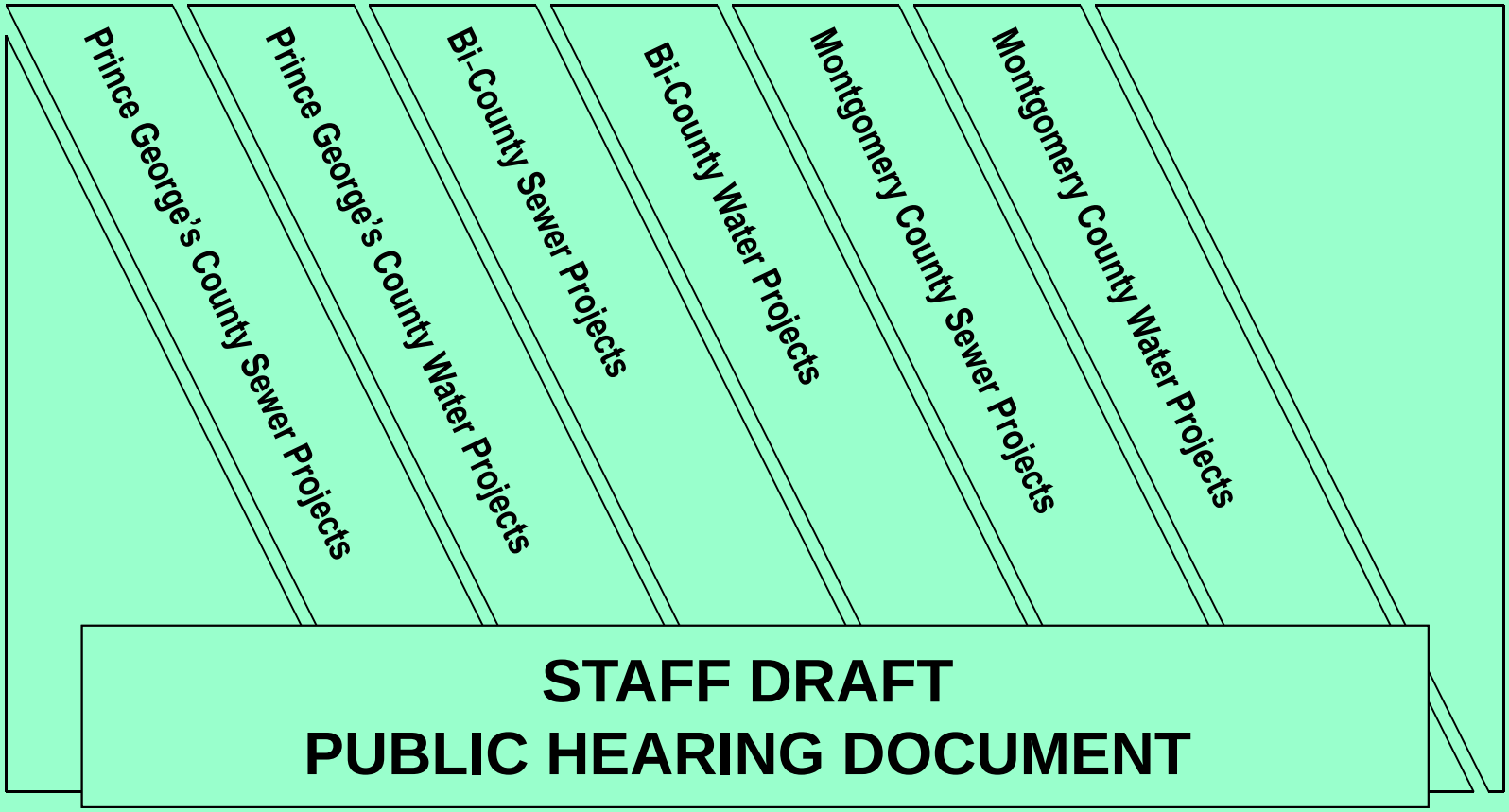
Washington Suburban Sanitary Commission

PROPOSED CAPITAL IMPROVEMENTS PROGRAM

Fiscal Years 2017 - 2022



Washington Suburban Sanitary Commission

Proposed
Six-Year Capital Improvements Program
Fiscal Years 2017 - 2022

September 9 & 10, 2015

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WASHINGTON SUBURBAN SANITARY COMMISSION
PROPOSED CAPITAL IMPROVEMENTS PROGRAM
FISCAL YEARS 2017-2022

LEGAL AUTHORITY AND RESPONSIBILITY

Statutory Basis

Under Section 23-301 of the Public Utilities Article, WSSD Laws, Annotated Code of Maryland, the Washington Suburban Sanitary Commission (WSSC) 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. The Commission, 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 Capital Improvements Program.

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 ten-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 WSSC Resolution No. 2015-2086 dated June 17, 2015, the Commission adopted the FYs 2016-2021 CIP as amended.

WSSC's Role

The Commission is a bi-county agency established in 1918 by an act of the Maryland General Assembly. The WSSC 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 the WSSC, 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 Montgomery County Executive and confirmed by the Montgomery County Council. Commissioners serve four-year staggered terms.

WSSC'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's Responsibilities

The WSSC's 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 adequately 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, and by discouraging development within the watershed buffer;
- monitoring the collection and treatment of wastewater;
- discharging an effluent cleansed of nutrients, pollutants, and hazardous materials;
- managing treated wastewater biosolids responsibly;
- maintaining the existing water and wastewater systems;
- planning for the orderly growth of the Sanitary District and WSSC services to meet the needs of the communities it serves;
- monitoring adherence to all plumbing and gasfitting 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 Capital Improvements Program represent the WSSC's plan to successfully meet its responsibilities. The WSSC strives to maintain a balance between the use of valuable resources and the public's demand for clean water. In carrying out these activities that will help ensure that we fulfill our core mission, we are energized by the opportunity to strengthen our local economies by 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 Capital Improvements Program (CIP) is the six-year programming of planning, design, land acquisition, and construction activities on a yearly basis 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.

Spending Affordability and Fiscal Implications

Projects in this CIP are primarily financed with funds from the Water Supply and Sewage Disposal Bond Funds. The Commission largely finances these projects with the proceeds from the sale of long-term debt. Water supply bonds are issued to finance the planning, design, and construction of major water treatment, storage, and transmission facilities. Sewage disposal bonds are issued to finance the planning, design, and construction of major sewage collection, treatment, and disposal facilities.

The water supply and sewage disposal bonds are repaid to bond holders over a 30-year period by annual principal and interest payments or, 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 the Commission's 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) of the Commission. 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. The Commission:

- continues an aggressive program to rehabilitate or replace the older portions of the Commission's 5,500 miles of water main and 5,400 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. The WSSC'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 Development Services Process (DSP) projects, may only proceed if built at the Applicant's expense. (An explanation of the DSP process is included in the Development Services 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 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 the WSSC'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 the WSSC is incurring debt, thus reducing the portion of WSSC 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.

The Commission has submitted a CIP and budget, which generally conforms to the Spending Affordability Guidelines (SAG) established by both county governments every year since 1994. Over the five-year period from FY'96 through FY'00, CIP spending was reduced by a total of $85.9 million. Over the period from FY'01 to FY'07, the Commission submitted budgets that did not require any further reductions. In two of the three years from FY'08 to FY'10, CIP spending was reduced or deferred by a total of $95.8 million. The FY'11 through FY'16 CIPs did not require any reductions.

The FY'17 expenditures are estimated at $492.7 million, which represents a decrease of approximately $53.9 million from the approved funding level for FY'16. The decrease is primarily due to the projected construction progress on the Broad Creek WWPS Augmentation and Blue Plains WWTP Enhanced Nutrient Removal projects.

Funding Sources

The projects included in this Capital Improvements 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 in conjunction with the Federal Grants Program. The State of Maryland also provides additional funding under a separate grants program for enhanced nutrient removal at existing wastewater treatment plants as part of the Chesapeake Bay Program and Federal Clean Water Act;
- Federal Grants - Department of Energy grants related to WSSC's Energy Performance Program and Piscataway WWTP Bio-Energy projects to promote and develop green energy sources;
- Local Government Contributions – payments to the WSSC 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 (SDC); and
- Contribution/Other – projects funded by Applicants for growth projects where the County Councils have directed that no WSSC rate-supported debt be used to pay for the project.

A graph is provided on page 25 which displays the funding allocations for the major funding categories.

Funding Growth

The portion of the CIP needed to accommodate growth is approximately $254 million, which equals 13% of all expenditures in the six-year program. The major funding sources for this part of the program are System Development Charge (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 the WSSC to impose, a System Development Charge. This is a charge on new development to pay for that part of the Commission's Capital Improvements Program needed to accommodate growth in the WSSC's customer base. In accordance with the enabling legislation, the Councils approved, and the Commission began to phase in, this charge beginning in FY'94. The SDC charge was eventually 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'16, the Montgomery County and Prince George's Councils increased the maximum allowable charge by the 1.0% increase in the CPI-U, but maintained the current rate of $203 per fixture unit by Resolution Numbers 18-162 approved May 21, 2015, and, CR-25-2015 approved May 28, 2015, respectively. The Commission adopted the Councils' actions by Resolution Number 2015-2084 dated June 17, 2015. Policies and other information associated with the System Development Charge are included in this document in Appendices A through D.

It is estimated that there will be an overall growth funding gap of $33.2 million over the six-year program period. The gap 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, it is anticipated that WSSC would issue new SDC supported debt to cover this temporary gap rather than increasing the SDC. 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 gap or surplus for each fiscal year is presented in the table that follows. To estimate the gap/surplus for an individual fiscal year, it is assumed that 80% of the eligible expenditures will actually be incurred in a given year due to scheduling and other delays. The projected gap/surplus is the difference between the eligible expenditures adjusted for completion and the sum of the various funding sources.

GROWTH FUNDING GAP
(In Millions)

	FY'17	FY'18	FY'19	FY'20	FY'21	FY'22	6 YEAR TOTAL
CIP GROWTH EXPENDITURES	$97.8	$89.5	$40.4	$6.2	$6.0	$14.3	$254.2
Expenditures Adjusted for Completion	78.2	91.2	50.2	13.1	6.0	12.6	251.3
FUNDING SOURCES							
Privately Funded Projects	15.8	16.0	7.4	1.7	0.7	0.9	42.5
Estimated SDC Revenue	29.8	30.0	32.0	32.0	34.0	34.0	191.8
Less SDC Developer Credits	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(10.2)
Less SDC Exemptions [1]	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(6.0)
TOTAL FUNDING SOURCES	$42.9	$43.3	$36.7	$31.0	$32.0	$32.2	$218.1
FUNDING GAP							
ADJUSTED FOR COMPLETION	**$35.3**	**$47.9**	**$13.5**	**($17.9)**	**($26.0)**	**($19.6)**	**$33.2**

[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 $5.3 million for Montgomery County and $2.9 million for Prince George's County through June 30, 2015.

Expenditures

The FYs 2017-2022 Capital Improvements Program includes 82 projects for a grand total of $4.4 billion dollars. Expenditures for the six-year program period are estimated at $2.0 billion. FY'17 expenditures are estimated at $492.7 million, which is $53.9 million less than the funding level approved for FY'16. Of the $492.7 million, $181.0 million is for the Water Program and $311.7 million is for the Sewerage Program. More than a third of the projects in this CIP are Development Services Process (DSP) growth projects. The DSP projects' estimated six-year program cost is $42.8 million, with approximately $19.8 million programmed in FY'17. There is one new project in the Information Only section of the CIP. New projects are shown on the New Projects Listing near the end of this section.

A table comparing the Adopted FYs 2016-2021 CIP to the Proposed FYs 2017-2022 CIP follows:

WSSC CIP - COMPARISON

(In Thousands)

	TOTAL PROGRAM	TOTAL SIX YEARS	BUDGET YEARS COMPARISON
Adopted FYs 2016-2021	$4,226,425	$2,082,051	$546,594
Proposed FYs 2017-2022	4,386,164	1,975,044	492,726
Change	$159,739	($107,007)	($53,868)

Six-year program expenditures are estimated at approximately $2.0 billion, $783.5 million for the Water Program and $1.2 billion for the Sewerage Program. This is a $107.0 million decrease from the six-year total in the Adopted FYs 2016-2021 CIP. The decrease is primarily due to the projected construction progress on the Broad Creek WWPS Augmentation and Blue Plains WWTP Enhanced Nutrient Removal 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 WSSC's 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 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 Sanitary District. Any part of this type of a project not dictated by maintenance or rehabilitation needs and that provides for additional capacity is for growth. (Refer to Figure 3, 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 WSSC's Finance Office (Budget Group). The expenditures, and schedules displayed on each PDF represent the WSSC's 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, and construction schedule changes.

Following this comprehensive review, worksessions are conducted by the WSSC Budget Group 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 WSSC's Commissioners for their consideration. Draft CIP Public Hearing documents are published and distributed each August and the Commissioners' public hearings are held in September. The hearings are advertised in a major newspaper circulated in Prince George's and Montgomery Counties, 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 WSSC 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 for 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. The WSSC then adopts these changes and additions before the beginning of the new fiscal year on July 1. If the Councils do not jointly agree on changes by June 1, under law, the CIP is approved as proposed by the WSSC.

Program Description

Individual project information is displayed on the project description forms. The content of these forms, as prescribed under Section 23-301 of the Public Utilities Article, WSSD Laws, 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. Project description forms 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 Projects. 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 include a combination of water and sewerage sub-projects. 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.

Anticipated land, rights-of-way and watershed buffer property acquisition costs 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 the WSSC to respond to the uncertainty of implementation schedules, unpredictable delays, unanticipated rights-of-way requirements, and the need to assure the WSSC 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. 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.

The CIP document also contains an Information Only Projects section. Projects in this section are not required to be in the program under Section 23-301 of the Public Utilities Article, WSSD Laws, 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 are not included as part of the CIP six-year program costs, but are shown separately on the bottom line of the financial summary at the end of this section for informational purposes.

Funding requirements for the first year of the six-year program, as shown on each project description form (PDF) in Block B, Column Year 1, are included in the Commission's capital and operating budgets. In addition to adopting a six-year CIP, the Montgomery and Prince George's County Governments also annually review and approve the WSSC'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 Project 
- Wastewater Treatment Plant Project 

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 Washington Suburban Sanitary District (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 165.2 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 impounds 13.0 billion gallons of emergency raw water supply. The reservoir 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 the WSSC. Both reservoirs are shared by users in the Washington Metropolitan area, including the U.S. Army Corps of Engineers, the Fairfax County Water Authority, and the WSSC. Withdrawal during low flow conditions is governed by the terms of the Potomac Low Flow Allocation Agreement of 1981, 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 WSSC's plants has to be pumped into the distribution system. Water pumping stations are strategically located throughout the Sanitary District 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 customers spread out over our 1,000 square mile service area.

More than 40 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 more than 5,500 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. Customers are billed based upon individual usage. These facilities are operated and maintained by the WSSC 24 hours a day, 7 days a week, including holidays throughout the year, in order to provide safe and reliable service to our customers.

Wastewater Treatment/Collection Systems

Wastewater facilities 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 treatment plant. The WSSC owns and operates 6 wastewater treatment plants, 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 treatment process, solid material is removed, harmful organisms are destroyed, and excess disinfection products are neutralized before the remaining liquid is sent back to the river. With the projected substantial completion of Seneca WWTP expansion project in FY'16, the WSSC's 6 treatment plants now have a combined treatment capacity of 95 million gallons per day (mgd). The six plants 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, the WSSC has purchased 169 mgd of treatment capacity at the Blue Plains Regional Wastewater Treatment Plant located in the District of Columbia, 3 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. The WSSC 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 by the WSSC in the Poolesville plant is in accordance with the May 1984 agreement between the WSSC, 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 5,400 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 need to be located generally along streambeds at 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 Sanitary District.

The largest diameter pipelines (interceptor sewers) run from the treatment plant to the major lines (trunk lines) within individual drainage basins. Smaller diameter pipelines (outfall) run up sub-basins from the major lines. Even smaller lines (lateral), usually built in or along subdivision streets to provide service to abutting properties, lead 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 subdivision lines to the outfall pipelines to the larger diameter main lines to the treatment plant. Because gravity cannot always be used to accomplish this ideal pattern of flow, the WSSC has more than 40 wastewater pumping stations in operation, and others in standby status, throughout the Sanitary District. These pumping stations range from 0.08 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 treatment facilities. All WSSC wastewater flows through enclosed trunk line systems and is completely separate an independent from the storm drain system. Pipeline projects to extend service to new customers and to augment the service capability of this network are among the most numerous types in this document. These facilities are also operated and maintained by the WSSC 24 hours a day, 7 days a week, including holidays throughout the year, in order to provide safe and reliable service to all of our customers.

In addition, small pressure systems exist throughout the Sanitary District. 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 66% 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 Wastewater Treatment Plant. The WSSC's proportionate share of capital costs at Blue Plains, to meet suburban Maryland's treatment requirements, represents some of the most significant planned expenditures in this document.

The WSSC's wastewater collection and treatment systems are nationally recognized as components of one of the country's most effective pollution control networks. All of the above-mentioned sewage treatment plants go beyond conventional, second-stage treatment to provide "tertiary treatment," which is an advanced treatment process. With the completion of the Western Branch WWTP's enhanced nutrient removal (ENR) project in FY 2016, all of the WSSC's plants now have state of the art, integrated, nutrient removal processes to 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 plants) is better than the natural waters into which it is returned. 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 described above; 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

By adoption of a resolution dated January 29, 1992, the Commission reaffirmed its commitment to protect 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 during the Commission's Facility Planning Process, if the environment features will be affected by the proposed construction of a project. Six 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 Maryland-National Capital Park & Planning Commission, 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 Maryland-National Capital Park & Planning Commission or county government may provide additional information of local interest.

A further extension of these protections has been funded by the approximately $139 million included in the six-year program which is attributable to meeting environmental regulations. These projects, currently estimated at 7% of the total six-year costs in this CIP, are mandated by the U.S. Environmental Protection Agency under the Clean Air Act and 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 on the following page, and project details can be found on the individual project description forms included elsewhere in this document.

Environmental Spending

	(Dollars in Millions)
• W-172.05, Patuxent WFP Phase II Expansion	7.5
• S-22.10, Blue Plains WWTP: Enhanced Nutrient Removal	73.3
• S-22.11, Blue Plains: Pipelines & Appurtenances	40.5
• S-57.94, Western Branch WWTP Incinerator Emissions Control	17.7
Total Six-Year Program Expenditures Allocated to Environmental Regulations	$139.0

The Customer Advisory Board (CAB), consisting of volunteer members from the general public, was created in the spring of 1989 to provide the WSSC Commissioners and staff with customer input on current practices and proposed policies and to augment communication with our customers. Among its other responsibilities, the CAB reviews major CIP projects and makes recommendations pertaining to environmental policy to the WSSC's General Manager/CEO and staff.

Public Outreach

The Commission's proactive community outreach program is an integral part of our process to include early public involvement in projects. The objective is to inform affected communities about the WSSC's plans, actively seek their input, and respond to their concerns. The WSSC'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 the WSSC 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 process advocates achieving planning goals through a collaborative effort among WSSC staff, technical experts, citizens and/or organizations, and public officials. Fostering community involvement allows the WSSC to be responsive and sensitive to community concerns, to define the best approach to addresses customers' concerns, and to garner community support while meeting public health objectives.

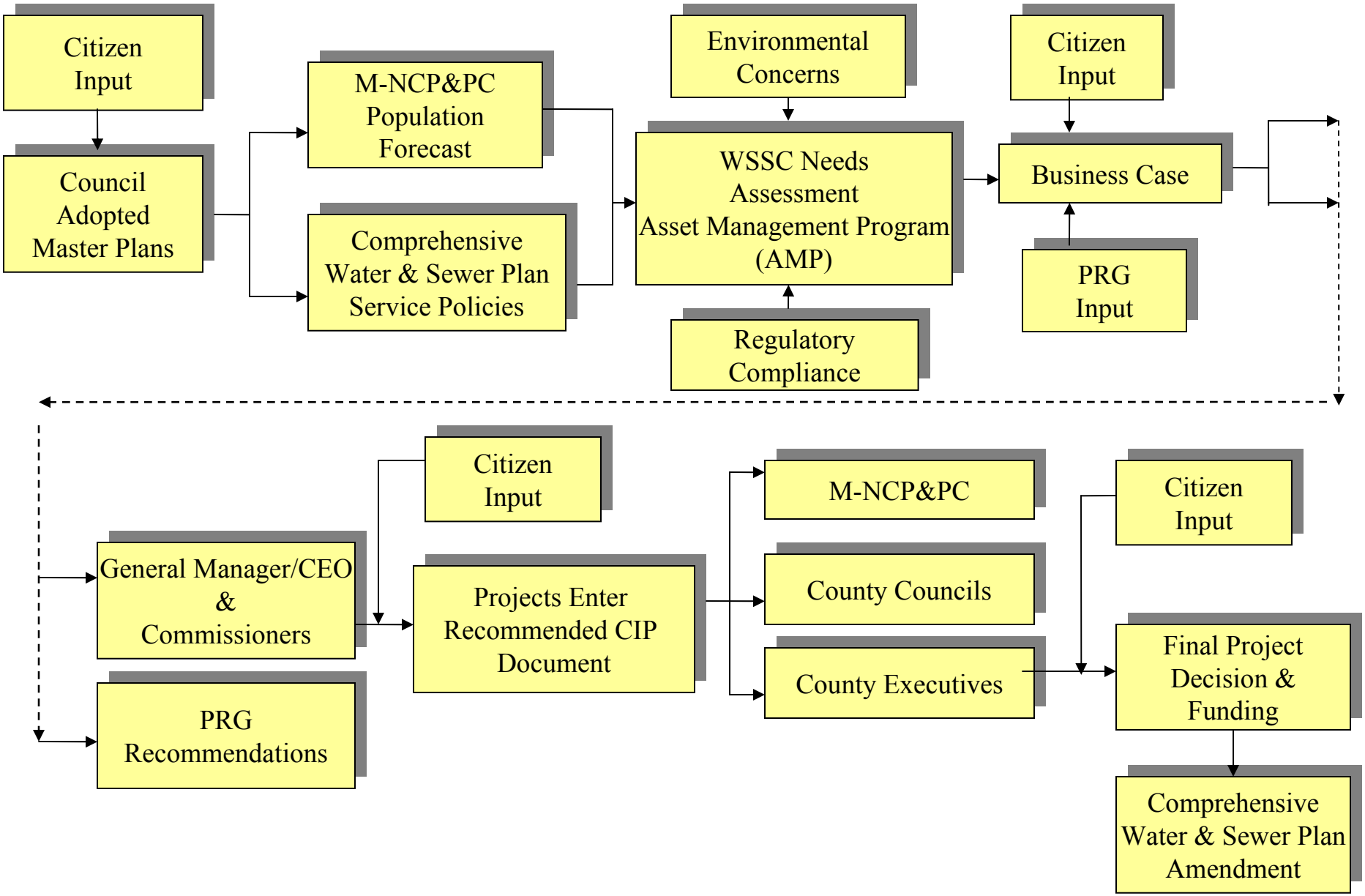
The Planning Process

Effective planning is the application of a well-thought-out process that combines engineering data, environmental requirements, economic factors, and public interaction to establish a sound basis for making competent decisions, for efficiently conducting and documenting specific work tasks, and for successfully implementing needed solutions. The WSSC's planning process includes 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 the WSSC at a reasonable cost.

A number of outside influences affect the WSSC's project planning. 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 Maryland-National Capital Park & Planning Commission. These elements are used by the WSSC to calculate projected water and sewerage demands. The WSSC must also consider environmental consequences and compliance with federal and state regulations such as the Clean Water Act and Safe Drinking Water Act. The WSSC's needs analysis is also influenced by both county governments' guidance on service policies as contained in the Comprehensive Ten-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 Commission 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 1

PROJECT DEVELOPMENT & APPROVAL PROCESS



WSSC Asset Management Program

One of the WSSC's top priorities, in the core strategy of Infrastructure Asset Management, is to improve capital investment management. The objective of the Asset Management Program (AMP) is to identify infrastructure needs and investment strategies for the next 30 years, 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 the Commission'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, and reliability.

How Projects Enter the CIP

The Asset Management Program (AMP) systematically identifies and validates water and wastewater needs, and is the primary source of new projects. Figure 2 depicts some of the important elements common to the WSSC Asset Management Program.

FIGURE 2

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

The WSSC's needs assessments may identify other potential projects. A project may be added in response to relocation requirements due to road 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 by WSSC for administrative reasons such as to afford better project management or to provide greater clarity to the reader.

Development Services Process

Development Services Process (DSP) projects are undertaken to support future growth. Service to properties approved under the DSP almost always require the extension of small diameter subdivision lines and may involve program-sized pipes that must be included in the WSSC's 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 section titled "Statutory Basis" at the beginning of this narrative.

To initiate a project, the WSSC will review the Applicant's subdivision preliminary plan submissions to the respective M-NCP&PC 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 Ten-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 Ten-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 is made and completed, the WSSC issues a Letter of Findings which delineates the project conditions that must be met prior to the start of construction. When the project contains complex water and sewer issues such as the need for a CIP sized project, the WSSC will require that the Applicant submit a feasibility study. If necessary, a revised Letter of Findings is issued. Finally, the WSSC will perform a review for system integrity of the design plans. 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 project conditions. More than a third of the projects in this document are DSP-related.

For those projects serving one new residence or providing relief from a residential health hazard, the WSSC will prepare the feasibility study and issue a Letter of Findings. The Letter of Findings will again delineate any project conditions and advise the Applicant of their cost responsibilities. If the Applicant elects to proceed with the project, the WSSC will prepare the design plans and obtain any necessary permits and rights-of-way. Once the Applicant has met all the project conditions, the design plans are approved, and all permits and rights-of-way are acquired, the WSSC will proceed with the construction of the project. However, such projects rarely include CIP-sized mains.

Project Development Criteria

It has been the WSSC'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 has guided the planning and sizing of the WSSC's systems for many years 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 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, the WSSC 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 WSSC's project construction. The WSSC 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 have been 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 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 project description forms (PDFs) when appropriate.

Order of Magnitude cost estimates for major facility projects (e.g., treatment plants and pumping stations) are first derived from business cases in the planning stage and further refined in the design phase based on estimates developed by consulting engineers. The WSSC 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.

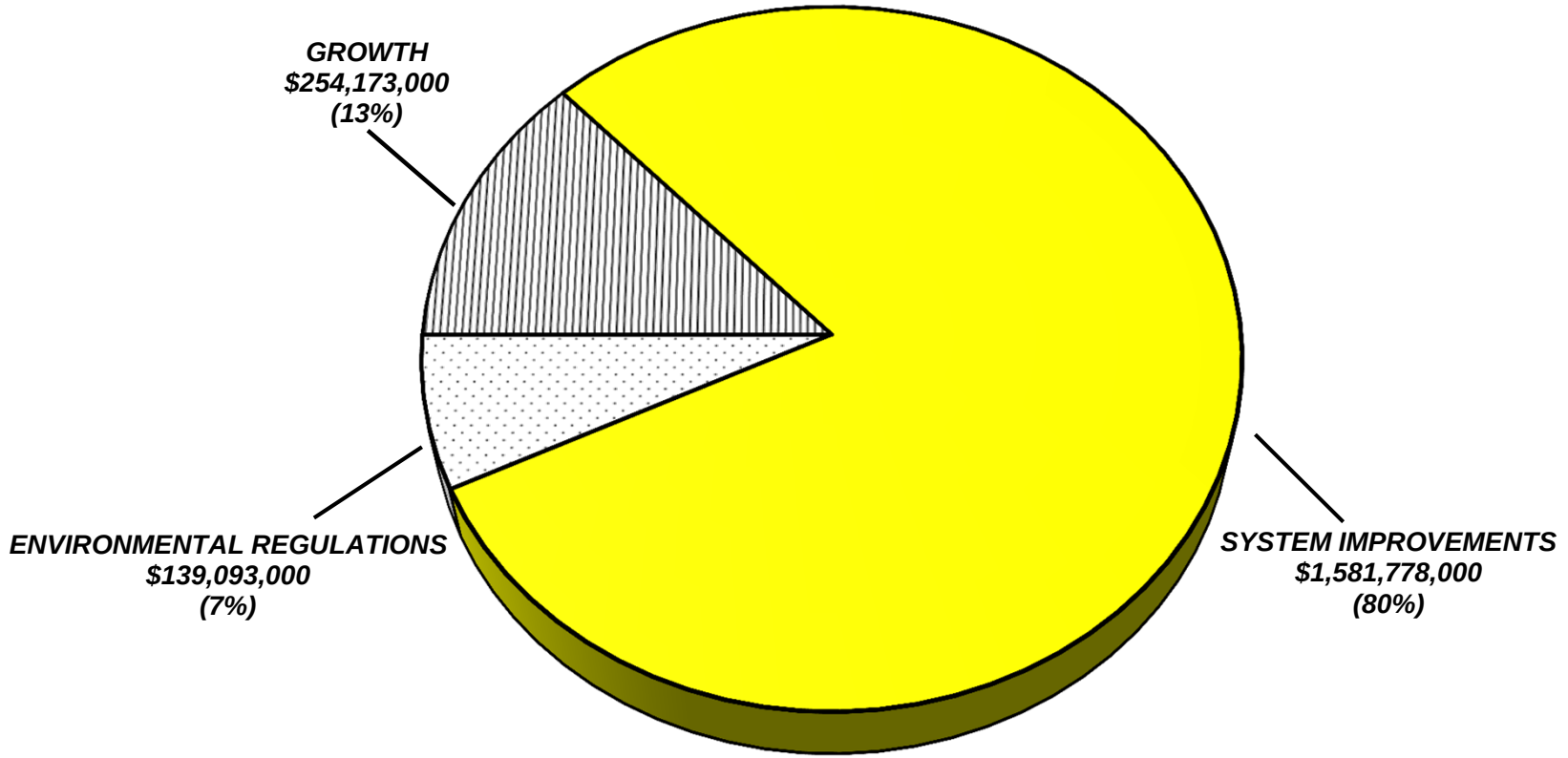
The "Other" cost element, displayed in Block B, Line 5 in the Expenditure Schedule on each PDF, is a broad estimate of the direct and indirect expenses associated with the implementation of each project and is not covered by the other major cost categories. These costs include direct support costs for a project such as salaries, wages, and related personnel costs (social security, retirement), and services, rentals, supplies, mileage, and other expenses. (General overhead costs, which may be allocated to a project, are not included.) 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%. There are exceptions: a value, based upon 1%, is applied to Blue Plains project costs; a constant of 10% is used to more realistically estimate these expenses for projects with a total estimated cost of $10 to $49 million; and, a constant of 5% is used for projects with a total estimated cost of $50 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 WSSC's financial information system through the period ending April 30th 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 PROPOSED FYS 2017-22 CIP

SIX-YEAR PROGRAM EXPENDITURES BY MAJOR CATEGORY*



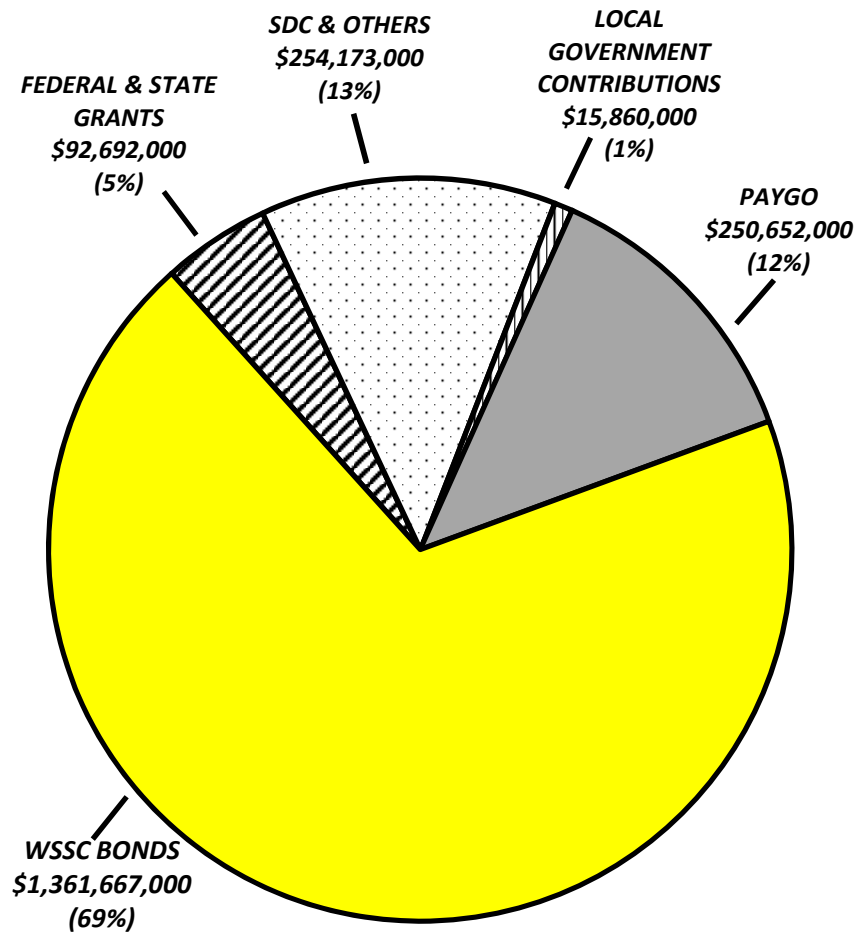
SIX-YEAR PROGRAM TOTAL
$1,975,044,000*

* Totals do not include expenditures for Information Only Projects.

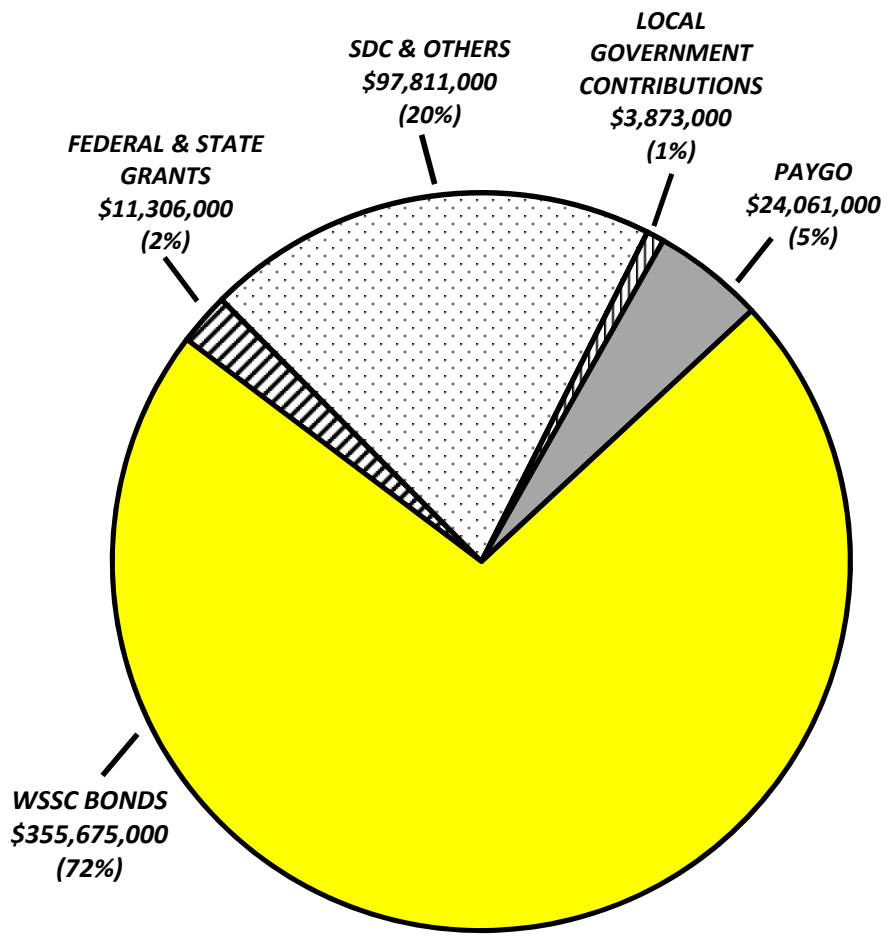
FIGURE 4

WSSC PROPOSED FYS 2017-22 CIP

FUNDING BY SOURCE*



SIX-YEAR PROGRAM TOTAL
$1,975,044,000*



FY'17 BUDGET YEAR TOTAL
$492,726,000*

*Totals do not include expenditures for Information Only Projects in the six-year program and budget year, respectively.

WSSC FYS 2017 - 2022 CIP
NEW PROJECTS LISTING
(costs in thousands)

Agency Number	Project Name	Total Project Cost	6 Year Program Cost	Budget Year Cost	% of Growth
Information Only Projects					
A-145.01	Brighton Dam Operations & Maintenance Facility and Site Improvements	$6,448	$5,951	$1,357	0%
	TOTALS	**$6,448**	**$5,951**	**$1,357**	

1 New Project

WSSC FYS 2017 - 2022 CIP

ALL PROJECTS PENDING CLOSE-OUT

(costs in thousands)

Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'15	Estimated Expenditures FY'16	Remarks
Montgomery County Water Projects					
W-46.18	Newcut Road Water Main, Part 2	$1,417	$1,204	$213	Project completion expected in FY'16.
Montgomery County Sewer Projects					
S- 38.01	Preserve at Rock Creek Wastewater Pumping Station	1,967	1,275	692	Project completion expected in FY'16.
S- 38.02	Preserve at Rock Creek WWPS Force Main	391	324	67	Project completion expected in FY'16.
Prince George's County Water Projects					
W-129.12	Church Road Water Main & PRV, Part 2	808	787	21	Project completion expected in FY'16.
Information Only Projects					
A-106.00	Asset Management Program	14,412	12,687	1,725	Project completion expected in FY'16.
	TOTALS	**$18,995**	**$16,277**	**$2,718**	

5 Projects Pending Close-Out

FINANCIAL SUMMARY

DATE: October 1, 2015

(ALL FIGURES IN THOUSANDS)

TOTAL WSSC CIP

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 15	EST. EXPEND 16	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PDF PAGE NUM
						YR 1 17	YR 2 18	YR 3 19	YR 4 20	YR 5 21	YR 6 22		
	Montgomery County Water Projects	43,936	8,778	5,019	30,139	12,956	15,676	1,507	0	0	0	0	1-1
	Prince George's County Water Projects	316,433	36,420	29,393	230,196	66,565	67,451	34,185	11,974	17,223	32,798	20,424	5-1
	Bi-County Water Projects	867,508	267,328	77,024	523,156	101,462	95,997	108,178	89,791	71,930	55,798	0	3-1
	TOTAL WATER PROJECTS	**1,227,877**	**312,526**	**111,436**	**783,491**	**180,983**	**179,124**	**143,870**	**101,765**	**89,153**	**88,596**	**20,424**	
	Montgomery County Sewerage Projects	82,128	51,103	5,178	25,847	12,345	10,415	3,041	46	0	0	0	2-1
	Prince George's County Sewerage Projects	456,800	175,751	82,491	196,152	60,782	65,680	39,249	16,942	11,313	2,186	2,406	6-1
	Bi-County Sewerage Projects	2,619,359	1,384,251	212,960	969,554	238,616	225,699	168,313	169,368	105,814	61,744	52,594	4-1
	TOTAL SEWERAGE PROJECTS	**3,158,287**	**1,611,105**	**300,629**	**1,191,553**	**311,743**	**301,794**	**210,603**	**186,356**	**117,127**	**63,930**	**55,000**	
	TOTAL WSSC PROGRAM	**4,386,164**	**1,923,631**	**412,065**	**1,975,044**	**492,726**	**480,918**	**354,473**	**288,121**	**206,280**	**152,526**	**75,424**	
	Total Information Only Projects	1,459,597	60,335	184,255	1,186,623	208,767	198,473	203,696	205,525	194,158	176,004	28,384	7-1

Section 1 - Montgomery County Water Projects

DATE: October 1, 2015

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

MONTGOMERY COUNTY WATER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 15	EST. EXPEND 16	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PDF PAGE NUM
						YR 1 17	YR 2 18	YR 3 19	YR 4 20	YR 5 21	YR 6 22		
W-3.02	Olney Standpipe Replacement	9,284	1,334	532	7,418	3,560	3,560	298	0	0	0	0	1-2
W-46.14	Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3	5,900	2,832	805	2,263	1,751	446	66	0	0	0	0	1-4
W-46.15	Clarksburg Elevated Water Storage Facility	5,982	311	276	5,395	1,285	3,522	588	0	0	0	0	1-5
W-46.24	Clarksburg Area Stage 3 Water Main, Part 4	3,791	1,434	495	1,862	1,149	630	83	0	0	0	0	1-6
W-46.25	Clarksburg Area Stage 3 Water Main, Part 5	1,624	0	1,425	199	147	52	0	0	0	0	0	1-7
W-90.04	Brink Zone Reliability Improvements	6,874	295	529	6,050	1,438	4,140	472	0	0	0	0	1-8
W-138.02	Shady Grove Standpipe Replacement	9,064	1,368	744	6,952	3,626	3,326	0	0	0	0	0	1-9
	Projects Pending Close-Out	1,417	1,204	213	0	0	0	0	0	0	0	0	1-10
	TOTAL MONTGOMERY COUNTY WATER PROJECTS	43,936	8,778	5,019	30,139	12,956	15,676	1,507	0	0	0	0	

Olney Standpipe Replacement

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-3.02	063801	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Montgomery High Zone 560I;
Drainage Basins	
Planning Areas	Olney & Vicinity PA 23;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**2,169**	1,305	230	**634**	304	304	26				
Land	**25**	25									
Site Improvements & Utilities											
Construction	**6,054**	4	233	**5,817**	2,792	2,792	233				
Other	**1,036**		69	**967**	464	464	39				
Total	**9,284**	**1,334**	**532**	**7,418**	**3,560**	**3,560**	**298**				

C. Funding Schedule (000's)

WSSC Bonds	**9,284**	1,334	532	**7,418**	3,560	3,560	298				

D. Description & Justification

DESCRIPTION

This project provides for the community outreach, planning, site selection, design and construction of up to 1.5 million gallons (MG) of elevated storage to serve the Olney area, and for the removal of the existing Olney Standpipe.

JUSTIFICATION

The efforts of the Systems Control Group have improved the minimum chlorine residual concentrations and appear to have lowered the THM concentrations in the distribution system. However, these efforts still leave the Olney area with troublesome chlorine residuals and result in low-pressure complaints during the drawdown efforts. The existing Olney Standpipe with 1.8 million gallons of non-usable storage requires constant attention to maintain acceptable water quality.

Montgomery County High Zone Facility Plan, Boyle Engineering (1991); Memorandum from Jeff Asner to Karen Wright dated March 22, 2004; Water Storage Volume Criteria Report (November 2005).

COST CHANGE

Costs increased based on more defined engineer's estimate and additional inspection and project management services.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B are based upon final design and may change based upon actual bid. The project has been delayed due to easement requirements and permitting with the Maryland Department of Environment and the Maryland State Highway Administration.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Montgomery County Government; Maryland-National Capital Park & Planning Commission; (anticipates receiving Mandatory Referral submissions); Maryland Department of the Environment;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$639	20
Total Cost	$639	20
Impact on Water and Sewer Rate	$0.01	20

F. Approval and Expenditure Data (000's)

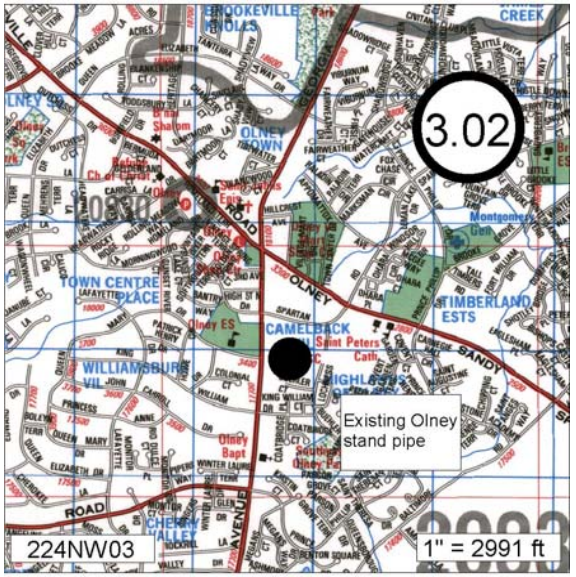
Date First in Program	FY 06
Date First Approved	FY 06
Intial Cost Estimate	3,911
Cost Estimate Last FY	8,079
Present Cost Estimate	9,284
Approved Request Last FY	2,286
Total Expense & Encumbrances	1,334
Approval Request Year 1	3,560

G. Status Information

Land Status	Land acquired
Project Phase	Design
Percent Complete	100%
Est Completion Date	FY 2019

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	1.5 MG

H. Map



GERMANTOWN/CLARKSBURG AREA PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'16 TOTAL COST	PROPOSED FY'17 TOTAL COST	CHANGE $	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
W-46.14	Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3	$5,900	$5,900	$0	0.0%	$2,263	Developer Dependent
W-46.15	Clarksburg Elevated Water Storage Facility	4,836	5,982	1,146	23.7%	5,395	FY 2019
W-46.24	Clarksburg Area Stage 3 Water Main, Part 4	3,789	3,791	2	0.1%	1,862	Developer Dependent
W-46.25	Clarksburg Area Stage 3 Water Main, Part 5	1,624	1,624	0	0.0%	199	FY 2018
	TOTALS	$16,149	$17,297	$1,148	7.1%	$9,719	

Summary: These projects are in response to the growth in the up-county area including Germantown and Clarksburg. The Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3 project (W-46.14), Clarksburg Area Stage 3 Water Main, Part 4 project (W-46.24) and Clarksburg Area Stage 3 Water Main, Part 5 (W-46.25) will serve the areas designated as "Stage 3" in the Clarksburg Master Plan and Hyattstown Special Study Area. The Newcut Road Water Main, Part 2 project (W-46.18), slated to close as completion is expected in FY'16, serves the same areas.

