems;
- Installation of technologies to reduce chemical use; and
- Construction of new source water intake to reduce drinking water contamination and treatment cost.

Climate change adaptation

- Address safety standards including the Probable Maximum Flood criteria and maximum credible earthquake loadings;
- Installation of enhanced power reliability at wastewater facilities to prevent sanitary sewer overflows; and
- Reduce biosolids production to enhance the health of the Chesapeake Bay and reduce greenhouse gas emissions and other air pollutants.

Projects focused on the activities above are eligible to be funded in whole or in part by an allocation of the Green Bond proceeds. Based upon WSSC Water's review of its capital project portfolio, the following projects will be financed with the proceeds from Green Bonds: Potomac Water Filtration Plant (WFP) Consent Decree Program (page 3-7) and Large Diameter Water Pipe and Large Valve Rehabilitation Program (page 3-8).

Green Bond proceeds will be specifically directed to pay the costs of design, construction, property acquisition, and other related costs necessary for selected projects. Further, WSSC Water will produce an annual report detailing how the Green Bond proceeds were used to finance the selected projects, a description of the selected projects, and details of the environmental benefits resulting from the projects. More information on WSSC Water's Green Bond program and reporting can be found on our website at wsscwater.com/greenbond.

Public Outreach

WSSC Water's proactive Project Outreach program is an integral part of our process to include early public involvement in projects. The objective is to inform affected communities about WSSC Water's plans, actively seek their input, and respond to their concerns. WSSC Water's planning approach is an open process, receptive to public comment and involvement. Residents of Prince George's and Montgomery Counties are given the opportunity to review clear, accessible documents that describe the rationale behind program planning and project decisions. The overall outreach goals are to:

- identify community and public policy issues early in the planning stage;
- address the known community concerns and environmental issues that are within the reasonable context of the planning effort;
- promote community understanding of system needs and demands, and the planning process used by WSSC Water to maintain public health standards and water quality protection;
- provide constructive forums for community involvement and information throughout the planning process;
- provide a clear understanding of the decision-making process;
- address potential health and environmental risks; and
- establish and maintain open lines of communication.

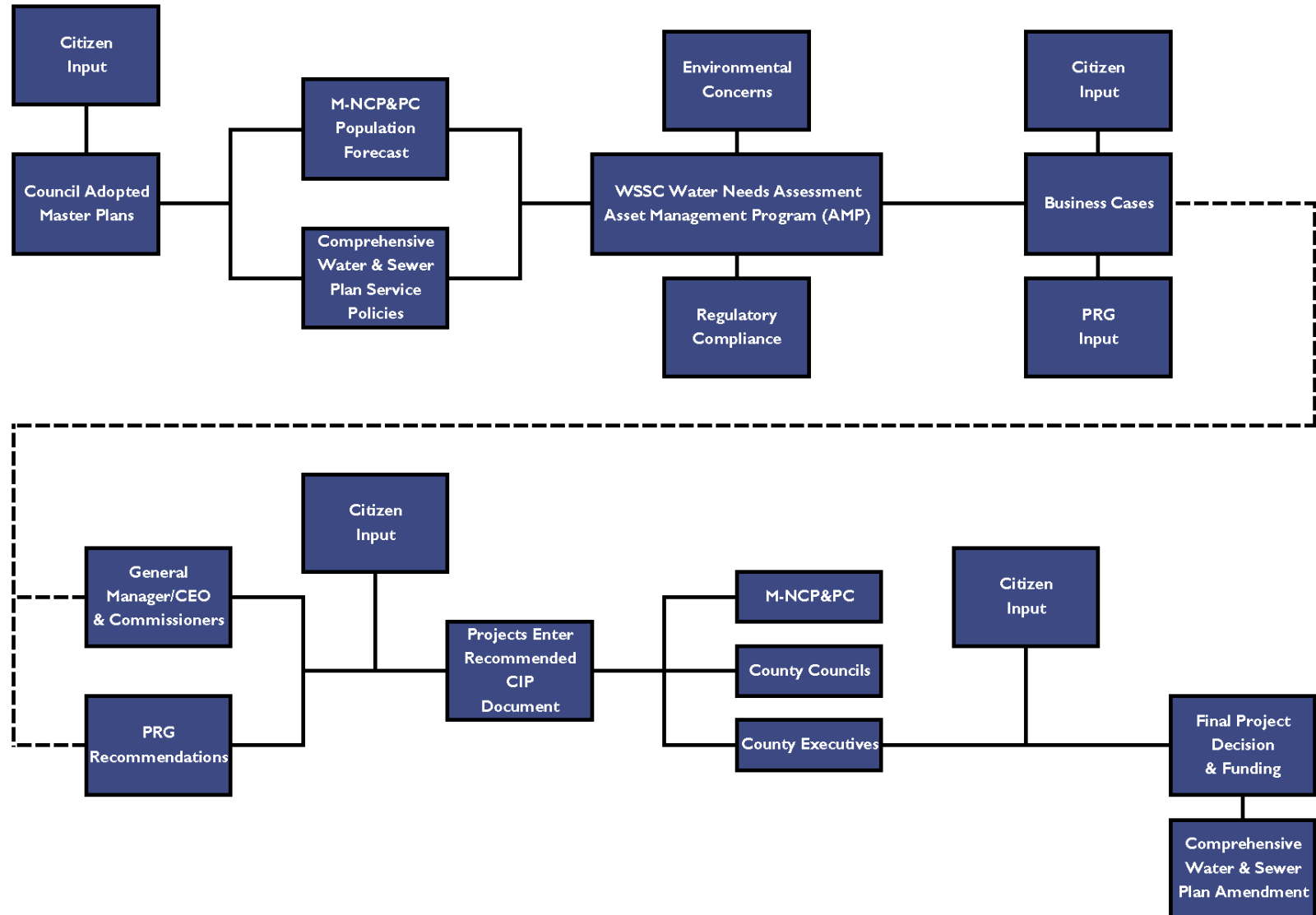
The Project Outreach program advocates achieving planning goals through a collaborative effort among staff, technical experts, citizens and/or organizations, and public officials. Fostering community involvement allows WSSC Water to be responsive and sensitive to community concerns, to define the best approach to address customers' concerns, and to garner community support while meeting public health objectives.

The Planning Process

The planning process incorporates engineering data, environmental requirements, economic factors, and public interaction to establish a sound basis for making decisions, for efficiently conducting and documenting specific work tasks, and for successfully implementing needed solutions. The planning process utilizes business case studies to identify needs, develop and evaluate options, and identify a preferred solution. An important goal in the process is to produce a result that is acceptable to citizens, elected officials, regulatory agencies, and WSSC Water at a reasonable cost.

A number of outside influences affect the project planning process. Water and sewer projects are essentially an infrastructure response to land use decisions made by the two County governments and demographic information (population forecasts) provided by the Washington Council of Governments and the M-NCP&PC. These elements are used to calculate projected water and sewerage demands. WSSC Water must also consider environmental consequences and compliance with Federal and State regulations such as the Clean Water Act and Safe Drinking Water Act. The needs analysis process also incorporates both County governments' guidance on service policies as contained in the Comprehensive 10-Year Water and Sewerage Plans. Generally stated, the goals, purposes, and concepts provided by the Prince George's and Montgomery County governments require that the water and sewerage systems be consistent with officially-approved local and general plans, and provide adequate capacity to accommodate the foreseeable development of the area served based upon population and employment projections. This requirement corresponds with what has always been WSSC Water's policy: to provide utility service to the type and location of development that each County governing body has approved, if economically and otherwise feasible. Figure 1, on the following page, displays the overall project planning and approval process.

Figure I
PROJECT DEVELOPMENT & APPROVAL PROCESS



WSSC Water’s Asset Management Program

To address WSSC Water’s Strategic Priorities, in particular those to Optimize Infrastructure and Spend Customer Dollars Wisely, the objective of the AMP is to identify infrastructure needs and investment strategies for the next 30 years, or more, and develop and implement an asset management framework for optimal investment decision-making. A key task is to identify the existing and future capacity, regulatory, and rehabilitation/repair/replacement requirements for the next 30 years. The AMP provides input to WSSC Water’s multi-year financial forecasting and develops and refines a 30-year capital investment projection based on the following requirements: regulatory, capacity, maintenance, rehabilitation/replacement, process control, energy conservation, efficiency, and reliability.

How Projects Enter the CIP

The AMP systematically identifies and validates water and wastewater needs and is the primary source of new projects. Figure 2 depicts some of the key elements of WSSC Water’s AMP process.

Figure 2
OVERVIEW OF WSSC WATER’S AMP PROCESS

Genesis and Validation	Business Case Development	Review and Approval
Asset Management Plans	Technical Analysis and Documentation	WSSC Water CIP
• Establishment of Need	• Coordination	• Project Prioritization
• Need Validation	• Community Outreach	• Public Comment
• Funding	• Project Validation	• County Governments
	• Solution Recommendation	
Implementation		

WSSC Water’s needs assessments may identify other potential projects. A project may be added in response to relocation requirements due to road or transit improvements or the need to construct a segment of pipe in advance of paving. Projects may also be included at the request of either County government, usually to provide service to a planned County service facility, or in response to a request for service from an Applicant for new development. Projects may also enter the CIP when they are split from previously approved projects. Projects may be split either at the request of the Applicant or for administrative reasons such as to afford better project management or to provide greater clarity to the reader.

System Extension Process (SEP)

SEP projects are undertaken by developers to support future growth. Service to properties approved under the SEP almost always require the extension of small diameter subdivision lines and may involve program-sized pipes that must be included in the CIP. This document includes only the portion of an Applicant's total pipe extension or pumping facility requirements and associated costs that conform to the definition provided in the Statutory Basis section at the beginning of this narrative.

To initiate a project, the Applicant will submit preliminary subdivision plans to the Planning Department of the M-NCP&PC for their County. WSSC Water will review these submittals for water and/or sewer service, including a determination if the property to be served is located within the appropriate "service category." (Service category designations are a staging tool employed by and strictly administered in the Comprehensive 10-Year Water and Sewerage Plans by both County governments. If the property is not in the correct service category, the Applicant must contact the appropriate County office to begin a County 10-Year Plan amendment process for reconsideration of the service area designation currently assigned to the property. If a designation change is approved later by the County Council, the Applicant may proceed with the construction of the project.) Once it has been determined that the property to be served is located within the appropriate service category, and a request for Hydraulic Planning Analysis (HPA) is made and completed, WSSC Water issues a Letter of Findings (LOF) which specifies the project conditions that must be met prior to the start of construction. The need for a CIP-sized project is identified during the HPA review. WSSC Water will perform a review of the design plans for compliance with requirements. Construction can begin when design plans have been approved, all necessary permits and rights-of-way have been obtained, and the Applicant has satisfied all other project conditions. More than a third of the projects in this document are SEP-related.

For those projects serving one new residence or providing relief from a residential health hazard, the Applicant may hire an engineer to follow the SEP or can opt to follow the WSSC Water Built Process. Each step in the WSSC Water Built Process is done at the Applicant's expense. In this case, the Applicant will prepare a feasibility study for review and for WSSC Water to issue a feasibility LOF. The LOF will again specify any project conditions and advise the Applicant of their cost responsibilities. If the Applicant elects to proceed with the WSSC Water Built Process, WSSC Water will prepare the design plans. Once the Applicant has met all the project conditions from the LOF, the design plans are approved, and all permits and rights-of-way are acquired, WSSC Water will proceed with the construction of the project at the Applicant's expense. However, such projects rarely include CIP-sized mains.

Project Development Criteria

It has been WSSC Water's policy to have facilities in service when, or before, they are needed so that new development demands on the system do not result in a reduction of the level of service provided to existing customers. This policy provides for

unrestricted water supply and no sewage overflows and avoids a water or sewer connection moratorium. This general service policy guides the planning and sizing of the systems and requires that both the water and wastewater systems are sized to handle the peak or maximum demands, adjusted for weather-related usage. The task is to balance cost and spending affordability limits with environmental consequences, risk, and system reliability.

Water and wastewater systems are composed of functionally different sub-systems: treatment, transmission, distribution, collection, and storage. Ideally, the capacity of each component should match the capacity of the other parts of the system. An example of a real situation from the past is the comparison of the Blue Plains Advanced Wastewater Treatment Plant to the Muddy Branch and Seneca Creek wastewater transmission systems. The plant had enough capacity but, in contrast, probable peak flows in the sewers exceeded pipeline capacity. These were part of the same network, yet one of the sub-systems had excess capacity, while other parts, although connected, were deficient. Transmission projects to correct this imbalance were completed in these basins, ensuring capacity to handle future flows in the conveyance systems.

For most facilities, WSSC Water plans enough capacity to last 20 years or more. When it seems clear that adding capacity incrementally will not be economical, feasible, or is significantly disruptive, longer range planning is done. A pipeline is sized for full development, or “build out” of its service area, to avoid repeated environmental and community disruption caused by construction. In most cases, this results in a service life that extends beyond 20 years. Since the weather-related usage and future population projections are broad-based estimates of future conditions used in the calculation of future flow demands, the rate at which predicted flows increase or decrease in a pipeline system is somewhat variable, but still useful in providing a long-range target for timing the project construction. WSSC Water conservatively estimates the lead time required to plan, design, and construct a facility, and projects enter the CIP on that basis. It is not unusual for 10 or more years to elapse before a major facility project, such as a treatment plant, is finished following its initial appearance in this document.

Twenty-year estimates of increases in customer demand are based on the most recent M-NCP&PC demographic forecasts of population, dwelling units, and employment. Estimates of full development demands are based on the most current land use and zoning information available from the M-NCP&PC. This data is organized by Traffic Analysis Zones in Montgomery County and by Policy Analysis Zones in Prince George’s County. The information is then disaggregated by sub-basins for use in the planning and sizing of projects.

Project Estimates

Pipeline cost estimates are developed through the use of a detailed checklist of cost elements. The comprehensiveness and uniformity of planning-level cost estimates is significantly improved through the inclusion of more site-specific details, previously not

considered until advanced stages of design. Through this process the number of projects with cost increases that typically occur when a project transitions from the preliminary planning phase to the design phase is greatly reduced.

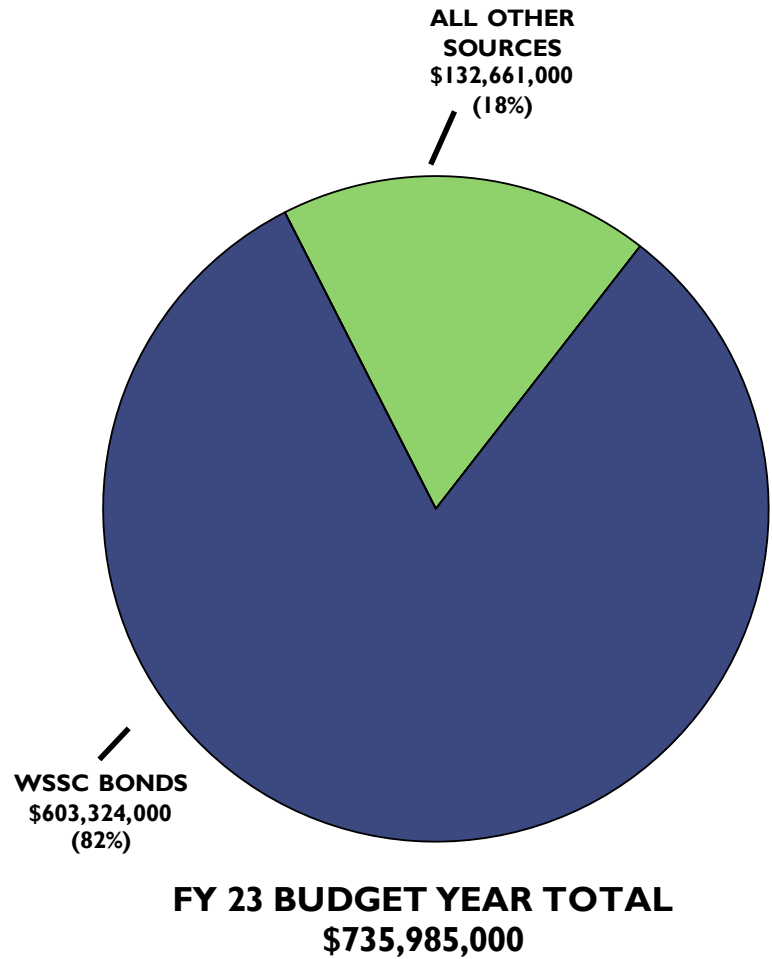
Actual design plans and profiles, if available, are analyzed together with United States Geological Survey soil maps. Additional factors such as site access, excessive traffic, known jurisdictional constraints, presence of rock or running sand, work through existing neighborhoods or open fields, and proximity to other existing utility lines are taken into consideration. The base prices upon which the estimates are predicated are derived from both historical cost data and the most recent bid information. The specific final unit prices are increased or decreased, dependent upon factors such as those listed above. In addition, all environmental mitigation costs for efforts such as reforestation are already included in the individual project costs. Regardless of the extensive checklist, some additional costs may be required by permitting agencies to reflect unpredictable requirements for things such as changes in alignment, more complex traffic management plans, or for changes in permit requirements for more stringent erosion protection measures at construction sites. The need for these kinds of features is project specific and is identified on individual PDFs when appropriate.

Order of magnitude cost estimates for major facility projects (e.g., treatment plants and pumping stations) are first derived from business case studies in the planning stage and further refined in the design phase based on estimates developed by consulting engineers. WSSC Water requires that projects be re-evaluated by consulting engineers at the 30% and 70% stages of design. Estimated construction costs, reflecting any modifications, are identified on the individual PDFs, if applicable. Because the costs displayed in the CIP are estimates and not actual costs, construction contingencies may be added.

The “Other” cost element, displayed in Block B, in the Expenditure Schedule on each PDF, is a broad estimate of the direct and indirect expenses associated with the implementation of each project and is not covered by the other major cost categories. These costs include direct support costs for a project such as salaries, wages, and related personnel costs (Social Security, retirement, etc.), and services, rentals, supplies, mileage, and other expenses. This element is estimated for the majority of the projects in this document by multiplying the sum of the project’s Planning, Design and Supervision and Construction cost elements in each column on the PDF by a constant 15.0%. There are exceptions: a value, based upon 1.0%, is applied to Blue Plains project costs; a constant of 10.0% is used to more realistically estimate these expenses for projects with a total estimated cost of \$10.0 to \$49.9 million; and, a constant of 5.0% is used for projects with a total estimated cost of \$50.0 million or more.

A project’s previous expenditures, which include all direct, indirect, and overhead costs, are shown on the PDF in the Block B Expenditure Schedule in the “Thru” column. These expenditures are accessed from the financial information system through the period ending March 31st of each year. End of the fiscal year expenditures were not available in time for the development of project expenditure schedules and are estimated.

Figure 3
WSSC WATER PROPOSED FYS 2023-2028 CIP
COMBINED PROGRAM FUNDING BY SOURCE

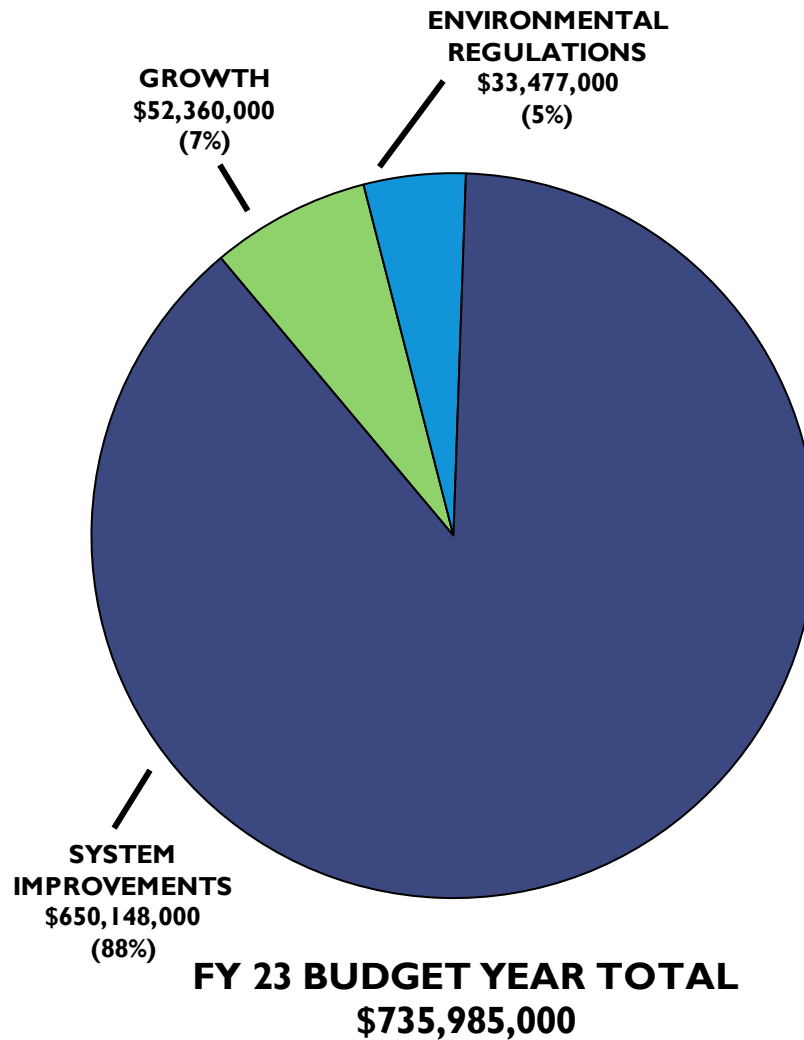


82%

of the FY 23 Combined
 Program is funded through
 long-term debt.

Funding Source	FY 23 Amount
WSSC Bonds	603,324,000
PAYGO	31,016,000
SDC & Others	52,360,000
Federal & State	43,799,000
Local Government Contributions	5,486,000
Total	735,985,000

Figure 4
WSSC WATER PROPOSED FYS 2023-2028 CIP
COMBINED PROGRAM BY MAJOR CATEGORY



88%

of the FY 23 Combined
 Program is for reinvestment
 in our system infrastructure.

Major Category	FY 23 Amount
Growth	52,360,000
System Improvements	650,148,000
Environmental Regulations	33,477,000
Total	735,985,000

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

EXPENDITURE PROJECTIONS

	EST. TOTAL COST	EXPEND THRU 21	EST. EXPEND 22	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PAGE NUM
					YR 1 23	YR 2 24	YR 3 25	YR 4 26	YR 5 27	YR 6 28		
Montgomery County Water Projects	9,237	49	23	9,165	2,621	1,045	2,577	2,738	92	92	0	1-1
Prince George's County Water Projects	220,139	35,041	16,761	159,229	63,887	51,696	36,501	5,463	1,127	555	9,108	5-1
Bi-County Water Projects	1,242,966	71,486	83,204	997,880	122,746	169,697	169,946	213,348	200,941	121,202	90,396	3-1
TOTAL WATER PROJECTS	1,472,342	106,576	99,988	1,166,274	189,254	222,438	209,024	221,549	202,160	121,849	99,504	
Montgomery County Sewer Projects	75,388	2,403	8,852	64,133	5,512	9,482	11,538	6,407	16,850	14,344	0	2-1
Prince George's County Sewer Projects	405,337	134,878	47,539	220,426	57,691	73,259	44,985	22,826	13,441	8,224	2,494	6-1
Bi-County Sewer Projects	1,970,429	552,940	213,348	1,021,814	231,518	175,732	165,910	167,439	142,598	138,617	182,327	4-1
TOTAL SEWER PROJECTS	2,451,154	690,221	269,739	1,306,373	294,721	258,473	222,433	196,672	172,889	161,185	184,821	
TOTAL CIP PROGRAM	3,923,496	796,797	369,727	2,472,647	483,975	480,911	431,457	418,221	375,049	283,034	284,325	
Total Information Only Projects	2,023,275	2,003	243,992	1,775,685	252,010	280,229	296,174	306,758	313,209	327,305	1,595	7-1
COMBINED PROGRAM	5,946,771	798,800	613,719	4,248,332	735,985	761,140	727,631	724,979	688,258	610,339	285,920	

FUNDING SOURCES

WSSC Bonds	4,478,916	504,841	537,358	3,280,454	603,324	584,384	549,004	542,237	531,602	469,903	156,263
PAYGO	537,601	0	27,585	400,016	31,016	44,000	65,000	80,000	80,000	100,000	110,000
State Grants/Contributions	572,969	246,143	20,456	306,370	39,514	76,224	76,106	56,364	38,162	20,000	0
System Development Charges	224,154	27,846	8,307	178,893	37,650	35,166	24,035	36,443	31,505	14,094	9,108
Contributions/Other	59,287	11,497	12,324	35,464	14,710	12,057	5,499	1,671	764	763	2
Government Contributions	57,370	7,903	3,569	35,351	5,486	5,024	6,380	6,657	6,225	5,579	10,547
Federal Grants	16,474	570	4,120	11,784	4,285	4,285	1,607	1,607	0	0	0
COMBINED PROGRAM	5,946,771	798,800	613,719	4,248,332	735,985	761,140	727,631	724,979	688,258	610,339	285,920

WSSC WATER FYS 2023 - 2028 COMBINED PROGRAM
NEW PROJECT LISTING
 (ALL FIGURES IN THOUSANDS)

Agency Number	Project Name	Total Project Cost	6 Year Program Cost	Budget Year Cost	% of Growth
<u>Montgomery County Sewer Projects</u>					
S- 36.01	Arcola WWPS & FM	\$6,140	\$5,837	\$690	0%
S- 61.02	Reddy Branch WWPS & FM	24,614	24,323	275	0%
S- 63.08	Sam Rice Manor WWPS & FM	5,501	5,177	173	83%
S- 83.07	Ashford Woods WWPS & FM	3,591	3,192	1,237	100%
S- 151.02	Erickson Bethesda Sewer Main	2,740	2,577	518	100%
<u>Bi-County Water Projects</u>					
W- 161.02	I-495/I-270 Traffic Relief Plan Pipeline Relocations	182,600	182,411	18,555	0%
<u>Prince George's County Sewer Projects</u>					
S- 68.02	Carsondale WWPS & FM	5,645	5,290	345	0%
S- 75.23	Brandywine Woods WWPS & FM	3,515	3,192	1,237	100%
S- 87.20	Freeway Airport WWPS & FM	3,533	3,192	1,237	100%
S- 89.26	Colmar Manor WWPS & FM	6,567	6,269	173	0%
S- 113.13	Forest Heights WWPS & FM	8,958	8,512	173	82%
<u>Information Only Projects</u>					
A- 100.01	Anacostia Depot Reconfiguration	42,838	40,280	1,314	0%
A- 101.06	RGH Building Upgrades	13,750	13,200	1,100	0%
TOTALS		<u>\$309,992</u>	<u>\$303,452</u>	<u>\$27,027</u>	

13 New Projects

WSSC WATER FYS 2023 - 2028 COMBINED PROGRAM
PENDING CLOSE-OUT PROJECT LISTING
 (ALL FIGURES IN THOUSANDS)

Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'21	Estimated Expenditures FY'22	Remarks
<u>Bi-County Water Projects</u>					
W- 73.22	Potomac WFP Pre-Filter Chlorination & Air Scour Improvements	\$20,581	\$20,438	\$143	Project completion expected in October 2021.
<u>Bi-County Sewer Projects</u>					
S- 22.10	Blue Plains WWTP: Enhanced Nutrient Removal	426,355	426,355	\$0	Project completion expected in June 2021.
<u>Prince George's County Water Projects</u>					
W-120.14	Timothy Branch Water Main	2,466	557	1,909	Project completion expected in FY'22.
<u>Prince George's County Sewer Projects</u>					
S- 77.20	Parkway North Substation Replacement	9,532	9,405	127	Project completion expected in August 2021.
S- 89.25	Little Anacostia WWPS & FM	9,821	8,607	1,214	Project completion expected in October 2021.
TOTALS		<u>\$468,755</u>	<u>\$465,362</u>	<u>\$3,393</u>	

5 Projects Pending Close-Out

Section 1 - Montgomery County Water Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

MONTGOMERY COUNTY WATER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 21	EST. EXPEND 22	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PAGE NUM
						YR 1 23	YR 2 24	YR 3 25	YR 4 26	YR 5 27	YR 6 28		
W-46.26	Pleasant's Property Water Main Extension	2,082	19	0	2,063	1,857	206	0	0	0	0	0	1-2
W-113.20	White Oak Water Mains Augmentation	5,306	30	23	5,253	23	377	2,300	2,553	0	0	0	1-3
W-113.21	Viva White Oak Water Main	1,849	0	0	1,849	741	462	277	185	92	92	0	1-4
	TOTALS	9,237	49	23	9,165	2,621	1,045	2,577	2,738	92	92	0	

Pleasant's Property Water Main Extension

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Brink HG760A
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000046.26		Change			Planning Areas	Clarksburg & Vicinity PA 13

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	512	19		493	444	49					
Land											
Construction	1,301			1,301	1,171	130					
Other	269			269	242	27					
Total	2,082	19		2,063	1,857	206					

C. Funding Schedule (000's)

Contributions/Other	2,082	19		2,063	1,857	206					
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D. Description & Justification

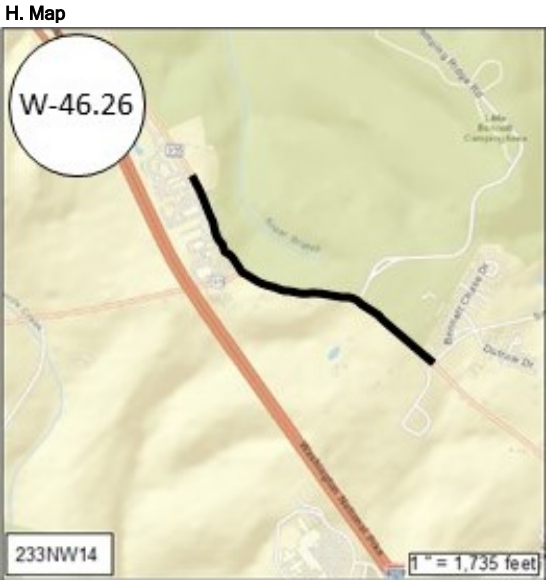
DESCRIPTION This project provides for the planning, design, and construction of 2,320 feet of 16-inch diameter water main to serve Pleasant's Property.
BENEFIT Economic Development: This growth project supports the economic development goals of the Counties.
JUSTIFICATION Pleasant's Property Hydraulic Planning Analysis (June 2020).
COST CHANGE Not applicable.
OTHER The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.
COORDINATION Coordinating Agencies: Maryland-National Capital Park & Planning Commission; Montgomery County Department of Environmental Protection; Montgomery County Government Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$69	
Debt Service		
Total Cost	\$69	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'22
Date First Approved	FY'22
Initial Cost Estimate	1,984
Cost Estimate Last FY	1,984
Present Cost Estimate	2,082
Approved Request Last FY	1,786
Total Expense & Encumbrances	19
Approval Request Year 1	1,857

G. Status Information	
Land Status	Not Applicable
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	



White Oak Water Mains Augmentation

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Montgomery Main 495A
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000113.20	382001	Change			Planning Areas	Fairland-Beltsville (PG) PA 61; Langley Park & Vicinity PA 65

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	918	30	20	868	20	328	300	220			
Land											
Construction	3,700			3,700			1,700	2,000			
Other	688		3	685	3	49	300	333			
Total	5,306	30	23	5,253	23	377	2,300	2,553			

C. Funding Schedule (000's)

SDC	5,306	30	23	5,253	23	377	2,300	2,553			
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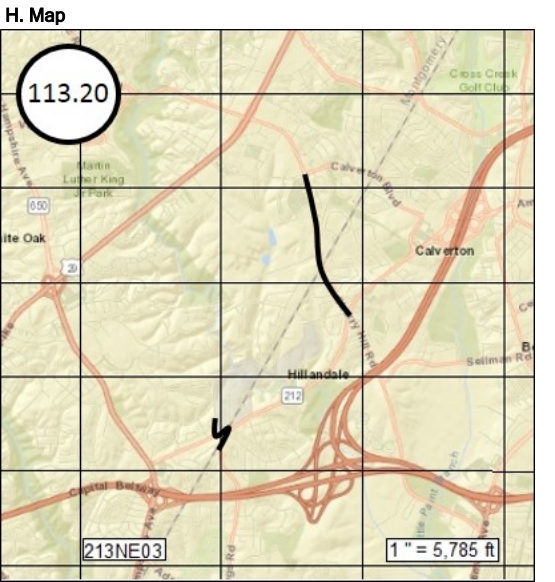
D. Description & Justification

DESCRIPTION This project provides for the planning, design, and construction required for the replacement of 7,650 feet of 4-inch to 20-inch diameter water main along Cherry Hill Road, Gracefield Road, and Powder Mill Road/Perimeter Road to serve three planned projects in the White Oak area: Washington Adventist Hospital, VIVA Global LifeSci Village, and Food & Drug Administration White Oak Master Plan.
BENEFIT Economic Development: This growth project supports the economic development goals of the Counties.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.; System Reliability: This project will improve service reliability through fewer and shorter service interruptions.
JUSTIFICATION The existing mains in these areas will be upsized to provide adequate capacity to serve domestic and fire flow needs for the three new developments. The mains will also provide additional looping and redundancy to the 495A Pressure Zone. MWCOG Round 8.0 growth forecasts; WSSC Memorandum dated November 21, 2017; Capital Needs Process Validation #122 submitted December 4, 2017.
COST CHANGE Not applicable.
OTHER The project scope has remained the same. The schedule and expenditure projections shown in Block B above are planning level estimates and are expected to change based upon site conditions and design constraints. Due to a paving moratorium, design activities have been suspended until FY'24.
COORDINATION Coordinating Agencies: Maryland Department of the Environment; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Montgomery County Government; Prince George's County Government Coordinating Projects: W - 000113.21 - Viva White Oak Water Main

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'20
Date First Approved	FY'20
Initial Cost Estimate	4,830
Cost Estimate Last FY	5,164
Present Cost Estimate	5,306
Approved Request Last FY	366
Total Expense & Encumbrances	30
Approval Request Year 1	23

G. Status Information	
Land Status	Not Applicable
Project Phase	Design
Percent Complete	0 %
Estimated Completion Date	June 2026
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	



Viva White Oak Water Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Montgomery Main 495A
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000113.21		Change			Planning Areas	Colesville-White Oak & Vicinity PA 33; Fairland (MC) PA 34

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	321			321	129	80	48	32	16	16	
Land											
Construction	1,287			1,287	515	322	193	129	64	64	
Other	241			241	97	60	36	24	12	12	
Total	1,849			1,849	741	462	277	185	92	92	

C. Funding Schedule (000's)

Contributions/Other	1,849			1,849	741	462	277	185	92	92	
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D. Description & Justification

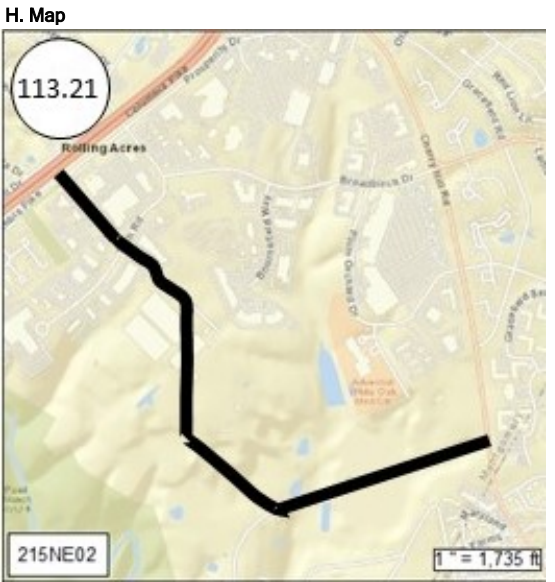
DESCRIPTION This project provides for the planning, design, and construction of 8,900 feet of 16-inch diameter water main to serve Viva White Oak and vicinity.
BENEFIT Economic Development: This growth project supports the economic development goals of the Counties.
JUSTIFICATION Viva White Oak Hydraulic Planning Analysis (July 2019).
COST CHANGE Not applicable.
OTHER The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.
COORDINATION Coordinating Agencies: Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Montgomery County Department of Public Works and Transportation; Montgomery County Government Coordinating Projects: S - 000118.09 - Viva White Oak Sewer Main; S - 000118.10 - Viva White Oak Sewer Augmentation; W - 000113.20 - White Oak Water Mains Augmentation

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$263	
Debt Service		
Total Cost	\$263	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'22
Date First Approved	FY'22
Initial Cost Estimate	1,780
Cost Estimate Last FY	1,780
Present Cost Estimate	1,849
Approved Request Last FY	712
Total Expense & Encumbrances	
Approval Request Year 1	741

G. Status Information	
Land Status	Not Applicable
Project Phase	Planning
Percent Complete	20 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	53,300
Capacity	



Section 2 - Montgomery County Sewer Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

MONTGOMERY COUNTY SEWER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 21	EST. EXPEND 22	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PAGE NUM
						YR 1 23	YR 2 24	YR 3 25	YR 4 26	YR 5 27	YR 6 28		
S-36.01	Arcola WWPS & FM	6,140	188	115	5,837	690	2,300	2,847	0	0	0	0	2-3
S-61.02	Reddy Branch WWPS & FM	24,614	16	275	24,323	275	110	693	693	11,276	11,276	0	2-4
S-63.08	Sam Rice Manor WWPS & FM	5,501	36	288	5,177	173	115	174	575	1,150	2,990	0	2-5
S-83.07	Ashford Woods WWPS & FM	3,591	111	288	3,192	1,237	1,149	662	144	0	0	0	2-6
S-84.67	Milestone Center Sewer Main	700	137	0	563	538	25	0	0	0	0	0	2-7
S-85.21	Shady Grove Station Sewer Augmentation	7,482	868	6,606	8	8	0	0	0	0	0	0	2-8
S-85.22	Shady Grove Neighborhood Center	2,010	242	452	1,316	658	658	0	0	0	0	0	2-9
S-94.13	Damascus Town Center WWPS Replacement	10,057	399	330	9,328	660	3,157	5,269	242	0	0	0	2-10
S-94.14	Spring Gardens WWPS Replacement	10,993	301	440	10,252	132	715	715	4,345	4,345	0	0	2-11
S-118.09	Viva White Oak Sewer Main	1,560	0	0	1,560	623	390	235	155	79	78	0	2-12
S-151.02	Erickson Bethesda Sewer Main	2,740	105	58	2,577	518	863	943	253	0	0	0	2-13
TOTALS		75,388	2,403	8,852	64,133	5,512	9,482	11,538	6,407	16,850	14,344	0	

NEW PROJECT LISTING
MONTGOMERY COUNTY SEWER PROJECTS
 (ALL FIGURES IN THOUSANDS)

Agency Number	Project Name	Total Project Cost	Budget Year Cost	Page Number
S-36.01	Arcola WWPS & FM	\$6,140	\$690	2-3
S-61.02	Reddy Branch WWPS & FM	\$24,614	\$275	2-4
S-63.08	Sam Rice Manor WWPS & FM	\$5,501	\$173	2-5
S-83.07	Ashford Woods WWPS & FM	\$3,591	\$1,237	2-6
S-151.02	Erickson Bethesda Sewer Main	\$2,740	\$518	2-13
	TOTALS	\$42,586	\$2,893	

Arcola WWPS & FM

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones						
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Sligo Creek 06					
S - 000036.01		Add			Planning Areas	Kensington-Wheaton PA 31					

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,463	188	100	1,175	600	300	275				
Land											
Construction	3,900			3,900		1,700	2,200				
Other	777		15	762	90	300	372				
Total	6,140	188	115	5,837	690	2,300	2,847				

C. Funding Schedule (000's)

WSSC Bonds	6,140	188	115	5,837	690	2,300	2,847				
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of the modifications to the Arcola Wastewater Pumping Station and replacement of the Arcola Force Main. The rehabilitation will replace both pumps, maintaining the pumping station's 0.17 MGD capacity. The existing 1,300 linear feet of 4-inch force main will be replaced. In addition, replacement of all electrical and mechanical components, piping assets, and the HVAC system are included.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

The existing pumping station and force main were constructed in 1961 and have reached the end of their useful lives. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program (CNPV #183).

COST CHANGE

Not applicable.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of \$6,140,000. The schedule and expenditure projections shown in Block B above are based on preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the replacement and upgrade began in FY'21 under ESP S-616.01, Arcola Force Main Replacement and WWPS Upgrade.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Montgomery County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$355	26
Total Cost	\$355	26
Impact on Water and Sewer Rate		

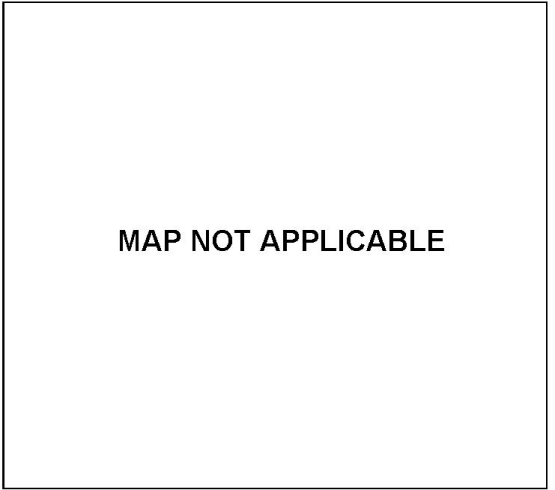
F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	6,140
Cost Estimate Last FY	
Present Cost Estimate	6,140
Approved Request Last FY	
Total Expense & Encumbrances	188
Approval Request Year 1	690

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Planning
Percent Complete	100 %
Estimated Completion Date	April 2025
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	0.17 MGD

H. Map



Reddy Branch WWPS & FM

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000061.02		Add

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	
Drainage Basins	Rock Creek 05
Planning Areas	Olney & Vicinity PA 23

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	2,376	16	250	2,110	250	100	630	630	250	250	
Land											
Construction	20,000			20,000					10,000	10,000	
Other	2,238		25	2,213	25	10	63	63	1,026	1,026	
Total	24,614	16	275	24,323	275	110	693	693	11,276	11,276	

C. Funding Schedule (000's)

WSSC Bonds	24,614	16	275	24,323	275	110	693	693	11,276	11,276	
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of the modifications to the existing 3.04 MGD wastewater pumping station and replacement of approximately 12,774 feet of existing force main.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

The existing pumping station and 16-inch diameter PCCP force main were built in 1971 and have reached the end of their useful lives. The station is subject to flooding and there are safety concerns with equipment operation. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program (CNPV #200).

