



ADOPTED CIP
Capital Improvements
Program
FYs 2016-2021



Washington Suburban Sanitary Commission

Adopted Six-Year Capital Improvements Program Fiscal Years 2016 - 2021

June 17, 2015

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The T. Howard Duckett Dam, spanning the Patuxent River between Prince George's and Howard counties, went into service in 1954 creating the Duckett Reservoir (also known as Rocky Gorge), which holds 5.5 billion gallons of source water for WSSC customers. The improvement project currently underway will fortify the dam by adding concrete walls extending out from each side and thick concrete slabs on the downstream side of the dam. When completed in early 2015 the upgrades will ensure the dam can withstand a 1-in-10,000 year storm (32 inches of rain over a 72-hour period).

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**WASHINGTON SUBURBAN SANITARY COMMISSION
ADOPTED CAPITAL IMPROVEMENTS PROGRAM
FISCAL YEARS 2016-2021**

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. The Adopted FYs 2016-2021 CIP reflects the actions of the Montgomery County Council by Resolution No. 18-156 dated May 21, 2015, and Prince George's County Council by Resolution No. CR-21-2015 dated May 28, 2015. 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 facilities. These facilities may be necessary for system improvements and/or service to existing customers, to comply with federal and/or state environmental mandates, and 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 20 or 30-year period by annual principal and interest payments known as 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 mains and 5,400 miles of sewer mains;
- 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 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 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'16 expenditures are estimated at \$546.6 million, which represents an increase of approximately \$74.6 million from the approved funding level for FY'15. The primary reason for the increase is due to the significant increase in the Trunk Sewer Reconstruction project due to ramping up the work to meet the Consent Decree deadline and higher estimates for working in Environmentally Sensitive Areas including building access roads and setting up temporary by-pass pumping systems.

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 Anaerobic Digestion/Combined Heat & Power projects to study 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 \$270 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, 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. 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 \$69.8 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, 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 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)

	<u>FY'16</u>	<u>FY'17</u>	<u>FY'18</u>	<u>FY'19</u>	<u>FY'20</u>	<u>FY'21</u>	<u>6 YEAR TOTAL</u>
CIP GROWTH EXPENDITURES	\$97.8	\$80.9	\$50.1	\$24.5	\$11.2	\$5.8	\$270.3
Expenditures Adjusted for Completion	71.5	88.7	57.5	28.5	11.1	5.8	263.1
FUNDING SOURCES							
Privately Funded Projects	14.0	13.7	6.9	1.4	0.2	0.2	36.4
Estimated SDC Revenue	29.3	29.8	30.0	30.0	30.0	30.0	179.1
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	\$40.6	\$40.8	\$34.2	\$28.7	\$27.5	\$27.5	\$199.3
FUNDING GAP							
ADJUSTED FOR COMPLETION	\$37.6	\$43.5	\$22.1	\$0.9	(\$13.6)	(\$20.7)	\$69.8

¹Each 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 2016-2021 Capital Improvements Program includes 84 projects for a grand total of \$4.2 billion dollars. Expenditures for the six-year program period are estimated at \$2.1 billion. FY'16 expenditures are estimated at \$546.6 million, which is \$74.6 million greater than the funding level approved for FY'15. Of the \$546.6 million, \$139.9 million is for the Water Program and \$406.7 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 \$36.5 million, with approximately \$17.5 million programmed in FY'16. There is one new project totaling \$124,000 in the six-year program period. New projects are shown on the New Projects Listing near the end of this section.

A table comparing the Adopted FYs 2015-2020 CIP to the Adopted FYs 2016-2021 CIP follows:

WSSC CIP - COMPARISON

(In Thousands)

	<u>TOTAL PROGRAM</u>	<u>TOTAL SIX YEARS</u>	<u>BUDGET YEARS COMPARISON</u>
Adopted FYs 2015-2020	\$3,708,020	\$1,620,811	\$472,036
Adopted FYs 2016-2021	4,226,425	2,082,051	546,594
Change	\$518,405	\$461,240	\$74,558

Six-year program expenditures are estimated at approximately \$2.1 billion, \$767.4 million for the Water Program and \$1.3 billion for the Sewerage Program. This is a \$461.2 million increase from the six-year total in the Adopted FYs 2015-2020 CIP. The primary reason for the increase is due to the significant increase in the Trunk Sewer Reconstruction project due to ramping up the work to meet the Consent Decree deadline and higher estimates for working in Environmentally Sensitive Areas including building access roads and setting up temporary by-pass pumping systems.