Cost Impact: In order to meet projected future growth in the area, the Clarksburg Elevated Water Storage Facility (W-46.15) was expanded from .75 MG to a 1 million gallon capacity. Construction estimates have been revised accordingly.

Clarksburg Area Stage 3 Water Main, Parts 1, 2, & 3

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-46.14	973818	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Cedar Heights HG836A; Brink HG760A;
Drainage Basins	
Planning Areas	Clarksburg & Vicinity PA 13;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,040**	300	200	**540**	451	78	11				
Land											
Site Improvements & Utilities											
Construction	**4,460**	2,532	500	**1,428**	1,072	310	46				
Other	**400**		105	**295**	228	58	9				
Total	**5,900**	**2,832**	**805**	**2,263**	**1,751**	**446**	**66**				

C. Funding Schedule (000's)

Contribution/Other	**5,900**	2,832	805	**2,263**	1,751	446	66				

D. Description & Justification

DESCRIPTION

This project provides for the design and construction of 8,200 feet of 24-inch diameter water main to the proposed Clarksburg Elevated Water Storage Facility (WSSC Project W-46.15) and 9,800 feet of 16-inch water main along Whalen Lane, Clarksburg Road, and various proposed subdivision streets.

JUSTIFICATION

This water main is planned to serve the area designated as "Stage 3" in the Clarksburg Master Plan and Hyattstown Special Study Area, approved and adopted in June 1994.

General Plan and M-NCP&PC Round 6 growth forecasts; Ten Mile Creek Area Limited Master Plan (2014).

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Montgomery County Government; Maryland-National Capital Park & Planning Commission;

Coordinating Projects: W-46.15-Clarksburg Elevated Water Storage Facility; S-84.47-Clarksburg Triangle Outfall Sewer, Part 2; W-46.24-Clarksburg Area Stage 3 Water Main, Part 4;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$331	20
Other Project Costs		
Debt Service		
Total Cost	$331	20
Impact on Water and Sewer Rate	$0.01	20

F. Approval and Expenditure Data (000's)

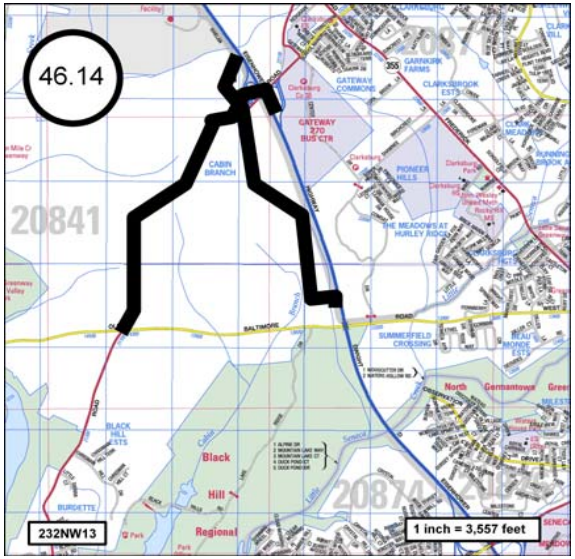
Date First in Program	FY 97
Date First Approved	FY 97
Intial Cost Estimate	3,376
Cost Estimate Last FY	5,900
Present Cost Estimate	5,900
Approved Request Last FY	1,751
Total Expense & Encumbrances	2,832
Approval Request Year 1	1,751

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Construction
Percent Complete	60%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Clarksburg Elevated Water Storage Facility

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-46.15	973819	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Clarksburg HG760B;
Drainage Basins	
Planning Areas	Clarksburg & Vicinity PA 13;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**829**	311	240	**278**	134	123	21				
Land											
Site Improvements & Utilities											
Construction	**4,413**			**4,413**	983	2,940	490				
Other	**740**		36	**704**	168	459	77				
Total	**5,982**	**311**	**276**	**5,395**	**1,285**	**3,522**	**588**				

C. Funding Schedule (000's)

SDC	**5,982**	311	276	**5,395**	1,285	3,522	588				

D. Description & Justification

DESCRIPTION

This project provides for the community outreach, site selection, planning, design, and construction for a 1 million gallon (MG) elevated storage facility in the HG760 water pressure zone.

JUSTIFICATION

This project is required to meet projected future growth in the HG760 pressure zone. Reevaluation of this project with Round 6.2 growth forecasts indicates a storage deficit for this zone. The facility plan identified the preferred location for the water storage facility. As noted in the facility plan, public meetings were held to obtain comments concerning the location.

Montgomery County High Zone Supply Facility Plan, WSSC; M-NCP&PC Round 6.2 growth forecasts; Western Clarksburg Facility Plan, Rogers Associates (December 2004); Water Storage Volume Criteria Report (November 2005); Finished Water Storage Analysis (December 2013).

COST CHANGE

Costs increased due to the increased storage capacity of the facility, resulting in a revised construction estimate.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B are planning level estimates and may change based upon site-specific conditions and design constraints. The resulting decision of the Montgomery County Planning Board Mandatory Referral is for WSSC to hold a design charrette to address the aesthetic and landscaping concerns and submit details of the final landscaping surrounding the facility before going into final design. Land costs are included in WSSC Project W-202.00.

COORDINATION

Coordinating Agencies: Montgomery County Government; Maryland-National Capital Park & Planning Commission; (Mandatory Referral Hearing was held on April 3, 2008)

Coordinating Projects: W-46.14-Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

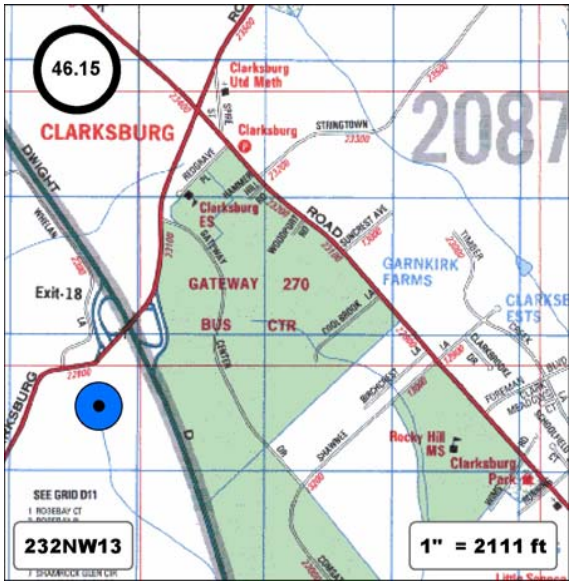
Date First in Program	FY 97
Date First Approved	FY 97
Intial Cost Estimate	138
Cost Estimate Last FY	4,836
Present Cost Estimate	5,982
Approved Request Last FY	127
Total Expense & Encumbrances	311
Approval Request Year 1	1,285

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	10%
Est Completion Date	FY 2019

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	1 MG

H. Map



Clarksburg Area Stage 3 Water Main, Part 4

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-46.24	113800	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Brink HG760A;
Drainage Basins	
Planning Areas	Clarksburg & Vicinity PA 13;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**455**	134	150	**171**	120	45	6				
Land											
Site Improvements & Utilities											
Construction	**3,028**	1,300	280	**1,448**	879	503	66				
Other	**308**		65	**243**	150	82	11				
Total	**3,791**	**1,434**	**495**	**1,862**	**1,149**	**630**	**83**				

C. Funding Schedule (000's)

Contribution/Other	**3,791**	1,434	495	**1,862**	1,149	630	83				

D. Description & Justification

DESCRIPTION

This project provides for the design and construction of 3,580 feet of 24-inch diameter water main along Route 27 and Route 355 and 2,920 feet of 24-inch diameter water main along West Old Baltimore Road.

JUSTIFICATION

This water main is planned to serve the area designated as "Stage 3" in the Clarksburg Master Plan and Hyattstown Special Study Area, approved and adopted in June 1994.

General Plan and M-NCP&PC Round 6 growth forecasts.

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Montgomery County Government; Maryland-National Capital Park & Planning Commission; Maryland State Highway Administration;

Coordinating Projects: W-46.14-Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3; W-46.15-Clarksburg Elevated Water Storage Facility; W-46.25-Clarksburg Area Stage 3 Water Main, Part 5;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$120	20
Other Project Costs		
Debt Service		
Total Cost	$120	20
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

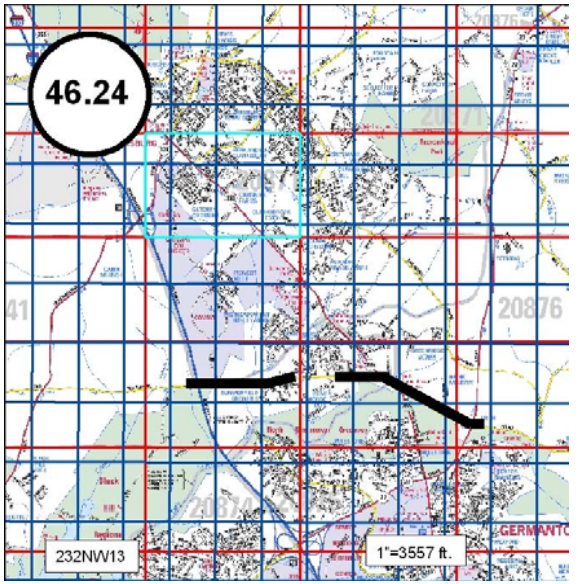
Date First in Program	FY 11
Date First Approved	FY 97
Intial Cost Estimate	1,954
Cost Estimate Last FY	3,789
Present Cost Estimate	3,791
Approved Request Last FY	1,149
Total Expense & Encumbrances	1,434
Approval Request Year 1	1,149

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	35%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Clarksburg Area Stage 3 Water Main, Part 5

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-46.25	163801	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Brink HG760A;
Drainage Basins	
Planning Areas	Clarksburg & Vicinity PA 13;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**182**		160	**22**	15	7					
Land											
Site Improvements & Utilities											
Construction	**1,230**		1,079	**151**	113	38					
Other	**212**		186	**26**	19	7					
Total	**1,624**		**1,425**	**199**	**147**	**52**					

C. Funding Schedule (000's)

SDC	**1,624**		1,425	**199**	147	52					

D. Description & Justification

DESCRIPTION

This project provides for the design and construction of 2,700 feet of 24-inch diameter water main along Route 355 and West Old Baltimore Road.

JUSTIFICATION

This water main is planned to serve the area designated as "Stage 3" in the Clarksburg Master Plan and Hyattstown Special Study Area, approved and adopted in June, 1994.

General Plan and M-NCPPC Round 6 growth forecasts.

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Pending area road projects had resulted in the need to accelerate portions of the 24-inch water project separate from developer-built project W-46.24. The WSSC-built portions will now be completed under Project W-46.25 in conjunction with Montgomery County and Maryland State Highway Administration road projects. No rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Montgomery County Government; Maryland-National Capital Park & Planning Commission; Maryland State Highway Administration; Montgomery County Department of Public Works and Transportation;

Coordinating Projects: W-46.24-Clarksburg Area Stage 3 Water Main, Part 4;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$50	19
Other Project Costs		
Debt Service		
Total Cost	$50	19
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY16
Date First Approved	FY97
Intial Cost Estimate	1,624
Cost Estimate Last FY	1,624
Present Cost Estimate	1,624
Approved Request Last FY	147
Total Expense & Encumbrances	
Approval Request Year 1	147

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	20%
Est Completion Date	FY 2018

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map

Brink Zone Reliability Improvements

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-90.04	143800	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Woodfield HG740A; Clarksburg HG740B;
Drainage Basins	
Planning Areas	Gaithersburg & Vicinity PA 20;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,715**	295	460	**960**	250	600	110				
Land											
Site Improvements & Utilities											
Construction	**4,300**			**4,300**	1,000	3,000	300				
Other	**859**		69	**790**	188	540	62				
Total	**6,874**	**295**	**529**	**6,050**	**1,438**	**4,140**	**472**				

C. Funding Schedule (000's)

WSSC Bonds	**6,874**	295	529	**6,050**	1,438	4,140	472				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of a new water pumping station and pipeline to increase reliability and redundancy to the Montgomery County High Zone water transmission system.

JUSTIFICATION

The Neelsville Water Pumping Station is the sole delivery of water from the Montgomery County High Zone (HG660) through a single 24-inch diameter PCCP Water Transmission Main that crosses 2 miles to the Brink Elevated Tank (HG760). The selected alternative will effectively deliver water to the Brink Elevated Tank and, in turn, the Cedar Heights (HG836), Damascus (HG960), and dependent pressure zones.

Business Case Evaluation: Brink Reliability Assessment, Black & Veatch (June 2013)

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B are planning level estimates derived from the Business Case Analysis.

COORDINATION

Coordinating Agencies: Montgomery County Government; Montgomery County Department of Environmental Protection; 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		
Maintenance		
Other Project Costs		
Debt Service	$473	20
Total Cost	$473	20
Impact on Water and Sewer Rate	$0.01	20

F. Approval and Expenditure Data (000's)

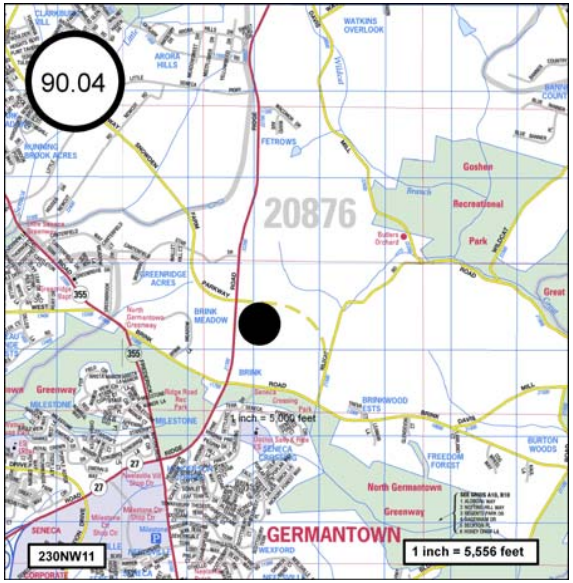
Date First in Program	FY 14
Date First Approved	FY 14
Intial Cost Estimate	345
Cost Estimate Last FY	6,909
Present Cost Estimate	6,874
Approved Request Last FY	673
Total Expense & Encumbrances	295
Approval Request Year 1	1,438

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	10%
Est Completion Date	September 2018

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	13 MGD

H. Map



Shady Grove Standpipe Replacement

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-138.02	093801	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Montgomery High HG660A;
Drainage Basins	
Planning Areas	Gaithersburg & Vicinity PA 20;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**2,137**	1,368	175	**594**	309	285					
Land											
Site Improvements & Utilities											
Construction	**5,923**		472	**5,451**	2,844	2,607					
Other	**1,004**		97	**907**	473	434					
Total	**9,064**	**1,368**	**744**	**6,952**	**3,626**	**3,326**					

C. Funding Schedule (000's)

WSSC Bonds	**9,064**	1,368	744	**6,952**	3,626	3,326					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 3.0 million gallons (MG) of elevated storage to replace the existing Shady Grove Standpipe.

JUSTIFICATION

The existing 5.0 MG standpipe is in need of extensive repairs. Replacing the standpipe with a smaller elevated storage facility will provide the same level of service while helping to meet U.S. Environmental Protection Agency regulations for disinfectant by-products and improving water quality.

Water Storage Volume Criteria Report (November 2005); 2006 Water Production Projections; WSSC Memorandum dated May 7, 2007, from Karen Wright, Systems Control Group Leader; WSSC Memorandum dated May 24, 2007, from Tim Hirrel, Planning Group.

COST CHANGE

Costs increased due to additional inspection and project management services.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B are design level estimates and may change based upon actual bid. The project has been delayed due to easement and permitting requirements with the Maryland Department of Natural Resources and City of Rockville.

COORDINATION

Coordinating Agencies: Montgomery County Government; City of Rockville; Maryland Department of the Environment; Maryland Department of Natural Resources;
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$624	19
Total Cost	$624	19
Impact on Water and Sewer Rate	$0.01	19

F. Approval and Expenditure Data (000's)

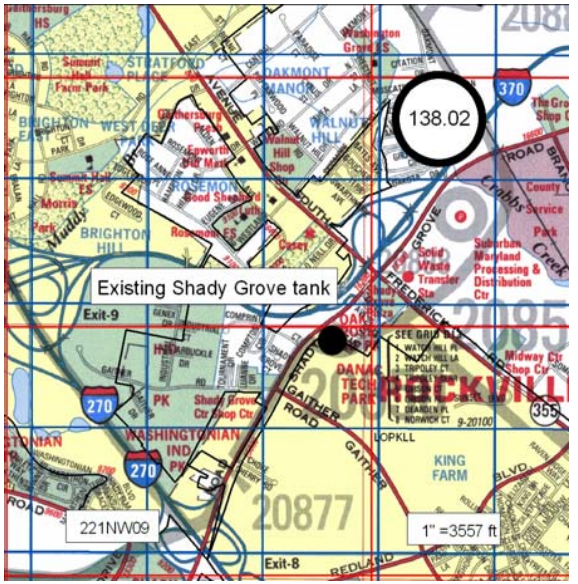
Date First in Program	FY 09
Date First Approved	FY 09
Intial Cost Estimate	7,475
Cost Estimate Last FY	8,088
Present Cost Estimate	9,064
Approved Request Last FY	3,363
Total Expense & Encumbrances	1,368
Approval Request Year 1	3,626

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	98%
Est Completion Date	FY 2018

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	3.0 MG

H. Map



PROJECTS PENDING CLOSE-OUT

Montgomery County Water Projects

(costs in thousands)

Project Number	Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'15	Estimated Expenditures FY'16	Remarks
013802	W-46.18	Newcut Road Water Main, Part 2	$1,417	$1,204	$213	Project completion expected in FY'16.
		TOTALS	$1,417	$1,204	$213	

Section 2 - Montgomery County Sewer Projects

DATE: October 1, 2015

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

MONTGOMERY COUNTY SEWER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 15	EST. EXPEND 16	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PDF PAGE NUM
						YR 1 17	YR 2 18	YR 3 19	YR 4 20	YR 5 21	YR 6 22		
S-25.03	Twinbrook Commons Sewer	1,004	607	59	338	159	87	46	46	0	0	0	2-2
S-25.04	Mid-Pike Plaza Sewer Main, Phase 1	4,053	3,730	199	124	124	0	0	0	0	0	0	2-3
S-25.05	Mid-Pike Plaza Sewer Main, Phase 2	6,094	119	1,434	4,541	3,107	1,434	0	0	0	0	0	2-4
S-53.21	Seneca WWTP Enhanced Nutrient Removal	13,975	13,833	120	22	22	0	0	0	0	0	0	2-6
S-53.22	Seneca WWTP Expansion, Part 2	30,484	29,955	507	22	22	0	0	0	0	0	0	2-7
S-84.47	Clarksburg Triangle Outfall Sewer, Part 2	2,539	1,126	782	631	555	76	0	0	0	0	0	2-9
S-84.60	Cabin Branch Wastewater Pumping Station	2,342	12	13	2,317	449	1,566	302	0	0	0	0	2-10
S-84.61	Cabin Branch WWPS Force Main	424	0	17	407	143	240	24	0	0	0	0	2-11
S-84.65	Tapestry Wastewater Pumping Station	1,354	65	500	789	461	328	0	0	0	0	0	2-12
S-84.66	Tapestry WWPS Force Main	134	13	54	67	37	30	0	0	0	0	0	2-13
S-85.21	Shady Grove Station Sewer Augmentation	2,254	23	305	1,926	1,181	745	0	0	0	0	0	2-14
S-103.16	Cabin John Trunk Sewer Relief	15,113	21	429	14,663	6,085	5,909	2,669	0	0	0	0	2-15
	Projects Pending Close-Out	2,358	1,599	759	0	0	0	0	0	0	0	0	2-16
	TOTAL MONTGOMERY COUNTY SEWER PROJECTS	82,128	51,103	5,178	25,847	12,345	10,415	3,041	46	0	0	0	

Twinbrook Commons Sewer

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-25.03	083801	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Rock Creek 05;
Planning Areas	North Bethesda PA 30;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**417**	380	10	**27**	8	7	6	6			
Land											
Site Improvements & Utilities											
Construction	**535**	227	41	**267**	130	69	34	34			
Other	**52**		8	**44**	21	11	6	6			
Total	**1,004**	**607**	**59**	**338**	**159**	**87**	**46**	**46**			

C. Funding Schedule (000's)

Contribution/Other	**1,004**	607	59	**338**	159	87	46	46			

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 1,300 feet of 18-inch diameter sewer main to provide service to Twinbrook Commons.

JUSTIFICATION

Phase I Letter of Findings (April 2006).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. This project will be completed in two phases. The first phase, Contract No. DA4159A05, was completed in January 2010. The second phase, Contract No. DA4159B05, is in the construction stage. The expenditures and schedule projections shown in Block B are based upon information provided by the developer. Design and construction will be performed by the developer under a System Extension Permit. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Washington Metropolitan Area Transit Authority; Montgomery County Government; City of Rockville; Local Community Civic Associations;
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$19	21
Other Project Costs		
Debt Service		
Total Cost	$19	21
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

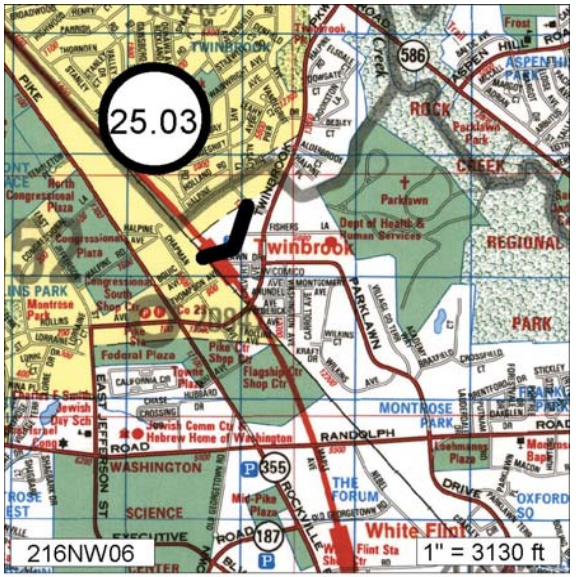
Date First in Program	FY 08
Date First Approved	FY 08
Intial Cost Estimate	677
Cost Estimate Last FY	1,004
Present Cost Estimate	1,004
Approved Request Last FY	159
Total Expense & Encumbrances	607
Approval Request Year 1	159

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	50%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	3.26 to 4.33 MGD

H. Map



Mid-Pike Plaza Sewer Main, Phase 1

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-25.04	123801	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Cabin John 07;
Planning Areas	North Bethesda PA 30;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**343**	330	5	**8**	8						
Land											
Site Improvements & Utilities											
Construction	**3,668**	3,400	168	**100**	100						
Other	**42**		26	**16**	16						
Total	**4,053**	**3,730**	**199**	**124**	**124**						

C. Funding Schedule (000's)

Contribution/Other	**4,053**	3,730	199	**124**	124						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 4,000 feet of 15, 18, and 21-inch diameter sewer main to provide service to Mid-Pike Plaza.

JUSTIFICATION

Mid-Pike Plaza Hydraulic Planning Analysis, (November 2012).

COST CHANGE

Total project cost has increased based on updated construction cost estimate.

OTHER

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

COORDINATION

Coordinating Agencies: Montgomery County Government; Montgomery County Department of Environmental Protection; Local Community Civic Associations;

Coordinating Projects: S-103.16-Cabin John Trunk Sewer Relief; S-25.05-Mid-Pike Plaza Sewer Main, Phase 2;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$57	18
Other Project Costs		
Debt Service		
Total Cost	$57	18
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

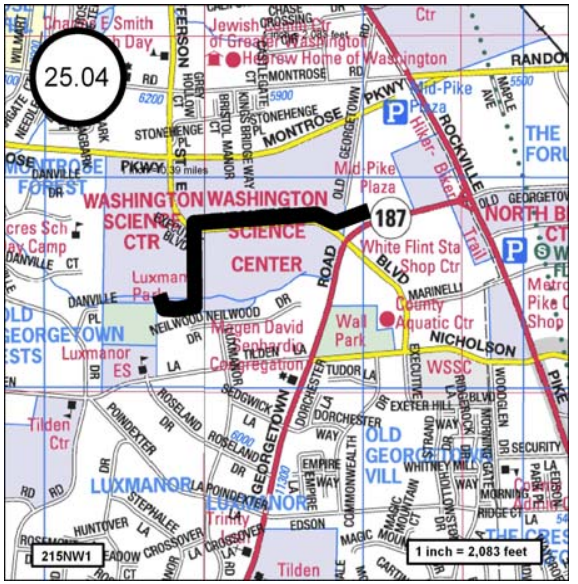
Date First in Program	FY 12
Date First Approved	FY 12
Intial Cost Estimate	1,488
Cost Estimate Last FY	3,874
Present Cost Estimate	4,053
Approved Request Last FY	37
Total Expense & Encumbrances	3,730
Approval Request Year 1	124

G. Status Information

Land Status	R/W acquired
Project Phase	Construction
Percent Complete	75%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	2,007
Capacity	3.47 mgd

H. Map



Mid-Pike Plaza Sewer Main, Phase 2

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-25.05	143801	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Cabin John 07;
Planning Areas	North Bethesda PA 30;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**860**	119	247	**494**	247	247					
Land											
Site Improvements & Utilities											
Construction	**4,455**		1,000	**3,455**	2,455	1,000					
Other	**779**		187	**592**	405	187					
Total	**6,094**	**119**	**1,434**	**4,541**	**3,107**	**1,434**					

C. Funding Schedule (000's)

Contribution/Other	**6,094**	119	1,434	**4,541**	3,107	1,434					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 3,600 feet of 21-inch and 24-inch diameter sewer main to provide service to Mid-Pike Plaza.

JUSTIFICATION

Mid-Pike Plaza Hydraulic Planning Analysis (November 2012).

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Montgomery County Government; Montgomery County Department of Environmental Protection; Local Community Civic Associations;

Coordinating Projects: S-25.04-Mid-Pike Plaza Sewer Main, Phase 1; S-103.16-Cabin John Trunk Sewer Relief;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$51	19
Other Project Costs		
Debt Service		
Total Cost	$51	19
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

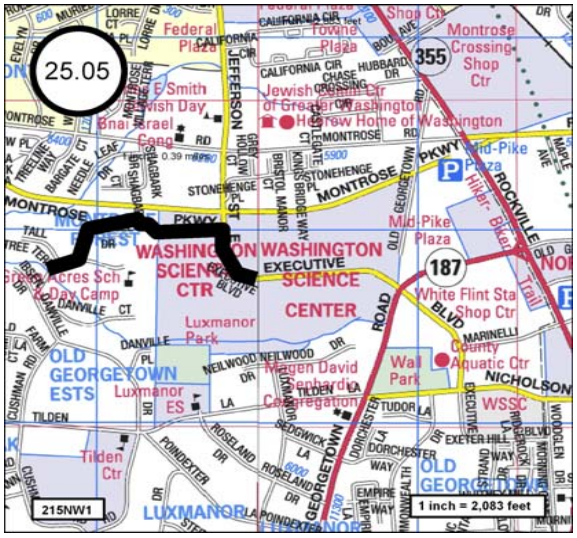
Date First in Program	FY 14
Date First Approved	FY 14
Intial Cost Estimate	5,917
Cost Estimate Last FY	6,094
Present Cost Estimate	6,094
Approved Request Last FY	3,107
Total Expense & Encumbrances	119
Approval Request Year 1	3,107

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	20%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



SENECA WASTEWATER TREATMENT PLANT PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'16 TOTAL COST	PROPOSED FY'17 TOTAL COST	CHANGE $	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
S-53.21	Seneca WWTP Enhanced Nutrient Removal	$13,972	$13,975	$3	0.0%	$22	September 2015
S-53.22	Seneca WWTP Expansion, Part 2	28,990	30,484	1,494	5.2%	22	September 2015
	TOTALS	$42,962	$44,459	$1,497	3.5%	$44	

Summary: The Seneca WWTP Enhanced Nutrient Removal (ENR) project (S-53.21) provides for the planning, design, and construction of improvements necessary to meet the requirements of MDE's Enhanced Nutrient Removal Program. The Seneca WWTP Expansion, Part 2 project (S-53.22) provides for the planning, design, and construction of improvements at the Seneca WWTP necessary to meet projected growth in this service area by increasing the capacity from 20 MGD to 26 MGD while also meeting the requirements of MDE's Enhanced Nutrient Removal Program. The individual project description forms on the pages following this summary provide additional information.

Cost Impact: Not applicable.

Seneca WWTP Enhanced Nutrient Removal

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-53.21	073800	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Seneca Creek 15;
Planning Areas	Lower Seneca PA 18;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**6,958**	6,956	1	**1**	1						
Land											
Site Improvements & Utilities											
Construction	**7,000**	6,877	103	**20**	20						
Other	**17**		16	**1**	1						
Total	**13,975**	**13,833**	**120**	**22**	**22**						

C. Funding Schedule (000's)

WSSC Bonds	**7,755**	7,613	120	**22**	22						
State Aid	**6,220**	6,220									

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of improvements at the Seneca WWTP necessary to meet the requirements of the Maryland Department of the Environment (MDE) Enhanced Nutrient Removal (ENR) Program at 20 MGD. The recommendations include modification of the existing basins to Flexible Modified Ludzack-Ettinger (MLE) mode, methanol storage and distribution system, upgrade of the existing 13 filters, and expansion of the filter gallery to include 3 new sand filters designed for phosphorous removal down to the permit goal of 0.18 mg/l at the maximum month flow of 33 MGD (design flow is 26 MGD).

JUSTIFICATION

The Bay Restoration Fund Enhanced Nutrient Removal (ENR) Program's purpose is to meet the commitments under the 2000 Chesapeake Bay Agreement. Reductions of nutrient pollutants from all sources including sewage treatment plants are necessary. The ENR strategy builds on the success of the Biological Nutrient Removal (BNR) Program already in place. The MDE is using the Bay Restoration Fund to upgrade the 66 major wastewater treatment plants which discharge to the Chesapeake Bay with ENR technologies. Once upgraded, these plants are expected to reduce nitrogen and phosphorus in the wastewater down to 3 mg/l total nitrogen and 0.3 mg/l total phosphorus, achieving approximately one-third of the needed reduction under the Chesapeake Bay 2000 Agreement. Other pollutants will continue to be reduced by more than 90%.

ENR Alternatives for the Seneca Wastewater Treatment Plant, Gannett Fleming (June 2005); Maryland Department of the Environment, Feasibility Study Approval Letter (July 27, 2005); WSSC Preliminary Engineering Report (September 2008); Design Criteria Report (November 2008).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The expenditures and schedule projections shown in Block B are based upon the actual bid and future change orders. The funding schedule reflects the final cost sharing agreement with MDE. WSSC's share of the project will be financed through a low interest loan from the MDE's Water Quality Administration State Revolving Loan Program. WSSC and MDE have negotiated a consent agreement for this project. The currently proposed date for the ENR substantial completion is January 1, 2016 and effluent discharge compliance by January 1, 2017. Funds are shown beyond FY16 for project closeout.

COORDINATION

Coordinating Agencies: Montgomery County Government; Montgomery County Department of Environmental Protection; Maryland Department of the Environment;
Coordinating Projects: S-53.22-Seneca WWTP Expansion, Part 2;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$534	18
Total Cost	$534	18
Impact on Water and Sewer Rate	$0.01	18

F. Approval and Expenditure Data (000's)

Date First in Program	FY 07
Date First Approved	FY 07
Intial Cost Estimate	22,862
Cost Estimate Last FY	13,972
Present Cost Estimate	13,975
Approved Request Last FY	22
Total Expense & Encumbrances	13,833
Approval Request Year 1	22

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	95%
Est Completion Date	September 2015

Growth	
System Improvement	
Environmental Regulation	100%
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Seneca WWTP Expansion, Part 2

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-53.22	083802	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Seneca Creek 15;
Planning Areas	Lower Seneca PA 18;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**7,006**	6,897	108	**1**	1						
Land											
Site Improvements & Utilities											
Construction	**23,425**	23,058	347	**20**	20						
Other	**53**		52	**1**	1						
Total	**30,484**	**29,955**	**507**	**22**	**22**						

C. Funding Schedule (000's)

SDC	**30,484**	29,955	507	**22**	22						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of improvements at the Seneca WWTP necessary to meet the projected growth in this service area while adhering to the requirements of the Maryland Department of the Environment (MDE) Enhanced Nutrient Removal (ENR) Program at 26 MGD (an increase from 20 MGD). The project will provide an additional aeration basin, an additional 150-foot clarifier, expansion of the filter gallery to include 4 new sand filters designed for phosphorous removal down to the permit goal of 0.18 mg/l at the maximum month flow of 33 MGD (design flow is 26 MGD), and biosolids handling system improvements. The biosolids handling improvements consist of an additional centrifuge and biosolids conveyance modifications which will provide system redundancy. The electrical distribution system will also be evaluated.

JUSTIFICATION

The planned improvements at the Seneca WWTP will adhere to the requirements of MDE's ENR Program at 26 MGD in accordance with the reduction goals under the Chesapeake Bay 2000 Agreement. The design provides for phosphorous removal down to the permit goal of 0.18 mg/l at the maximum month flow of 33 MGD (design flow is 26 MGD).

ENR Alternatives for the Seneca Wastewater Treatment Plant, Gannett Fleming (June 2005); Maryland Department of the Environment, Feasibility Study Approval Letter (July 27, 2005); WSSC Preliminary Engineering Report (September 2008); Design Criteria Report (November 2008).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The expenditures and schedule projections shown in Block B are based upon actual bid. Funds are shown beyond FY16 for project closeout.

COORDINATION

Coordinating Agencies: Montgomery County Government; Montgomery County Department of Environmental Protection; Maryland Department of the Environment;

Coordinating Projects: S-53.21-Seneca WWTP Enhanced Nutrient Removal;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY 08
Date First Approved	FY 07
Intial Cost Estimate	16,478
Cost Estimate Last FY	28,990
Present Cost Estimate	30,484
Approved Request Last FY	22
Total Expense & Encumbrances	29,955
Approval Request Year 1	22

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Construction
Percent Complete	95%
Est Completion Date	September 2015

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	6 MGD

H. Map

MAP NOT AVAILABLE

CABIN BRANCH AREA PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'16 TOTAL COST	PROPOSED FY'17 TOTAL COST	CHANGE $	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
S-84.47	Clarksburg Triangle Outfall Sewer, Part 2	$2,539	$2,539	$0	0.0%	$631	Developer Dependent
S-84.60	Cabin Branch Wastewater Pumping Station	2,342	2,342	0	0.0%	2,317	Developer Dependent
S-84.61	Cabin Branch WWPS Force Main	424	424	0	0.0%	407	Developer Dependent
	TOTALS	$5,305	$5,305	$0	0.0%	$3,355	

Summary: This group of Development Services Process (DSP) projects is programmed to serve new development in the Clarksburg area west of Route 355, including the Clarksburg Triangle and Cabin Branch areas. The need for these projects was identified in the Stage 3 requirements of the Clarksburg Master Plan and Hyattstown Special Study Area reports. Estimated completion schedules are dependent upon the property developers' schedules. No WSSC rate supported debt will be used for these projects. The projects that will impact local wetlands will be coordinated with the Maryland-National Capital Park & Planning Commission, Montgomery County Department of Environmental Protection, Maryland Department of the Environment, Maryland Department of Natural Resources, and the U.S. Fish & Wildlife Service, along with Montgomery County Government. The individual project description forms on the pages following this summary provide additional information.

Cost Impact: Not applicable.

Clarksburg Triangle Outfall Sewer, Part 2

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-84.47	023811	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Seneca Creek 15;
Planning Areas	Clarksburg & Vicinity PA 13;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**470**	226	230	**14**	12	2					
Land											
Site Improvements & Utilities											
Construction	**1,885**	900	450	**535**	471	64					
Other	**184**		102	**82**	72	10					
Total	**2,539**	**1,126**	**782**	**631**	**555**	**76**					

C. Funding Schedule (000's)

Contribution/Other	**2,539**	1,126	782	**631**	555	76					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of approximately 4,200 feet of 24-inch, 1,450 feet of 21-inch, 1,670 feet of 18-inch, and 580 feet of 15-inch diameter outfall sewer along a tributary west of and parallel to U.S. Interstate 270, north of West Old Baltimore Road. This sewer is projected to serve new development in Stage 3 of the Clarksburg planning area west of I-270 and potentially serve Clarksburg Development Stage 4 as specified in the 1994 Clarksburg Master Plan.

JUSTIFICATION

The Cabin Branch neighborhood includes Clarksburg Triangle and other Stage 3 properties west of I-270 and east of Clarksburg Road.

Clarksburg Master Plan and Hyattstown Special Study Area (1994); Montgomery County Council Resolution Number 14-772; Water and Sewer Plan Service Area Map Amendments for the Clarksburg Master Plan Area (Adopted February 13, 2001); Clarksburg Stages 3 and 4 Area Facility Plan, Rodgers Consulting (December 2004); Ten Mile Creek Area Limited Master Plan (2014).

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Maryland-National Capital Park & Planning Commission; Montgomery County Department of Environmental Protection; Maryland Department of the Environment; (Non-Tidal Wetlands Permit) Maryland Department of Natural Resources; U.S. Fish and Wildlife Service; Montgomery County Government;

Coordinating Projects: W-46.14-Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3; S-84.46-Clarksburg Triangle Outfall Sewer, Part 1;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$113	19
Other Project Costs		
Debt Service		
Total Cost	$113	19
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

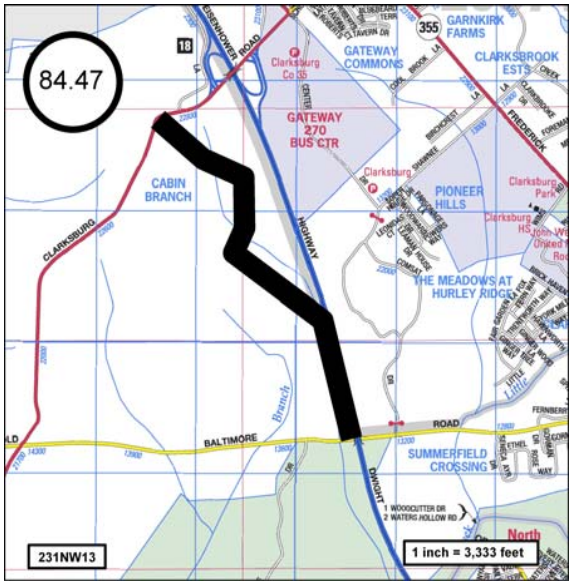
Date First in Program	FY 02
Date First Approved	FY 02
Intial Cost Estimate	22
Cost Estimate Last FY	2,539
Present Cost Estimate	2,539
Approved Request Last FY	555
Total Expense & Encumbrances	1,126
Approval Request Year 1	555

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	70%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	10.8 MGD

H. Map



Cabin Branch Wastewater Pumping Station

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-84.60	023807	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Seneca Creek 15;
Planning Areas	Clarksburg & Vicinity PA 13;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**483**	12	11	**460**	75	315	70				
Land											
Site Improvements & Utilities											
Construction	**1,555**			**1,555**	315	1,047	193				
Other	**304**		2	**302**	59	204	39				
Total	**2,342**	**12**	**13**	**2,317**	**449**	**1,566**	**302**				

C. Funding Schedule (000's)

Contribution/Other	**2,342**	12	13	**2,317**	449	1,566	302				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a 0.9 MGD wastewater pumping station. This wastewater pumping station is projected to serve new development in Stage 3 of the Clarksburg planning area west of I-270.

JUSTIFICATION

The Cabin Branch neighborhood includes Clarksburg Triangle and other Stage 3 properties west of I-270 and east of Clarksburg Road.

Clarksburg Master Plan and Hyattstown Special Study Area (1994); Montgomery County Council Resolution Number 14-772; Water and Sewer Plan Service Area Map Amendments for the Clarksburg Master Plan Area (Adopted February 13, 2001); Clarksburg Stages 3 and 4 Area Facility Plan, Rodgers Consulting (December 2004); Cabin Branch - Amended Phase I Letter of Findings #6 (September 2013)

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Maryland-National Capital Park & Planning Commission; Montgomery County Department of Environmental Protection; (Non-Tidal Wetlands Permit) Maryland Department of Natural Resources; U.S. Fish and Wildlife Service; Maryland Department of the Environment; Montgomery County Government;

Coordinating Projects: S-84.61-Cabin Branch WWPS Force Main;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

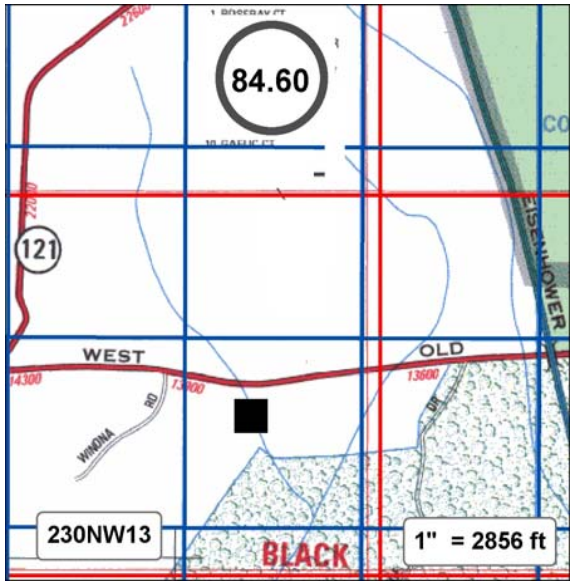
Date First in Program	FY 02
Date First Approved	FY 02
Intial Cost Estimate	22
Cost Estimate Last FY	2,342
Present Cost Estimate	2,342
Approved Request Last FY	449
Total Expense & Encumbrances	12
Approval Request Year 1	449

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	95%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	1,550
Capacity	0.9 MGD

H. Map



Cabin Branch WWPS Force Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-84.61	023808	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Seneca Creek 15;
Planning Areas	Clarksburg & Vicinity PA 13;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**90**		15	**75**	27	45	3				
Land											
Site Improvements & Utilities											
Construction	**279**			**279**	97	164	18				
Other	**55**		2	**53**	19	31	3				
Total	**424**		**17**	**407**	**143**	**240**	**24**				

C. Funding Schedule (000's)

Contribution/Other	**424**		17	**407**	143	240	24				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 2,000 feet of 10-inch diameter force main downstream of the Cabin Branch Wastewater Pumping Station. The wastewater pumping station and force main will provide service to new development in Stage 3 of the Clarksburg planning area, west of I-270.

JUSTIFICATION

The Cabin Branch neighborhood includes Clarksburg Triangle and other Stage 3 properties west of I-270 and east of Clarksburg Road.

Clarksburg Master Plan and Hyattstown Special Study Area (1994); Montgomery County Council Resolution Number 14-772; Water and Sewer Plan Service Area Map Amendments for the Clarksburg Master Plan Area (Adopted February 13, 2001); Clarksburg Stages 3 and 4 Area Facility Plan, Rodgers Consulting (December 2004); Cabin Branch - Amended Phase I Letter of Findings #6 (September 2013)

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The expenditures and schedule projections shown in Block B are based upon information provided by the developer. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project. Land costs are included in WSSC Project S-203.00.