COST CHANGE

Not applicable.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of \$24,614,000. The schedule and expenditure projections shown in Block B above are based on preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the upgrade began in FY'21 under ESP S-611.04, Reddy Branch WWPS Upgrade. Future land costs are included in project S-203.00.

COORDINATION

Coordinating Agencies: Maryland-National Capital Park & Planning Commission; Montgomery County Government; Town of Brookeville
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$1,423	29
Total Cost	\$1,423	29
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	24,614
Cost Estimate Last FY	
Present Cost Estimate	24,614
Approved Request Last FY	
Total Expense & Encumbrances	16
Approval Request Year 1	275

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	June 2028

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	3.04 MGD

H. Map



Sam Rice Manor WWPS & FM

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Lower Anacostia 9
S - 000063.08		Add			Planning Areas	Patuxent PA 15

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,586	36	250	1,300	150	100	150	500	200	200	
Land											
Construction	3,200			3,200					800	2,400	
Other	715		38	677	23	15	24	75	150	390	
Total	5,501	36	288	5,177	173	115	174	575	1,150	2,990	

C. Funding Schedule (000's)

WSSC Bonds	937	6	49	882	29	20	30	98	196	509	
SDC	4,564	30	239	4,295	144	95	144	477	954	2,481	

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a 0.12 MGD wastewater pumping station and 3,521 linear feet of force main. The relocated wastewater pumping station and force main will provide service to the existing and future Ashton Service Area.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.

JUSTIFICATION

The existing pumping station was originally installed in 1977 and has reached the end of its useful life. The station does not meet current standards and is in jeopardy from encroaching streambank erosion. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program (CNPV #191).

COST CHANGE

Not applicable.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of \$5,501,000. The schedule and expenditure projections shown in Block B above are based on preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the rehabilitation began in FY'21 under ESP S-625.02, Sam Rice Manor WWPS Rehabilitation. Future land costs are included in project S-203.00.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Montgomery County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$54	29
Total Cost	\$54	29
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	5,501
Cost Estimate Last FY	
Present Cost Estimate	5,501
Approved Request Last FY	
Total Expense & Encumbrances	36
Approval Request Year 1	173

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	June 2028
Growth	83%
System Improvement	17%
Environmental Regulation	
Population Served	
Capacity	0.12 MGD

H. Map

MAP NOT APPLICABLE

Ashford Woods WWPS & FM

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Seneca Creek 15
S - 000083.07		Add			Planning Areas	Clarksburg & Vicinity PA 13

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	839	111	250	478	277	101	75	25			
Land											
Construction	2,298			2,298	799	898	501	100			
Other	454		38	416	161	150	86	19			
Total	3,591	111	288	3,192	1,237	1,149	662	144			

C. Funding Schedule (000's)

Contributions/Other	3,591	111	288	3,192	1,237	1,149	662	144			
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D. Description & Justification

<p>DESCRIPTION</p> <p>This project provides for the planning, design, and construction of a 0.62 MGD wastewater pumping station and 2,160 feet of force main to serve the Egan property.</p> <p>BENEFIT</p> <p>Economic Development: This growth project supports the economic development goals of the Counties.</p> <p>JUSTIFICATION</p> <p>Ashford Woods Hydraulic Planning Analysis (January 2021).</p> <p>COST CHANGE</p> <p>Not applicable.</p> <p>OTHER</p> <p>The present project scope was developed for the FY'23 CIP and has an estimated total cost of \$3,591,000. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Montgomery County Government</p> <p>Coordinating Projects: Not Applicable</p>
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E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$46	24
Debt Service		
Total Cost	\$46	24
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	3,591
Cost Estimate Last FY	
Present Cost Estimate	3,591
Approved Request Last FY	
Total Expense & Encumbrances	111
Approval Request Year 1	1,237

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	Developer Dependent
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	0.62 MGD

H. Map



Milestone Center Sewer Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Seneca Creek 15
S - 000084.67	173804	Change			Planning Areas	Germantown & Vicinity PA 19

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	271	137		134	134						
Land											
Construction	356			356	334	22					
Other	73			73	70	3					
Total	700	137		563	538	25					

C. Funding Schedule (000's)

Contributions/Other	700	137		563	538	25					
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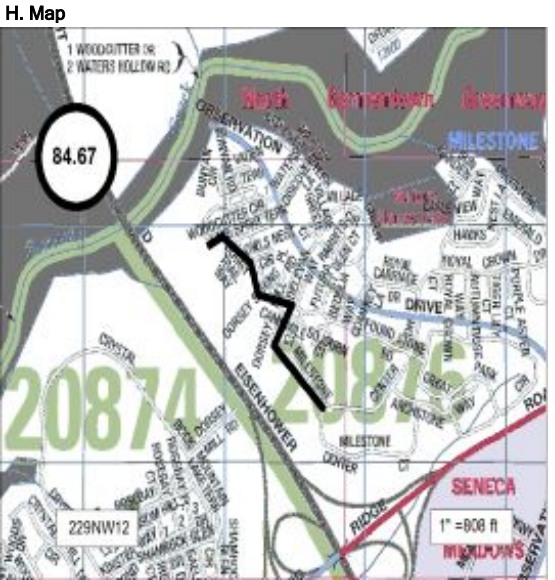
D. Description & Justification

DESCRIPTION This project provides for the planning, design, and construction of approximately 1,860 feet of 18-inch diameter sewer main to serve the new Milestone development.
BENEFIT Economic Development: This growth project supports the economic development goals of the Counties.
JUSTIFICATION Milestone Development Amended Hydraulic Planning Analysis and Letter of Findings #2 (January 2016).
COST CHANGE Not applicable.
OTHER The project scope has remained the same. The project is on hold due to lack of activity and will need to be re-evaluated when the Owner/Developer approaches WSSC Water to restart the project. The current estimated total project cost shown above reflects the original plans for the project. A new cost estimate and schedule will be required at restart. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.
COORDINATION Coordinating Agencies: Maryland-National Capital Park & Planning Commission; Montgomery County Government Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$39	
Debt Service		
Total Cost	\$39	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'18
Date First Approved	FY'18
Initial Cost Estimate	504
Cost Estimate Last FY	856
Present Cost Estimate	700
Approved Request Last FY	538
Total Expense & Encumbrances	137
Approval Request Year 1	538

G. Status Information	
Land Status	Not Applicable
Project Phase	Design
Percent Complete	0 %
Estimated Completion Date	Developer Dependent
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	2.83 MGD



Shady Grove Station Sewer Augmentation

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Rock Creek 05
S - 000085.21	153800	Change			Planning Areas	Gaithersburg & Vicinity PA 20

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	920	854	65	1	1						
Land											
Construction	5,699	14	5,679	6	6						
Other	863		862	1	1						
Total	7,482	868	6,606	8	8						

C. Funding Schedule (000's)

Contributions/Other	7,482	868	6,606	8	8						
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D. Description & Justification

DESCRIPTION
This project provides for the planning, design, and construction of approximately 3,600 feet of 15-inch to 18-inch diameter sewers. These sewers will replace an existing 10-inch diameter sewer main near Crabbs Branch Creek and CSX Railroad and terminate at a manhole approximately 300 feet southeast of Redland Road.

BENEFIT
Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION
The new 15-inch and 18-inch diameter sewers will serve the area encompassed by Shady Grove Road, I-370, and CSX Railroad. Due to the development density proposed in DA5409Z12, the projected peak wastewater flow exceeds the capacity of existing sewers.

COST CHANGE
Not applicable.

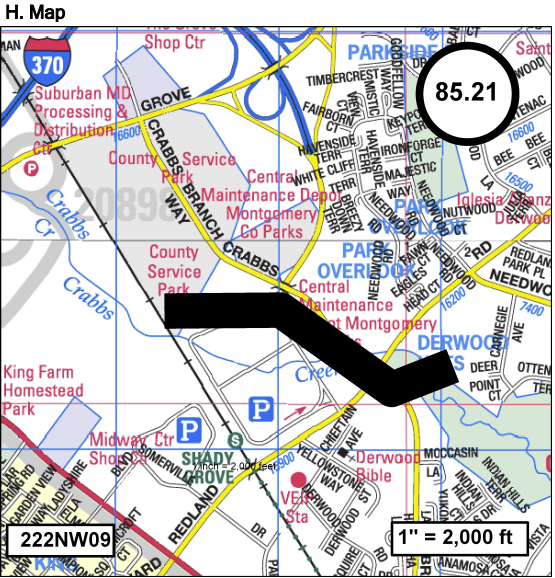
OTHER
The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. Design and construction will be performed by the developer under a Systems Extension Permit. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION
Coordinating Agencies: Maryland-National Capital Park & Planning Commission; Montgomery County Department of Public Works and Transportation; Montgomery County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$76	
Debt Service		
Total Cost	\$76	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'15
Date First Approved	FY'15
Initial Cost Estimate	2,254
Cost Estimate Last FY	7,192
Present Cost Estimate	7,482
Approved Request Last FY	5,960
Total Expense & Encumbrances	868
Approval Request Year 1	8

G. Status Information	
Land Status	Not Applicable
Project Phase	Construction
Percent Complete	90 %
Estimated Completion Date	Developer Dependent
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	5,500
Capacity	1.0 - 3.0 MGD



Shady Grove Neighborhood Center

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Watts Branch 16
S - 000085.22	382102	Change			Planning Areas	Gaithersburg & Vicinity PA 20

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	531	242	185	104	52	52					
Land											
Construction	1,248		208	1,040	520	520					
Other	231		59	172	86	86					
Total	2,010	242	452	1,316	658	658					

C. Funding Schedule (000's)

Contributions/Other	2,010	242	452	1,316	658	658					
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 1,800 feet of 15-inch sewer main to serve the Shady Grove Neighborhood Center Subdivision.

BENEFIT

Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION

The existing sewer system cannot handle the projected flows that will be generated by the Shady Grove Neighborhood Center. Shady Grove Neighborhood Center Planning Analysis (March 2019).

COST CHANGE

The schedule and expenditure projections have been updated based upon information provided by the developer.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: City of Rockville; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Montgomery County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$38	
Debt Service		
Total Cost	\$38	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'21
Date First Approved	FY'21
Initial Cost Estimate	3,391
Cost Estimate Last FY	1,700
Present Cost Estimate	2,010
Approved Request Last FY	633
Total Expense & Encumbrances	242
Approval Request Year 1	658

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	40 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	7,000
Capacity	1.40 to 2.45 MGD

H. Map



Damascus Town Center WWPS Replacement

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Patuxent North 26; Seneca Creek 15
S - 000094.13	382002	Change			Planning Areas	Damascus & Vicinity PA 11

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,876	346	300	1,230	600	385	190	55			
Land	53	53									
Construction	7,250			7,250		2,485	4,600	165			
Other	878		30	848	60	287	479	22			
Total	10,057	399	330	9,328	660	3,157	5,269	242			

C. Funding Schedule (000's)

WSSC Bonds	7,039	279	231	6,529	462	2,210	3,688	169			
SDC	3,018	120	99	2,799	198	947	1,581	73			

D. Description & Justification

<p>DESCRIPTION</p> <p>This project provides for the planning, design, and construction of a 0.416 MGD wastewater pumping station (WWPS), approximately 2,100 linear feet of gravity sewer, and 2,100 linear feet of force main (FM). The new WWPS and associated FM and gravity sewer will provide service to the existing and future Damascus Town Center service area.</p> <p>BENEFIT</p> <p>Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.</p> <p>JUSTIFICATION</p> <p>The existing pumping station, which is over 35 years old, was originally built as a privately owned facility and did not conform to WSSC Water standards. The pumping station was taken over by WSSC Water in the late 1970s. It has reached the end of its useful life and replacement parts are obsolete. Additionally, the capacity of the pumping station must be increased to accommodate the future service area in accordance with the Maryland-National Capital Park & Planning Commission Damascus Master Plan. The pumping station replacement was recommended by the Damascus Town Center WWPS Business Case Evaluation, Black & Veatch (September 2017) undertaken as part of WSSC Water's Asset Management Program.</p> <p>COST CHANGE</p> <p>Not applicable.</p> <p>OTHER</p> <p>The project scope has remained the same. The schedule and expenditure projections shown in Block B above are preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Planning work began in FY'18 under ESP project S-602.01, Damascus Town Center WWPS Replacement.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Montgomery County Department of Environmental Protection; Montgomery County Department of Public Works and Transportation; Montgomery County Government</p> <p>Coordinating Projects: Not Applicable</p>
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E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$74	27
Debt Service	\$407	27
Total Cost	\$481	27
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'20
Date First Approved	FY'20
Initial Cost Estimate	9,460
Cost Estimate Last FY	10,053
Present Cost Estimate	10,057
Approved Request Last FY	672
Total Expense & Encumbrances	399
Approval Request Year 1	660

G. Status Information	
Land Status	Land and R/W Acquired
Project Phase	Planning
Percent Complete	90 %
Estimated Completion Date	June 2026
Growth	30%
System Improvement	70%
Environmental Regulation	
Population Served	854
Capacity	0.416 MGD



Spring Gardens WWPS Replacement

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Monocacy 25
S - 000094.14	382003	Change			Planning Areas	Damascus & Vicinity PA 11

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	2,821	301	400	2,120	120	650	650	350	350		
Land											
Construction	7,200			7,200				3,600	3,600		
Other	972		40	932	12	65	65	395	395		
Total	10,993	301	440	10,252	132	715	715	4,345	4,345		

C. Funding Schedule (000's)

WSSC Bonds	3,517	96	141	3,280	42	229	229	1,390	1,390		
SDC	7,476	205	299	6,972	90	486	486	2,955	2,955		

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a 1.3 MGD wastewater pumping station, 7,500 linear feet of force main, and 900 linear feet of gravity sewer. The relocated wastewater pumping station and force main will provide service to the existing and future Spring Gardens service area.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.

JUSTIFICATION

The existing pumping station and force main are over 41 years old and have reached the end of their useful lives. Additionally, the existing capacity of the pumping station must be increased to accommodate build-out of the service area and therefore it must be replaced with a new facility rated at 1.3 MGD. This replacement work was recommended by various business case evaluations undertaken as part of WSSC Water's Asset Management Program.

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Planning work began in FY'18 under ESP project S-602.26, Spring Gardens WWPS Replacement. Future land costs are included in project S-203.00.

COORDINATION

Coordinating Agencies: Maryland Department of the Environment; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Montgomery County Department of Public Works and Transportation; Montgomery County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$75	28
Debt Service	\$203	28
Total Cost	\$278	28
Impact on Water and Sewer Rate		

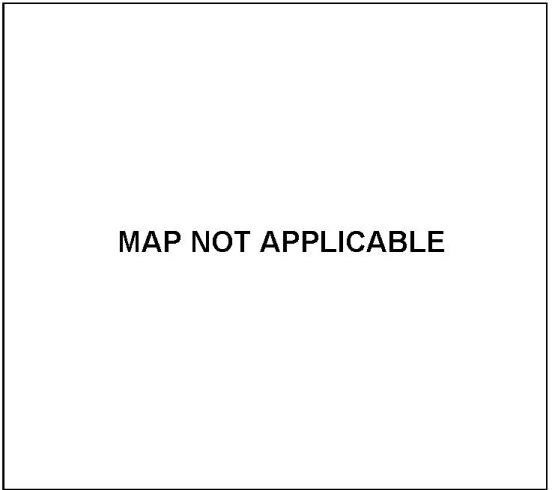
F. Approval and Expenditure Data (000's)

Date First in Program	FY'20
Date First Approved	FY'20
Initial Cost Estimate	10,180
Cost Estimate Last FY	10,665
Present Cost Estimate	10,993
Approved Request Last FY	110
Total Expense & Encumbrances	301
Approval Request Year 1	132

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	5 %
Estimated Completion Date	June 2027
Growth	67%
System Improvement	33%
Environmental Regulation	
Population Served	
Capacity	1.3 MGD

H. Map



Viva White Oak Sewer Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Paint Branch 2
S - 000118.09		Change			Planning Areas	Colesville-White Oak & Vicinity PA 33; Fairland (MC) PA 34

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	272			272	108	68	41	27	14	14	
Land											
Construction	1,085			1,085	434	271	163	108	55	54	
Other	203			203	81	51	31	20	10	10	
Total	1,560			1,560	623	390	235	155	79	78	

C. Funding Schedule (000's)

Contributions/Other	1,560			1,560	623	390	235	155	79	78	
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D. Description & Justification

DESCRIPTION This project provides for the planning, design, and construction of 4,175 feet of 15-inch to 24-inch diameter sewer main to serve Viva White Oak and vicinity.
BENEFIT Economic Development: This growth project supports the economic development goals of the Counties.
JUSTIFICATION Viva White Oak Hydraulic Planning Analysis (July 2019).
COST CHANGE Not applicable.
OTHER The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.
COORDINATION Coordinating Agencies: Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Montgomery County Department of Environmental Protection; Montgomery County Government Coordinating Projects: S - 000118.10 - Viva White Oak Sewer Augmentation; W - 000113.21 - Viva White Oak Water Main

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$88	
Debt Service		
Total Cost	\$88	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'22
Date First Approved	FY'22
Initial Cost Estimate	1,500
Cost Estimate Last FY	1,500
Present Cost Estimate	1,560
Approved Request Last FY	599
Total Expense & Encumbrances	
Approval Request Year 1	623

G. Status Information	
Land Status	Not Applicable
Project Phase	Planning
Percent Complete	10 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	1.097 MGD



Erickson Bethesda Sewer Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Cabin John 07
S - 000151.02		Add			Planning Areas	North Bethesda PA 30

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	395	105	50	240	150	50	20	20			
Land											
Construction	2,000			2,000	300	700	800	200			
Other	345		8	337	68	113	123	33			
Total	2,740	105	58	2,577	518	863	943	253			

C. Funding Schedule (000's)

Contributions/Other	2,740	105	58	2,577	518	863	943	253			
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 3,600 feet of 15-inch to 18-inch diameter sanitary sewer adjacent to the new development and 330 feet of 36-inch diameter sanitary sewer south of River Road to serve the Erickson Bethesda development.

BENEFIT

Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION

Erickson Bethesda Hydraulic Planning Analysis (March 2021).

COST CHANGE

Not applicable.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of \$2,740,000. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Montgomery County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$83	
Debt Service		
Total Cost	\$83	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	2,738
Cost Estimate Last FY	
Present Cost Estimate	2,740
Approved Request Last FY	
Total Expense & Encumbrances	105
Approval Request Year 1	518

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	30 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Section 3 - Bi-County Water Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

BI-COUNTY WATER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 21	EST. EXPEND 22	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PAGE NUM
						YR 1 23	YR 2 24	YR 3 25	YR 4 26	YR 5 27	YR 6 28		
W-73.30	Potomac WFP Submerged Channel Intake	94,144	4,348	0	0	0	0	0	0	0	0	89,796	3-4
W-73.32	Potomac WFP Main Zone Pipeline	111,184	1,931	1,208	108,045	1,155	4,620	4,620	41,580	41,580	14,490	0	3-5
W-73.33	Potomac WFP Consent Decree Program	182,298	30,048	12,600	139,650	25,200	29,400	29,400	29,400	26,250	0	0	3-7
W-161.01	Large Diameter Water Pipe & Large Valve Rehabilitation Program	595,024	0	54,525	540,499	64,316	75,015	78,395	103,302	113,854	105,617	0	3-8
W-161.02	I-495/I-270 Traffic Relief Plan Pipeline Relocations	182,600	125	64	182,411	18,555	54,724	54,606	36,364	18,162	0	0	3-10
W-172.07	Patuxent Raw Water Pipeline	30,766	14,596	7,249	8,921	8,140	558	223	0	0	0	0	3-11
W-175.05	Regional Water Supply Resiliency	15,904	0	4,120	11,784	4,285	4,285	1,607	1,607	0	0	0	3-12
W-202.00	Land & Rights-of-Way Acquisition - Bi-County Water	10,465	0	3,295	6,570	1,095	1,095	1,095	1,095	1,095	1,095	600	3-13
	Projects Pending Close-Out	20,581	20,438	143	0	0	0	0	0	0	0	0	3-14
	TOTALS	1,242,966	71,486	83,204	997,880	122,746	169,697	169,946	213,348	200,941	121,202	90,396	

NEW PROJECT LISTING
BI-COUNTY WATER PROJECTS
 (ALL FIGURES IN THOUSANDS)

Agency Number	Project Name	Total Project Cost	Budget Year Cost	Page Number
W-161.02	I-495/I-270 Traffic Relief Plan Pipeline Relocations	182,600	18,555	3-10
	TOTALS	\$182,600	\$18,555	

POTOMAC WATER FILTRATION PLANT PROJECTS
(costs in thousands)

AGENCY NUMBER	PROJECT NAME	ADOPTED FY'22 TOTAL COST	PROPOSED FY'23 TOTAL COST	CHANGE \$	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
W-73.22	Potomac WFP Pre-Filter Chlorination & Air Scour Improvements	20,476	20,581	105	0.5%	0	October 2021
W-73.30	Potomac WFP Submerged Channel Intake	90,691	94,144	3,453	3.8%	0	TBD
W-73.32	Potomac WFP Main Zone Pipeline	39,069	111,184	72,115	184.6%	108,045	June 2028
W-73.33	Potomac WFP Consent Decree Program	203,007	182,298	(20,709)	-10.2%	139,650	January 2027
	TOTALS	\$353,243	\$408,207	\$54,964	15.6%	\$247,695	

Summary: This group of projects represents operational improvements to the Potomac Water Filtration Plant (WFP) in Montgomery County. The Potomac WFP Pre-Filter Chlorination & Air Scour Improvements project (W-73.22) provides for a pre-filter chlorination system, evaluation of retrofitting an air scour system, and the replacement of existing plant filters to improve the performance of the underdrain system. The Potomac WFP Submerged Channel Intake project (W-73.30) will provide an additional barrier against drinking water contamination, enhance reliability, and reduce treatment costs by drawing water from a location with a cleaner, more stable water quality. The Potomac WFP Main Zone Pipeline project (W-73.32) provides an 84-inch diameter redundancy main from the Main Zone pumping station to the 96-inch diameter and 66-inch diameter main wye connections on River Road, upgrades to the High Zone pumping station, and replacement of the existing 78-inch and 48-inch PCCP discharge mains. The Potomac WFP Consent Decree Program project (W-73.33) provides for the planning, design, and construction required for the implementation of Short-Term Operational and Long-Term Capital Improvements at the Potomac Water Filtration Plant (WFP) to allow WSSC Water to meet the new discharge limitations identified in the Consent Decree.

Cost Impact: Due to budgetary constraints, the Potomac WFP Submerged Channel Intake project (W-73.30) has been deferred to beyond six years. Expenditure projections for the Potomac WFP Main Zone Pipeline (W-73.32) were increased to reflect the expanded scope of the project. Estimates for the Potomac WFP Consent Decree Program (W-73.33) were revised based upon final design estimates.

Potomac WFP Submerged Channel Intake

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Potomac WFP HGPOWF
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000073.30	033812	Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	11,676	4,228									7,448
Land											
Construction	78,192	120									78,072
Other	4,276										4,276
Total	94,144	4,348									89,796

C. Funding Schedule (000's)

WSSC Bonds	94,144	4,348									89,796
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D. Description & Justification

<p>DESCRIPTION</p> <p>This project includes planning, which involves community outreach and coordination with elected officials, design, and construction of a submerged channel intake to provide an additional barrier against drinking water contamination (particularly Giardia cysts and Cryptosporidium oocysts), as well as to enhance reliability and reduce treatment costs by drawing water from a location with cleaner, more stable water quality.</p> <p>BENEFIT</p> <p>Water Quality: This project supports WSSC Water's mission to provide safe, clean water by improving the quality and/or safety of drinking water.; System Reliability: This project will improve service reliability through fewer and shorter service interruptions.; Financial Efficiency: This project is expected to increase revenues, decrease expenses, or both.</p> <p>JUSTIFICATION</p> <p>The project is expected to pay for itself over time based upon the reduced chemical and solids handling costs resulting from the cleaner raw water source. It also provides for a more reliable supply by eliminating the current problems associated with ice and vegetation blocking the existing bank withdrawal. This project is consistent with the industry's recommended multiple barrier approach.</p> <p>Technical Memorandum No. 2 Water Quality Needs Assessment, O'Brien & Gere Engineers, Inc. (November 2001); Draft Source Water Assessment Study, Maryland Department of the Environment (April 2003); Potomac WFP Facility Plan, O'Brien & Gere Engineers, Inc. (September 2002); Draft Feasibility Study Report, Black & Veatch (November 2013).</p> <p>COST CHANGE</p> <p>Due to budgetary constraints the project was deferred to beyond six years.</p> <p>OTHER</p> <p>The project scope has remained the same. Significant outreach activities occurred as part of the planning phase of this project. The National Environmental Policy Act (NEPA) process was concluded in January 2018 when the National Park Service (NPS) approved the Environmental Assessment and transmitted its record of decision and the Finding of No Significant Impact. A series of briefings with State legislators, County Council members, County Executive staff, and County Council staff will be undertaken prior to commencement of further engineering work. Both Councils will review the results of the detailed study and must approve continuing with the project before design and construction may proceed. Future land costs are included in project W-202.00.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Montgomery County Department of Environmental Protection; Montgomery County Government; National Park Service; Prince George's County Department of Environmental Resources; Prince George's County Government; U.S. Army Corps of Engineers</p> <p>Coordinating Projects: W - 000073.33 - Potomac WFP Consent Decree Program</p>

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$5,444	
Total Cost	\$5,444	
Impact on Water and Sewer Rate	\$0.01	

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'04
Date First Approved	FY'03
Initial Cost Estimate	936
Cost Estimate Last FY	90,691
Present Cost Estimate	94,144
Approved Request Last FY	
Total Expense & Encumbrances	4,348
Approval Request Year 1	

G. Status Information	
Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	100 %
Estimated Completion Date	TBD
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map
MAP NOT AVAILABLE

Potomac WFP Main Zone Pipeline

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W - 000073.32	133800	Change

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	Montgomery Main 495A; Prince George's High HG450A;
Drainage Basins	
Planning Areas	Potomac-Cabin John & Vicinity PA 29

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	22,981	1,931	1,150	19,900	1,100	4,400	4,400	3,600	3,600	2,800	
Land											
Construction	83,000			83,000				36,000	36,000	11,000	
Other	5,203		58	5,145	55	220	220	1,980	1,980	690	
Total	111,184	1,931	1,208	108,045	1,155	4,620	4,620	41,580	41,580	14,490	

C. Funding Schedule (000's)

WSSC Bonds	45,586	792	495	44,299	474	1,894	1,894	17,048	17,048	5,941	
SDC	65,598	1,139	713	63,746	681	2,726	2,726	24,532	24,532	8,549	

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of redundant finished water discharge mains, water pumping station upgrades, and other process improvements at the Potomac Water Filtration Plant (WFP) to ensure a safe and reliable water supply. This work includes the following: two new 54-inch discharge pipes from the Main Zone and High Zone pumping stations that will feed into a new 84-inch discharge main that runs to the 96-inch and 66-inch main wye connections on River Road; the addition of two new pumps in the High Zone pumping station to serve the Main Zone; a new 66-inch suction pipe to serve the new pumps in the High Zone pumping station; other modifications to the High Zone pumping station, including surge protection modifications and electrical upgrades; and replacement of the existing 78-inch and 48-inch PCCP discharge mains, which are nearing the end of their useful lives, after the new 84-inch redundant discharge main is in place.

BENEFIT

System Reliability: This project will improve service reliability through fewer and shorter service interruptions.; Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

The primary purpose of this project is to provide redundancy to facilitate extended shutdowns for periodic maintenance, inspections, and repairs and to mitigate the risk to plant operations due to failure of any one of the finished water mains. The existing 78-inch PCCP main, which was installed in 1967, is the primary feed to the 96-inch Montgomery County Main Zone pipeline and the 66-inch River Road pipeline. The existing 48-inch PCCP main, which was installed in 1962, serves as only a partial backup to the 78-inch line, since it is not adequately sized to meet the current summer season demands. Furthermore, the existing mains are nearing the end of their useful lives and the 78-inch main alone cannot meet the projected 2040 maximum day demands of 210 MGD. The 78-inch main and the 48-inch main together could convey 210 MGD; however, relying on both pipes to meet future demands would decrease the redundancy and reliability of WSSC Water's system. The redundancy, process improvement, and rehabilitation/replacement work recommended by the Potomac WFP Main Zone Redundancy Business Case Evaluation (CDM Smith, May 2021), undertaken as part of WSSC Water's Asset Management Program, provides value to the customer by minimizing the risk of failure and ensuring a safe and reliable supply of up to 210 MGD of water in order to meet the current and future needs of the WSSD.

COST CHANGE

The schedule and expenditure projections have been updated to reflect the revised scope of the project.

OTHER

The project scope has been revised to include additional redundancy measures, rehabilitation/replacement of aging equipment, and other process improvements that were identified and validated through WSSC Water's Asset Management Program. The schedule and expenditure projections shown in Block B above are order of magnitude estimates and are expected to change based upon site conditions and design constraints. The schedule may change with the construction of the 78-inch and 48-inch replacement pipes after FY'28, once the 84-inch discharge main is in place.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland State Highway Administration;

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$44	29
Debt Service	\$2,636	29
Total Cost	\$2,680	29
Impact on Water and Sewer Rate	\$0.01	29

F. Approval and Expenditure Data (000's)

Date First in Program	FY'13
Date First Approved	FY'13
Initial Cost Estimate	330
Cost Estimate Last FY	39,069
Present Cost Estimate	111,184
Approved Request Last FY	913
Total Expense & Encumbrances	1,931
Approval Request Year 1	1,155

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Planning
Percent Complete	95 %
Estimated Completion Date	June 2028

Growth	59%
System Improvement	41%
Environmental Regulation	
Population Served	
Capacity	210 MGD

H. Map

MAP NOT AVAILABLE

Potomac WFP Consent Decree Program

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Potomac WFP HGPOWF
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000073.33	173801	Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	33,021	14,021	4,000	15,000	3,000	3,000	3,000	3,000	3,000		
Land	1,000	1,000									
Construction	141,027	15,027	8,000	118,000	21,000	25,000	25,000	25,000	22,000		
Other	7,250		600	6,650	1,200	1,400	1,400	1,400	1,250		
Total	182,298	30,048	12,600	139,650	25,200	29,400	29,400	29,400	26,250		

C. Funding Schedule (000's)

WSSC Bonds	182,298	30,048	12,600	139,650	25,200	29,400	29,400	29,400	26,250		
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D. Description & Justification

<p>DESCRIPTION</p> <p>The Potomac WFP Consent Decree Program provides for the planning, design, and construction required for the implementation of Short-Term Operational and Long-Term Capital Improvements at the Potomac Water Filtration Plant (WFP) to allow WSSC Water to meet the new discharge limitations identified in the Consent Decree.</p> <p>BENEFIT</p> <p>Regulatory & Other Agreements: This project is required to meet regulatory requirements, multi-jurisdictional agreements, and/or consent decrees.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.</p> <p>JUSTIFICATION</p> <p>The Consent Decree (CD) was Entered by the U.S. District Court of Maryland on April 15, 2016. Under the terms of the CD WSSC Water is required to "undertake short-term operational changes and capital improvements at the Potomac WFP that will enable WSSC Water to reduce significantly the pounds per day of solids discharged to the River" (CD Section II. Paragraph 6.i); and to plan, design, and implement long-term "upgrades to the existing Plant or to design and construct a new plant to achieve the effluent limits, conditions, and waste load allocations established by the Maryland Department of the Environment (the Department) and/or in this Consent Decree, and incorporated in a new discharge permit to be issued by the Department" (CD Section II. Paragraph 6.ii). The CD required WSSC Water to submit a Draft Audit Report and Draft Long-Term Upgrade Plan to the Citizens and the Department by November 15, 2016, and final reports to the Citizens and the Department by January 1, 2017. The Final Audit and Long-Term Upgrade Plan Reports were submitted to the Citizens and the Department on December 29, 2016. The Department reviews the Audit Report and selects recommended improvements in operations, monitoring, and waste tracking, along with select capital projects that can be completed no later than April 1, 2020 and that are necessary to achieve the goals identified in CD Section IV. Paragraph 24. Additionally, the work required to implement the Long-Term Capital Improvements Project(s) shall be fully implemented in accordance with the schedule set forth in the Long-Term Upgrade Plan. WSSC Water shall be subject to a lump-sum stipulated penalty in accordance with the CD for failure to implement the Long-Term Capital Improvement Project(s) by January 1, 2026.</p> <p>COST CHANGE</p> <p>The expenditure projections were revised based upon final design estimates.</p> <p>OTHER</p> <p>The project scope has remained the same. The schedule and expenditure projections shown in Block B above are design level estimates and include \$1,000,000 for Supplemental Environmental Projects included under CD Section IX. Paragraph 50. WSSC Water Green Bonds will be utilized to fund a portion of this project. The reduction in suspended solids discharged into the Potomac River will address the following International Capital Market Association (ICMA) Green Bond Principles 2016 categories: Pollution prevention/control; and Terrestrial and aquatic biodiversity conservation.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Maryland Department of the Environment; Montgomery County Government; National Park Service; Prince George's County Government; U.S. Environmental Protection Agency, Region III</p> <p>Coordinating Projects: W - 000073.30 - Potomac WFP Submerged Channel Intake; W - 000073.32 - Potomac WFP Main Zone Pipeline</p>
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E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$10,542	28
Total Cost	\$10,542	28
Impact on Water and Sewer Rate	\$0.02	28
F. Approval and Expenditure Data (000's)		
Date First in Program		FY'17
Date First Approved		FY'16
Initial Cost Estimate		27,250
Cost Estimate Last FY		203,007
Present Cost Estimate		182,298
Approved Request Last FY		10,500
Total Expense & Encumbrances		30,048
Approval Request Year 1		25,200

G. Status Information	
Land Status	Land Acquired
Project Phase	Design
Percent Complete	100 %
Estimated Completion Date	January 2027
Growth	
System Improvement	
Environmental Regulation	100%
Population Served	
Capacity	

H. Map
MAP NOT AVAILABLE

Large Diameter Water Pipe & Large Valve Rehabilitation Program

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000161.01	113803	Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	67,227		7,240	59,987	8,962	9,350	9,764	10,518	10,528	10,865	
Land											
Construction	473,703		42,328	431,375	49,507	58,844	61,505	83,393	92,975	85,151	
Other	54,094		4,957	49,137	5,847	6,821	7,126	9,391	10,351	9,601	
Total	595,024		54,525	540,499	64,316	75,015	78,395	103,302	113,854	105,617	

C. Funding Schedule (000's)

WSSC Bonds	595,024		54,525	540,499	64,316	75,015	78,395	103,302	113,854	105,617	
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D. Description & Justification

DESCRIPTION

The purpose of this program is to plan, inspect, design, and rehabilitate or replace large diameter water transmission mains and large system valves that have reached the end of their useful life. Condition assessment and/or corrosion monitoring is performed on metallic pipelines, including ductile iron, cast iron, and steel, to identify lengths of pipe requiring replacement or rehabilitation and cathodic protection. The PCCP Inspection and Condition Assessment and Monitoring Program identifies individual pipe segments that require repair or replacement to assure the continued safe and reliable operation of the pipeline. The program also identifies extended lengths of pipe that require the replacement of an increased number of pipe segments in varying stages of deterioration that are most cost effectively accomplished by the replacement or rehabilitation of long segments of the pipeline or the entire pipeline. Rehabilitation or replacement of these mains provides value to the customer by minimizing the risk of failure and ensuring a safe and reliable water supply. The program includes installation of Acoustic Fiber Optic Monitoring equipment in order to accomplish these goals in PCCP mains.

*EXPENDITURES FOR LARGE DIAMETER WATER PIPE REHABILITATION ARE EXPECTED TO CONTINUE INDEFINITELY.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Reliability: This project will improve service reliability through fewer and shorter service interruptions.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.

JUSTIFICATION

WSSC Water has approximately 1,031 miles of large diameter water main ranging from 16-inches to 96-inches in diameter. This includes 335 miles of cast iron, 326 miles of ductile iron, 35 miles of steel, and 335 miles of PCCP. Internal inspection and condition assessment is performed on PCCP pipelines 36-inches and larger in diameter. Of the 335 miles of PCCP, 140 miles are 36-inch diameter and larger. The inspection program includes internal visual and sounding, sonic/ultrasonic testing, and electromagnetic testing to establish the condition of each pipe section and determine if maintenance repairs, rehabilitation, or replacement are needed.

The planning and design phase evaluates the alignment, hydraulic capacity, and project coordination, among other factors, in an effort to re-engineer these pipelines to meet today's design standards. The design effort includes the preparation of bid ready contract documents including all needed rights-of-way acquisitions and regulatory permits. The constructed system is inspected and an as-built plan is produced to serve as the renewed asset record.

In July 2013, WSSC Water's Acoustic Fiber Optic monitoring system identified breaking wires in a 54-inch diameter PCCP water transmission main in the Forestville area of Prince George's County. Upon attempting to close nearby valves to isolate the failing pipe for repair, WSSC Water crews encountered an inoperable valve with a broken gear, requiring the crew to drop back to the next available valve. This dropping-back to another valve would block one of the major water mains serving Prince George's County, significantly enlarging the shutdown area and reduce our capacity to supply water to over 100,000 residents. In order to minimize the risk associated with inoperable large valves and possible water outages, the large valve inspection and repair program was initiated to systematically inspect, exercise, repair, or replace any of the nearly 1,500 large diameter valves and vaults located throughout the system.

Utility Wide Master Plan (December 2007); 30 Year Infrastructure Plan (2007); FY'23 Water Network Asset Management Plan (May 2021).

COST CHANGE

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$34,410	
Total Cost	\$34,410	
Impact on Water and Sewer Rate	\$0.07	

F. Approval and Expenditure Data (000's)

Date First in Program	FY'11
Date First Approved	FY'11
Initial Cost Estimate	
Cost Estimate Last FY	518,952
Present Cost Estimate	595,024
Approved Request Last FY	61,681
Total Expense & Encumbrances	
Approval Request Year 1	64,316

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Program costs reflect the latest schedule and expenditure estimates based upon the recommendations from the Buried Water Assets System Asset Management Plan.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are order of magnitude estimates and are expected to change based upon the results of the on-going inspections and condition assessments. Additional costs associated with PCCP inspection/condition assessment, large valve inspection/repairs, and emergency repairs are included in the Operating Budget. WSSC Water Green Bonds will be utilized to fund a portion of this project. The annual replacement work for large diameter water mains will address the following International Capital Market Association (ICMA) Green Bond Principles 2016 category: Sustainable water management.

COORDINATION

Coordinating Agencies: Local Community Civic Associations; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Montgomery County Department of Public Works and Transportation; Montgomery County Government;(including localities where work is to be performed); Prince George's County Government;(including localities where work is to be performed); Prince George's County Department of Permitting Inspection and Enforcement

Coordinating Projects: W - 000001.00 - Water Reconstruction Program; W - 000107.00 - Specialty Valve Vault Rehabilitation Program

I-495/I-270 Traffic Relief Plan Pipeline Relocations

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Cabin John 350A; Falls Road 552A; Montgomery High					
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Cabin John 07; Muddy Branch 13; Rock Run 1; Watts Branch					
W - 000161.02		Add			Planning Areas	Gaithersburg & Vicinity PA 20; Potomac-Cabin John & Vicinity					

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	23,490	120	61	23,309	2,630	6,993	6,881	4,549	2,256		
Land											
Construction	150,420	5		150,415	15,041	45,125	45,125	30,083	15,041		
Other	8,690		3	8,687	884	2,606	2,600	1,732	865		
Total	182,600	125	64	182,411	18,555	54,724	54,606	36,364	18,162		

C. Funding Schedule (000's)

State of Maryland Contribution	182,600	125	64	182,411	18,555	54,724	54,606	36,364	18,162		
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of water and sewer pipe relocations necessitated by the State of Maryland's plans to expand I-495 and I-270.

BENEFIT

Regulatory & Other Agreements: This project is required to meet regulatory requirements, multi-jurisdictional agreements, and/or consent decrees.

JUSTIFICATION

In September 2017, the Maryland Department of Transportation (MDOT) State Highway Administration (SHA) announced a proposed highway improvement project to widen I-495 and I-270 in Montgomery and Prince George's Counties. January 2020, the Maryland Board of Public Works set a condition that the process start with Phase 1 of the project, which focuses on I-495 from the George Washington Memorial Parkway in Virginia to I-270 in Maryland and on I-270 from I-495 to I-70. February 2020, MDOT SHA issued a request for qualifications for preliminary development activities for Phase 1. July 2020, the Federal Highway Administration (FHWA) and MDOT SHA completed the draft environmental impact statement (DEIS). December 2020, a request for proposals was issued by MDOT and the Maryland Transportation Authority (MDTA) for a Phase 1 developer. January 2021, MDOT SHA recommended that Alternative 9 be identified as the preferred alternative in the DEIS. February 2021, MDOT and MDTA announced the selection of Accelerate Maryland Partners, LLC to lead the predevelopment work on Phase 1. May 2021, Alternative 9: Phase 1 South was announced as the new recommended preferred alternative by FHWA and MDOT SHA. This alternative focuses on adding two high occupancy toll (HOT) managed lanes in each direction for I-495 from the George Washington Memorial Parkway in Virginia to east of MD 187 in Maryland, for I-270 from I-495 to I-370, and on the I-270 eastern spur from east of MD 187 to I-270. This alternative includes the construction of a new American Legion Bridge.