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 proposals, 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; maximum population and area to be served; project justification; project expenditure schedule showing the estimated cost and funding sources; and 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. Several of the sections also contain "composite" PDFs that include multiple, active projects on one form. In the Prince George's County Water and Sewer Projects sections, conceptual design projects are combined with Development Services Process projects onto composite project forms (W-197.00 and S-187.00, respectively). The conceptual design projects are in the final stages of planning or early design, for which reliable design and construction costs and completion schedules were not available when the CIP was prepared. The WSSC's intent is to begin preliminary design for projects requiring final planning phase approval, consultant design contract negotiations, sub-surface investigations, and land and rights-of-way acquisition. Further, these projects may require in-house review and county government interaction as detailed design data is developed. Generally, as projects progress beyond the 30% design stage for facility projects and the 60% design stage for pipeline projects, a separate, stand-alone PDF may be prepared for display in the next CIP cycle. These projects will include updated costs and completion schedules.







Anticipated land and rights-of-way 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 12, 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 restricted 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. Pumping stations are strategically located throughout the Sanitary District to help 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. The WSSC's 6 treatment plants have a combined treatment capacity of 89 million gallons per day (mgd). These plants include 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 to alleviate health hazards from failing septic systems in the Jonesville and Jerusalem communities. The 6 WSSC-owned-and-operated plants were built to augment treatment in the Blue Plains service area and to serve areas that are out of reach of the Blue Plains system.

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 and 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 60-gallon sump, pumping 11 gallons per minute through a 1¼-inch diameter 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 to meet suburban Maryland's treatment requirements represents some of the most significant expenditure appropriations 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 Piscataway WWTP's biological nutrient removal (BNR) project in 2004, all of the WSSC's plants now have integrated nutrient removal processes to significantly reduce the amount of nitrogen and phosphorus 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 must accompany the evaluation of all 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 \$213 million included in the six-year program which is attributable to meeting environmental regulations. These projects, currently estimated at 10% of the total six-year costs in this CIP, are mandated by the U.S. Environmental Protection Agency and the State of Maryland in response to pollution controls embodied in the Federal Clean Water Act and to 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. On the first page of each section of the CIP, projects which benefit the environment are designated with the following symbol:



Environmental Spending

	<u>(Dollars in Millions)</u>
• W-172.05, Patuxent WFP Phase II Expansion	9.5
• S-22.10, Blue Plains WWTP: Enhanced Nutrient Removal	137.6
• S-22.11, Blue Plains: Pipelines & Appurtenances	48.4
• S-57.93, Western Branch WWTP Enhanced Nutrient Removal	0.1
• S-57.94, Western Branch WWTP Incinerator Emissions Control	17.3
 Total Six-Year Program Expenditures Allocated to Environmental Regulations	 \$212.9

The Customer Advisory Board (CAB) 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. The CAB assists in meeting environmental protection challenges. This committee provides for volunteer members from the general public. Among other responsibilities, the CAB reviews major 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.