COORDINATION

Coordinating Agencies: Maryland-National Capital Park & Planning Commission; Montgomery County Department of Environmental Protection; Maryland Department of the Environment; (Non-Tidal Wetlands Permit) Maryland Department of Natural Resources; U.S. Fish and Wildlife Service;

Coordinating Projects: S-84.47-Clarksburg Triangle Outfall Sewer, Part 2; S-84.60-Cabin Branch Wastewater Pumping Station;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$29	20
Other Project Costs		
Debt Service		
Total Cost	$29	20
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

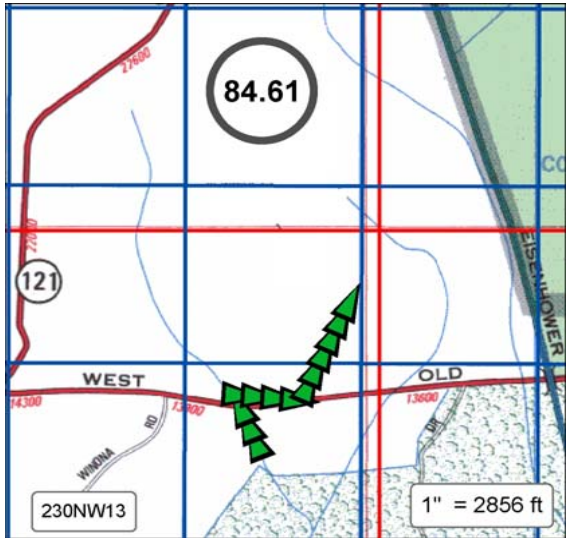
Date First in Program	FY 02
Date First Approved	FY 02
Intial Cost Estimate	22
Cost Estimate Last FY	424
Present Cost Estimate	424
Approved Request Last FY	143
Total Expense & Encumbrances	
Approval Request Year 1	143

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	100%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	1,550
Capacity	0.9 MGD

H. Map



Tapestry Wastewater Pumping Station

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-84.65	083803	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Seneca Creek 15;
Planning Areas	Clarksburg & Vicinity PA 13;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**338**	65	120	**153**	103	50					
Land											
Site Improvements & Utilities											
Construction	**848**	0	315	**533**	298	235					
Other	**168**		65	**103**	60	43					
Total	**1,354**	**65**	**500**	**789**	**461**	**328**					

C. Funding Schedule (000's)

Contribution/Other	**1,354**	65	500	**789**	461	328					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a 0.23 MGD wastewater pumping station to serve the Tapestry Subdivision.

JUSTIFICATION

Tapestry Subdivision Amended Hydraulic Planning Analysis and Letter of Findings #2 (March 2014).

COST CHANGE

Cost increase is based upon more definitive design information provided by Developer.

OTHER

The project scope has remained the same. The expenditures and schedule projections shown in Block B are based upon information provided by the developer. Estimated completion date is developer dependent. The design and construction will be performed by the developer under a Memorandum of Understanding. No WSSC rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Montgomery County Government; Local Community Civic Associations;
Coordinating Projects: S-84.66-Tapestry WWPS Force Main;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

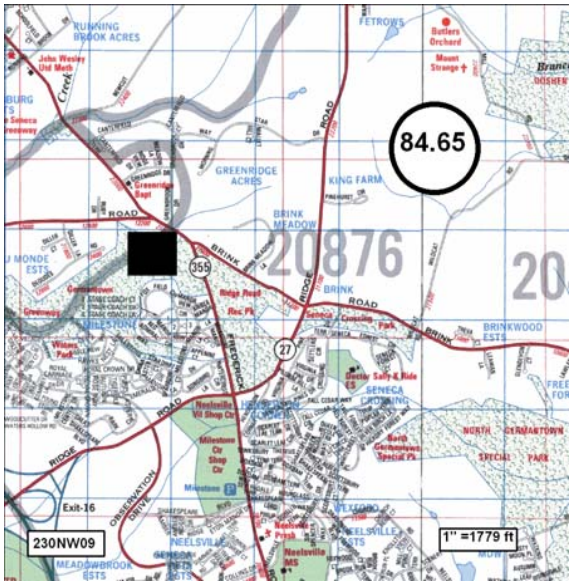
Date First in Program	FY08
Date First Approved	FY08
Intial Cost Estimate	552
Cost Estimate Last FY	683
Present Cost Estimate	1,354
Approved Request Last FY	223
Total Expense & Encumbrances	65
Approval Request Year 1	461

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	50%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	590
Capacity	0.23 MGD

H. Map



Tapestry WWPS Force Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-84.66	083804	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Seneca Creek 15;
Planning Areas	Clarksburg & Vicinity PA 13;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**26**	13	13	**0**	0	0					
Land											
Site Improvements & Utilities											
Construction	**92**		34	**58**	32	26					
Other	**16**		7	**9**	5	4					
Total	**134**	**13**	**54**	**67**	**37**	**30**					

C. Funding Schedule (000's)

Contribution/Other	**134**	13	54	**67**	37	30					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 2,150 feet of 4-inch diameter force main to serve the Tapestry Subdivision.

JUSTIFICATION

Tapestry Subdivision Amended Hydraulic Planning Analysis and Letter of Findings #2 (March 2014).

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Montgomery County Government; Maryland-National Capital Park & Planning Commission; (Mandatory Referral Process) Local Community Civic Associations;

Coordinating Projects: S-84.65-Tapestry Wastewater Pumping Station;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$31	19
Other Project Costs		
Debt Service		
Total Cost	$31	19
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY 08
Date First Approved	FY 08
Intial Cost Estimate	110
Cost Estimate Last FY	134
Present Cost Estimate	134
Approved Request Last FY	46
Total Expense & Encumbrances	13
Approval Request Year 1	37

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	50%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	590
Capacity	

H. Map

Shady Grove Station Sewer Augmentation

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-85.21	153800	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Rock Creek 05;
Planning Areas	Gaithersburg & Vicinity PA 20;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**59**	23	15	**21**	11	10					
Land											
Site Improvements & Utilities											
Construction	**1,904**		250	**1,654**	1,016	638					
Other	**291**		40	**251**	154	97					
Total	**2,254**	**23**	**305**	**1,926**	**1,181**	**745**					

C. Funding Schedule (000's)

Contribution/Other	**2,254**	23	305	**1,926**	1,181	745					

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.

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 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 expenditures and schedule projections shown in Block B are based upon information provided by the developer. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: 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		
Maintenance	$57	19
Other Project Costs		
Debt Service		
Total Cost	$57	19
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY 15
Date First Approved	FY 15
Intial Cost Estimate	2,254
Cost Estimate Last FY	2,254
Present Cost Estimate	2,254
Approved Request Last FY	1,188
Total Expense & Encumbrances	23
Approval Request Year 1	1,181

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	50%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	5,500
Capacity	1.0 - 3.0 mgd

H. Map

Cabin John Trunk Sewer Relief

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-103.16	153801	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Cabin John 07;
Planning Areas	Bethesda-Chevy Chase & Vicinity PA 35;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**621**	21	390	**210**	180	20	10				
Land											
Site Improvements & Utilities											
Construction	**13,120**			**13,120**	5,352	5,352	2,416				
Other	**1,372**		39	**1,333**	553	537	243				
Total	**15,113**	**21**	**429**	**14,663**	**6,085**	**5,909**	**2,669**				

C. Funding Schedule (000's)

Contribution/Other	**15,113**	21	429	**14,663**	6,085	5,909	2,669				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of 3,400 feet of 24-inch diameter sewer in the Cabin John Basin.

JUSTIFICATION

Mid-Pike Plaza Hydraulic Planning Analysis (November, 2012).

COST CHANGE

Cost were increased based upon information provided by the developer.

OTHER

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

COORDINATION

Coordinating Agencies: Maryland-National Capital Park & Planning Commission; Montgomery County Department of Environmental Protection; Maryland Department of the Environment; Maryland Department of Natural Resources; Montgomery County Government;
Coordinating Projects: S-25.04-Mid-Pike Plaza Sewer Main, Phase 1; S-25.05-Mid-Pike Plaza Sewer Main, Phase 2;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$49	20
Other Project Costs		
Debt Service		
Total Cost	$49	20
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

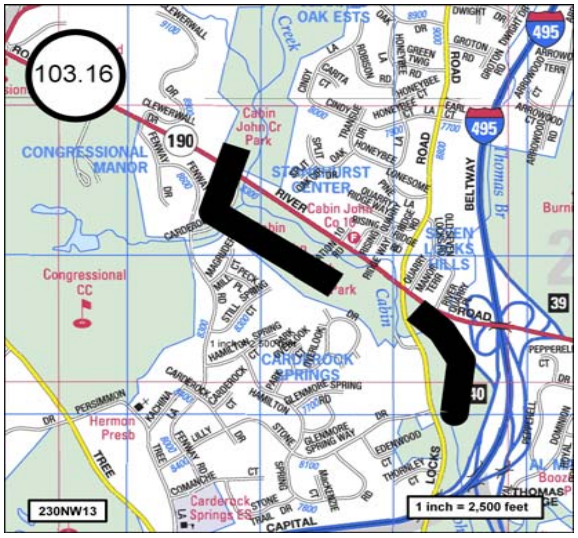
Date First in Program	FY 14
Date First Approved	FY 14
Intial Cost Estimate	7,999
Cost Estimate Last FY	7,999
Present Cost Estimate	15,113
Approved Request Last FY	2,662
Total Expense & Encumbrances	21
Approval Request Year 1	6,085

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	20%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	29.37 to 36.74 MGD

H. Map



PROJECTS PENDING CLOSE-OUT

Montgomery County Sewer Projects

(costs in thousands)

Project Number	Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'15	Estimated Expenditures FY'16	Remarks
103800	S-38.01	Preserve at Rock Creek Wastewater Pumping Station	$1,967	$1,275	$692	Project completion expected in FY'16.
103801	S-38.02	Preserve at Rock Creek WWPS Force Main	391	324	67	Project completion expected in FY'16.
		TOTALS	$2,358	$1,599	$759	

Section 3 - Bi-County Water Projects

DATE: October 1, 2015

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

BI-COUNTY WATER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 15	EST. EXPEND 16	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PDF PAGE NUM
						YR 1 17	YR 2 18	YR 3 19	YR 4 20	YR 5 21	YR 6 22		
W-73.19	Potomac WFP Outdoor Substation No. 2 Replacement	15,562	1,599	4,654	9,309	6,982	2,327	0	0	0	0	0	3-3
W-73.21	Potomac WFP Corrosion Mitigation	15,508	1,235	12,034	2,239	2,239	0	0	0	0	0	0	3-4
W-73.22	Potomac WFP Pre-Filter Chlorination & Air Scour Improvements	11,200	1,070	901	9,229	2,564	6,152	513	0	0	0	0	3-5
W-73.30	Potomac WFP Submerged Channel Intake	80,537	3,938	315	76,284	1,050	3,098	24,360	24,308	20,055	3,413	0	3-6
W-73.32	Potomac WFP Main Zone Pipeline	35,009	397	402	34,210	353	605	20,052	13,200	0	0	0	3-7
W-127.01	Bi-County Water Tunnel	143,855	139,625	4,198	32	32	0	0	0	0	0	0	3-8
W-139.02	Duckett & Brighton Dam Upgrades	29,692	11,926	4,606	13,160	8,773	4,387	0	0	0	0	0	3-10
W-161.01	Large Diameter Water Pipe & Large Valve Rehabilitation Program	417,169	79,841	28,927	308,401	48,092	51,443	52,751	51,865	51,865	52,385	0	3-11
W-172.05	Patuxent WFP Phase II Expansion	64,838	10,978	16,466	37,394	17,778	14,744	4,872	0	0	0	0	3-14
W-172.07	Patuxent Raw Water Pipeline	32,436	12,264	42	20,130	5,610	8,910	5,610	0	0	0	0	3-15
W-172.08	Rocky Gorge Pump Station Upgrade	19,582	4,455	3,782	11,345	7,564	3,781	0	0	0	0	0	3-16
W-202.00	Land & Rights-of-Way Acquisition - Bi-County Water	2,120	0	697	1,423	425	550	20	418	10	0	0	3-17
	TOTAL BI-COUNTY WATER PROJECTS	867,508	267,328	77,024	523,156	101,462	95,997	108,178	89,791	71,930	55,798	0	

POTOMAC WATER FILTRATION PLANT PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'16 TOTAL COST	PROPOSED FY'17 TOTAL COST	CHANGE $	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
W-73.19	Potomac WFP Outdoor Substation No. 2 Replacement	$14,636	$15,562	$926	6.3%	$9,309	December 2017
W-73.21	Potomac WFP Corrosion Mitigation	15,556	15,508	(48)	-0.3%	2,239	December 2016
W-73.22	Potomac WFP Pre-Filter Chlorination & Air Scour Improvements	7,176	11,200	4,024	56.1%	9,229	July 2018
W-73.30	Potomac WFP Submerged Channel Intake	82,638	80,537	(2,101)	-2.5%	76,284	FY 2022
	TOTALS	$120,006	$122,807	$2,801	2.3%	$97,061	

Summary: This group of projects represents operational improvements to the Potomac Water Filtration Plant (WFP) in Montgomery County. The Potomac WFP Outdoor Substation No. 2 Replacement project (W-73.19) provides for the replacement of the Outdoor Substation No. 2 (OSS-2) at the Potomac Water Filtration Plant which is over 30 years old and contains 5kV switchgear that houses air magnetic breakers which are obsolete. The Potomac WFP Corrosion Mitigation (W-73.21) provides for upgrading/replacing existing metallic components in the eight sedimentation basins due to accelerated corrosion, along with upgrading components in the rapid mix and flocculation processes. The Potomac WFP Pre-Filter Chlorination & Air Scour Improvements project (W-73.22) provides for a pre-filter chlorination system and evaluation of retrofitting an air scour system into 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 Disinfection Byproducts Rule Implementation project (W-73.20) was completed and included on the close out list.

Cost Impact: There was a net increase in cost largely due to updated estimates for construction of the new air scour system (W-73.22).

Potomac WFP Outdoor Substation No. 2 Replacement

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-73.19	113802	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**3,292**	1,599	564	**1,129**	847	282					
Land											
Site Improvements & Utilities											
Construction	**11,000**		3,667	**7,333**	5,500	1,833					
Other	**1,270**		423	**847**	635	212					
Total	**15,562**	**1,599**	**4,654**	**9,309**	**6,982**	**2,327**					

C. Funding Schedule (000's)

WSSC Bonds	**15,562**	1,599	4,654	**9,309**	6,982	2,327					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction required to replace the Outdoor Substation No. 2 (OSS-2) 5kV switchgear and the two motor control centers (MCCs) located in the Raw Water Pumping Station No. 1 at the Potomac Water Filtration Plant. OSS-2 is over 30 years old and contains 5kV switchgear that houses air magnetic breakers which are obsolete. The two MCCs are over 50 years old, and the manufacturer is no longer in business, making replacement parts difficult to obtain.

JUSTIFICATION

The Phase ID - Energy Performance Project included engineering, and planning of equipment and operations upgrades to develop an energy efficient and guaranteed savings program to upgrade/replace pumps at the Potomac Raw Water Pumping Stations (RWPS) #1 and #2, and upgrade Main Zone pump #3. Subsequent tests and inspections of OSS-2 serving RWPS #1 and #2 resulted in a report indicating that OSS-2 was unsafe and in poor condition, and that WSSC should move in an expeditious manner to replace the switchgear in its entirety. Industry practice is to replace 5 kV switchgear between 25 and 30 years old, when in an environment with airborne chemicals. The old breakers in OSS-2 have misalignment problems, and the switchgear housing is corroded, which can pose safety risks to the plant electrical and mechanical maintenance staff as well as the operators.

Energy Performance Project, Phase ID, Energy Systems Group (ESG) (March 2009). Raw Water Pump Testing and subsequent site visits and meetings at Potomac from April to June 2009 by ESG, Whitman Requardt & Assoc., and Shah Assoc. (sub-consultants to ESG).

COST CHANGE

Total project cost has increased based on updated construction supervision cost estimate.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above are preliminary estimates and may change based upon final bid.

COORDINATION

Coordinating Agencies: Montgomery County Government; Prince George's County Government;
Coordinating Projects: A-103.00-Energy Performance Program;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$1,071	19
Total Cost	$1,071	19
Impact on Water and Sewer Rate	$0.02	19

F. Approval and Expenditure Data (000's)

Date First in Program	FY 11
Date First Approved	FY 11
Intial Cost Estimate	7,934
Cost Estimate Last FY	14,636
Present Cost Estimate	15,562
Approved Request Last FY	5,258
Total Expense & Encumbrances	1,599
Approval Request Year 1	6,982

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	100%
Est Completion Date	December 2017

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Potomac WFP Corrosion Mitigation

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-73.21	143802	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,210**	985	190	**35**	35						
Land											
Site Improvements & Utilities											
Construction	**13,000**	250	10,750	**2,000**	2,000						
Other	**1,298**		1,094	**204**	204						
Total	**15,508**	**1,235**	**12,034**	**2,239**	**2,239**						

C. Funding Schedule (000's)

WSSC Bonds	**15,508**	1,235	12,034	**2,239**	2,239						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction required to upgrade and replace the existing metallic components in the eight Sedimentation Basins due to accelerated corrosion observed since the implementation of the full-scale Low pH Enhanced Coagulation Program in 2008. The project will also upgrade components in the Rapid Mix and Flocculation process areas in anticipation of the Ferric Chloride Feed System Project completion that will introduce a coagulant that is not compatible with several of the existing metallic components.

JUSTIFICATION

Sedimentation Basin components, such as valve hardware, pipe couplings, operator extensions, cross beams, cross collector drive chains and pipe support brackets, are all essential elements. Failure could mean losing important and significant process capacity, possibly for extended periods of time. This could hinder the Commission's ability to meet water supply demands, particularly when the system may need to recover quickly, as in the case of a major water main break. Replacing the metallic components with compatible materials will help maintain the integrity of our system. The project also includes the replacement of the existing polyurethane sprockets, chains for the cross collector drive, augers, auger shafts, and auger chains.

Technical Memorandum No. 1 - Impact of Ferric Chloride on Existing Facilities, Hazen and Sawyer, (May 2010); Potomac Sedimentation Basin Corrosion Study, Hatch Mott MacDonald, (July 2010).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditures and schedule projections shown in Block B above are based on approved construction contract BF5250A11.

COORDINATION

Coordinating Agencies: Montgomery County Government; Prince George's County Government; Maryland Department of the Environment;
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$1,067	18
Total Cost	$1,067	18
Impact on Water and Sewer Rate	$0.02	18

F. Approval and Expenditure Data (000's)

Date First in Program	FY 14
Date First Approved	FY 14
Intial Cost Estimate	7,443
Cost Estimate Last FY	15,556
Present Cost Estimate	15,508
Approved Request Last FY	5,165
Total Expense & Encumbrances	1,235
Approval Request Year 1	2,239

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	5%
Est Completion Date	December 2016

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Potomac WFP Pre-Filter Chlorination & Air Scour Improvements

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-73.22	143803	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,472**	665	307	**500**	139	333	28				
Land											
Site Improvements & Utilities											
Construction	**8,807**	405	512	**7,890**	2,192	5,260	438				
Other	**921**		82	**839**	233	559	47				
Total	**11,200**	**1,070**	**901**	**9,229**	**2,564**	**6,152**	**513**				

C. Funding Schedule (000's)

WSSC Bonds	**11,200**	1,070	901	**9,229**	2,564	6,152	513				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of a pre-filter chlorination system for the Potomac Water Filtration Plant. It also includes evaluation of retrofitting an air scour system into the existing plant filters, and the planning, design and construction of an appropriate system if the evaluation deems it favorable for implementation.

JUSTIFICATION

The Potomac Water Filtration Plant has experienced six separate incidents of catastrophic filter underdrain failures since October 2006. Subsequent investigation conducted by WSSC and ITT Leopold, suppliers of the failed underdrain systems, revealed that the ITT Leopold underdrain system with an Integral Media Support (IMS) cap is not compatible with the biologically active filters at the Potomac WFP.

Engineering Standard - I. M. S. Cap Monitoring Operation, and Maintenance Instructions, ITT Water & Wastewater, Leopold, Inc., (April 2009). Memo from John Geibel, P.E., Sr. Product Engineer @ ITT Water & Wastewater, Leopold, Inc. - Potomac Filtration Plant Visit April 2009 - to Joseph Johnson, Potomac Plant Superintendent, (May 2010);

COST CHANGE

Total project cost has increased based on an updated cost estimate for construction of the new air scour system.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above are preliminary design level estimates, and may change based on site-specific conditions and design constraints. It was originally planned to design and construct both pre-filter chlorination and air scour systems as one deliverable. However, due to the more critical need to implement pre-filter chlorination at the Potomac plant, this portion of the project was placed on an accelerated schedule for design and construction, separate from that of the air scour system.

COORDINATION

Coordinating Agencies: Montgomery County Government; Prince George's County Government;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$771	20
Total Cost	$771	20
Impact on Water and Sewer Rate	$0.02	20

F. Approval and Expenditure Data (000's)

Date First in Program	FY 14
Date First Approved	FY 14
Intial Cost Estimate	5,602
Cost Estimate Last FY	7,176
Present Cost Estimate	11,200
Approved Request Last FY	253
Total Expense & Encumbrances	1,070
Approval Request Year 1	2,564

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	30%
Est Completion Date	July 2018

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Potomac WFP Submerged Channel Intake

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-73.30	033812	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Potomac WFP HGPOWF;
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**10,188**	3,938	300	**5,950**	1,000	1,250	1,200	1,150	1,100	250	
Land											
Site Improvements & Utilities											
Construction	**66,700**			**66,700**		1,700	22,000	22,000	18,000	3,000	
Other	**3,649**		15	**3,634**	50	148	1,160	1,158	955	163	
Total	**80,537**	**3,938**	**315**	**76,284**	**1,050**	**3,098**	**24,360**	**24,308**	**20,055**	**3,413**	

C. Funding Schedule (000's)

WSSC Bonds	**80,537**	3,938	315	**76,284**	1,050	3,098	24,360	24,308	20,055	3,413	

D. Description & Justification

DESCRIPTION

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.

JUSTIFICATION

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.

"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 2002); "Potomac WFP Facility Plan," O'Brien & Gere Engineers, Inc. (September 2002). "Draft Feasibility Study Report", Black & Veatch (November 2013).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. As part of the planning phase of this project, significant outreach activities will occur. 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. As the planning process moves into its final stages and the National Environmental Policy Act (NEPA) approval process is underway, elected officials, county government staffs, environmental community members, and the general public will be engaged in an on-going information, outreach and project participation program. Expenditure and schedule projections shown above are planning level estimates and may change based on site-specific conditions and design constraints. Both Councils will review the results of the detailed study and must approve continuing with the project before design and construction may proceed. Land costs are included in WSSC Project W-202.00.

COORDINATION

Coordinating Agencies: Montgomery County Government; Prince George's County Government; National Park Service; Montgomery County Department of Environmental Protection; Maryland Department of the Environment; Maryland Department of Natural Resources; Prince George's County Department of Environmental Resources; U.S. Army Corps of Engineers; Maryland-National Capital Park & Planning Commission;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$5,541	23
Total Cost	$5,541	23
Impact on Water and Sewer Rate	$0.11	23

F. Approval and Expenditure Data (000's)

Date First in Program	FY 04
Date First Approved	FY 03
Intial Cost Estimate	936
Cost Estimate Last FY	82,638
Present Cost Estimate	80,537
Approved Request Last FY	1,100
Total Expense & Encumbrances	3,938
Approval Request Year 1	1,050

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	95%
Est Completion Date	FY 2022

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-73.32	133800	Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,862**	397	365	**1,100**	321	550	229				
Land											
Site Improvements & Utilities											
Construction	**30,000**			**30,000**			18,000	12,000			
Other	**3,147**		37	**3,110**	32	55	1,823	1,200			
Total	**35,009**	**397**	**402**	**34,210**	**353**	**605**	**20,052**	**13,200**			

C. Funding Schedule (000's)

WSSC Bonds	**35,009**	397	402	**34,210**	353	605	20,052	13,200			

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of 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. The project will include a rock tunnel segment.

JUSTIFICATION

The existing 78-inch diameter PCCP pipeline is the major feed to the 96-inch diameter Montgomery County Main Zone pipeline and the 66-inch diameter River Road pipeline. The primary purpose of this project is to provide redundancy for the existing line. The Business Case recommended a new 84-inch diameter main be installed from the Main Zone pumping station to the 66-inch diameter and 96-inch diameter wye connection. In addition the wye connection will be replaced as part of this project.

E-mail from M. Woodcock to C. Fricke and E. Betanzo dated April 27, 2011; "Business Case Evaluation for Potomac Water Treatment Plan - 78 inch finished water main redundancy", O'Brien and Gere Engineers, Inc. (October 2013)

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above are Order of Magnitude estimates and may change based upon site specific conditions and design constraints. Land acquisition costs are included in WSSC Project W-202.00

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Montgomery County Department of Public Works and Transportation; Montgomery County Government; Maryland Department of the Environment; Maryland Department of Natural Resources; U.S. Army Corps of Engineers;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$28	21
Other Project Costs		
Debt Service	$2,409	21
Total Cost	$2,437	21
Impact on Water and Sewer Rate	$0.05	21

F. Approval and Expenditure Data (000's)

Date First in Program	FY 13
Date First Approved	FY 13
Intial Cost Estimate	330
Cost Estimate Last FY	34,670
Present Cost Estimate	35,009
Approved Request Last FY	440
Total Expense & Encumbrances	397
Approval Request Year 1	353

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	10%
Est Completion Date	FY 2020

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	Approximately 200 mgd

H. Map

MAP NOT AVAILABLE

Bi-County Water Tunnel

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-127.01	934855	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Montgomery Main 495A; Prince George's
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**28,295**	26,455	1,830	**10**	10						
Land											
Site Improvements & Utilities											
Construction	**115,358**	113,170	2,168	**20**	20						
Other	**202**		200	**2**	2						
Total	**143,855**	**139,625**	**4,198**	**32**	**32**						

C. Funding Schedule (000's)

WSSC Bonds	**700**	700									
SDC	**143,155**	138,925	4,198	**32**	32						

D. Description & Justification

DESCRIPTION

This project provides for the design and construction of approximately 28,400 feet of 84-inch diameter water main between the intersection of Tuckerman Lane and Route I-270 and the western terminus of the Bi-County Water Tunnel near the area where Rock Creek crosses the Capital Beltway (Maryland Route 495). The project will be constructed as a deep tunnel, minimizing community and environmental impacts. The project also includes relining 450 feet of existing 96-inch diameter PCCP with 84-inch diameter steel pipe at the I-270 connection between this pipeline and the new tunnel.

JUSTIFICATION

This project will significantly increase transmission capacity from the Potomac Water Filtration Plant to the Montgomery County Main Zone and Prince George's County. The alignment study completed in July 2005 recommended that the water main be constructed as a pipeline with a deep rock tunnel from 90 to 250 feet below the ground surface.

Montgomery and Prince George's Main Zone Facility Plan, Black and Veatch, Inc. (October 1990); Technical Memoranda #s1, 2, & 3 (Draft), Louis Berger & Associates (1997); Updated Water Demand Projections (dated April 6, 2001); and the General Plan. Final Alignment Report, Black and Veatch, Inc. (July 2005).

COST CHANGE

Not applicable.

OTHER

The project scope remains the same. Expenditures shown in Block B above are definitive and are the sum of the design services, construction management services and construction contract amounts. In late 2005, both Councils reviewed the results of the detailed alignment study and agreed upon the final alignment and construction method. The tunnel was substantially completed and the Commission received beneficial use of the main on February 12, 2015. Final restoration is expected to be completed in the fall 2015 planting season. As part of the permit requirements for work within Cabin John and Rock Creek Parks, M-NCP&PC calls for stream restoration along Old Farm Creek. This work will be handled under a separate contract with costs extending into FY'17. The relining of 450 feet of existing 96-inch diameter PCCP was completed in FY'14 at a cost of $700,000 and is not subject to SDC funding.

COORDINATION

Coordinating Agencies: Montgomery County Government; Prince George's County Government; Maryland-National Capital Park & Planning Commission; (Mandatory Referral submissions are approved); Maryland Department of Natural Resources; Maryland State Department of Transportation;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$531	18
Other Project Costs		
Debt Service	$48	18
Total Cost	$579	18
Impact on Water and Sewer Rate	$0.01	18

F. Approval and Expenditure Data (000's)

Date First in Program	FY 93
Date First Approved	FY 93
Intial Cost Estimate	63,000
Cost Estimate Last FY	144,258
Present Cost Estimate	143,855
Approved Request Last FY	1,123
Total Expense & Encumbrances	139,625
Approval Request Year 1	32

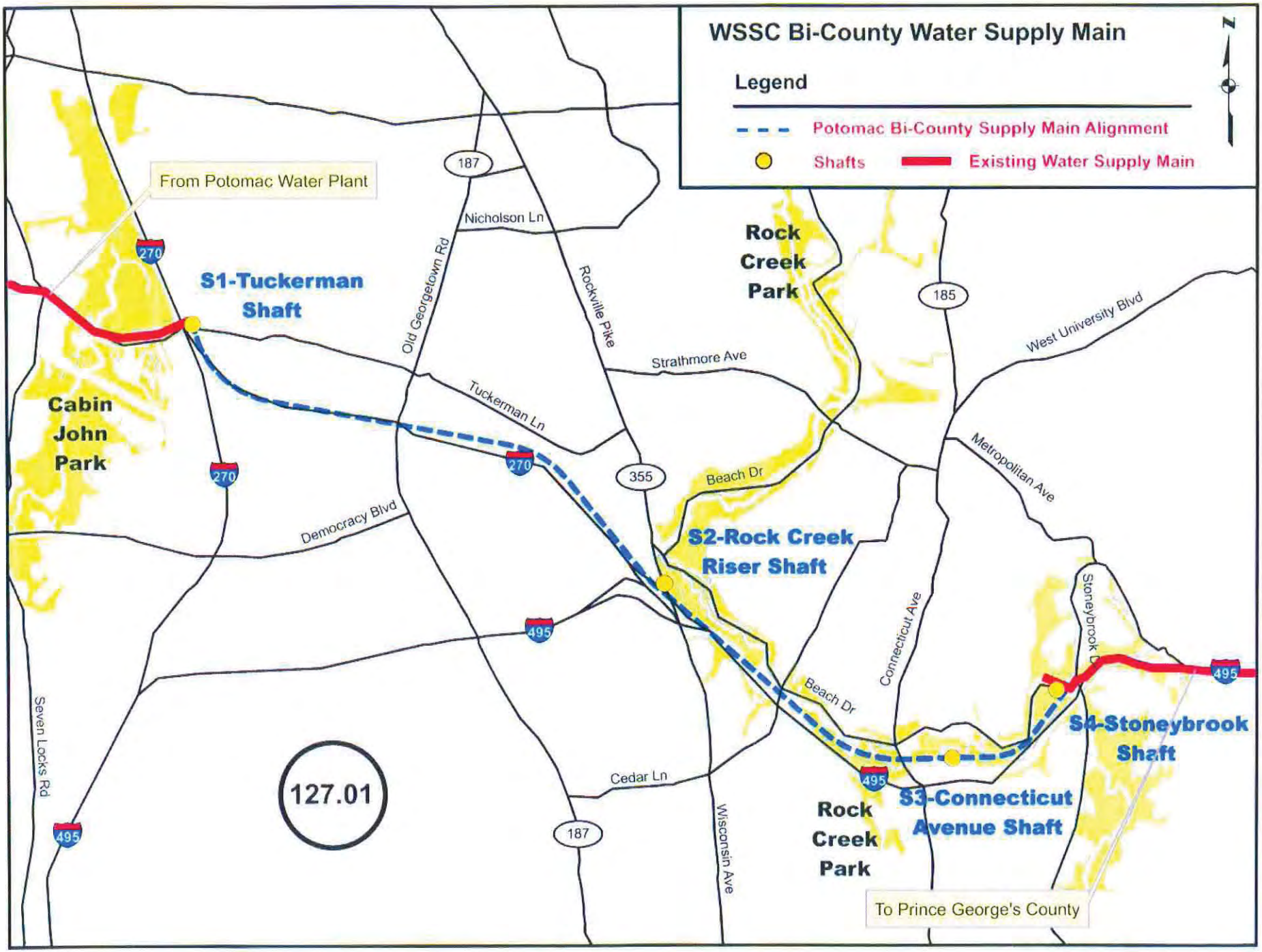
G. Status Information

Land Status	Land acquired
Project Phase	Construction
Percent Complete	99%
Est Completion Date	See Block D

Growth	99%
System Improvement	1%
Environmental Regulation	
Population Served	
Capacity	

H. Map

SEE ATTACHED MAP


WSSC Bi-County Water Supply Main
Legend
Potomac Bi-County Supply Main Alignment
Shafts
Existing Water Supply Main
N
From Potomac Water Plant
S1-Tuckerman Shaft
S2-Rock Creek Riser Shaft
S3-Connecticut Avenue Shaft
S4-Stoneybrook Shaft
Cabin John Park
Rock Creek Park
Rock Creek Park
127.01
To Prince George's County
Nicholson Ln
Old Georgetown Rd
Rockville Pike
Strathmore Ave
Tuckerman Ln
West University Blvd
Metropolitan Ave
Beach Dr
Democracy Blvd
Connecticut Ave
Stoneybrook Dr
Cedar Ln
Wisconsin Ave
Seven Locks Rd
187
185
355
270
495

Duckett & Brighton Dam Upgrades

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-139.02	073802	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**7,471**	6,021	362	**1,088**	725	363					
Land											
Site Improvements & Utilities											
Construction	**20,605**	5,905	3,825	**10,875**	7,250	3,625					
Other	**1,616**		419	**1,197**	798	399					
Total	**29,692**	**11,926**	**4,606**	**13,160**	**8,773**	**4,387**					

C. Funding Schedule (000's)

WSSC Bonds	**29,692**	11,926	4,606	**13,160**	8,773	4,387					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of the upgrades required to enable the T. Howard Duckett Dam to meet current Maryland Department of the Environment (MDE) dam safety standards including the Probable Maximum Flood (PMF) criteria and maximum credible earthquake loadings. The upgrades include parapet walls on both embankments of the dam and three foot thick scour slabs tied into the rock on the downstream side of the dam. This project also includes improvements to the Brighton Dam to assure continued safe operation.

JUSTIFICATION

The MDE requested that WSSC perform a safety analysis of the T. Howard Duckett Dam to ensure that the dam can safely pass the Probable Maximum Flood criteria. MDE also requested that the evaluation include an analysis of the dam's ability to withstand the maximum credible earthquake loadings. The safety analysis includes geotechnical and structural evaluations.
December 13, 2004 letter from MDE; "Comprehensive Safety Evaluation of the T. Howard Duckett Dam", URS Corporation (January 2007); June 28, 2007 letter from MDE.

COST CHANGE

Costs were increased based on the Engineer's estimate for the work required for the Brighton Dam part of the project.

OTHER

The project scope has remained the same. Expenditures and schedule projections shown in Block B above reflect design level estimates (Brighton Dam) and actual bids (Duckett Dam). A report with a presentation of alternatives to enable the dam to safely pass the PMF and any other safety requirements was delivered to MDE in January 2007. In June 2007, MDE formally concurred with the recommended alternative. Construction work at Duckett Dam is approximately 95% complete. Brighton Dam is currently in design.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Montgomery County Government; Prince George's County Government; Howard County Government; City of Laurel; Maryland Department of the Environment; U.S. Army Corps of Engineers;
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$2,043	19
Total Cost	$2,043	19
Impact on Water and Sewer Rate	$0.04	19

F. Approval and Expenditure Data (000's)

Date First in Program	FY 07
Date First Approved	FY 07
Intial Cost Estimate	575
Cost Estimate Last FY	16,950
Present Cost Estimate	29,692
Approved Request Last FY	670
Total Expense & Encumbrances	11,926
Approval Request Year 1	8,773

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	90%
Est Completion Date	January 2018

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Large Diameter Water Pipe & Large Valve Rehabilitation Program

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-161.01	113803	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**34,395**	7,818	3,261	**23,316**	3,842	3,710	3,743	3,842	3,842	4,337	
Land											
Site Improvements & Utilities											
Construction	**366,662**	72,023	24,241	**270,398**	41,960	45,283	46,496	45,553	45,553	45,553	
Other	**16,112**		1,425	**14,687**	2,290	2,450	2,512	2,470	2,470	2,495	
Total	**417,169**	**79,841**	**28,927**	**308,401**	**48,092**	**51,443**	**52,751**	**51,865**	**51,865**	**52,385**	

C. Funding Schedule (000's)

WSSC Bonds	**417,169**	79,841	28,927	**308,401**	48,092	51,443	52,751	51,865	51,865	52,385	

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.

JUSTIFICATION

WSSC has approximately 1,031 miles of large diameter water main ranging from 16-inch to 96-inch 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 annually on PCCP pipelines 36-inch 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 amongst 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'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 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 and replace (when necessary) any of the 1500 large diameter valves and vaults located throughout the system.
Utility Wide Master Plan, (December 2007); 30 Year Infrastructure Plan (2007); FY2016 Water Transmission System Asset Management Plan (February 2014); WSSC FY 2017 Buried Water Asset Systems Asset Management Plan (December 2014);

COST CHANGE

Not applicable.

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$28,703	23
Total Cost	$28,703	23
Impact on Water and Sewer Rate	$0.58	23

F. Approval and Expenditure Data (000's)

Date First in Program	FY 11
Date First Approved	FY 11
Intial Cost Estimate	60,000
Cost Estimate Last FY	411,331
Present Cost Estimate	417,169
Approved Request Last FY	48,293
Total Expense & Encumbrances	79,841
Approval Request Year 1	48,092

G. Status Information

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

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Large Diameter Water Pipe & Large Valve Rehabilitation Program

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above are Order of Magnitude estimates and are expected to change based upon the results of the 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.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; 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); Maryland-National Capital Park & Planning Commission; Prince George's County Department of Permitting Inspection and Enforcement; Local Community Civic Associations;

Coordinating Projects: W-1.00-Water Reconstruction Program; A-107.00-Specialty Valve Vault Rehabilitation Program;

PATUXENT WATER FILTRATION PLANT PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'16 TOTAL COST	PROPOSED FY'17 TOTAL COST	CHANGE $	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
W-172.05	Patuxent WFP Phase II Expansion	$65,611	$64,838	($773)	-1.2%	$37,394	FY 2019
W-172.07	Patuxent Raw Water Pipeline	23,616	32,436	8,820	37.3%	20,130	FY 2019
W-172.08	Rocky Gorge Pump Station Upgrade	17,932	19,582	1,650	9.2%	11,345	December 2017
	TOTALS	$107,159	$116,856	$9,697	9.0%	$68,869	

Summary: The Patuxent Water Filtration Plant (WFP) Phase II Expansion project (W-172.05) provides for the addition of a sixth treatment train, a new electrical substation, upgrades to existing yard piping, upgrades to chemical facilities, new UV disinfection facilities, an upgrade to the existing potassium permanganate feed system, upgrades to the existing sewer system and new solids removal facilities. In conjunction with the WFP Phase II Expansion project, the Patuxent Raw Water Pipeline project (W-172.07) and the Rocky Gorge Pump Station Upgrade project (W-172.08) provide for a new raw water pipeline and the necessary modification/expansion to the pumping station to allow the delivery of up to 110 million gallons per day (MGD) of raw water to the Patuxent WFP.

Cost Impact: Cost increases are primarily associated with the Patuxent Raw Water Pipeline (W-172.07). Alignment changes are needed to avoid BGE gas line relocations and the design was updated to include added air release vacuum/entry port valve vaults, enhanced cathodic protection, anodes, and test stations.

Patuxent WFP Phase II Expansion

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-172.05	033807	Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**14,704**	7,655	2,178	**4,871**	2,231	1,742	898				
Land	**34**	34									
Site Improvements & Utilities											
Construction	**47,534**	3,289	13,499	**30,746**	14,700	12,300	3,746				
Other	**2,566**		789	**1,777**	847	702	228				
Total	**64,838**	**10,978**	**16,466**	**37,394**	**17,778**	**14,744**	**4,872**				

C. Funding Schedule (000's)

WSSC Bonds	**64,838**	10,978	16,466	**37,394**	17,778	14,744	4,872				

D. Description & Justification

DESCRIPTION

This project provides for the addition of a sixth treatment train, a new electrical substation, a new residuals handling facility, new UV disinfection facilities, upgrades to existing yard piping, and upgrades to chemical facilities at the Patuxent WFP along with an upgrade to the existing potassium permanganate and carbon feed systems at the Patuxent Pretreatment Facility and a new relief sewer which upgrades the existing sewer system along Sweitzer Lane to accommodate the new residuals facility.

JUSTIFICATION

Phase II will add a sixth treatment train consisting of a three stage flocculation chamber, sedimentation basin with chain and flight solids removal and plate settlers, disinfectant contact chamber, and two deep bed granular carbon filters. A fourth raw water pipeline, Patuxent Raw Water Pipeline (W-172.07) and the modification and expansion of the Rocky Gorge Water Pumping Station (W-172.08), will provide a firm raw water pumping/transmission capacity of 110 MGD. These improvements will give the plant a firm nominal capacity of 72 MGD, with emergency capacity of 110 MGD. New UV disinfection facilities are being added to the plant in order to assure compliance with future EPA regulations for Cryptosporidium treatment and Stage 2 Disinfection Byproducts Rule effective 2012. This project also adds a residuals handling facility to remove the solids from impacting the Parkway WWTP and a relief sewer along Sweitzer Lane to assure no sanitary sewer overflows (SSO) occur as a result of Plant wastewater discharge.

"Patuxent WFP Facility Plan", O'Brien & Gere Engineers, Inc., (April, 1997); In-House Study (April, 2002); Patuxent Expansion Design Criteria Report (April, 2005), "Parkway WWTP Biosolids Facility Plan", CH2M Hill (October, 2009); "Evaluation of Residuals Handling Process Alternatives", AECOM Technical Services, (July, 2011)

COST CHANGE

Slight decrease reflects actual construction bid price.

OTHER

The project scope has remained the same. In the event of an outage at the Potomac WFP, additional capacity at the Patuxent WFP will reduce customer impact. However, emergency conservation measures will still be required.

COORDINATION

Coordinating Agencies: Montgomery County Government; Prince George's County Government; Maryland-National Capital Park & Planning Commission; Maryland Department of the Environment; Maryland State Department of Transportation; Baltimore Gas & Electric;

Coordinating Projects: W-12.02-Prince George's County HG415 Zone Water Main; W-172.07-Patuxent Raw Water Pipeline; W-172.08-Rocky Gorge Pump Station Upgrade;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$4,461	20
Total Cost	$4,461	20
Impact on Water and Sewer Rate	$0.09	20

F. Approval and Expenditure Data (000's)

Date First in Program	FY 04
Date First Approved	FY 03
Intial Cost Estimate	33,002
Cost Estimate Last FY	65,611
Present Cost Estimate	64,838
Approved Request Last FY	14,372
Total Expense & Encumbrances	10,978
Approval Request Year 1	17,778

G. Status Information

Land Status	R/W acquired
Project Phase	Construction
Percent Complete	10%
Est Completion Date	FY 2019

Growth	
System Improvement	80%
Environmental Regulation	20%
Population Served	
Capacity	72 MGD nominal/110 MGD emergency

H. Map

MAP NOT AVAILABLE

Patuxent Raw Water Pipeline

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-172.07	063804	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**4,667**	4,329	38	**300**	100	100	100				
Land											
Site Improvements & Utilities											
Construction	**25,935**	7,935		**18,000**	5,000	8,000	5,000				
Other	**1,834**		4	**1,830**	510	810	510				
Total	**32,436**	**12,264**	**42**	**20,130**	**5,610**	**8,910**	**5,610**				

C. Funding Schedule (000's)

WSSC Bonds	**32,436**	12,264	42	**20,130**	5,610	8,910	5,610				

D. Description & Justification

DESCRIPTION

This project provides for 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, cleaning of the existing water lines and replacement of valves.

JUSTIFICATION

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 Rocky Gorge Pumping Station to the Patuxent 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 MG.

Patuxent WFP Facility Plan (April 1997); In-House Study (April 2002).

COST CHANGE

The cost was increased based on a change in alignment needed to avoid BGE gas line relocations. The new pipeline design includes added air release vacuum/entry port valve vaults, enhanced cathodic protection including Pritech coating, anodes, and test stations.

OTHER

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 design. Expenditure and schedule estimates for the new raw water pipeline may change based upon design constraints and permitting issues. The project has been delayed due to a lengthy permit and right-of-way acquisition process. 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). Land costs are included in WSSC Project W-202.00.