The preliminary plans indicate that the proposed MDOT SHA project will impact water and sewer assets owned by WSSC Water that are located in the I-495 and I-270 corridors within the WSSD. The impacted pipes range from 6 to 96-inches in diameter. WSSC Water has an existing memorandum of understanding (MOU) agreement with MDOT SHA to review and coordinate potential impacts to existing WSSC Water infrastructure to accommodate MDOT SHA highway improvement projects.

COST CHANGE

Not applicable.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated cost of \$182,600,000. The schedule and expenditure projections shown in Block B above are order of magnitude estimates based upon Alternative 9: Phase 1 South and are expected to change based upon site conditions and design constraints. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Maryland State Department of Transportation; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Montgomery County Government; Prince George's County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	182,600
Cost Estimate Last FY	
Present Cost Estimate	182,600
Approved Request Last FY	
Total Expense & Encumbrances	125
Approval Request Year 1	18,555

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	0 %
Estimated Completion Date	TBD

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Patuxent Raw Water Pipeline

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Prince George's Main HG320A					
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins						
W - 000172.07	063804	Change			Planning Areas	Bi-County					

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	3,144	2,944	90	110	100	7	3				
Land	306	306									
Construction	25,846	11,346	6,500	8,000	7,300	500	200				
Other	1,470		659	811	740	51	20				
Total	30,766	14,596	7,249	8,921	8,140	558	223				

C. Funding Schedule (000's)

WSSC Bonds	30,766	14,596	7,249	8,921	8,140	558	223				
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D. Description & Justification

<p>DESCRIPTION</p> <p>This project provides for the planning, design, and construction of approximately 2.5 miles of new 48-inch diameter raw water pipeline from the Rocky Gorge Raw Water Pumping Station to the Patuxent Water Filtration Plant (Plant), cleaning of the existing water lines, and replacement of valves.</p> <p>BENEFIT</p> <p>System Reliability: This project will improve service reliability through fewer and shorter service interruptions.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.; Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.</p> <p>JUSTIFICATION</p> <p>The existing raw water supply facilities are hydraulically limited to 72 MGD with all pumps running at the Rocky Gorge Pumping Station. In order to convey more than 72 MGD of raw water, a new raw water pipeline is required. A fourth raw water pipeline from the Rocky Gorge Pumping Station to the Patuxent Water Filtration Plant and modification/expansion of the Rocky Gorge Pumping Station will provide a firm raw water pumping transmission capacity of 110 MGD. These improvements, in conjunction with expansion of the Patuxent Water Filtration Plant, will give the Plant a firm nominal capacity of 72 MGD, with an emergency capacity of 110 MGD.</p> <p>Patuxent WFP Facility Plan (April 1997); In-House Study (April 2002).</p> <p>COST CHANGE</p> <p>The schedule and expenditure projections were revised based upon actual bids and updated material cost information.</p> <p>OTHER</p> <p>The project scope has remained the same. The Rocky Gorge Valve Replacement and the cleaning of existing raw water pipelines are 100% complete. The new raw water pipeline is currently in construction. The schedule and expenditure projections for the new raw water pipeline shown in Block B above are based upon actual bids received. The project has been delayed due to a lengthy permit and right-of-way acquisition process. Due to County permitting requirements the project design and construction schedule was split into two phases. As with any construction project, areas disturbed by construction will be restored. This restoration includes paving of impacted roads in accordance with Prince George's County Policy and Specifications for Utility Installation and Maintenance Manual (Section 4.7.2).</p> <p>COORDINATION</p> <p>Coordinating Agencies: Baltimore Gas & Electric; Interstate Commission on the Potomac River Basin; Local Community Civic Associations;(West Laurel Civic Association); Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Montgomery County Government; Prince George's County Government</p> <p>Coordinating Projects: W - 000172.08 - Rocky Gorge Pump Station Upgrade</p>

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$391	26
Debt Service	\$1,779	26
Total Cost	\$2,170	26
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'06
Date First Approved	FY'03
Initial Cost Estimate	18,750
Cost Estimate Last FY	34,284
Present Cost Estimate	30,766
Approved Request Last FY	9,515
Total Expense & Encumbrances	14,596
Approval Request Year 1	8,140

G. Status Information	
Land Status	Land Acquired
Project Phase	Construction
Percent Complete	5 %
Estimated Completion Date	June 2025

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map
MAP NOT AVAILABLE

Regional Water Supply Resiliency

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W - 000175.05	382101	Change

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Montgomery County PA

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	15,904		4,120	11,784	4,285	4,285	1,607	1,607			
Land											
Construction											
Other											
Total	15,904		4,120	11,784	4,285	4,285	1,607	1,607			

C. Funding Schedule (000's)

Federal Aid	15,904		4,120	11,784	4,285	4,285	1,607	1,607			
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D. Description & Justification

DESCRIPTION

This project includes planning, preliminary engineering, community outreach, and coordination with elected officials for a regional raw water supply reservoir and raw water conveyance system to serve the long-range water supply needs of the Washington metropolitan region. A new regional reservoir is needed to mitigate against drought and contamination events in the Potomac River which could curtail or halt withdrawal from the river for days to months. This project will include the performance of a business case to evaluate conveyance alternatives and provide a recommendation for subsequent preliminary design.

BENEFIT

System Reliability: This project will improve service reliability through fewer and shorter service interruptions.

JUSTIFICATION

Justification for the project is based in part on two independent studies. A study conducted by the Metropolitan Washington Council of Governments (COG) in 2016 concluded that the Washington metropolitan region needed, among other capital projects and initiatives, an off-river raw water storage reservoir to provide the necessary resiliency for water quantity and quality in the region in the event of a contamination in the Potomac River. A separate study conducted by the Interstate Commission for the Potomac River Basin (ICPRB) in 2017 concluded that the region needed additional off-river raw water reservoir capacity as part of the regional water supply system to ensure adequate water supply to the region in the event of a drought. A value engineering planning evaluation for the proposed project was conducted by the USACE in 2020.

COST CHANGE

Not applicable.

OTHER

This project will be contingent upon receipt of federal grant funding and the execution of other relevant cost sharing agreements between WSSC Water and other ICPRB CO-OP Operations Committee members. Placement of the proposed work in the CIP will enable WSSC Water to solicit funding opportunities in a timely fashion.

COORDINATION

Coordinating Agencies: Federal and State Grant Agencies; Interstate Commission on the Potomac River Basin; Local Community Civic Associations; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Montgomery County Department of Environmental Protection; Montgomery County Government; National Park Service; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement; U.S. Army Corps of Engineers
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

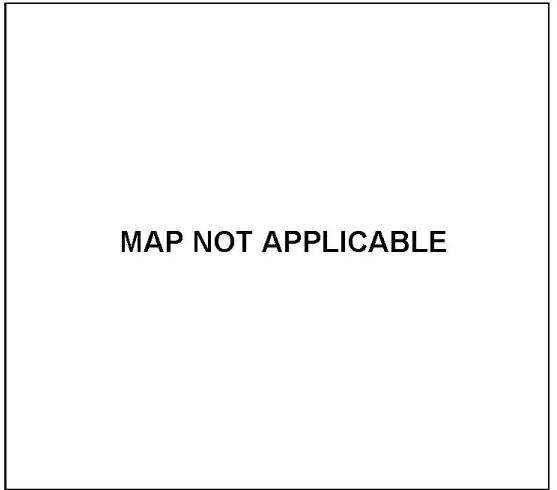
Date First in Program	FY'21
Date First Approved	FY'21
Initial Cost Estimate	15,000
Cost Estimate Last FY	15,450
Present Cost Estimate	15,904
Approved Request Last FY	4,120
Total Expense & Encumbrances	
Approval Request Year 1	4,285

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	TBD

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	1,800,000
Capacity	7.5 BG

H. Map



Land & Rights-of-Way Acquisition - Bi-County Water

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000202.00	983857	Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision											
Land	10,465		3,295	6,570	1,095	1,095	1,095	1,095	1,095	1,095	600
Construction											
Other											
Total	10,465		3,295	6,570	1,095	1,095	1,095	1,095	1,095	1,095	600

C. Funding Schedule (000's)

WSSC Bonds	10,431		3,261	6,570	1,095	1,095	1,095	1,095	1,095	1,095	600
SDC	34		34								

D. Description & Justification

<p>DESCRIPTION</p> <p>This project provides a consolidated estimate of funding for the acquisition of land and rights-of-way for water projects and programs and for easement and land acquisitions for watershed protection. Expenditures are programmed based upon anticipated schedules and are required for the completion of those specific projects. These costs do not include purchases which have already been completed.</p> <p>BENEFIT</p> <p>Financial Efficiency: This project is expected to increase revenues, decrease expenses, or both.</p> <p>JUSTIFICATION</p> <p>Consolidation of expenditures for land and rights-of-way acquisitions provides flexibility in expending funds in a specific fiscal year and permits WSSC Water to respond to the uncertainty of project-specific implementation schedules. Other considerations include the accommodation of unpredictable delays which impact the timing of a planned purchase, unanticipated rights-of-way requirements due to minor alignment changes identified late in the design phase, and the need to assure WSSC Water an equitable negotiation position by avoiding project-specific cost displays prior to contacting property owners.</p> <p>Acquisition needs are determined by WSSC Water and are based upon facility planning efforts, alignment studies, field surveys, realignments required by other agencies, or requirements identified within the Development Services Process.</p> <p>COST CHANGE</p> <p>Not applicable.</p> <p>OTHER</p> <p>The project scope has remained the same. The schedule and expenditure projections shown in Block B above are estimates only and may change based upon actual negotiations. When purchases are complete, the actual cost will be displayed in the expenditure schedule on the appropriate project.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Not Applicable Coordinating Projects: Not Applicable</p>

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$603	
Total Cost	\$603	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'98
Date First Approved	FY'98
Initial Cost Estimate	
Cost Estimate Last FY	11,443
Present Cost Estimate	10,465
Approved Request Last FY	1,100
Total Expense & Encumbrances	
Approval Request Year 1	1,095

G. Status Information	
Land Status	Land and R/W to be acquired
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	Not Applicable
Growth	
System Improvement	33%
Environmental Regulation	67%
Population Served	
Capacity	

H. Map
MAP NOT AVAILABLE

PENDING CLOSE-OUT PROJECT LISTING
BI-COUNTY WATER PROJECTS
 (ALL FIGURES IN THOUSANDS)

Project Number	Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'21	Estimated Expenditures FY'22	Remarks
143803	W-73.22	Potomac WFP Pre-Filter Chlorination & Air Scour Improvements	\$20,581	\$20,438	\$143	Project completion expected in Oct. 2021.
		TOTALS	\$20,581	\$20,438	\$143	

Section 4 - Bi-County Sewer Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

BI-COUNTY SEWER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 21	EST. EXPEND 22	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PAGE NUM
						YR 1 23	YR 2 24	YR 3 25	YR 4 26	YR 5 27	YR 6 28		
S-22.06	Blue Plains WWTP: Liquid Train Projects, Part 2	354,275	0	18,963	225,238	26,124	20,930	33,089	48,892	48,373	47,830	110,074	4-3
S-22.07	Blue Plains WWTP: Biosolids Management, Part 2	90,043	0	15,321	47,361	15,287	9,652	7,592	3,699	5,009	6,122	27,361	4-4
S-22.09	Blue Plains WWTP: Plant-wide Projects	114,208	0	9,891	90,367	13,365	18,984	24,553	13,872	7,660	11,933	13,950	4-5
S-22.11	Blue Plains: Pipelines & Appurtenances	220,994	0	10,460	179,592	13,714	18,312	36,638	53,587	32,098	25,243	30,942	4-6
S-89.24	Anacostia #2 WWPS Upgrades	42,473	774	3,211	38,488	17,475	16,100	4,913	0	0	0	0	4-7
S-103.02	Piscataway Bioenergy	333,269	120,479	99,813	112,977	74,708	28,702	9,462	105	0	0	0	4-8
S-170.08	Septage Discharge Facility Planning & Implementation	41,935	5,332	229	36,374	12,959	12,959	2,880	3,788	3,788	0	0	4-10
S-170.09	Trunk Sewer Reconstruction Program	344,412	0	55,165	289,247	56,891	49,698	46,588	43,301	45,475	47,294	0	4-11
S-203.00	Land & Rights-Of-Way Acquisition - Bi-County Sewer	2,465	0	295	2,170	995	395	195	195	195	195	0	4-13
	Projects Pending Close-Out	426,355	426,355	0	0	0	0	0	0	0	0	0	4-14
TOTALS		1,970,429	552,940	213,348	1,021,814	231,518	175,732	165,910	167,439	142,598	138,617	182,327	

BLUE PLAINS WASTEWATER TREATMENT PLANT PROJECTS
(costs in thousands)

AGENCY NUMBER	PROJECT NAME	ADOPTED FY22 TOTAL COST	PROPOSED FY23 TOTAL COST	CHANGE \$	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
S-22.06	Blue Plains WWTP: Liquid Train Projects, Part 2	\$261,738	\$354,275	\$92,537	35.4%	\$225,238	On-Going
S-22.07	Blue Plains WWTP: Biosolids Management, Part 2	76,311	90,043	13,732	18.0%	47,361	On-Going
S-22.09	Blue Plains WWTP: Plant-wide Projects	100,521	114,208	13,687	13.6%	90,367	On-Going
S-22.10	Blue Plains WWTP: Enhanced Nutrient Removal	429,852	426,355	(3,497)	-0.8%	0	June 2021
S-22.11	Blue Plains: Pipelines & Appurtenances	176,853	220,994	44,141	25.0%	179,592	On-Going
	TOTALS	\$1,045,275	\$1,205,875	\$160,600	15.4%	\$542,558	

Summary: These five projects, with an estimated total cost of \$1.206 billion, provide funding for the upgrade, expansion, and enhancement of wastewater treatment and solids handling facilities at the Regional Blue Plains Wastewater Treatment Plant, located in the District of Columbia. Whereas typical WSSC Water projects encompass planning, design, construction, and start-up for a single project, with defined starting and ending dates, the Blue Plains projects are comprised of many sub-projects and are “open-ended.” As the Blue Plains Facility Plans move forward and new sub-projects are approved, the costs of these new sub-projects are added to the appropriate existing Blue Plains project. The expenditures displayed represent the WSSC Water’s calculated share. There are four main funding divisions: liquid treatment train (S-22.06); biosolids management (S-22.07); plant-wide projects (S-22.09); and, pipelines & appurtenances (S-22.11). Project S-22.10 Enhanced Nutrient Removal (ENR) is being closed as the ENR upgrades are substantially complete. Future projects that were formerly budgeted for in this project have been moved to Project S-22.06.

Cost Impact: These five Blue Plains projects, which comprise one of the largest groups of expenditures in the CIP, represent 22% of the Six-Year WSSC Water CIP program. The figures shown above are derived from the latest available spending projections provided by the District of Columbia Water and Sewer Authority (DCWASA). Spending at the DCWASA staff-proposed rate in future years may challenge the WSSC Water’s ability to stay within County-established spending affordability limits. It is, therefore, recommended that the coordination of development and approval of the DCWASA’s and WSSC Water’s CIPs be sustained in order that the economic development and environmental objectives of the region be met, without causing a rapid increase in WSSC Water customers’ bills. An explanation of the cost changes for each project is included on the individual project description forms that immediately follow this summary page.

Blue Plains WWTP: Liquid Train Projects, Part 2

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Bi-County 30
S - 000022.06	954811	Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision											
Land											
Construction	350,766		18,775	223,007	25,865	20,723	32,761	48,408	47,894	47,356	108,984
Other	3,509		188	2,231	259	207	328	484	479	474	1,090
Total	354,275		18,963	225,238	26,124	20,930	33,089	48,892	48,373	47,830	110,074

C. Funding Schedule (000's)

WSSC Bonds	334,828		17,922	212,874	24,690	19,781	31,273	46,208	45,717	45,205	104,032
City of Rockville	19,447		1,041	12,364	1,434	1,149	1,816	2,684	2,656	2,625	6,042

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC Water's share of Blue Plains liquid train projects for which construction began after June 30, 1993. This project is comprised of 23 projects that have been identified and prioritized by DC Water in their capital program plus 2 projects (E8 & FG) that were formerly budgeted for in S-22.10. Projects with significant spending in FY'23 include: upgrades to the grit, screening, and primary treatment systems (BQ); upgrading effluent filters (IY); replacing/upgrading the primary clarifier mechanical components (J2); and improvements to the headworks influent structures (BC).

BENEFIT

Regulatory & Other Agreements: This project is required to meet regulatory requirements, multi-jurisdictional agreements, and/or consent decrees.; Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

This is a continuation of the DC Water's upgrading of the Blue Plains Wastewater Treatment Plant. Blue Plains Inter-Municipal Agreement of 2012; DCWASA Master Plan (1998); Blue Plains Facilities Master Plan (2016); and DC Water FY'22 Capital Improvements Program.

COST CHANGE

Increased estimates beginning in FY'25 reflect programmed costs for renewal and replacement of major process components expected to have reached the end of their useful life, including mechanical treatment components and some structural rebuilds of tanks and filters. Notable projects include: on-going work on the upgrades to the effluent filters (IY); nitrification reactors/sedimentation basins - 20 year rebuild (LF); rehabilitating liquid processes (RN); and long-term concrete repairs (RW) and upgrades to secondary treatment facilities (FG) to maintain enhanced nitrogen removal under higher flows.

OTHER

The project scope has remained the same. Project costs are derived from the DC Water Capital & Operating Budget 10-year forecast of spending and DC Water's latest project management data, and fully reflect DC Water's current cost estimates and expenditure schedules. Given the open-ended nature of the Blue Plains projects, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION

Coordinating Agencies: City of Rockville;(responsible for a share of funding); DC Water;(responsible for design and construction)
Coordinating Projects: S - 000022.10 - Blue Plains WWTP: Enhanced Nutrient Removal

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$19,363	
Total Cost	\$19,363	
Impact on Water and Sewer Rate	\$0.04	

F. Approval and Expenditure Data (000's)

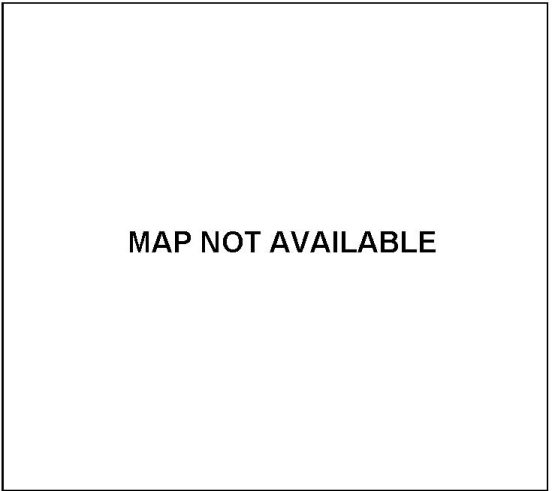
Date First in Program	FY'95
Date First Approved	FY'95
Initial Cost Estimate	
Cost Estimate Last FY	261,738
Present Cost Estimate	354,275
Approved Request Last FY	18,847
Total Expense & Encumbrances	
Approval Request Year 1	26,124

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	169.6 / 370 MGD

H. Map



Blue Plains WWTP: Biosolids Management, Part 2

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Bi-County 30
S - 000022.07	954812	Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision											
Land											
Construction	89,150		15,169	46,891	15,136	9,556	7,517	3,662	4,959	6,061	27,090
Other	893		152	470	151	96	75	37	50	61	271
Total	90,043		15,321	47,361	15,287	9,652	7,592	3,699	5,009	6,122	27,361

C. Funding Schedule (000's)

WSSC Bonds	85,100		14,480	44,761	14,448	9,122	7,175	3,496	4,734	5,786	25,859
City of Rockville	4,943		841	2,600	839	530	417	203	275	336	1,502

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC Water's share of the Blue Plains biosolids processes for which construction began after June 30, 1993. There are 10 projects from the DC Water capital program that are covered by the WSSC Water capital project. The projects that make up the majority of the FY'23 anticipated spending include: gravity thickener facility upgrades phase II (BX); biosolids blending development center (I3); and additional centrifuges for pre-digestion dewatering (LD).

BENEFIT

Regulatory & Other Agreements: This project is required to meet regulatory requirements, multi-jurisdictional agreements, and/or consent decrees.; Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

This project is needed to implement a set of facilities which will provide a permanent bio-solids management program for Blue Plains. Blue Plains Inter-Municipal Agreement of 2012; DCWASA Master Plan (1998); EPMC IV Facility Plan, CH2MHILL (2001); Bio-solids Management at DCWASA Blue Plains Wastewater Treatment Plant Phase II - Design and Cost Considerations for Treatment Alternatives Report (December 2007); Blue Plains Facilities Master Plan (2016); and DC Water FY'22 Capital Improvements Program.

COST CHANGE

Increased cost estimates are due to the increased costs in biosolids management in FY'28 and beyond for two projects: biosolids rehab (RM) and DAF thickeners facility upgrade (XY).

OTHER

The project scope has remained the same. Project costs are derived from the DC Water Capital & Operating Budget 10-year forecast of spending and DC Water's latest project management data, and fully reflect DC Water's current cost estimates and expenditure schedules. Given the open-ended nature of the Blue Plains projects, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. Portions of the program have been financed by low interest loans through the Maryland Department of the Environment's Water Quality Administration State Revolving Loan Program. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION

Coordinating Agencies: City of Rockville;(responsible for a share of funding); DC Water;(responsible for design and construction)
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$4,921	
Total Cost	\$4,921	
Impact on Water and Sewer Rate	\$0.01	

F. Approval and Expenditure Data (000's)

Date First in Program	FY'95
Date First Approved	FY'95
Initial Cost Estimate	
Cost Estimate Last FY	76,311
Present Cost Estimate	90,043
Approved Request Last FY	15,321
Total Expense & Encumbrances	
Approval Request Year 1	15,287

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	169.6 / 370 MGD

H. Map

MAP NOT AVAILABLE

Blue Plains WWTP: Plant-wide Projects

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Bi-County 30
S - 000022.09	023805	Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision											
Land											
Construction	113,078		9,793	89,473	13,233	18,796	24,310	13,735	7,584	11,815	13,812
Other	1,130		98	894	132	188	243	137	76	118	138
Total	114,208		9,891	90,367	13,365	18,984	24,553	13,872	7,660	11,933	13,950

C. Funding Schedule (000's)

WSSC Bonds	107,939		9,348	85,407	12,631	17,942	23,205	13,111	7,240	11,278	13,184
City of Rockville	6,269		543	4,960	734	1,042	1,348	761	420	655	766

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC Water's share of Blue Plains plant-wide projects for which construction began after June 30, 1993. There are 29 DC Water capital program projects covered by the WSSC Water capital project. Current projects include: electrical system upgrades (TZ); floodwall construction (JF); plant-side drainage improvements (OE); process computer control system (IV and LX); and other miscellaneous projects.

BENEFIT

Regulatory & Other Agreements: This project is required to meet regulatory requirements, multi-jurisdictional agreements, and/or consent decrees.; Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

This is a continuation of DC Water's upgrading of the Blue Plains Wastewater Treatment Plant. Blue Plains Inter-Municipal Agreement of 2012; DCWASA Master Plan (1998); Blue Plains Facilities Master Plan (2016); and DC Water FY'22 Capital Improvements Program.

COST CHANGE

Cost increases are attributed to upgrades to the electrical monitoring systems (IC) and electrical switchgear (TZ).

OTHER

The project scope has remained the same. Project costs are derived from the DC Water Capital & Operating Budget 10-year forecast and latest project management data, and reflect DC Water's current expenditure estimates and schedules. Given the open-ended nature of the project, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION

Coordinating Agencies: City of Rockville;(responsible for a share of funding); DC Water;(responsible for design and construction)
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$6,242	
Total Cost	\$6,242	
Impact on Water and Sewer Rate	\$0.01	

F. Approval and Expenditure Data (000's)

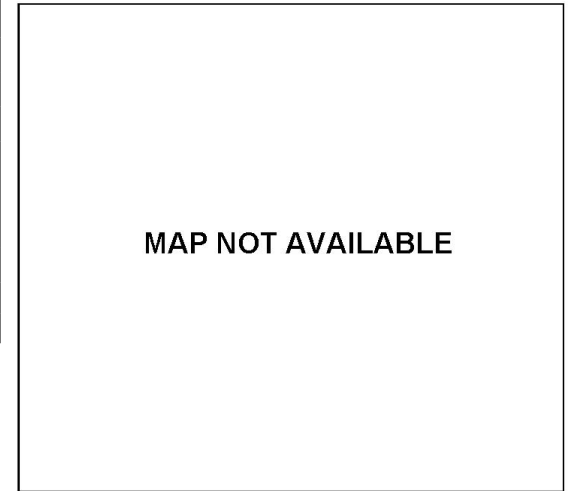
Date First in Program	FY'95
Date First Approved	FY'02
Initial Cost Estimate	
Cost Estimate Last FY	100,521
Present Cost Estimate	114,208
Approved Request Last FY	9,891
Total Expense & Encumbrances	
Approval Request Year 1	13,365

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	169.6 / 370 MGD

H. Map



Blue Plains: Pipelines & Appurtenances

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000022.11	113804	Change

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	
Drainage Basins	Bi-County 30
Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision											
Land											
Construction	218,805		10,356	177,813	13,578	18,131	36,275	53,056	31,780	24,993	30,636
Other	2,189		104	1,779	136	181	363	531	318	250	306
Total	220,994		10,460	179,592	13,714	18,312	36,638	53,587	32,098	25,243	30,942

C. Funding Schedule (000's)

WSSC Bonds	205,065		9,542	166,818	12,460	17,091	34,185	50,578	29,224	23,280	28,705
City of Rockville	15,929		918	12,774	1,254	1,221	2,453	3,009	2,874	1,963	2,237

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC Water's share of Blue Plains-associated projects which are generally situated "outside the fence" of the treatment plant. There are 65 projects from the DC Water capital program under this project. Major projects in FY'23 include: rehabilitation of various portions of the Potomac Interceptor (LZ); reactivation of the Anacostia FM/GS; and construction associated with the Combined Sewer Overflow (CSO) Long Term Control Plan - for the Potomac Tunnel (CZ).

BENEFIT

Regulatory & Other Agreements: This project is required to meet regulatory requirements, multi-jurisdictional agreements, and/or consent decrees.; Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.

JUSTIFICATION

This is a continuation of DC Water's upgrading of the Blue Plains-associated projects outside the fence. Blue Plains Inter-Municipal Agreement of 2012; DCWASA Master Plan (1998); Technical Memorandum No. 1, Multi-Jurisdictional Use Facilities Capital Cost Allocation (June 2013); and DC Water FY'22 Capital Improvements Program.

COST CHANGE

Substantial work is required on some of the largest sewers of the collection system that carries WSSC Water sewage to Blue Plains. Significant increases in forecasted spending will occur starting in FY'25 at which time several of the projects are planned to be on-going simultaneously including: on-going construction of the Potomac Tunnel; rehabilitation of the Potomac Interceptor and the AFM/GS, Rock Creek Main Interceptor, and Oxon Run Interceptor; rehab of the Main Outfall sewers; and upgrades to various pumping stations.

OTHER

The project scope has remained the same. Project costs are derived from the DC Water Capital & Operating Budget 10-year forecast and project management data, and reflect DC Water's expenditure estimates and schedules. Given the open-ended nature of the project, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. The funding schedule also indicates the calculated Rockville share of the cost which varies by project based on the City's relative share of WSSC Water's flow as derived in the Multi-Jurisdiction Use Facilities Study.

COORDINATION

Coordinating Agencies: City of Rockville;(responsible for a share of funding); DC Water;(responsible for design and construction)
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$11,859	
Total Cost	\$11,859	
Impact on Water and Sewer Rate	\$0.03	

F. Approval and Expenditure Data (000's)

Date First in Program	FY'11
Date First Approved	FY'02
Initial Cost Estimate	
Cost Estimate Last FY	176,853
Present Cost Estimate	220,994
Approved Request Last FY	10,460
Total Expense & Encumbrances	
Approval Request Year 1	13,714

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	45%
Environmental Regulation	55%
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Anacostia #2 WWPS Upgrades

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000089.24		Change

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	
Drainage Basins	Lower Anacostia 9
Planning Areas	Landover & Vicinity PA 72

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	5,366	695	1,999	2,672	1,366	990	316				
Land											
Construction	33,315	79	920	32,316	14,520	13,646	4,150				
Other	3,792		292	3,500	1,589	1,464	447				
Total	42,473	774	3,211	38,488	17,475	16,100	4,913				

C. Funding Schedule (000's)

WSSC Bonds	31,637	507	2,658	28,472	10,901	13,004	4,567				
SDC	7,903	213	327	7,363	5,349	2,014					
DC Water Contribution	2,933	54	226	2,653	1,225	1,082	346				

D. Description & Justification

DESCRIPTION

This project provides for the replacement of transformers, switch gear, and MCC-A with redesign of 13.8kv switch gear in two IPA enclosures and 4.16KV switch gear in one IPA enclosure at the Anacostia #2 Wastewater Pump Station (WWPS). The Anacostia #2 WWPS is WSSC Water's largest and most critical WWPS with an average flow of 50 to 60 MGD, and storm peaks up to 260 MGD instantaneous flow. This WWPS receives wastewater from a large portion of WSSC Water's service area and delivers it to the Blue Plains Advanced Wastewater Treatment Plant in Washington, DC. Secondly, this project involves replacement of five existing bar screens and associated electrical upgrades and implementing NFPA 820 requirements for the pump station. Thirdly, the coarse screening of Beaver Dam S.A. flows will be evaluated and rehabilitated.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.; Employee Safety: This project includes components that help protect the health and safety of employees.

JUSTIFICATION

The majority of the electrical equipment, excluding all 4.16kV MCCs and the unit substation, were installed with the original construction in the late 1970s and is beyond its useful life. In addition, several equipment parts are becoming increasingly difficult to find since the equipment is obsolete. Failure of any of the above critical components could cause serious issues in providing reliable power to the pump station. This replacement, rehabilitation, and upgrade work was recommended by various business case evaluations undertaken as part of WSSC Water's Asset Management Program.

COST CHANGE

The schedule and expenditure projections have been revised based upon updated engineer's estimates.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are planning and early design level estimates and are expected to change based upon site conditions and design constraints. DC Water will contribute a share of the electrical upgrades and bar screens project costs, which is indicated on the funding schedule shown in Block C above.

COORDINATION

Coordinating Agencies: DC Water;(responsible for a share of funding); Maryland Department of the Environment; Potomac Electric Power Company
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$1,830	26
Total Cost	\$1,830	26
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'22
Date First Approved	FY'22
Initial Cost Estimate	31,298
Cost Estimate Last FY	31,298
Present Cost Estimate	42,473
Approved Request Last FY	10,927
Total Expense & Encumbrances	774
Approval Request Year 1	17,475

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	5 %
Estimated Completion Date	March 2025

Growth	20%
System Improvement	80%
Environmental Regulation	
Population Served	
Capacity	199 MGD

H. Map

MAP NOT APPLICABLE

Piscataway Bioenergy

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000103.02	153802	Change

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	57,658	45,208	4,500	7,950	4,300	2,000	1,550	100			
Land	61	61									
Construction	265,416	75,210	90,560	99,646	66,850	25,335	7,461				
Other	10,134		4,753	5,381	3,558	1,367	451	5			
Total	333,269	120,479	99,813	112,977	74,708	28,702	9,462	105			

C. Funding Schedule (000's)

WSSC Bonds	329,348	119,909	99,813	109,626	74,357	27,202	7,962	105			
Federal Aid	570	570									
State Aid	3,351			3,351	351	1,500	1,500				

D. Description & Justification

DESCRIPTION

This project will develop a comprehensive program for the engineering, design, construction, maintenance, monitoring, and verification necessary to add sustainable energy equipment and systems to produce biogas and electricity at Piscataway WRRF. It will provide a reduction in operations, maintenance, chemicals, biosolids transportation, and biosolids disposal costs. It will also enhance existing operating conditions and reliability while continuing to meet all permit requirements, and ensure a continued commitment to environmental stewardship at WSSC Water sites. The scope of work includes, but is not limited to, the addition of anaerobic digestion equipment; thermal hydrolysis pretreatment equipment; gas cleaning, storage, and upgrade systems; tanks; piping; valves; pumps; biosolids pre- and post-dewatering; cake receiving and blending; cake storage; effluent disinfection systems; instrumentation; flow metering; power measurement; and combined heat and power generation systems.

BENEFIT

Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.; Financial Efficiency: This project is expected to increase revenues, decrease expenses, or both.; Innovation: This project utilizes new ideas, methods, and/or research to streamline processes, enhance services, and reduce costs.

JUSTIFICATION

In March 2009, WSSC Water received approval for a federal Department of Energy grant of \$570,900 for the feasibility study/conceptual design phase. On June 16, 2010, WSSC Water awarded the study contract to AECOM Technical Services, Inc., of Laurel, Maryland. The study was completed in December 2011, and the Thermal Hydrolysis/Mesophilic Anaerobic Digestion/Combined Heat & Power facility was recommended to be constructed and was presented to WSSC Water in April 2012.

The EPA is urging wastewater utilities to utilize this commercially available technology (anaerobic digestion) to produce power at a cost below retail electricity, displace purchased fuels for thermal needs, produce renewable fuel for green power programs, enhance power reliability for the wastewater treatment plant to prevent sanitary sewer overflows, reduce biosolids production and improve the health of the Chesapeake Bay, and reduce greenhouse gas (GHG) and other air pollutants. In April 2009, the EPA announced that greenhouse gases contributed to air pollution that may endanger public health or welfare, and began proceedings to regulate CO2 under the Clean Air Act. In June 2014, the EPA announced a proposed rule to reduce carbon emissions from power plants by 30% by 2030, compared to the levels in 2005. Based on AECOM's feasibility study work as of May 2011, a regional/centralized plant based on a Thermal Hydrolysis/Mesophilic Anaerobic Digestion/Combined Heat & Power (TH/MAD/CHP) process supplemented by restaurant grease fuel design was recommended.

The environmental benefits are estimated as follows: recover approximately 2 MW of renewable energy from wastewater biomass; reduce greenhouse gas production by 11,800 tons/year; reduce biosolids output by 50 - 55% of current output; reduce lime demand by 4,100 tons/year; maintain permitted nutrient load limits to the Chesapeake Bay; reduce 5 million gallons/year of grease discharge to sewers; and produce pathogen-free Class A Biosolids.

The economic benefits are estimated as follows: recover more than \$1.5 million of renewable energy costs/year; reduce biosolids disposal costs by ~ \$1.7 million/year; reduce chemical costs by ~ \$500,000/year; hedge against rising costs of power fuel and chemicals; and provide a net payback over time.

Plans & Studies: Appel Consultants, Urban Waste Grease Resource Assessment-NREL (November 1998); Environmental Protection Agency (EPA), Opportunities For and Benefits Of Combined Heat and Power at Wastewater Treatment Facilities (December 2006); Brown & Caldwell, Anaerobic Digestion

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$19,046	26
Total Cost	\$19,046	26
Impact on Water and Sewer Rate	\$0.04	26

F. Approval and Expenditure Data (000's)

Date First in Program	FY'15
Date First Approved	FY'10
Initial Cost Estimate	345
Cost Estimate Last FY	327,208
Present Cost Estimate	333,269
Approved Request Last FY	97,864
Total Expense & Encumbrances	120,479
Approval Request Year 1	74,708

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Construction
Percent Complete	24 %
Estimated Completion Date	November 2024

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

and Electric Generation Options for WSSC (November 2007); Metcalf & Eddy, WSSC Sludge Digestion Study for Piscataway and Seneca (December 2007); Black & Veatch, WSSC Digester Scope and Analysis (December 2007); JMT, Prince George's County Septage (FOG) Discharge Facility Study (February 2008); JMT, Western Research Institute (WRI) Biogas Feasibility Study Scope of Work - WSSC (April 2008); JMT, Montgomery County Septage (FOG) Discharge Facility Study (January 2010); Facility Plan for the Rock Creek Wastewater Treatment Plant (January 2010); AECOM Technical Services, Inc., Anaerobic Digestion/Combined Heat & Power Study (December 2011, Executive Summary Revised May 2013); HDR Inc. Design Development Report (March 2017).

COST CHANGE

The expenditure projections have been revised based upon cost increases related to program management services, construction management services, and the Washington Gas Supply and Delivery Contract.

OTHER

The project scope has remained the same. WSSC Water has a defined scope and estimated capital cost, and is able to proceed with the detailed design and construction of the anerobic digestion, biomass, and combined heat and power generation system facilities for treating all biosolids from WSSC Water's Damascus, Seneca, Parkway, Western Branch, and Piscataway WRRFs. The Montgomery and Prince George's County Councils were briefed and approved the project by resolution on November 25, 2014 and September 9, 2014, respectively. In June 2017 WSSC Water was approved for a \$3 million grant through the Maryland Department of the Environment's Energy Water Infrastructure Program (EWIP). WSSC Water will continue to apply for other available funding sources. WSSC Water retained the following consulting services: in 2015 - Hawkins, Delafield and Wood - procurement; Raftelis Financial Consultants - financial; in 2016 - HDR Inc for program management and construction management for the Bioenergy project. In September 2017 WSSC Water issued a Request for Proposals (RFP) to two design-build entities for a progressive design-build delivery of the Bioenergy project. Transporting biosolids from Western Branch WRRF to Piscataway was included in the FY'19 program update. A portion of this project will be financed by low interest loans through the Maryland Department of the Environment's Water Quality Administration State Revolving Loan Program. In June 2018 WSSC Water awarded a Progressive Design-Build Contract to PC Construction for the Bioenergy project. In FY'19 the Solids Screenings at Four Remote WRRFs, Contract No. CD6630A19, was incorporated. In January 2020, the Maryland Energy Administration notified WSSC Water of approval grant funding up to \$351,750 for Combined Heat & Power. WSSC Water has also applied for grants from SMECO, a local power utility. In December 2020 Phase 1 of the Bioenergy project was completed. A Gas Supply and Delivery Contract with Washington Gas Light for natural gas delivery to and from the Piscataway WRRF was negotiated.

COORDINATION

Coordinating Agencies: Chesapeake Bay Critical Areas; Maryland Department of the Environment; Maryland Energy Administration; Maryland-National Capital Park & Planning Commission;(Mandatory Referral Process); Montgomery County Department of Environmental Protection; Montgomery County Government; Prince George's County Government; SMECO; Washington Gas Light Company
Coordinating Projects: S - 000096.14 - Piscataway WRRF Facility Upgrades; S - 000170.08 - Septage Discharge Facility Planning & Implementation

Septage Discharge Facility Planning & Implementation

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
S - 000170.08	103802	Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	5,288	3,317	208	1,763	583	583	129	234	234		
Land											
Construction	33,320	2,015		31,305	11,198	11,198	2,489	3,210	3,210		
Other	3,327		21	3,306	1,178	1,178	262	344	344		
Total	41,935	5,332	229	36,374	12,959	12,959	2,880	3,788	3,788		

C. Funding Schedule (000's)

WSSC Bonds	41,935	5,332	229	36,374	12,959	12,959	2,880	3,788	3,788		
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a new Septage and Fats, Oils, and Grease (FOG) discharge facility at the abandoned Rock Creek WRRF and new Septage discharge facilities at the Anacostia #2 WWPS and Piscataway WRRF.

BENEFIT

Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.; Innovation: This project utilizes new ideas, methods, and/or research to streamline processes, enhance services, and reduce costs.

JUSTIFICATION

Currently septage waste is collected at three locations: Muddy Branch Road Disposal Site in Montgomery County; and Ritchie Road Disposal Site and Bladensburg Disposal Site in Prince George's County (the Temple Hills Road site was closed down on July 1, 2015). The types of waste collected are as follows: Septic Tank Pump-Out (Sludge); Waste Holding Tank Discharge (Gray Water); Grease Trap Pump Out (FOG); Bus Holding Tank Discharge (Sewage and Chemicals); and Small Food Service Providers (Low Volume FOG Waste). FOG wastes should not be discharged to WSSC Water's sewerage system without treatment.

Septage Discharge Facility Study for Montgomery County: Final Report, JMT (July 2012); Septage Discharge Facility Study for Prince George's County: Final Report, JMT (July 2012).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are design level estimates and may change based upon actual bids. The design of the Rock Creek, Anacostia, and Piscataway sites are complete. The construction of these facilities is currently on hold while a plan is developed to address final dispatch of FOG wastes. The Piscataway site will be coordinated with the construction schedule of other Piscataway facility projects.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission;(Mandatory Referral); Montgomery County Department of Environmental Protection; Montgomery County Government; Prince George's County Department of Environmental Resources; Prince George's County Government
Coordinating Projects: S - 000096.14 - Piscataway WRRF Facility Upgrades; S - 000103.02 - Piscataway Bioenergy

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other	\$446	28
Maintenance	\$124	28
Debt Service	\$2,425	28
Total Cost	\$2,995	28
Impact on Water and Sewer Rate	\$0.01	28

F. Approval and Expenditure Data (000's)

Date First in Program	FY'10
Date First Approved	FY'10
Initial Cost Estimate	10,835
Cost Estimate Last FY	40,048
Present Cost Estimate	41,935
Approved Request Last FY	12,461
Total Expense & Encumbrances	5,332
Approval Request Year 1	12,959

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	100 %
Estimated Completion Date	June 2027
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Trunk Sewer Reconstruction Program

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Bi-County 30
S - 000170.09	113805	Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	53,070		8,900	44,170	9,528	7,383	6,271	6,791	6,959	7,238	
Land											
Construction	260,034		41,250	218,784	42,192	37,797	36,082	32,574	34,382	35,757	
Other	31,308		5,015	26,293	5,171	4,518	4,235	3,936	4,134	4,299	
Total	344,412		55,165	289,247	56,891	49,698	46,588	43,301	45,475	47,294	

C. Funding Schedule (000's)

WSSC Bonds	344,412		55,165	289,247	56,891	49,698	46,588	43,301	45,475	47,294	
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D. Description & Justification

DESCRIPTION

The Trunk Sewer Reconstruction Program provides for the inspection, evaluation, planning, design, and construction required for the rehabilitation of sewer mains and their associated manholes in environmentally sensitive areas (ESAs). This includes both trunk sewers 15-inches in diameter and greater, along with associated smaller diameter pipe less than 15-inches in diameter. The smaller diameter pipe is included due to its location within the ESA. The program also includes planning, design, and construction for the prioritized replacement of force mains.