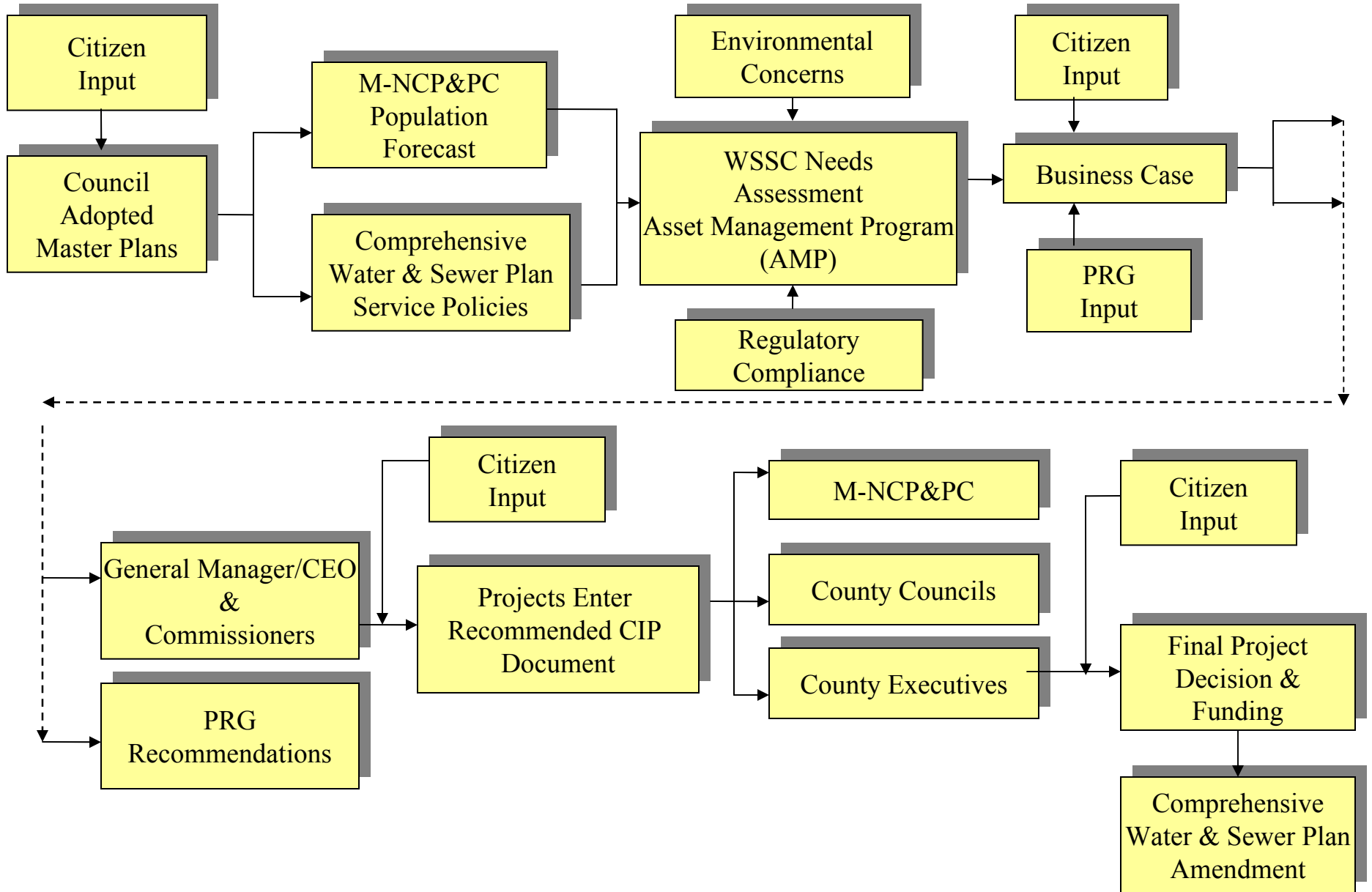
The Planning Process

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. 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 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	• CIP 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 short 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, such as a new youth soccer complex, 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 then 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 construction permits and rights-of-way have been obtained, and the Applicant has satisfied all project conditions. Almost half 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 construction 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 for the WSSC 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. Many of the estimates in earlier CIP documents were based upon planning studies and reports that included average costs calculated solely from past construction contracts.

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.

Cost estimates for major facility projects (e.g., treatment plants and pumping stations) in the planning and design phases are normally based on estimates developed by consulting engineers. By nature, these estimates are complex, and from the point of conceptual design details change, project scopes are redefined, processes are modified, equipment and piping are reconfigured or resized, decisions are made on elements such as equipment redundancy, and costs are subjected, selectively, to a Value Engineering review. All of these adjustments are expected to result in cost modifications. The WSSC requires that projects be re-evaluated by consulting engineers at the 30% and 70% stages of design. Estimated construction costs, reflecting these modifications, are identified on the individual PDFs, if applicable, and displayed in the CIP. Because the costs displayed in the CIP are estimates and not actual costs, construction contingencies may be added.