COORDINATION

Coordinating Agencies: Montgomery County Government; Prince George's County Government; Maryland-National Capital Park & Planning Commission; Maryland Department of the Environment; Interstate Commission on the Potomac River Basin; Local Community Civic Associations; (West Laurel Civic Association); Baltimore Gas & Electric;

Coordinating Projects: W-172.05-Patuxent WFP Phase II Expansion; W-172.08-Rocky Gorge Pump Station Upgrade;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$242	20
Other Project Costs		
Debt Service	$2,232	20
Total Cost	$2,474	20
Impact on Water and Sewer Rate	$0.05	20

F. Approval and Expenditure Data (000's)

Date First in Program	FY 06
Date First Approved	FY 03
Intial Cost Estimate	18,750
Cost Estimate Last FY	23,616
Present Cost Estimate	32,436
Approved Request Last FY	3,095
Total Expense & Encumbrances	12,264
Approval Request Year 1	5,610

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	90%
Est Completion Date	FY 2019

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Rocky Gorge Pump Station Upgrade

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-172.08	063805	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**4,828**	2,961	467	**1,400**	934	466					
Land											
Site Improvements & Utilities											
Construction	**13,378**	1,494	2,971	**8,913**	5,942	2,971					
Other	**1,376**		344	**1,032**	688	344					
Total	**19,582**	**4,455**	**3,782**	**11,345**	**7,564**	**3,781**					

C. Funding Schedule (000's)

WSSC Bonds	**19,582**	4,455	3,782	**11,345**	7,564	3,781					

D. Description & Justification

DESCRIPTION

This project provides for the modification and/or expansion of the Rocky Gorge Pump Station to allow the station to provide up to 110 MGD of raw water to the Patuxent Water Filtration Plant.

JUSTIFICATION

The modification and expansion of the Rocky Gorge Raw Water Pumping Station will provide a firm raw water pumping capacity of 110 MGD. The improvements to the pump station, along with a fourth water pipeline (W-172.07) and expansion of the Patuxent Plant (W-172.05) will give the Patuxent Plant a firm nominal capacity of 72 MGD, with emergency capacity of 110 MGD.

Patuxent WFP Facility Plan (April 1997); In-House Study (April 2002)

COST CHANGE

Costs increased based upon revised construction estimates and increased estimates for construction supervision.

OTHER

The project scope remains the same. Expenditure and schedule projections shown in Block B above are design level estimates and may change based upon actual bids. The current plan calls for construction to begin in December 2015, following completion of the Prince George's side of the Duckett Dam upgrade. The construction expenditures through FY'15 include the upgrade of the station's existing turbines, which were part of the overall station upgrade, but were contracted separately.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Montgomery County Government; Prince George's County Government; Maryland Department of the Environment; Baltimore Gas & Electric;

Coordinating Projects: W-172.05-Patuxent WFP Phase II Expansion; W-172.07-Patuxent Raw Water Pipeline; W-139.02-Duckett & Brighton Dam Upgrades;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$1,347	19
Total Cost	$1,347	19
Impact on Water and Sewer Rate	$0.03	19

F. Approval and Expenditure Data (000's)

Date First in Program	FY 06
Date First Approved	FY 03
Intial Cost Estimate	12,930
Cost Estimate Last FY	17,932
Present Cost Estimate	19,582
Approved Request Last FY	6,205
Total Expense & Encumbrances	4,455
Approval Request Year 1	7,564

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	99%
Est Completion Date	December 2017

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

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

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-202.00	983857	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision											
Land	**2,120**		697	**1,423**	425	550	20	418	10		
Site Improvements & Utilities											
Construction											
Other											
Total	**2,120**		**697**	**1,423**	**425**	**550**	**20**	**418**	**10**		

C. Funding Schedule (000's)

WSSC Bonds	**857**		234	**623**	325	250	20	18	10		
SDC	**1,263**		463	**800**	100	300		400			

D. Description & Justification

DESCRIPTION

This PDF provides a consolidated estimate of funding for the acquisition of land and rights-of-way for water projects 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.

JUSTIFICATION

Consolidation of expenditures for land and rights-of-way acquisitions provides flexibility in expending funds in a specific fiscal year and permits the WSSC to respond to the uncertainty of project-specific implementation schedules. Other considerations include the accomodation 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 the WSSC an equitable negotiation position by avoiding project-specific cost displays prior to contacting property owners.

Acquisition needs are determined by the WSSC and are based upon facility planning efforts, alignment studies, field surveys, realignments required by other agencies, or requirements identified within the Development Services Process (DSP).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B are Order of Magnitude 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.

COORDINATION

Coordinating Agencies: Not Applicable
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$59	22
Total Cost	$59	22
Impact on Water and Sewer Rate		22

F. Approval and Expenditure Data (000's)

Date First in Program	FY 98
Date First Approved	FY 98
Intial Cost Estimate	
Cost Estimate Last FY	5,676
Present Cost Estimate	2,120
Approved Request Last FY	1,125
Total Expense & Encumbrances	
Approval Request Year 1	425

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Not Applicable
Percent Complete	
Est Completion Date	Not Applicable

Growth	60%
System Improvement	40%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Section 4 - Bi-County Sewer Projects

DATE: October 1, 2015

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

BI-COUNTY SEWER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 15	EST. EXPEND 16	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PDF PAGE NUM
						YR 1 17	YR 2 18	YR 3 19	YR 4 20	YR 5 21	YR 6 22		
S-22.06	Blue Plains WWTP: Liquid Train Projects, Part 2	391,324	296,766	8,008	80,962	15,901	19,878	20,107	9,521	6,579	8,976	5,588	4-3
S-22.07	Blue Plains WWTP: Biosolids Management, Part 2	409,584	375,478	4,558	29,262	8,401	5,541	2,720	2,784	7,884	1,932	286	4-4
S-22.09	Blue Plains WWTP: Plant-wide Projects	298,436	191,793	5,977	74,502	6,766	6,646	8,688	21,577	14,176	16,649	26,164	4-5
S-22.10	Blue Plains WWTP: Enhanced Nutrient Removal	389,343	246,917	65,284	73,333	37,105	29,689	3,392	2,267	544	336	3,809	4-6
S-22.11	Blue Plains: Pipelines & Appurtenances	181,910	69,441	22,007	73,715	18,091	12,279	13,733	11,827	7,894	9,891	16,747	4-7
S-103.02	Piscataway WWTP Bio-Energy Project	144,020	1,362	998	141,660	4,254	13,252	47,934	55,440	20,780	0	0	4-8
S-170.08	Septage Discharge Facility Planning & Implementation	14,478	919	751	12,808	2,455	3,728	3,779	2,135	711	0	0	4-10
S-170.09	Trunk Sewer Reconstruction Program	790,060	201,575	105,357	483,128	145,521	134,664	67,950	63,807	47,236	23,950	0	4-11
S-203.00	Land & Rights-Of-Way Acquisition - Bi County Sewer	204	0	20	184	122	22	10	10	10	10	0	4-12
	TOTAL BI-COUNTY SEWER PROJECTS	2,619,359	1,384,251	212,960	969,554	238,616	225,699	168,313	169,368	105,814	61,744	52,594	

BLUE PLAINS WASTEWATER TREATMENT PLANT PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'16 TOTAL COST	PROPOSED FY'17 TOTAL COST	CHANGE $	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
S-22.06	Blue Plains WWTP: Liquid Train Projects, Part 2	$345,636	$391,324	$45,688	13.2%	$80,962	On-Going
S-22.07	Blue Plains WWTP: Biosolids Management, Part 2	409,909	409,584	(325)	-0.1%	29,262	On-Going
S-22.09	Blue Plains WWTP: Plant-wide Projects	286,513	298,436	11,923	4.2%	74,502	On-Going
S-22.10	Blue Plains WWTP: Enhanced Nutrient Removal	386,171	389,343	3,172	0.8%	73,333	On-Going
S-22.11	Blue Plains: Pipelines & Appurtenances	178,731	181,910	3,179	1.8%	73,715	On-Going
	TOTALS	$1,606,960	$1,670,597	$63,637	4.0%	$331,774	

Summary: These five projects, with an estimated total cost of $1.7 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 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'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) will achieve nutrient removal levels surpassing BNR as determined in the Tributary Strategy process of 2005 in order to meet Chesapeake Bay water quality targets.

Cost Impact: These five Blue Plains projects, the largest group of expenditures in the CIP, represent 38% of the total program. The figures shown above are derived from the latest available spending projections provided by the District of Columbia Water and Sewer Authority (DCWASA). Officials at the DCWASA have indicated that they have the fiscal capacity as well as the engineering capability to implement these projects. Spending at the DCWASA staff-proposed rate in future years may challenge the WSSC'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'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 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

Agency Number	Project Number	Update Code
S-22.06	954811	Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**117,115**	96,807	3,204	**15,726**	4,289	3,877	2,945	2,139	1,360	1,116	1,378
Land											
Site Improvements & Utilities											
Construction	**273,274**	199,959	4,725	**64,435**	11,455	15,804	16,963	7,288	5,154	7,771	4,155
Other	**935**		79	**801**	157	197	199	94	65	89	55
Total	**391,324**	**296,766**	**8,008**	**80,962**	**15,901**	**19,878**	**20,107**	**9,521**	**6,579**	**8,976**	**5,588**

C. Funding Schedule (000's)

WSSC Bonds	**369,842**	280,475	7,569	**76,517**	15,028	18,787	19,003	8,998	6,218	8,483	5,281
City of Rockville	**21,482**	16,291	439	**4,445**	873	1,091	1,104	523	361	493	307

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC's share of Blue Plains liquid train projects for which construction began after June 30, 1993. Major projects include: Dual Purpose Sedimentation Basins Rehabilitation, Headworks HVAC Rehabilitation, Raw Wastewater Pumping Station No. 2, Primary Treatment Facilities Phase II, and Grit Chamber Facilities Phase II.

JUSTIFICATION

This is a continuation of the DCWASA's upgrading of the Blue Plains Wastewater Treatment Plant.

The Blue Plains Intermunicipal Agreement of 2012; the DCWASA Master Plan (1998); and the DCWASA Approved FY 2015 Capital Improvements Program.

COST CHANGE

Cost increase is primarily due to the addition of new projects for Replace/Upgrade Primary Treatment Mechanisms, Grit Chambers 1 & 2 Upgrades, Secondary East & West Upgrades, and Nitrification Reactor/Sedimentation Upgrades.

OTHER

The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast of spending and DCWASA's latest project management data, and fully reflect DCWASA'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: District of Columbia Water and Sewer Authority; (responsible for design and construction); City of Rockville; (responsible for a share of funding)

Coordinating Projects: S-22.10-Blue Plains WWTP: Enhanced Nutrient Removal;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$25,447	
Total Cost	$25,447	
Impact on Water and Sewer Rate	$0.57	

F. Approval and Expenditure Data (000's)

Date First in Program	FY 95
Date First Approved	FY 95
Intial Cost Estimate	69,745
Cost Estimate Last FY	345,636
Present Cost Estimate	391,324
Approved Request Last FY	8,008
Total Expense & Encumbrances	296,766
Approval Request Year 1	15,901

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	
Est Completion Date	On-Going

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

H. Map

MAP NOT AVAILABLE

Blue Plains WWTP: Biosolids Management, Part 2

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-22.07	954812	Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**139,865**	132,179	1,315	**6,353**	1,645	1,144	511	947	1,425	681	18
Land											
Site Improvements & Utilities											
Construction	**269,381**	243,299	3,198	**22,619**	6,673	4,342	2,182	1,809	6,381	1,232	265
Other	**338**		45	**290**	83	55	27	28	78	19	3
Total	**409,584**	**375,478**	**4,558**	**29,262**	**8,401**	**5,541**	**2,720**	**2,784**	**7,884**	**1,932**	**286**

C. Funding Schedule (000's)

WSSC Bonds	**387,123**	354,889	4,308	**27,656**	7,940	5,237	2,571	2,631	7,451	1,826	270
City of Rockville	**22,461**	20,589	250	**1,606**	461	304	149	153	433	106	16

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC's share of the Blue Plains biosolids handling projects for which construction began after June 30, 1993. Major projects include: new Digestion Facilities; Gravity Thickener Facilities; and Solids Processing Building/Dewatered Sludge Loading Facility.

JUSTIFICATION

This project is needed to implement a set of facilities which will provide a permanent biosolids management program for Blue Plains.

The Blue Plains Intermunicipal Agreement of 2012; the DCWASA Master Plan (1998); EPMC IV Facility Plan, CH2MHILL (2001); the Biosolids Management at DCWASA Blue Plains Wastewater Treatment Plant Phase II - Design and Cost Considerations for Treatment Alternatives Report (December 2007); and the DCWASA Approved FY 2015 Capital Improvement Program.

COST CHANGE

Not applicable

OTHER

The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast of spending and DCWASA's latest project management data, and fully reflect DCWASA'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); District of Columbia Water and Sewer Authority; (responsible for design and construction)

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$26,636	
Total Cost	$26,636	
Impact on Water and Sewer Rate	$0.59	

F. Approval and Expenditure Data (000's)

Date First in Program	FY 95
Date First Approved	FY 95
Intial Cost Estimate	77,296
Cost Estimate Last FY	409,909
Present Cost Estimate	409,584
Approved Request Last FY	4,558
Total Expense & Encumbrances	375,478
Approval Request Year 1	8,401

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	
Est Completion Date	On-Going

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

H. Map

MAP NOT AVAILABLE

Blue Plains WWTP: Plant-wide Projects

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-22.09	023805	Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**97,507**	75,751	1,958	**17,702**	1,948	1,434	2,398	4,842	4,420	2,660	2,096
Land											
Site Improvements & Utilities											
Construction	**199,873**	116,042	3,960	**56,062**	4,751	5,146	6,204	16,521	9,616	13,824	23,809
Other	**1,056**		59	**738**	67	66	86	214	140	165	259
Total	**298,436**	**191,793**	**5,977**	**74,502**	**6,766**	**6,646**	**8,688**	**21,577**	**14,176**	**16,649**	**26,164**

C. Funding Schedule (000's)

WSSC Bonds	**282,066**	181,276	5,649	**70,413**	6,395	6,281	8,211	20,393	13,398	15,735	24,728
City of Rockville	**16,370**	10,517	328	**4,089**	371	365	477	1,184	778	914	1,436

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC's share of Blue Plains plant-wide projects for which construction began after June 30, 1993. Major projects include: New Warehouse/Visitor Center/Security Facility, Electrical Power System, and Instrumentation and Control Engineering Program Management.

JUSTIFICATION

This is a continuation of the DCWASA's upgrading of the Blue Plains Wastewater Treatment Plant.

The Blue Plains Intermunicipal Agreement of 2012; the WASA Master Plan (1998); and the DCWASA Approved FY 2015 Capital Improvement Program.

COST CHANGE

Cost increased for new major projects including Hydrogen Sulfide Mitigation, Roofing Upgrades, and Chemical System/Building Upgrades.

OTHER

The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect DCWASA'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); District of Columbia Water and Sewer Authority; (responsible for design and construction)

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$19,408	
Total Cost	$19,408	
Impact on Water and Sewer Rate	$0.43	

F. Approval and Expenditure Data (000's)

Date First in Program	FY 95
Date First Approved	FY 02
Intial Cost Estimate	84,650
Cost Estimate Last FY	286,513
Present Cost Estimate	298,436
Approved Request Last FY	5,977
Total Expense & Encumbrances	191,793
Approval Request Year 1	6,766

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	
Est Completion Date	On-Going

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

H. Map

MAP NOT AVAILABLE

Blue Plains WWTP: Enhanced Nutrient Removal

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-22.10	083800	Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**103,641**	71,823	9,920	**20,946**	7,671	7,553	2,736	2,128	536	322	952
Land											
Site Improvements & Utilities											
Construction	**284,293**	175,094	54,718	**51,662**	29,067	21,842	622	117	3	11	2,819
Other	**1,409**		646	**725**	367	294	34	22	5	3	38
Total	**389,343**	**246,917**	**65,284**	**73,333**	**37,105**	**29,689**	**3,392**	**2,267**	**544**	**336**	**3,809**

C. Funding Schedule (000's)

WSSC Bonds	**172,787**	79,612	40,911	**48,664**	26,412	19,586	1,271	860	217	318	3,600
State Aid	**206,525**	162,686	21,997	**21,842**	9,159	8,965	2,047	1,357	314	0	0
City of Rockville	**10,031**	4,619	2,376	**2,827**	1,534	1,138	74	50	13	18	209

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC's share of the Blue Plains Enhanced Nutrient Removal projects required to achieve nutrient removal to levels below BNR levels to meet the Chesapeake Bay water quality targets determined in the 2005 Tributary Strategies Process and DC Water's 2010 NPDES permit. Major projects include: Enhanced Nitrogen Removal North, Enhanced Clarification Facilities, Enhanced Nitrogen Removal Facilities, Biosolids Filtrate Treatment Facilities, and Wet Weather Mitigation, Diversion at Bolling and Tunnel Dewatering Pump Station.

JUSTIFICATION

The funding schedule reflects the final cost sharing agreement with the Maryland Department of the Environment.

Chesapeake Bay Program Tributary Strategies Process (2005); Blue Plains Strategic Process Study, Metcalf & Eddy (2005); Selection of the Enhanced Nitrogen Removal Process Alternative for the Blue Plains Advanced Wastewater Treatment Facility, Metcalf & Eddy (2009); DCWASA Approved FY 2015 Capital Improvement Program, and the Blue Plains Intermunicipal Agreement of 2012.

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect DCWASA's current expenditure estimates and schedules. Total Nitrogen Secondary Treatment Upgrades will take place after 2021. Projects extending beyond those supported by State Aid include rehabilitation and upgrades to older projects. 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: Maryland Department of the Environment; U.S. Environmental Protection Agency, Region III; District of Columbia Water and Sewer Authority; (responsible for design and construction); City of Rockville; (responsible for a share of funding)

Coordinating Projects: S-22.06-Blue Plains WWTP: Liquid Train Projects, Part 2;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$11,889	
Total Cost	$11,889	
Impact on Water and Sewer Rate	$0.26	

F. Approval and Expenditure Data (000's)

Date First in Program	FY 08
Date First Approved	FY 07
Intial Cost Estimate	648
Cost Estimate Last FY	386,171
Present Cost Estimate	389,343
Approved Request Last FY	65,284
Total Expense & Encumbrances	246,917
Approval Request Year 1	37,105

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	
Est Completion Date	On-Going

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

H. Map

MAP NOT AVAILABLE

Blue Plains: Pipelines & Appurtenances

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-22.11	113804	Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**40,429**	16,377	4,659	**15,887**	3,628	2,798	2,605	2,454	2,430	1,972	3,506
Land											
Site Improvements & Utilities											
Construction	**139,747**	53,064	17,130	**56,478**	13,739	9,307	11,007	9,237	5,347	7,841	13,075
Other	**1,734**		218	**1,350**	724	174	121	136	117	78	166
Total	**181,910**	**69,441**	**22,007**	**73,715**	**18,091**	**12,279**	**13,733**	**11,827**	**7,894**	**9,891**	**16,747**

C. Funding Schedule (000's)

WSSC Bonds	**173,469**	66,663	21,127	**70,822**	17,457	11,609	13,232	11,303	7,550	9,671	14,857
City of Rockville	**8,441**	2,778	880	**2,893**	634	670	501	524	344	220	1,890

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC's share of Blue Plains-associated projects which are "outside the fence" of the treatment plant. Major projects include: A new headquarters building; Potomac Interceptor Rehabilitation; Upper Potomac Interceptor; Potomac Sewage Pumping Station Rehabilitation; Influent Sewers Rehabilitation; and projects associated with the Combined Sewer Overflow (CSO) Long Term Control Plan (e.g. Anacostia Tunnel).

JUSTIFICATION

This is a continuation of DCWASA's upgrading of the Blue Plains-associated projects outside the fence.

The Blue Plains Intermunicipal Agreement of 2012; the WASA Master Plan (1998); Technical Memorandum No. 1, Multi-Jurisdictional Use Facilities Capital Cost Allocation, (June 2013); and the DCWASA Approved FY 2015 Capital Improvement Program.

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Project costs are derived from the DC-WASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect WASA'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 which varies by project based on the City's relative share of WSSC's flow as derived in the Multijurisdiction Use Facilities Study.

COORDINATION

Coordinating Agencies: City of Rockville; (responsible for a share of funding); District of Columbia Water and Sewer Authority; (responsible for design and construction)

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$11,936	
Total Cost	$11,936	
Impact on Water and Sewer Rate	$0.27	

F. Approval and Expenditure Data (000's)

Date First in Program	FY 11
Date First Approved	FY 02
Intial Cost Estimate	102,833
Cost Estimate Last FY	178,731
Present Cost Estimate	181,910
Approved Request Last FY	22,007
Total Expense & Encumbrances	69,441
Approval Request Year 1	18,091

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	
Est Completion Date	On-Going

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

H. Map

MAP NOT AVAILABLE

Piscataway WWTP Bio-Energy Project

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-103.02	153802	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**23,922**	1,362	950	**21,610**	4,050	4,120	6,150	6,300	990		
Land											
Site Improvements & Utilities											
Construction	**113,300**			**113,300**		8,500	39,500	46,500	18,800		
Other	**6,798**		48	**6,750**	204	632	2,284	2,640	990		
Total	**144,020**	**1,362**	**998**	**141,660**	**4,254**	**13,252**	**47,934**	**55,440**	**20,780**		

C. Funding Schedule (000's)

WSSC Bonds	**72,120**	791	499	**70,830**	2,127	6,626	23,967	27,720	10,390		
Federal Aid	**71,900**	571	499	**70,830**	2,127	6,626	23,967	27,720	10,390		

D. Description & Justification

DESCRIPTION

This project will develop a comprehensive program for the engineering, design, construction, maintenance, and monitoring and verification necessary to add sustainable energy equipment and systems to produce biogas and electricity at Piscataway WWTP. The program will provide a reduction in energy and energy-related costs (electricity, natural gas, transportation, and disposal of biosolids) which may in part be guaranteed by the contractor. The potential guaranteed reduction component includes annual avoided energy costs as well as operations and maintenance, chemicals, and biosolids transportation and disposal costs. The program will enhance existing operating conditions and reliability while continuing to meet all permit requirements, and ensure a continued commitment to environmental stewardship at WSSC sites. The scope of work will include, but is not limited to, the addition of anaerobic digestion equipment, thermal hydrolysis pretreatment equipment, gas cleaning systems, hydrogen sulfide and siloxane removal, tanks, piping, valves, pumps, sludge dewatering/thickening equipment, grit removal, effluent disinfection systems, instrumentation, flow metering, power measurement, and combined heat and power generation systems.

JUSTIFICATION

In March 2009, the WSSC received approval for a federal Department of Energy grant of $570,900 for the feasibility study/conceptual design phase. On June 16, 2010, the WSSC 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 the Commission in April 2012. Since April 2012 WSSC staff members have met with and made presentations to Montgomery County Department of Environmental Protection Prince George's County Department of Environmental Resources staff both County Councils and DC Water in order to gain support for the project.

Since April 2012, WSSC staff members have met with and made presentations to Montgomery County Department of Environmental Protection, Prince George's County Department of Environmental Resources staff, both County Councils, and DC Water, in order to gain support for the project.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 to 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 at a location to be determined based on a Thermal Hydrolysis/Mesophillic Anaerobic Digestion/Combined Heat & Power (TH/MAD/CHP) process supplemented by restaurant grease fuel design was recommended.

The environmental benefits and expected outcomes determined from the feasibility study are estimated as follows: 1. Recover 2-3 MW of renewable energy from biomass 2. Reduce Greenhouse Gas production by 11,800 tons/year 3. Reduce biosolids output by more than 50,500 tons/year 4. Reduce lime demand by 4,100 tons/year 5. Reduce nutrient load to the Chesapeake Bay 6. Reduce 5 million gallons/year of grease discharge to sewers 7. Produce Class A Biosolids

The economic benefits determined from the feasibility study are estimated as follows: 1. Recover more than $1.5 million of renewable energy costs/year 2. Reduce biosolids disposal costs by ~ $1.7 million/year 3. Reduce chemical costs by ~ $500,000/year 4. Hedge against rising costs of power fuel and chemicals 5. Net Payback over time (net based on capital cost of TH/MAD/CHP minus capital cost of lime stabilization upgrade of WSSC WWTP facilities through 2030) (Any Federal Aid received would shorten the payback period).

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$4,962	22
Total Cost	$4,962	22
Impact on Water and Sewer Rate	$0.11	22

F. Approval and Expenditure Data (000's)

Date First in Program	FY 15
Date First Approved	FY 10
Intial Cost Estimate	345
Cost Estimate Last FY	144,019
Present Cost Estimate	144,020
Approved Request Last FY	14,276
Total Expense & Encumbrances	1,362
Approval Request Year 1	4,254

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	0%
Est Completion Date	June 2021

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Piscataway WWTP Bio-Energy Project

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 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).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Now that the feasibility study has been completed, the Commission has a defined scope, capital cost, and energy and energy-related cost savings estimates to be 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's Damascus, Seneca, Parkway and Piscataway WWTPs. The Montgomery and Prince George's County Councils have been briefed on the project and approved by resolution on November 25, 2014, and September 9, 2014, respectively, so the project can proceed. It is envisioned that either the entire project, or only portions of the project that include the thermal hydrolysis, anaerobic digestion or combined heat and power, include a guarantee by the contractor that the capital cost will be paid back 100% from energy and energy-related cost savings over time. The energy savings for other completed WSSC Energy Performance projects have surpassed the contracts' guaranteed amount every year of the monitoring and verification period. The WSSC will continue to pursue federal capital funding as a source of cost sharing as the project develops. Any Federal Aid received would shorten the payback period. The funding schedule reflects 50% Federal participation. The project name was updated to reflect the final site location at the Piscataway WWTP.

COORDINATION

Coordinating Agencies: Montgomery County Government; Prince George's County Government; Maryland-National Capital Park & Planning Commission; (Mandatory Referral Process); Montgomery County Department of Environmental Protection; Maryland Department of the Environment; Chesapeake Bay Critical Areas;

Coordinating Projects: S-96.14-Piscataway WWTP Facility Upgrades;

Septage Discharge Facility Planning & Implementation

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-170.08	103802	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**3,965**	919	683	**2,363**	440	999	587	253	84		
Land											
Site Improvements & Utilities											
Construction	**9,280**			**9,280**	1,792	2,390	2,848	1,688	562		
Other	**1,233**		68	**1,165**	223	339	344	194	65		
Total	**14,478**	**919**	**751**	**12,808**	**2,455**	**3,728**	**3,779**	**2,135**	**711**		

C. Funding Schedule (000's)

WSSC Bonds	**14,478**	919	751	**12,808**	2,455	3,728	3,779	2,135	711		

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of new Septage and Fats, Oils, Grease (FOG) discharge facilities at two locations: (1) the abandoned Rock Creek WWTP, and (2) Anacostia WWPS No. 2; and new Septage discharge facilities at Piscataway WWTP.

JUSTIFICATION

Currently septage waste is collected at four locations: Muddy Branch Road Disposal Site in Montgomery County, Temple Hill Road Disposal Site, Ritchie Road Disposal Site and Bladensburg Disposal Site in Prince George's County. 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), Small Food Service Providers (Low Volume FOG Waste), and Hazardous Materials. FOG wastes should not be discharged to the Commission'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 expenditures and schedule projections shown in Block B are planning level estimates and may change depending on site-specific conditions and design constraints. The design of the facilities at the Piscataway WWTP will be delayed until the design of the Piscataway WWTP Bio-Energy project is 30% complete.

COORDINATION

Coordinating Agencies: Montgomery County Government; Prince George's County Government; Maryland-National Capital Park & Planning Commission; (Mandatory Referral) Montgomery County Department of Environmental Protection; Prince George's County Department of Environmental Resources; Prince George's County Health Department;

Coordinating Projects: S-103.02-Piscataway WWTP Bio-Energy Project;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff	$750	22
Maintenance		
Other Project Costs	$482	22
Debt Service	$996	22
Total Cost	$2,228	22
Impact on Water and Sewer Rate	$0.05	22

F. Approval and Expenditure Data (000's)

Date First in Program	FY 10
Date First Approved	FY 10
Intial Cost Estimate	10,835
Cost Estimate Last FY	14,374
Present Cost Estimate	14,478
Approved Request Last FY	758
Total Expense & Encumbrances	919
Approval Request Year 1	2,455

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	15%
Est Completion Date	July 2020

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Trunk Sewer Reconstruction Program

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-170.09	113805	Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**174,416**	50,830	20,571	**103,015**	30,769	31,598	12,855	12,026	8,712	7,055	
Land											
Site Improvements & Utilities											
Construction	**563,645**	150,745	74,500	**338,400**	102,000	89,900	49,800	46,900	35,300	14,500	
Other	**51,999**		10,286	**41,713**	12,752	13,166	5,295	4,881	3,224	2,395	
Total	**790,060**	**201,575**	**105,357**	**483,128**	**145,521**	**134,664**	**67,950**	**63,807**	**47,236**	**23,950**	

C. Funding Schedule (000's)

WSSC Bonds	**790,060**	201,575	105,357	**483,128**	145,521	134,664	67,950	63,807	47,236	23,950	

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 (ESA). 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.

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 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 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 is expected to extend beyond the Consent Decree's December 2015 deadline. All USACE and MDE permits have been received. WSSC Sanitary Sewer Overflow Consent Decree (December 7, 2005).

COST CHANGE

The increase in the overall program costs is attributed to the addition of the 102-inch diameter Anacostia pressure sewer rehabilitation project, partially offset by revised lower estimates for work within the ESA and a reduction in the Other cost calculation. An assessment of the pressure sewer first began in 2011 following an inquiry from Prince George's County and the Army Corps of Engineers due to its crossing a levee under their jurisdiction.

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. The Consent Decree requires that all rehabilitation work be substantially complete by December 5, 2015. WSSC is negotiating with U.S. Environmental Protection Agency, U.S. Department of Justice, and Maryland Department of the Environment on a Consent Decree extension. 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. Beginning in FY 2015, construction work has increased in the ESAs as a majority of the work was released for construction. 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 five miles per year. Land costs are included in WSSC Project S-203.00.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Montgomery County Department of Public Works and Transportation; Maryland-National Capital Park & Planning Commission; National Park Service; Maryland Department of the Environment; Maryland Department of Natural Resources; (Critical Area Commission, FSD Approval Forest Conservation/Reforestation Rare, Threatened or Endangered Species) Prince George's County Department of Permitting Inspection and Enforcement; U.S. Army Corps of Engineers; U.S. Environmental Protection Agency, Region III; Maryland Historical Trust;

Coordinating Projects: S-1.01-Sewer Reconstruction Program;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$54,360	23
Total Cost	$54,360	23
Impact on Water and Sewer Rate	$1.21	23

F. Approval and Expenditure Data (000's)

Date First in Program	FY 11
Date First Approved	FY 11
Intial Cost Estimate	504,993
Cost Estimate Last FY	747,314
Present Cost Estimate	790,060
Approved Request Last FY	191,866
Total Expense & Encumbrances	201,575
Approval Request Year 1	145,521

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Construction
Percent Complete	31%
Est Completion Date	See Block D

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

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

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-203.00	163800	Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision											
Land	**204**		20	**184**	122	22	10	10	10	10	
Site Improvements & Utilities											
Construction											
Other											
Total	**204**		**20**	**184**	**122**	**22**	**10**	**10**	**10**	**10**	

C. Funding Schedule (000's)

WSSC Bonds	**180**		20	**160**	110	10	10	10	10	10	
Contribution/Other	**24**			**24**	12	12					

D. Description & Justification

DESCRIPTION

This PDF provides a consolidated estimate of funding for the acquisition of land and rights-of-way for sewer projects. 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.

JUSTIFICATION

Consolidation of expenditures for land and rights-of-way acquisitions provides flexibility in expending funds in a specific fiscal year and permits the WSSC 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 the WSSC an equitable negotiation position by avoiding project-specific cost displays prior to contacting property owners.

Acquisition needs are determined by the WSSC and are based upon facility planning efforts, alignment studies, field surveys, realignments required by other agencies, or requirements identified within the Development Services Process.

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same.Expenditure and schedule projections shown in Block B 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.

COORDINATION

Coordinating Agencies: Not Applicable
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$12	23
Total Cost	$12	23
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY 98
Date First Approved	FY 98
Intial Cost Estimate	
Cost Estimate Last FY	424
Present Cost Estimate	204
Approved Request Last FY	112
Total Expense & Encumbrances	
Approval Request Year 1	122

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Not Applicable
Percent Complete	
Est Completion Date	Not Applicable

Growth	12%
System Improvement	88%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Section 5 - Prince George's County Water Projects

DATE: October 1, 2015

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

PRINCE GEORGE'S COUNTY WATER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 15	EST. EXPEND 16	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PDF PAGE NUM
						YR 1 17	YR 2 18	YR 3 19	YR 4 20	YR 5 21	YR 6 22		
W-12.02	Prince George's County HG415 Zone Water Main	3,374	142	173	3,059	2,098	961	0	0	0	0	0	5-3
W-34.02	Old Branch Avenue Water Main	26,070	1,528	122	24,420	3,336	9,762	9,708	1,614	0	0	0	5-4
W-34.03	Water Transmission Improvements 385B Pressure Zone	34,593	900	473	33,220	2,860	13,310	13,200	3,850	0	0	0	5-5
W-34.04	Branch Avenue Water Transmission Improvements	53,555	3,569	11,900	38,086	15,834	18,991	3,261	0	0	0	0	5-6
W-34.05	Marlboro Zone Reinforcement Main	4,443	318	77	4,048	1,354	2,694	0	0	0	0	0	5-7
W-62.05	Clinton Zone Water Storage Facility Implementation	12,559	1,214	385	6,120	1,980	2,948	1,192	0	0	0	4,840	5-8
W-65.10	St. Barnabas Elevated Tank Replacement	10,908	640	1,972	8,296	5,524	2,772	0	0	0	0	0	5-9
W-84.02	Ritchie Marlboro Road Transmission & PRV	12,619	1,184	396	11,039	4,413	4,413	2,213	0	0	0	0	5-10
W-84.03	Smith Home Farms Water Main	2,500	737	583	1,180	397	394	389	0	0	0	0	5-11
W-84.04	Westphalia Town Center Water Main	1,438	520	40	878	293	347	238	0	0	0	0	5-12
W-84.05	Prince George's County 450A Zone Water Main	40,100	370	1,229	22,917	1,609	1,609	1,990	5,903	5,903	5,903	15,584	5-13
W-93.01	Konterra Town Center East Water Main	1,607	89	53	1,465	619	59	334	185	268	0	0	5-14
W-105.01	Marlton Section 18 Water Main, Lake Marlton Avenue	2,407	28	6	2,373	374	400	400	400	400	399	0	5-15
W-111.05	Hillmeade Road Water Main	5,514	934	1,555	3,025	3,025	0	0	0	0	0	0	5-16
W-119.01	John Hanson Highway Water Main, Part 1	15,920	1,279	55	14,586	6,697	7,238	651	0	0	0	0	5-17
W-120.14	Lakeview at Brandywine Water Main, Part 1	193	43	0	150	10	70	70	0	0	0	0	5-18
W-120.15	Lakeview at Brandywine Water Main, Part 2	618	72	0	546	14	265	267	0	0	0	0	5-19
W-120.16	Lakeview at Brandywine Water Main, Part 3	47	14	0	33	33	0	0	0	0	0	0	5-20
W-123.14	Old Marlboro Pike Water Main	1,698	1,258	115	325	179	146	0	0	0	0	0	5-21
W-123.20	Oak Grove/Leeland Roads Water Main, Part 2	12,828	6,410	2,820	3,598	3,472	126	0	0	0	0	0	5-22

DATE: October 1, 2015

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

PRINCE GEORGE'S COUNTY WATER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 15	EST. EXPEND 16	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PDF PAGE NUM
						YR 1 17	YR 2 18	YR 3 19	YR 4 20	YR 5 21	YR 6 22		
W-137.02	South Potomac Supply Improvement	57,852	2,220	4,834	50,798	12,410	946	272	22	10,652	26,496	0	5-23
W-147.00	Collington Elevated Water Storage Facility	14,782	12,164	2,584	34	34	0	0	0	0	0	0	5-24
	Projects Pending Close-Out	808	787	21	0	0	0	0	0	0	0	0	5-25
	TOTAL PRINCE GEORGE'S COUNTY WATER PROJECTS	316,433	36,420	29,393	230,196	66,565	67,451	34,185	11,974	17,223	32,798	20,424	

Prince George's County HG415 Zone Water Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-12.02		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Patuxent HG415A; Montgomery High
Drainage Basins	
Planning Areas	Patuxent PA 15;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**220**	142	75	**3**	3						
Land											
Site Improvements & Utilities											
Construction	**2,732**		75	**2,657**	1,821	836					
Other	**422**		23	**399**	274	125					
Total	**3,374**	**142**	**173**	**3,059**	**2,098**	**961**					

C. Funding Schedule (000's)

WSSC Bonds	**3,374**	142	173	**3,059**	2,098	961					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 1,500 feet of 24-inch diameter water main and new isolation valves, pressure relief valves with flow control capability, which will improve system reliability by improving the flexibility of the delivery system to the Montgomery County High Zone HG660, Main Zone HG495A and Patuxent Pressure Zone HG415A 30-inch and 42-inch diameter transmission mains leaving the Patuxent Plant.

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 from the Potomac Plant in the event 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).

COST CHANGE

Not applicable.

OTHER

The project scope remains the same. Expenditure and schedule projections shown in Block B are planning level estimates and may change depending on site-specific conditions and design constraints. Land costs are included in WSSC Project W-202.00.

COORDINATION

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

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$28	19
Other Project Costs		
Debt Service	$232	19
Total Cost	$260	19
Impact on Water and Sewer Rate	$0.01	19

F. Approval and Expenditure Data (000's)

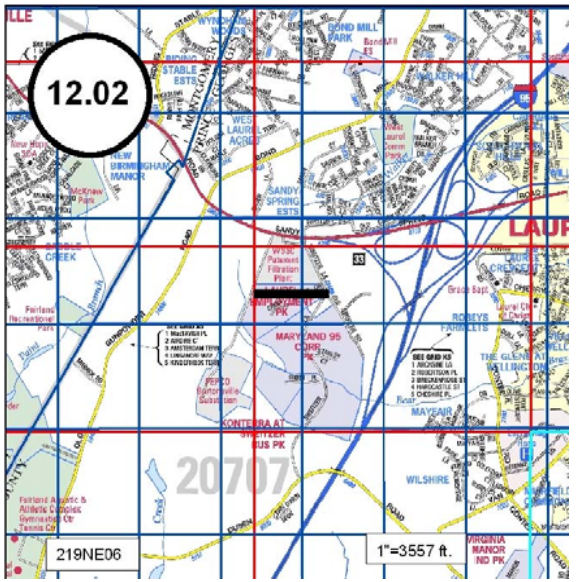
Date First in Program	FY 11
Date First Approved	FY 11
Intial Cost Estimate	1,074
Cost Estimate Last FY	3,405
Present Cost Estimate	3,374
Approved Request Last FY	2,046
Total Expense & Encumbrances	142
Approval Request Year 1	2,098

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	70%
Est Completion Date	FY 2018

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Old Branch Avenue Water Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-34.02		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Clinton HG385B;
Drainage Basins	
Planning Areas	Clinton & Vicinity PA 81A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,677**	1,366	111	**200**	100	75	25				
Land	**162**	162									
Site Improvements & Utilities											
Construction	**22,000**			**22,000**	2,933	8,800	8,800	1,467			
Other	**2,231**		11	**2,220**	303	887	883	147			
Total	**26,070**	**1,528**	**122**	**24,420**	**3,336**	**9,762**	**9,708**	**1,614**			

C. Funding Schedule (000's)

WSSC Bonds	**13,035**	764	61	**12,210**	1,668	4,881	4,854	807			
SDC	**13,035**	764	61	**12,210**	1,668	4,881	4,854	807			

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of approximately 15,000 feet of 30-inch diameter water main and a new flow control valve along Old Branch Avenue, from Allentown Road to Piscataway Road.

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. The WSSC 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

The total project cost has increased due to the increase in pipe size from 24-inch to 30-inch diameter and the addition of a flow control valve and additional rights-of-way needs for the project.

OTHER

The project scope has remained the same. The expenditure and schedule projections as shown in Block B are preliminary design level estimates and may change based upon the final engineer's estimate and actual bids. Five properties have been acquired. Additional property and rights-of-way are required. Land costs are included in WSSC Project W-202.00.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Prince George's County Government; Maryland-National Capital Park & Planning Commission; Maryland Department of the Environment; 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		
Maintenance	$276	21
Other Project Costs		
Debt Service	$897	21
Total Cost	$1,173	21
Impact on Water and Sewer Rate	$0.02	21

F. Approval and Expenditure Data (000's)

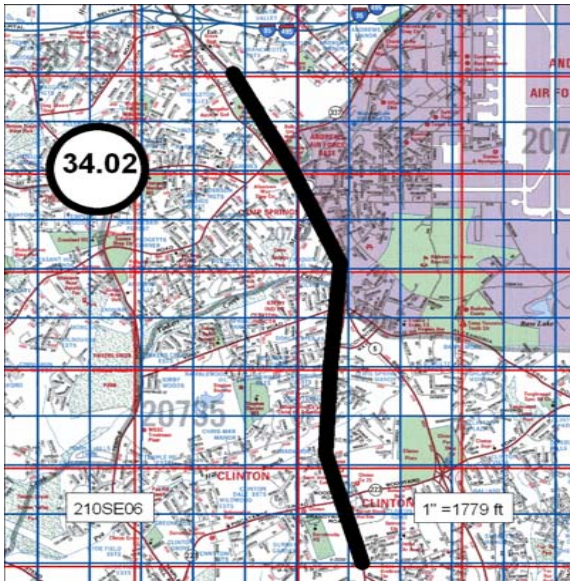
Date First in Program	FY 08
Date First Approved	FY 08
Intial Cost Estimate	10,350
Cost Estimate Last FY	15,218
Present Cost Estimate	26,070
Approved Request Last FY	268
Total Expense & Encumbrances	1,528
Approval Request Year 1	3,336

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	85%
Est Completion Date	FY 2020

Growth	50%
System Improvement	50%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Water Transmission Improvements 385B Pressure Zone

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-34.03		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Clinton HG385B;
Drainage Basins	
Planning Areas	Clinton & Vicinity PA 81A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,530**	900	430	**200**	100	100					
Land											
Site Improvements & Utilities											
Construction	**30,000**			**30,000**	2,500	12,000	12,000	3,500			
Other	**3,063**		43	**3,020**	260	1,210	1,200	350			
Total	**34,593**	**900**	**473**	**33,220**	**2,860**	**13,310**	**13,200**	**3,850**			

C. Funding Schedule (000's)

SDC	**34,593**	900	473	**33,220**	2,860	13,310	13,200	3,850			

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 24,000 feet of 24-inch diameter water transmission main and a flow control valve along Accokeek Road that will improve system reliability through the HG385 and HG345 pressure zones.

JUSTIFICATION

The existing transmission mains have been stressed by recent development in southern Prince George's County. In addition, head-loss due to increased water use is preventing the Accokeek elevated tank from operating as designed. A new water main will improve our transmission capacity to serve recent and future growth, and will also improve overall reliability for southern Prince George's County customers.

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. Expenditure and schedule projections shown in Block B are preliminary design level estimates and are expected to change as the design phase progresses. The design phase will determine the final alignment. Land costs are included in WSSC Project W-202.00.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; (Major stakeholder as 3/4 of the proposed alignment would be on SHA ROW); Maryland-National Capital Park & Planning Commission; (Anticipates receiving Mandatory Referral submission); Maryland Department of the Environment; Maryland Department of Natural Resources; Prince George's County Department of Environmental Resources; Prince George's County Department of Permitting Inspection and Enforcement; U.S. Army Corps of Engineers; Prince George's County Government;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$442	21
Other Project Costs		
Debt Service		
Total Cost	$442	21
Impact on Water and Sewer Rate	$0.01	21

F. Approval and Expenditure Data (000's)

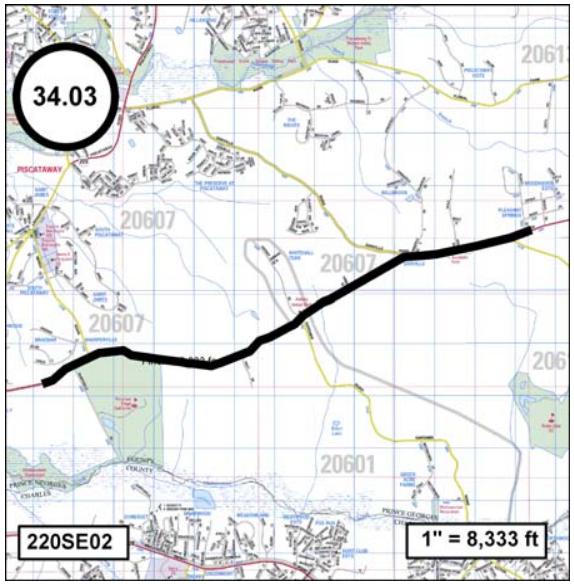
Date First in Program	FY 12
Date First Approved	FY 12
Intial Cost Estimate	173
Cost Estimate Last FY	34,670
Present Cost Estimate	34,593
Approved Request Last FY	440
Total Expense & Encumbrances	900
Approval Request Year 1	2,860

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	40%
Est Completion Date	FY 2020

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Branch Avenue Water Transmission Improvements

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-34.04		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Clinton HG385B;
Drainage Basins	
Planning Areas	Clinton & Vicinity PA 81A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**2,240**	1,300	640	**300**	200	100					
Land											
Site Improvements & Utilities											
Construction	**48,935**	2,269	10,693	**35,973**	14,880	17,987	3,106				
Other	**2,380**		567	**1,813**	754	904	155				
Total	**53,555**	**3,569**	**11,900**	**38,086**	**15,834**	**18,991**	**3,261**				

C. Funding Schedule (000's)

SDC	**53,555**	3,569	11,900	**38,086**	15,834	18,991	3,261				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of approximately 21,800 feet of 42-inch diameter water transmission main and 5,400 feet of 30-inch diameter water transmission main along Branch Avenue in the Clinton area.