BENEFIT

Regulatory & Other Agreements: This project is required to meet regulatory requirements, multi-jurisdictional agreements, and/or consent decrees.; Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.

JUSTIFICATION

Under the terms of the Consent Decree the WSSC Trunk Sewer Inspection Program inspected all required sewers in 21 basins by December 2010 and completed Sewer System Evaluation Surveys (SSES) for 9 basins. WSSC Water shall conduct rainfall, groundwater, and flow monitoring to determine Inflow/Infiltration (I/I) rates and identify areas of limited capacity through collection system modeling. Where appropriate, WSSC Water shall use additional means to identify sources of I/I, including CCTV, smoke, and/or dye testing. All the Trunk Sewer Inspections, SSES work, and other related collection system evaluations are complete. Due to the delay in receiving permits, as well as Right-of-Entry permissions and subcontractor availability, trunk sewer reconstruction work has been delayed. All USACE and MDE permits have been received. WSSC Sanitary Sewer Overflow Consent Decree (December 7, 2005). Second Amendment to WSSC Sanitary Sewer Overflow Consent Decree (December 4, 2015).

COST CHANGE

Program costs reflect the latest schedule and expenditure estimates based upon the recommendations from the Buried Wastewater Assets System Asset Management Plan.

OTHER

The project scope has remained the same. Reconstruction work will include: reduction of I/I; replacement of substandard sewer segments; in situ lining of sewer segments; pipeline and manhole protection; rebuilding of manholes; and correction of structural defects and poor alignment. The reconstruction work in each sewer basin will be prioritized to most effectively prevent SSOs and backups. A Second Amendment to the Consent Decree extending WSSC Water's deadline to FY'22 was agreed to by the U.S. Environmental Protection Agency, U.S. Department of Justice, and Maryland Department of the Environment and was entered by the U.S. District Court. All construction contracts for ESA work have been awarded and the approved amounts have been utilized in the current budget projections. As actual construction progresses the projections may be updated. Most of the upfront costs are associated with the construction of access roads and by-pass pumping. After completion of a majority of the Priority 1 construction activities associated with the Consent Decree, Phase 2 work (Priority 2 & 3 plus any newly identified Priority 1) is programmed at roughly eight miles per year beginning in FY'25. Future land costs are included in project S-203.00.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland Historical Trust; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Montgomery County Department of Public Works and Transportation;

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$19,917	
Total Cost	\$19,917	
Impact on Water and Sewer Rate	\$0.05	

F. Approval and Expenditure Data (000's)

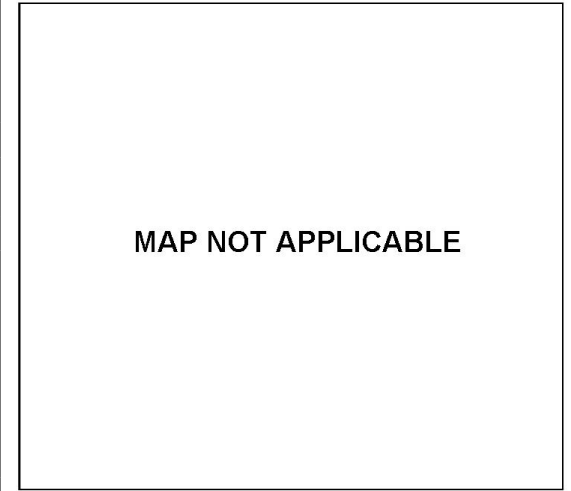
Date First in Program	FY'11
Date First Approved	FY'11
Initial Cost Estimate	
Cost Estimate Last FY	348,442
Present Cost Estimate	344,412
Approved Request Last FY	58,565
Total Expense & Encumbrances	
Approval Request Year 1	56,891

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Land & Rights-of-Way Acquisition - Bi-County Sewer

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
S - 000203.00	163800	Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision											
Land	2,465		295	2,170	995	395	195	195	195	195	
Construction											
Other											
Total	2,465		295	2,170	995	395	195	195	195	195	

C. Funding Schedule (000's)

WSSC Bonds	1,911		205	1,706	531	395	195	195	195	195	
SDC	554		90	464	464						

D. Description & Justification

<p>DESCRIPTION</p> <p>This project provides a consolidated estimate of funding for the acquisition of land and rights-of-way for sewer projects and programs. Expenditures are programmed based upon anticipated schedules and are required for the completion of those specific projects. These costs do not include purchases which have already been completed.</p> <p>BENEFIT</p> <p>Financial Efficiency: This project is expected to increase revenues, decrease expenses, or both.</p> <p>JUSTIFICATION</p> <p>Consolidation of expenditures for land and rights-of-way acquisitions provides flexibility in expending funds in a specific fiscal year and permits WSSC Water to respond to the uncertainty of project-specific implementation schedules. Other considerations include the accommodation of unpredictable delays which impact the timing of a planned purchase, unanticipated rights-of-way requirements due to minor alignment changes identified late in the design phase, and the need to assure WSSC Water an equitable negotiation position by avoiding project-specific cost displays prior to contacting property owners.</p> <p>Acquisition needs are determined by WSSC Water and are based upon facility planning efforts, alignment studies, field surveys, realignments required by other agencies, or requirements identified within the Development Services Process.</p> <p>COST CHANGE</p> <p>Program costs have increased to reflect the future acquisition of land and rights-of-way for new sewer projects added to the WSSC Water Capital Improvements Program in FY'23.</p> <p>OTHER</p> <p>The project scope has remained the same. The schedule and expenditure projections shown in Block B above are estimates only and may change based upon actual negotiations. When purchases are complete, the actual cost will be displayed in the expenditure schedule on the appropriate project.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Not Applicable Coordinating Projects: Not Applicable</p>
--

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$111	
Total Cost	\$111	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'98
Date First Approved	FY'98
Initial Cost Estimate	
Cost Estimate Last FY	1,928
Present Cost Estimate	2,465
Approved Request Last FY	495
Total Expense & Encumbrances	
Approval Request Year 1	995

G. Status Information	
Land Status	Land and R/W to be acquired
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	Not Applicable
Growth	22%
System Improvement	78%
Environmental Regulation	
Population Served	
Capacity	

H. Map
MAP NOT APPLICABLE

PENDING CLOSE-OUT PROJECT LISTING
BI-COUNTY SEWER PROJECTS
 (ALL FIGURES IN THOUSANDS)

Project Number	Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'21	Estimated Expenditures FY'22	Remarks
83800	S-22.10	Blue Plains WWTP: Enhanced Nutrient Removal	\$426,355	\$426,355	\$0	Project completion expected in June 2021.
		TOTALS	\$426,355	\$426,355	\$0	

Section 5 - Prince George's County Water Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

PRINCE GEORGE'S COUNTY WATER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 21	EST. EXPEND 22	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PAGE NUM
						YR 1 23	YR 2 24	YR 3 25	YR 4 26	YR 5 27	YR 6 28		
W-12.02	Prince George's County HG415 Zone Water Main	4,172	622	1,183	2,367	2,358	9	0	0	0	0	0	5-2
W-34.02	Old Branch Avenue Water Main	22,990	3,102	5,830	14,058	5,830	5,830	2,398	0	0	0	0	5-3
W-34.04	Branch Avenue Water Transmission Improvements	44,748	21,901	1,280	21,567	14,645	6,006	586	330	0	0	0	5-4
W-34.05	Marlboro Zone Reinforcement Main	4,414	540	627	3,247	2,022	1,225	0	0	0	0	0	5-5
W-62.06	Rosaryville Water Storage Facility	9,108	0	0	0	0	0	0	0	0	0	9,108	5-6
W-84.03	Smith Home Farms Water Main	3,806	1,950	630	1,226	449	408	369	0	0	0	0	5-7
W-84.04	Westphalia Town Center Water Main	1,834	673	48	1,113	373	438	302	0	0	0	0	5-8
W-84.05	Prince George's County 450A Zone Water Main	50,036	2,724	4,488	42,824	14,410	13,838	9,224	4,648	638	66	0	5-9
W-93.01	Konterra Town Center East Water Main	2,497	230	0	2,267	788	899	580	0	0	0	0	5-10
W-105.01	Marlton Section 18 Water Main, Lake Marlton Avenue	2,925	19	2	2,904	460	491	490	485	489	489	0	5-11
W-137.03	South Potomac Supply Improvement, Phase 2	71,143	2,723	764	67,656	22,552	22,552	22,552	0	0	0	0	5-12
	Projects Pending Close-Out	2,466	557	1,909	0	0	0	0	0	0	0	0	5-13
	TOTALS	220,139	35,041	16,761	159,229	63,887	51,696	36,501	5,463	1,127	555	9,108	

Prince George's County HG415 Zone Water Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Montgomery High Zone HG660A; Montgomery Main 495A;					
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins						
W - 000012.02		Change			Planning Areas	Patuxent PA 15					

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	520	509	5	6	4	2					
Land	47	47									
Construction	3,142	66	1,024	2,052	2,046	6					
Other	463		154	309	308	1					
Total	4,172	622	1,183	2,367	2,358	9					

C. Funding Schedule (000's)

WSSC Bonds	4,172	622	1,183	2,367	2,358	9					
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D. Description & Justification

DESCRIPTION
This project provides for the planning, design, and construction of 1,990 feet of 24-inch diameter water main, 142 feet of 16-inch diameter water main, new isolation valves, and pressure reducing valves with flow control capability. It will improve system reliability by providing the flexibility of the delivery system to the Montgomery County High Zone HG660, Montgomery County Main Zone HG495A, and Patuxent Pressure Zone HG415A; it will also improve the reliability and provide a redundancy to the HG415A zone and its dependent lower zones currently supplied through the Patuxent Plant.

BENEFIT
System Reliability: This project will improve service reliability through fewer and shorter service interruptions.

JUSTIFICATION
The new water main will provide a redundant feed to the Montgomery County High Zone HG660, Montgomery County Main Zone HG495, and Patuxent Pressure Zone HG415A in the event that the Patuxent Plant is out of service. BOA Contract No. PM0003A05, Task Order No. 12: Patuxent Pressure Zone HG415A Redundancy Study, Whitman, Requardt & Associates, LLP (February 2009); BOA Contract No. PM0019A08, Task Order No. 11, Patuxent Pressure Zone HG415A 24-inch Transmission Main, EBA Engineering (December 2011); BOA Contract No. PM0007A13, Task Order No. 14, Patuxent Pressure Zone HG415A 24-inch Transmission Main, EBA Engineering (March 16, 2017).

COST CHANGE
Not applicable.

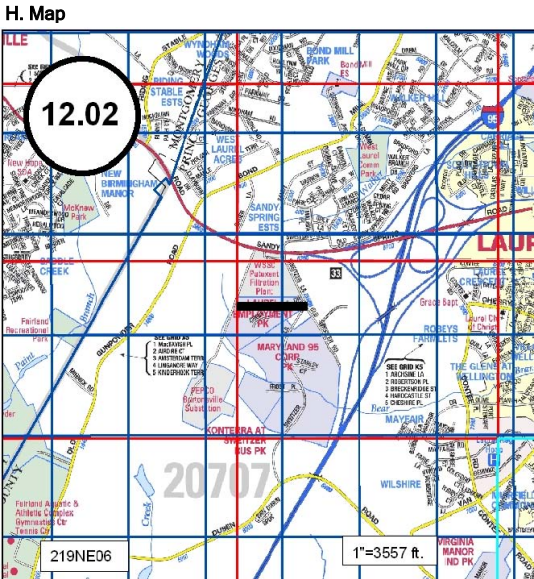
OTHER
The project scope has remained the same. The schedule and expenditure projections shown in Block B above are engineer's estimates and may change based upon actual bids.

COORDINATION
Coordinating Agencies: Baltimore Gas & Electric; Maryland Department of the Environment; Prince George's County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$63	25
Debt Service	\$241	25
Total Cost	\$304	25
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'11
Date First Approved	FY'11
Initial Cost Estimate	1,074
Cost Estimate Last FY	3,989
Present Cost Estimate	4,172
Approved Request Last FY	2,267
Total Expense & Encumbrances	622
Approval Request Year 1	2,358

G. Status Information	
Land Status	R/W acquired
Project Phase	Design
Percent Complete	100 %
Estimated Completion Date	November 2023
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	



Old Branch Avenue Water Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Clinton HG385B
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000034.02		Change			Planning Areas	Clinton & Vicinity PA 81A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	3,165	2,765	100	300	100	100	100				
Land	268	268									
Construction	17,749	69	5,200	12,480	5,200	5,200	2,080				
Other	1,808		530	1,278	530	530	218				
Total	22,990	3,102	5,830	14,058	5,830	5,830	2,398				

C. Funding Schedule (000's)

WSSC Bonds	11,495	1,551	2,915	7,029	2,915	2,915	1,199				
SDC	11,495	1,551	2,915	7,029	2,915	2,915	1,199				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of approximately 16,000 feet of 30-inch diameter water main and a new flow control valve along Old Branch Avenue, from Allentown Road to Piscataway Road.

BENEFIT

System Reliability: This project will improve service reliability through fewer and shorter service interruptions.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.

JUSTIFICATION

This project will provide redundancy to a large area of Prince George's County, including the 85,000 customers in Clinton Pressure Zone HG385B and dependent zones. Service to these zones would be severely disrupted with the loss of the Marlboro Road Pressure Reducing Valves or associated piping. WSSC Water attempts to provide for average day demands in the event of the loss of any one water system facility and this project will meet that goal for Clinton Pressure Zone HG385B and dependent zones.

General Plan; M-NCP&PC Round 7.0 growth forecasts; WSSC Memorandum dated May 16, 2006.

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The schedule and expenditure projections as shown in Block B above are design level estimates and may change based upon the final engineer's estimate and actual bids. Five properties have been acquired.

COORDINATION

Coordinating Agencies: Maryland Department of the Environment; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement
Coordinating Projects: W - 000062.06 - Rosaryville Water Storage Facility; W - 000084.05 - Prince George's County 450A Zone Water Main; W - 000137.03 - South Potomac Supply Improvement, Phase 2

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$474	26
Debt Service	\$665	26
Total Cost	\$1,139	26
Impact on Water and Sewer Rate		

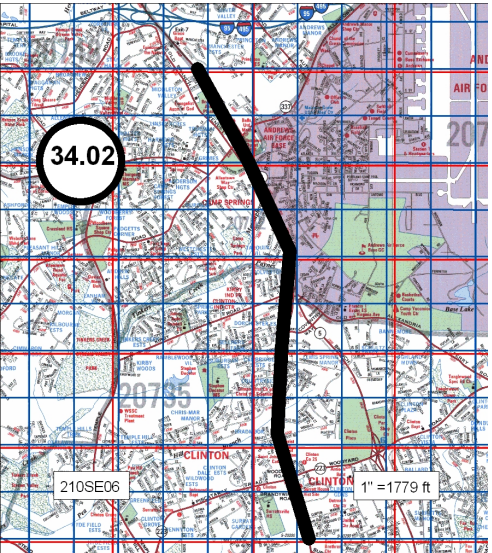
F. Approval and Expenditure Data (000's)

Date First in Program	FY'08
Date First Approved	FY'08
Initial Cost Estimate	10,350
Cost Estimate Last FY	21,830
Present Cost Estimate	22,990
Approved Request Last FY	5,556
Total Expense & Encumbrances	3,102
Approval Request Year 1	5,830

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Construction
Percent Complete	0 %
Estimated Completion Date	June 2025
Growth	50%
System Improvement	50%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Branch Avenue Water Transmission Improvements

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Clinton HG385B
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000034.04		Change			Planning Areas	Clinton & Vicinity PA 81A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	3,835	3,092	564	179	114	52	13				
Land	244	244									
Construction	38,593	18,565	600	19,428	13,200	5,408	520	300			
Other	2,076		116	1,960	1,331	546	53	30			
Total	44,748	21,901	1,280	21,567	14,645	6,006	586	330			

C. Funding Schedule (000's)

SDC	44,748	21,901	1,280	21,567	14,645	6,006	586	330			
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of approximately 18,121 feet of 42-inch diameter, 2,600 feet of 36-inch diameter, and 5,590 feet of 30-inch diameter water transmission mains along Branch Avenue, Brandywine Road, and Surratts Road in the Clinton area.

BENEFIT

Economic Development: This growth project supports the economic development goals of the Counties.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.

JUSTIFICATION

The new water main will serve as a primary feed for the new Brandywine (formerly Clinton South) Tank.

Clinton Zone WSF & Transmission Improvements Modeling and Master Plan Report, Gannett Fleming, Inc. (February 2012).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are a mix of construction cost, design, and planning level estimates and are expected to change as design progresses. This project is split into four phases. The first phase is comprised of approximately 1,200 feet of 42-inch pipe along Surratts Road and has been constructed by Prince George's County as part of the County Surratts/Brandywine road widening project. The second phase is approximately 3,300 feet of 30-inch main along Branch Avenue and has been constructed by the Maryland State Highway Administration (SHA) under the SHA MD5/Brandywine interchange improvement project. The third phase was to construct approximately 12,400 feet of 42-inch pipe and 2,320 feet of 30-inch pipe along Branch Avenue and the construction was completed in Fall 2019 by a WSSC Water contractor. The last phase is to construct the approximately 6,900 feet of remaining pipe along Brandywine Road and Surratts Road to tie-in to the existing 30-inch pipe on Woodyard/Piscataway Road. Replacing approximately 3,000 feet of existing 16-inch PCCP pipe will also be included under this contract. Phase IV (BL5273F11) will also be bid and constructed by WSSC Water. The phase and completion percentage have been updated to reflect the status of Phase IV instead of all the phases. No WSSC Water rate supported debt will be used for this project. No additional land costs are anticipated at this time.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission;(Mandatory Referral Process); Prince George's County Department of Public Works and Transportation; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement; U.S. Army Corps of Engineers
Coordinating Projects: W - 000062.06 - Rosaryville Water Storage Facility

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$779	27
Debt Service		
Total Cost	\$779	27
Impact on Water and Sewer Rate		

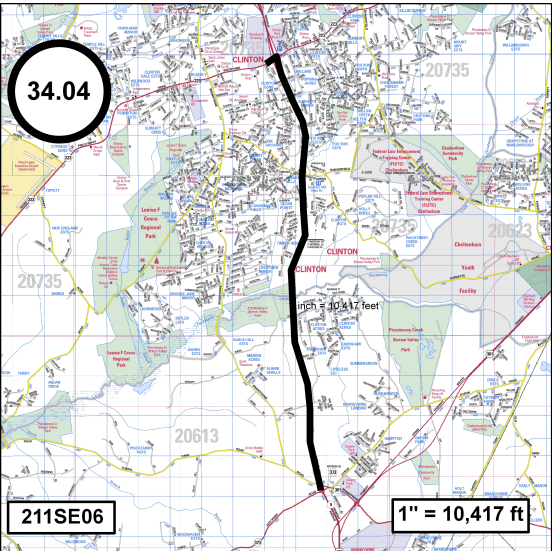
F. Approval and Expenditure Data (000's)

Date First in Program	FY'14
Date First Approved	FY'14
Initial Cost Estimate	23,705
Cost Estimate Last FY	43,910
Present Cost Estimate	44,748
Approved Request Last FY	14,201
Total Expense & Encumbrances	21,901
Approval Request Year 1	14,645

G. Status Information

Land Status	Land and R/W Acquired
Project Phase	Design
Percent Complete	65 %
Estimated Completion Date	July 2025
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Marlboro Zone Reinforcement Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Clinton HG385B
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000034.05		Change			Planning Areas	Clinton & Vicinity PA 81A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	635	535	25	75	50	25					
Land	3	3									
Construction	3,270	2	520	2,748	1,708	1,040					
Other	506		82	424	264	160					
Total	4,414	540	627	3,247	2,022	1,225					

C. Funding Schedule (000's)

WSSC Bonds	4,414	540	627	3,247	2,022	1,225					
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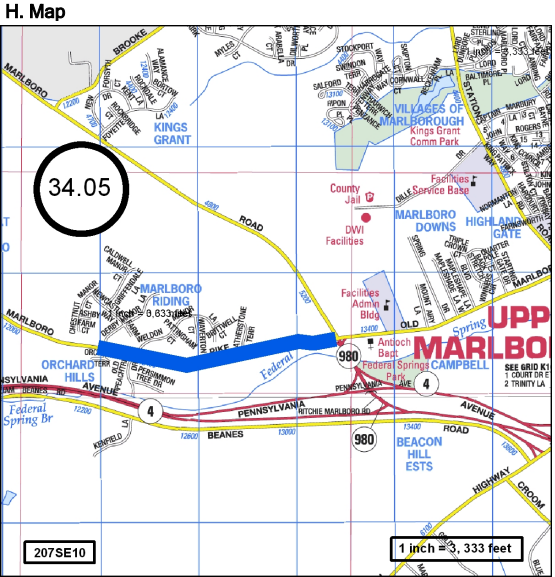
D. Description & Justification

<p>DESCRIPTION</p> <p>This project provides for the planning, design, and construction of approximately 4,000 feet of 16-inch diameter water transmission main and a flow control valve along Old Marlboro Pike in the Clinton area.</p> <p>BENEFIT</p> <p>System Reliability: This project will improve service reliability through fewer and shorter service interruptions.</p> <p>JUSTIFICATION</p> <p>This new water main will provide system reliability and redundancy by connecting the 385B and 280A pressure zones. Clinton Zone WSF & Transmission Improvements Modeling and Master Plan Report, Gannett Fleming, Inc. (February 2012).</p> <p>COST CHANGE</p> <p>Not applicable.</p> <p>OTHER</p> <p>The project scope has remained the same. The schedule and expenditure projections shown in Block B above are design level estimates and may change based upon site conditions and design constraints.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission;(Mandatory Referral Process); Prince George's County Department of Environmental Resources; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement</p> <p>Coordinating Projects: W - 000062.06 - Rosaryville Water Storage Facility</p>
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E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$118	25
Debt Service	\$255	25
Total Cost	\$373	25
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'14
Date First Approved	FY'14
Initial Cost Estimate	5,234
Cost Estimate Last FY	4,269
Present Cost Estimate	4,414
Approved Request Last FY	1,946
Total Expense & Encumbrances	540
Approval Request Year 1	2,022

G. Status Information	
Land Status	R/W acquired
Project Phase	Design
Percent Complete	99 %
Estimated Completion Date	December 2023
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	



Rosaryville Water Storage Facility

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Southern 385B
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000062.06		Change			Planning Areas	Rosaryville PA 82A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	848										848
Land											
Construction	7,072										7,072
Other	1,188										1,188
Total	9,108										9,108

C. Funding Schedule (000's)

SDC	9,108										9,108
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D. Description & Justification

<p>DESCRIPTION</p> <p>This project provides for the planning, design, and construction of approximately 2.0 million gallons (MG) of water storage to serve the Rosaryville area in the Clinton Pressure Zone.</p> <p>BENEFIT</p> <p>System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.; System Reliability: This project will improve service reliability through fewer and shorter service interruptions.</p> <p>JUSTIFICATION</p> <p>Clinton Pressure Zone HG385B serves a large and growing area of Southern Prince George's County. Since storage facilities must be periodically removed from service for maintenance, having only one in a large zone creates operational problems. The Modeling and Master Plan Report indicates that there will be approximately 4.0 MG of storage deficit in Clinton Pressure Zone HG385B. WSSC Memorandum dated May 9, 2005, from Timothy Hirrel, Unit Coordinator, to Craig Fricke, Planning Group Leader; 2006 Water Production Projections; 2005 Water Storage Volume Criteria; Clinton Zone WSF & Transmission Improvements Modeling and Master Plan Report, Gannett Fleming, Inc. (February 2012); Finished Water Storage Analysis Report (June 2013).</p> <p>COST CHANGE</p> <p>Not applicable.</p> <p>OTHER</p> <p>The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon planning level estimates and are expected to change based upon site conditions and design constraints. No WSSC Water rate supported debt will be used for this project.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Prince George's County Department of Environmental Resources; Prince George's County Government</p> <p>Coordinating Projects: W - 000034.02 - Old Branch Avenue Water Main; W - 000034.03 - Water Transmission Improvements 385B Pressure Zone; W - 000034.04 - Branch Avenue Water Transmission Improvements; W - 000034.05 - Marlboro Zone Reinforcement Main</p>

E. Annual Operating Budget Impact (000's)	FY of Impact
Staff & Other	
Maintenance	
Debt Service	
Total Cost	
Impact on Water and Sewer Rate	

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'21
Date First Approved	FY'13
Initial Cost Estimate	8,510
Cost Estimate Last FY	8,758
Present Cost Estimate	9,108
Approved Request Last FY	
Total Expense & Encumbrances	
Approval Request Year 1	

G. Status Information	
Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	0 %
Estimated Completion Date	TBD
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	2.0 MG



Smith Home Farms Water Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Southern 385B					
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins						
W - 000084.03		Change			Planning Areas	Westphalia & Vicinity PA 78					

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	805	533	98	174	64	60	50				
Land											
Construction	2,759	1,417	450	892	326	295	271				
Other	242		82	160	59	53	48				
Total	3,806	1,950	630	1,226	449	408	369				

C. Funding Schedule (000's)

Contributions/Other	3,806	1,950	630	1,226	449	408	369				
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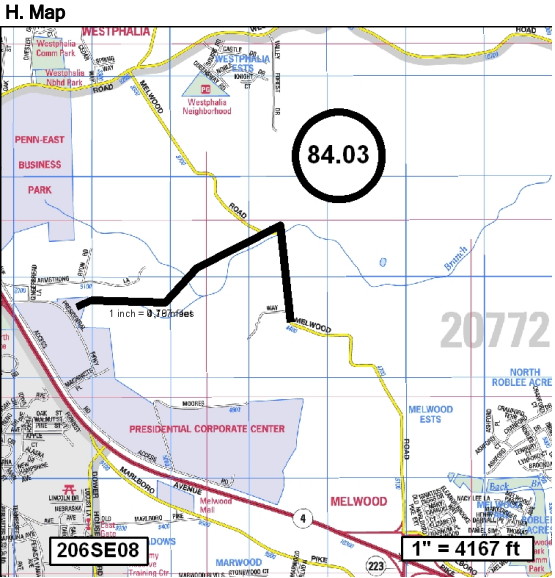
D. Description & Justification

DESCRIPTION This project provides for the planning, design, and construction of 7,600 feet of 16-inch diameter water main to serve the Smith Home Farms Subdivision.
BENEFIT Economic Development: This growth project supports the economic development goals of the Counties.
JUSTIFICATION Smith Home Farm Subdivision Hydraulic Planning Analysis (Amended March 2015).
COST CHANGE Not applicable.
OTHER The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. Design and construction will be performed by the developer under a System Extension Permit. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.
COORDINATION Coordinating Agencies: Maryland-National Capital Park & Planning Commission;(Westphalia Sector Plan); Prince George's County Government Coordinating Projects: W - 000084.04 - Westphalia Town Center Water Main

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$225	
Debt Service		
Total Cost	\$225	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'08
Date First Approved	FY'08
Initial Cost Estimate	1,600
Cost Estimate Last FY	3,660
Present Cost Estimate	3,806
Approved Request Last FY	452
Total Expense & Encumbrances	1,950
Approval Request Year 1	449

G. Status Information	
Land Status	Not Applicable
Project Phase	Construction
Percent Complete	75 %
Estimated Completion Date	Developer Dependent
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	



Westphalia Town Center Water Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Clinton HG385B
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000084.04		Change			Planning Areas	Westphalia & Vicinity PA 78

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	225	29	42	154	73	53	28				
Land											
Construction	1,458	644		814	251	328	235				
Other	151		6	145	49	57	39				
Total	1,834	673	48	1,113	373	438	302				

C. Funding Schedule (000's)

Contributions/Other	1,834	673	48	1,113	373	438	302				
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 4,700 feet of 16-inch diameter water main to serve Westphalia Town Center and vicinity.

BENEFIT

Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION

Westphalia Town Center Hydraulic Planning Analysis (June 2009).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. Design and construction will be performed by the developer under a System Extension Permit. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Prince George’s County Government; Prince George’s County Department of Permitting Inspection and Enforcement

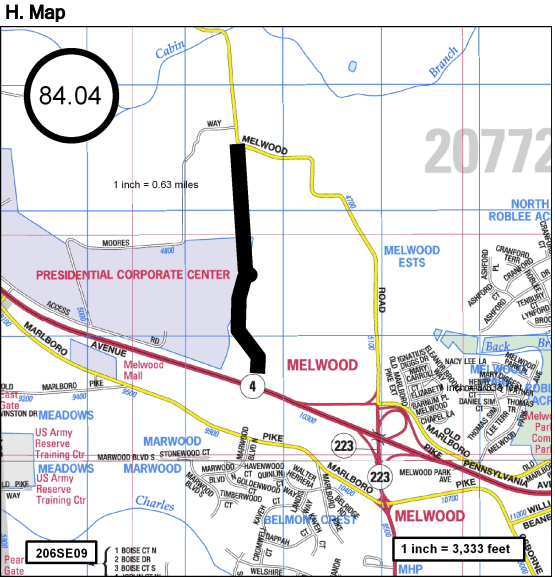
Coordinating Projects: W - 000084.03 - Smith Home Farms Water Main

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$139	
Debt Service		
Total Cost	\$139	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'14
Date First Approved	FY'14
Initial Cost Estimate	1,396
Cost Estimate Last FY	1,759
Present Cost Estimate	1,834
Approved Request Last FY	358
Total Expense & Encumbrances	673
Approval Request Year 1	373

G. Status Information	
Land Status	Not Applicable
Project Phase	Construction
Percent Complete	40 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	



Prince George's County 450A Zone Water Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Prince George's High HG450A
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000084.05		Change			Planning Areas	Prince George's County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	3,869	2,724	700	445	100	100	65	65	60	55	
Land											
Construction	41,865		3,380	38,485	13,000	12,480	8,320	4,160	520	5	
Other	4,302		408	3,894	1,310	1,258	839	423	58	6	
Total	50,036	2,724	4,488	42,824	14,410	13,838	9,224	4,648	638	66	

C. Funding Schedule (000's)

WSSC Bonds	50,036	2,724	4,488	42,824	14,410	13,838	9,224	4,648	638	66	
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D. Description & Justification

DESCRIPTION

This project provides for a capacity and alignment study, design, and construction of approximately 3.8 miles of new 48-inch diameter redundant transmission main for Prince George's High Pressure Zone HG450A. Portions of the transmission main that currently serve the HG450A and HG290B Pressure Zones will be out of service almost every year to meet the goals of the PCCP inspection program. A redundant transmission main is required to continue to provide service to our customers while the existing transmission main is planned to be out of service and to provide service in case the existing main fails.

BENEFIT

System Reliability: This project will improve service reliability through fewer and shorter service interruptions.

JUSTIFICATION

When portions of the existing main are out of service, the remaining mains lack sufficient capacity and pumping against these restrictions can cause high pressure that may result in pipe failure. The new transmission main may parallel or replace existing mains as determined by modeling. The new main should be a minimum of 30-inch diameter and will start where the existing 54-inch diameter main inside the beltway connects to an existing 30-inch diameter main just north of Pennsylvania Avenue and tie in to the new 30-inch diameter main to be constructed under project W-34.02.

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are preliminary design level estimates and are expected to change based upon site conditions and design constraints. An alignment and capacity study has been performed and final alignment and pipeline diameter has been selected. Northern alignment change required due SHA permitting requirements change. This design change also required the relocation of an existing PRV (May 2021). Future land costs are included in project W-202.00.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Historical Trust; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission;(Mandatory Referral Process); National Park Service; Prince George's County Department of Public Works and Transportation; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement; U.S. Army Corps of Engineers;Joint Base Andrews military base; Washington Metropolitan Area Transit Authority
Coordinating Projects: W - 000034.02 - Old Branch Avenue Water Main; W - 000137.03 - South Potomac Supply Improvement, Phase 2

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$594	29
Debt Service	\$2,894	29
Total Cost	\$3,488	29
Impact on Water and Sewer Rate	\$0.01	29

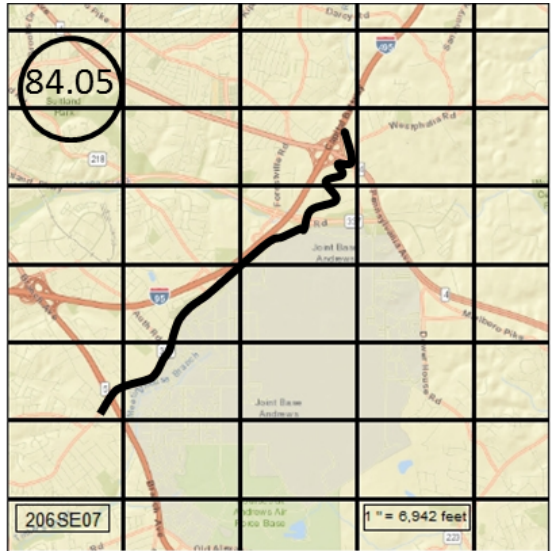
F. Approval and Expenditure Data (000's)

Date First in Program	FY'13
Date First Approved	FY'13
Initial Cost Estimate	374
Cost Estimate Last FY	47,778
Present Cost Estimate	50,036
Approved Request Last FY	13,805
Total Expense & Encumbrances	2,724
Approval Request Year 1	14,410

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	90 %
Estimated Completion Date	July 2027
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Konterra Town Center East Water Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Prince George's 415A
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000093.01		Change			Planning Areas	Northwestern Area PA 60

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	289	32		257	89	102	66				
Land											
Construction	1,912	198		1,714	596	680	438				
Other	296			296	103	117	76				
Total	2,497	230		2,267	788	899	580				

C. Funding Schedule (000's)

Contributions/Other	2,497	230		2,267	788	899	580				
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D. Description & Justification

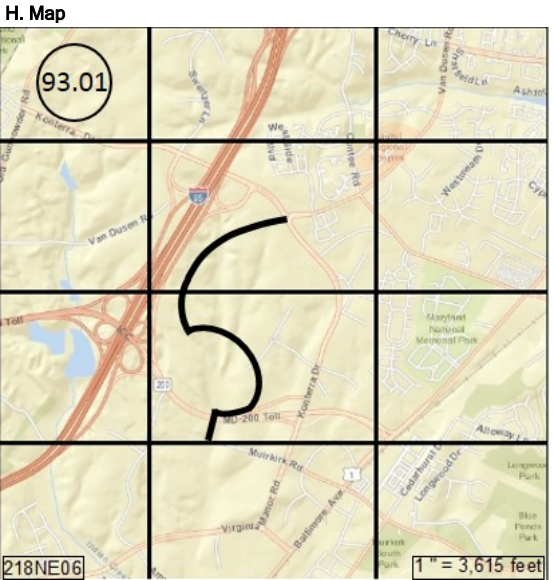
DESCRIPTION This project provides for the planning, design, and construction of 9,200 feet of 16-inch diameter water main to serve Konterra Town Center East, located in the area bounded by Interstate 95, the Intercounty Connector, and Konterra Drive. The sleeve for the water main crossing the Intercounty Connector was built under project S-28.18.
BENEFIT Economic Development: This growth project supports the economic development goals of the Counties.
JUSTIFICATION Letter of Findings DA4623Z07 (October 2018).
COST CHANGE Not applicable.
OTHER The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. Design and construction will be performed by the developer under a Systems Extension Permit. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.
COORDINATION Coordinating Agencies: Prince George's County Government Coordinating Projects: S - 000028.18 - Konterra Town Center East Sewer

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$272	
Debt Service		
Total Cost	\$272	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'09
Date First Approved	FY'09
Initial Cost Estimate	610
Cost Estimate Last FY	2,428
Present Cost Estimate	2,497
Approved Request Last FY	758
Total Expense & Encumbrances	230
Approval Request Year 1	788

G. Status Information	
Land Status	Not Applicable
Project Phase	Construction
Percent Complete	3 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	



Marlton Section 18 Water Main, Lake Marlton Avenue

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Clinton HG385B
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000105.01		Change			Planning Areas	Rosaryville PA 82A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	432	19	1	412	46	74	73	73	73	73	
Land											
Construction	2,114		1	2,113	354	353	353	349	352	352	
Other	379			379	60	64	64	63	64	64	
Total	2,925	19	2	2,904	460	491	490	485	489	489	

C. Funding Schedule (000's)

Contributions/Other	2,925	19	2	2,904	460	491	490	485	489	489	
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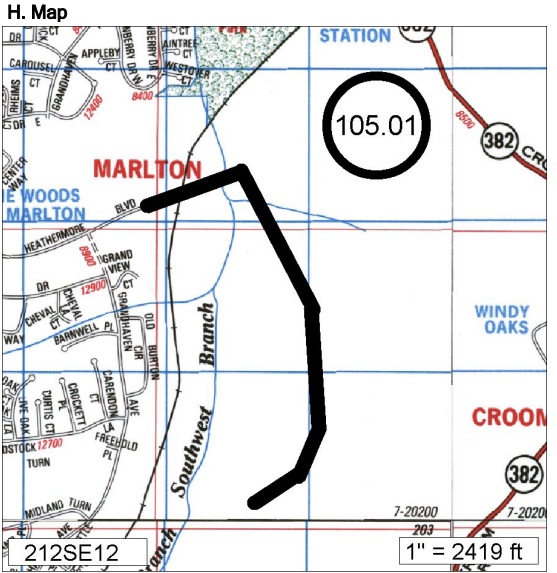
D. Description & Justification

DESCRIPTION This project provides for the planning, design, and construction of 5,400 feet of 16-inch diameter water main to provide service to East Marlton, Section 18, along Heathermore Boulevard and Lake Marlton Avenue.
BENEFIT Economic Development: This growth project supports the economic development goals of the Counties.
JUSTIFICATION East Marlton Hydraulic Planning Analysis (February 2008).
COST CHANGE Not applicable.
OTHER The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. Design and construction will be performed by the developer under a Systems Extension Permit. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.
COORDINATION Coordinating Agencies: Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Prince George's County Government Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$160	
Debt Service		
Total Cost	\$160	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'02
Date First Approved	FY'02
Initial Cost Estimate	398
Cost Estimate Last FY	2,822
Present Cost Estimate	2,925
Approved Request Last FY	442
Total Expense & Encumbrances	19
Approval Request Year 1	460

G. Status Information	
Land Status	Not Applicable
Project Phase	Design
Percent Complete	20 %
Estimated Completion Date	Developer Dependent
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	



South Potomac Supply Improvement, Phase 2

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Potomac 290B; Prince George's High HG450A; Rosecroft
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000137.03		Change			Planning Areas	Henson Creek PA 76B

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	3,613	2,723	728	162	54	54	54				
Land											
Construction	64,272			64,272	21,424	21,424	21,424				
Other	3,258		36	3,222	1,074	1,074	1,074				
Total	71,143	2,723	764	67,656	22,552	22,552	22,552				

C. Funding Schedule (000's)

WSSC Bonds	46,953	1,797	504	44,652	14,884	14,884	14,884				
SDC	24,190	926	260	23,004	7,668	7,668	7,668				

D. Description & Justification

DESCRIPTION

This project provides for the design and construction of 4.4 miles of 42-inch diameter ductile iron transmission main, 6.0 miles of distribution mains (diameters ranging from 10 to 16-inches), and a new flow control valve and vault. The project will replace 3.5 miles of existing 42-inch diameter PCCP transmission main located within the Henson Creek corridor and will replace parallel aged distribution infrastructure located along the project limits.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.

JUSTIFICATION

During design of the 42-inch PCCP transmission main replacement under CIP W-137.02, South Potomac Supply Improvement, Phase 1, WSSC Water and the Maryland Department of the Environment discussed extensive requirements for stream restoration of Henson Creek. At that time, WSSC Water staff identified up to 3.5 miles of pipe south of the project area that is exposed along eroding stretches of Henson Creek. An alignment study began under CIP W-137.03, South Potomac Supply Improvement, Phase 2, to evaluate possible relocation of the existing 42-inch PCCP main between Rosecroft Drive and Indian Head Highway. The 3.5 miles of PCCP main will be relocated out of Henson Creek and into a roadway alignment between Temple Hill Road and Indian Head Highway, for a total of 4.4 miles of new 42-inch ductile iron pipe. The transmission main will be relocated out of the 290B pressure zone and into the 450A pressure zone. Phase 2 includes the installation of a flow control valve between pressure zones 450A and 290B.