JUSTIFICATION

The new water main will serve as a supply feed for the proposed Clinton South Tank.

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

COST CHANGE

The decrease in project cost is based on the updated design plan which includes refinement to the capacity and alignment (decrease in pipe diameter). Also, the project no longer requires a flow control valve. The project phasing plan has also resulted in cost savings due to efficiency in cost sharing construction activities, such as maintenance of traffic and restoration, with the Maryland State Highway Administration and the Prince George's County Government.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B are planning level estimates and are expected to change as design progresses. The project is split into three phases. The first phase is comprised of approximately 1,200 ft along Surratts Road to be constructed by Prince George's County as part of the County Surratts/Brandywine road widening project. The second phase is approximately 3,300 of main along Branch Avenue and shall be constructed by SHA as part of the SHA MD5/Brandywine interchange improvement project. The third phase is the remaining alignment of the project along Branch Avenue (approximately 4.3 miles) will be bid separately by WSSC. Land costs are included in WSSC Project W-202.00.

COORDINATION

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

Coordinating Projects: W-62.05-Clinton Zone Water Storage Facility Implementation;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$500	20
Other Project Costs		
Debt Service		
Total Cost	$500	20
Impact on Water and Sewer Rate	$0.01	20

F. Approval and Expenditure Data (000's)

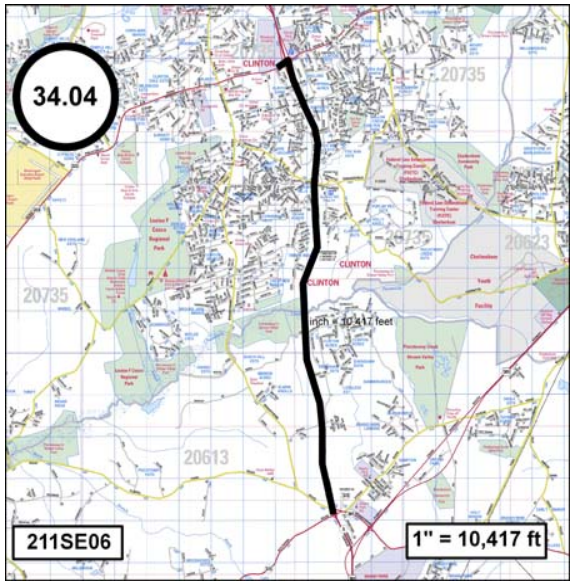
Date First in Program	FY 14
Date First Approved	FY 14
Intial Cost Estimate	23,705
Cost Estimate Last FY	57,360
Present Cost Estimate	53,555
Approved Request Last FY	12,305
Total Expense & Encumbrances	3,569
Approval Request Year 1	15,834

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	70%
Est Completion Date	FY 2019

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Marlboro Zone Reinforcement Main

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-34.05		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Clinton HG385B;
Drainage Basins	
Planning Areas	Clinton & Vicinity PA 81A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**405**	318	67	**20**	10	10					
Land											
Site Improvements & Utilities											
Construction	**3,500**			**3,500**	1,167	2,333					
Other	**538**		10	**528**	177	351					
Total	**4,443**	**318**	**77**	**4,048**	**1,354**	**2,694**					

C. Funding Schedule (000's)

WSSC Bonds	**4,443**	318	77	**4,048**	1,354	2,694					

D. Description & Justification

DESCRIPTION

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.

JUSTIFICATION

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).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B are planning level estimates and are expected to change as design progresses. Land costs are included in WSSC Project W-202.00.

COORDINATION

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 Department of Permitting Inspection and Enforcement; Prince George's County Government;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$74	19
Other Project Costs		
Debt Service	$306	19
Total Cost	$380	19
Impact on Water and Sewer Rate	$0.01	19

F. Approval and Expenditure Data (000's)

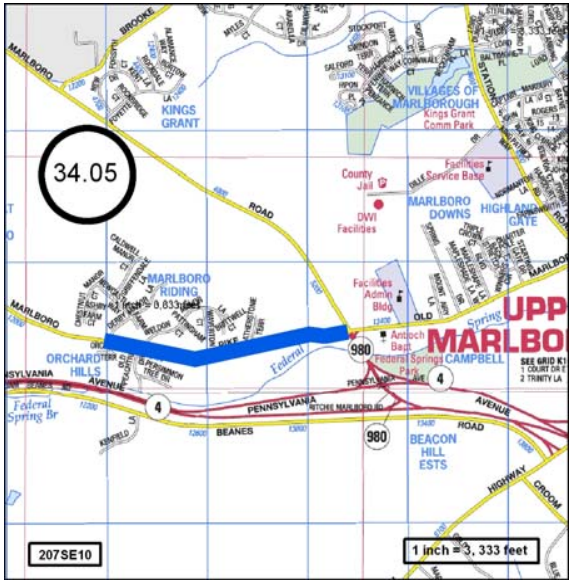
Date First in Program	FY 14
Date First Approved	FY 14
Intial Cost Estimate	5,234
Cost Estimate Last FY	4,366
Present Cost Estimate	4,443
Approved Request Last FY	1,342
Total Expense & Encumbrances	318
Approval Request Year 1	1,354

G. Status Information

Land Status	Site not selected
Project Phase	Design
Percent Complete	70%
Est Completion Date	FY 2018

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Clinton Zone Water Storage Facility Implementation

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-62.05		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Clinton HG385B;
Drainage Basins	
Planning Areas	Clinton & Vicinity PA 81A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**2,064**	1,100	350	**564**	300	180	84				50
Land	**114**	114									
Site Improvements & Utilities											
Construction	**9,350**			**5,000**	1,500	2,500	1,000				4,350
Other	**1,031**		35	**556**	180	268	108				440
Total	**12,559**	**1,214**	**385**	**6,120**	**1,980**	**2,948**	**1,192**				**4,840**

C. Funding Schedule (000's)

SDC	**12,559**	1,214	385	**6,120**	1,980	2,948	1,192				4,840

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of approximately 4.0 million gallons (MG) of water storage to serve the Clinton area. The site selection phase of this project will include a Community Outreach Program. WSSC will construct a 2.0 MG water tank in the Brandywine area by FY'19. A future 2.0 MG water tank will be constructed in the Rosaryville area by FY'26 to meet the demands of the study area.

JUSTIFICATION

Clinton Pressure Zone HG385B serves a large and growing area of Southern Prince George's County and currently has only one storage facility. 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 by the year 2040.

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).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B are Planning level estimates and are expected to change once the project moves into design. Estimated costs allocated for 'Beyond 6 Years' is for the future 2.0 MG water tank. Land costs are included in WSSC Project W-202.00.

COORDINATION

Coordinating Agencies: Prince George's County Government; Maryland-National Capital Park & Planning Commission; Maryland Department of the Environment; Prince George's County Department of Environmental Resources;
Coordinating Projects: W-34.02-Old Branch Avenue Water Main; W-34.03-Water Transmission Improvements 385B Pressure Zone; W-34.04-Branch Avenue Water Transmission Improvements; W-34.05-Marlboro Zone Reinforcement Main;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY 13
Date First Approved	FY 13
Intial Cost Estimate	7,993
Cost Estimate Last FY	12,027
Present Cost Estimate	12,559
Approved Request Last FY	275
Total Expense & Encumbrances	1,214
Approval Request Year 1	1,980

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	5%
Est Completion Date	See Block D

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	4.0 MG

H. Map

MAP NOT APPLICABLE

St. Barnabas Elevated Tank Replacement

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-65.10		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Prince George's High HG450A; Patuxent
Drainage Basins	
Planning Areas	Suitland-District Heights & Vicinity PA

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,068**	640	171	**257**	171	86					
Land											
Site Improvements & Utilities											
Construction	**8,500**		1,544	**6,956**	4,632	2,324					
Other	**1,340**		257	**1,083**	721	362					
Total	**10,908**	**640**	**1,972**	**8,296**	**5,524**	**2,772**					

C. Funding Schedule (000's)

WSSC Bonds	**5,454**	320	986	**4,148**	2,762	1,386					
SDC	**5,454**	320	986	**4,148**	2,762	1,386					

D. Description & Justification

DESCRIPTION

This project provides for the design and construction of approximately 2.5 million gallons (MG) of water storage to serve Prince George's High Pressure Zone HG450A and the demolition of the existing St. Barnabas elevated water storage tank.

JUSTIFICATION

This project is necessary to provide storage capacity and address water quality issues in Prince George's High Pressure Zone HG450A. Specifically, the existing St. Barnabas and Camp Springs elevated tanks have low overflow elevations that impact water quality in the zone.

Prince George's County High Zone Storage Study, Hazen & Sawyer (June 2012).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B are based on the design estimate and may change once the project is bid and awarded. The Prince George's County High Zone Storage Study recommended moving forward with design and construction of a new tank on the existing St. Barnabas site. The new tank will replace the existing St. Barnabas elevated tank. The study also recommended pursuing acquisition of an additional site for long-term water storage needs. The project has been delayed due to extended permitting duration and due to another project, the repair and repainting of the interior and exterior of the St. Barnabas Reservoir, taking place on the site.

COORDINATION

Coordinating Agencies: Prince George's County Government; Maryland-National Capital Park & Planning Commission; (Related to acquisition of future storage site.); Maryland Department of the Environment; Federal Aviation Administration;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$375	19
Total Cost	$375	19
Impact on Water and Sewer Rate	$0.01	19

F. Approval and Expenditure Data (000's)

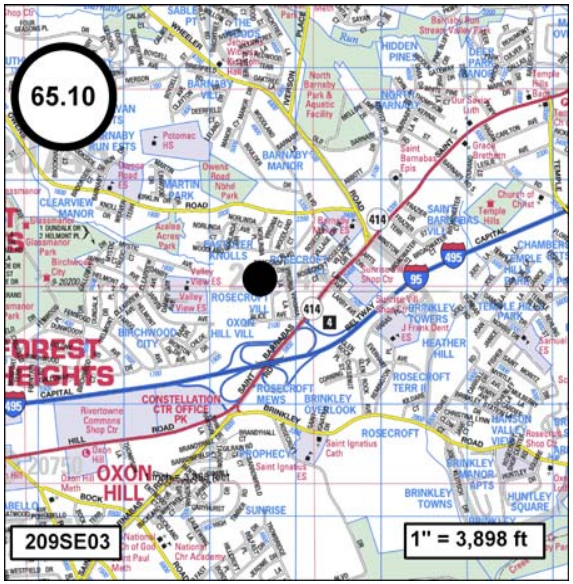
Date First in Program	FY 13
Date First Approved	FY 13
Intial Cost Estimate	7,274
Cost Estimate Last FY	11,284
Present Cost Estimate	10,908
Approved Request Last FY	8,682
Total Expense & Encumbrances	640
Approval Request Year 1	5,524

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	100%
Est Completion Date	FY 2018

Growth	50%
System Improvement	50%
Environmental Regulation	
Population Served	
Capacity	2.5 MG

H. Map



Ritchie Marlboro Road Transmission Main & PRV

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-84.02		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Prince George's High HG450A; Southern
Drainage Basins	
Planning Areas	Westphalia & Vicinity PA 78;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,580**	1,184	360	**36**	12	12	12				
Land											
Site Improvements & Utilities											
Construction	**10,000**			**10,000**	4,000	4,000	2,000				
Other	**1,039**		36	**1,003**	401	401	201				
Total	**12,619**	**1,184**	**396**	**11,039**	**4,413**	**4,413**	**2,213**				

C. Funding Schedule (000's)

SDC	**12,619**	1,184	396	**11,039**	4,413	4,413	2,213				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of approximately 13,100 feet of 24-inch diameter main and a pressure reducing valve (PRV) to serve the Westphalia area. The water main will be constructed along Ritchie Marlboro Road from south of Westphalia Road to the Beltway.

JUSTIFICATION

Prince George' County High Zone Water Main Alignment and Capacity Study, Chester Engineering (September 2012).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown above are planning level estimates and may be updated as design progresses. Land costs are included in WSSC Project W-202.00.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Prince George's County Government; Maryland-National Capital Park & Planning Commission; Maryland Water Management Administration; Maryland Department of Natural Resources; 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		
Maintenance	$241	20
Other Project Costs		
Debt Service		
Total Cost	$241	20
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

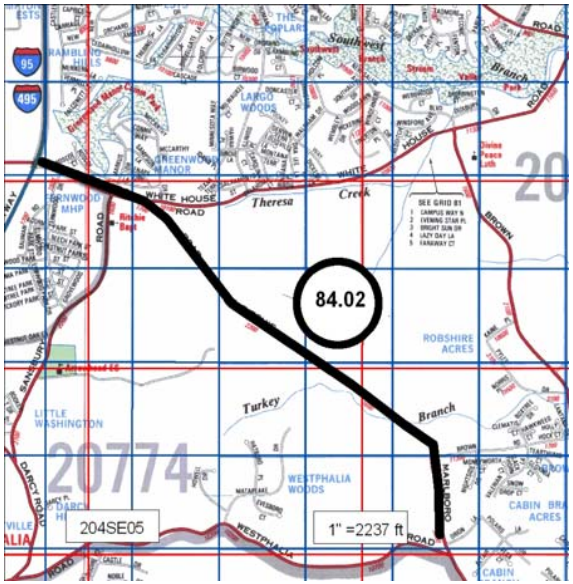
Date First in Program	FY 08
Date First Approved	FY 08
Intial Cost Estimate	2,496
Cost Estimate Last FY	12,791
Present Cost Estimate	12,619
Approved Request Last FY	440
Total Expense & Encumbrances	1,184
Approval Request Year 1	4,413

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	5%
Est Completion Date	FY 2019

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Smith Home Farms Water Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-84.03		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Southern 385B;
Drainage Basins	
Planning Areas	Westphalia & Vicinity PA 78;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**396**	118	107	**171**	60	58	53				
Land											
Site Improvements & Utilities											
Construction	**1,874**	619	400	**855**	285	285	285				
Other	**230**		76	**154**	52	51	51				
Total	**2,500**	**737**	**583**	**1,180**	**397**	**394**	**389**				

C. Funding Schedule (000's)

Contribution/Other	**2,500**	737	583	**1,180**	397	394	389				

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.

JUSTIFICATION

Smith Home Farm Subdivision Hydraulic Planning Analysis (Amended March 2015).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B 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 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: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$140	20
Other Project Costs		
Debt Service		
Total Cost	$140	20
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

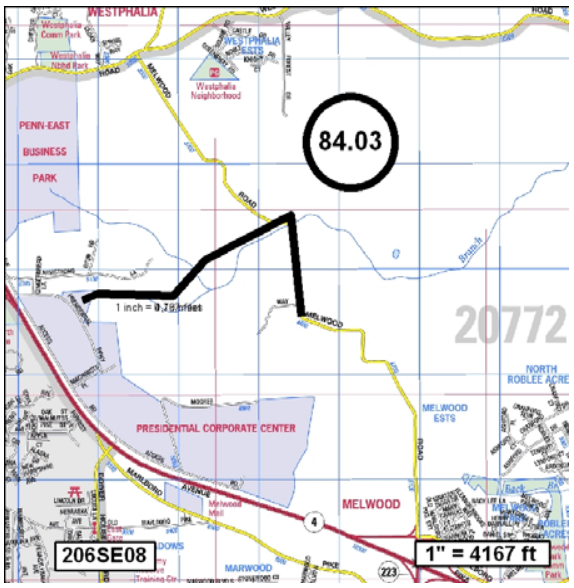
Date First in Program	FY 08
Date First Approved	FY 08
Intial Cost Estimate	1,600
Cost Estimate Last FY	2,500
Present Cost Estimate	2,500
Approved Request Last FY	393
Total Expense & Encumbrances	737
Approval Request Year 1	397

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	70%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Westphalia Town Center Water Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-84.04		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Clinton HG385B;
Drainage Basins	
Planning Areas	Westphalia & Vicinity PA 78;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**178**	20	35	**123**	58	43	22				
Land											
Site Improvements & Utilities											
Construction	**1,141**	500		**641**	197	259	185				
Other	**119**		5	**114**	38	45	31				
Total	**1,438**	**520**	**40**	**878**	**293**	**347**	**238**				

C. Funding Schedule (000's)

Contribution/Other	**1,438**	520	40	**878**	293	347	238				

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.

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 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 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 Department of Permitting Inspection and Enforcement; Prince George's County Government;
Coordinating Projects: W-84.03-Smith Home Farms Water Main;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$86	20
Other Project Costs		
Debt Service		
Total Cost	$86	20
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

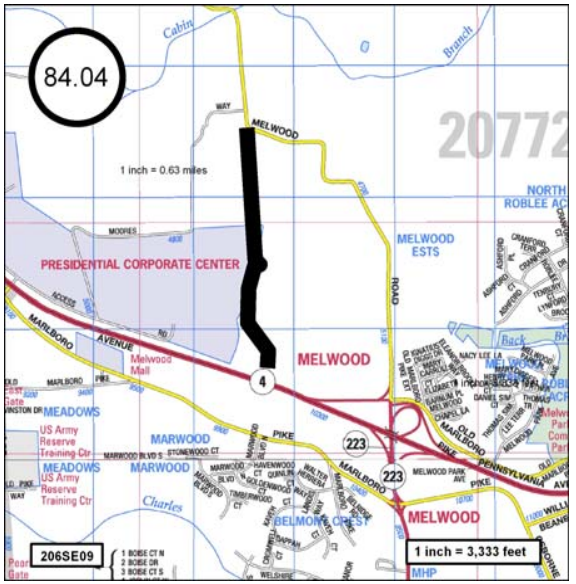
Date First in Program	FY 14
Date First Approved	FY 14
Intial Cost Estimate	1,396
Cost Estimate Last FY	1,438
Present Cost Estimate	1,438
Approved Request Last FY	293
Total Expense & Encumbrances	520
Approval Request Year 1	293

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	40%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Prince George's County 450A Zone Water Main

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-84.05		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Prince George's High HG450A;
Drainage Basins	
Planning Areas	Prince George's County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**6,487**	370	1,117	**5,000**	1,463	1,463	976	366	366	366	
Land											
Site Improvements & Utilities											
Construction	**30,000**			**15,833**			833	5,000	5,000	5,000	14,167
Other	**3,613**		112	**2,084**	146	146	181	537	537	537	1,417
Total	**40,100**	**370**	**1,229**	**22,917**	**1,609**	**1,609**	**1,990**	**5,903**	**5,903**	**5,903**	**15,584**

C. Funding Schedule (000's)

WSSC Bonds	**40,100**	370	1,229	**22,917**	1,609	1,609	1,990	5,903	5,903	5,903	15,584

D. Description & Justification

DESCRIPTION

This project provides for a capacity and alignment study, design, and construction of approximately ten miles of new 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.

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 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 24-inch diameter main at D'arcy Road. The new transmission main may parallel or replace existing mains as determined by modeling. The new transmission main shall tie in to the existing 42-inch diameter main on the south side of I-495 where it splits into the existing 42-inch diameter and 36-inch diameter mains.

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown above are Order of Magnitude level estimates and are expected to change once the project moves into planning and design. This project is in the early planning phases. An alignment and capacity study will be performed. Land costs are included in WSSC Project W-202.00.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Prince George's County Government; Maryland-National Capital Park & Planning Commission; (Mandatory Referral Process); 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		
Maintenance	$972	
Other Project Costs		
Debt Service	$2,759	
Total Cost	$3,731	
Impact on Water and Sewer Rate	$0.08	

F. Approval and Expenditure Data (000's)

Date First in Program	FY 13
Date First Approved	FY 13
Intial Cost Estimate	374
Cost Estimate Last FY	38,669
Present Cost Estimate	40,100
Approved Request Last FY	385
Total Expense & Encumbrances	370
Approval Request Year 1	1,609

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	15%
Est Completion Date	FY 2023

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Konterra Town Center East Water Main

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-93.01		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	P.G. 415A;
Drainage Basins	Northeast Branch Branch 08;
Planning Areas	Northwestern Area PA 60;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**261**	89	6	**166**	70	7	38	21	30		
Land											
Site Improvements & Utilities											
Construction	**1,147**		40	**1,107**	468	44	252	140	203		
Other	**199**		7	**192**	81	8	44	24	35		
Total	**1,607**	**89**	**53**	**1,465**	**619**	**59**	**334**	**185**	**268**		

C. Funding Schedule (000's)

Contribution/Other	**1,607**	89	53	**1,465**	619	59	334	185	268		

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 the Konterra Town Center East, located in the area bound by Interstate 95, the Intercounty Connector and Konterra Drive. The sleeve for the water main crossing the Intercounty Connector was built under WSSC Project S-28.18 Konterra Town Center East Sewer.

JUSTIFICATION

Hydraulic Planning Analysis (August 2013).

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Prince George's County Government;
Coordinating Projects: S-28.18-Konterra Town Center East Sewer Main;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$169	22
Other Project Costs		
Debt Service		
Total Cost	$169	22
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

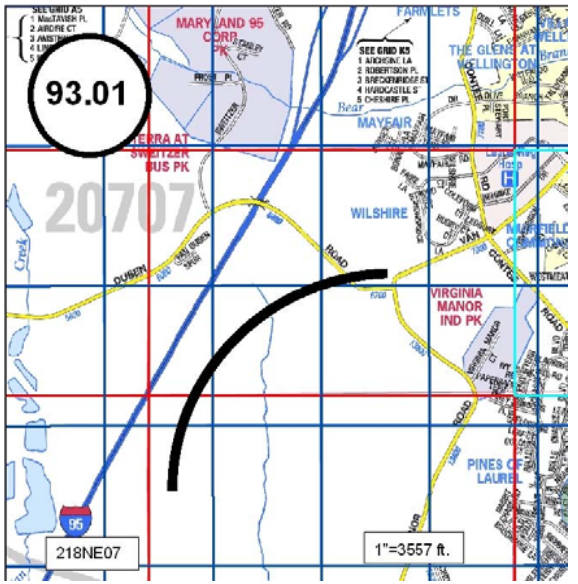
Date First in Program	FY 09
Date First Approved	FY 09
Intial Cost Estimate	610
Cost Estimate Last FY	1,571
Present Cost Estimate	1,607
Approved Request Last FY	227
Total Expense & Encumbrances	89
Approval Request Year 1	619

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	100%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	1.71 MGD

H. Map



Marlton Section 18 Water Main, Lake Marlton Avenue

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-105.01		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Clinton HG385B;
Drainage Basins	
Planning Areas	Rosaryville PA 82A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**364**	28	5	**331**	37	59	59	59	59	58	
Land											
Site Improvements & Utilities											
Construction	**1,733**			**1,733**	288	289	289	289	289	289	
Other	**310**		1	**309**	49	52	52	52	52	52	
Total	**2,407**	**28**	**6**	**2,373**	**374**	**400**	**400**	**400**	**400**	**399**	

C. Funding Schedule (000's)

Contribution/Other	**2,407**	28	6	**2,373**	374	400	400	400	400	399	

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 5,800 feet of 16-inch diameter water main to provide service to East Marlton, Section 18, along Heathermore Boulevard and Lake Marlton Avenue.

JUSTIFICATION

East Marlton Hydraulic Planning Analysis (February 2008).

COST CHANGE

The cost decrease was a result of 700 linear feet of 16- inch diameter main being removed from the project.

OTHER

The project scope has remained the same. The expenditure and schedule projections shown in Block B are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC 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		
Maintenance	$120	23
Other Project Costs		
Debt Service		
Total Cost	$120	23
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

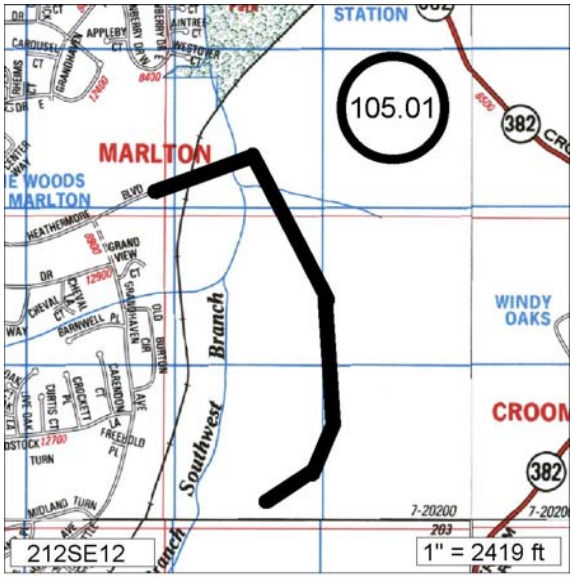
Date First in Program	FY 02
Date First Approved	FY 02
Intial Cost Estimate	398
Cost Estimate Last FY	2,708
Present Cost Estimate	2,407
Approved Request Last FY	861
Total Expense & Encumbrances	28
Approval Request Year 1	374

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	50%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Hillmeade Road Water Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-111.05		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Bowie HG350E;
Drainage Basins	
Planning Areas	Bowie & Vicinity PA 71A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**964**	904	30	**30**	30						
Land	**30**	30									
Site Improvements & Utilities											
Construction	**3,922**		1,322	**2,600**	2,600						
Other	**598**		203	**395**	395						
Total	**5,514**	**934**	**1,555**	**3,025**	**3,025**						

C. Funding Schedule (000's)

SDC	**5,514**	934	1,555	**3,025**	3,025						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of approximately 7,300 feet of 24-inch diameter water main along Hillmeade Road from Lanham-Severn Road to an existing 24-inch diameter water main in Hillmeade Road at Daisy Lane.

JUSTIFICATION

The purpose of this project is to provide adequate pressure in response to growth in the Bowie area.

Bowie-Glen Dale Water Storage Facility Plan, O'Brien & Gere Engineers, Inc. (October 1990); Water Resources Planning Section Memorandum dated May 31, 1996; M-NCP&PC Round 6 growth forecasts.

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditures and schedule projections shown in Block B are design level estimates and may change based upon site-specific conditions and actual bid. This project has been delayed due to outstanding permitting issues.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Prince George's County Government; Maryland-National Capital Park & Planning Commission; AMTRAK; Maryland Department of Natural Resources; 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		
Maintenance	$134	18
Other Project Costs		
Debt Service		
Total Cost	$134	18
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

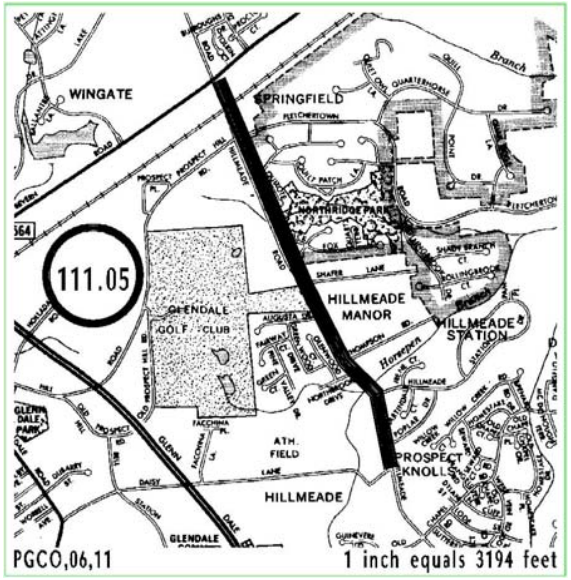
Date First in Program	FY 98
Date First Approved	FY 98
Intial Cost Estimate	1,898
Cost Estimate Last FY	5,490
Present Cost Estimate	5,514
Approved Request Last FY	2,310
Total Expense & Encumbrances	934
Approval Request Year 1	3,025

G. Status Information

Land Status	Land acquired
Project Phase	Design
Percent Complete	95%
Est Completion Date	June 2017

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



John Hanson Highway Water Main, Part 1

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-119.01		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Prince George's Main HG320A; Prince
Drainage Basins	
Planning Areas	Collington & Vicinity PA 74B; Largo-

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,589**	1,279	50	**260**	130	80	50				
Land											
Site Improvements & Utilities											
Construction	**13,000**			**13,000**	5,958	6,500	542				
Other	**1,331**		5	**1,326**	609	658	59				
Total	**15,920**	**1,279**	**55**	**14,586**	**6,697**	**7,238**	**651**				

C. Funding Schedule (000's)

SDC	**15,920**	1,279	55	**14,586**	6,697	7,238	651				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 9,300 feet of 36-inch diameter water main along John Hanson Highway and Martin Luther King Jr. Highway, from Whitfield Chapel Road to Folly Branch.

JUSTIFICATION

This project will provide service to the growing area of Bowie and to the low pressure area north of Route 50, Prince George's Main Pressure Zone HG320A. This main will provide redundancy to existing and future developments in the Bowie area.

General Plan; M-NCP&PC Round 6.2 growth projections; WSSC Memorandum dated April 7, 1997.

COST CHANGE

The total project cost has increased due to the addition of the flow control valve, requirement for enhanced cathodic protection, and refinements to the engineer's estimate based on 100% design plans.

OTHER

The project scope has remained the same. The redundancy and water system reliability benefits of this project would be immediate. The expenditure and schedule projections shown in Block B are design level estimates and may change based upon the final engineer's estimate and actual bids.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Prince George's County Government; Prince George's County Department of Environmental Resources; Maryland Department of the Environment; U.S. Army Corps of Engineers; U.S. Fish and Wildlife Service; Maryland-National Capital Park & Planning Commission; Maryland Department of Natural Resources;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$171	20
Other Project Costs		
Debt Service		
Total Cost	$171	20
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

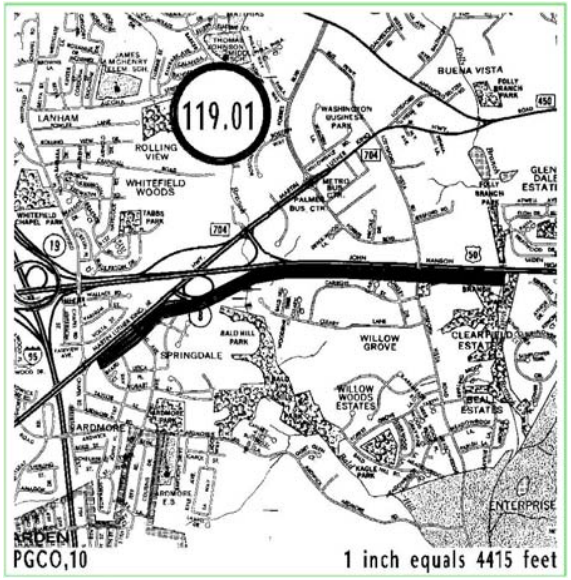
Date First in Program	FY 82
Date First Approved	FY 82
Intial Cost Estimate	675
Cost Estimate Last FY	8,373
Present Cost Estimate	15,920
Approved Request Last FY	1,493
Total Expense & Encumbrances	1,279
Approval Request Year 1	6,697

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	100%
Est Completion Date	FY 2019

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Lakeview at Brandywine Water Main, Part 1

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-120.14		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Southern 385B;
Drainage Basins	
Planning Areas	Brandywine & Vicinity PA 85A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**50**	43		**7**	3	2	2				
Land											
Site Improvements & Utilities											
Construction	**124**			**124**	6	59	59				
Other	**19**			**19**	1	9	9				
Total	**193**	**43**		**150**	**10**	**70**	**70**				

C. Funding Schedule (000's)

Contribution/Other	**193**	43		**150**	10	70	70				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 1,100 feet of 16-inch diameter water main to serve the Lakeview at Brandywine project.

JUSTIFICATION

Lakeview at Brandywine Hydraulic Planning Analysis (Amended April 2015).

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Prince George's County Government;
Coordinating Projects: W-120.15-Lakeview at Brandywine Water Main, Part 2; W-120.16-Lakeview at Brandywine Water Main, Part 3;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$20	20
Other Project Costs		
Debt Service		
Total Cost	$20	20
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

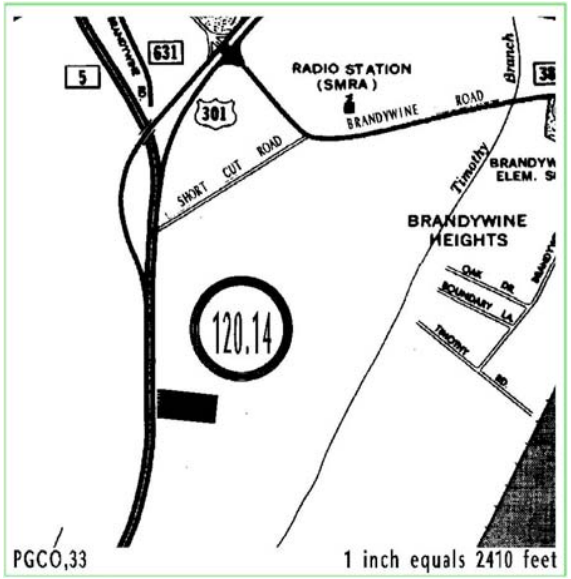
Date First in Program	FY 94
Date First Approved	FY 94
Intial Cost Estimate	176
Cost Estimate Last FY	193
Present Cost Estimate	193
Approved Request Last FY	70
Total Expense & Encumbrances	43
Approval Request Year 1	10

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	100%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Lakeview at Brandywine Water Main, Part 2

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-120.15		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Southern 385B;
Drainage Basins	
Planning Areas	Brandywine & Vicinity PA 85A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**109**	72		**37**	12	12	13				
Land											
Site Improvements & Utilities											
Construction	**437**			**437**		218	219				
Other	**72**			**72**	2	35	35				
Total	**618**	**72**		**546**	**14**	**265**	**267**				

C. Funding Schedule (000's)

Contribution/Other	**618**	72		**546**	14	265	267				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 3,700 feet of 16-inch diameter water main to serve the Lakeview at Brandywine project.

JUSTIFICATION

Lakeview at Brandywine Hydraulic Planning Analysis (Amended April 2015).

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Prince George's County Government;
Coordinating Projects: W-120.14-Lakeview at Brandywine Water Main, Part 1; W-120.16-Lakeview at Brandywine Water Main, Part 3;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$68	20
Other Project Costs		
Debt Service		
Total Cost	$68	20
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

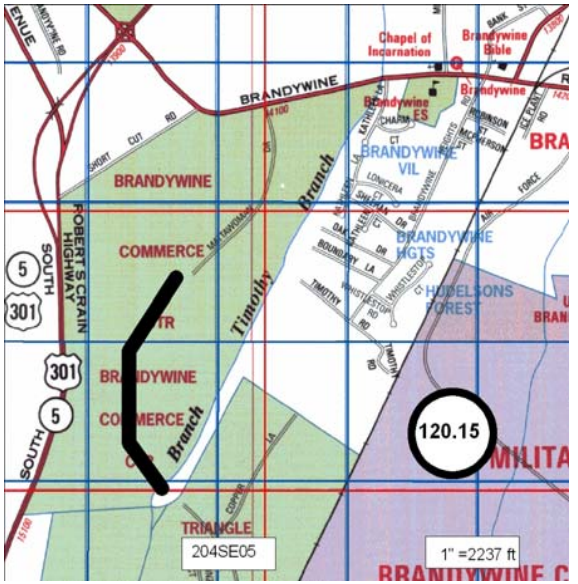
Date First in Program	FY 94
Date First Approved	FY 94
Intial Cost Estimate	159
Cost Estimate Last FY	617
Present Cost Estimate	618
Approved Request Last FY	14
Total Expense & Encumbrances	72
Approval Request Year 1	14

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	100%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Lakeview at Brandywine Water Main, Part 3

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-120.16		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Southern 385B;
Drainage Basins	
Planning Areas	Brandywine & Vicinity PA 85A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**16**	14		**2**	2						
Land											
Site Improvements & Utilities											
Construction	**27**			**27**	27						
Other	**4**			**4**	4						
Total	**47**	**14**		**33**	**33**						

C. Funding Schedule (000's)

Contribution/Other	**47**	14		**33**	33						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 200 feet of 16-inch diameter water main to serve the Lakeview at Brandywine project.

JUSTIFICATION

Lakeview at Brandywine Hydraulic Planning Analysis (Amended April 2015).

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Prince George's County Government;
Coordinating Projects: W-120.14-Lakeview at Brandywine Water Main, Part 1; W-120.15-Lakeview at Brandywine Water Main, Part 2;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$4	18
Other Project Costs		
Debt Service		
Total Cost	$4	18
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

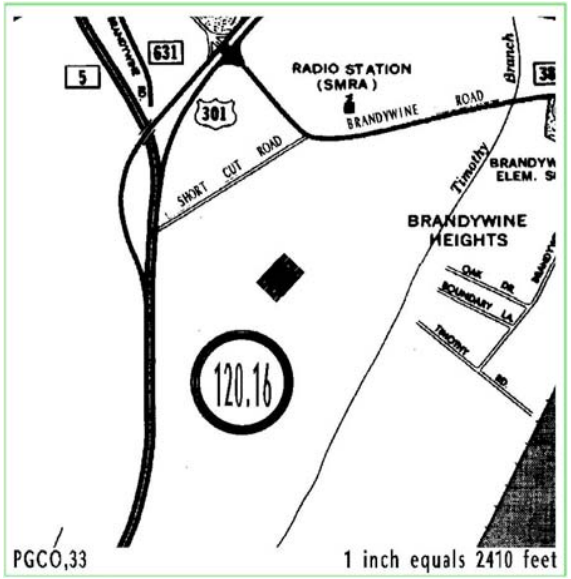
Date First in Program	FY 94
Date First Approved	FY 94
Intial Cost Estimate	26
Cost Estimate Last FY	47
Present Cost Estimate	47
Approved Request Last FY	33
Total Expense & Encumbrances	14
Approval Request Year 1	33

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	100%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Old Marlboro Pike Water Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-123.14		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Clinton HG385B;
Drainage Basins	
Planning Areas	Upper Marlboro & Vicinity PA 79;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**219**	178	11	**30**	15	15					
Land											
Site Improvements & Utilities											
Construction	**1,422**	1,080	89	**253**	141	112					
Other	**57**		15	**42**	23	19					
Total	**1,698**	**1,258**	**115**	**325**	**179**	**146**					

C. Funding Schedule (000's)

Contribution/Other	**1,698**	1,258	115	**325**	179	146					

D. Description & Justification

DESCRIPTION

This project provides for the design and construction of approximately 9,000 feet of 16-inch diameter water main along Old Marlboro Pike and on-site at the applicant's property to serve the Addison Property development.

JUSTIFICATION

Old Marlboro Pike Hydraulic Analysis (February 2003). Review of Project #DA3538Z03 for the Addison Property development. Based on Development Services and Planning Group studies, a 16-inch diameter water main was deemed necessary to provide service to the Addison Property development as well as to future development.

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The expenditure and schedule projections shown in Block B 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 rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Prince George's County Government; Maryland-National Capital Park & Planning Commission; Maryland State Department of Transportation; Prince George's County Department of Permitting Inspection and Enforcement; Prince George's County Department of Environmental Resources;
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$166	19
Other Project Costs		
Debt Service		
Total Cost	$166	19
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

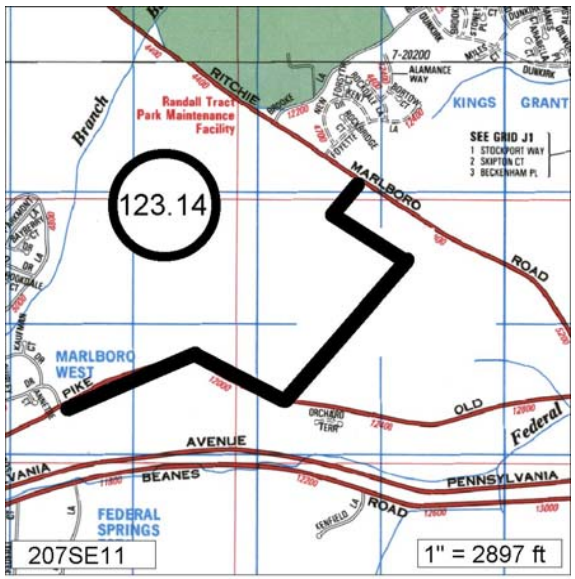
Date First in Program	FY 04
Date First Approved	FY 04
Intial Cost Estimate	800
Cost Estimate Last FY	1,694
Present Cost Estimate	1,698
Approved Request Last FY	179
Total Expense & Encumbrances	1,258
Approval Request Year 1	179

G. Status Information

Land Status	R/W acquired
Project Phase	Construction
Percent Complete	80%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map



Oak Grove/Leeland Roads Water Main, Part 2

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-123.20		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Prince George's Intermediate HG317A;
Drainage Basins	
Planning Areas	Mitchellville & Vicinity PA 74A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**2,045**	1,933	82	**30**	20	10					
Land											
Site Improvements & Utilities											
Construction	**9,947**	4,477	2,370	**3,100**	3,000	100					
Other	**836**		368	**468**	452	16					
Total	**12,828**	**6,410**	**2,820**	**3,598**	**3,472**	**126**					

C. Funding Schedule (000's)

WSSC Bonds	**6,414**	3,205	1,410	**1,799**	1,736	63					
SDC	**6,414**	3,205	1,410	**1,799**	1,736	63					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of approximately 16,805 feet of 24-inch diameter water main along Oak Grove and Leeland Roads, and 1,240 feet of 16-inch diameter water main in Church Road in the Upper Marlboro Planning Area of Prince George's County.

JUSTIFICATION

The Intermediate & Marlboro Zones Water Storage Facility siting study recommended the placement of 4 million gallons of storage at the Safeway Distribution Center near the intersection of Leeland Road and Route 301 in Prince George's County. Based upon the final site selection, a 24-inch diameter water main along Oak Grove and Leeland Roads will be needed to connect to the new storage facility and provide adequate hydraulic capacity to the Intermediate Pressure Zone HG317A distribution system. This project will also provide a second feed to the Beechtree development west of Route 301 and south of Leeland Road.

Intermediate & Marlboro Zones Water Storage Facility (September 1999).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The expenditure and schedule projections in Block B are based upon the actual bid for Contract A and the 100% complete design estimate for Contract B. The project will be bid under two separate contracts: Contract A was bid on 9/26/12 and Contract B is expected to be rebid in June 2015 with the ductile iron pipe design.