Concept Finalization Report, O'Brien & Gere Engineers Inc. (January 2014); Alignment Study - Final: Henson Creek 42-Inch Water Main Replacement, O'Brien & Gere Engineers Inc. (April 2017).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The Phase 1 alignment study was completed in April 2017. Notice to Proceed for Phase 2 (Design) was issued in February 2018. The schedule and expenditure projections for Phase 2 are preliminary design estimates and are expected to change based upon design constraints, site-specific conditions, and stream restoration requirements for Henson Creek. Future land costs are included in project W-202.00.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement; U.S. Army Corps of Engineers; Washington Gas Light Company
Coordinating Projects: W - 000034.02 - Old Branch Avenue Water Main; W - 000084.05 - Prince George's County 450A Zone Water Main

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$1,078	26
Debt Service	\$2,715	26
Total Cost	\$3,793	26
Impact on Water and Sewer Rate	\$0.01	26

F. Approval and Expenditure Data (000's)

Date First in Program	FY'18
Date First Approved	FY'07
Initial Cost Estimate	53,374
Cost Estimate Last FY	67,875
Present Cost Estimate	71,143
Approved Request Last FY	21,685
Total Expense & Encumbrances	2,723
Approval Request Year 1	22,552

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	70 %
Estimated Completion Date	June 2025
Growth	34%
System Improvement	66%
Environmental Regulation	
Population Served	
Capacity	

H. Map



PENDING CLOSE-OUT PROJECT LISTING
PRINCE GEORGE'S COUNTY WATER PROJECTS
 (ALL FIGURES IN THOUSANDS)

Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'21	Estimated Expenditures FY'22	Remarks
W-120.14	Timothy Branch Water Main	\$2,466	\$557	\$1,909	Project completion expected in FY'22.
	TOTALS	\$2,466	\$557	\$1,909	

Section 6 - Prince George's County Sewer Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

PRINCE GEORGE'S COUNTY SEWER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 21	EST. EXPEND 22	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PAGE NUM
						YR 1 23	YR 2 24	YR 3 25	YR 4 26	YR 5 27	YR 6 28		
S-27.08	Westphalia Town Center Sewer Main	1,632	874	521	237	161	62	14	0	0	0	0	6-3
S-28.18	Konterra Town Center East Sewer	6,872	4,674	0	2,198	0	2,198	0	0	0	0	0	6-4
S-28.20	Pumpkin Hill WWPS & FM	4,542	184	575	3,783	1,221	1,748	814	0	0	0	0	6-5
S-68.01	Landover Mall Redevelopment	1,397	0	109	1,286	668	426	48	48	48	48	2	6-6
S-68.02	Carsondale WWPS & FM	5,645	240	115	5,290	345	3,680	1,265	0	0	0	0	6-7
S-75.21	Mattawoman WWTP Upgrades	20,758	0	3,983	14,877	3,553	2,998	3,171	2,921	1,663	571	1,898	6-8
S-75.23	Brandywine Woods WWPS & FM	3,515	35	288	3,192	1,237	1,149	662	144	0	0	0	6-9
S-77.21	Parkway WRRF Facility & Electrical Upgrades	20,859	0	1,008	19,851	5,152	6,401	4,751	2,551	721	275	0	6-10
S-86.19	Southlake Subdivision Sewer	843	758	75	10	10	0	0	0	0	0	0	6-11
S-87.19	Horsepen WWPS & FM	36,461	1,675	2,095	32,691	5,923	13,204	7,951	5,613	0	0	0	6-12
S-87.20	Freeway Airport WWPS & FM	3,533	53	288	3,192	1,237	1,150	661	144	0	0	0	6-13
S-89.26	Colmar Manor WWPS & FM	6,567	10	288	6,269	173	115	230	575	2,588	2,588	0	6-14
S-96.14	Piscataway WRRF Facility Upgrades	172,441	96,631	29,610	46,200	22,995	17,115	6,090	0	0	0	0	6-15
S-113.13	Forest Heights WWPS & FM	8,958	273	173	8,512	173	58	230	575	3,738	3,738	0	6-16
S-118.10	Viva White Oak Sewer Augmentation	1,126	0	0	1,126	450	282	169	113	56	56	0	6-17
S-131.05	Pleasant Valley Sewer Main, Part 2	1,000	49	228	723	451	185	87	0	0	0	0	6-18
S-131.07	Pleasant Valley Sewer Main, Part 1	1,957	73	530	1,354	1,104	250	0	0	0	0	0	6-19
S-131.11	Calm Retreat Sewer Main	1,020	70	17	933	852	81	0	0	0	0	0	6-20
S-131.12	Swan Creek WWPS & FM	14,136	9,043	363	4,730	1,540	3,080	110	0	0	0	0	6-21
S-157.02	Western Branch WRRF Process Train Improvements	72,722	2,224	5,932	63,972	10,446	19,077	18,732	10,142	4,627	948	594	6-22
	Projects Pending Close-Out	19,353	18,012	1,341	0	0	0	0	0	0	0	0	6-23
TOTALS		405,337	134,878	47,539	220,426	57,691	73,259	44,985	22,826	13,441	8,224	2,494	

NEW PROJECT LISTING
PRINCE GEORGE'S COUNTY SEWER PROJECTS
 (ALL FIGURES IN THOUSANDS)

Agency Number	Project Name	Total Project Cost	Budget Year Cost	Page Number
S-68.02	Carsondale WWPS & FM	\$5,645	\$345	6-7
S-75.23	Brandywine Woods WWPS & FM	3,515	1,237	6-9
S-87.20	Freeway Airport WWPS & FM	3,533	1,237	6-13
S-89.26	Colmar Manor WWPS & FM	6,567	173	6-14
S-113.13	Forest Heights WWPS & FM	8,958	173	6-16
	TOTALS	\$28,218	\$3,165	

Westphalia Town Center Sewer Main

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Western Branch 14
S - 000027.08		Change			Planning Areas	Westphalia & Vicinity PA 78

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	203	123	36	44	25	13	6				
Land											
Construction	1,330	751	417	162	115	41	6				
Other	99		68	31	21	8	2				
Total	1,632	874	521	237	161	62	14				

C. Funding Schedule (000's)

Contributions/Other	1,632	874	521	237	161	62	14				
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D. Description & Justification

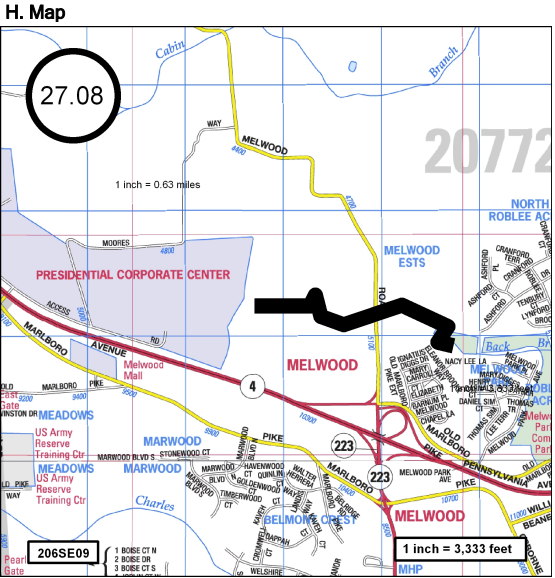
DESCRIPTION This project provides for the planning, design, and construction of 4,550 feet of 15-inch, 18-inch, and 21-inch sanitary sewer main to serve the Westphalia Town Center.
BENEFIT Economic Development: This growth project supports the economic development goals of the Counties.
JUSTIFICATION Westphalia Town Center Hydraulic Planning Analysis (June 2009).
COST CHANGE Not applicable.
OTHER The project scope has remained the same. The expenditure and schedule projections shown in Block B above are based upon information provided by the developer. Design and construction will be performed by the developer under a System Extension Permit. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.
COORDINATION Coordinating Agencies: Local Community Civic Associations;(Interaction with state, county and regulatory staff); Maryland-National Capital Park & Planning Commission; Prince George's County Department of Environmental Resources; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$96	
Debt Service		
Total Cost	\$96	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'14
Date First Approved	FY'14
Initial Cost Estimate	378
Cost Estimate Last FY	1,570
Present Cost Estimate	1,632
Approved Request Last FY	161
Total Expense & Encumbrances	874
Approval Request Year 1	161

G. Status Information	
Land Status	Not Applicable
Project Phase	Construction
Percent Complete	40 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	7,600
Capacity	3.2 MGD



Konterra Town Center East Sewer

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Northeast Branch Branch 08
S - 000028.18		Change			Planning Areas	Northwestern Area PA 60

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,860	1,611		249		249					
Land											
Construction	4,725	3,063		1,662		1,662					
Other	287			287		287					
Total	6,872	4,674		2,198		2,198					

C. Funding Schedule (000's)

Contributions/Other	6,872	4,674		2,198		2,198					
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D. Description & Justification

DESCRIPTION
1. The first step in the process of the project is to identify the problem or opportunity that the project is intended to address. This involves a thorough analysis of the current situation and a clear definition of the project's goals and objectives.
2. Once the problem or opportunity has been identified, the next step is to develop a project plan. This plan should outline the project's scope, timeline, budget, and the roles and responsibilities of the project team members.
3. The third step in the process is to execute the project plan. This involves implementing the project's activities and tasks, and monitoring the project's progress to ensure that it is on track and within budget.
4. The final step in the process is to evaluate the project's results. This involves comparing the project's actual performance against its planned performance, and identifying any areas for improvement or lessons learned.

This project provides for the planning, design, and construction of 14,000 feet of 15-inch to 24-inch diameter sewer main, 240 feet of 24-inch diameter steel sleeve for a 16-inch diameter water main (W-93.01), and 240 feet of 48-inch diameter steel sleeve for a 24-inch diameter sewer. The project serves the Konterra Town Center East development which is located in the area bound by Interstate 95, the Intercounty Connector, and Konterra Drive.

BENEFIT

Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION

Letter of Findings DA4623Z07 (October 19, 2018).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The expenditure and schedule projections shown in Block B above are based upon information provided by the developer. Design and construction will be performed by the developer under a System Extension Permit. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Prince George's County Government

Coordinating Projects: W - 000093.01 - Konterra Town Center East Water Main

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$306	
Debt Service		
Total Cost	\$306	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'09
Date First Approved	FY'09
Initial Cost Estimate	833
Cost Estimate Last FY	7,102
Present Cost Estimate	6,872
Approved Request Last FY	
Total Expense & Encumbrances	4,674
Approval Request Year 1	

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	72 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	11,300
Capacity	8.11 MGD

H. Map



Pumpkin Hill WWPS & FM

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000028.20		Change

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	
Drainage Basins	Parkway 17
Planning Areas	South Laurel-Montpelier PA 62

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	891	184	500	207	62	104	41				
Land											
Construction	3,082			3,082	1,000	1,416	666				
Other	569		75	494	159	228	107				
Total	4,542	184	575	3,783	1,221	1,748	814				

C. Funding Schedule (000's)

WSSC Bonds	4,542	184	575	3,783	1,221	1,748	814				
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of the modifications to the Pumpkin Hill Wastewater Pumping Station and replacement of the Pumpkin Hill Force Main. The rehabilitation will replace both pumps maintaining the pumping station's 2.11 MGD capacity. In addition, the existing 3,200 linear feet of 16-inch force main will be replaced.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.

JUSTIFICATION

The existing pumping station was put in service in 1974. The pumps were rebuilt in 1992 and have reached the end of their useful life. Replacement of the existing force main, constructed in 1965, is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy.

Hydraulics Analysis Memorandum (July 2019).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above are based on planning level estimates and are expected to change as design progresses.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$263	26
Total Cost	\$263	26
Impact on Water and Sewer Rate		

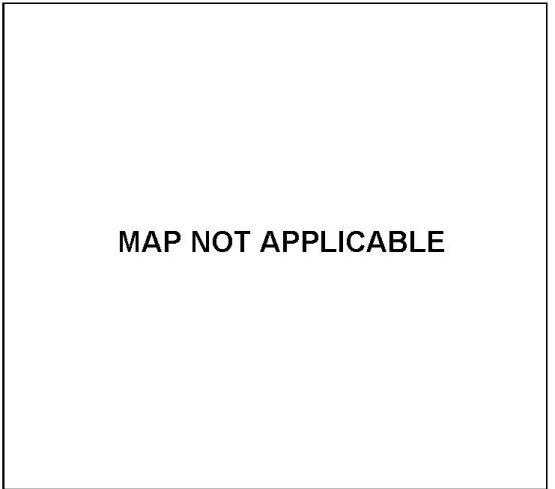
F. Approval and Expenditure Data (000's)

Date First in Program	FY'22
Date First Approved	FY'22
Initial Cost Estimate	4,496
Cost Estimate Last FY	4,496
Present Cost Estimate	4,542
Approved Request Last FY	1,725
Total Expense & Encumbrances	184
Approval Request Year 1	1,221

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	0 %
Estimated Completion Date	January 2025
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	2.11 MGD

H. Map



Landover Mall Redevelopment

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Beaverdam Branch 3
S - 000068.01		Change			Planning Areas	Prince George's County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	217		38	177	80	48	13	12	12	12	2
Land											
Construction	999		57	942	501	322	29	30	30	30	
Other	181		14	167	87	56	6	6	6	6	
Total	1,397		109	1,286	668	426	48	48	48	48	2

C. Funding Schedule (000's)

Contributions/Other	1,397		109	1,286	668	426	48	48	48	48	2
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D. Description & Justification

DESCRIPTION

This project provides 2,500 feet of 27-inch, 300 feet of 24-inch, and 1,450 feet of 18-inch diameter sewer main to provide service for the Landover Mall Redevelopment.

BENEFIT

Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION

Hydraulic Planning Analysis (May 2009).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The project is on hold due to lack of activity and will need to be re-evaluated when the Owner/Developer approaches WSSC Water to restart the project. The current estimated total project cost shown above reflects the original plans for the project. A new cost estimate and schedule will be required at restart. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION

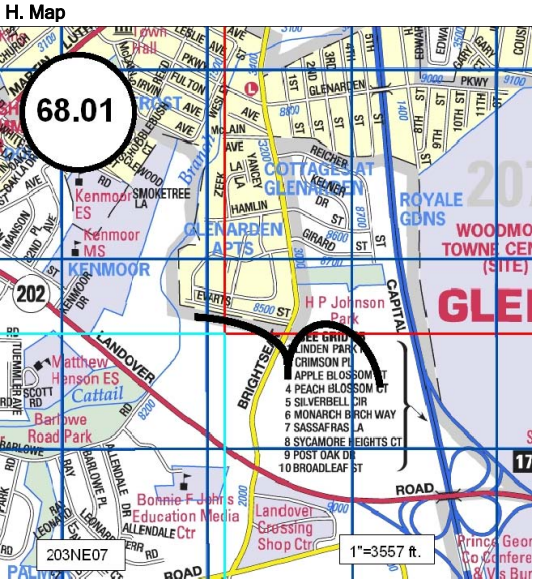
Coordinating Agencies: Prince George's County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$90	
Debt Service		
Total Cost	\$90	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'11
Date First Approved	FY'11
Initial Cost Estimate	1,108
Cost Estimate Last FY	1,422
Present Cost Estimate	1,397
Approved Request Last FY	668
Total Expense & Encumbrances	
Approval Request Year 1	668

G. Status Information	
Land Status	Not Applicable
Project Phase	Planning
Percent Complete	20 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	3,347
Capacity	5.63 MGD



Carsondale WWPS & FM

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Beaverdam Branch 3
S - 000068.02		Add			Planning Areas	Landover & Vicinity PA 72

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,190	240	100	850	300	450	100				
Land											
Construction	3,750			3,750		2,750	1,000				
Other	705		15	690	45	480	165				
Total	5,645	240	115	5,290	345	3,680	1,265				

C. Funding Schedule (000's)

WSSC Bonds	5,645	240	115	5,290	345	3,680	1,265				
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D. Description & Justification

<p>DESCRIPTION</p> <p>This project provides for the planning, design, and construction of the modifications to the Carsondale Wastewater Pumping Station and replacement of the Carsondale Force Main. The rehabilitation will replace both pumps maintaining the pumping station's 0.6 MGD capacity. The existing 3,000 linear feet of 8-inch force main will be replaced. In addition, replacement of all electrical components, including the generator, replacement of the HVAC system, general upgrade to the pump station building and grounds as needed, and the addition of a restroom are included.</p> <p>BENEFIT</p> <p>Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.</p> <p>JUSTIFICATION</p> <p>The existing pumping station and force main were built in 1960. In 1989 the pump station and meter vault were modified to the current configuration and have reached the end of their useful life. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy.</p> <p>Hydraulics Analysis Memorandum (July 2019).</p> <p>COST CHANGE</p> <p>Not applicable.</p> <p>OTHER</p> <p>The present project scope was developed for the FY'23 CIP and has an estimated total cost of \$5,645,000. The schedule and expenditure projections shown in Block B above are planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the upgrades began in FY'21 under ESP S-642.25, Carsondale WWPS Upgrades with Forcemain.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment</p> <p>Coordinating Projects: Not Applicable</p>
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E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$326	26
Total Cost	\$326	26
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	5,647
Cost Estimate Last FY	
Present Cost Estimate	5,645
Approved Request Last FY	
Total Expense & Encumbrances	240
Approval Request Year 1	345

G. Status Information	
Land Status	Public/Agency owned land
Project Phase	Planning
Percent Complete	100 %
Estimated Completion Date	April 2025
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	0.6 MGD

H. Map
MAP NOT APPLICABLE

Mattawoman WWTP Upgrades

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Mattawoman 21
S - 000075.21		Change			Planning Areas	Accokeek PA 83; Brandywine & Vicinity PA 85A; Cedarville &

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision											
Land											
Construction	20,553		3,944	14,730	3,518	2,968	3,140	2,892	1,647	565	1,879
Other	205		39	147	35	30	31	29	16	6	19
Total	20,758		3,983	14,877	3,553	2,998	3,171	2,921	1,663	571	1,898

C. Funding Schedule (000's)

WSSC Bonds	20,758		3,983	14,877	3,553	2,998	3,171	2,921	1,663	571	1,898
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D. Description & Justification

DESCRIPTION <p>This project provides for WSSC Water's share of the evaluation, design, and construction of capital projects to upgrade and repair Charles County's Mattawoman Interceptor and WWTP. Current projects include: SCADA/Plant Automation, Electrical System Replacement, In-Plant Water System Improvement, Flow Equalization, Clarifier and Thickener Upgrades, Belt Filter Press Replacement, Effluent Force Main Improvements, Primary Clarifiers 1-4 Demolition, Additional Effluent Filters, and Filtered Water Disinfection Improvements.</p>
BENEFIT <p>Regulatory & Other Agreements: This project is required to meet regulatory requirements, multi-jurisdictional agreements, and/or consent decrees.; Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.</p>
JUSTIFICATION <p>Prior evaluations of equipment and structural facilities concluded the need existed for various upgrade, repair, and replacement projects. A further thorough evaluation of the Head Works, Influent/Effluent Pumps, and Influent Wet Well was also deemed necessary in order to identify the specific scope of hydraulic, control, capacity, and safety upgrades to the Influent/Effluent Pump Station. Plant automation will improve the efficiency of operation and maintenance, thereby minimizing resource utilization and avoiding costs. Agreement dated October 22, 1980; Agreement Addendum No. 1 dated April 15, 2004.</p>
COST CHANGE <p>The schedule and expenditure estimates reflect the latest information provided by Charles County.</p>
OTHER <p>The project scope has remained the same. Under the terms of the 1980 Agreement with Charles County, WSSC Water has the use of 3 MGD of the WWTP's capacity, and pays a proportionate share of the capital expenses. As new upgrade sub-projects are added, the associated costs will be added to this project. Beginning in FY'07, the total plant capacity increased to 20 MGD, and WSSC Water's proportionate cost share decreased to 15% under the terms of Agreement Addendum No.1. This project is expected to continue indefinitely.</p>
COORDINATION <p>Coordinating Agencies: Charles County Government Coordinating Projects: Not Applicable</p>

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$1,200	
Total Cost	\$1,200	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'08
Date First Approved	FY'08
Initial Cost Estimate	760
Cost Estimate Last FY	19,625
Present Cost Estimate	20,758
Approved Request Last FY	3,983
Total Expense & Encumbrances	
Approval Request Year 1	3,553

G. Status Information	
Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	3.0 / 20.0 MGD

H. Map
MAP NOT AVAILABLE

Brandywine Woods WWPS & FM

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Mattawoman 21; Patuxent South 22
S - 000075.23		Add			Planning Areas	Brandywine & Vicinity PA 85A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	763	35	250	478	277	101	75	25			
Land											
Construction	2,298			2,298	799	898	501	100			
Other	454		38	416	161	150	86	19			
Total	3,515	35	288	3,192	1,237	1,149	662	144			

C. Funding Schedule (000's)

Contributions/Other	3,515	35	288	3,192	1,237	1,149	662	144			
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a 0.28 MGD wastewater pumping station and 1,160 feet of force main to serve the Brandywine Woods property.

BENEFIT

Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION

Brandywine Woods Hydraulic Planning Analysis (June 2021).

COST CHANGE

Not applicable.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of \$3,515,000. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Prince George's County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$24	
Debt Service		
Total Cost	\$24	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	3,515
Cost Estimate Last FY	
Present Cost Estimate	3,515
Approved Request Last FY	
Total Expense & Encumbrances	35
Approval Request Year 1	1,237

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	700
Capacity	0.28 MGD

H. Map



Parkway WRRF Facility & Electrical Upgrades

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Parkway 17
S - 000077.21		Change			Planning Areas	South Laurel-Montpelier PA 62

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	4,182		916	3,266	2,164	239	239	239	239	146	
Land											
Construction	14,780			14,780	2,520	5,580	4,080	2,080	416	104	
Other	1,897		92	1,805	468	582	432	232	66	25	
Total	20,859		1,008	19,851	5,152	6,401	4,751	2,551	721	275	

C. Funding Schedule (000's)

WSSC Bonds	20,859		1,008	19,851	5,152	6,401	4,751	2,551	721	275	
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of improvements at the Parkway WRRF required to replace the transformers and associated feeders; to replace the generator building switchgear; to replace the blowers and associated electrical gear; to replace motor control centers in multiple buildings; to upgrade the plant utility water system, including the pumping equipment and distribution system; and to upgrade the influent pump station, including pump replacement and related structural, mechanical, and electrical improvements.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Employee Safety: This project includes components that help protect the health and safety of employees.

JUSTIFICATION

The Parkway WRRF systems were originally constructed in the 1970s. The equipment has exceeded its useful life, replacement parts are obsolete, and repair/maintenance represents a safety risk. There is an increasing risk of critical system failure and prolonged outage recovery. This replacement, rehabilitation, and upgrade work was recommended as part of WSSC Water's Asset Management Program (CNPV #48, CNPV #66, CNPV #137 and CNPV #184). Parkway WRRF Electrical Upgrades and Backup Power Business Case (January 2020).

COST CHANGE

The schedule and expenditure projections have been updated to reflect the revised scope of the project.

OTHER

The project scope has been revised to include other improvements to aging equipment at the Parkway WRRF that were identified and validated through WSSC Water's Asset Management Program. The schedule and expenditure projections shown in Block B above are preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work was conducted under multiple ESP projects, including S-627.17 Parkway WRRF Electrical Upgrades, S-627.19 Parkway WRRF Plant Utility Water System Upgrades, and S-627.20 Parkway Influent Pump Replacements. Work on these projects was postponed one year due to uncertainty related to the COVID-19 pandemic.

COORDINATION

Coordinating Agencies: Maryland Department of the Environment
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$1,206	29
Total Cost	\$1,206	29
Impact on Water and Sewer Rate		

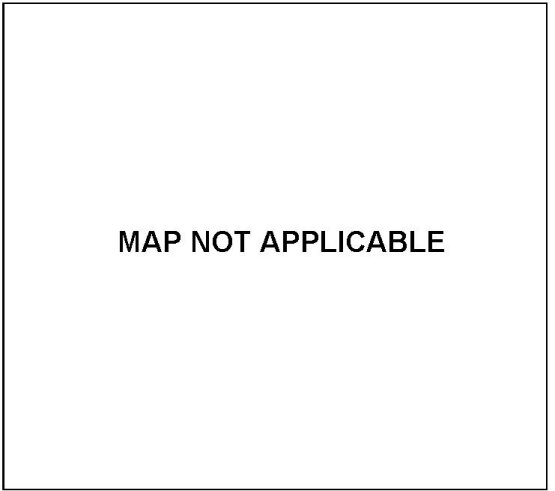
F. Approval and Expenditure Data (000's)

Date First in Program	FY'22
Date First Approved	FY'22
Initial Cost Estimate	11,066
Cost Estimate Last FY	11,066
Present Cost Estimate	20,859
Approved Request Last FY	1,760
Total Expense & Encumbrances	
Approval Request Year 1	5,152

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	March 2028
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Southlake Subdivision Sewer

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones						
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Western Branch 14					
S - 000086.19		Change			Planning Areas	Mitchellville & Vicinity PA 74A					

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	260	236	20	4	4						
Land											
Construction	572	522	45	5	5						
Other	11		10	1	1						
Total	843	758	75	10	10						

C. Funding Schedule (000's)

Contributions/Other	843	758	75	10	10						
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D. Description & Justification

DESCRIPTION
This project provides for the planning, design, and construction of 970 feet of 15-inch and 20-inch diameter sewer main to serve the Southlake Subdivision.

BENEFIT
Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION
Karington Hydraulic Planning Analysis (May 2006).

COST CHANGE
Not applicable.

OTHER
The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. Design and construction will be performed by the developer under a System Extension Permit. The estimated completion date is developer dependent. The project name was changed from Karington to Southlake at the request of the developer. No WSSC Water rate supported debt will be used for this project.

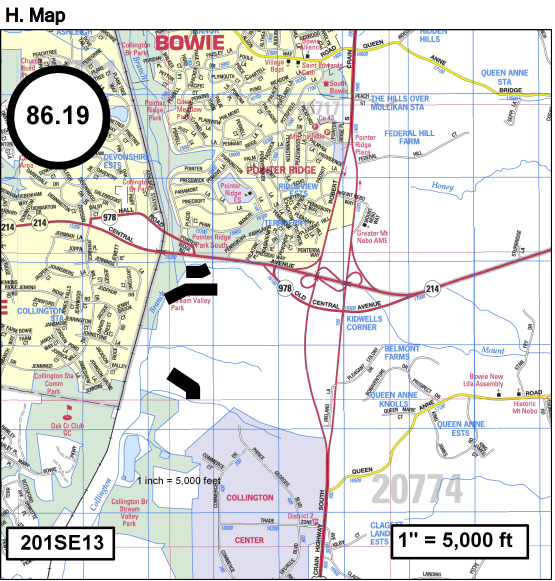
COORDINATION
Coordinating Agencies: Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Prince George's County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$20	
Debt Service		
Total Cost	\$20	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'08
Date First Approved	FY'08
Initial Cost Estimate	801
Cost Estimate Last FY	884
Present Cost Estimate	843
Approved Request Last FY	194
Total Expense & Encumbrances	758
Approval Request Year 1	10

G. Status Information	
Land Status	Not Applicable
Project Phase	Construction
Percent Complete	95 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	2,102
Capacity	1.7 to 2.87 MGD



Horsepen WWPS & FM

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Horsepen 19
S - 000087.19		Change			Planning Areas	Bowie & Vicinity PA 71A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	3,997	1,675	1,204	1,118	584	303	128	103			
Land											
Construction	29,300		700	28,600	4,800	11,700	7,100	5,000			
Other	3,164		191	2,973	539	1,201	723	510			
Total	36,461	1,675	2,095	32,691	5,923	13,204	7,951	5,613			

C. Funding Schedule (000's)

WSSC Bonds	3,644	167	209	3,268	592	1,320	795	561			
SDC	32,817	1,508	1,886	29,423	5,331	11,884	7,156	5,052			

D. Description & Justification

DESCRIPTION
This project provides for the planning, design, and construction of the modifications to the Horsepen Wastewater Pumping Station and replacement of the Horsepen Force Main. The rehabilitation will increase the pumping station's capacity from 4.22 MGD to 8.40 MGD. In addition, the approximately 21,500-foot force main will be relocated and upsized from 18-inch to 24-inch diameter to accommodate the additional flow.

BENEFIT
Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.

JUSTIFICATION
Peak flow rates experienced at the station have exceeded the station's safe capacity; the projected peak flow conditions have increased to 8.40 MGD. Additionally, the existing pumping station equipment is over 30 years old and has reached the end of its useful life. The replacement of the force main is critical due to its age of service and location within environmentally sensitive areas. Breaks occurred along the force main in 2011, 2012, 2013, and 2018.

COST CHANGE
Not applicable.

OTHER
The project scope has remained the same. The schedule and expenditure projections are design level estimates and may change based upon site conditions and design constraints. Preliminary planning work for the pump station began in FY'18 under ESP project S-640.02, Horsepen WWPS Reliable Capacity Expansion. Future land costs are included in project S-203.00.

COORDINATION
Coordinating Agencies: City of Bowie; Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Prince George's County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$211	27
Total Cost	\$211	27
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'22
Date First Approved	FY'22
Initial Cost Estimate	35,349
Cost Estimate Last FY	35,349
Present Cost Estimate	36,461
Approved Request Last FY	4,146
Total Expense & Encumbrances	1,675
Approval Request Year 1	5,923

G. Status Information	
Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	30 %
Estimated Completion Date	December 2025
Growth	90%
System Improvement	10%
Environmental Regulation	
Population Served	
Capacity	8.40 MGD

H. Map
MAP NOT APPLICABLE

Freeway Airport WWPS & FM

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Western Branch 14
S - 000087.20		Add			Planning Areas	Mitchellville & Vicinity PA 74A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	778	53	250	475	275	100	75	25			
Land											
Construction	2,300			2,300	800	900	500	100			
Other	455		38	417	162	150	86	19			
Total	3,533	53	288	3,192	1,237	1,150	661	144			

C. Funding Schedule (000's)

Contributions/Other	3,533	53	288	3,192	1,237	1,150	661	144			
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 3,600 feet of force main and a new wastewater pumping station to provide service to the Freeway Airport subdivision.

BENEFIT

Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION

Freeway Airport Hydraulic Planning Analysis (May 2021).

COST CHANGE

Not applicable.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated cost of \$3,533,000. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Maryland Department of the Environment; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Prince George's County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$76	
Debt Service		
Total Cost	\$76	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	3,533
Cost Estimate Last FY	
Present Cost Estimate	3,533
Approved Request Last FY	
Total Expense & Encumbrances	53
Approval Request Year 1	1,237

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	1,600
Capacity	0.5 MGD

H. Map



Colmar Manor WWPS & FM

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Lower Anacostia 9
S - 000089.26		Add			Planning Areas	Hyattsville-Riverdale-Mount Rainier PA 68

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,710	10	250	1,450	150	100	200	500	250	250	
Land											
Construction	4,000			4,000					2,000	2,000	
Other	857		38	819	23	15	30	75	338	338	
Total	6,567	10	288	6,269	173	115	230	575	2,588	2,588	

C. Funding Schedule (000's)

WSSC Bonds	6,567	10	288	6,269	173	115	230	575	2,588	2,588	
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a 0.799 MGD wastewater pumping station and 726 linear feet of force main. The relocated wastewater pumping station and force main will provide service to the existing and future Spring Gardens service area.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

The existing pumping station and force main were installed in 1956 and have reached the end of their useful lives. The station is outdated and could be considered "piece-meal" due to a number of in-house modifications through the decades. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program (CNPV #189).

COST CHANGE

Not applicable.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of \$6,567,000. The schedule and expenditure projections shown in Block B above are preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the upgrades began in FY'21 under ESP S-636.75, Colmar Manor WWPS Upgrade with Forcemain. Future land costs are included in project S-203.00.

COORDINATION

Coordinating Agencies: Maryland-National Capital Park & Planning Commission
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$380	29
Total Cost	\$380	29
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	6,567
Cost Estimate Last FY	
Present Cost Estimate	6,567
Approved Request Last FY	
Total Expense & Encumbrances	10
Approval Request Year 1	173

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	June 2028

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	0.799 MGD

H. Map



Piscataway WRRF Facility Upgrades

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones						
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Piscataway Creek 4					
S - 000096.14		Change			Planning Areas	Accokeek PA 83					

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	24,248	16,448	2,700	5,100	2,800	1,700	600				
Land											
Construction	144,583	80,183	25,500	38,900	19,100	14,600	5,200				
Other	3,610		1,410	2,200	1,095	815	290				
Total	172,441	96,631	29,610	46,200	22,995	17,115	6,090				

C. Funding Schedule (000's)

WSSC Bonds	172,441	96,631	29,610	46,200	22,995	17,115	6,090				
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of improvements at the Piscataway WRRF required to prevent plant overflows or permit violations which can occur during significant rainfall events. The work will remove bottlenecks within the plant process trains, address the physical capacity of the system, and rehabilitate existing equipment that has reached its expected service life, ensuring the ability of the plant to achieve its permit-required level of service.

BENEFIT

System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.; Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.

JUSTIFICATION

In the Asset Management Plan the condition assessment process identified several areas of concern within the plant process trains that could potentially result in capacity or level of service failures during significant rainfall events. The Facility Plan provided a more detailed study that included the development of a plant-wide hydraulic and biological process model, CCTV inspection of buried piping, analysis of soil borings, and Level 3 Condition Assessment of electrical systems. Projects within the Facility Plan were justified and prioritized using WSSC Water's Asset Management Strategy guidelines, based on life cycle costs, business risk exposure, and needs prioritization. Piscataway WRRF Asset Management Plan, GHD, Inc. (March 2011); Piscataway WRRF Facility Plan, AECOM (January 2014); Wastewater Treatment System Asset Management Plan (December 2016).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above represent either estimates at the bid ready design or actual construction bids for all projects. These costs may change based upon site conditions and additional bids received. The Asset Management Office has determined the priority of the recommended projects.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Prince George's County Department of Environmental Resources; Prince George's County Government; U.S. Army Corps of Engineers
Coordinating Projects: A - 000103.00 - Energy Performance Program; S - 000103.02 - Piscataway Bioenergy; S - 000170.08 - Septage Discharge Facility Planning & Implementation

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$9,972	26
Total Cost	\$9,972	26
Impact on Water and Sewer Rate	\$0.02	26

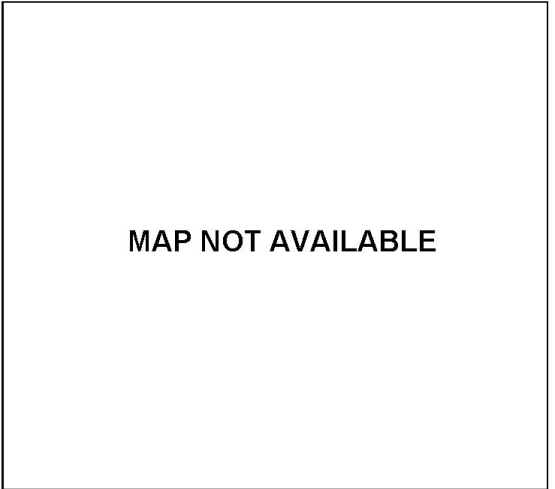
F. Approval and Expenditure Data (000's)

Date First in Program	FY'12
Date First Approved	FY'12
Initial Cost Estimate	66,396
Cost Estimate Last FY	169,830
Present Cost Estimate	172,441
Approved Request Last FY	44,153
Total Expense & Encumbrances	96,631
Approval Request Year 1	22,995

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Construction
Percent Complete	45 %
Estimated Completion Date	June 2025
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	30 MGD

H. Map



Forest Heights WWPS & FM

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000113.13		Add

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	
Drainage Basins	Oxon Run 18
Planning Areas	The Heights PA 76A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,823	273	150	1,400	150	50	200	500	250	250	
Land											
Construction	6,000			6,000					3,000	3,000	
Other	1,135		23	1,112	23	8	30	75	488	488	
Total	8,958	273	173	8,512	173	58	230	575	3,738	3,738	

C. Funding Schedule (000's)

WSSC Bonds	1,614	49	31	1,534	31	10	41	104	674	674	
SDC	7,344	224	142	6,978	142	48	189	471	3,064	3,064	

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of the modifications to the existing 2.28 MGD wastewater pumping station and replacement of approximately 1,940 feet of existing force main.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Capacity: This project will enhance existing infrastructure by building additional capacity in order to meet existing and/or future demand.

JUSTIFICATION

The existing pumping station and 14-inch diameter cast iron force main were built in 1946 and have reached the end of their useful life. In addition, replacement parts are unavailable since the equipment is obsolete. Replacement of the existing force main is in accordance with an initiative to prioritize replacing force mains that have reached their anticipated life expectancy. This upgrade work was recommended as part of WSSC Water's Asset Management Program (CNPV #192).

COST CHANGE

Not applicable.

OTHER

The present project scope was developed for the FY'23 CIP and has an estimated total cost of \$8,958,000. The schedule and expenditure projections shown in Block B above are based on preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work for the upgrades and improvements began in FY'21 under ESP S-650.25, Forest Heights WWPS Upgrades/Improvements. Future land costs are included in project S-203.00.

COORDINATION

Coordinating Agencies: Maryland Department of Natural Resources; Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$93	29
Total Cost	\$93	29
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	8,958
Cost Estimate Last FY	
Present Cost Estimate	8,958
Approved Request Last FY	
Total Expense & Encumbrances	273
Approval Request Year 1	173

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	10 %
Estimated Completion Date	June 2028
Growth	82%
System Improvement	18%
Environmental Regulation	
Population Served	
Capacity	2.28 MGD

H. Map



Viva White Oak Sewer Augmentation

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Paint Branch 2
S - 000118.10		Change			Planning Areas	Colesville-White Oak & Vicinity PA 33; Fairland-Beltsville (PG)

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	194			194	78	49	29	20	9	9	
Land											
Construction	785			785	313	196	118	78	40	40	
Other	147			147	59	37	22	15	7	7	
Total	1,126			1,126	450	282	169	113	56	56	

C. Funding Schedule (000's)

Contributions/Other	1,126			1,126	450	282	169	113	56	56	
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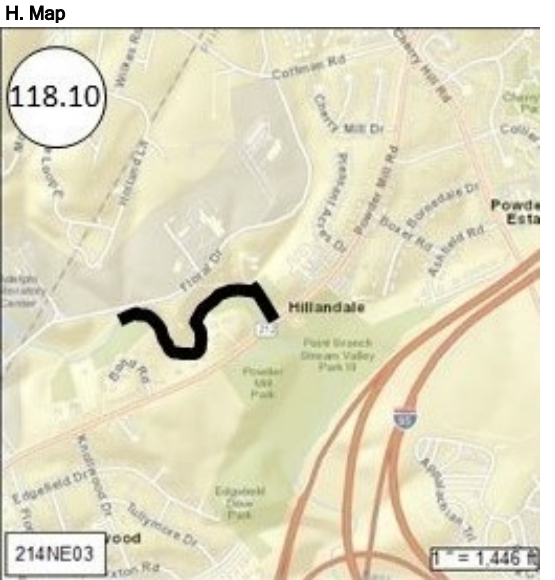
D. Description & Justification

DESCRIPTION This project provides for the planning, design, and construction of 2,500 feet of 24-inch and 30-inch diameter sewer mains. These sewers will replace existing 21-inch and 27-inch diameter sewer mains in the Paint Branch Basin downstream of the West Farm Creek Tributary and terminate at Powder Mill Road.
BENEFIT Economic Development: This growth project supports the economic development goals of the Counties.
JUSTIFICATION Viva White Oak Hydraulic Planning Analysis (July 2019).
COST CHANGE Not applicable.
OTHER The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.
COORDINATION Coordinating Agencies: Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Prince George's County Department of Environmental Resources; Prince George's County Department of Permitting Inspection and Enforcement Coordinating Projects: S - 000118.09 - Viva White Oak Sewer Main; W - 000113.21 - Viva White Oak Water Main

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'22
Date First Approved	FY'22
Initial Cost Estimate	1,080
Cost Estimate Last FY	1,080
Present Cost Estimate	1,126
Approved Request Last FY	432
Total Expense & Encumbrances	
Approval Request Year 1	450

G. Status Information	
Land Status	Not Applicable
Project Phase	Planning
Percent Complete	20 %
Estimated Completion Date	Developer Dependent
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	11.5 MGD



Pleasant Valley Sewer Main, Part 2

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Piscataway Creek 4
S - 000131.05		Change			Planning Areas	Piscataway & Vicinity PA 84

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	195	49	68	78	61	10	7				
Land											
Construction	681		130	551	331	151	69				
Other	124		30	94	59	24	11				
Total	1,000	49	228	723	451	185	87				

C. Funding Schedule (000's)

Contributions/Other	1,000	49	228	723	451	185	87				
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 2,750 feet of 21-inch diameter sewer main to provide service to the Estates of Pleasant Valley and the Ridges III Subdivisions.

BENEFIT

Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION

Estates of Pleasant Valley Hydraulic Planning Analysis (Amended March 2010).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION

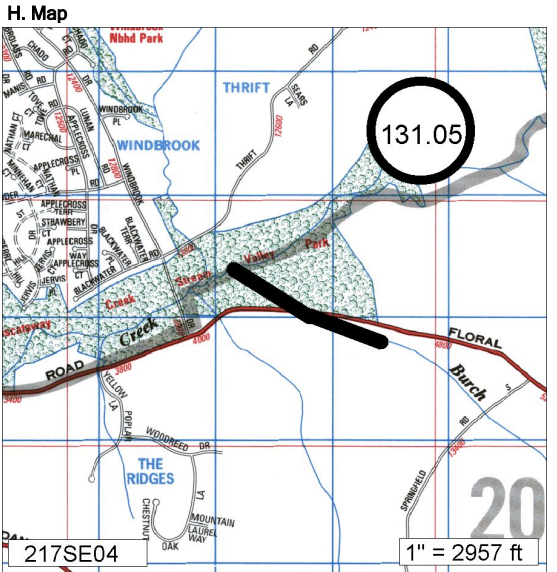
Coordinating Agencies: Maryland Department of the Environment; Maryland-National Capital Park & Planning Commission; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement

Coordinating Projects: S - 000131.07 - Pleasant Valley Sewer Main, Part 1

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$58	
Debt Service		
Total Cost	\$58	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'05
Date First Approved	FY'05
Initial Cost Estimate	586
Cost Estimate Last FY	962
Present Cost Estimate	1,000
Approved Request Last FY	432
Total Expense & Encumbrances	49
Approval Request Year 1	451

G. Status Information	
Land Status	Not Applicable
Project Phase	Design
Percent Complete	60 %
Estimated Completion Date	Developer Dependent
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	2,000
Capacity	3.5 MGD



Pleasant Valley Sewer Main, Part 1

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Piscataway Creek 4
S - 000131.07		Change			Planning Areas	Accokeek PA 83

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	397	73	176	148	122	26					
Land											
Construction	1,314		285	1,029	838	191					
Other	246		69	177	144	33					
Total	1,957	73	530	1,354	1,104	250					

C. Funding Schedule (000's)

Contributions/Other	1,957	73	530	1,354	1,104	250					
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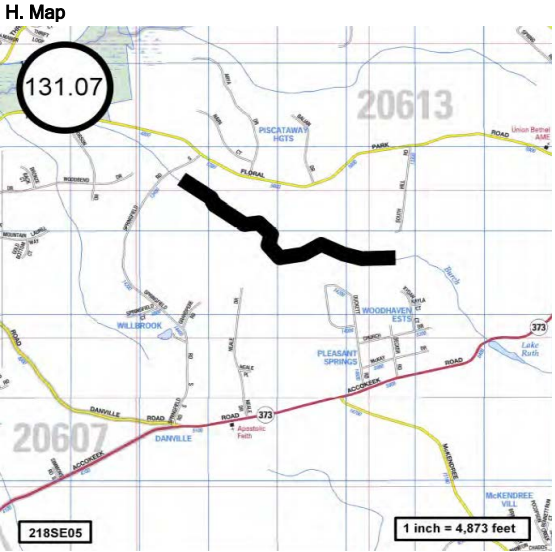
D. Description & Justification

DESCRIPTION This project provides for the planning, design, and construction of 10,000 feet of 15-inch and 18-inch diameter sewer main to serve The Estates at Pleasant Valley Subdivision.
BENEFIT Economic Development: This growth project supports the economic development goals of the Counties.
JUSTIFICATION Estates of Pleasant Valley Hydraulic Planning Analysis (Amended March 2010).
COST CHANGE Not applicable.
OTHER The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.
COORDINATION Coordinating Agencies: Maryland-National Capital Park & Planning Commission; Potomac Electric Power Company; Prince George's County Government Coordinating Projects: S - 000131.05 - Pleasant Valley Sewer Main, Part 2

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$211	
Debt Service		
Total Cost	\$211	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'10
Date First Approved	FY'10
Initial Cost Estimate	1,303
Cost Estimate Last FY	1,882
Present Cost Estimate	1,957
Approved Request Last FY	1,060
Total Expense & Encumbrances	73
Approval Request Year 1	1,104

G. Status Information	
Land Status	Not Applicable
Project Phase	Design
Percent Complete	80 %
Estimated Completion Date	Developer Dependent
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	2,800
Capacity	1.7 to 2.2 MGD



Calm Retreat Sewer Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S - 000131.11		Change

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	
Drainage Basins	Mattawoman 21
Planning Areas	Brandywine & Vicinity PA 85A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	416	70	15	331	301	30					
Land											
Construction	480			480	440	40					
Other	124		2	122	111	11					
Total	1,020	70	17	933	852	81					

C. Funding Schedule (000's)

Contributions/Other	1,020	70	17	933	852	81					
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 2,914 feet of 15-inch diameter sewer main to serve the Calm Retreat Subdivision.

BENEFIT

Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION

Milestone Letter of Finding Issued (May 2020).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC Water rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Maryland-National Capital Park & Planning Commission; Prince George's County Government

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$61	
Debt Service		
Total Cost	\$61	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'22
Date First Approved	FY'22
Initial Cost Estimate	981
Cost Estimate Last FY	981
Present Cost Estimate	1,020
Approved Request Last FY	883
Total Expense & Encumbrances	70
Approval Request Year 1	852

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	0 %
Estimated Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Swan Creek WWPS & FM

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Piscataway Creek 4
S - 000131.12		Change			Planning Areas	South Potomac Sector PA 80

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	2,195	1,675	320	200	50	100	50				
Land											
Construction	11,478	7,368	10	4,100	1,350	2,700	50				
Other	463		33	430	140	280	10				
Total	14,136	9,043	363	4,730	1,540	3,080	110				

C. Funding Schedule (000's)

WSSC Bonds	14,136	9,043	363	4,730	1,540	3,080	110				
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D. Description & Justification

DESCRIPTION This project provides for the planning, design, and construction of the modifications to the existing 3.90 MGD wastewater pumping station and replacement of approximately 5,500 feet of existing force main.
BENEFIT Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.
JUSTIFICATION The existing pumping station and 24-inch diameter PCCP force main were built in 1966 and have reached the end of their useful life. Replacement parts are obsolete and unavailable.
COST CHANGE The schedule and expenditure projections for the force main replacement have been updated based on revised planning level estimates that reflect an increase to the duration and cost of construction.
OTHER The project scope has remained the same. The schedule and expenditure projections shown in Block B above are a mix of actual bid costs and planning level estimates and are expected to change based upon site conditions and design constraints. The WWPS costs are based on actual design and construction bids. The WWPS construction will be completed by FY'22. The force main replacement costs are based on preliminary planning level estimates. The force main work is estimated to be completed in FY'25. Early work on Swan Creek WWPS Upgrades began in FY'16 under ESP project S- 653.01, Swan Creek Facility Evaluation and Pump Replacement.
COORDINATION Coordinating Agencies: Maryland Department of the Environment; Maryland State Highway Administration; Maryland-National Capital Park & Planning Commission; Prince George's County Department of Public Works and Transportation; Prince George's County Department of Permitting Inspection and Enforcement Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$817	26
Total Cost	\$817	26
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'22
Date First Approved	FY'22
Initial Cost Estimate	12,186
Cost Estimate Last FY	12,186
Present Cost Estimate	14,136
Approved Request Last FY	1,793
Total Expense & Encumbrances	9,043
Approval Request Year 1	1,540

G. Status Information	
Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	30 %
Estimated Completion Date	September 2024
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	3.90 MGD

H. Map
MAP NOT APPLICABLE

Western Branch WRRF Process Train Improvements

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Western Branch 14
S - 000157.02		Change			Planning Areas	Upper Marlboro & Vicinity PA 79

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	14,136	2,224	2,093	9,779	2,496	2,423	2,209	1,641	778	232	40
Land											
Construction	52,177		3,300	48,377	7,000	14,920	14,820	7,579	3,428	630	500
Other	6,409		539	5,816	950	1,734	1,703	922	421	86	54
Total	72,722	2,224	5,932	63,972	10,446	19,077	18,732	10,142	4,627	948	594

C. Funding Schedule (000's)

WSSC Bonds	72,722	2,224	5,932	63,972	10,446	19,077	18,732	10,142	4,627	948	594
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D. Description & Justification

<p>DESCRIPTION</p> <p>This project provides for the planning, design, and construction of improvements at the Western Branch WRRF required to replace the influent flow splitter box and main electrical substation; to rehabilitate aging concrete treatment structures and tertiary filters; to upgrade clarifier equipment, the potable water system and the solids truck loading operations; and to provide back-up power capability for treatment reliability.</p> <p>BENEFIT</p> <p>Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.; Employee Safety: This project includes components that help protect the health and safety of employees.</p> <p>JUSTIFICATION</p> <p>The Plant was originally built in the early 1970s. Weathering and corrosion of concrete structures and metal equipment require rehabilitation and replacement to extend the useful life and maintain safe access and operation of the process treatment reactors, clarifiers, and filters. Medium voltage electrical distribution equipment is at the end of its useful life, replacement parts are obsolete, and repair/maintenance represents a safety risk. Back-up power generators are being added to the Plant to provide power reliability to maintain treatment operations during weather related power outages. The potable water well and distribution system is over 50 years old and requires replacement and upgrade.</p> <p>This replacement, rehabilitation, and upgrade work was recommended by various business case evaluations undertaken as part of WSSC Water's Asset Management Program.</p> <p>COST CHANGE</p> <p>The schedule and expenditure projections have been updated to reflect the revised scope of the project.</p> <p>OTHER</p> <p>The project scope has been revised to include other process improvements and rehabilitation of aging equipment at the Western Branch WRRF that were identified and validated through WSSC Water's Asset Management Program. Schedule and expenditure projections shown in Block B above are a mix of construction cost, design, and planning level estimates and are expected to change as design progresses. Early work began under multiple ESP projects.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Maryland Department of the Environment; Prince George's County Government Coordinating Projects: Not Applicable</p>

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$4,206	29
Total Cost	\$4,206	29
Impact on Water and Sewer Rate	\$0.01	29

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'20
Date First Approved	FY'20
Initial Cost Estimate	14,859
Cost Estimate Last FY	62,543
Present Cost Estimate	72,722
Approved Request Last FY	7,216
Total Expense & Encumbrances	2,224
Approval Request Year 1	10,446

G. Status Information	
Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	5 %
Estimated Completion Date	June 2028
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	30.6 MGD

<p>H. Map</p> <p>MAP NOT APPLICABLE</p>
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PENDING CLOSE-OUT PROJECT LISTING
PRINCE GEORGE'S COUNTY SEWER PROJECTS
 (ALL FIGURES IN THOUSANDS)

Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'21	Estimated Expenditures FY'22	Remarks
S-77.20	Parkway North Substation Replacement	\$9,532	\$9,405	\$127	Project completion expected in Aug. 2021.
S-89.25	Little Anacostia WWPS & FM	9,821	8,607	1,214	Project completion expected in Oct. 2021.
	TOTALS	\$19,353	\$18,012	\$1,341	

Section 7 - Information Only Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

INFORMATION ONLY PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 21	EST. EXPEND 22	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PAGE NUM
						YR 1 23	YR 2 24	YR 3 25	YR 4 26	YR 5 27	YR 6 28		
W-1.00	Water Reconstruction Program	882,399	0	83,483	798,916	99,336	111,186	131,975	145,058	152,624	158,737	0	7-3
S-1.01	Sewer Reconstruction Program	366,920	0	59,789	307,131	50,540	53,265	47,882	49,796	51,787	53,861	0	7-5
A-100.01	Anacostia Depot Reconfiguration	42,838	10	2,548	40,280	1,314	14,494	14,928	9,544	0	0	0	7-7
A-101.04	Laboratory Division Building Expansion	27,288	1,993	5,665	19,630	12,320	4,744	2,566	0	0	0	0	7-8
A-101.06	RGH Building Upgrades	13,750	0	550	13,200	1,100	8,470	3,630	0	0	0	0	7-9
A-102.00	Engineering Support Program	136,000	0	18,000	118,000	18,000	20,000	20,000	20,000	20,000	20,000	0	7-10
A-103.00	Energy Performance Program	21,074	0	5,457	15,617	5,717	2,475	550	2,750	2,750	1,375	0	7-11
W-105.00	Water Storage Facility Rehabilitation Program	39,000	0	3,000	36,000	4,000	5,000	6,000	7,000	7,000	7,000	0	7-12
W-107.00	Specialty Valve Vault Rehabilitation Program	7,594	0	1,283	4,716	1,691	1,462	745	339	405	74	1,595	7-13
A-110.00	Other Capital Programs	485,562	0	63,942	421,620	57,702	58,848	67,898	72,271	78,643	86,258	0	7-14
S-300.01	D'Arcy Park North Relief Sewer	850	0	275	575	290	285	0	0	0	0	0	7-15
TOTALS		2,023,275	2,003	243,992	1,775,685	252,010	280,229	296,174	306,758	313,209	327,305	1,595	

NEW PROJECT LISTING
INFORMATION ONLY PROJECTS
 (ALL FIGURES IN THOUSANDS)

Agency Number	Project Name	Total Project Cost	Budget Year Cost	Page Number
A-100.01	Anacostia Depot Reconfiguration	\$42,838	\$1,314	7-7
A-101.06	RGH Building Upgrades	\$13,750	\$1,100	7-9
	TOTALS	\$56,588	\$2,414	

Water Reconstruction Program

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Bi-County
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000001.00		Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	127,735		11,671	116,064	13,296	15,535	18,688	20,908	23,351	24,286	
Land											
Construction	655,161		61,664	593,497	74,489	82,920	98,564	108,126	112,448	116,950	
Other	99,503		10,148	89,355	11,551	12,731	14,723	16,024	16,825	17,501	
Total	882,399		83,483	798,916	99,336	111,186	131,975	145,058	152,624	158,737	

C. Funding Schedule (000's)

WSSC Bonds	882,399		83,483	798,916	99,336	111,186	131,975	145,058	152,624	158,737	
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D. Description & Justification

DESCRIPTION

The purpose of this program is to renew and extend the useful life of water mains, house connections, and large water services. Portions of the water system are more than 80 years old. Bare cast iron mains, installed generally before 1965, permit the build-up of tuberculation which can reduce flow and cause discoloration at the customer's tap. Selected replacement is necessary to supply water in sufficient quantity, quality, and pressure for domestic use and fire fighting. As the system ages, water main breaks are increasing. Selected mains are chronically breaking and other mains are undersized for the current flow standards. Replacement, rehabilitation via structural lining, and the addition of cathodic protection to these mains provides added value to the customer. Galvanized, copper, and cast iron water mains, as well as all other water main appurtenances including meter and PRV vaults are replaced on an as needed basis when they have exceeded their useful life.

*EXPENDITURES FOR WATER RECONSTRUCTION ARE EXPECTED TO CONTINUE INDEFINITELY.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Reliability: This project will improve service reliability through fewer and shorter service interruptions.; Water Quality: This project supports WSSC Water's mission to provide safe, clean water by improving the quality and/or safety of drinking water.

JUSTIFICATION

The program's projected work units and expenditure levels for FY'23 are as follows: design and construction of main replacement and associated water house connection renewals, 37 miles - \$79.9M; cathodic protection - \$1.8M; design and construction of large water service replacements - \$11.6M; emergency contracts at depots - \$5.4M; pipe armoring - \$0.6M. Note: The specific mix and type of water main reconstruction may vary in any given year depending on the nature and priority of the work to be addressed. The program level may be adjusted in future years based upon the results of the Asset Management Plan. Based upon the prioritization and recommendations in the FY'22 Enterprise Asset Management Plan, the number of miles of water main replacement will begin to ramp back up approximately 5 miles per year.

Flow studies, water system modeling, and field surveys are routinely conducted. The annual Buried Water Assets System Asset Management Plan identifies the business risk exposure of the water distribution system. FY'23 Enterprise Asset Management Plan (May 2021).

COST CHANGE

Program costs reflect the latest expenditure and schedule estimates based on the recommendations from the FY'23 Enterprise Asset Management Plan (May 2021).

OTHER

The water reconstruction program has been ongoing since 1979. Funding in the six-year program period is subject to Spending Affordability Guideline limits. The following work accomplishments through FY'20 summarize the magnitude of the reconstruction effort: 1,952 miles rehabilitated or replaced; 317 large water service/meters replaced. It is anticipated water reconstruction activity will be a perpetual element of future work programs.

COORDINATION

Coordinating Agencies: Local Community Civic Associations; Maryland State Highway Administration; Montgomery County Department of Public Works and

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$51,029	
Total Cost	\$51,029	
Impact on Water and Sewer Rate	\$0.11	

F. Approval and Expenditure Data (000's)

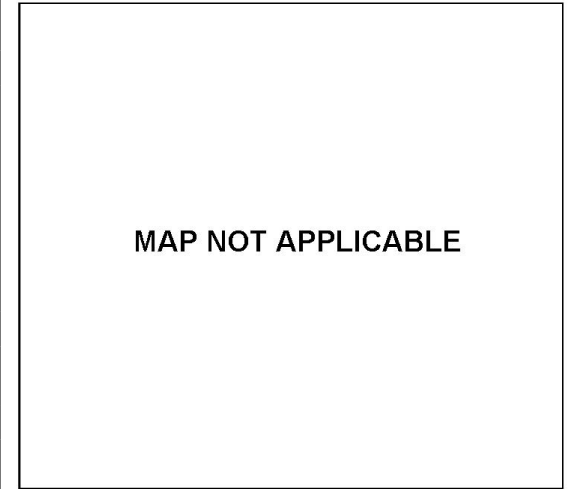
Date First in Program	
Date First Approved	
Initial Cost Estimate	
Cost Estimate Last FY	798,631
Present Cost Estimate	882,399
Approved Request Last FY	83,563
Total Expense & Encumbrances	
Approval Request Year 1	99,336

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Sewer Reconstruction Program

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Bi-County 30
S - 000001.01		Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	40,796		8,610	32,186	7,747	8,058	3,857	4,012	4,173	4,339	
Land											
Construction	292,771		45,744	247,027	38,199	40,365	39,671	41,259	42,907	44,626	
Other	33,353		5,435	27,918	4,594	4,842	4,354	4,525	4,707	4,896	
Total	366,920		59,789	307,131	50,540	53,265	47,882	49,796	51,787	53,861	

C. Funding Schedule (000's)

WSSC Bonds	226,920		39,789	187,131	30,540	33,265	27,882	29,796	31,787	33,861	
State Aid	140,000		20,000	120,000	20,000	20,000	20,000	20,000	20,000	20,000	

D. Description & Justification

DESCRIPTION

This program provides for comprehensive sewer system rehabilitation in residential areas of sewer mains less than 15-inches in diameter and sewer house connections, addressing infiltration and inflow control, and exposed pipe problems. This program does not include any major capital projects (e.g. CIP size relief or replacement sewers). These are funded separately in the CIP.

*EXPENDITURES FOR SEWER RECONSTRUCTION ARE EXPECTED TO CONTINUE INDEFINITELY.

BENEFIT

Regulatory & Other Agreements: This project is required to meet regulatory requirements, multi-jurisdictional agreements, and/or consent decrees.; Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.

JUSTIFICATION

The projected work units and expenditure levels for FY'23 are as follows: 20 miles of mainline design & construction - \$29.3M; 6 miles of lateral line construction and associated sewer house connection renewals - \$7.7M; emergency repairs - \$2.4M; Piscataway rehabilitation - \$11.2M. Note: The specific mix and type of sewer reconstruction may vary in any given year depending on identified system defects. Projections are based on historical experience with regards to timing of design and construction work and availability of authorized contractors.

Comprehensive Basin Studies, Sewer System Evaluation Surveys, Line Blockage Assessments, field surveys, closed-circuit TV inspections, and/or other activities investigating specific portions of the collection system. Annual Buried Wastewater Assets System Asset Management Plan. FY'23 Enterprise Asset Management Plan (May 2021).

COST CHANGE

Program costs reflect the latest schedule and expenditure estimates based upon the current plan for the completion of Phase 2 (Priority 2 and Priority 3) Consent Decree work, the rehabilitation work in the Piscataway Basin, and the recommendations from the Buried Wastewater Assets System Asset Management Plan.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above reflect the terms of the Sanitary Sewer Overflow Consent Decree between WSSC Water, Maryland Department of the Environment (MDE), and the EPA, entered into on December 7, 2005. WSSC Water has applied for low interest loans through the MDE's Water Quality Administration State Revolving Loan Program and grant funding from the MDE Bay Restoration Fund for portions of this program. The sewer reconstruction program was established in 1979. Expenditures for grouting repairs are included in the operating budget. The following work accomplishments through FY'21 summarize the magnitude of this reconstruction effort: sewer main reconstruction, 549 miles; and sewer house connection renewals, 23,380. It is anticipated that sewer reconstruction activity will be a perpetual element of future work programs.

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$13,123	
Total Cost	\$13,123	
Impact on Water and Sewer Rate	\$0.03	

F. Approval and Expenditure Data (000's)

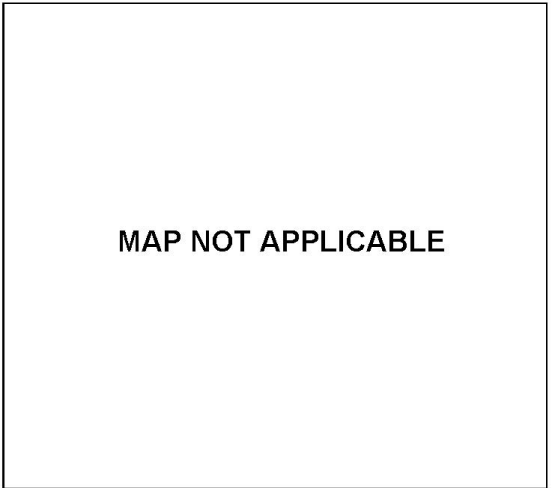
Date First in Program	
Date First Approved	
Initial Cost Estimate	
Cost Estimate Last FY	482,660
Present Cost Estimate	366,920
Approved Request Last FY	71,083
Total Expense & Encumbrances	
Approval Request Year 1	50,540

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map



COORDINATION

Coordinating Agencies: Local Community Civic Associations; Maryland Department of the Environment; Maryland State Highway Administration; Montgomery County Department of Public Works and Transportation; Montgomery County Government; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement; U.S. Environmental Protection Agency, Region III
Coordinating Projects: S - 000170.09 - Trunk Sewer Reconstruction Program

Anacostia Depot Reconfiguration

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
A - 000100.01		Add			Planning Areas	Landover & Vicinity PA 72

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	5,410	10	2,316	3,084	1,194	738	760	392			
Land											
Construction	33,532			33,532		12,438	12,810	8,284			
Other	3,896		232	3,664	120	1,318	1,358	868			
Total	42,838	10	2,548	40,280	1,314	14,494	14,928	9,544			

C. Funding Schedule (000's)

WSSC Bonds	42,838	10	2,548	40,280	1,314	14,494	14,928	9,544			
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D. Description & Justification

<p>DESCRIPTION</p> <p>This project provides for the planning, design, and construction of a reconfiguration of the Anacostia Depot to improve the efficiency of operations; to update to current building codes, regulations, and Americans with Disabilities Act (ADA) requirements; to improve the energy efficiency of the facilities; to address floodplain vulnerabilities due to climate change; and to replace assets that are at or beyond their useful lives.</p> <p>BENEFIT</p> <p>Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Workplace Optimization: This project supports WSSC Water's commitment to provide a productive work environment for its employees and secure its critical infrastructure.; Employee Safety: This project includes components that help protect the health and safety of employees.</p> <p>JUSTIFICATION</p> <p>The Anacostia Depot is the largest of WSSC Water's four depots that support water and sewer field operations. The existing buildings were generally constructed in the 1970s. The depot houses several critical functions for WSSC Water, including the workshop and administrative space for the Facility Maintenance Division, the water meter testing and hydrant shop, the heavy equipment shop, the Fleet Services Division building and one of the fleet garages, and the main warehouse. The depot is constrained by CSX railroad tracks that traverse the site, leading to operational inefficiencies when vehicles and staff must wait for trains to pass. The site also has floodplain vulnerabilities due to the effects of climate change.</p> <p>A facility-wide condition assessment was undertaken in June 2019 to identify deficiencies in the existing facilities and provide a recommended course of action to remedy the issues. The study identified a significant number of deficiencies, including electrical, mechanical, accessibility, and safety deficiencies. The study examined potential remedies, including renovation and new build scenarios. A facility master plan was subsequently commissioned to provide a more detailed analysis of the potential renovation and new build alternatives, which will be finalized in June 2021. Anacostia Depot Facility Condition Assessment, Louis Berger (July 2020); Anacostia Depot Master Plan, Samaha Associates (June 2021).</p> <p>COST CHANGE</p> <p>Not applicable.</p> <p>OTHER</p> <p>The present project scope was developed for the FY'23 CIP and has an estimated total cost of \$42,838,000. The schedule and expenditure projections shown in Block B above are preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work began under ESP project A-859.11, Anacostia Depot Reconfiguration.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Montgomery County Government; Prince George's County Government Coordinating Projects: Not Applicable</p>
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E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$2,477	27
Total Cost	\$2,477	27
Impact on Water and Sewer Rate	\$0.01	27
F. Approval and Expenditure Data (000's)		
Date First in Program		FY'23
Date First Approved		FY'23
Initial Cost Estimate		42,838
Cost Estimate Last FY		
Present Cost Estimate		42,838
Approved Request Last FY		
Total Expense & Encumbrances		10
Approval Request Year 1		1,314

G. Status Information	
Land Status	Public/Agency owned land
Project Phase	Planning
Percent Complete	5 %
Estimated Completion Date	December 2025
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map
MAP NOT APPLICABLE

Laboratory Division Building Expansion

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
A - 000101.04		Change			Planning Areas	Fairland (MC) PA 34

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	5,276	1,993	1,150	2,133	1,200	721	212				
Land											
Construction	19,713		4,000	15,713	10,000	3,592	2,121				
Other	2,299		515	1,784	1,120	431	233				
Total	27,288	1,993	5,665	19,630	12,320	4,744	2,566				

C. Funding Schedule (000's)

WSSC Bonds	27,288	1,993	5,665	19,630	12,320	4,744	2,566				
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D. Description & Justification

<p>DESCRIPTION</p> <p>This project provides for the planning, design, and construction of a 19,720 square-foot expansion to the Consolidated Laboratory Facility to accommodate the increased workload, ensure that all data meets requirements set by the regulators, and to improve the safety of employees and customers.</p> <p>BENEFIT</p> <p>Regulatory & Other Agreements: This project is required to meet regulatory requirements, multi-jurisdictional agreements, and/or consent decrees.; Water Quality: This project supports WSSC Water's mission to provide safe, clean water by improving the quality and/or safety of drinking water.; Workplace Optimization: This project supports WSSC Water's commitment to provide a productive work environment for its employees and secure its critical infrastructure.</p> <p>JUSTIFICATION</p> <p>The Consolidated Laboratory Facility is an MDE-certified lab constructed in 2000 to meet the original workload of a maximum of 500,000 tests/year. Since the lab was built, it has experienced a significant increase in the analytical workload, number of employees, and number of instruments, and also added new functions with the creation of the Water Quality Division. The historical workload of 500,000 tests/year is expected to grow to over 750,000 tests/year.</p> <p>Currently, WSSC Water depends on subcontract laboratories for critical and regulatory analysis that cannot be handled in-house due to space, infrastructure, and instrument constraints. Lack of control and supervision by qualified WSSC Water staff on the regulatory samples tested in subcontract laboratories has resulted in errors in the past that could potentially lead to a citation/violation for WSSC Water. Additionally, increased analytical time involved with subcontract analysis may delay response to critical water contamination events, which could jeopardize the safety of WSSC Water's customers. An MDE Laboratory audit recommended having separate rooms for analyzing wastewater and drinking water microbiological samples. Lab Expansion Business Case Evaluation, CDM Smith (March 2019).</p> <p>COST CHANGE</p> <p>The schedule and expenditure projections have been updated based on the 70% design estimate. The footprint of the expansion increased from the 12,405 square feet estimated in the business case to 19,720 square feet due to revised estimates of the space necessary for mechanical space, circulation space, and office space to support the lab operations in the new expansion.</p> <p>OTHER</p> <p>The project scope has remained the same. The schedule and expenditure projections shown in Block B above are 70% design level estimates and may change based upon site conditions and design constraints. The Water Quality Division is implementing a Water Quality Surveillance and Response System to continuously monitor and respond to drinking water contamination events on a real-time basis from a centralized Water Quality Control Center. The Water Quality Division also manages the Contamination Rapid Response Team (CRRT) and the response to all water quality related customer complaints.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Maryland Department of the Environment; Montgomery County Government; Prince George's County Government; U.S. Environmental Protection Agency, Region III</p> <p>Coordinating Projects: Not Applicable</p>

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$1,578	26
Total Cost	\$1,578	26
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'21
Date First Approved	FY'21
Initial Cost Estimate	21,844
Cost Estimate Last FY	22,478
Present Cost Estimate	27,288
Approved Request Last FY	9,482
Total Expense & Encumbrances	1,993
Approval Request Year 1	12,320

G. Status Information	
Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	70 %
Estimated Completion Date	November 2024
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	750,000 tests annually

H. Map
MAP NOT APPLICABLE

RGH Building Upgrades

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
A - 000101.06		Add			Planning Areas	Northwestern Area PA 60

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	2,500		500	2,000	1,000	700	300				
Land											
Construction	10,000			10,000		7,000	3,000				
Other	1,250		50	1,200	100	770	330				
Total	13,750		550	13,200	1,100	8,470	3,630				

C. Funding Schedule (000's)

WSSC Bonds	13,750		550	13,200	1,100	8,470	3,630				
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D. Description & Justification

<p>DESCRIPTION</p> <p>This program provides for the planning, design, and construction of projects to replace and upgrade assets at the Richard G. Hovevar (RGH) Building that have reached the end of their useful life. The program will maintain or enhance existing operating conditions and reliability of the building systems. The work includes the following: replacement of the primary 13.2 kV switchgear and associated equipment that supply power to the building; and replacement of the emergency generators and fuel tanks.</p> <p>BENEFIT</p> <p>Employee Safety: This project includes components that help protect the health and safety of employees.; Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.</p> <p>JUSTIFICATION</p> <p>Most of the electrical equipment at the RGH Building was installed during the initial building construction in 1990 and has reached the end of its useful life. Parts are not readily available in most cases and are increasingly more difficult to find. There is an increasing risk of critical system failure and prolonged outage recovery. The emergency generators are needed for building life safety systems, the Systems Control Center, and backup power to the Data Center systems in the event primary power is lost.</p> <p>This work was recommended as part of WSSC Water's Asset Management Program (CNPV #149 and CNPV #178).</p> <p>COST CHANGE</p> <p>Not applicable.</p> <p>OTHER</p> <p>The present project scope was developed for the FY'23 CIP and has an estimated total cost of \$13,750,000. The schedule and expenditure projections shown in Block B above are preliminary planning level estimates and are expected to change based upon site conditions and design constraints. Preliminary planning work began under ESP project A-890.63, RGH Switchgear and Generator Replacement.</p> <p>COORDINATION</p> <p>Coordinating Agencies: Montgomery County Government; Prince George's County Government</p> <p>Coordinating Projects: Not Applicable</p>
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E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$795	26
Total Cost	\$795	26
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'23
Date First Approved	FY'23
Initial Cost Estimate	13,750
Cost Estimate Last FY	
Present Cost Estimate	13,750
Approved Request Last FY	
Total Expense & Encumbrances	
Approval Request Year 1	1,100

G. Status Information	
Land Status	Public/Agency owned land
Project Phase	Planning
Percent Complete	50 %
Estimated Completion Date	February 2025
Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map
MAP NOT APPLICABLE

Engineering Support Program

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Bi-County
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Bi-County 30
A - 000102.00		Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	2,600		2,100	500	500						
Land											
Construction	119,400		13,900	105,500	15,500	18,000	18,000	18,000	18,000	18,000	
Other	14,000		2,000	12,000	2,000	2,000	2,000	2,000	2,000	2,000	
Total	136,000		18,000	118,000	18,000	20,000	20,000	20,000	20,000	20,000	

C. Funding Schedule (000's)

WSSC Bonds	136,000		18,000	118,000	18,000	20,000	20,000	20,000	20,000	20,000	
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D. Description & Justification

DESCRIPTION

The Engineering Support Program (ESP) represents a consolidation of a diverse group of projects whose unified purpose is to support the extensive water and sewer infrastructure and numerous support facilities that are owned, operated, and maintained by WSSC Water.

*EXPENDITURES FOR ENGINEERING SUPPORT ARE EXPECTED TO CONTINUE INDEFINITELY.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Workplace Optimization: This project supports WSSC Water's commitment to provide a productive work environment for its employees and secure its critical infrastructure.; Employee Safety: This project includes components that help protect the health and safety of employees.

JUSTIFICATION

ESP projects are identified primarily through WSSC Water's Asset Management Program. Engineering services are provided for planning, design, and construction to meet a wide range of needs. As such, ESP projects are diverse in scope and typically include work needed to upgrade operating efficiency, modify existing processes, satisfy regulatory requirements, improve safety and security, or rehabilitate aging facilities. The ESP does not include proposed "major projects" which, by law, must be programmed in WSSC Water's Six-Year Capital Improvements Program or projects to serve new development.

Asset Management Implementation Plan, Stearns & Wheeler (April 2008); FY 2023 Enterprise Asset Management Plan (May 2021).

COST CHANGE

Not applicable.

OTHER

The ESP process provides a stable funding level for projects that require engineering support. Each year, the requested projects will be prioritized and then initiated subject to the available funding for the fiscal year.

COORDINATION

Coordinating Agencies: Not Applicable

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$7,865	
Total Cost	\$7,865	
Impact on Water and Sewer Rate	\$0.02	

F. Approval and Expenditure Data (000's)

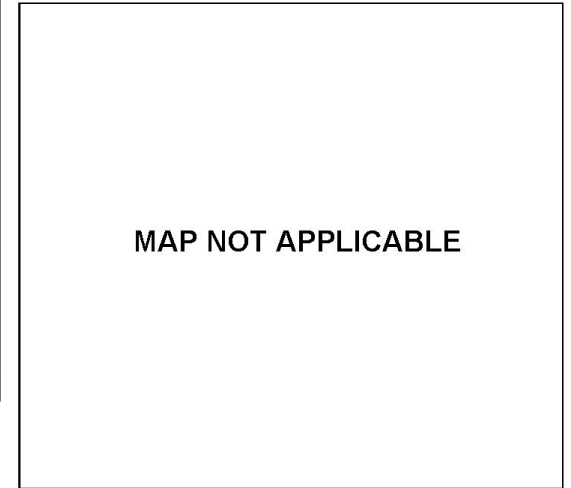
Date First in Program	FY'87
Date First Approved	FY'87
Initial Cost Estimate	
Cost Estimate Last FY	125,000
Present Cost Estimate	136,000
Approved Request Last FY	18,000
Total Expense & Encumbrances	
Approval Request Year 1	18,000

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Energy Performance Program

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
A - 000103.00		Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	2,322		256	2,066	183	133	500	500	500	250	
Land											
Construction	16,836		4,705	12,131	5,014	2,117		2,000	2,000	1,000	
Other	1,916		496	1,420	520	225	50	250	250	125	
Total	21,074		5,457	15,617	5,717	2,475	550	2,750	2,750	1,375	

C. Funding Schedule (000's)

WSSC Bonds	20,074		5,065	15,009	5,109	2,475	550	2,750	2,750	1,375	
State Aid	1,000		392	608	608						

D. Description & Justification

DESCRIPTION

This program provides for the planning, design, and construction of projects to replace and upgrade energy consuming equipment and systems to reduce energy consumption and costs (electricity, fuel oil, natural gas, or other fuel) at all WSSC Water facilities. The program will maintain or enhance existing operating conditions and reliability while continuing to meet all permit requirements and ensuring a continued commitment to environmental stewardship. Projects may include, but are not limited to, the replacement or upgrade of water and wastewater process equipment, water and wastewater pumps, peak shaving and backup power generation systems, variable speed drives, HVAC equipment/systems, and lighting. Current projects include: Piscataway WRRF blower system upgrades; Piscataway WRRF mixer replacement/upgrade; Potomac WFP LCI drives replacement; and Western Branch WRRF dewatering upgrades.

BENEFIT

Environmental Sustainability: This project supports WSSC Water's commitment to protect the natural environment of Prince George's and Montgomery Counties.; Financial Efficiency: This project is expected to increase revenues, decrease expenses, or both.; Innovation: This project utilizes new ideas, methods, and/or research to streamline processes, enhance services, and reduce costs.

JUSTIFICATION

Previous projects under this program were implemented through various energy service companies (ESCOs) and power purchase agreement (PPA) procurements. The current projects are moving forward as standalone projects implemented by WSSC Water. WSSC Water will continue to identify energy savings efforts through the implementation of energy audit calculations and methods developed as part of the program. Future projects will be validated by WSSC Water's Asset Management Program.

COST CHANGE

The schedule and expenditure projections were revised based on the latest information available for each of the constituent projects. The cost increase reflects inflationary increases, delays due to the COVID-19 pandemic, and changes to estimates as design has progressed.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are a mix of preliminary planning, design, and construction level estimates and are expected to change based upon site conditions and design constraints. Costs for monitoring and verification are included in the Operating Budget. Portions of the program have been financed by low-interest loans through the Maryland Department of the Environment's Water Quality Administration State Revolving Loan Program, as well as through the Maryland Department of the Environment's Energy Water Infrastructure Program (EWIP). The Piscataway WRRF blower replacement/upgrade project will be partially funded by an EWIP grant.

COORDINATION

Coordinating Agencies: Maryland Department of the Environment; Montgomery County Government; Prince George's County Government
Coordinating Projects: S - 000096.14 - Piscataway WRRF Facility Upgrades

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$1,161	
Total Cost	\$1,161	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

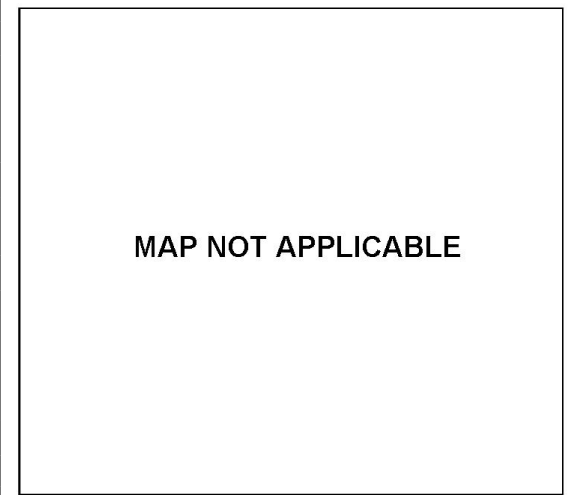
Date First in Program	FY'03
Date First Approved	FY'03
Initial Cost Estimate	
Cost Estimate Last FY	16,015
Present Cost Estimate	21,074
Approved Request Last FY	3,576
Total Expense & Encumbrances	
Approval Request Year 1	5,717

G. Status Information

Land Status	Public/Agency owned land
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Water Storage Facility Rehabilitation Program

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	Bi-County
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
W - 000105.00		Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	7,727		1,727	6,000	1,000	1,000	1,000	1,000	1,000	1,000	
Land											
Construction	27,728		1,000	26,728	2,636	3,545	4,455	5,364	5,364	5,364	
Other	3,545		273	3,272	364	455	545	636	636	636	
Total	39,000		3,000	36,000	4,000	5,000	6,000	7,000	7,000	7,000	

C. Funding Schedule (000's)

WSSC Bonds	39,000		3,000	36,000	4,000	5,000	6,000	7,000	7,000	7,000	
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D. Description & Justification

DESCRIPTION

The Water Storage Facility Rehabilitation Program provides for the comprehensive rehabilitation of WSSC Water's more than 60 water storage facilities located throughout the WSSC Water service area, holding over 200 million gallons of finished drinking water. The Program provides for structural metal and concrete foundation repairs, equipment upgrades to meet current OSHA standards, lead paint removal, security upgrades, advanced mixing systems to improve water quality, and altitude valve vault and supply pipe replacements.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; Water Quality: This project supports WSSC Water's mission to provide safe, clean water by improving the quality and/or safety of drinking water.; Employee Safety: This project includes components that help protect the health and safety of employees.

JUSTIFICATION

Currently, there are more than 20 steel tanks whose last painting contract was finished 10 or more years ago. Many older tanks have accumulated significant layers of paint which have lost their bonding strength to the steel. Old coatings will be completely removed and costly lead abatement techniques will be required in many cases. The recommended practice is to do this extra work every third re-coating to extend the service life of the structure. Modern coating systems should extend the length of service between coatings from the current 10 years to somewhere between 15 to 20 years.

COST CHANGE

The schedule and expenditure projections have been revised to reflect the accelerated schedule for the remaining tanks in the program.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are a mix of planning, design, and construction level estimates and are expected to change based upon site conditions and design constraints. Tanks are prioritized based on the condition of the existing coating and structural integrity issues. The program plan for FY'23 will include the following water storage facilities: North Woodside Standpipe, Pointer Ridge Elevated Tank, Greenbelt Standpipe, Andrews Elevated Tank, Wall Lane Standpipe, Brink Elevated Tank, Bradley Hills 1 and 2, and Cedar Heights Reservoir.

COORDINATION

Coordinating Agencies: Maryland Department of the Environment; Montgomery County Government; Prince George's County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$2,255	
Total Cost	\$2,255	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

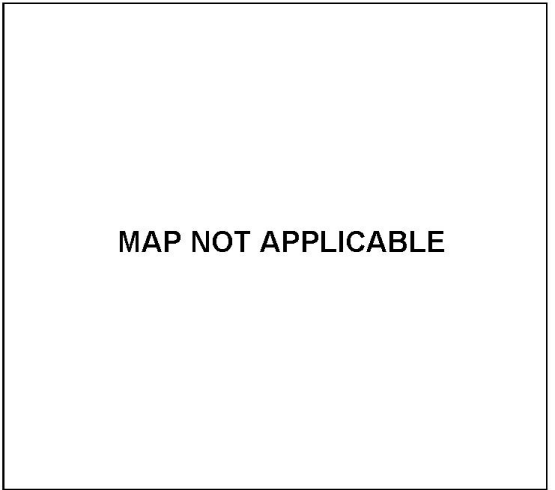
Date First in Program	FY'09
Date First Approved	FY'09
Initial Cost Estimate	
Cost Estimate Last FY	34,000
Present Cost Estimate	39,000
Approved Request Last FY	3,000
Total Expense & Encumbrances	
Approval Request Year 1	4,000

G. Status Information

Land Status	Public/Agency owned land
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Specialty Valve Vault Rehabilitation Program

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W - 000107.00		Change

PDF Date	October 1, 2021
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	1,657		516	1,046	372	234	236	99	41	64	95
Land											
Construction	4,946		600	3,054	1,098	1,037	412	196	311		1,292
Other	991		167	616	221	191	97	44	53	10	208
Total	7,594		1,283	4,716	1,691	1,462	745	339	405	74	1,595

C. Funding Schedule (000's)

WSSC Bonds	7,594		1,283	4,716	1,691	1,462	745	339	405	74	1,595
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D. Description & Justification

DESCRIPTION

This program provides for the planning, design, and construction of improvements and replacement of specialty valves and their associated vaults throughout the water distribution system, including pressure reducing valves, pressure relief valves, and altitude and metering valves. The program includes valves ranging in size from 8-inches to 60-inches in diameter. The program will systematically evaluate the condition of individual installations, some of which were constructed as early as the 1930s, and upgrade or relocate the structures and equipment as necessary. This program will improve reliability and increase the efficiency of system operations.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.; System Reliability: This project will improve service reliability through fewer and shorter service interruptions.