COORDINATION

Coordinating Agencies: Prince George's County Government; Maryland State Highway Administration;

Coordinating Projects: W-147.00-Collington Elevated Water Storage Facility;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$332	19
Other Project Costs		
Debt Service	$441	19
Total Cost	$773	19
Impact on Water and Sewer Rate	$0.02	19

F. Approval and Expenditure Data (000's)

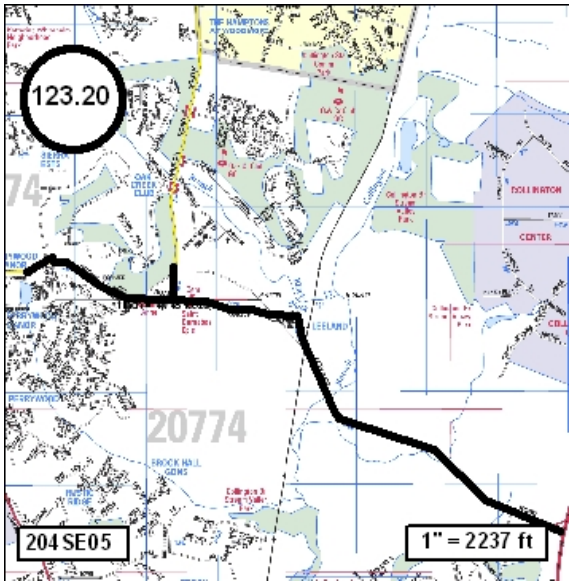
Date First in Program	FY 02
Date First Approved	FY 02
Intial Cost Estimate	4,117
Cost Estimate Last FY	12,828
Present Cost Estimate	12,828
Approved Request Last FY	2,322
Total Expense & Encumbrances	6,410
Approval Request Year 1	3,472

G. Status Information

Land Status	R/W acquired
Project Phase	Construction
Percent Complete	50%
Est Completion Date	July 2017

Growth	50%
System Improvement	50%
Environmental Regulation	
Population Served	
Capacity	

H. Map



South Potomac Supply Improvement

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-137.02		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Rosecroft HG290A;
Drainage Basins	
Planning Areas	Henson Creek PA 76B;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**5,123**	2,220	933	**1,970**	811	500	259	20	145	235	
Land											
Site Improvements & Utilities											
Construction	**50,078**		3,670	**46,408**	11,008	400			10,000	25,000	
Other	**2,651**		231	**2,420**	591	46	13	2	507	1,261	
Total	**57,852**	**2,220**	**4,834**	**50,798**	**12,410**	**946**	**272**	**22**	**10,652**	**26,496**	

C. Funding Schedule (000's)

WSSC Bonds	**28,926**	1,110	2,417	**25,399**	6,205	473	136	11	5,326	13,248	
SDC	**28,926**	1,110	2,417	**25,399**	6,205	473	136	11	5,326	13,248	

D. Description & Justification

DESCRIPTION

This project provides for the design and construction of two new water mains. The first phase includes design and construction of approximately 2.1 miles of 42-inch diameter ductile iron pipe and a new flow control valve vault to replace an out-of-service, 42-inch diameter PCCP water transmission main. The second phase provides for the relocation of up to 3.5 miles of existing 42-inch diameter PCCP water transmission main with a 42-inch diameter ductile iron pipe and new flow control valve vault.

JUSTIFICATION

This project will provide a second major feed to Rosecroft Pressure Zone HG290A, which serves southwestern Prince George's County, primarily areas west of Indian Head Highway, including National Harbor. The northern section for the zone is approximately 10,600 feet of 42-inch diameter PCCP water main originally installed in the 1970's and consists of lined (PS-5) cylinder pipe and possible class IV wire. The WSSC has confirmed that the condition of the pipe is extremely poor and would present a service liability in the event of failure. In addition, after discussions with the Maryland Department of the Environment regarding extensive requirements for stream restoration, up to 3.5 miles of pipe in the southern section that is exposed along eroding stretches of Henson Creek will now be evaluated for relocation.

Henson Creek 42-inch Prestressed Concrete Cylinder Pipe Transmission Main Rehabilitation Study, Patton, Harris, Rust & Associates, Inc. (October 2008); Concept Finalization Report, O'Brien & Gere Engineers Inc. (January 2014).

COST CHANGE

Costs were increased based on actual construction bid for Phase 1 and an increase in pipe length and addition of flow control valve vault for Phase 2.

OTHER

The project scope remained the same. Phase 1 is under construction with an NTP date of February 6, 2015. Phase 2 is under an alignment study evaluation. The expenditure and schedule projections shown in Block B for Phase 1 are based on actual bids. For Phase 2, schedule projections are Order of Magnitude level estimates and may change based upon a final determination of alignment, restoration requirements, and other site-specific conditions. Land costs are included in WSSC Project W-202.00.

COORDINATION

Coordinating Agencies: Prince George's County Government; Maryland-National Capital Park & Planning Commission; Maryland Department of the Environment; Maryland Department of Natural Resources; 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		
Maintenance	$398	23
Other Project Costs		
Debt Service	$1,990	23
Total Cost	$2,388	23
Impact on Water and Sewer Rate	$0.05	23

F. Approval and Expenditure Data (000's)

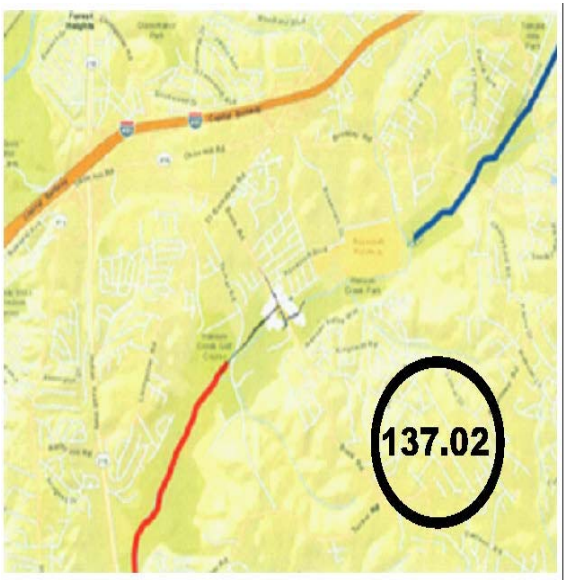
Date First in Program	FY 12
Date First Approved	FY 07
Intial Cost Estimate	25
Cost Estimate Last FY	25,606
Present Cost Estimate	57,852
Approved Request Last FY	6,304
Total Expense & Encumbrances	2,220
Approval Request Year 1	12,410

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Construction
Percent Complete	5%
Est Completion Date	FY 2022

Growth	50%
System Improvement	50%
Environmental Regulation	
Population Served	
Capacity	

H. Map



Collington Elevated Water Storage Facility

A. Identification and Coding Information

Agency Number	Project Number	Update Code
W-147.00		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Prince George's Intermediate HG317A;
Drainage Basins	
Planning Areas	Collington & Vicinity PA 74B;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,144**	1,084	49	**11**	11						
Land	**130**	130									
Site Improvements & Utilities											
Construction	**13,270**	10,950	2,300	**20**	20						
Other	**238**		235	**3**	3						
Total	**14,782**	**12,164**	**2,584**	**34**	**34**						

C. Funding Schedule (000's)

WSSC Bonds	**7,391**	6,082	1,292	**17**	17						
SDC	**7,391**	6,082	1,292	**17**	17						

D. Description & Justification

DESCRIPTION

This project provides for the site selection, planning, design, and construction of 4 million gallons (MG) of elevated storage to serve the Intermediate Zone. The site selection phase included a Community Outreach Program. A portion of the Safeway Distribution Facility property, at Leeland Road and Route 301, was acquired as the site for the new water storage tanks. This project also includes modifications at the existing Central Avenue Water Pumping Station to add an additional pump and upgrade an existing pump in order to optimize the utilization of the new Collington Tanks and provide redundancy in the affected zones.

JUSTIFICATION

The Prince George's High Zone Facility Plan indicates there is a need to provide up to 4 MG of additional storage to the Intermediate Zone to meet demands to the year 2020. During the siting phase, this project determined the site and size of the new facility.

Prince George's County High Zone Facility Plan (April 1996); Water Storage Volume Criteria Report (November 2005).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The expenditure and schedule projections shown in Block B are based upon actual bid. Estimated cost shown in FY'17 is for site restoration work.

COORDINATION

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

Coordinating Projects: W-123.20-Oak Grove/Leeland Roads Water Main, Part 2;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$509	18
Total Cost	$509	18
Impact on Water and Sewer Rate	$0.01	18

F. Approval and Expenditure Data (000's)

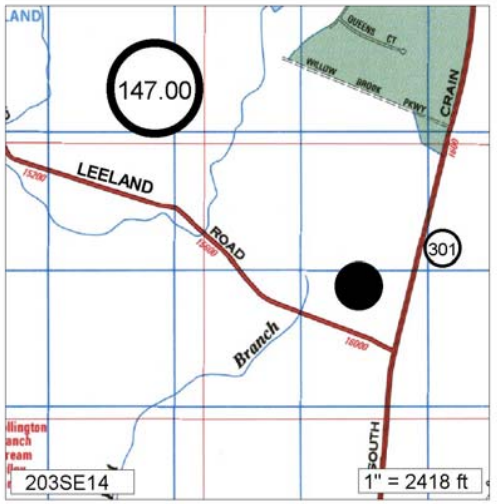
Date First in Program	FY 98
Date First Approved	FY 98
Intial Cost Estimate	12,536
Cost Estimate Last FY	14,726
Present Cost Estimate	14,782
Approved Request Last FY	2,296
Total Expense & Encumbrances	12,164
Approval Request Year 1	34

G. Status Information

Land Status	Land acquired
Project Phase	Construction
Percent Complete	80%
Est Completion Date	March 2016

Growth	50%
System Improvement	50%
Environmental Regulation	
Population Served	
Capacity	4.0 MG

H. Map



PROJECTS PENDING CLOSE-OUT

Prince George's Water Projects

(costs in thousands)

Project Number	Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'15	Estimated Expenditures FY'16	Remarks
	W-129.12	Church Road Water Main & PRV, Part 2	$808	$787	$21	Project completion expected in FY'16.
		TOTALS	$808	$787	$21	

Section 6 - Prince George's County Sewer Projects

DATE: October 1, 2015

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

PRINCE GEORGE'S COUNTY SEWER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 15	EST. EXPEND 16	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PDF PAGE NUM
						YR 1 17	YR 2 18	YR 3 19	YR 4 20	YR 5 21	YR 6 22		
S-27.08	Westphalia Town Center Sewer Main	816	195	437	184	120	55	9	0	0	0	0	6-3
S-28.18	Konterra Town Center East Sewer	6,458	1,704	2,820	1,476	0	486	367	0	0	623	458	6-4
S-43.02	Broad Creek WWPS Augmentation	175,955	47,266	62,108	66,581	35,175	20,281	10,658	467	0	0	0	6-5
S-57.92	Western Branch Facility Upgrade	47,591	46,395	1,172	24	24	0	0	0	0	0	0	6-6
S-57.93	Western Branch WWTP Enhanced Nutrient Removal	42,205	41,145	1,040	20	20	0	0	0	0	0	0	6-7
S-57.94	Western Branch WWTP Incinerator Emissions Control	22,652	2,173	2,783	17,696	11,160	6,501	35	0	0	0	0	6-8
S-68.01	Landover Mall Redevelopment	1,241	24	95	1,122	621	338	43	40	40	40	0	6-9
S-75.19	Brandywine Woods Wastewater Pumping Station	302	6	171	125	63	62	0	0	0	0	0	6-10
S-75.20	Brandywine Woods WWPS Force Main	117	12	35	70	37	33	0	0	0	0	0	6-11
S-75.21	Mattawoman WWTP Upgrades	14,323	5,185	793	7,765	3,305	2,420	1,022	1,018	0	0	580	6-12
S-77.19	Parkway WWTP Biosolids Facility Plan Implementation	31,123	25,975	4,928	220	220	0	0	0	0	0	0	6-13
S-86.19	Karington Subdivision Sewer	711	96	95	520	269	251	0	0	0	0	0	6-14
S-87.15	Rodenhauser Wastewater Pumping Station	1,200	97	1,055	48	33	15	0	0	0	0	0	6-15
S-87.16	Rodenhauser WWPS Force Main	280	90	174	16	16	0	0	0	0	0	0	6-16
S-96.14	Piscataway WWTP Facility Upgrades	104,156	4,195	2,853	95,740	6,630	33,998	26,899	15,417	11,273	1,523	1,368	6-17
S-131.05	Pleasant Valley Sewer Main, Part 2	825	30	190	605	375	156	74	0	0	0	0	6-18
S-131.07	Pleasant Valley Sewer Main, Part 1	1,623	47	446	1,130	923	207	0	0	0	0	0	6-19

DATE: October 1, 2015

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

PRINCE GEORGE'S COUNTY SEWER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 15	EST. EXPEND 16	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PDF PAGE NUM
						YR 1 17	YR 2 18	YR 3 19	YR 4 20	YR 5 21	YR 6 22		
S-131.08	Preserves of Piscataway Wastewater Pumping Station	562	4	20	538	229	225	84	0	0	0	0	6-20
S-131.09	Preserves of Piscataway WWPS Force Main	85	4	3	78	15	63	0	0	0	0	0	6-21
S-131.10	Fort Washington Forest No. 1 WWPS Augmentation	4,575	1,108	1,273	2,194	1,547	589	58	0	0	0	0	6-22
	TOTAL PRINCE GEORGE'S COUNTY SEWER PROJECTS	456,800	175,751	82,491	196,152	60,782	65,680	39,249	16,942	11,313	2,186	2,406	

Westphalia Town Center Sewer Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-27.08		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Western Branch 14;
Planning Areas	Westphalia & Vicinity PA 78;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**81**	20	30	**31**	18	9	4				
Land											
Site Improvements & Utilities											
Construction	**654**	175	350	**129**	86	39	4				
Other	**81**		57	**24**	16	7	1				
Total	**816**	**195**	**437**	**184**	**120**	**55**	**9**				

C. Funding Schedule (000's)

Contribution/Other	**816**	195	437	**184**	120	55	9				

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.

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 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 rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Prince George's County Government; Maryland-National Capital Park & Planning Commission; Prince George's County Department of Environmental Resources; Prince George's County Department of Public Works and Transportation; Local Community Civic Associations; (Interaction with state, county and regulatory staff)

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$65	20
Other Project Costs		
Debt Service		
Total Cost	$65	20
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

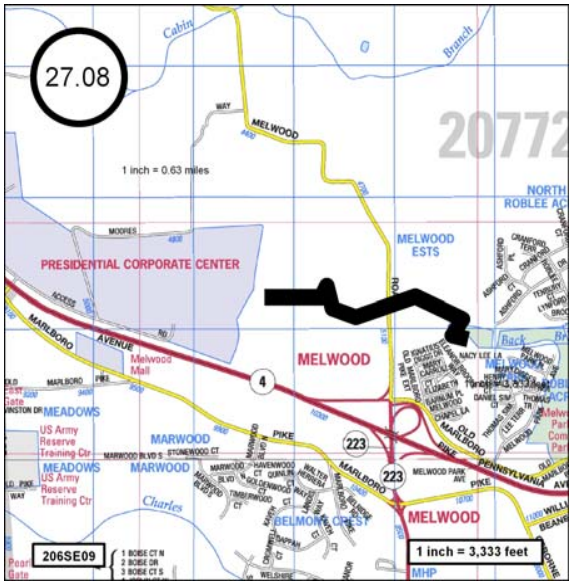
Date First in Program	FY 14
Date First Approved	FY 14
Intial Cost Estimate	378
Cost Estimate Last FY	816
Present Cost Estimate	816
Approved Request Last FY	120
Total Expense & Encumbrances	195
Approval Request Year 1	120

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	40%
Est Completion Date	Developer Dependent

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

H. Map



Konterra Town Center East Sewer

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-28.18		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	P.G. 415A;
Drainage Basins	Northeast Branch Branch 08;
Planning Areas	Northwestern Area PA 60;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,150**	610	320	**168**	0	55	42	0	0	71	52
Land											
Site Improvements & Utilities											
Construction	**4,688**	1,094	2,132	**1,116**	0	368	277	0	0	471	346
Other	**620**		368	**192**	0	63	48	0	0	81	60
Total	**6,458**	**1,704**	**2,820**	**1,476**	**0**	**486**	**367**	**0**	**0**	**623**	**458**

C. Funding Schedule (000's)

Contribution/Other	**6,458**	1,704	2,820	**1,476**	0	486	367	0	0	623	458

D. Description & Justification

DESCRIPTION

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.

JUSTIFICATION

Hydraulic Planning Analysis (August 2013).

COST CHANGE

The increase in cost is the result of a more definitive construction cost estimate from the developer's engineer.

OTHER

The project scope has remained the same. The expenditure and schedule projections shown in Block B 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 rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Prince George's County Government;
Coordinating Projects: W-93.01-Konterra Town Center East Water Main;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$192	17
Other Project Costs		
Debt Service		
Total Cost	$192	17
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

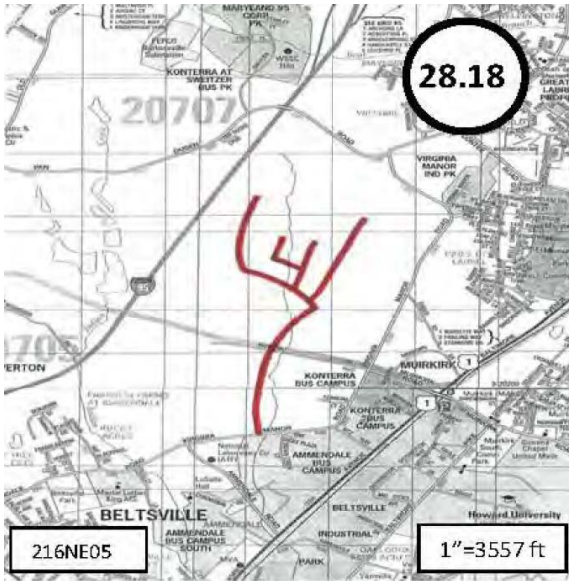
Date First in Program	FY 09
Date First Approved	FY 09
Intial Cost Estimate	833
Cost Estimate Last FY	4,237
Present Cost Estimate	6,458
Approved Request Last FY	259
Total Expense & Encumbrances	1,704
Approval Request Year 1	0

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	69%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	11,300
Capacity	7.95 MGD

H. Map



Broad Creek WWPS Augmentation

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-43.02		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Broad Creek 11;
Planning Areas	South Potomac Sector PA 80;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**19,366**	12,601	2,500	**4,265**	2,300	1,315	450	200			
Land	**227**	227									
Site Improvements & Utilities											
Construction	**150,233**	34,438	56,650	**59,145**	31,200	18,000	9,700	245			
Other	**6,129**		2,958	**3,171**	1,675	966	508	22			
Total	**175,955**	**47,266**	**62,108**	**66,581**	**35,175**	**20,281**	**10,658**	**467**			

C. Funding Schedule (000's)

WSSC Bonds	**29,912**	8,035	10,558	**11,319**	5,980	3,448	1,812	79			
SDC	**146,043**	39,231	51,550	**55,262**	29,195	16,833	8,846	388			

D. Description & Justification

DESCRIPTION

This project provides for modifications to the Broad Creek Wastewater Pumping Station and Force Main system for conveying Broad Creek sewerage basin flows to the Piscataway Wastewater Treatment Plant. The Broad Creek WWPS Facility Plan included assessments of engineering, economic, environmental and local community impacts, and recommended the construction of a 48-inch diameter force main and capacity enhancing modifications at the pumping station. At the Piscataway WWTP a concrete storage facility will be constructed in the upper existing polishing pond allowing intermittent storage of excess sewage until flows at the plant allow treatment. Implementation of this alternative was approved by the Environmental Protection Agency and the Maryland Department of the Environment (MDE). Construction costs shown above also provide for an emergency generator in the event of power outages. The emergency generators have been installed.

JUSTIFICATION

This project stems from the following litigation: Section V (Remedial Measures), Article 10, Section B.8 (Pump Stations - Broad Creek), Sanitary Sewer Overflows (SSO) Consent Order Decree (Civil Action PJM-04-3679), Judge Messite, December 7, 2005.

The following plans/studies have been completed: Broad Creek Flow Monitoring and I/I Analysis (1996); Broad Creek SSES (1996 to 1999); Broad Creek I/I Analysis and SSES Phase II (2001 to 2005); Broad Creek Facility Plan, Delon Hampton & Associates, Inc. (January 2007); FY2012 Broad Creek WWPS Asset Management Plan, GHD, Inc. (March 2011).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The expenditures and schedule projections shown in Block B reflect the latest available estimates. The WSSC has compressed the design schedule and will be implementing multiple contracts for construction in order to expedite the completion of the construction phase. Difficulties in obtaining easements from the National Park Service continue to delay the project completion date.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Prince George's County Government; Maryland-National Capital Park & Planning Commission; National Park Service; Maryland Department of the Environment; Maryland Department of Natural Resources; Prince George's County Department of Environmental Resources; U.S. Army Corps of Engineers; U.S. Environmental Protection Agency, Region III;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$384	21
Other Project Costs		
Debt Service	$2,058	21
Total Cost	$2,442	21
Impact on Water and Sewer Rate	$0.05	21

F. Approval and Expenditure Data (000's)

Date First in Program	FY 09
Date First Approved	FY 09
Intial Cost Estimate	80,850
Cost Estimate Last FY	175,400
Present Cost Estimate	175,955
Approved Request Last FY	61,215
Total Expense & Encumbrances	47,266
Approval Request Year 1	35,175

G. Status Information

Land Status	R/W acquired
Project Phase	Construction
Percent Complete	23%
Est Completion Date	FY 2020

Growth	83%
System Improvement	17%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Western Branch Facility Upgrade

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-57.92		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Western Branch 14;
Planning Areas	Upper Marlboro & Vicinity PA 79;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**12,569**	11,933	625	**11**	11						
Land											
Site Improvements & Utilities											
Construction	**34,913**	34,462	440	**11**	11						
Other	**109**		107	**2**	2						
Total	**47,591**	**46,395**	**1,172**	**24**	**24**						

C. Funding Schedule (000's)

WSSC Bonds	**47,591**	46,395	1,172	**24**	24						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of improvements at the Western Branch WWTP required to rehabilitate aging systems and to continue to meet all the terms of its NPDES discharge permit. Improvements include sludge thickener for waste activation, biosolids stabilization and storage facilities, a new scum removal system, raw sewage pump station upgrades, additional grit chambers, air blower replacements, HVAC, and electrical upgrades.

JUSTIFICATION

The plant was originally designed in the 1970s. It is the only WSSC WWTP that does not utilize Biological Nitrogen Removal (BNR); instead, relying on the addition of methanol for nitrogen removal.

Western Branch Facility Plan, Johnson, Mirmiran & Thompson (May 2005); ESP Project Number S-647.38, Western Branch WWTP Facility Plan; Western Branch Enhanced Nutrient Removal and Facility Upgrade Project - Evaluation Phase, Metcalf and Eddy (August 2007).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The schedule and expenditures projections shown in Block B are based upon the Contractor's Schedule . FY 17 cost projections are included as a placeholder for site restoration costs. The MDE construction permit was obtained in March 2011. The NTP was issued on October 31, 2011. This project is financed through a low interest loan from the MDE's Water Quality Administration State Revolving Loan Program.

COORDINATION

Coordinating Agencies: Prince George's County Government; Maryland Department of the Environment; Prince George's County Department of Environmental Resources;

Coordinating Projects: S-57.93-Western Branch WWTP Enhanced Nutrient Removal;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$3,275	18
Total Cost	$3,275	18
Impact on Water and Sewer Rate	$0.07	18

F. Approval and Expenditure Data (000's)

Date First in Program	FY 06
Date First Approved	FY 06
Intial Cost Estimate	6,325
Cost Estimate Last FY	46,418
Present Cost Estimate	47,591
Approved Request Last FY	50
Total Expense & Encumbrances	46,395
Approval Request Year 1	24

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	95%
Est Completion Date	FY 2017

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	30.6 MGD

H. Map

MAP NOT AVAILABLE

Western Branch WWTP Enhanced Nutrient Removal

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-57.93		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Western Branch 14;
Planning Areas	Upper Marlboro & Vicinity PA 79;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**11,147**	10,583	555	**9**	9						
Land											
Site Improvements & Utilities											
Construction	**30,961**	30,562	390	**9**	9						
Other	**97**		95	**2**	2						
Total	**42,205**	**41,145**	**1,040**	**20**	**20**						

C. Funding Schedule (000's)

State Aid	**42,205**	41,145	1,040	**20**	20						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of improvements at the Western Branch WWTP necessary to meet the requirements of the Maryland Department of the Environment (MDE) Enhanced Nutrient Removal (ENR) Program at 30 MGD. The ENR design continues the operation of the existing 3 sludge systems with upgrades. The upgrades include the addition of a Return Activated Sludge pumping station, ENR monitoring and control enhancements, ENR associated electrical upgrades, and waste activated sludge improvements.

JUSTIFICATION

The Bay Restoration Fund Enhanced Nutrient Removal (ENR) Program's purpose is to meet the commitments under the 2000 Chesapeake Bay Agreement. Reduction of nutrient pollutants from all sources, including sewage treatment plants, is necessary. The ENR strategy builds on the success of the Biological Nutrient Removal (BNR) Program already in place. The MDE is using the Bay Restoration Fund to upgrade the 66 major wastewater treatment plants which discharge into the Chesapeake Bay with ENR technologies. Once upgraded, these plants are expected to reduce nitrogen and phosphorus in the wastewater down to 3 mg/l total nitrogen and 0.3 mg/l total phosphorus, achieving approximately one-third of the needed reduction under the Chesapeake Bay 2000 Agreement. Other pollutants will continue to be reduced by more than 90%.

Western Branch Enhanced Nutrient Removal Evaluation, Johnson, Mirmiran & Thompson (May 2005); Western Branch Enhanced Nutrient Removal and Facility Upgrade Project - Evaluation Phase, Metcalf and Eddy (August 2007); Maryland Department of the Environment Eligibility Determination Letter (September 29, 2011).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The expenditure and schedule projections shown in Block B are based upon the Contractor's Schedule. The funding schedule reflects the final cost sharing agreement with MDE. The permit application process began in May 2009. The MDE construction permit was obtained in March 2011. WSSC and MDE have negotiated a consent agreement for this project. The consent agreement date for the ENR substantial completion is January 1, 2016 and effluent discharge compliance by January 1, 2017.

COORDINATION

Coordinating Agencies: Maryland Department of the Environment; Prince George's County Department of Environmental Resources; Local, State and Congressional Officials; Patuxent River Commission;
Coordinating Projects: S-57.92-Western Branch Facility Upgrade;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY 07
Date First Approved	FY 07
Intial Cost Estimate	70,950
Cost Estimate Last FY	41,057
Present Cost Estimate	42,205
Approved Request Last FY	50
Total Expense & Encumbrances	41,145
Approval Request Year 1	20

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	95%
Est Completion Date	FY 2017

Growth	
System Improvement	
Environmental Regulation	100%
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Western Branch WWTP Incinerator Emissions Control

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-57.94		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Western Branch 14;
Planning Areas	

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**3,673**	2,173	200	**1,300**	820	470	10				
Land											
Site Improvements & Utilities											
Construction	**17,117**		2,330	**14,787**	9,325	5,440	22				
Other	**1,862**		253	**1,609**	1,015	591	3				
Total	**22,652**	**2,173**	**2,783**	**17,696**	**11,160**	**6,501**	**35**				

C. Funding Schedule (000's)

WSSC Bonds	**22,652**	2,173	2,783	**17,696**	11,160	6,501	35				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of the modifications required for the Western Branch WWTP incinerators to meet the US EPA Final Rule for compliance of existing and new sewage biosolids incinerators, which classified sewage biosolids as "solid waste" under the Clean Air Act, Section 129 regulations for solid waste incineration. The required emissions control equipment could include a Wet Electro-static Precipitator and a Regenerative Thermal Oxidizer.

JUSTIFICATION

The Western Branch WWTP produces approximately 30 dry tons per day of biosolids. The biosolids are thickened, dewatered and incinerated onsite. The existing biosolids facilities include five dissolved air flotation thickeners, two thickened biosolids storage tanks, three decant tanks, two high speed centrifuges, and two multiple hearth incinerators. The Final Rule sets limits for nine pollutants under Section 129 and they include Cadmium, Carbon Monoxide, Hydrogen Chloride, Lead, Mercury, Nitrogen-Oxides, Particulate Matter, Sulfur Dioxide, Polychlorinated dibenzo-p-dioxins, and Polychlorinated dibenzofurans. The limits for incineration vary depending upon whether the incinerator is categorized as "New" or "Existing". The determination is based on the amount of money (as a % of the original cost) spent on upgrading or repairing the facilities. The incinerators are currently out of service and sludge hauling will continue until this upgrade is complete.

Western Branch Incinerator Emissions Control Project - Phase 1 Final Technical Memorandum, HDR Engineering, Inc., (July 2013).

COST CHANGE

Cost increase is the result of a more definitive construction cost estimate.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above are preliminary design level estimates and are expected to change based on site specific conditions and design constraints. Final emission permit requirements are pending from the EPA and administered by MDE. The expenditure rate in block B above assumes the issuance of an MDE construction permit in June 2015.

COORDINATION

Coordinating Agencies: Maryland Department of the Environment; Prince George's County Department of Environmental Resources; Prince George's County Government; U.S. Environmental Protection Agency, Region III;

Coordinating Projects: A-103.00-Energy Performance Program;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$1,559	20
Total Cost	$1,559	20
Impact on Water and Sewer Rate	$0.03	20

F. Approval and Expenditure Data (000's)

Date First in Program	FY 14
Date First Approved	FY 14
Intial Cost Estimate	19,457
Cost Estimate Last FY	19,856
Present Cost Estimate	22,652
Approved Request Last FY	9,031
Total Expense & Encumbrances	2,173
Approval Request Year 1	11,160

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	95%
Est Completion Date	FY 2018

Growth	
System Improvement	
Environmental Regulation	100%
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Landover Mall Redevelopment

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-68.01		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	Prince George's Main HG320A;
Drainage Basins	Beaverdam Branch 3;
Planning Areas	Prince George's County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**219**	24	33	**162**	77	43	12	10	10	10	
Land											
Site Improvements & Utilities											
Construction	**864**		50	**814**	463	251	25	25	25	25	
Other	**158**		12	**146**	81	44	6	5	5	5	
Total	**1,241**	**24**	**95**	**1,122**	**621**	**338**	**43**	**40**	**40**	**40**	

C. Funding Schedule (000's)

Contribution/Other	**1,241**	24	95	**1,122**	621	338	43	40	40	40	

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.

JUSTIFICATION

Hydraulic Planning Analysis (May 2009).

COST CHANGE

Not applicable.

OTHER

The project scope remains the same. The expenditures and schedule projections shown in Block B are based on information provided by the developer. Estimated completion date is developer dependent. No WSSC 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		
Maintenance	$61	23
Other Project Costs		
Debt Service		
Total Cost	$61	23
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

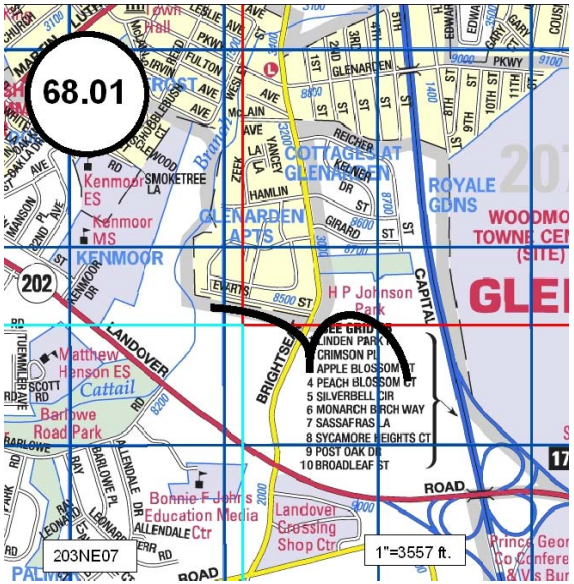
Date First in Program	FY 11
Date First Approved	FY 11
Intial Cost Estimate	1,108
Cost Estimate Last FY	1,241
Present Cost Estimate	1,241
Approved Request Last FY	622
Total Expense & Encumbrances	24
Approval Request Year 1	621

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	20%
Est Completion Date	Developer Dependent

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

H. Map



Brandywine Woods Wastewater Pumping Station

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-75.19		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Mattawoman 21;
Planning Areas	Cedarville & Vicinity PA 85B;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**54**	6	25	**23**	12	11					
Land											
Site Improvements & Utilities											
Construction	**210**		124	**86**	43	43					
Other	**38**		22	**16**	8	8					
Total	**302**	**6**	**171**	**125**	**63**	**62**					

C. Funding Schedule (000's)

Contribution/Other	**302**	6	171	**125**	63	62					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of a new wastewater pumping station to provide service to the Brandywine Woods Property.

JUSTIFICATION

Hydraulic Planning Analysis (March 2006).

COST CHANGE

Not applicable.

OTHER

The project scope remains the same. The expenditures and schedule projections shown in Block B are based on information provided by the developer. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Prince George's County Department of Public Works and Transportation; Prince George's County Government;
Coordinating Projects: S-75.20-Brandywine Woods WWPS Force Main;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY 08
Date First Approved	FY 08
Intial Cost Estimate	247
Cost Estimate Last FY	302
Present Cost Estimate	302
Approved Request Last FY	63
Total Expense & Encumbrances	6
Approval Request Year 1	63

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	100%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	490
Capacity	0.28 MGD

H. Map

Brandywine Woods WWPS Force Main

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-75.20		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Mattawoman 21;
Planning Areas	Cedarville & Vicinity PA 85B;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**27**	12	7	**8**	5	3					
Land											
Site Improvements & Utilities											
Construction	**76**		23	**53**	27	26					
Other	**14**		5	**9**	5	4					
Total	**117**	**12**	**35**	**70**	**37**	**33**					

C. Funding Schedule (000's)

Contribution/Other	**117**	12	35	**70**	37	33					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of 1,600 feet of 4-inch diameter force main from the Brandywine Woods Wastewater Pumping Station to provide service to the Brandywine Woods Property.

JUSTIFICATION

Hydraulic Planning Analysis (March 2006).

COST CHANGE

Not applicable.

OTHER

The project scope remains the same. The expenditures and schedule projections shown in Block B are based on information provided by the developer. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Prince George's County Department of Public Works and Transportation; Prince George's County Government;
Coordinating Projects: S-75.19-Brandywine Woods Wastewater Pumping Station;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$23	19
Other Project Costs		
Debt Service		
Total Cost	$23	19
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

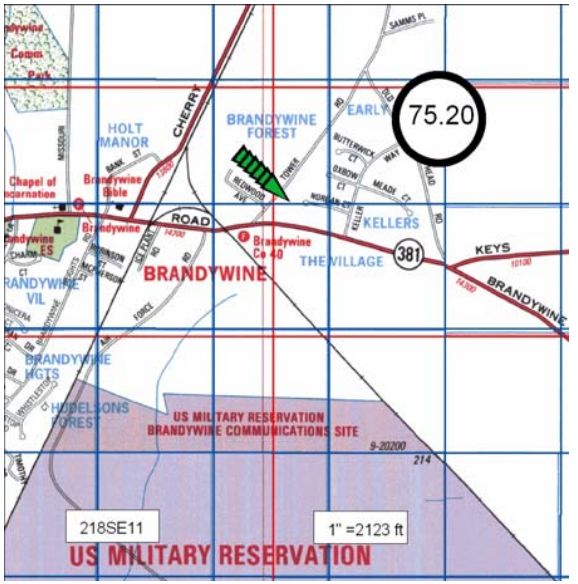
Date First in Program	FY 08
Date First Approved	FY 08
Intial Cost Estimate	100
Cost Estimate Last FY	117
Present Cost Estimate	117
Approved Request Last FY	37
Total Expense & Encumbrances	12
Approval Request Year 1	37

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	100%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	490
Capacity	0.28MGD

H. Map



Mattawoman WWTP Upgrades

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-75.21		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Mattawoman 21;
Planning Areas	Piscataway & Vicinity PA 84; Cedarville &

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision											
Land											
Site Improvements & Utilities											
Construction	**14,323**	5,185	793	**7,765**	3,305	2,420	1,022	1,018			580
Other											
Total	**14,323**	**5,185**	**793**	**7,765**	**3,305**	**2,420**	**1,022**	**1,018**			**580**
C. Funding Schedule (000's)											
WSSC Bonds	**14,323**	5,185	793	**7,765**	3,305	2,420	1,022	1,018			580

D. Description & Justification

DESCRIPTION

This project provides for the WSSC's share of the evaluation, design, and construction of capital projects to upgrade Charles County's Mattawoman Interceptor and Wastewater Treatment Plant. Current projects include: Influent/Effluent Pump Station Upgrades, Plant Automation, Electrical System Replacement, Sewer I/I Project, Laboratory Renovation, In-Plant Water System Evaluation and Improvement, Biosolids Feasibility Study, Flow Equalization Study, Clarifier and Thickener Upgrades, Belt Filter Press Replacement, and Effluent PS Force Main Improvements.

JUSTIFICATION

Prior evaluations of equipment and structural facilities concluded the need existed for various upgrade 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. The I/I Project is justified by high wet weather flows. The Biosolids Study is to investigate the production of Class A biosolids.

Agreement dated October 22, 1980; Agreement Addendum No. 1 dated April 15, 2004.

COST CHANGE

The expenditure schedule reflects the latest information provided by Charles County. The spending plans have been modified as a result of changed priorities. Two projects have also been added: Belt Filter Press Replacement and Effluent PS Force Main Improvements.

OTHER

The project scope has remained the same. Under the terms of the 1980 Agreement with Charles County, the WSSC 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 2007, the total plant capacity increased to 20 MGD, and WSSC's proportionate cost share decreased to 15% under the terms of Agreement Addendum No.1. This project is expected to continue indefinitely.

COORDINATION

Coordinating Agencies: Charles County Government; (Depts of Utilities, Planning & Growth Management, and Fiscal Services)

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$985	21
Total Cost	$985	21
Impact on Water and Sewer Rate	$0.02	21

F. Approval and Expenditure Data (000's)

Date First in Program	FY 08
Date First Approved	FY 08
Intial Cost Estimate	760
Cost Estimate Last FY	12,280
Present Cost Estimate	14,323
Approved Request Last FY	2,162
Total Expense & Encumbrances	5,185
Approval Request Year 1	3,305

G. Status Information

Land Status	Not Applicable
Project Phase	On-Going
Percent Complete	
Est Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	3 MGD for WSSC in Total Plant Capacity of 20 MGD

H. Map

MAP NOT AVAILABLE

Parkway WWTP Biosolids Facility Plan Implementation

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-77.19		Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**5,448**	4,868	480	**100**	100						
Land											
Site Improvements & Utilities											
Construction	**25,207**	21,107	4,000	**100**	100						
Other	**468**		448	**20**	20						
Total	**31,123**	**25,975**	**4,928**	**220**	**220**						

C. Funding Schedule (000's)

WSSC Bonds	**31,123**	25,975	4,928	**220**	220						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of new solids handling facilities and equipment for the Parkway WWTP.

JUSTIFICATION

Prior to construction, the facility utilized centrifuges to dewater approximately 1,500 wet tons of solids/month. The centrifuges were installed in two parallel configurations which could not be operated simultaneously. One side consisted of three 35-year-old centrifuges and supporting equipment, such as plow blenders and belt conveyors. The other side consisted of one centrifuge, lime screw conveyors, a pugmill, lime stabilized conveyors, and a lime stabilized sludge storage silo. The facility plan evaluated the solids handling capabilities of the Parkway WWTP and recommended the replacement of the aging facility and equipment.

Memorandum from the Production Team dated April 27, 2007; WSSC Parkway WWTP Biosolids Facility Plan, Volumes I & II, CH2M Hill, Inc. (October 2009).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown above are based upon actual bid.

COORDINATION

Coordinating Agencies: Prince George's County Government; Maryland Department of the Environment; Prince George's County Department of Environmental Resources;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$2,141	18
Total Cost	$2,141	18
Impact on Water and Sewer Rate	$0.05	18

F. Approval and Expenditure Data (000's)

Date First in Program	FY 09
Date First Approved	FY 09
Intial Cost Estimate	288
Cost Estimate Last FY	31,997
Present Cost Estimate	31,123
Approved Request Last FY	5,429
Total Expense & Encumbrances	25,975
Approval Request Year 1	220

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	80%
Est Completion Date	FY 2017

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	7.5 MGD

H. Map

MAP NOT AVAILABLE

Karington Subdivision Sewer

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-86.19		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Western Branch 14;
Planning Areas	Mitchellville & Vicinity PA 74A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**161**	96	20	**45**	30	15					
Land											
Site Improvements & Utilities											
Construction	**470**		63	**407**	204	203					
Other	**80**		12	**68**	35	33					
Total	**711**	**96**	**95**	**520**	**269**	**251**					

C. Funding Schedule (000's)

Contribution/Other	**711**	96	95	**520**	269	251					

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 Karington Subdivision.

JUSTIFICATION

Karington Hydraulic Planning Analysis (May 2006).

COST CHANGE

Not applicable.

OTHER

The project scope remains the same. The expenditures and schedule projections shown in Block B are based on information provided by the developer. The estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

COORDINATION

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

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$14	19
Other Project Costs		
Debt Service		
Total Cost	$14	19
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

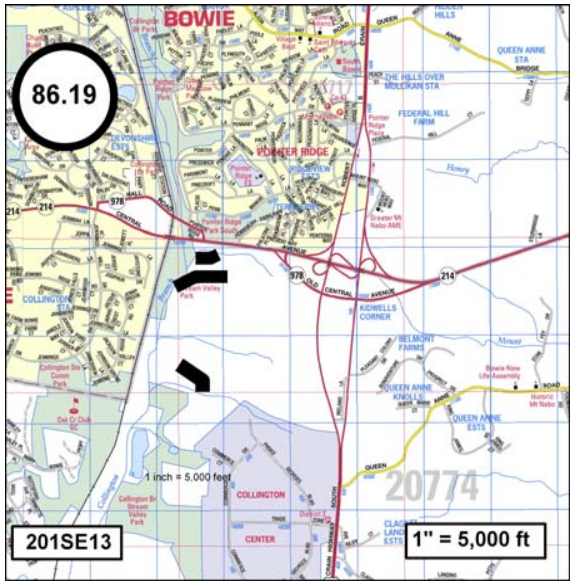
Date First in Program	FY 08
Date First Approved	FY 08
Intial Cost Estimate	801
Cost Estimate Last FY	711
Present Cost Estimate	711
Approved Request Last FY	269
Total Expense & Encumbrances	96
Approval Request Year 1	269

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	100%
Est Completion Date	Developer Dependent

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

H. Map



Rodenhauser Wastewater Pumping Station

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-87.15		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Western Branch 14;
Planning Areas	Mitchelville & Vicinity PA 74A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**178**	97	72	**9**	7	2					
Land											
Site Improvements & Utilities											
Construction	**878**		845	**33**	22	11					
Other	**144**		138	**6**	4	2					
Total	**1,200**	**97**	**1,055**	**48**	**33**	**15**					

C. Funding Schedule (000's)

Contribution/Other	**1,200**	97	1,055	**48**	33	15					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a new wastewater pumping station to provide service to the Rodenhauser Property.

JUSTIFICATION

Rodenhauser Property Hydraulic Planning Analysis (February 2005).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The expenditure and schedule projections shown in Block B are based upon information provided by the developer. Design and construction will be performed by the developer under a Memorandum of Understanding. The estimated completion date is developer dependent. No WSSC 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 Government;
Coordinating Projects: S-87.16-Rodenhauser WWPS Force Main;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

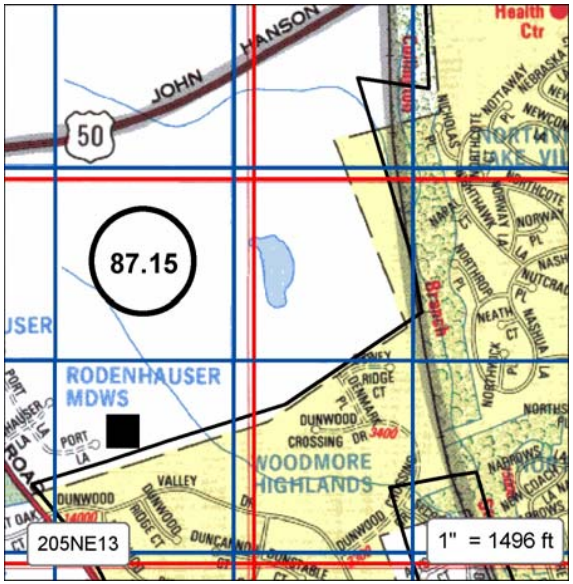
Date First in Program	FY 07
Date First Approved	FY 07
Intial Cost Estimate	448
Cost Estimate Last FY	1,200
Present Cost Estimate	1,200
Approved Request Last FY	33
Total Expense & Encumbrances	97
Approval Request Year 1	33

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	10%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	200
Capacity	0.15 MGD

H. Map



Rodenhauser WWPS Force Main

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
S-87.16		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Western Branch 14;
Planning Areas	Mitchelville & Vicinity PA 74A;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**92**	90	1	**1**	1						
Land											
Site Improvements & Utilities											
Construction	**163**		150	**13**	13						
Other	**25**		23	**2**	2						
Total	**280**	**90**	**174**	**16**	**16**						

C. Funding Schedule (000's)

Contribution/Other	**280**	90	174	**16**	16						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of 2,000 feet of 4-inch diameter force main from the Rodenhauser Wastewater Pumping Station to provide service to the Rodenhauser Property.

JUSTIFICATION

Rodenhauser Property Hydraulic Planning Analysis (September 2007).

COST CHANGE

The estimated cost has increased based on information provided by the developer.