JUSTIFICATION

The facilities included in this program are in need of rehabilitation due to factors such as: location within heavily traveled roadways, age deterioration, obsolescence, and operational improvements. Candidate PRVs were originally identified in an October 26, 2005 memo from Jeff Asner to Karen Wright and a subsequent May 7, 2007 memo from Karen Wright to Thomas Heikkinen. Originally, there were 23 candidate vaults within this program, as identified by the Systems Control Group; PRV Vault Rehabilitation Evaluation Study, EBA Engineering, Inc. (September 2010); 290B Business Case Report (January 2016).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The schedule and expenditure projections shown in Block B above are a mix of planning, design, and construction level estimates and are expected to change based upon site conditions and design constraints. Additional vaults may be added to or removed from the program based upon recommendations from WSSC Water's Asset Management Program. The Randolph Road vault has been completed. Future land and rights-of-way costs are included in project W-202.00.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Maryland Water Management Administration; Montgomery County Department of Public Works and Transportation; Montgomery County Government; Prince George's County Government; Prince George's County Department of Permitting Inspection and Enforcement

Coordinating Projects: W - 000161.01 - Large Diameter Water Pipe & Large Valve Rehabilitation Program

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$439	
Total Cost	\$439	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY'11
Date First Approved	FY'11
Initial Cost Estimate	17,560
Cost Estimate Last FY	7,179
Present Cost Estimate	7,594
Approved Request Last FY	2,252
Total Expense & Encumbrances	
Approval Request Year 1	1,691

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Other Capital Programs

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	
A - 000110.00		Change			Planning Areas	Bi-County

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	63,976		7,286	56,690	8,962	9,146	9,337	9,538	9,745	9,962	
Land											
Construction	293,225		40,040	253,185	41,284	41,630	41,991	42,366	42,755	43,159	
Other	128,361		16,616	111,745	7,456	8,072	16,570	20,367	26,143	33,137	
Total	485,562		63,942	421,620	57,702	58,848	67,898	72,271	78,643	86,258	

C. Funding Schedule (000's)

WSSC Bonds	485,562		63,942	421,620	57,702	58,848	67,898	72,271	78,643	86,258	
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D. Description & Justification

DESCRIPTION

Other Capital Programs (OCP) includes miscellaneous capital projects, programs, and expenditures for common, non-CIP, enterprise-wide activities such as relocations, new water and sewer house connections, purchase of water meters, paving, and general construction of local lines.

*EXPENDITURES FOR OTHER CAPITAL PROGRAMS ARE EXPECTED TO CONTINUE INDEFINITELY.

BENEFIT

Infrastructure Reinvestment: This project replaces existing infrastructure that has exceeded its useful life.

JUSTIFICATION

The OCP does not include proposed "major projects" which, by law, must be programmed in WSSC Water's Six-Year Capital Improvements Program (CIP) or projects to serve new development.

COST CHANGE

Not applicable.

OTHER

The OCP summarizes capital expenditures and allocated costs that are not already included in the CIP or in other Information Only projects. Expenditures for the budget year are estimated during the annual CIP update cycle each summer for the Proposed CIP document. The estimates will be revised and updated during the annual budget update cycle each fall for the Proposed Operating & Capital Budget document. Future years are Order of Magnitude estimates and are expected to change with each update cycle.

COORDINATION

Coordinating Agencies: Not Applicable
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance		
Debt Service	\$28,080	
Total Cost	\$28,080	
Impact on Water and Sewer Rate	\$0.06	

F. Approval and Expenditure Data (000's)

Date First in Program	FY'21
Date First Approved	FY'21
Initial Cost Estimate	
Cost Estimate Last FY	466,502
Present Cost Estimate	485,562
Approved Request Last FY	53,738
Total Expense & Encumbrances	
Approval Request Year 1	57,702

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	0 %
Estimated Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

D'Arcy Park North Relief Sewer

A. Identification and Coding Information			PDF Date	October 1, 2021	Pressure Zones	
Agency Number	Project Number	Update Code	Date Revised		Drainage Basins	Western Branch 14
S - 000300.01		Change			Planning Areas	Suitland-District Heights & Vicinity PA 75A

B. Expenditure Schedule (000's)

Cost Elements	Total	Thru FY'21	Estimate FY'22	Total 6 Years	Year 1 FY'23	Year 2 FY'24	Year 3 FY'25	Year 4 FY'26	Year 5 FY'27	Year 6 FY'28	Beyond 6 Years
Planning, Design & Supervision	191		99	92	48	44					
Land											
Construction	548		140	408	204	204					
Other	111		36	75	38	37					
Total	850		275	575	290	285					

C. Funding Schedule (000's)

Contributions/Other	850		275	575	290	285					
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D. Description & Justification

DESCRIPTION
This project provides for the planning, design, and construction of 1,110 feet of 12-inch diameter (non-SDC eligible) PVC relief sewer to provide service to D'Arcy Park North.

BENEFIT
Economic Development: This growth project supports the economic development goals of the Counties.

JUSTIFICATION
D'Arcy Park North Hydraulic Planning Analysis (September 2008).

COST CHANGE
Not applicable.

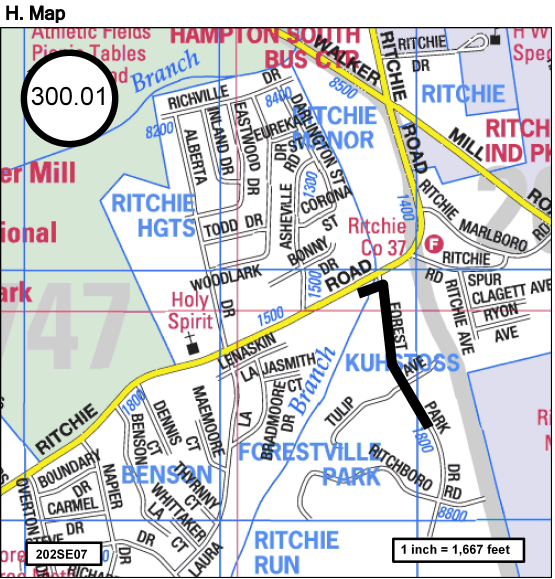
OTHER
The project scope has remained the same. The project is on hold due to lack of activity and will need to be re-evaluated when the Owner/Developer approaches WSSC Water to restart the project. The current estimated total project cost shown above reflects the original plans for the subdivision. A new cost estimate and schedule will be required at restart. The estimated completion date is developer dependent. This project is not eligible for SDC credits. No WSSC Water rate supported debt will be used for this project.

COORDINATION
Coordinating Agencies: Local Community Civic Associations; Prince George's County Department of Environmental Resources; Prince George's County Government
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)		FY of Impact
Staff & Other		
Maintenance	\$23	
Debt Service		
Total Cost	\$23	
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)	
Date First in Program	FY'14
Date First Approved	FY'14
Initial Cost Estimate	824
Cost Estimate Last FY	941
Present Cost Estimate	850
Approved Request Last FY	290
Total Expense & Encumbrances	
Approval Request Year 1	290

G. Status Information	
Land Status	Not Applicable
Project Phase	Design
Percent Complete	20 %
Estimated Completion Date	Developer Dependent
Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	1.6 MGD



Appendices

RESOLUTION NO. 2021-2287Adopted: June [16], 2021Effective Date: July 1, 2021

WASHINGTON SUBURBAN SANITARY COMMISSION

SUBJECT: A RESOLUTION modifying the System Development Charge (SDC) to help finance the capital costs of expanding and augmenting water and sewerage systems to accommodate service to subscribers in the Washington Suburban Sanitary District (WSSD) and to provide a financing mechanism to aid the Washington Suburban Sanitary Commission (Commission) in paying for the capital projects thereof by providing methods and procedures by which the SDC is to be implemented and/or collected.

WHEREAS, the Maryland Annotated Code, Public Utilities Article (PUA) §§ 25-401, *et seq.* authorizes the Montgomery and Prince George's County Councils to establish a System Development Charge which will be paid by applicants for new water and sewer service; and

WHEREAS, PUA §§ 25-402 and 25-403 govern the schedule for the payment of the System Development Charge to the Commission for certain properties and establishes a maximum System Development Charge that may be charged; and

WHEREAS, PUA § 25-403(b) provides that the Montgomery and Prince George's County Councils shall grant a full or partial exemption from the SDC charge for public sponsored or affordable housing; and

WHEREAS, PUA § 25-403(b) provides that the Montgomery and Prince George's County Councils may grant a full or partial exemption from the SDC charge for revitalization projects, elderly housing, biotechnology, and for certain properties used primarily for recreational and educational programs for youth, properties used for child care or after-school care, or properties used for programs and services for the developmentally disabled; and

WHEREAS, the Commission owns and operates various water treatment and sewage treatment disposal plants and facilities within the WSSD and has an equity share in sewage treatment plants operated by other jurisdictions to treat sewage generated in portions of the WSSD; and

WHEREAS, it is necessary that the Commission, with the advice and consent of the local governing bodies within the WSSD, develop alternative funding to cover the costs of providing quality water and sewer service in the WSSD and to similarly accommodate new growth therein as authorized by the County Governments; and

RESOLUTION NO. 2021-2287Adopted: June [16], 2021Effective Date: July 1, 2021

WHEREAS, the System Development Charge is a component of the Commission's Fiscal Year 2022 capital and operating budgets prepared pursuant to PUA §17-202; and

WHEREAS, the Commission last modified the System Development Charge effective July 1, 2020 by Commission Resolution No. 2020-2253; and

WHEREAS, for all of the foregoing reasons it is necessary or desirable to continue the imposition of a System Development Charge fee; and

WHEREAS, PUA § 25-403 provides that the Montgomery and Prince George's County Councils may adopt and the Commission may implement a System Development Charge not to exceed \$200.00 per fixture unit or, for residential properties with five or fewer toilets, not to exceed certain enumerated amounts based on the number of toilets per dwelling unit; and

WHEREAS, PUA § 25-403 provides that on July 1, 1999 and each July 1 of each succeeding year, the maximum charge may be changed by an amount equal to the prior calendar year's change in the consumer price index published by the Bureau of Labor Statistics of the United States Department of Labor for urban wage earners and clerical workers for all items for the Washington, D.C. metropolitan area; and

WHEREAS, the consumer price index published by the Bureau of Labor Statistics of the United States Department of Labor for urban wage earners and clerical workers for all items for the Washington, D.C. metropolitan area increased 1.6% from November 2019 to November 2020; and

WHEREAS, the Commission recommends keeping the System Development Charge rates unchanged for FY 2022. However, the Commission recommends increasing the maximum allowable charge by 1.6% from FY 2021 limits in order to maintain future rate flexibility to address future potential growth funding gaps; and

WHEREAS, the County Councils of Prince George's County and Montgomery County met and approved the modifications to the System Development Charge set forth below on May 13, 2021; and

NOW, THEREFORE, BE IT RESOLVED THIS 16th day of June, 2021, that the Commission hereby adopts the approved System Development Charge fee schedule as set forth herein. For the purposes of this Resolution, the following definitions apply:

RESOLUTION NO. 2021-2287Adopted: June [16], 2021Effective Date: July 1, 2021Definitions:

- 1) Apartment Unit means one of several single family residential units within one building that is not a “multi-unit dwelling.” An “apartment unit” must contain at least one full bath and kitchen, but not more than two toilets. An “apartment unit” typically includes, but is not limited to, an individual dwelling unit in a garden, medium or high-rise type residential building.
- 2) Biotechnology Research and Development or Manufacturing means any development as jointly defined and approved by the Montgomery and Prince George’s County Councils as eligible for a waived System Development Charge, more particularly described in Schedule C, attached.
- 3) Drainage Charge is the portion of the System Development Charge applicable to drainage fixture units for apartments and residential properties having five or fewer toilets.
- 4) Drainage Fixture Unit Value is a measure of the probable discharge into the drainage system by a particular plumbing fixture in terms of volume rate of discharge and duration of a single drainage operation and the time between successive operations.
- 5) Dwelling Unit means a single-family housing unit used as a residence, including trailers and mobile homes.
- 6) Elderly Housing means residential units as jointly defined and approved by the Montgomery and Prince George’s County Councils as eligible for a waived System Development Charge, more particularly described in Schedule D, attached.
- 7) Hookup means the joining of the on-site water and/or sewer line(s) to the Commission’s service connection or the installation of plumbing fixtures in a building served by the Commission’s water and/or sewer facilities.
- 8) Multi-Unit Dwelling means a building that will accommodate several housing units on a lateral basis; namely, semi-attached houses, row houses, or townhouses used as residences.
- 9) New Service means:
 - a) the first-time hook-up of a property to the Commission’s water and/or sewer system, including
 - 1) a direct connection of an improvement or building; or
 - 2) a connection of the improvement or building through an existing on-site system; or
 - b) a new connection or increased water meter size for a property previously or currently served by the Commission if the new connection or increased meter

RESOLUTION NO. 2021-2287Adopted: June [16], 2021Effective Date: July 1, 2021

size is needed because of a change in the use of the property or an increase in demand for service at the property.

- 10) Non-Residential Unit is a structure not otherwise defined as a Residential Unit, generally commercial or industrial in nature. Examples may include shopping malls, non-residential townhouses, warehouses, industrial buildings, restaurants, schools, dormitories, hospitals, hotels, motels, nursing homes, office buildings, churches, theaters, and similar commercial or industrial buildings.
- 11) Property Used Primarily for Recreational and Educational Programs and Services to Youth means real property, owned in fee simple, by a Community Based Organization that is jointly defined and approved by the Montgomery and Prince George's County Councils as eligible for a System Development Charge exemption, more particularly described in Schedule F, attached.
- 12) Property Used Primarily for Child Care and After-School Care means improved property owned in fee simple by an individual or organization licensed by the State of Maryland to provide day care services, on which a child day care use or after-school care use, as defined in the Montgomery County or Prince George's County Zoning Ordinance (as applicable), operates as a principal use thereon.
- 13) Property Used Primarily for Programs and Services for Developmentally Disabled Individuals means improved property owned in fee simple by an individual or organization licensed by the State of Maryland to provide services to developmentally disabled individuals, on which a use defined in the Montgomery County or Prince George's County Zoning Ordinance (as applicable) as one that provides services to developmentally disabled individuals, operates as a principal use thereon.
- 14) Public Sponsored or Affordable Housing means residential units as jointly defined and approved by the Montgomery and Prince George's County Councils as eligible for a waived System Development Charge, more particularly described in Schedule A, attached.
- 15) Residential Unit means any housing unit defined in Paragraphs 1, 5, 6, 8 and 11 above used as a residence.
- 16) Revitalization means any development as jointly defined and approved by the Montgomery and Prince George's County Councils as eligible for a waived System Development Charge, more particularly described in Schedule B, attached.
- 17) System Development Charge means that charge imposed by the Commission pursuant to the provisions of §25-403, Division II of the Public Utilities Article,

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Annotated Code of Maryland. (Maximum allowable System Development Charge is the maximum charge authorized by law, but not necessarily imposed in a given year.)

- 18) Toilet is a water closet as set forth in the WSSC Code of Regulations, Chapter 14.25—the Plumbing and Fuel Gas Code; and
- 19) Water Supply Charge is the portion of the System Development Charge applicable to water supply fixture units for apartments and residential properties having five or fewer toilets; and
- 20) Water Supply Fixture Unit Value is a measure of the probable hydraulic demand on the water supply by a particular plumbing fixture in terms of volume rate of supply and duration of a single supply operation and the time between successive operations; and

BE IT FURTHER RESOLVED, that the System Development Charge rates for FY'22 shall be as follows:

Property Type	FY'22 Charge	Maximum Allowable Charge
Apartment Unit		
Water	\$896	\$1,368
Sewer	1,140	1,741
1-2 Toilets / Residential		
Water	1,344	2,054
Sewer	1,710	2,609
3-4 Toilets / Residential		
Water	2,240	3,422
Sewer	2,850	4,354
5 Toilets / Residential		
Water	3,135	4,789
Sewer	3,991	6,096
6 or More Toilets / Residential*		
Water	88	136
Sewer	115	178
Non-Residential*		
Water	88	136
Sewer	115	178

*Per Fixture Unit

(The System Development Charge for non-residential properties and dwelling units or multi-unit dwellings with more than five toilets shall be based on the number of plumbing fixtures and the assigned values for those fixtures as set forth in the

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WSSC Code of Regulations, Chapter 14.25—the Plumbing and Fuel Gas Code.);
and

BE IT FURTHER RESOLVED, that the System Development Charge, as established herein, shall be paid to the Commission at the time of application for plumbing permit to install fixtures or hookup(s) to the Commission's water and/or sewage system(s) except that an applicant for a plumbing permit for a residential unit may pay the System Development Charge in two payments as follows:

- 1) One-half at the time of Plumbing Permit Application;
- 2) The remaining one-half within 12 months after the first payment or prior to the transfer of title to the property, whichever occurs first.

At the time of the first payment, the applicant for the plumbing permit for a residential unit shall deposit with the Commission security for the second payment in an amount and form established and approved by the Commission; and

BE IT FURTHER RESOLVED, that the fees established herein shall be in addition to, and not a substitution for, any other fees, rates, charges, or assessments allowed by law; and

BE IT FURTHER RESOLVED, that the County Councils for Prince George's and Montgomery Counties shall grant a full or partial exemption from the System Development Charge, as set forth in PUA §25-403(b)(1), for any public sponsored or affordable housing as defined in Schedule A; and

BE IT FURTHER RESOLVED, that the County Councils for Prince George's and Montgomery Counties may grant a full or partial exemption from the System Development Charge, as set forth in PUA §25-403(b)(2)(i), for revitalization projects, as defined in Schedule B; and

BE IT FURTHER RESOLVED, that the County Councils for Prince George's and Montgomery Counties may grant a full or partial exemption from the System Development Charge, as set forth in PUA §25-403(b)(3), for elderly housing as defined in Schedule D, and subject to the maximum exemptions established by County Councils and set forth in Schedule E; and

BE IT FURTHER RESOLVED, that the County Councils for Prince George's and Montgomery Counties may grant a full or partial exemption from the System Development Charge, up to \$80,000, as set forth in PUA §25-403(b)(2)(ii) for Properties Used Primarily for Recreational and Educational Programs and Service to Youth as defined in Schedule F; and

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BE IT FURTHER RESOLVED, that the County Councils for Prince George's and Montgomery Counties may grant a full or partial exemption from the System Development Charge, as set forth in PUA §25-403(b)(2)(iii), for properties used primarily for child care or after-school care, as defined in Definition 12 herein; and

BE IT FURTHER RESOLVED, that the County Councils for Prince George's and Montgomery Counties may grant a full or partial exemption from the System Development Charge, as set forth in PUA §25-403(b)(2)(iv), for properties used primarily for programs and services for developmentally disabled individuals, as defined in Definition 13 herein; and

BE IT FURTHER RESOLVED, that the County Councils for Prince George's and Montgomery Counties may grant a full or partial exemption from the System Development Charge, as set forth in PUA §25-403(b)(3)(iv), for properties used for manufacturing or biotechnology research and development, as defined in Schedule C;

BE IT FURTHER RESOLVED, that the County Councils of Prince George's and Montgomery Counties may adopt implementing resolutions for the aforesaid System Development Charge exemptions, which resolutions govern the administration of the exemptions for projects within each County.

BE IT FURTHER RESOLVED, that nothing herein shall be construed as creating a contract between the Commission and the applicant for service, and that the providing of water and/or sewer service to an applicant's property shall be subject to intervention of other governmental authority; the duly adopted policies of Montgomery and Prince George's Counties, and the Commission's ability to otherwise provide such service; and

BE IT FURTHER RESOLVED, that Commission Resolution No. 2020-2253 adopted June 17, 2020 on the same subject matter be, and the same is hereby superseded by this Commission Resolution No. 2021-2287; and

BE IT FURTHER RESOLVED, that the System Development Charge established herein shall take effect on July 1, 2021.

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SCHEDULE A

“Public sponsored or affordable housing” means:

- 1) any dwelling unit built or financed under a government program, regulation, or binding agreement that limits for at least 10 years the price or rent charged for the unit in order to make the unit affordable to households earning less than 80% of the area median income, adjusted for family size;
- 2) any Moderately Priced Dwelling Unit built under Chapter 25A of the Montgomery County Code or Subtitles 13 and 27 of the Prince George’s County Code;
- 3) any Productivity Housing Unit, as defined in Section 25B-17 (k) of the Montgomery County Code;
- 4) any unit in an Opportunity Housing Project built under Sections 56-28 through 56-32 of the Montgomery County Code or Subtitle 13, Division 8, of the Prince George’s County Code, which is reserved for occupancy only by persons with low or moderate incomes (as defined in applicable provisions of State and County Law);
- 5) any dwelling unit constructed pursuant to the Capturing Housing Opportunities in Communities Everywhere (CHOICE) Program in Prince George’s County which is reserved for occupancy only by persons with low or moderate incomes (as defined in applicable provisions of State and County Law).

SCHEDULE B

“Revitalization” means:

- 1) a project meeting any additional criteria that may be adopted by the respective county council or applicable municipal council that is located in:
 - a) any state-designated revitalization area as defined by the Maryland Department of Housing and Community Development (DHCD).
 - b) any state-designated enterprise zone as defined by the Maryland Department of Business and Economic Development (DBED).
 - c) any federally-designated economic development district as defined by the U.S. Department of Commerce, Economic Development Administration (EDA).
 - d) any federally-designated empowerment zone and developable sites as defined by the U.S. Department of Housing and Urban Development (HUD).
 - e) any Transit District Overlay Zone (T-D-O Zone) as defined by Subtitle 27, Part 10A, Division 1, of the Prince George’s County Code.
 - f) any Prince George’s County designated revitalization area as defined in Subtitle 10 of the Prince George’s County Code.
 - g) any state designated Neighborhood Business Development Program as defined in Subtitle 3, of Title 6, of the Housing and Community Development Article of the Annotated Code of Maryland.
 - h) any Montgomery County designated neighborhoods, as determined by the Montgomery County Executive and County Council, as a revitalization neighborhood for activities that will act to preserve, stabilize, and enhance the social, physical, and economic conditions of the neighborhood. Activities may include concentrated housing code inspections and enforcement, housing rehabilitation, social service programs, public infrastructure improvements, and private and/or public capital investment.
- 2) A property used for the production of alcoholic beverages.

SCHEDULE C

“Biotechnology Research and Development or Manufacturing” means:

Any activity that substantially involves research, development, or manufacturing of:

- a. Biologically-active molecules;
- b. Devices that employ or affect biological processes; or
- c. Devices and software for production or management of specific biological information.

SCHEDULE D

“Elderly Housing” include the following types of housing:

As defined in the Prince George’s County Zoning Ordinance:

Sec. 27-107.01. Definitions**(a) Terms in the Zoning Ordinance are defined as follows:**

- (20.3)Assisted Living Facility**
- (54)Congregate Living Facility**
- (151)Mixed Retirement Development**

Sec. 27-352.01 Elderly Housing (one-family attached dwellings)

Sec. 27-374 Medical / residential campus

Sec. 27-395 Planned retirement community

OR

As defined in the Montgomery County Zoning Ordinance:

Sec. 59-G-2.35 Housing and related facilities for elderly or handicapped persons

Sec. 59-G-2.35.1 Life Care (continuing care) facility

Sec. 59-C-7.4 Housing constructed in a planned retirement community zone

OR

As defined in a municipal zoning ordinance in a municipality having separate zoning powers and that is found by the Director of the Department of Housing and Community Affairs to be equivalent to the definition for the county in which the municipality is located. The review of equivalency should be based upon age of occupants and the inclusion of assisted living dwelling units.

SCHEDULE E

Maximum “elderly housing” exemptions are as follows:

- | | | |
|----|---|--|
| 1. | Apartment unit | \$436.00 |
| 2. | Dwelling unit or housing unit within a multi-unit dwelling with one or two toilets | \$654.00 |
| 3. | Dwelling unit or housing unit within a multi-unit dwelling with three or four toilets | \$1,090.00 |
| 4. | Dwelling unit or housing unit with a multi-unit dwelling with five toilets | \$1,526.00 |
| 5. | For other housing that meets the elderly housing exemption criteria | Not more than \$43 per combined fixture unit value |

SCHEDULE F

1. “Property Used Primarily for Recreational and Educational Programs and Services to Youth” means:

Real property, owned in fee simple, by a Community Based Organization, located within the Washington Suburban Sanitary District, which is used to advance the mission and purpose of providing recreational and educational program and services to youth in Prince George’s and/or Montgomery County.

2. “Community Based Organization” means:

A not-for-profit entity duly incorporated in or authorized to do business by the State of Maryland and in good standing under the laws of the State of Maryland, which has as its primary mission and purpose to provide recreational and educational programs and services to youth in Prince George’s and/or Montgomery County.

3. “Exempt From Taxation” means:

A not-for-profit, charitable or educational organization as determined by the Internal Revenue Service, under Section 501(c) (3) of the Internal Revenue Code.

STANDARD PROCEDURES OF THE WASHINGTON SUBURBAN SANITARY COMMISSION

ORIGINATOR	SP NUMBER	APPROVED BY/DATE	EFFECTIVE DATE	PAGE
Joseph P. McNerney Customer Affairs Bureau Director	CUS 98-01 Supersedes CUS 94-06 & CUS 93-02	COMMISSION <i>Michael Schwartz</i>	July 1, 1998	1 OF 7

SUBJECT: SYSTEM DEVELOPMENT CHARGE LEVY AND COLLECTION

PURPOSE

- 1.1 To document the levy, collection and deposit of the System Development Charge (SDC) in accordance with Article 29, §6-113 of the Annotated Code of Maryland and WSSC's Resolution No. 98-1555.
- 1.2 Define terms and phrases referencing SDC as commonly used in the issuance of plumbing permits.

DEFINITIONS

- 2.1 Apartment Unit means one of several single family housing units within one building and not specifically classified as a multi-unit dwelling, e.g., individual dwelling units in garden, medium and high-rise type residential buildings.
- 2.2 Base SDC Fee is the WSSC approved dollar charge for a plumbing fixture having a Drainage Fixture Unit Value and/or a Water Supply Fixture Unit Value of one for non-residential properties or residential units with more than five toilets. The Base SDC Fee for residential units with five or fewer toilets is the WSSC approved dollar charge based upon the unit's number of toilets.
- 2.3 Drainage Fixture Unit Value is a measure of the probable discharge into the drainage system by a particular plumbing fixture in terms of volume rate of discharge and duration of a single drainage operation and the time period between successive operations.
- 2.4 Dwelling Unit means a single family housing unit used as a residence, including trailers and mobile homes.
- 2.5 Hookup means the joining of a property's on-site water and/or sewer line(s) to the Commission's service connection or the installation of plumbing fixtures in a building served by the Commission's water and/or sewer facilities.
- 2.6 Multi-Unit Dwelling means a building that will accommodate several housing units on a lateral basis; namely, semi-attached houses, row houses or townhouses used as residences.
- 2.7 New Service means:

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WSSC STANDARD PROCEDURES

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- (a) the first-time hook-up of a property to the Commission's water and/or sewer system; or
- (b) a new connection or increased water meter size for a property, previously or currently served by the Commission, if the new connection or increased meter size is needed because of a change in the use of the property or an increase in demand for service at the property.

2.8 Non-Residential Unit is a structure not otherwise defined as a Residential Unit, generally commercial or industrial in nature. Examples may include Shopping Malls, non-Residential Townhouses, Warehouses, Industrial Buildings, Restaurants, Schools, Dormitories, Hospitals, Hotels, Motels, Nursing Homes, Office Buildings, Churches, Theaters and similar commercial or industrial buildings.

2.9 Plumbing Permit is the approved instrument, resulting from an application filed by a Registered Master Plumber, which allows for hookup of fixtures or onsite piping to the Commission's water and/or sewer systems.

2.10 Property means an improvement(s) or building(s) on a lot or parcel of land containing plumbing fixtures described in terms of Drainage Fixture Unit Values or Water Supply Fixture Unit Values.

2.11 Public Sponsored and Affordable Housing means:

- (1) any dwelling unit built or financed under a government program, regulation, or binding agreement that limits for at least 10 years the price or rent charged for the unit in order to make the unit affordable to households earning less than 80% of the area median income, adjusted for family size;
- (2) any Moderately Priced Dwelling Unit built under Chapter 25A of the Montgomery County Code or Subtitles 13 and 27 of the Prince George's County Code;
- (3) any Productivity Housing Unit, as defined in Section 25B-17(m) of the Montgomery County Code;
- (4) any unit in an Opportunity Housing Project built under Sections 56-28 through 56-33 of the Montgomery County Code or Subtitle 13, Division 8, of the Prince George's County Code, which is reserved for occupancy only by persons with low or moderate incomes (as defined in applicable provisions of State and County Law);
- (5) any dwelling unit constructed pursuant to the Capturing Housing Opportunities in Communities Everywhere (CHOICE) Program in Prince George's County which is reserved for occupancy only by persons with low or moderate incomes (as defined in applicable provisions of State and County Law).

2.12 Residential Unit means any housing unit defined in Paragraphs 2.1, 2.4, and 2.5 above used as a residence.

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- 2.13 Residential Applicant means a builder on whose behalf a Registered Master Plumber applies for and receives from the Commission plumbing permits for construction of new residential units.
- 2.14 SDC Sewer Charge is the product of a fixture's Drainage Fixture Unit Value and its associated Base SDC Fee for non-residential properties or dwelling and multi-unit housing units with more than five toilets. For residential properties with five or fewer toilets, the SDC Sewer Charge is the Commission approved drainage portion of the Base SDC Fee.
- 2.15 SDC Water Charge is the product of a fixture's Water Supply Fixture Unit Value and its associated Base SDC Fee for non-residential properties or dwelling and multi-unit housing units with more than five toilets. For residential properties with five or fewer toilets, the SDC Water Charge is the Commission approved water supply portion of the Base SDC Fee.
- 2.16 Sub-District Charge means that charge established by the Commission pursuant to the provisions of §6-103, Article 29, Annotated Code of Maryland.
- 2.17 Toilet means a water closet, as set forth in the WSSD Plumbing and Gasfitting Regulations.
- 2.18 Water Supply Fixture Unit Value is a measure of the probable hydraulic demand on the water supply by a particular plumbing fixture in terms of volume rate of supply and duration of a single supply operation and the time period between successive operations.

GENERAL

- 3.1 SDC is a fee established pursuant to provisions of Article 29, § 6-113 of the Annotated Code of Maryland, to help finance the capital cost of upgrading existing plants and facilities as well as the construction of new capital projects attributable to the addition of new service.
- 3.2 The Base SDC Fee level is established by Commission Resolution representing a formal adoption of the fee level mutually agreed upon by the Montgomery and Prince George's County Councils.
- 3.3 The SDC fee for a non-residential property or a dwelling unit or housing unit within multi-unit dwelling with more than five toilets is determined by the type and number of fixtures, existing and/or proposed, for which hookup to the WSSC's water and/or sewerage system(s) is proposed. The SDC levy is the sum of SDC Water Charges and SDC Sewer Charges, prevailing at the time of application for hook-up, which are associated with the individual fixtures proposed for hookup.
- 3.4 The SDC fee for a residential unit with five or fewer toilets is determined by the number of toilets, existing and/or proposed, for which hookup to the WSSC's water and/or sewerage system(s) is proposed. The SDC levy is the sum

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of SDC Water Charges and SDC Sewer Charges, prevailing at the time of application for hook-up, which are associated with the number of toilets proposed for hookup.

- 3.5 Except as provided by Section 3.9, a property's calculated SDC fee is payable in full and shall accompany the application for plumbing permit for hookup of a property's fixtures to the WSSC system. Any "credit" pursuant to WSSC Standard Procedure CUS 94-03, entitled *SDC DEVELOPER CREDITS AND REIMBURSEMENTS*, may be substituted as payment, on a dollar for dollar basis, as therein described. Collected SDC fees shall be deposited in established revenue accounts and reconciled through the Service Applications & Records Section's remittance-processing system.
- 3.6 When a request is made to add a fixture(s) to a plumbing permit which has been issued under a previous SDC rate structure and which has not received final inspection approval, the additional SDC shall be calculated and collected based upon the fixture unit rate in effect at the time of request, except that the total SDC for a residential unit permit with five or less toilets shall not exceed the current Base SDC fee for such a unit.
- 3.7 When an application is made to add a toilet(s) to an existing dwelling or housing unit within an existing multi-unit dwelling, the resulting permit may be subject to a SDC fee only if the unit was previously assessed a SDC fee or an increase is required in the size of the unit's connection or meter. In either situation, a SDC fee will be actually assessed only if the number of toilets is being increased from one toilet based rate category to the next. For housing units with five or fewer toilets, the SDC fee assessed will be equal to the difference in the SDC base charge currently applicable to the number of existing toilets and that applicable to the total number of existing and proposed toilets. The SDC fee assessed for existing housing units with more than five toilets is the sum of the SDC Base fees at the current SDC rate structure for all added fixtures.
- 3.8 When an application is made to add fixtures to a Non-residential Unit, the resulting permit may be subject to a SDC fee only if the unit was previously assessed a SDC fee or an increase is required in the size of the unit's connection or meter. In either situation, the SDC fee assessed is the sum of the SDC Base fees at the current SDC rate structure for all added fixtures.
- 3.9 A residential applicant who elects to delay paying a portion of the system development charge shall pay one half the charge at the time of filing application for plumbing permit. The remaining one half of the system development charge for each residential unit shall be paid to the Commission within 12 months after the first payment or prior to the transfer of title to the property, whichever occurs first. A residential applicant must provide security for the remaining one half of the system development charge at the time of filing the plumbing permit application in one of the following forms:

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- (a). An irrevocable letter of credit that is automatically renewed from a bank that is rated "C" or better by Thomson BankWatch.
- (b). A financial guaranty bond in a form substantially similar to the form attached here as Appendix "A." The bond shall be executed by the applicant and a corporate bonding company licensed to transact such business in the State of Maryland and named on the current list of "surety companies acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of this bond shall be paid by the applicant. If at any time the surety on any such bond is declared bankrupt or loses its right to do business in the State of Maryland or is removed from the list of surety companies accepted on Federal bonds, the applicant shall within ten days after notice from the Commission to do so, substitute an acceptable bond in such forms and sum and signed by such other surety or sureties as may be satisfactory to the Commission.
- (c). For the residential applicant who certifies that he or she applies for four or fewer permits for the construction of residential units within the same calendar year, the General Counsel is hereby authorized to accept other forms of security proposed by the applicant and that in the judgment of the General Counsel will protect the Commission's interests in the same manner as the letter of credit and financial guaranty bond described above.

3.10. Fixtures verified by WSSC inspection prior to removal may result in credits toward SDC in a replacement structure. Following written application by a Registered Master Plumber, Postcard Permit inspections to confirm fixtures prior to removal will be the basis for calculating any SDC credit. No credit

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WSSC STANDARD PROCEDURES

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will be afforded for rough-in piping or fixtures removed prior to inspection. SDC credit under this paragraph may only be obtained by submitting the original Master Plumber's copy of the approved Postcard Permit document at the time of application for hook-up of the replacement or remodeled structure. Credit obtained under this provision may only be used toward the remodeling of the existing structure or the redevelopment of a property from which the original fixtures were removed.

EXEMPTIONS

- 4.1 Additional fixtures installed in a structure or building are exempt from the levy of an SDC fee only if inspection of the initial hookup of the building or structure's plumbing to the WSSC's system(s) was approved under a permit issued as a result of an application filed before July 19, 1993, and the change in fixtures does not require an increase in the property's connection(s) or meter size.
- 4.2 The hook-up of a residential unit which is certified by Montgomery or Prince George's County as being a Public Sponsored or Affordable Housing Unit, as defined by Commission Resolution No. 98-1555, shall be exempted from any SDC fee.
- 4.3 The initial hook-up of a residential unit to the Commission's water and/or sewerage system will be exempted from the levy of any SDC fee if the unit existed and was served by a private well and/or septic system on or before July 16, 1993, and the applicable WSSC water or sewer main was in service or its construction was the subject of "Formal Notice To Proceed" (to the WSSC contractor) on or before the same July 16, 1993.

REFUNDS

- 5.1 In the event a permit to install plumbing fixtures expires or is canceled pursuant to provisions of Section 206.2 of the Plumbing and Gasfitting Regulations, all SDC fees paid in association with the application for plumbing permit to hook-up may be refunded, provided Code Enforcement Section's inspection records confirm that no work covered by the permit has been accomplished. Such refunds will be made to the original SDC payer at the time of application.
- 5.2 SDC payments for fixtures represented on an application, but not installed, may be refunded to the original payer provided a written request for refund is filed with the Service Applications & Records Section prior to a request for final inspection. Upon confirmation by the Code Enforcement Section that the fixtures or related rough-in work referenced in the written request have not been installed, the fixtures will be deleted from the permit database record and SDC refund action will be initiated.
- 5.3 The reimbursement of SDC payments to comply with credit requirements set forth in Article 29, §6-113.(e) of the Annotated Code of Maryland shall be

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accomplished as specified by WSSC Standard Procedure CUS 94-03, entitled SDC CREDITS AND REIMBURSEMENT.

- 5.4 A request for full or partial refund of previously remitted SDC which has been denied may be appealed under provisions of Article 29, §6-111 of the Annotated Code of Maryland.

AUTHORITY CLAUSE

The General Counsel certifies that the statutory authority for adoption of this Standard Procedure is Article 29, §§ 6-113 and 9-101 of the Annotated Code of Maryland.

Distribution List

MASTER VOLUME LIST:

General Manager's Office
Internal Audit Office
Secretary's Office
Human Resources Division

Other Distribution:

Commissioner's Office
Administration Branch
Operations Branch
General Counsel's Office
Budget and Financial Planning Office
Construction Bureau
Customer Affairs Bureau
Finance Bureau
Customer Services Division
Financial Operations Division
Regulatory Compliance Division
Code Enforcement Section
General Accounting Section
Service Applications & Records Section

APPENDIX "A"

FINANCIAL GUARANTY BOND

Plumbing Permit Number _____

Bond Number _____

Date Bond Executed _____

KNOW ALL MEN BY THESE PRESENTS:

That _____
(here insert the legal name of the Applicant)

(here insert the address of the Applicant)

as Principal, hereinafter called "Applicant", and

(here insert the legal name of the Surety)

(here insert the address of the Surety)

as Surety, hereinafter called "Surety", are held and firmly bound
unto the WASHINGTON SUBURBAN SANITARY COMMISSION, Laurel, Maryland, a
public and governmental corporate agency of the State of Maryland, as
Obligee, hereinafter called the "Commission", in
the amount of

_____ dollars (\$ _____), being 50
percent of the System Development Charge of the herein-mentioned
application, for the payment whereof Applicant and Surety bind
themselves, their heirs, executors, administrators, successors and
assigns, jointly and severally.

WHEREAS, the Applicant has applied for a plumbing permit to
install fixtures or hookup a residential property to the Commission's
water and/or sewerage system(s) under Plumbing Permit No. _____ and
has promised to pay the full system development charge within 12

months of the date of the application or prior to the transfer of title to the property, whichever occurs first.

NOW, THEREFORE, the condition of this obligation is such that if the Applicant shall promptly and faithfully pay the system development charge in a timely manner, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the Commission.

Whenever Applicant shall be, and declared by Commission to be, in default in payment of the system development charge, the Commission having performed Commission's obligations thereunder, the Surety shall promptly pay the amount owed by the Applicant to the Commission.

Any suit under this bond must be instituted before the expiration of eighteen (18) months from the date payment is due. No right of action shall accrue on this bond to or for the use of any person or corporation other than the Commission or its successors and assigns.

The bond is executed in two (2) counterparts, each of which shall, without proof or accounting for the other counterpart, be deemed an original thereof.

Signed and sealed this _____ day of _____,

ATTEST:

Applicant Name

By: _____

(Title)

(Surety Name)

By: _____

(Title)

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed, or caused to be executed by their duly authorized officials, this performance bond in (_____) copies each of which shall be deemed an original on the date first above written. (The following is applicable if applicant is corporation or incorporated joint venture.)

A Corporation _____

By: _____

(Title)

Date: _____

Attest: _____

Secretary of Corporation

Certificate as to Corporation (Corporate Seal)

I, _____, certify that I am Secretary of the Corporation named as Applicant herein, that _____ who signed this Performance Bond on behalf of the Applicant was then

_____ of said Corporation; that I know his signature thereto is genuine; that the Bond was duly signed and sealed in behalf of said Corporation by authority of its governing body, and is within the scope of its corporate powers.

Secretary of Corporation

(The following is applicable if Applicant is individual, partnership or unincorporated joint venture.)

Signed and Sealed in the full names of all partners and all members of Joint Ventures.

(Print)	Name	(Signature)
<hr/>		
Address		

(Print)	Name	(Signature)
<hr/>		
Address		

(Seal)

(Print)	Name	(Signature)
<hr/>		
Address		

(Seal)

(Print)	Name	(Signature)
<hr/>		
Address		

Chapter 5.95

SDC CREDITS AND REIMBURSEMENTS

Sections:

- 5.95.010 Purpose.**
- 5.95.020 Definitions.**
- 5.95.030 General procedures.**
- 5.95.040 Procedures for wet weather projects.**
- 5.95.050 Authority.**

5.95.010 Purpose.

- (a) Define procedures for the issuance of a system development charge (SDC) credit earned through private design and construction to serve the applicant's property. These procedures pertain only to either an approved capital improvement program (CIP) project or a project that provides only local service, is 2,000 feet or less in length, is either a sewer main 15 inches or greater in diameter, or water main 16 inches or greater in diameter and is built to avoid unnecessary and uneconomical duplication when a major project is constructed.
- (b) Describe how the SDC credit due an applicant will be determined.
- (c) Describe when SDC credit and reimbursement will occur. (document dated July 1, 2020)

5.95.020 Definitions.

- (a) "Administrative costs" means costs incurred by the applicant for processing and managing the design and construction of the project. Examples include administrative services, utilities, and supplies.
- (b) "Applicant" means any firm, corporation, partnership, joint venture, municipality, agency, person or persons whom WSSC has authorized to design and construct a qualified project eligible for SDC credit or whom WSSC has required to provide eligible private funding of the Commission's costs to design and construct such a project.
- (c) "Credit voucher" means the document ([Attachment B](#)), executed by the applicant, which serves as the instrument to obtain SDC credit associated with an application for permit to install plumbing fixtures. Each credit voucher may apply only to a single application for plumbing permit and shall:
 - (1) Identify the qualified project from which credit is derived; and
 - (2) Specify the qualified property for which the credit is requested; and
 - (3) Be signed by the applicant or its authorized agent, be duly notarized; and

- (4) Show the amount to be credited in lieu of SDC payment.
- (d) “Eligible private funding” means payment required by and made to WSSC by an applicant to cover WSSC costs to design and construct a CIP project needed to accommodate growth.
- (e) “Memorandum of understanding (MOU)” means a written agreement made between the WSSC and an applicant which covers the applicant’s design and construction of a CIP project and which identifies the estimated total applicant costs eligible for SDC credit and/or reimbursement. A qualified project built without a signed MOU is not eligible for SDC applicant credits or reimbursement.
- (f) “Qualified project” means any CIP facility, CIP line, sewer main 15 inches or greater, or water main 16 inches or greater in diameter necessary to serve the applicant’s property, which is designed and constructed by and at the sole expense of an applicant pursuant to an MOU or SEP or other agreement. Also, any CIP project which is constructed by WSSC that the applicant is required to provide eligible private funding of WSSC design and construction costs.
- (g) “Qualified project scope” means the specific scope of the qualified project. For pipelines built under an SEP, the specific scope will be included with the SDC credit agreement and will include pipeline lengths and diameters, valves, vaults and any other appurtenant structures. For facility projects, the specific scope of work will be included with the MOU.
- (h) “Qualified properties” means the specific properties located within the geographic area which WSSC identifies as served by the qualified project, as defined in WSSC [5.95.030\(c\)](#).
- (i) “SDC credit” means a dollar value which is credited to an applicant against SDC payable in connection with qualified properties and which equals the total eligible costs as defined in WSSC [5.95.030\(f\)](#) incurred by the applicant in the applicant’s design and construction of a qualified project or the amount of eligible private funding made by the applicant to cover WSSC costs to design and construct a qualified project. An applicant who designs a qualified project must also construct that project in order to be eligible to receive SDC credits.
- (j) “SDC credit agreement” means an agreement that summarizes the eligible costs considered for SDC credit (as described in WSSC [5.95.030\(f\)](#)). The SDC credit agreement is appended to an SEP. The credit agreement is included in the MOU as [Attachment A](#).
- (k) “SDC ledger” means the record of SDC credit authorized for an applicant and the amount(s) of SDC credit issued or reimbursed to the applicant for fixtures covered by plumbing permits obtained in the course of developing qualified properties associated with a qualified project.
- (l) “System development charge (SDC)” means a fee paid to the WSSC at the time of application for a plumbing permit intended to cover the cost of building CIP projects needed to accommodate growth.
- (m) “System extension permit (SEP)” means a permit/agreement made between the WSSC and an applicant pursuant to the Development Services Code or any subsequently adopted revisions. A qualified project built under a system extension permit issued without a signed accompanying SDC credit agreement is not eligible for SDC applicant credits or reimbursement.

(n) "Wet weather project" means proposed developments connecting into or upstream of CIP size trunk sewer stretches that have projected sanitary sewer overflows based on existing dry weather flow (including ground water) and rainfall dependent infiltration and inflow from a two-year design storm (specified by WSSC).

All other proposed developments projected to generate flows over 100,000 gallons per day (gpd) connecting into or upstream of CIP size trunk sewer stretches that have projected sanitary sewer overflows based on existing dry weather flow (including ground water) and rainfall dependent infiltration and inflow from a 10-year design storm (specified by WSSC). (document dated July 1, 2020)

5.95.030 General procedures.

(a) An applicant shall declare a desire to design and construct a qualified project eligible for SDC credit either as an element of its request for a hydraulic planning analysis filed with the Development Services Group or in a written response to the letter of findings prepared by the Development Services Group. For projects that were previously authorized, but have not yet been issued an SEP or MOU, the applicant may request an authorization amendment to allow the applicant to design and construct a qualified project eligible for SDC credit.

(b) The applicant agrees to pay WSSC all review fees normally due WSSC. Letters of credit are not acceptable in lieu of fees.

(c) When an applicant has requested that it be permitted to design and construct a CIP project, the Development Services Group shall prepare a map during its hydraulic planning analysis that identifies the qualified properties to be served by the CIP project which the applicant has requested to design and construct. SDC credit will only be issued to properties within the geographic boundaries identified in the map as qualified properties. A copy of the prepared map will be sent to the applicant.

(d) If WSSC either authorizes the applicant to design and construct a qualified project or requires eligible private funding from the applicant of WSSC's design and construction costs, then the properties identified as served by the project will receive credit and/or be subject to SDC payments which may be reimbursed to the applicant up to the total eligible amount. The Permit Services Unit will establish an applicant's SDC ledger following either (1) execution of a MOU or SEP covering applicant design and construction of the qualified project or (2) WSSC receipt of eligible private funding of the qualified project from the applicant. Prior to establishing the applicant's SDC ledger, the Permit Services Unit requires a map identifying all qualified properties to be served by the qualified project from the Development Services Group. Please note that for pipeline jobs, the applicant will not receive SDC credit or reimbursement unless the SDC credit agreement is signed before the SEP is issued.

(e) The SDC ledger will reflect the total amount of SDC credit/reimbursement that the applicant is eligible to receive. If the applicant is designing and constructing the qualified project, the ledger will initially reflect the applicant's SDC credit based upon the estimated total eligible costs agreed upon in the MOU or SEP. The applicant's initial ledger credit amount will be adjusted to reflect the actual total eligible costs for the qualified project, as determined by the Inspector General (as discussed in subsections [\(f\)](#), [\(g\)](#), [\(h\)](#), [\(i\)](#) and [\(m\)](#) of this section), after the qualified project has been accepted and placed in service by WSSC. If WSSC is designing and constructing a qualified project, the ledger will reflect the total amount of eligible private funding received from the applicant.

(f) SDC credits may not exceed 50 percent of the estimated total eligible project cost (not to include contingency for increase in scope items (see subsection (i) of this section)) until such time as final audit is completed and the actual total eligible project cost is determined. Once the actual total eligible project cost is determined, SDC credits are available up to the eligible project cost and quarterly refunds (based upon SDC collected for qualified properties) will commence. Prior to the final audit, the credit voucher is the only method of reimbursement to the applicant.

Following WSSC receipt of eligible private funding, SDC credits against the ledger amount may be granted. However in the SDC credits toward the private funding may not exceed 50 percent of the total estimated project cost.

(g) When an applicant is designing and constructing a qualified project, SDC credit is the total eligible project cost incurred and paid by the applicant. The SDC credit is subject to the general guidelines that (1) eligible costs will be the types of costs that WSSC would have incurred had WSSC designed and constructed the qualified project, and (2) the SDC credit will not exceed the maximum amount mutually agreed upon in the SDC credit agreement. Eligible costs must be directly allocable to the qualified project. Examples include but are not limited to:

- (1) *Engineering Costs.* Design, reprographics, survey (topo), soil borings, as-built drawing preparation and bonding fees.
- (2) *Permit Costs.* Costs for permits that WSSC would have had to acquire had WSSC built the project.
- (3) *WSSC Fees for Pipelines.* Fees for extra WSSC reviews or retesting will be considered only if noneligible portions of the job do not require extra reviews or retesting. Unless mentioned otherwise, fees will be allocated to the qualified project based on estimated costs and overall water and sewer project cost for the project number.
- (4) *WSSC Fees for Facilities.* All WSSC direct costs and overhead associated with the qualified project as stated in the MOU.
- (5) *Construction Costs.* Contractors bid price, survey (stake out), geotech (compaction testing), off-site restoration and construction management.
- (6) *Interest Costs.* Interest costs for funds used during design and construction, at an average interest rate not to exceed the rate paid by WSSC on short-term construction notes outstanding during the period beginning with the date of WSSC signature on the SEP or MOU agreement and ending when the qualified project is substantially complete.
- (7) *Off-Property Rights-of-Way.* Acquisition costs are eligible up to amount appraised by WSSC for purchase of applicant's off-property right-of-way and construction strips, plus up to 25 percent of the appraised amount for direct costs associated with purchase of off-site rights-of-way and construction strips.

(h) Examples of costs that are not eligible include but are not limited to:

- (1) Areawide planning not directly related to the qualified project;
- (2) Attorney fees;

- (3) The WSSC hydraulic review fee;
 - (4) Costs for negotiation of SDC credit agreement or MOU;
 - (5) Bonus payments or acceleration costs paid to the contractor for completion of construction;
 - (6) Third-party inspection costs for facility projects;
 - (7) Applicant's overhead costs not directly attributable to the qualified project;
 - (8) Costs outside the scope of the qualified project;
 - (9) Permit costs associated with a development rather than the qualified project;
 - (10) Site acquisition costs beyond what WSSC would have paid;
 - (11) Facilities capital cost of money;
 - (12) Fines and penalties;
 - (13) Maintenance costs;
 - (14) Maintenance bond costs that are beyond both two years after substantial completion and beyond one year after release of service or final acceptance;
 - (15) Grading of rights-of-way;
 - (16) Sediment control for grading;
 - (17) Clearing and grubbing for public rights-of-way in which the qualified project will be installed;
 - (18) Federal and state income taxes;
 - (19) Administrative or management fees not directly associated with the qualified project; and
 - (20) Personal injury compensation or damages.
- (i) The maximum SDC reimbursement shall not exceed 110 percent of the contractor bid price plus other eligible costs.
- (j) The SDC credit agreement will not provide payment to the applicant for costs the applicant did not incur or for costs reimbursed to the applicant from other sources. The SDC credit agreement will not provide any premiums for expedited work.
- (k) Prior to SDC credit agreement or MOU approval, the WSSC project manager for the project is responsible to have components of the SDC credit agreement or MOU reviewed by other offices. The Contract Technical Services Unit should review the applicant's construction costs using a copy of the signed plans. The Inspector General is to review any item that the WSSC project manager proposes which is contrary to subsections [\(g\)](#) and [\(h\)](#) of this section. Other appropriate WSSC offices should be consulted such as the Land Acquisition Unit for additional land acquisition costs and the Planning Group for planning costs.

- (l) For qualified projects, the SEP or MOU agreements should indicate that the maintenance bond should remain in effect at least two years beyond the date of release for service for SEP projects or at least one year beyond the date of final acceptance for MOU projects. The applicant will submit a written request for audit to WSSC's Inspector General after the qualified project built by the applicant has been released for service (pipelines) or finally accepted (facilities). Along with the request, the applicant must submit an itemized listing of eligible qualified project costs, incurred and paid, supporting the total amount of SDC credit claimed. It should be emphasized that the applicant should retain all the contracts, invoices and payments for the Inspector General to inspect and review to determine the SDC credits. The Inspector General will calculate administrative costs at five percent of the construction, design and other (geotechnical, permits, etc.) qualified project costs. The five percent calculation will not include WSSC costs or interest. If the requested amount exceeds five percent, supporting documentation is required to justify all costs.
- (m) In compliance with Public Utilities Article, § [25-405\(d\)](#), Annotated Code of Maryland, WSSC's Inspector General shall review and approve the costs incurred by the applicant. The Inspector General will strive to initiate the audit within 90 days of the applicant's request, if the request includes the required itemized cost listing. The Inspector General's Report will be the formal document that communicates the final results of the audit to WSSC and the applicant. When an audit is complete, prior to the final Inspector General Report, the Inspector General will issue to the applicant an unsigned discussion draft to allow the applicant an opportunity to discuss with the Inspector General any concerns the applicant has with the proposed SDC credit. Subsequently, the Inspector General will issue to the applicant its final report on the SDC credit to be provided the applicant.
- (n) SDC credits against an applicant's SDC credit balance will be issued by WSSC upon receipt of a complete and fully executed credit voucher submitted at the time of plumbing permit application. The application must be made in connection with a qualified property served by the qualified project being built by the applicant. Also, the amount specified in the credit voucher shall not exceed the calculated SDC for plumbing fixtures covered by the permit application. Credit vouchers reflecting and specifying an amount in excess of calculated SDC for the requested permit will not be accepted. The plumbing permit will be issued after verification that a sufficient credit balance remains to cover the credit voucher amount. Insofar as possible, credit vouchers will be considered on a "first come – first served" basis. For a plumbing permit application accompanied by a credit voucher for which an applicant's credit balance has been exhausted, the credit voucher and the associated application will be returned to the applicant. WSSC is not responsible for managing or assisting the applicant in managing the issuance of credit vouchers. Managing the issuance of credit vouchers is not an eligible cost of reimbursement.
- (o) In the event an issued plumbing permit expires or is canceled by the owner or plumber, no SDC reimbursement to the applicant will be approved for that permit. In such cases, any credit voucher will be voided and the credit amount added to the applicant's outstanding ledger balance.
- (p) In conformance with subsection [\(s\)](#) of this section, SDC payments received in association with applications for plumbing permits for qualified properties will be identified as eligible for reimbursement (after the Inspector General's Report has been completed – see subsection [\(m\)](#) of this section) to the applicant who has constructed the qualified projects serving those qualified properties.
- (q) For those situations where more than one qualified project serves a qualified property, SDC reimbursement payments shall be made in proportional shares to the applicants who have built or funded the qualified projects. A

proportional share is calculated based upon a qualified project's actual eligible costs or funding expressed as a percentage of the sum of all actual eligible costs and/or funding of qualified projects serving the qualified property.

(r) At the conclusion of each calendar quarter, the Permit Services Unit will determine the total SDC receipts eligible for reimbursement made for each previously identified qualified property. Only those SDC receipts filed in association with plumbing permits under which all covered work has received an approved final inspection are eligible for reimbursement.

(s) Based upon the quarterly reconciliation, the Permit Services Unit will prepare and forward to the Accounting Group a payment request to be made to the appropriate applicant in an amount equal to the sum of qualifying SDC receipts not yet reimbursed, and a memorandum recommending reimbursement of SDC receipts and identifying the maximum amount recoverable. The memorandum shall be accompanied by a statement detailing eligible plumbing permits.

(t) Following review of the recommended reimbursement, the Accounting Group will forward the payment request and supporting documentation to the Disbursements Group which will issue payment to the applicant.

(u) When an applicant has designed and constructed a qualified project, the sum of SDC credits and reimbursements pursuant to this procedure will be made only to the maximum determined by the Inspector General's Report and only to the applicant identified in the MOU or SEP.

(v) The applicant may issue credit vouchers to multiple builders to facilitate construction of residential or nonresidential structures within the qualified property and reimbursement of qualified project costs. If the applicant wishes to transfer its right and title to any remaining SDC credit from a qualified project, the applicant shall notify the Permit Services Unit of the requested transfer. Such notification shall be in writing and shall identify the single entity to receive the entire remaining balance of SDC credit from a qualified project. The Permit Services Unit will acknowledge the credit transfer and forward the written request for inclusion in the qualified project's MOU or SEP as an amendment. Thereafter, all qualified property SDC credits or reimbursements will be issued to the last designated entity in the MOU or SEP as amended.

(w) Notwithstanding any other provision of this chapter, SDC credit or reimbursements for costs identified in subsection [\(d\)](#) of this section are limited to SDC transactions for qualified properties served by the qualified project within a 20-year period, or until the sum of credits and reimbursements equals the total approved SDC credit. The 20-year period will commence for SEP, MOU, or eligible funding projects on the day of release for service. At the conclusion of the 20-year period, the Permit Services Unit will close the SDC reimbursement ledger and will provide written notification of exhaustion or termination of the SDC credit to the last designated recipient. (document dated July 1, 2020)

5.95.040 Procedures for wet weather projects.

(a) Notwithstanding any other provision of this chapter, for wet weather projects only, WSSC may issue SDC reimbursements to the applicant from SDC funds collected from the entire county in which the qualified project is located.

- (b) Prior to the final audit, the developer may submit quarterly invoices for reimbursement (less any SDC vouchers for the developer's project) for up to 80 percent of the estimated total eligible costs agreed upon in the MOU or SEP. All invoices submitted shall be subject to review and approval by the Development Services Group Project Manager assigned to the project, or another staff member as designated by the Development Services Group Leader.
- (c) WSSC shall reimburse the developer for quarterly invoices submitted pursuant to subsection [\(b\)](#) of this section by first drawing from the eligible SDC receipts from properties served by the qualified project as set forth in WSSC [5.95.030\(r\)](#) and [\(s\)](#). Should the SDC receipts from the qualified project become insufficient to cover the invoices, WSSC shall reimburse the developer from SDC funds from the entire county.
- (d) Following the final audit conducted pursuant to WSSC [5.95.030\(m\)](#), additional reimbursements and credits will be made by WSSC, up to maximum eligible costs as set forth in WSSC [5.95.030\(i\)](#). (document dated July 1, 2020)

5.95.050 Authority.

The General Counsel certifies that the standard procedure codified in this chapter was adopted pursuant to the authority as set forth in the Public Utilities Article, §§ [17-403](#) and [25-405](#), Annotated Code of Maryland. (document dated July 1, 2020)

The WSSC Code of Regulations is current through regulations passed July 1, 2020.

Disclaimer: The General Counsel's office has the official version of the WSSC Code of Regulations. Users should contact the General Counsel's office for ordinances passed subsequent to the ordinance cited above.

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Chapter 11.10

PROCEDURE FOR DETERMINING PERCENT GROWTH FOR CIP PROJECTS

Sections:

11.10.010 Purpose and applicability.

11.10.020 Procedure and methodology.

11.10.010 Purpose and applicability.

The purpose of this chapter is to establish a method for determining what proportion of certain WSSC CIP projects is for growth. This chapter applies after June 30, 1993: (A) to projects which are added to the CIP; and (B) to any revisions of projects already programmed which change the amount of system capacity added by the projects. (PD 93-01 § I)

11.10.020 Procedure and methodology.

(a) The Water Resources Planning Section will determine the percent growth for all applicable CIP projects using the following methodology.

The method involves the following three steps:

(1) *Step 1 – Test for 100 Percent Growth.* If flows/demands remained at June 1993 levels, would a project still be required?

- (i) No: Growth = 100 percent.
- (ii) Yes: Continue to Step 2.

(2) *Step 2 – Test for Zero Percent Growth.* Does the project improve or replace components of an existing facility without increasing the capacity of any of the components?

- (i) Yes: Growth = zero percent.
- (ii) No: Continue to Step 3.

(3) *Step 3 – Determine Percent Growth.*

- (i) Identify system capacity added by the project.
- (ii) Identify and subtract June 30, 1993, capacity deficit, if any.
- (iii) Divide result by total project design capacity.

(b) *Notes.*

(1) For most water and wastewater facilities, there is a straightforward relationship between demand, capacity requirements, and facility size. For water transmission mains, however, the relationship is more complicated. There are many factors other than size which must be considered to determine capacity. These factors include length, the size and number of interconnections and the allowable energy differential between the points connected by the transmission system. Capacity analysis of a transmission network normally requires computer modeling. Previous water system analyses will be used to the extent they are applicable; however, where no previous analysis exists, computer modeling will be required.

(2) If an existing facility with available system capacity is being replaced by a new project which increases total system capacity, the available capacity in the existing facility is lost or wasted. In such cases, existing available capacity will be treated as a negative deficit in subsection [\(a\)\(3\)\(ii\)](#) of this section.

(c) *Examples.*

(1) An existing sewer has a safe capacity of 20 mgd. The June 30, 1993, peak flow is 17 mgd. A proposed parallel sewer will add 10 mgd of capacity for growth. Since the existing sewer can handle the June 30, 1993, flows the project is 100 percent for growth (subsection [\(a\)\(1\)](#) of this section).

(2) An existing sewer has a safe capacity of 20 mgd; its maximum capacity before overflow is 27 mgd. The June 30, 1993, peak flow is 21 mgd. A proposed parallel sewer will add 10 mgd of capacity for growth. Since the existing sewer can handle the June 30, 1993, flows, the project is 100 percent for growth (subsection [\(a\)\(1\)](#) of this section).

(3) An existing pumping station has 1 mgd of capacity. The June 30, 1993, flow is 0.8 mgd. A proposed replacement pumping station will have a total capacity of 1.5 mgd. The existing pumping station is old, and a rehab project would be needed if the new pumping station were not built. Therefore, the station is not 100 percent for growth (subsection [\(a\)\(1\)](#) of this section). It adds capacity, so it is not zero percent growth (subsection [\(a\)\(2\)](#) of this section). The percent for growth is calculated as follows: 0.5 mgd (the capacity added by the new pumping station) plus 0.2 mgd (the amount of lost available capacity) divided by 1.5 mgd (the total capacity of the new pumping station) = 47 percent (subsection [\(a\)\(3\)](#) of this section).

(4) An existing pumping station in good condition has 1 mgd of capacity. The June 30, 1993, flow is 0.8 mgd. A proposed replacement pumping station, located downstream to increase the service area, will have a total capacity of 1.5 mgd. The proposed pumping station is 100 percent for growth (subsection [\(a\)\(1\)](#) of this section).

(5) A pressure zone has a 1 mg storage deficit based on June 30, 1993, demands. When we finally get agreement to build a 3 mg tank in the zone, the deficit has risen to 2 mg. The tank is 66.7 percent for growth (3 mg added – 1 mg deficit)/3 mg total capacity = 67.7 percent (subsection [\(a\)\(3\)](#) of this section). (PD 93-01 § II)

The WSSC Code of Regulations is current through regulations passed July 17, 2019.

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WSSC WATER
PROPOSED FY 2023 - 2028 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

PROGRAM NAME	TOTAL COST	THRU FY 2021	ESTIMATE FY 2022	TOTAL 6 YEARS	YEAR 1 FY 2023	YEAR 2 FY 2024	YEAR 3 FY 2025	YEAR 4 FY 2026	YEAR 5 FY 2027	YEAR 6 FY 2028	BEYOND 6 YEARS
MONTGOMERY COUNTY WATER PROJECTS											
Total Project Costs*	\$ 9,237	\$ 49	\$ 23	\$ 9,165	\$ 2,621	\$ 1,045	\$ 2,577	\$ 2,738	\$ 92	\$ 92	\$ 0
SDC Eligible Costs†	\$ 9,237	\$ 49	\$ 23	\$ 9,165	\$ 2,621	\$ 1,045	\$ 2,577	\$ 2,738	\$ 92	\$ 92	\$ 0
BI-COUNTY WATER PROJECTS											
Total Project Costs	121,649	1,931	4,503	114,615	2,250	5,715	5,715	42,675	42,675	15,585	600
SDC Eligible Costs	65,632	1,139	747	63,746	681	2,726	2,726	24,532	24,532	8,549	0
PRINCE GEORGE'S COUNTY WATER PROJECTS											
Total Project Costs	161,517	31,155	10,463	110,791	45,097	36,624	27,277	815	489	489	9,108
SDC Eligible Costs	103,069	27,807	7,044	59,110	27,298	18,825	11,194	815	489	489	9,108
TOTAL WATER PROJECT COSTS	292,404	33,136	14,989	234,571	49,968	43,384	35,569	46,228	43,256	16,166	9,708
TOTAL WATER SDC ELIGIBLE COSTS	177,938	28,995	7,814	132,021	30,600	22,596	16,497	28,085	25,113	9,130	9,108
MONTGOMERY COUNTY SEWER PROJECTS											
Total Project Costs	44,634	2,199	8,462	33,973	4,547	7,072	7,998	5,714	5,574	3,068	0
SDC Eligible Costs	33,140	1,817	8,041	23,282	4,014	4,613	4,051	4,057	3,988	2,559	0
BI-COUNTY SEWER PROJECTS											
Total Project Costs	44,938	774	3,506	40,658	18,470	16,495	5,108	195	195	195	0
SDC Eligible Costs	8,457	213	417	7,827	5,813	2,014	0	0	0	0	0
PRINCE GEORGE'S COUNTY SEWER PROJECTS											
Total Project Costs	68,313	8,533	4,324	55,454	12,266	19,045	9,822	6,637	3,842	3,842	2
SDC Eligible Costs	63,055	8,317	4,084	50,652	11,643	17,715	8,986	5,972	3,168	3,168	2
TOTAL SEWER PROJECT COSTS	157,885	11,506	16,292	130,085	35,283	42,612	22,928	12,546	9,611	7,105	2
TOTAL SEWER SDC ELIGIBLE COSTS	104,652	10,347	12,542	81,761	21,470	24,342	13,037	10,029	7,156	5,727	2
INFORMATION ONLY PROJECTS											
Total Project Costs	0	0	0	0	0	0	0	0	0	0	0
SDC Eligible Costs	0	0	0	0	0	0	0	0	0	0	0
TOTAL PROJECT COSTS	\$ 450,289	\$ 44,642	\$ 31,281	\$ 364,656	\$ 85,251	\$ 85,996	\$ 58,497	\$ 58,774	\$ 52,867	\$ 23,271	\$ 9,710
TOTAL SDC ELIGIBLE COSTS	\$ 282,591	\$ 39,343	\$ 20,356	\$ 213,782	\$ 52,070	\$ 46,938	\$ 29,534	\$ 38,114	\$ 32,269	\$ 14,857	\$ 9,110

*Total Project Costs - This is the total cost for all projects needed to support growth.

†SDC Eligible Costs - That portion of the total project costs that is specifically for growth (i.e., if a project supports 50% growth and 50% system improvements, the SDC eligible costs refer only to the 50% growth portion.

WSSC WATER
PROPOSED FY 2023 - 2028 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	THRU FY 2021	ESTIMATE FY 2022	TOTAL 6 YEARS	YEAR 1 FY 2023	YEAR 2 FY 2024	YEAR 3 FY 2025	YEAR 4 FY 2026	YEAR 5 FY 2027	YEAR 6 FY 2028	BEYOND 6 YEARS
<u>MONTGOMERY COUNTY WATER PROJECTS</u>												
W - 000046.26	Pleasant's Property Water Main Extension	\$ 2,082	\$ 19	\$ 0	\$ 2,063	\$ 1,857	\$ 206	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	TOTAL GROWTH COSTS	\$ 2,082	\$ 19	\$ 0	\$ 2,063	\$ 1,857	\$ 206	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
W - 000113.20	White Oak Water Mains Augmentation	5,306	30	23	5,253	23	377	2,300	2,553	0	0	0
	TOTAL GROWTH COSTS	5,306	30	23	5,253	23	377	2,300	2,553	0	0	0
W - 000113.21	Viva White Oak Water Main	1,849	0	0	1,849	741	462	277	185	92	92	0
	TOTAL GROWTH COSTS	1,849	0	0	1,849	741	462	277	185	92	92	0
SUBTOTAL MONTGOMERY COUNTY WATER PROJECTS		\$ 9,237	\$ 49	\$ 23	\$ 9,165	\$ 2,621	\$ 1,045	\$ 2,577	\$ 2,738	\$ 92	\$ 92	\$ 0
SUBTOTAL MONTGOMERY COUNTY WATER SDC ELIGIBLE COSTS		\$ 9,237	\$ 49	\$ 23	\$ 9,165	\$ 2,621	\$ 1,045	\$ 2,577	\$ 2,738	\$ 92	\$ 92	\$ 0

WSSC WATER
PROPOSED FY 2023 - 2028 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	THRU FY 2021	ESTIMATE FY 2022	TOTAL 6 YEARS	YEAR 1 FY 2023	YEAR 2 FY 2024	YEAR 3 FY 2025	YEAR 4 FY 2026	YEAR 5 FY 2027	YEAR 6 FY 2028	BEYOND 6 YEARS
BI-COUNTY WATER PROJECTS												
W - 000073.32	Potomac WFP Main Zone Pipeline	\$ 111,184	\$ 1,931	\$ 1,208	\$ 108,045	\$ 1,155	\$ 4,620	\$ 4,620	\$ 41,580	\$ 41,580	\$ 14,490	\$ 0
	TOTAL GROWTH COSTS	\$ 65,598	\$ 1,139	\$ 713	\$ 63,746	\$ 681	\$ 2,726	\$ 2,726	\$ 24,532	\$ 24,532	\$ 8,549	\$ 0
W - 000202.00	Land & Rights-of-Way Acquisition - Bi-County Water	10,465	0	3,295	6,570	1,095	1,095	1,095	1,095	1,095	1,095	600
	TOTAL GROWTH COSTS	34	0	34	0	0	0	0	0	0	0	0
SUBTOTAL BI-COUNTY WATER PROJECTS		\$ 121,649	\$ 1,931	\$ 4,503	\$ 114,615	\$ 2,250	\$ 5,715	\$ 5,715	\$ 42,675	\$ 42,675	\$ 15,585	\$ 600
SUBTOTAL BI-COUNTY WATER SDC ELIGIBLE COSTS		\$ 65,632	\$ 1,139	\$ 747	\$ 63,746	\$ 681	\$ 2,726	\$ 2,726	\$ 24,532	\$ 24,532	\$ 8,549	\$ 0

WSSC WATER
PROPOSED FY 2023 - 2028 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	THRU FY 2021	ESTIMATE FY 2022	TOTAL 6 YEARS	YEAR 1 FY 2023	YEAR 2 FY 2024	YEAR 3 FY 2025	YEAR 4 FY 2026	YEAR 5 FY 2027	YEAR 6 FY 2028	BEYOND 6 YEARS
PRINCE GEORGE'S COUNTY WATER PROJECTS												
W - 000034.02	Old Branch Avenue Water Main	\$ 22,990	\$ 3,102	\$ 5,830	\$ 14,058	\$ 5,830	\$ 5,830	\$ 2,398	\$ 0	\$ 0	\$ 0	\$ 0
	TOTAL GROWTH COSTS	\$ 11,495	\$ 1,551	\$ 2,915	\$ 7,029	\$ 2,915	\$ 2,915	\$ 1,199	\$ 0	\$ 0	\$ 0	\$ 0
W - 000034.04	Branch Avenue Water Transmission Improvements	44,748	21,901	1,280	21,567	14,645	6,006	586	330	0	0	0
	TOTAL GROWTH COSTS	44,748	21,901	1,280	21,567	14,645	6,006	586	330	0	0	0
W - 000062.06	Rosaryville Water Storage Facility	9,108	0	0	0	0	0	0	0	0	0	9,108
	TOTAL GROWTH COSTS	9,108	0	0	0	0	0	0	0	0	0	9,108
W - 000084.03	Smith Home Farms Water Main	3,806	1,950	630	1,226	449	408	369	0	0	0	0
	TOTAL GROWTH COSTS	3,806	1,950	630	1,226	449	408	369	0	0	0	0
W - 000084.04	Westphalia Town Center Water Main	1,834	673	48	1,113	373	438	302	0	0	0	0
	TOTAL GROWTH COSTS	1,834	673	48	1,113	373	438	302	0	0	0	0
W - 000093.01	Konterra Town Center East Water Main	2,497	230	0	2,267	788	899	580	0	0	0	0
	TOTAL GROWTH COSTS	2,497	230	0	2,267	788	899	580	0	0	0	0
W - 000105.01	Marlton Section 18 Water Main, Lake Marlton Avenue	2,925	19	2	2,904	460	491	490	485	489	489	0
	TOTAL GROWTH COSTS	2,925	19	2	2,904	460	491	490	485	489	489	0
W - 000120.14	Timothy Branch Water Main	2,466	557	1,909	0	0	0	0	0	0	0	0
	TOTAL GROWTH COSTS	2,466	557	1,909	0	0	0	0	0	0	0	0
W - 000137.03	South Potomac Supply Improvement, Phase 2	71,143	2,723	764	67,656	22,552	22,552	22,552	0	0	0	0
	TOTAL GROWTH COSTS	24,190	926	260	23,004	7,668	7,668	7,668	0	0	0	0
SUBTOTAL PRINCE GEORGE'S COUNTY WATER PROJECTS		\$ 161,517	\$ 31,155	\$ 10,463	\$ 110,791	\$ 45,097	\$ 36,624	\$ 27,277	\$ 815	\$ 489	\$ 489	\$ 9,108
SUBTOTAL PRINCE GEORGE'S COUNTY WATER SDC ELIGIBLE COSTS		\$ 103,069	\$ 27,807	\$ 7,044	\$ 59,110	\$ 27,298	\$ 18,825	\$ 11,194	\$ 815	\$ 489	\$ 489	\$ 9,108

WSSC WATER
PROPOSED FY 2023 - 2028 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	THRU FY 2021	ESTIMATE FY 2022	TOTAL 6 YEARS	YEAR 1 FY 2023	YEAR 2 FY 2024	YEAR 3 FY 2025	YEAR 4 FY 2026	YEAR 5 FY 2027	YEAR 6 FY 2028	BEYOND 6 YEARS
MONTGOMERY COUNTY SEWER PROJECTS												
S - 000063.08	Sam Rice Manor WWPS & FM	\$ 5,501	\$ 36	\$ 288	\$ 5,177	\$ 173	\$ 115	\$ 174	\$ 575	\$ 1,150	\$ 2,990	\$ 0
	TOTAL GROWTH COSTS	\$ 4,564	\$ 30	\$ 239	\$ 4,295	\$ 144	\$ 95	\$ 144	\$ 477	\$ 954	\$ 2,481	\$ 0
S - 000083.07	Ashford Woods WWPS & FM	3,591	111	288	3,192	1,237	1,149	662	144	0	0	0
	TOTAL GROWTH COSTS	3,591	111	288	3,192	1,237	1,149	662	144	0	0	0
S - 000084.67	Milestone Center Sewer Main	700	137	0	563	538	25	0	0	0	0	0
	TOTAL GROWTH COSTS	700	137	0	563	538	25	0	0	0	0	0
S - 000085.21	Shady Grove Station Sewer Augmentation	7,483	869	6,606	8	8	0	0	0	0	0	0
	TOTAL GROWTH COSTS	7,482	868	6,606	8	8	0	0	0	0	0	0
S - 000085.22	Shady Grove Neighborhood Center	2,010	242	452	1,316	658	658	0	0	0	0	0
	TOTAL GROWTH COSTS	2,010	242	452	1,316	658	658	0	0	0	0	0
S - 000094.13	Damascus Town Center WWPS Replacement	10,057	399	330	9,328	660	3,157	5,269	242	0	0	0
	TOTAL GROWTH COSTS	3,018	120	99	2,799	198	947	1,581	73	0	0	0
S - 000094.14	Spring Gardens WWPS Replacement	10,993	301	440	10,252	132	715	715	4,345	4,345	0	0
	TOTAL GROWTH COSTS	7,476	205	299	6,972	90	486	486	2,955	2,955	0	0
S - 000118.09	Viva White Oak Sewer Main	1,560	0	0	1,560	623	390	235	155	79	78	0
	TOTAL GROWTH COSTS	1,560	0	0	1,560	623	390	235	155	79	78	0
S - 000151.02	Erickson Bethesda Sewer Main	2,740	105	58	2,577	518	863	943	253	0	0	0
	TOTAL GROWTH COSTS	2,740	105	58	2,577	518	863	943	253	0	0	0
SUBTOTAL MONTGOMERY COUNTY SEWER PROJECTS		\$ 44,634	\$ 2,199	\$ 8,462	\$ 33,973	\$ 4,547	\$ 7,072	\$ 7,998	\$ 5,714	\$ 5,574	\$ 3,068	\$ 0
SUBTOTAL MONTGOMERY COUNTY SEWER SDC ELIGIBLE COSTS		\$ 33,140	\$ 1,817	\$ 8,041	\$ 23,282	\$ 4,014	\$ 4,613	\$ 4,051	\$ 4,057	\$ 3,988	\$ 2,559	\$ 0

WSSC WATER
PROPOSED FY 2023 - 2028 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	THRU FY 2021	ESTIMATE FY 2022	TOTAL 6 YEARS	YEAR 1 FY 2023	YEAR 2 FY 2024	YEAR 3 FY 2025	YEAR 4 FY 2026	YEAR 5 FY 2027	YEAR 6 FY 2028	BEYOND 6 YEARS
BI-COUNTY SEWER PROJECTS												
S - 000089.24	Anacostia #2 WWPS Upgrades	\$ 42,473	\$ 774	\$ 3,211	\$ 38,488	\$ 17,475	\$ 16,100	\$ 4,913	\$ 0	\$ 0	\$ 0	\$ 0
	TOTAL GROWTH COSTS	\$ 7,903	\$ 213	\$ 327	\$ 7,363	\$ 5,349	\$ 2,014	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
S - 000203.00	Land & Rights-of-Way Acquisition - Bi-County Sewer	2,465	0	295	2,170	995	395	195	195	195	195	0
	TOTAL GROWTH COSTS	554	0	90	464	464	0	0	0	0	0	0
SUBTOTAL BI-COUNTY SEWER PROJECTS		\$ 44,938	\$ 774	\$ 3,506	\$ 40,658	\$ 18,470	\$ 16,495	\$ 5,108	\$ 195	\$ 195	\$ 195	\$ 0
SUBTOTAL BI-COUNTY SEWER SDC ELIGIBLE COSTS		\$ 8,457	\$ 213	\$ 417	\$ 7,827	\$ 5,813	\$ 2,014	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

WSSC WATER
PROPOSED FY 2023 - 2028 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	THRU FY 2021	ESTIMATE FY 2022	TOTAL 6 YEARS	YEAR 1 FY 2023	YEAR 2 FY 2024	YEAR 3 FY 2025	YEAR 4 FY 2026	YEAR 5 FY 2027	YEAR 6 FY 2028	BEYOND 6 YEARS
PRINCE GEORGE'S COUNTY SEWER PROJECTS												
S - 000027.08	Westphalia Town Center Sewer Main	\$ 1,632	\$ 874	\$ 521	\$ 237	\$ 161	\$ 62	\$ 14	\$ 0	\$ 0	\$ 0	\$ 0
	TOTAL GROWTH COSTS	\$ 1,632	\$ 874	\$ 521	\$ 237	\$ 161	\$ 62	\$ 14	\$ 0	\$ 0	\$ 0	\$ 0
S - 000028.18	Konterra Town Center East Sewer	6,871	4,673	0	2,198	0	2,198	0	0	0	0	0
	TOTAL GROWTH COSTS	6,872	4,674	0	2,198	0	2,198	0	0	0	0	0
S - 000068.01	Landover Mall Redevelopment	1,397	0	109	1,286	668	426	48	48	48	48	2
	TOTAL GROWTH COSTS	1,397	0	109	1,286	668	426	48	48	48	48	2
S - 000075.23	Brandywine Woods WWPS & FM	3,515	35	288	3,192	1,237	1,149	662	144	0	0	0
	TOTAL GROWTH COSTS	3,515	35	288	3,192	1,237	1,149	662	144	0	0	0
S - 000086.19	Southlake Subdivision Sewer	843	758	75	10	10	0	0	0	0	0	0
	TOTAL GROWTH COSTS	843	758	75	10	10	0	0	0	0	0	0
S - 000087.19	Horsepen WWPS & FM	36,461	1,675	2,095	32,691	5,923	13,204	7,951	5,613	0	0	0
	TOTAL GROWTH COSTS	32,817	1,508	1,886	29,423	5,331	11,884	7,156	5,052	0	0	0
S - 000087.20	Freeway Airport WWPS & FM	3,533	53	288	3,192	1,237	1,150	661	144	0	0	0
	TOTAL GROWTH COSTS	3,533	53	288	3,192	1,237	1,150	661	144	0	0	0
S - 000113.13	Forest Heights WWPS & FM	8,958	273	173	8,512	173	58	230	575	3,738	3,738	0
	TOTAL GROWTH COSTS	7,344	224	142	6,978	142	48	189	471	3,064	3,064	0
S - 000118.10	Viva White Oak Sewer Augmentation	1,126	0	0	1,126	450	282	169	113	56	56	0
	TOTAL GROWTH COSTS	1,126	0	0	1,126	450	282	169	113	56	56	0
S - 000131.05	Pleasant Valley Sewer Main, Part 2	1,000	49	228	723	451	185	87	0	0	0	0
	TOTAL GROWTH COSTS	1,000	49	228	723	451	185	87	0	0	0	0
S - 000131.07	Pleasant Valley Sewer Main, Part 1	1,957	73	530	1,354	1,104	250	0	0	0	0	0
	TOTAL GROWTH COSTS	1,957	73	530	1,354	1,104	250	0	0	0	0	0
S - 000131.11	Calm Retreat Sewer Main	1,020	70	17	933	852	81	0	0	0	0	0
	TOTAL GROWTH COSTS	1,020	70	17	933	852	81	0	0	0	0	0
SUBTOTAL PRINCE GEORGE'S COUNTY SEWER PROJECTS		\$ 68,313	\$ 8,533	\$ 4,324	\$ 55,454	\$ 12,266	\$ 19,045	\$ 9,822	\$ 6,637	\$ 3,842	\$ 3,842	\$ 2
SUBTOTAL PRINCE GEORGE'S COUNTY SEWER SDC ELIGIBLE COSTS		\$ 63,055	\$ 8,317	\$ 4,084	\$ 50,652	\$ 11,643	\$ 17,715	\$ 8,986	\$ 5,972	\$ 3,168	\$ 3,168	\$ 2