OTHER

The project scope has remained the same. The expenditure and schedule projections shown in Block B 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 rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Prince George's County Government;
Coordinating Projects: S-87.15-Rodenhauser Wastewater Pumping Station;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$29	18
Other Project Costs		
Debt Service		
Total Cost	$29	18
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

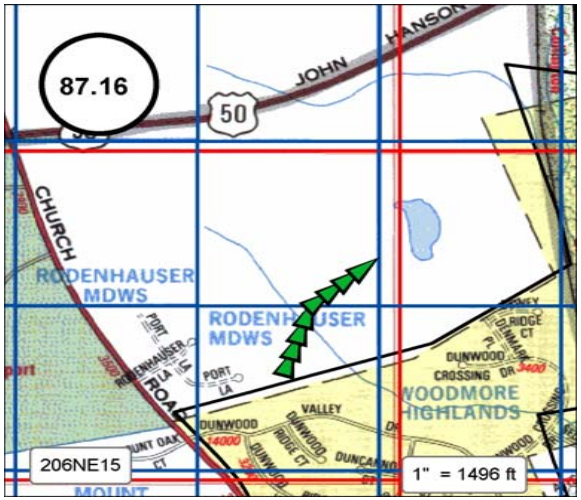
Date First in Program	FY 07
Date First Approved	FY 07
Intial Cost Estimate	89
Cost Estimate Last FY	164
Present Cost Estimate	280
Approved Request Last FY	29
Total Expense & Encumbrances	90
Approval Request Year 1	16

G. Status Information

Land Status	R/W acquired
Project Phase	Construction
Percent Complete	10%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	200
Capacity	0.15 MGD

H. Map



Piscataway WWTP Facility Upgrades

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-96.14		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Piscataway Creek 4;
Planning Areas	Accokeek PA 83;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**19,885**	4,195	2,717	**12,855**	2,746	3,571	3,924	1,423	1,066	125	118
Land											
Site Improvements & Utilities											
Construction	**79,510**			**78,325**	3,568	28,808	21,694	13,260	9,670	1,325	1,185
Other	**4,761**		136	**4,560**	316	1,619	1,281	734	537	73	65
Total	**104,156**	**4,195**	**2,853**	**95,740**	**6,630**	**33,998**	**26,899**	**15,417**	**11,273**	**1,523**	**1,368**

C. Funding Schedule (000's)

WSSC Bonds	**104,156**	4,195	2,853	**95,740**	6,630	33,998	26,899	15,417	11,273	1,523	1,368

D. Description & Justification

DESCRIPTION

This project provides for a Facility Plan and design and construction of the upgrades 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.

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's Asset Management Strategy guidelines, based on life cycle costs, business risk exposure, and needs prioritization.

FY 2012 Piscataway WWTP Asset Management Plan, GHD, Inc. (March 2011); Piscataway WWTP Facility Plan, AECOM (January 2014).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B represent planning level estimates and may change based upon site conditions and design constraints. The Asset Management Group will determine the priority of the recommended projects.

COORDINATION

Coordinating Agencies: Prince George's County Government; Maryland Department of the Environment; Prince George's County Department of Environmental Resources;

Coordinating Projects: S-43.02-Broad Creek WWPS Augmentation;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$7,166	
Total Cost	$7,166	
Impact on Water and Sewer Rate	$0.16	

F. Approval and Expenditure Data (000's)

Date First in Program	FY 12
Date First Approved	FY 12
Intial Cost Estimate	66,396
Cost Estimate Last FY	103,836
Present Cost Estimate	104,156
Approved Request Last FY	1,971
Total Expense & Encumbrances	4,195
Approval Request Year 1	6,630

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	5%
Est Completion Date	FY 2023

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	30 MGD

H. Map

MAP NOT AVAILABLE

Pleasant Valley Sewer Main, Part 2

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-131.05		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Piscataway Creek 4;
Planning Areas	Piscataway & Vicinity PA 84;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**153**	30	56	**67**	50	10	7				
Land											
Site Improvements & Utilities											
Construction	**568**		109	**459**	276	126	57				
Other	**104**		25	**79**	49	20	10				
Total	**825**	**30**	**190**	**605**	**375**	**156**	**74**				

C. Funding Schedule (000's)

Contribution/Other	**825**	30	190	**605**	375	156	74				

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.

JUSTIFICATION

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

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Prince George's County Government; Maryland-National Capital Park & Planning Commission; Maryland Department of the Environment; Prince George's County Department of Permitting Inspection and Enforcement;
Coordinating Projects: S-131.07-Pleasant Valley Sewer Main, Part 1;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$39	20
Other Project Costs		
Debt Service		
Total Cost	$39	20
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

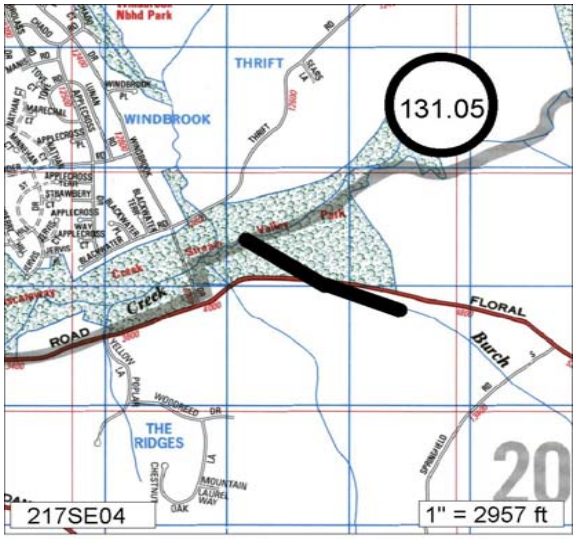
Date First in Program	FY 05
Date First Approved	FY 05
Intial Cost Estimate	586
Cost Estimate Last FY	825
Present Cost Estimate	825
Approved Request Last FY	375
Total Expense & Encumbrances	30
Approval Request Year 1	375

G. Status Information

Land Status	R/W acquired
Project Phase	Design
Percent Complete	60%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	2000
Capacity	3.5 MGD

H. Map



Pleasant Valley Sewer Main, Part 1

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-131.07		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Piscataway Creek 4;
Planning Areas	Accokeek PA 83;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**319**	47	150	**122**	102	20					
Land											
Site Improvements & Utilities											
Construction	**1,099**		238	**861**	701	160					
Other	**205**		58	**147**	120	27					
Total	**1,623**	**47**	**446**	**1,130**	**923**	**207**					

C. Funding Schedule (000's)

Contribution/Other	**1,623**	47	446	**1,130**	923	207					

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.

JUSTIFICATION

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

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

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

Coordinating Projects: S-131.05-Pleasant Valley Sewer Main, Part 2;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$143	19
Other Project Costs		
Debt Service		
Total Cost	$143	19
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

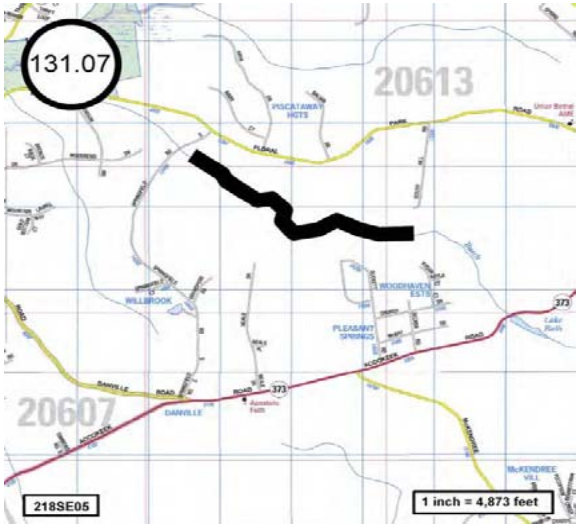
Date First in Program	FY 10
Date First Approved	FY 10
Intial Cost Estimate	1,303
Cost Estimate Last FY	1,623
Present Cost Estimate	1,623
Approved Request Last FY	923
Total Expense & Encumbrances	47
Approval Request Year 1	923

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Design
Percent Complete	80%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	2,800
Capacity	1.7 to 2.2 MGD

H. Map



Preserves of Piscataway Wastewater Pumping Station

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-131.08		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Piscataway Creek 4;
Planning Areas	Piscataway & Vicinity PA 84;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**95**	4	4	**87**	80	2	5				
Land											
Site Improvements & Utilities											
Construction	**394**		13	**381**	119	194	68				
Other	**73**		3	**70**	30	29	11				
Total	**562**	**4**	**20**	**538**	**229**	**225**	**84**				

C. Funding Schedule (000's)

Contribution/Other	**562**	4	20	**538**	229	225	84				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a new 0.12 MGD wastewater pumping station to serve the Preserves of Piscataway Subdivision.

JUSTIFICATION

Preserves of Piscataway Subdivision Hydraulic Planning Analysis (December 2014).

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Prince George's County Government; Prince George's County Department of Environmental Resources; Local Community Civic Associations;

Coordinating Projects: S-131.09-Preserves of Piscataway WWPS Force Main;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

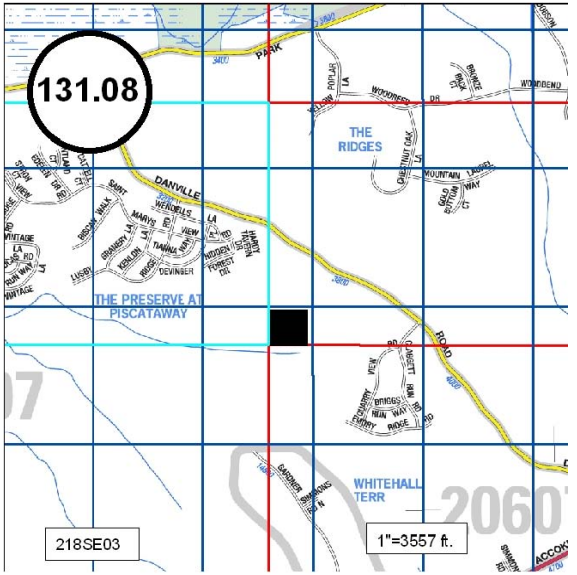
Date First in Program	FY 11
Date First Approved	FY 11
Intial Cost Estimate	500
Cost Estimate Last FY	562
Present Cost Estimate	562
Approved Request Last FY	229
Total Expense & Encumbrances	4
Approval Request Year 1	229

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	0%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	220
Capacity	0.12 MGD

H. Map



Preserves of Piscataway WWPS Force Main

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-131.09		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Piscataway Creek 4;
Planning Areas	Piscataway & Vicinity PA 84;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**15**	4	2	**9**	6	3					
Land											
Site Improvements & Utilities											
Construction	**60**		1	**59**	7	52					
Other	**10**			**10**	2	8					
Total	**85**	**4**	**3**	**78**	**15**	**63**					

C. Funding Schedule (000's)

Contribution/Other	**85**	4	3	**78**	15	63					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of approximately 700 feet of 4-inch diameter force main to serve the Preserves of Piscataway Subdivision.

JUSTIFICATION

Preserves of Piscataway Hydraulic Planning Analysis (December 2014).

COST CHANGE

Not applicable.

OTHER

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

COORDINATION

Coordinating Agencies: Prince George's County Government; Prince George's County Department of Environmental Resources; Local Community Civic Associations;

Coordinating Projects: S-131.08-Preserves of Piscataway Wastewater Pumping Station;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$10	19
Other Project Costs		
Debt Service		
Total Cost	$10	19
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

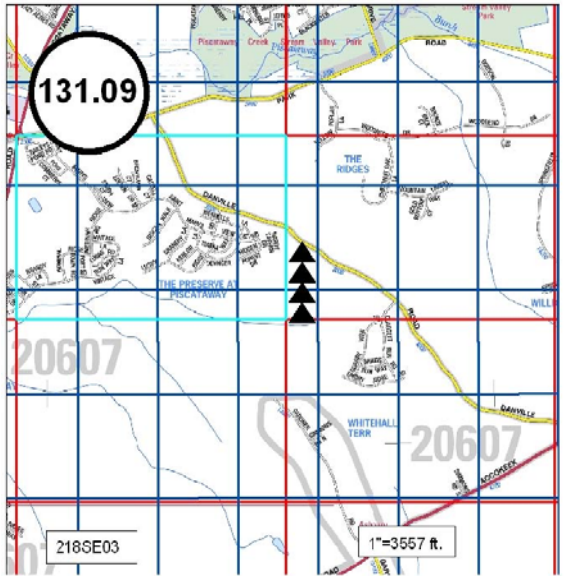
Date First in Program	FY 11
Date First Approved	FY 11
Intial Cost Estimate	77
Cost Estimate Last FY	85
Present Cost Estimate	85
Approved Request Last FY	15
Total Expense & Encumbrances	4
Approval Request Year 1	15

G. Status Information

Land Status	Not Applicable
Project Phase	Design
Percent Complete	0%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	220
Capacity	0.12 MGD

H. Map



Fort Washington Forest No. 1 WWPS Augmentation

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-131.10		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Piscataway Creek 4;
Planning Areas	Piscataway & Vicinity PA 84;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**1,257**	743	185	**329**	233	86	10				
Land											
Site Improvements & Utilities											
Construction	**2,865**	365	922	**1,578**	1,112	426	40				
Other	**453**		166	**287**	202	77	8				
Total	**4,575**	**1,108**	**1,273**	**2,194**	**1,547**	**589**	**58**				

C. Funding Schedule (000's)

WSSC Bonds	**4,575**	1,108	1,273	**2,194**	1,547	589	58				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of the rehabilitation work required for the Fort Washington Forest No.1 WWPS to upsize a 900 foot segment of failing 4-inch diameter force main to an 8-inch diameter force main. The rehabilitation will more than double the pumping station's capacity. In addition, approximately 2,700 feet of downstream 8-inch diameter gravity sewer will be upsized to 12-inch diameter to accommodate the additional flow. At the Fort Washington Estates WWPS facility, improvements will be planned, designed and constructed to improve its reliability and the existing force main and downstream gravity sewer will be upsized to accommodate the additional flow.

JUSTIFICATION

There have been additional overflows at both pumping stations since the original 2005 study. On January 22, 2013, the EPA approved a 180-Day Report, making Fort Washington Forest No. 1 part of the Consent Decree. On January 28, 2015, the 180-Day Report and Schedule for Corrective Measures at Fort Washington Estates WWPS was submitted to MDE and EPA for approval.

July 2005 Study by Ken Dixon, Planning Group, outlined work to be done on the Fort Washington Forest No. 1 WWPS and Fort Washington Estates WWPS.

COST CHANGE

The cost increase is based on an updated engineer's estimate for Fort Washington Estates WWPS. The increase also includes additional design costs and adding a consultant to the contract management for Fort Washington Forest No.1 WWPS.

OTHER

The project scope has remained the same. The expenditure and schedule projections shown above are design level estimates and may change based upon site conditions and actual bid. Planning began in March 2014 for the Fort Washington Estates WWPS with construction to start in FY 2016. Land costs are included in WSSC project S-203.00.

COORDINATION

Coordinating Agencies: Prince George's County Government; Maryland-National Capital Park & Planning Commission; Prince George's County Department of Environmental Resources; U.S. Environmental Protection Agency, Region III; Maryland Department of the Environment;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$104	20
Other Project Costs		
Debt Service	$315	20
Total Cost	$419	20
Impact on Water and Sewer Rate	$0.01	20

F. Approval and Expenditure Data (000's)

Date First in Program	FY 13
Date First Approved	FY 13
Intial Cost Estimate	1,454
Cost Estimate Last FY	3,955
Present Cost Estimate	4,575
Approved Request Last FY	1,518
Total Expense & Encumbrances	1,108
Approval Request Year 1	1,547

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Construction
Percent Complete	40%
Est Completion Date	August 2018

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	825
Capacity	0.7 MGD

H. Map

MAP NOT AVAILABLE

Section 7 - Information Only Projects

DATE: October 1, 2015

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

INFORMATION ONLY PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 15	EST. EXPEND 16	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BEYOND SIX YEARS	PDF PAGE NUM
						YR 1 17	YR 2 18	YR 3 19	YR 4 20	YR 5 21	YR 6 22		
W-1.00	Water Reconstruction Program	713,042	0	101,336	611,706	100,226	102,296	102,296	102,296	102,296	102,296	0	7-3
S-1.01	Sewer Reconstruction Program	350,741	0	38,640	312,101	55,811	49,114	51,794	51,794	51,794	51,794	0	7-4
A-102.00	Engineering Support Program	105,000	0	18,000	87,000	17,000	14,000	14,000	14,000	14,000	14,000	0	7-5
A-103.00	Energy Performance Program	66,435	32,035	6,880	27,190	18,210	8,540	110	110	110	110	330	7-6
A-104.00	Entrepreneurial Projects	45,023	4,114	517	12,338	2,891	1,723	194	3,956	770	2,804	28,054	7-8
A-105.00	Water Storage Facility Rehabilitation Program	35,000	0	5,000	30,000	5,000	5,000	5,000	5,000	5,000	5,000	0	7-9
A-107.00	Specialty Valve Vault Rehabilitation Program	33,147	10,204	9,220	13,723	7,053	1,473	2,297	1,648	1,252	0	0	7-10
A-109.00	Advanced Metering Infrastructure	89,500	875	2,525	86,100	960	13,484	26,360	26,360	18,936	0	0	7-11
A-145.01	Brighton Dam Operations & Maintenance Facility and Site Improvements	6,448	330	167	5,951	1,357	2,588	1,645	361	0	0	0	7-12
S-300.01	D'Arcy Park North Relief Sewer	849	90	245	514	259	255	0	0	0	0	0	7-13
	Projects Pending Close-Out	14,412	12,687	1,725	0	0	0	0	0	0	0	0	7-14
	TOTAL INFORMATION ONLY PROJECTS	1,459,597	60,335	184,255	1,186,623	208,767	198,473	203,696	205,525	194,158	176,004	28,384	

Information Only Projects
New Projects Listing
(costs in thousands)

Agency Number	Project Name	Total Project Cost	Budget Year Cost	Page Number
A-145.01	Brighton Dam Operations & Maintenance Facility and Site Improvements	$6,448	$1,357	7-12
	TOTALS	$6,448	$1,357	

Water Reconstruction Program

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
W-1.00		Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**94,972**		14,097	**80,875**	13,105	13,554	13,554	13,554	13,554	13,554	
Land											
Site Improvements & Utilities											
Construction	**493,094**		69,432	**423,662**	69,432	70,846	70,846	70,846	70,846	70,846	
Other	**124,976**		17,807	**107,169**	17,689	17,896	17,896	17,896	17,896	17,896	
Total	**713,042**		**101,336**	**611,706**	**100,226**	**102,296**	**102,296**	**102,296**	**102,296**	**102,296**	

C. Funding Schedule (000's)

WSSC Bonds	**713,042**		101,336	**611,706**	100,226	102,296	102,296	102,296	102,296	102,296	

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 services, 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.

JUSTIFICATION

The program's projected work units and expenditure levels for FY'17 (including overhead) are as follows: design and construction of main replacement and associated water house connection renewals, 57 miles - $92.3M; cathodic protection - $1.4M; design and construction of large water service replacements - $6.5M. 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. Program level may be adjusted in future years based upon the results of the Asset Management Plan.

Flow studies, water system modeling, and field surveys are routinely conducted. Water Main Condition Assessment, 1915-1998; Analysis and Recommendations by the Water Main Reconstruction Work Group (June, 1999). FY2017 Buried Water Asset Systems Asset Management Plan, (December 2014) identifies the business risk exposure of the water distribution system.

COST CHANGE

Not applicable.

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'14 summarize the magnitude of the reconstruction effort: 1,142 miles rehabilitated, 463 miles replaced, 115 large water service/meters replaced. It is anticipated water reconstruction activity will be a perpetual element of future work programs.

COORDINATION

Coordinating Agencies: 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; Local Community Civic Associations;
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$49,061	23
Total Cost	$49,061	23
Impact on Water and Sewer Rate	$1.04	23

F. Approval and Expenditure Data (000's)

Date First in Program	
Date First Approved	
Intial Cost Estimate	
Cost Estimate Last FY	728,037
Present Cost Estimate	713,042
Approved Request Last FY	101,658
Total Expense & Encumbrances	
Approval Request Year 1	100,226

G. Status Information

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

Growth	
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Sewer Reconstruction Program

A. Identification and Coding Information

Agency Number	Project Number	Update Code
S-1.01		Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**80,925**		9,292	**71,633**	11,914	11,515	12,051	12,051	12,051	12,051	
Land											
Site Improvements & Utilities											
Construction	**234,744**		25,484	**209,260**	38,316	32,688	34,564	34,564	34,564	34,564	
Other	**35,072**		3,864	**31,208**	5,581	4,911	5,179	5,179	5,179	5,179	
Total	**350,741**		**38,640**	**312,101**	**55,811**	**49,114**	**51,794**	**51,794**	**51,794**	**51,794**	

C. Funding Schedule (000's)

WSSC Bonds	**350,741**		38,640	**312,101**	55,811	49,114	51,794	51,794	51,794	51,794	

D. Description & Justification

DESCRIPTION

This program funds a comprehensive sewer system rehabilitation program in residential areas. The main component of this program is the rehabilitation and/or repair of sewer mains less than 15-inches in diameter and sewer house connections. The program addresses infiltration and inflow control, exposed pipe problems, and future capacity needs for the basin. The rehabilitation and repair funded by this program includes the rehabilitation and repair recommended by comprehensive basin studies as well as that resulting from sewer systems evaluations, line blockage assessments, field surveys, and closed circuit TV inspections. This program does not include funding for any major capital projects (e.g. CIP size relief or replacement sewers) that may result from a comprehensive basin study. These are funded separately in the CIP. * EXPENDITURES FOR SEWER RECONSTRUCTION ARE EXPECTED TO CONTINUE INDEFINITELY.

JUSTIFICATION

The work units and associated costs are based on our historical experience with regards to timing of design and construction work and availability of authorized contractors for proprietary rehabilitation techniques. The program's projected work units and expenditure levels for FY'17 (including overhead) are as follows: 17 mile of mainline construction - $25.7M; 6 miles of lateral line construction and associated sewer house connection renewals - $28.1M; emergency repairs - $2M. Note: The specific mix and type of sewer reconstruction may vary in any given year depending on identified system defects.

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. WSSC FY2017 Buried WasteWater Asset Systems Asset Management Plan (December 2014).

COST CHANGE

The overall program cost estimate increased based on the current plan for the completion of Phase 2 (Priority 2 and Priority 3) Consent Decree work.

OTHER

The project scope has remained the same. The program schedule and expenditures shown above reflect the terms of the Sanitary Sewer Overflow Consent Decree. The Consent Decree between WSSC, Maryland Department of the Environment (MDE), and the EPA was entered into on December 7, 2005. The sewer reconstruction program was established in 1979. Expenditures for grouting repairs are included in the operating budget. The following work accomplishments through FY'14 summarize the magnitude of this reconstruction effort: sewer main reconstruction, 373 miles; and sewer house connection renewals, 18,081. It is anticipated that sewer reconstruction activity will be a perpetual element of future work programs.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Montgomery County Department of Public Works and Transportation; Montgomery County Government; (including local municipalities where work is to be performed); Prince George's County Government; (including local municipalities where work is to be performed); Maryland Department of the Environment; (SSO Consent Decree Compliance); Prince George's County Department of Permitting Inspection and Enforcement; U.S. Environmental Protection Agency, Region III; (SSO Consent Decree Compliance); Local Community Civic Associations;

Coordinating Projects: S-170.09-Trunk Sewer Reconstruction Program;

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$24,133	23
Total Cost	$24,133	23
Impact on Water and Sewer Rate	$0.54	23

F. Approval and Expenditure Data (000's)

Date First in Program	
Date First Approved	
Intial Cost Estimate	
Cost Estimate Last FY	308,099
Present Cost Estimate	350,741
Approved Request Last FY	34,784
Total Expense & Encumbrances	
Approval Request Year 1	55,811

G. Status Information

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

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Engineering Support Program

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
A-102.00		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision											
Land											
Site Improvements & Utilities											
Construction	**105,000**		18,000	**87,000**	17,000	14,000	14,000	14,000	14,000	14,000	
Other											
Total	**105,000**		**18,000**	**87,000**	**17,000**	**14,000**	**14,000**	**14,000**	**14,000**	**14,000**	

C. Funding Schedule (000's)

WSSC Bonds	**77,000**		14,000	**63,000**	13,000	10,000	10,000	10,000	10,000	10,000	
Water Operating Funds	**14,000**		2,000	**12,000**	2,000	2,000	2,000	2,000	2,000	2,000	
Sewer Operating Funds	**14,000**		2,000	**12,000**	2,000	2,000	2,000	2,000	2,000	2,000	

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 the WSSC. EXPENDITURES FOR ENGINEERING SUPPORT ARE EXPECTED TO CONTINUE INDEFINITELY.

JUSTIFICATION

ESP projects may be identified in Asset Management Plans or result from direct requests from the Utility Services and Production Teams for engineering support. Support services are in the form of 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 the WSSC Six-Year Capital Improvements Program or projects to serve new development.

Asset Management Implementation Plan, Sterns & Wheler (April 2008).

COST CHANGE

Increased FY'16 - FY'17 costs reflect funding for RGH Building Electrical Upgrade projects.

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		
Maintenance		
Other Project Costs		
Debt Service	$5,298	23
Total Cost	$5,298	23
Impact on Water and Sewer Rate	$0.11	23

F. Approval and Expenditure Data (000's)

Date First in Program	FY 87
Date First Approved	FY 87
Intial Cost Estimate	
Cost Estimate Last FY	108,000
Present Cost Estimate	105,000
Approved Request Last FY	18,000
Total Expense & Encumbrances	
Approval Request Year 1	17,000

G. Status Information

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

Growth	
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Energy Performance Program

A. Identification and Coding Information		
Agency Number	Project Number	Update Code
A-103.00		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**13,235**	6,545	3,360	**3,030**	1,560	1,070	100	100	100	100	300
Land											
Site Improvements & Utilities											
Construction	**50,090**	25,490	2,900	**21,700**	15,000	6,700					
Other	**3,110**		620	**2,460**	1,650	770	10	10	10	10	30
Total	**66,435**	**32,035**	**6,880**	**27,190**	**18,210**	**8,540**	**110**	**110**	**110**	**110**	**330**

C. Funding Schedule (000's)

WSSC Bonds	**63,820**	31,570	6,305	**25,945**	17,635	8,310					
Contribution/Other	**1,665**	465	515	**685**	515	170					
Water Operating Funds	**293**		60	**184**	60	60	16	16	16	16	49
Sewer Operating Funds	**657**			**376**			94	94	94	94	281

D. Description & Justification

DESCRIPTION

This program provides for the engineering audit, design, construction, and monitoring and verification necessary to replace and upgrade energy consuming equipment and systems at all major Commission facilities. All projects included in the program will provide a reduction in energy and energy-related costs (electricity, fuel oil, natural gas, or other fuel). 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 at WSSC sites. Energy conservation measures may include, but are not limited to, the replacement or upgrade of water and wastewater process equipment, aeration equipment, piping, valves and motors, sludge dewatering/thickening equipment, grit removal, effluent disinfection systems, wastewater pumps, water pump/valve/motor replacement and rebuild, pump instrumentation, flow metering, power measurement, incinerator upgrades, peak shaving and backup power generation systems, variable speed drives, HVAC equipment/systems, and lighting. A baseline is established for each energy conservation measure to identify energy usage and costs before the energy conservation measures (equipment upgrades) are implemented. After all construction is completed and accepted by the WSSC, the combined baseline for all energy conservation measures will be compared annually to the actual energy savings to quantify the savings. The program will be completed in several phases. Additional details on each phase are included in the "Justification" section below.

JUSTIFICATION

Phases I-A and I-B of the Energy Performance Program were awarded to Constellation Energy Projects and Services (CEPS) in March 2001. Phase I-A included detailed engineering audits, supply analysis, engineering, and planning of equipment and operations upgrades to develop an energy efficient and guaranteed savings program Commission-wide. The Phase II-A implementation project, awarded in December 2002 and completed in May 2006, included detailed design, construction, maintenance, savings monitoring, and energy/energy-related savings guarantee at the Western Branch, Parkway, Piscataway, and Damasc us WWTPs and the RGH Office Building. The Phase II-B implementation project was awarded to CEPS in August 2006, and included detailed design, construction, maintenance, savings monitoring, and energy/energy-related savings guarantee for incinerator upgrades at the Western Branch WWTP, backup/peak-shaving engine-generation system at the Seneca WWTP, and the addition of smaller, more efficient pumps at the Anacostia No. 2 WWPS to handle average dry daily flows. The construction of the Seneca and Anacostia components were completed in October 2008. Incinerator upgrades at the Western Branch WWTP were completed in January 2011. Projects included in Phases II-A and II-B are guaranteed by CEPS to reduce energy-related costs. The guaranteed reduction includes annual avoided energy costs as well as operations and maintenance, chemicals, and biosolids disposal cost savings. CEPS will pay the WSSC for any yearly shortfall if the total guaranteed savings figure is not achieved. If the actual savings exceed the guaranteed amount, the WSSC retains the savings on a yearly basis. The energy guarantee for Phase II-A and Phase II-B work can be applied up to 15 years as prescribed by the State of Maryland. The energy savings for projects completed under Phase II-A have surpassed the contract's guaranteed amount of $700,000 per year.

Phase II-C, awarded in March 2004, includes the supply of electricity generation and transmission for a period of 15 years. Phase II-C was amended in December 2006 to include 33% of generation from renewable wind power at a fixed price for a 10-year period under a Power Purchase Agreement (PPA), starting in 2008. Phase II-C, including the amendment for wind energy, does not involve any capital funds.

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$4,391	
Total Cost	$4,391	
Impact on Water and Sewer Rate	$0.09	

F. Approval and Expenditure Data (000's)

Date First in Program	FY 03
Date First Approved	FY 03
Intial Cost Estimate	22,200
Cost Estimate Last FY	41,745
Present Cost Estimate	66,435
Approved Request Last FY	610
Total Expense & Encumbrances	32,035
Approval Request Year 1	18,210

G. Status Information

Land Status	Public/Agency owned land
Project Phase	On-Going
Percent Complete	
Est Completion Date	(See "Specific Data" for details.)

Growth	
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Energy Performance Program

Phase I-D, awarded to Energy Systems Group (ESG) in March 2009, provided for instrumentation, pump replacement, pump rebuild, and valve and piping modifications at the Raw Water Pumping and Main Zone Pumping Stations located within the Potomac Water Filtration Plant (WFP). After performing an initial engineering analysis and additional pump tests, the Commission accepted ESG's Phase II-D proposal in December 2010 for the rehabilitation of 5 raw water (RW) pumps and 1 Main Zone (MZ) pump, reconditioning of electric motors for the 6 pumps, new instrumentation for all the RW, MZ, and High Zone (HZ) pumps, commissioning, training, energy savings guarantee, and monitoring and verification of energy savings for 10 years. Phase II-D total program cost (over 10 years) will be 100% paid from guaranteed energy savings, avoid future capital expenditures, and improve plant reliability. Construction was completed in April 2013. PEPCO contributed $465,000 in capital rebates over the two-year construction period as part of its Commercial & Industrial Energy Efficiency Program. The remaining pumps in the Main and High Zones Pumping Stations (as well as in the Raw Water Zone Pumping Station) are 30-50 years old and will have reached the end of their useful life in the next 5-10 years. New instrumentation included in Phase II-D (power monitors to measure amperage, voltage, power factor, kW, and discharge pressure transmitters for the RW pumps and differential pressure transmitters for the MZ and HZ pumps) will more accurately monitor and track pump efficiency, allowing us to identify and prioritize the replacement of additional pumps, motors, and variable frequency drives based upon efficiency and reliability data.

Phase II-E provides for the supply of on-site generated photo-voltaic (PV) solar power at a rate competitive with conventional or "brown" power. A Solar PV Study completed in May 2010 concluded that the optimum form of constructing a Solar PV System at WSSC sites was through a Power Purchase Agreement (PPA), similar to our existing Wind Farm Agreement. Under this arrangement, the WSSC negotiated a long-term (20 year) agreement with solar power provider Washington Gas Energy Systems to buy electricity at a fixed rate/kWh with a provision for annual escalation. Renewable Energy Credits (RECs) are transferred to the solar provider (as part of the fixed electricity price) to generate the revenue required for the solar provider to offer a low enough rate to the WSSC that would be competitive (lower than brown power). Under the agreement, the entire capital cost of the Solar PV System is the responsibility of the solar provider. The contract was awarded to Standard Solar and Washington Gas Energy Services in October 2012. Construction of the solar arrays at Seneca and Western Branch was completed in September 2013, and both solar sites became operational on October 1, 2013.

The Phase I-F ESCO contract awarded in January 2014 provides for an engineering audit, feasibility, conceptual design and development of a comprehensive proposal for the programs and projects for energy efficient HVAC and lighting upgrades at field offices, upgrades to water distribution and wastewater pumps, and additional upgrades at water and wastewater treatment plants. Phase II-F will provide for the detailed design, construction, energy guarantee, maintenance, monitoring and verification of energy efficiency programs and projects at Potomac WFP, Parkway WWTP, Piscataway WWTP, Anacostia II WWPS, and various WSSC field offices and pumping stations. Eligible energy efficient rebates from BGE, Pepco and SMECO of approximately $1.2 million are expected to subsidize the construction cost of the project. It is anticipated that Phase II-F will be awarded in late 2015.

Stearns & Wheler, Western Branch Study BNR Modifications (Cyclical Aeration) (June 1996); Water Environment Federation, Energy Conservation for Wastewater Treatment Facilities (1997); EMA, WSSC Operations Branch Competitiveness Assessment (January 1997); EMA, WSSC Adopt Best Practices Report, Competitive Action Plan, TPO Work Team (June 1999); Stearns & Wheler, Western Branch Aeration Study (July 2000); O'Brien & Gere Study, Potomac Filtration Plant Water Quality and Electric Reliability; Energy Information Administration (Department of Energy), Annual Energy Outlook 2002 with Projections to 2020 (December 2001); American Water Works Association Research Foundation, Best Practices for Energy Management; In-house Study (April 2002); The Khepra Group, Potomac Water Filtration Plant Pump Systems Evaluation (May 2008); Whitman, Requardt & Associates/Shah Associates, Solar Photovoltaic Concept Study for Potomac WFP and Western Branch WWTP (May 2010).

COST CHANGE

The overall project costs were increased based upon revised estimates for Phase II-F.

OTHER

The project scope has remained the same. Expenditures shown for Planning, Design & Supervision include operating cost estimates for annual maintenance, warranty, performance bond, and monitoring and verification (M&V). The annual maintenance and M&V costs are estimated to continue for a period not exceeding 15 years. 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.

COORDINATION

Coordinating Agencies: Montgomery County Government; Prince George's County Government;
Coordinating Projects: W-73.19-Potomac WFP Outdoor Substation No. 2 Replacement; S-96.14-Piscataway WWTP Facility Upgrades;

Entrepreneurial Projects

A. Identification and Coding Information

Agency Number	Project Number	Update Code
A-104.00		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Not Applicable;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision											
Land											
Site Improvements & Utilities											
Construction	**41,303**	4,114	470	**11,215**	2,628	1,566	176	3,596	700	2,549	25,504
Other	**3,720**		47	**1,123**	263	157	18	360	70	255	2,550
Total	**45,023**	**4,114**	**517**	**12,338**	**2,891**	**1,723**	**194**	**3,956**	**770**	**2,804**	**28,054**

C. Funding Schedule (000's)

Contribution/Other	**45,023**	4,114	517	**12,338**	2,891	1,723	194	3,956	770	2,804	28,054

D. Description & Justification

DESCRIPTION

This project represents a consolidation of capital projects that generate additional revenues through the sale of products, services, and/or real property as part of an overall strategy to hold down rates for existing customers. Project currently reflects the Joint Base at Bolling (JBAB) Contract, No. SP0600-04-C-8250. Expenditures for renewal and replacement are expected to continue for the entire contract term.

JUSTIFICATION

Under the terms of the contract, the WSSC will own, operate and maintain the JBAB water and wastewater systems for a 50-year term (ending in June 2054); implement an Initial Capital Upgrades Plan to bring the systems up to WSSC standards; and then maintain that standard through a Renewals and Replacements Plan for the duration of the contract period.

"Replace/Add Water Mains and Valves, Project BXUR95-1042, Bolling Air Force Base" (July 1995); "Study Report for Project BXUR92-1221 Sanitary Sewer Main Study for Bolling Air Force Base" (March 1997); Bolling Infrastructure Master Plan; "Capital Upgrades and Renewals and Replacements Plan for Bolling AFB Water & Wastewater Systems," Malcolm Pirnie, Inc. (September 2000); WSSC Resolution Number 2003-1657 (October 2002); EPA Administrative Order (August 2012).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The contract value may be adjusted periodically to account for inflation and changed conditions. All expenditures will be reimbursed in full by JBAB. Drinking water supply and wastewater treatment will continue to be supplied to JBAB by the District of Columbia Water and Sewer Authority. The project estimated completion date refers to the length of the contract - 50 years.

COORDINATION

Coordinating Agencies: District of Columbia Water and Sewer Authority; Joint Base Anacostia-Bolling;
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service		
Total Cost		
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

Date First in Program	FY 05
Date First Approved	FY 06
Intial Cost Estimate	3,900
Cost Estimate Last FY	45,139
Present Cost Estimate	45,023
Approved Request Last FY	2,337
Total Expense & Encumbrances	4,114
Approval Request Year 1	2,891

G. Status Information

Land Status	Not Applicable
Project Phase	Construction
Percent Complete	10%
Est Completion Date	FY 2054

Growth	
System Improvement	
Environmental Regulation	
Population Served	
Capacity	N/A

H. Map

MAP NOT APPLICABLE

Water Storage Facility Rehabilitation Program

A. Identification and Coding Information

Agency Number	Project Number	Update Code
A-105.00		Change

PDF Date	October 1, 2015
Date Revised	

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

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision											
Land											
Site Improvements & Utilities											
Construction	**35,000**		5,000	**30,000**	5,000	5,000	5,000	5,000	5,000	5,000	
Other											
Total	**35,000**		**5,000**	**30,000**	**5,000**	**5,000**	**5,000**	**5,000**	**5,000**	**5,000**	

C. Funding Schedule (000's)

WSSC Bonds	**35,000**		5,000	**30,000**	5,000	5,000	5,000	5,000	5,000	5,000	

D. Description & Justification

DESCRIPTION

The Water Storage Facility Rehabilitation Program provides for the comprehensive rehabilitation of the Commission's 59 water storage facilities located throughout the WSSC service area holding 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. EXPENDITURES FOR WATER STORAGE REHABILITATION ARE EXPECTED TO CONTINUE INDEFINITELY.

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. It is expected that the old coatings will need to 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. Today's coating systems should extend the length of service between coatings from the current 10 years to somewhere between 15 to 20 years.

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Tanks are prioritized based on the condition of the existing coating and structural integrity issues. The Program plan for FY'17 will address the following water storage facilities: Andrews, Bradley Hills, Brink, Greenbelt, Alta Vista, North Woodside, St. Barnabas, Pointer Ridge, Camp Springs and Hill Road Reservoir No.3.

COORDINATION

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

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$2,408	23
Total Cost	$2,408	23
Impact on Water and Sewer Rate	$0.05	23

F. Approval and Expenditure Data (000's)

Date First in Program	FY 09
Date First Approved	FY 09
Intial Cost Estimate	18,000
Cost Estimate Last FY	35,000
Present Cost Estimate	35,000
Approved Request Last FY	5,000
Total Expense & Encumbrances	
Approval Request Year 1	5,000

G. Status Information

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

Growth	
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Specialty Valve Vault Rehabilitation Program

A. Identification and Coding Information

Agency Number	Project Number	Update Code
A-107.00		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**6,506**	4,056	647	**1,803**	345	588	655	176	39		
Land											
Site Improvements & Utilities											
Construction	**24,555**	6,148	7,735	**10,672**	6,067	751	1,433	1,322	1,099		
Other	**2,086**		838	**1,248**	641	134	209	150	114		
Total	**33,147**	**10,204**	**9,220**	**13,723**	**7,053**	**1,473**	**2,297**	**1,648**	**1,252**		

C. Funding Schedule (000's)

WSSC Bonds	**33,147**	10,204	9,220	**13,723**	7,053	1,473	2,297	1,648	1,252		

D. Description & Justification

DESCRIPTION

This program provides for the planning, design, and construction of improvements and replacement of specialty valves and their associated vaults, including pressure reducing valves, pressure relief valves, altitude and metering valves, throughout the water distribution system. 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 1930's, and upgrade or relocate the structures and equipment as necessary. This program will improve reliability and increase the efficiency of system operations.

JUSTIFICATION

The facilities included in this program are in need of rehabilitation due to factors such as: location within heavily traveled roadways, age deterioration, and obsolescence. The highest priority valves in construction or design are: (1) Adelphi Road PRV - this facility is located in a major roadway on a 60-inch diameter water main and is in extremely poor condition. The new vault will meet current standards and began construction in FY' 14; (2) Old Baltimore Avenue PRV - work on this 24-inch diameter PRV vault from 1955 is being coordinated with work on the 30-inch diameter Prince George's PRV Vault and should start construction in late FY'15 and will improve operational flexibility; (3) Central Avenue Supply and Throttling Valves - this project modifies the valves and piping on 60-inch and 84-inch diameter mains at the Central Avenue Pumping Station which will improve operational flexibility and reliability at the pumping station.

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).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. Land and rights-of-way costs are included in WSSC Project W-202.00.

COORDINATION

Coordinating Agencies: Maryland State Highway Administration; Maryland Water Management Administration; Montgomery County Government; Prince George's County Department of Permitting Inspection and Enforcement; Montgomery County Department of Public Works and Transportation; Prince George's County Government;

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$2,281	22
Total Cost	$2,281	22
Impact on Water and Sewer Rate	$0.05	22

F. Approval and Expenditure Data (000's)

Date First in Program	FY 11
Date First Approved	FY 11
Intial Cost Estimate	17,560
Cost Estimate Last FY	34,303
Present Cost Estimate	33,147
Approved Request Last FY	7,370
Total Expense & Encumbrances	10,204
Approval Request Year 1	7,053

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Construction
Percent Complete	24%
Est Completion Date	On-Going

Growth	
System Improvement	100%
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT APPLICABLE

Advanced Metering Infrastructure

A. Identification and Coding Information

Agency Number	Project Number	Update Code
A-109.00		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Bi-County;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**5,075**	75	1,750	**3,250**	950	600	600	600	500		
Land											
Site Improvements & Utilities											
Construction	**83,550**	800	750	**82,000**		12,750	25,500	25,500	18,250		
Other	**875**		25	**850**	10	134	260	260	186		
Total	**89,500**	**875**	**2,525**	**86,100**	**960**	**13,484**	**26,360**	**26,360**	**18,936**		

C. Funding Schedule (000's)

WSSC Bonds	**89,500**	875	2,525	**86,100**	960	13,484	26,360	26,360	18,936		

D. Description & Justification

DESCRIPTION

This project provides for the implementation of a system-wide automated meter reading infrastructure system (System). All meters will receive new Meter Interface Units with internal antenna capable of obtaining and/or transmitting the meter register reading. All readings will be collected remotely by either a mobile system or a fixed network communications system.

JUSTIFICATION

The System will be required to obtain accurate register readings from a variety of water meters located in indoor, pit-set, and underground vault settings, and be universally compatible with the existing meters and encoder registers in the distribution system.

Dial Outbound AMR Trial Final Report, Metering Services, Inc. (1990); An Economic Evaluation of AMR for WSSC, Marilyn Harrington (1992); Cost of Meter Reading Study, Marilyn Harrington (2000); The WSSC Experience with Radio-Frequency AMR on Commercial & Industrial Meters (2002); Radio Frequency Solution for Meter Reading (2003); AMR Phase I (July 2005); Customer Care Team Departmental Action Item #20 - AMR Installation (2007); Advanced Metering Infrastructure Study, R.W. Beck (March 2011).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. AMI will improve both customer service and operational efficiency. The expected results include: Monthly billing based on actual meter readings. This would reduce bill size to help customers stay current with their payments, help customers develop a greater awareness of their water consumption, and ensure that problems such as excessive consumption due to leaks are addressed more quickly; Active notification of customers with abnormal consumption that might signify leaks before they get high consumption bills; Reduced customer calls; Reduced field investigation visits; Opportunities to employ more sophisticated rate structures; Analysis of individual consumption patterns to detect meters suspected of wearing out, or perform meter sizing analysis to ensure that large meters are optimally sized; Monitoring of individual consumption to perform precise, targeted conservation enforcement during droughts; Opportunities to improve the monitoring and operation of the distribution system, in order to detect and reduce non-revenue water. The AMI project has been postponed until the upgrade of the Commission's Customer Service Information System (CSIS) is completed. Pilot testing of the latest technology is underway.

COORDINATION

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

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$6,158	22
Total Cost	$6,158	22
Impact on Water and Sewer Rate	$0.13	22

F. Approval and Expenditure Data (000's)

Date First in Program	FY 13
Date First Approved	FY 13
Intial Cost Estimate	86,000
Cost Estimate Last FY	89,500
Present Cost Estimate	89,500
Approved Request Last FY	960
Total Expense & Encumbrances	875
Approval Request Year 1	960

G. Status Information

Land Status	Not Applicable
Project Phase	Planning
Percent Complete	15%
Est Completion Date	FY 2020

Growth	
System Improvement	
Environmental Regulation	
Population Served	
Capacity	

H. Map

MAP NOT AVAILABLE

Brighton Dam Operations & Maintenance Facility and Site Improvements

A. Identification and Coding Information

Agency Number	Project Number	Update Code
A-145.01		Add

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	
Planning Areas	Montgomery County PA;

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**650**	330	145	**175**	80	50	30	15			
Land											
Site Improvements & Utilities											
Construction	**4,999**			**4,999**	1,100	2,200	1,400	299			
Other	**799**		22	**777**	177	338	215	47			
Total	**6,448**	**330**	**167**	**5,951**	**1,357**	**2,588**	**1,645**	**361**			

C. Funding Schedule (000's)

WSSC Bonds	**6,448**	330	167	**5,951**	1,357	2,588	1,645	361			

D. Description & Justification

DESCRIPTION

This project provides for the replacement of two existing facilities with a new ADA compliant 4,100 square foot facility with office space for 14 employees. The project also includes a new parking configuration to facilitate visiting groups, relocation of existing fuel facilities and a new underground water storage tank to provide fire protection for the new facility and nearby residents. Green initiatives such as water reclamation and LEED building guidelines are also being considered in the design.

JUSTIFICATION

The Patuxent Watershed Unit stationed at Brighton Dam has been staffed in a double wide trailer since the early 1990's. The existing facilities have several problems including but not limited to: the presence of mold, ventilation deficiencies and structural issues. The existing visitor center is subject to insect infestation and inadequate compliance with ADA standards. Traffic flow at the facility is constricted and unsafe during peak demand periods. The fuel pump location is highly visible and is not secured. The current state of the existing facilities necessitates replacement. In addition to facility replacement, the project includes comprehensive site improvement work to address septic/well system capacities, site access and traffic/parking, and relocation of the existing fueling station to a more secure location within the premises.

Memorandum from James Neustadt, Director of Communication to Gary Gumm, Chief Engineer, (July 28, 2011); Memorandum from Karen Wright, System Control Group Leader, to James Price, Chief of Plant Operations (May 12, 2012); Basis of Design Report, Mimar Architects (April, 2015).

COST CHANGE

Not applicable.

OTHER

The present project scope was developed for the FY 2017 CIP and has an estimated total cost of $6,448,000. The expenditure and schedule projections shown in Block B above are planning level estimates and are expected to change as the project moves through design and construction. The offices at Brighton Dam provide WSSC with high visibility for security of the dam, enhanced community engagement and education, efficient maintenance of the property and amenities, and rapid emergency response capabilities within the watershed. Prior year expenditures were for the preliminary study and planning for this project, completed under ESP project W-705.63, Brighton Dam Trailer Replacement. The study has confirmed the land is suitable for a new septic system utilizing Best Management Practices for Nitrogen removal and the adequacy of the existing well to meet occupancy and use demands.

COORDINATION

Coordinating Agencies: Montgomery County Department of Environmental Protection; Maryland Department of the Environment; Montgomery County Government; (Anticipates Mandatory Referral Submissions);

Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance		
Other Project Costs		
Debt Service	$444	21
Total Cost	$444	21
Impact on Water and Sewer Rate	$0.01	21

F. Approval and Expenditure Data (000's)

Date First in Program	FY 17
Date First Approved	FY 17
Intial Cost Estimate	6,447
Cost Estimate Last FY	
Present Cost Estimate	6,448
Approved Request Last FY	
Total Expense & Encumbrances	330
Approval Request Year 1	1,357

G. Status Information

Land Status	Public/Agency owned land
Project Phase	Design
Percent Complete	20%
Est Completion Date	July 2019

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		
Agency Number	Project Number	Update Code
S-300.01		Change

PDF Date	October 1, 2015
Date Revised	

Pressure Zones	
Drainage Basins	Western Branch 14;
Planning Areas	Suitland-District Heights & Vicinity PA

B. Expenditiure Schedule (000's)

Cost Elements	Total	Thru FY'15	Estimate FY'16	Total 6 Years	Year 1 FY'17	Year 2 FY'18	Year 3 FY'19	Year 4 FY'20	Year 5 FY'21	Year 6 FY'22	Beyond 6 Years
Planning, Design & Supervision	**261**	90	88	**83**	43	40					
Land											
Site Improvements & Utilities											
Construction	**489**		125	**364**	182	182					
Other	**99**		32	**67**	34	33					
Total	**849**	**90**	**245**	**514**	**259**	**255**					

C. Funding Schedule (000's)

Contribution/Other	**849**	90	245	**514**	259	255					

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.

JUSTIFICATION

D'Arcy Park North Hydraulic Planning Analysis, (September 2008).

COST CHANGE

Not applicable.

OTHER

The project scope has remained the same. The expenditure and schedule projections shown in Block B are planning level estimates and may change depending upon site-specific conditions and design constraints. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

COORDINATION

Coordinating Agencies: Prince George's County Government; Prince George's County Department of Environmental Resources; Local Community Civic Associations;
Coordinating Projects: Not Applicable

E. Annual Operating Budget Impact (000's)

		FY of Impact
Staff		
Maintenance	$16	19
Other Project Costs		
Debt Service		
Total Cost	$16	19
Impact on Water and Sewer Rate		

F. Approval and Expenditure Data (000's)

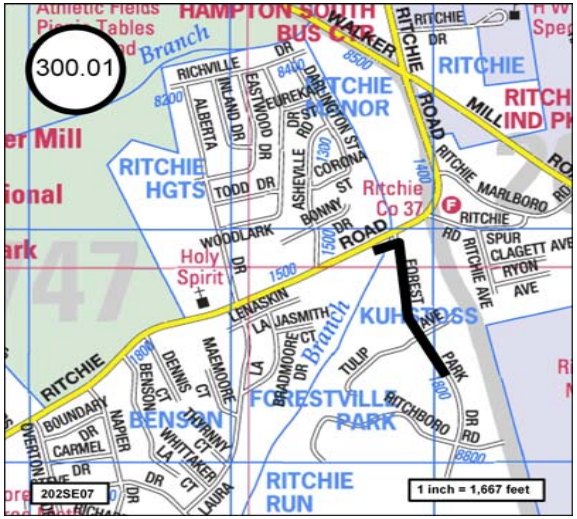
Date First in Program	FY 14
Date First Approved	FY 14
Intial Cost Estimate	824
Cost Estimate Last FY	849
Present Cost Estimate	849
Approved Request Last FY	259
Total Expense & Encumbrances	90
Approval Request Year 1	259

G. Status Information

Land Status	Land and R/W to be acquired
Project Phase	Planning
Percent Complete	100%
Est Completion Date	Developer Dependent

Growth	100%
System Improvement	
Environmental Regulation	
Population Served	
Capacity	1.6 MGD

H. Map



PROJECTS PENDING CLOSE-OUT

Information Only Projects

(costs in thousands)

Project Number	Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'15	Estimated Expenditures FY'16	Remarks
	A-106.00	Asset Management Program	$14,412	$12,687	$1,725	Project completion expected in FY'16.
		TOTALS	$14,412	$12,687	$1,725	

Appendices

RESOLUTION NO. 2015-2084
Adopted: June 17, 2015
Effective Date: July 1, 2015

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 General Assembly enacted House Bill 883, Chapter 559, Laws of Maryland 1993, System Development Charge legislation during its 1993 Session, a bill which provides the enabling authority for the Montgomery and Prince George's County Councils to establish a fee which will be paid by applicants for new service; and

WHEREAS, the Maryland General Assembly enacted House Bill 832, Chapter 713, Laws of Maryland 1998, System Development Charge legislation during its 1998 Session, a bill which, among other things, alters the schedule for the payment of the System Development Charge to the Commission for certain properties; establishes a new maximum System Development Charge per fixture unit; allows for and limits the amount of certain exemptions; establishes a maximum System Development Charge based on the number of toilets per dwelling; authorizes a change in the maximum System Development Charge for certain residential units based on the number of toilets per dwelling; and

WHEREAS, the Maryland General Assembly enacted House Bill 636, Chapter 124, Laws of Maryland 2013, System Development Charge legislation during its 2013 session, a bill which allows partial exemptions to certain properties used primarily for recreational and educational programs and services to youth; and

WHEREAS, the Commission owns and operates various water treatment and sewage treatment disposal plants and facilities within the WSSD and utilizes 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. 2015-2084
Adopted: June 17, 2015
Effective Date: July 1, 2015

WHEREAS, the System Development Charge is a component of the Commission's Fiscal Year 2016 capital and operating budgets prepared pursuant to §17-202, Division II of the Public Utilities Article, Annotated Code of Maryland; and

WHEREAS, the Commission last modified the System Development Charge effective July 1, 2014 by Commission Resolution No. 2014-2012; 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, Chapter 713, 1998 Laws of Maryland 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, effective July 1, 1998; and

WHEREAS, Chapter 713, 1998 Laws of Maryland further 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 1.0% from November 2013 to November 2014; and

WHEREAS, the Commission recommends keeping the System Development Charge rates unchanged for FY'16. However, the Commission recommends increasing the maximum allowable charge by 1.0% from FY'15 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 have approved the modifications to the System Development Charge set forth below.

NOW, THEREFORE, BE IT RESOLVED THIS 17th day of June, 2015, 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. 2015-2084
Adopted: June 17, 2015
Effective Date: July 1, 2015

Definitions:

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; 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.

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 exempt from taxation under § 501(c)(3) of the Internal Revenue Code; and as more fully 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) Public Sponsored or Affordable Housing means 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.

13) Residential Unit means any housing unit defined in Paragraphs 1, 5, and 8 above used as a residence.

14) 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.

15) System Development Charge means that charge imposed by the Commission pursuant to the provisions of §25-403, Division II of the Public Utilities Article, Annotated Code of Maryland. (Maximum allowable System Development Charge is the maximum charge authorized by law, but not necessarily imposed in a given year.)

16) Toilet is a water closet as set forth in the WSSC Plumbing and Fuel Gas Code; and

17) 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

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 between successive operations; and

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Adopted: June 17, 2015
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BE IT FURTHER RESOLVED, that the System Development Charge rates for FY'16 shall be as follows:

Property Type	FY'15 Charge	Maximum Allowable Charge
Apartment Unit		
Water	$896	$1,269
Sewer	1,140	1,618
1-2 Toilets / Residential		
Water	1,344	1,906
Sewer	1,710	2,422
3-4 Toilets / Residential		
Water	2,240	3,176
Sewer	2,850	4,040
5 Toilets / Residential		
Water	3,135	4,445
Sewer	3,991	5,658
6 or More Toilets / Residential*		
Water	88	125
Sewer	115	164
Non-Residential*		
Water	88	125
Sewer	115	164

*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 WSSC 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

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Adopted: June 17, 2015
Effective Date: July 1, 2015

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 System Development Charge shall be waived for any public sponsored or affordable housing as defined in Schedule A; and

BE IT FURTHER RESOLVED, that the System Development Charge shall, subject to the below provisions of this Resolution No. 2015-2084, be waived for Revitalization projects as defined in Schedule B; and

BE IT FURTHER RESOLVED, that the System Development Charge partial exemptions for Elderly Housing are established by Schedule E; and

BE IT FURTHER RESOLVED, that the System Development charge, subject to the below provisions of this Resolution No. 2015-2084, be waived, up to $80,000, for Properties Used Primarily for Recreational and Educational Programs and Service to Youth as defined in Schedule F; and

BE IT FURTHER RESOLVED, that the System Development Charge partial exemptions for Biotechnology Research and Development or Manufacturing shall be $18 per water supply fixture with an assigned fixture unit value of 1 and $25 per drainage fixture with an assigned drainage fixture unit value of 1, or $43 per combined fixture unit value; and

BE IT FURTHER RESOLVED, that the County Councils of Prince George's and Montgomery Counties may adopt implementing resolutions for System Development Charge partial exemptions for Biotechnology Research and Development or Manufacturing, Elderly Housing, and Property Used Primarily for Recreational and Educational Programs and Services to Youth as defined in Schedules C, D, and F and the System Development Charge full exemption for Revitalization as defined in Schedule B. The amount of the aforementioned full and partial exemptions authorized by this Resolution No. 2015-2084 for individual properties or projects may be limited by the provisions of the aforementioned Council resolutions. In addition, the aforementioned full and partial exemptions authorized by this Resolution No. 2015-2084, except those granted for affordable housing (as defined on Schedule A), shall not take effect unless and until the Council for the County in which the exempted project is located adopts the said implementing resolution; and

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

RESOLUTION NO. 2015-2084
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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. 2014-2012 adopted June 18, 2014 on the same subject matter be, and the same is hereby superseded by this Commission Resolution No. 2015-2084; and

BE IT FURTHER RESOLVED, that the System Development Charge established herein shall take effect on July 1, 2015.

A True Copy

Attest:

Sheila R. Finlayson, Esq., Corporate Secretary

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

1) "Revitalization" means a project located in one of the following geographic areas and meeting any additional criteria that may be adopted by the respective county council or applicable municipal council:

   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 2, of Title 4, of Article 83B, 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.

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:

(20.1) Assisted Living Facility
(54) Congregate Living Facility
(151.1) 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	APPROVE BY/DATE	EFFECTIVE DATE	PAGE
Joseph P. McNerney Customer Affairs Bureau Director	CUS 98-01 Supersedes CUS 94-06 & CUS 93-02	COMMISSION	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:

(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 56-32 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).

2.12 Residential Unit means any housing unit defined in Paragraphs 2.1, 2.4, and 2.6 above used as a residence.

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

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:

(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

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

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:

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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: _____ Date: _____
(Title)

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)

Address

(Print) Name (Signature)

Address (Seal)

(Print) Name (Signature) (Seal)

Address

(Print) Name (Signature)

Address

STANDARD PROCEDURES OF THE WASHINGTON SUBURBAN SANITARY COMMISSION

ORIGINATOR & POSITION	SP NUMBER	APPROVE BY/DATE	EFFECTIVE DATE	PAGE
Richard Shagogue, Team Chief Engineering & Construction Team	ENG 04-01 Supercedes CUS 94-03	Lucretia Morris Acting Corp Secretary Commissioners March 10, 2004	March 24, 2004	1 OF 8

SUBJECT:
SDC APPLICANT CREDITS AND REIMBURSEMENTS

PURPOSE

1.0 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.

1.1 Describe how the SDC Credit due an Applicant will be determined.

1.2 Describe when SDC credit and reimbursement will occur.

DEFINITIONS

2.0 Systems Development Charge (SDC) - 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.

2.1 Applicant - 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.

2.2 System Extension Permit (SEP) – A permit/agreement made between the WSSC and an Applicant pursuant to the "Development Services Process Manual" adopted by the Commission, effective July 1, 2000, and subsequent 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.**

2.3 Memorandum of Understanding (MOU) - An agreement made pursuant to provisions of Standard Procedure # PD-93-06 entitled "Procedure for Developing a Memorandum of

Understanding for the Construction of WSSC Systems by Others" 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.**

2.4 Qualified Project - 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.

2.5 Qualified Properties - The specific properties located within the geographic area which WSSC identifies as served by the Qualified Project, as defined in Section 3.2.

2.6 Eligible Private Funding - 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.

2.7 SDC Credit - 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 Section 3.6 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.

2.8 SDC Credit Agreement – An agreement that summarizes the eligible costs considered for SDC Credit (as described in Section3.6). The SDC Credit Agreement is appended to an SEP. The credit agreement is included in the MOU as Attachment A.

2.9 SDC Ledger - 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.

2.10 Credit Voucher - 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:

- identify the Qualified Project from which credit is derived; and
- specify the Qualified Property for which the credit is requested; and
- be signed by the Applicant or its authorized agent, be duly notarized; and
- show the amount to be credited in lieu of SDC payment

2.11 Qualified Project Scope - 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.

PROCEDURES

3.0 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.

3.1 The Applicant agrees to pay WSSC all review fees normally due WSSC. Letters of credit are not acceptable in lieu of fees.

3.2 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.

3.3 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.**

3.4 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 WSSC's Internal Audit Manager (as discussed in Sections 3.5, 3.6, 3.7, 3.8 and 3.12), 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.

3.5 SDC credits may not exceed 50% of the estimated total eligible project cost (not to

include contingency for increase in scope items (see Section 3.8)) 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% of the total estimated project cost.

3.6 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

Engineering Costs: design, reprographics, survey (topo), soil borings, As-built drawing preparation, and bonding fees.

Permits Costs: Costs for permits that WSSC would have had to acquire had WSSC built the project.

WSSC Fees for Pipelines: Fees for extra WSSC reviews or re-testing will be considered only if non-eligible portions of the job do not require extra reviews or re-testing. 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.

WSSC Fees for Facilities: All WSSC direct costs and overhead associated with the qualified project as stated in the MOU.

Construction Costs: Contractors bid price, survey (stake out), Geotech (compaction testing), off-site restoration, and construction management.

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.

Off-Property Rights of Way: Acquisition costs are eligible up to amount appraised by WSSC for purchase of off-Applicant's 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.

3.7 Examples of costs that are not eligible include, but are not limited to

Area wide planning not directly related to the Qualified Project;

Attorneys fees

The WSSC Hydraulic Review Fee

Costs for negotiation of SDC Credit Agreement or MOU;

Bonus payments or acceleration costs paid to the contractor for completion of construction;

Third party inspection costs for facility projects;

Applicant's overhead costs not directly attributable to the Qualified Project;

Costs outside the scope of the Qualified Project;

Permit costs associated with a development rather than the Qualified Project;

Site acquisition costs beyond what WSSC would have paid;

Facilities capital cost of money;

Fines and penalties;

Maintenance Costs;

Maintenance Bond Costs that are beyond both two years after substantial completion and beyond one year after release of service or final acceptance.

Grading of rights of way;

Sediment control for grading;

Clearing and grubbing for public rights-of-way in which the Qualified Project will be installed;

Federal and state income taxes;

Administrative or Management Fees not directly associated with the Qualified Project; and

Personal injury compensation or damages.

3.8 The maximum SDC reimbursement shall not exceed 110 percent of the contractor bid price plus other eligible costs.

3.9 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.

3.10 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. Internal Audit is to review any item that the WSSC project manager proposes which is contrary to items 3.6 or 3.7. 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.

3.11 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 substantial completion 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 Internal Audit Manager, 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 WSSC Internal Audit to inspect and review to determine the SDC credits.**

3.12 In compliance with Article 29 § 6-113(e)(4), of the Annotated Code of Maryland, WSSC's Internal Audit Manager shall review and approve the costs incurred by the Applicant. The Internal Audit Manager will strive to initiate the audit within 90 days of the Applicant's request, if the request includes the required itemized cost listing. The Internal Audit 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 Internal Audit Report, the Internal Audit Manager will issue to the Applicant an unsigned DISCUSSION DRAFT to allow the Applicant an opportunity to discuss with Internal Audit any concerns the Applicant has with the proposed SDC Credit. Subsequently, the Internal Audit Manager will issue to the Applicant its final Report on the SDC Credit to be provided the Applicant.

3.13 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 for reimbursement.

3.14 In the event an issued Plumbing Permit expires or is cancelled 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.

3.15 In conformance with Section 3.18, SDC payments received in association with applications for plumbing permits for Qualified Properties will be identified as eligible for reimbursement (after the Internal Audit Report has been completed - see Section 3.12) to the Applicant who has constructed the Qualified Projects serving those Qualified Properties.

3.16 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.

3.17 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.

3.18 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.

3.19 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.

3.20 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 Internal Audit Report and only to the Applicant identified in the MOU or SEP.

3.21 The Applicant may issue credit vouchers to multiple builders to facilitate construction of residential or non-residential 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.

3.22 Notwithstanding any other provision of this Procedure, SDC Credit or reimbursements

for costs identified in Section 3.3 of this Procedure are limited to SDC transactions for Qualified Properties served by the Qualified Project within a twenty-year period, or until the sum of credits and reimbursements equals the total approved SDC Credit. The twenty-year period will commence for SEP, MOU, or eligible funding projects on the day of release for service. At the conclusion of the twenty-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.

AUTHORITY

The General Counsel certifies that this Standard Procedure was adopted pursuant to the authority of Sections 6-113 and 9-101 of Article 29 of the Annotated Code of Maryland.

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Customer Relations Group
Permit Services Unit
Accounting Group
Budget Group
Disbursements Group

ATTACHMENT A

SDC CREDITS ESTIMATE

	ESTIMATED AMOUNT
Design	
Permits	
Administration	
Interest	
WSSC's Fees	
Construction Costs	
TOTAL ESTIMATED ELIGIBLE COSTS	

ATTACHMENT B

WASHINGTON SUBURBAN SANITARY COMMISSION

System Development Charge Credit Voucher

I, _____ hereby affirm under penalty of perjury that I am the Developer
(name printed)

or its authorized agent, entitled to an SDC credit pursuant to an approved System Extension Permit or Memorandum of Understanding for _____, a Qualified Project. Pursuant to the current

(WSSC Contract No. & C.I.P No.)

WSSC Standard Operating Procedure, I hereby request that $_____ be charged against the remaining eligible SDC credit balance for the specified Qualified Project. The above credit amount shall be applied against SDC due in connection with an application for plumbing permit to install fixtures in an improvement on property described as: _____

_____ which is a "Qualified Property" served by the above named "Qualified Project."

I agree to indemnify and hold harmless the Washington Suburban Sanitary Commission to whom this request is presented and its agents and employees, from and against all claims, damages, losses and expenses, including reasonable attorneys' fees, arising out of or by reason of complying with this request.

_____
(Developer's Signature)

Subscribed and sworn to before me this _____ day of _____, 20___.

_____
(Notary Public)

_____
(Name Printed)

My Commission Expires _____

STANDARD PROCEDURES
OF
THE WASHINGTON SUBURBAN SANITARY COMMISSION

ORIGINATOR	DEPT. & NUMBER	APPROVED BY/DATE	EFFECTIVE DATE	PAGE 1
Water Resources Planning Section	PD 93-01	Cortez A. White General Manager	July 1, 1993	OF 3

SUBJECT

PROCEDURE FOR DETERMINING PERCENT GROWTH FOR CIP PROJECTS

I. PURPOSE AND APPLICABILITY

The purpose of this procedure is to establish a method for determining what proportion of certain WSSC CIP projects is for growth. This procedure applies after June 30, 1993: 1) to projects which are added to the CIP; and 2) to any revisions of projects already programmed which change the amount of system capacity added by the projects.

II. PROCEDURE AND METHODOLOGY

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:

Step 1. Test for 100% Growth

If flows/demands remained at June 1993 levels, would a project still be required?

No ==> Growth = 100%
Yes ==> Continue to Step 2

Step 2. Test for 0% Growth

Does the project improve or replace components of an existing facility without increasing the capacity of any of the components?

Yes ==> Growth = 0%
No ==> Continue to Step 3

Step 3. Determine Percent Growth

1. Identify system capacity added by the project.
2. Identify and subtract June 30, 1993 capacity deficit, if any.
3. Divide result by total project design capacity.

Notes:

1. For most water and wastewater facilities, there is a straight-forward 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 Step 3, part 2.

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% for growth. (Step 1)

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% for growth. (Step 1)

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% for growth. (Step 1) It adds capacity, so it is not 0% growth. (Step 2) 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%. (Step 3)

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% for growth. (Step 1)

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% for growth. [3 mg added - 1 mg deficit]/3 mg total capacity = 67.7%. (Step 3)

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WASHINGTON SUBURBAN SANITARY COMMISSION
PROPOSED FYS 2017 - 2022 CIP
SDC ELIGIBLE PROJECTS
SUMMARY
(In Thousands)

PROGRAM NAME	TOTAL COST	FY 2015	FY 2016	TOTAL 6 YEARS	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	BEYOND 6 YEARS
MONTGOMERY COUNTY WATER PROJECTS											
Total Project Costs *	$17,297	$4,577	$3,001	$9,719	$4,332	$4,650	$737	$0	$0	$0	$0
SDC Eligible Costs	$17,297	$4,577	$3,001	$9,719	$4,332	$4,650	$737	$0	$0	$0	$0
BI-COUNTY WATER PROJECTS											
Total Project Costs *	$145,975	$139,625	$4,895	$1,455	$457	$550	$20	$418	$10	$0	$0
SDC Eligible Costs	$144,418	$138,925	$4,661	$832	$132	$300	$0	$400	$0	$0	$0
PRINCE GEORGE'S COUNTY WATER PROJECTS											
Total Project Costs *	$267,708	$34,803	$27,893	$200,172	$61,504	$62,187	$32,195	$6,071	$11,320	$26,895	$4,840
SDC Eligible Costs	$206,488	$23,322	$21,727	$156,599	$49,116	$55,384	$27,205	$5,253	$5,994	$13,647	$4,840
TOTAL WATER PROJECT COSTS	$430,980	$179,005	$35,789	$211,346	$66,293	$67,387	$32,952	$6,489	$11,330	$26,895	$4,840
TOTAL WATER SDC ELIGIBLE COSTS	$368,203	$166,824	$29,389	$167,150	$53,580	$60,334	$27,942	$5,653	$5,994	$13,647	$4,840
MONTGOMERY COUNTY SEWERAGE PROJECTS											
Total Project Costs *	$65,795	$35,671	$4,299	$25,825	$12,323	$10,415	$3,041	$46	$0	$0	$0
SDC Eligible Costs	$65,795	$35,671	$4,299	$25,825	$12,323	$10,415	$3,041	$46	$0	$0	$0
BI-COUNTY SEWERAGE PROJECTS											
Total Project Costs *	$204	$0	$20	$184	$122	$22	$10	$10	$10	$10	$0
SDC Eligible Costs	$24	$0	$0	$24	$12	$12	$0	$0	$0	$0	$0
PRINCE GEORGE'S COUNTY SEWERAGE PROJECTS											
Total Project Costs *	$190,175	$49,575	$67,649	$72,493	$37,876	$22,172	$11,235	$507	$40	$663	$458
SDC Eligible Costs	$160,263	$41,540	$57,091	$61,174	$31,896	$18,724	$9,423	$428	$40	$663	$458
TOTAL SEWERAGE PROJECT COSTS	$256,174	$85,246	$71,968	$98,502	$50,321	$32,609	$14,286	$563	$50	$673	$458
TOTAL SEWERAGE SDC ELIGIBLE COSTS	$226,082	$77,211	$61,390	$87,023	$44,231	$29,151	$12,464	$474	$40	$663	$458
TOTAL PROJECT COSTS	$687,154	$264,251	$107,757	$309,848	$116,614	$99,996	$47,238	$7,052	$11,380	$27,568	$5,298
TOTAL SDC ELIGIBLE COSTS	$594,285	$244,035	$90,779	$254,173	$97,811	$89,485	$40,406	$6,127	$6,034	$14,310	$5,298

* Total Project Costs – This is the total cost for all projects needed to support growth. SDC Eligible Costs – That portion of Total Project Costs specifically for growth.
(i.e. if a project supports 50% Growth and 50% System Improvements, SDC Eligible Costs refer only to the 50% Growth portion).

WASHINGTON SUBURBAN SANITARY COMMISSION
PROPOSED FY'S 2017 - 2022 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	FY 2015	FY 2016	TOTAL 6 YEARS	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	BEYOND 6 YEARS
	WATER PROJECTS											
BI-COUNTY PROJECTS												
W-127.01	BI-COUNTY WATER TUNNEL	$143,855	$139,625	$4,198	$32	$32	$0	$0	$0	$0	$0	$0
	TOTAL GROWTH COSTS	143,155	138,925	4,198	32	32	0	0	0	0	0	0
W-202.00	LAND & RIGHTS-OF-WAY ACQUISITION - BI-COUNTY WATER	2,120	0	697	1,423	425	550	20	418	10	0	0
	TOTAL GROWTH COSTS	1,263	0	463	800	100	300	0	400	0	0	0
SUBTOTAL BI-COUNTY WATER PROJECTS		$145,975	$139,625	$4,895	$1,455	$457	$550	$20	$418	$10	$0	$0
SUBTOTAL BI-COUNTY SDC ELIGIBLE COSTS		$144,418	$138,925	$4,661	$832	$132	$300	$0	$400	$0	$0	$0
MONTGOMERY COUNTY PROJECTS												
W-46.14	CLARKSBURG AREA STAGE 3 WATER MAIN, PARTS 1, 2, & 3	$5,900	$2,832	$805	$2,263	$1,751	$446	$66	$0	$0	$0	$0
	TOTAL GROWTH COSTS	5,900	2,832	805	2,263	1,751	446	66	0	0	0	0
W-46.15	CLARKSBURG ELEVATED WATER STORAGE FACILITY	5,982	311	276	5,395	1,285	3,522	588	0	0	0	0
	TOTAL GROWTH COSTS	5,982	311	276	5,395	1,285	3,522	588	0	0	0	0
W-46.24	CLARKSBURG AREA STAGE 3 WATER MAIN, PART 4	3,791	1,434	495	1,862	1,149	630	83	0	0	0	0
	TOTAL GROWTH COSTS	3,791	1,434	495	1,862	1,149	630	83	0	0	0	0
W-46.25	CLARKSBURG AREA STAGE 3 WATER MAIN, PART 5	1,624	0	1,425	199	147	52	0	0	0	0	0
	TOTAL GROWTH COSTS	1,624	0	1,425	199	147	52	0	0	0	0	0
SUBTOTAL MONTGOMERY COUNTY WATER PROJECTS		$17,297	$4,577	$3,001	$9,719	$4,332	$4,650	$737	$0	$0	$0	$0
SUBTOTAL MONTGOMERY COUNTY SDC ELIGIBLE COSTS		$17,297	$4,577	$3,001	$9,719	$4,332	$4,650	$737	$0	$0	$0	$0
PRINCE GEORGE'S COUNTY PROJECTS												
W-34.02	OLD BRANCH AVENUE WATER MAIN	$26,070	$1,528	$122	24,420	$3,336	$9,762	$9,708	$1,614	$0	$0	$0
	TOTAL GROWTH COSTS	13,035	764	61	12,210	1,668	4,881	4,854	807	0	0	0
W-34.03	WATER TRANSMISSION IMPROVEMENTS 385B PRESSURE ZONE	34,593	900	473	33,220	2,860	13,310	13,200	3,850	0	0	0
	TOTAL GROWTH COSTS	34,593	900	473	33,220	2,860	13,310	13,200	3,850	0	0	0

WASHINGTON SUBURBAN SANITARY COMMISSION
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SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	FY 2015	FY 2016	TOTAL 6 YEARS	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	BEYOND 6 YEARS
PRINCE GEORGE'S COUNTY PROJECTS (CONTINUED)												
W-34.04	BRANCH AVENUE WATER TRANSMISSION IMPROVEMENTS	$53,555	$3,569	$11,900	$38,086	$15,834	$18,991	$3,261	$0	$0	$0	$0
	TOTAL GROWTH COSTS	53,555	3,569	11,900	38,086	15,834	18,991	3,261	0	0	0	0
W-62.05	CLINTON ZONE WATER STORAGE FACILITY IMPLEMENTATION	12,559	1,214	385	6,120	1,980	2,948	1,192	0	0	0	4,840
	TOTAL GROWTH COSTS	12,559	1,214	385	6,120	1,980	2,948	1,192	0	0	0	4,840
W-65.10	ST. BARNABAS ELEVATED TANK REPLACEMENT	10,908	640	1,972	8,296	5,524	2,772	0	0	0	0	0
	TOTAL GROWTH COSTS	5,454	320	986	4,148	2,762	1,386	0	0	0	0	0
W-84.02	RITCHIE MARLBORO ROAD TRANSMISSION MAIN & PRV	12,619	1,184	396	11,039	4,413	4,413	2,213	0	0	0	0
	TOTAL GROWTH COSTS	12,619	1,184	396	11,039	4,413	4,413	2,213	0	0	0	0
W-84.03	SMITH HOME FARMS WATER MAIN	2,500	737	583	1,180	397	394	389	0	0	0	0
	TOTAL GROWTH COSTS	2,500	737	583	1,180	397	394	389	0	0	0	0
W-84.04	WESTPHALIA TOWN CENTER WATER MAIN	1,438	520	40	878	293	347	238	0	0	0	0
	TOTAL GROWTH COSTS	1,438	520	40	878	293	347	238	0	0	0	0
W-93.01	KONTERRA TOWN CENTER EAST WATER MAIN	1,607	89	53	1,465	619	59	334	185	268	0	0
	TOTAL GROWTH COSTS	1,607	89	53	1,465	619	59	334	185	268	0	0
W-105.01	MARLTON SECTION 18 WATER MAIN, LAKE MARLTON AVENUE	2,407	28	6	2,373	374	400	400	400	400	399	0
	TOTAL GROWTH COSTS	2,407	28	6	2,373	374	400	400	400	400	399	0
W-111.05	HILLMEADE ROAD WATER MAIN	5,514	934	1,555	3,025	3,025	0	0	0	0	0	0
	TOTAL GROWTH COSTS	5,514	934	1,555	3,025	3,025	0	0	0	0	0	0
W-119.01	JOHN HANSON HIGHWAY WATER MAIN, PART 1	15,920	1,279	55	14,586	6,697	7,238	651	0	0	0	0
	TOTAL GROWTH COSTS	15,920	1,279	55	14,586	6,697	7,238	651	0	0	0	0
W-120.14	LAKEVIEW AT BRANDYWINE WATER MAIN, PART 1	193	43	0	150	10	70	70	0	0	0	0
	TOTAL GROWTH COSTS	193	43	0	150	10	70	70	0	0	0	0
W-120.15	LAKEVIEW AT BRANDYWINE WATER MAIN, PART 2	618	72	0	546	14	265	267	0	0	0	0
	TOTAL GROWTH COSTS	618	72	0	546	14	265	267	0	0	0	0

WASHINGTON SUBURBAN SANITARY COMMISSION
PROPOSED FY'S 2017 - 2022 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	FY 2015	FY 2016	TOTAL 6 YEARS	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	BEYOND 6 YEARS
PRINCE GEORGE'S COUNTY PROJECTS (CONTINUED)												
W-120.16	LAKEVIEW AT BRANDYWINE WATER MAIN, PART 3	$47	$14	$0	$33	$33	$0	$0	$0	$0	$0	$0
	TOTAL GROWTH COSTS	47	14	0	33	33	0	0	0	0	0	0
W-123.14	OLD MARLBORO PIKE WATER MAIN	1,698	1,258	115	325	179	146	0	0	0	0	0
	TOTAL GROWTH COSTS	1,698	1,258	115	325	179	146	0	0	0	0	0
W-123.20	OAK GROVE/LEELAND ROADS WATER MAIN, PART 2	12,828	6,410	2,820	3,598	3,472	126	0	0	0	0	0
	TOTAL GROWTH COSTS	6,414	3,205	1,410	1,799	1,736	63	0	0	0	0	0
W-137.02	SOUTH POTOMAC SUPPLY IMPROVEMENT	57,852	2,220	4,834	50,798	12,410	946	272	22	10,652	26,496	0
	TOTAL GROWTH COSTS	28,926	1,110	2,417	25,399	6,205	473	136	11	5,326	13,248	0
W-147.00	COLLINGTON ELEVATED WATER STORAGE FACILITY	14,782	12,164	2,584	34	34	0	0	0	0	0	0
	TOTAL GROWTH COSTS	7,391	6,082	1,292	17	17	0	0	0	0	0	0
SUBTOTAL PRINCE GEORGE'S COUNTY WATER PROJECTS		$267,708	$34,803	$27,893	$200,172	$61,504	$62,187	$32,195	$6,071	$11,320	$26,895	$4,840
SUBTOTAL PRINCE GEORGE'S COUNTY SDC ELIGIBLE COSTS		$206,488	$23,322	$21,727	$156,599	$49,116	$55,384	$27,205	$5,253	$5,994	$13,647	$4,840
TOTAL WATER PROJECTS COSTS		$430,980	$179,005	$35,789	211,346	$66,293	$67,387	$32,952	$6,489	$11,330	$26,895	$4,840
TOTAL WATER SDC ELIGIBLE COSTS		$368,203	$166,824	$29,389	167,150	$53,580	$60,334	$27,942	$5,653	$5,994	$13,647	$4,840
	SEWERAGE PROJECTS											
BI-COUNTY PROJECTS												
S-203.00	LAND & RIGHTS-OF-WAY ACQUISITION - BI-COUNTY SEWER	$204	$0	$20	$184	$122	$22	$10	$10	$10	$10	$0
	TOTAL GROWTH COSTS	24	0	0	24	12	12	0	0	0	0	0
SUBTOTAL BI-COUNTY SEWERAGE PROJECTS		$204	$0	$20	$184	$122	$22	$10	$10	$10	$10	$0
SUBTOTAL BI-COUNTY SDC ELIGIBLE COSTS		$24	$0	$0	$24	$12	$12	$0	$0	$0	$0	$0
MONTGOMERY COUNTY PROJECTS												
S-25.03	TWINBROOK COMMONS SEWER	$1,004	$607	$59	$338	$159	$87	$46	$46	$0	$0	$0
	TOTAL GROWTH COSTS	1,004	607	59	338	159	87	46	46	0	0	0

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SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	FY 2015	FY 2016	TOTAL 6 YEARS	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	BEYOND 6 YEARS
MONTGOMERY COUNTY PROJECTS (CONTINUED)												
S-25.04	MID-PIKE PLAZA SEWER MAIN, PHASE 1	$4,053	$3,730	$199	$124	$124	$0	$0	$0	$0	$0	$0
	TOTAL GROWTH COSTS	4,053	3,730	199	124	124	0	0	0	0	0	0
S-25.05	MID-PIKE PLAZA SEWER MAIN, PHASE 2	6,094	119	1,434	4,541	3,107	1,434	0	0	0	0	0
	TOTAL GROWTH COSTS	6,094	119	1,434	4,541	3,107	1,434	0	0	0	0	0
S-53.22	SENECA WWTP EXPANSION, PART 2	30,484	29,955	507	22	22	0	0	0	0	0	0
	TOTAL GROWTH COSTS	30,484	29,955	507	22	22	0	0	0	0	0	0
S-84.47	CLARKSBURG TRIANGLE OUTFALL SEWER, PART 2	2,539	1,126	782	631	555	76	0	0	0	0	0
	TOTAL GROWTH COSTS	2,539	1,126	782	631	555	76	0	0	0	0	0
S-84.60	CABIN BRANCH WASTEWATER PUMPING STATION	2,342	12	13	2,317	449	1,566	302	0	0	0	0
	TOTAL GROWTH COSTS	2,342	12	13	2,317	449	1,566	302	0	0	0	0
S-84.61	CABIN BRANCH WWPS FORCE MAIN	424	0	17	407	143	240	24	0	0	0	0
	TOTAL GROWTH COSTS	424	0	17	407	143	240	24	0	0	0	0
S-84.65	TAPESTRY WASTEWATER PUMPING STATION	1,354	65	500	789	461	328	0	0	0	0	0
	TOTAL GROWTH COSTS	1,354	65	500	789	461	328	0	0	0	0	0
S-84.66	TAPESTRY WWPS FORCE MAIN	134	13	54	67	37	30	0	0	0	0	0
	TOTAL GROWTH COSTS	134	13	54	67	37	30	0	0	0	0	0
S-85.21	SHADY GROVE STATION SEWER AUGMENTATION	2,254	23	305	1,926	1,181	745	0	0	0	0	0
	TOTAL GROWTH COSTS	2,254	23	305	1,926	1,181	745	0	0	0	0	0
S-103.16	CABIN JOHN TRUNK SEWER RELIEF	15,113	21	429	14,663	6,085	5,909	2,669	0	0	0	0
	TOTAL GROWTH COSTS	15,113	21	429	14,663	6,085	5,909	2,669	0	0	0	0
SUBTOTAL MONTGOMERY COUNTY SEWERAGE PROJECTS		$65,795	$35,671	$4,299	$25,825	$12,323	$10,415	$3,041	$46	$0	$0	$0
SUBTOTAL MONTGOMERY COUNTY SDC ELIGIBLE COSTS		$65,795	$35,671	$4,299	$25,825	$12,323	$10,415	$3,041	$46	$0	$0	$0
PRINCE GEORGE'S COUNTY PROJECTS												
S-27.08	WESTPHALIA TOWN CENTER SEWER MAIN	$816	$195	$437	$184	$120	$55	$9	$0	$0	$0	$0
	TOTAL GROWTH COSTS	816	195	437	$184	120	55	9	0	0	0	0

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SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	FY 2015	FY 2016	TOTAL 6 YEARS	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	BEYOND 6 YEARS
PRINCE GEORGE'S COUNTY PROJECTS (CONTINUED)												
S-28.18	KONTERRA TOWN CENTER EAST SEWER	$6,458	$1,704	$2,820	$1,476	$0	$486	$367	$0	$0	$623	$458
	TOTAL GROWTH COSTS	6,458	1,704	2,820	1,476	0	486	367	0	0	623	458
S-43.02	BROAD CREEK WWPS AUGMENTATION	175,955	47,266	62,108	66,581	35,175	20,281	10,658	467	0	0	0
	TOTAL GROWTH COSTS	146,043	39,231	51,550	55,262	29,195	16,833	8,846	388	0	0	0
S-68.01	LANDOVER MALL REDEVELOPMENT	1,241	24	95	1,122	621	338	43	40	40	40	0
	TOTAL GROWTH COSTS	1,241	24	95	1,122	621	338	43	40	40	40	0
S-75.19	BRANDYWINE WOODS WASTEWATER PUMPING STATION	302	6	171	125	63	62	0	0	0	0	0
	TOTAL GROWTH COSTS	302	6	171	125	63	62	0	0	0	0	0
S-75.20	BRANDYWINE WOODS WWPS FORCE MAIN	117	12	35	70	37	33	0	0	0	0	0
	TOTAL GROWTH COSTS	117	12	35	70	37	33	0	0	0	0	0
S-86.19	KARINGTON SUBDIVISION SEWER	711	96	95	520	269	251	0	0	0	0	0
	TOTAL GROWTH COSTS	711	96	95	520	269	251	0	0	0	0	0
S-87.15	RODENHAUSER WASTEWATER PUMPING STATION	1,200	97	1,055	48	33	15	0	0	0	0	0
	TOTAL GROWTH COSTS	1,200	97	1,055	48	33	15	0	0	0	0	0
S-87.16	RODENHAUSER WWPS FORCE MAIN	280	90	174	16	16	0	0	0	0	0	0
	TOTAL GROWTH COSTS	280	90	174	16	16	0	0	0	0	0	0
S-131.05	PLEASANT VALLEY SEWER MAIN, PART 2	825	30	190	605	375	156	74	0	0	0	0
	TOTAL GROWTH COSTS	825	30	190	605	375	156	74	0	0	0	0
S-131.07	PLEASANT VALLEY SEWER MAIN, PART 1	1,623	47	446	1,130	923	207	0	0	0	0	0
	TOTAL GROWTH COSTS	1,623	47	446	1,130	923	207	0	0	0	0	0
S-131.08	PRESERVES OF PISCATAWAY WASTEWATER PUMPING STATION	562	4	20	538	229	225	84	0	0	0	0
	TOTAL GROWTH COSTS	562	4	20	538	229	225	84	0	0	0	0
S-131.09	PRESERVES OF PISCATAWAY WWPS FORCE MAIN	85	4	3	78	15	63	0	0	0	0	0
	TOTAL GROWTH COSTS	85	4	3	78	15	63	0	0	0	0	0
SUBTOTAL PRINCE GEORGE'S COUNTY SEWERAGE PROJECTS		$190,175	$49,575	$67,649	$72,493	$37,876	$22,172	$11,235	$507	$40	$663	$458
SUBTOTAL PRINCE GEORGE'S COUNTY SDC ELIGIBLE COSTS		$160,263	$41,540	$57,091	$61,174	$31,896	$18,724	$9,423	$428	$40	$663	$458
TOTAL SEWERAGE PROJECTS COSTS		$256,174	$85,246	$71,968	$98,502	$50,321	$32,609	$14,286	$563	$50	$673	$458
TOTAL SEWERAGE SDC ELIGIBLE COSTS		$226,082	$77,211	$61,390	$87,023	$44,231	$29,151	$12,464	$474	$40	$663	$458
TOTAL PROJECT COSTS		$687,154	$264,251	$107,757	309,848	$116,614	$99,996	$47,238	$7,052	$11,380	$27,568	$5,298
TOTAL SDC ELIGIBLE COSTS		$594,285	$244,035	$90,779	254,173	$97,811	$89,485	$40,406	$6,127	$6,034	$14,310	$5,298