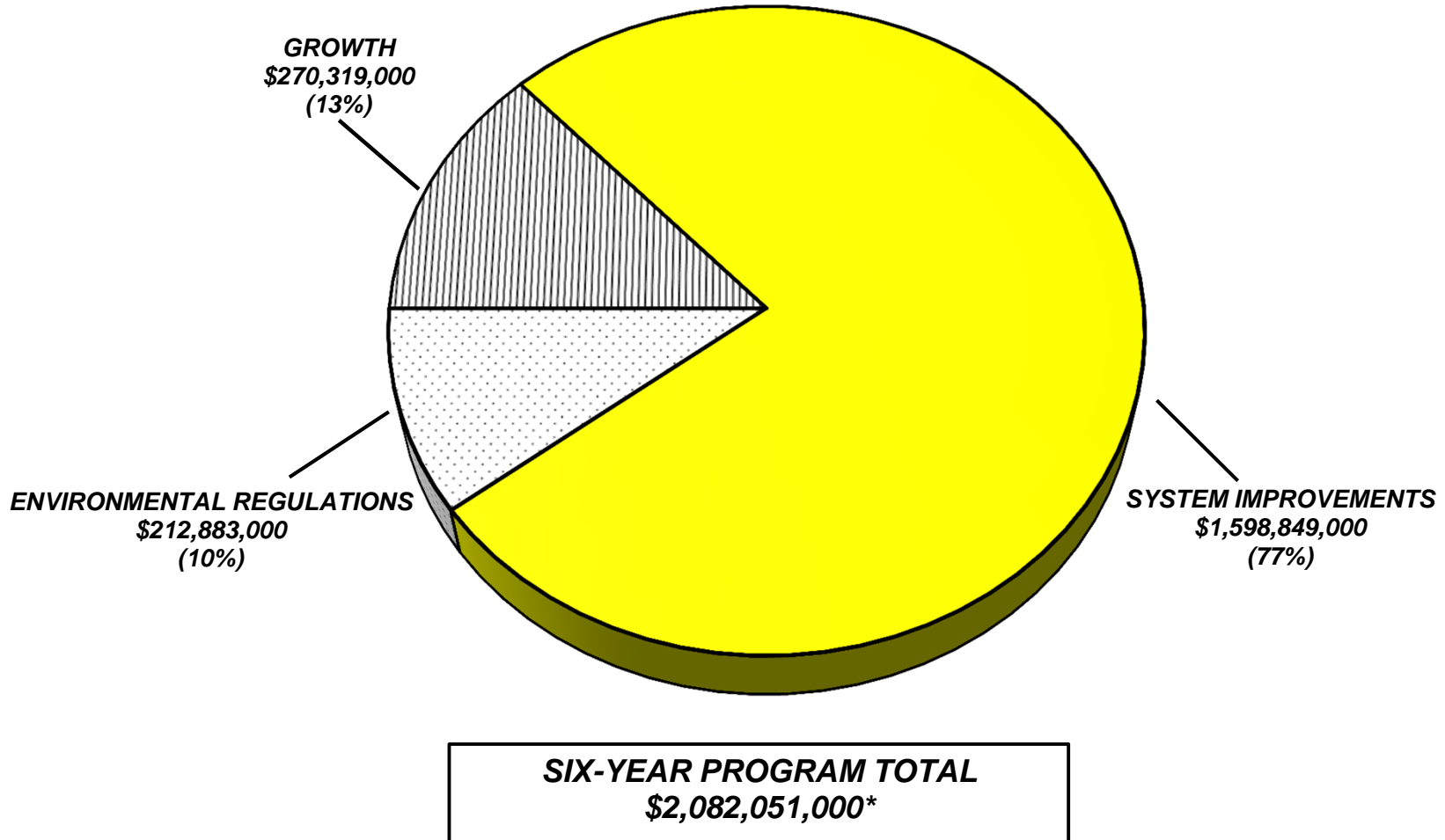
The “Other” cost element, displayed in Block B, Line 5 in the Expenditure Schedule on each PDF, is a broad estimate of the direct and indirect expenses associated with the implementation of each project and is not covered by the other major cost categories. These costs include direct support costs for a project such as salaries, wages, and related personnel costs (social security, retirement), and materials, 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, Land, 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 overhead, are shown on the PDF in the Block B Expenditure Schedule under Column (9). 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 ADOPTED FYS 2016-21 CIP

SIX-YEAR PROGRAM EXPENDITURES BY MAJOR CATEGORY*

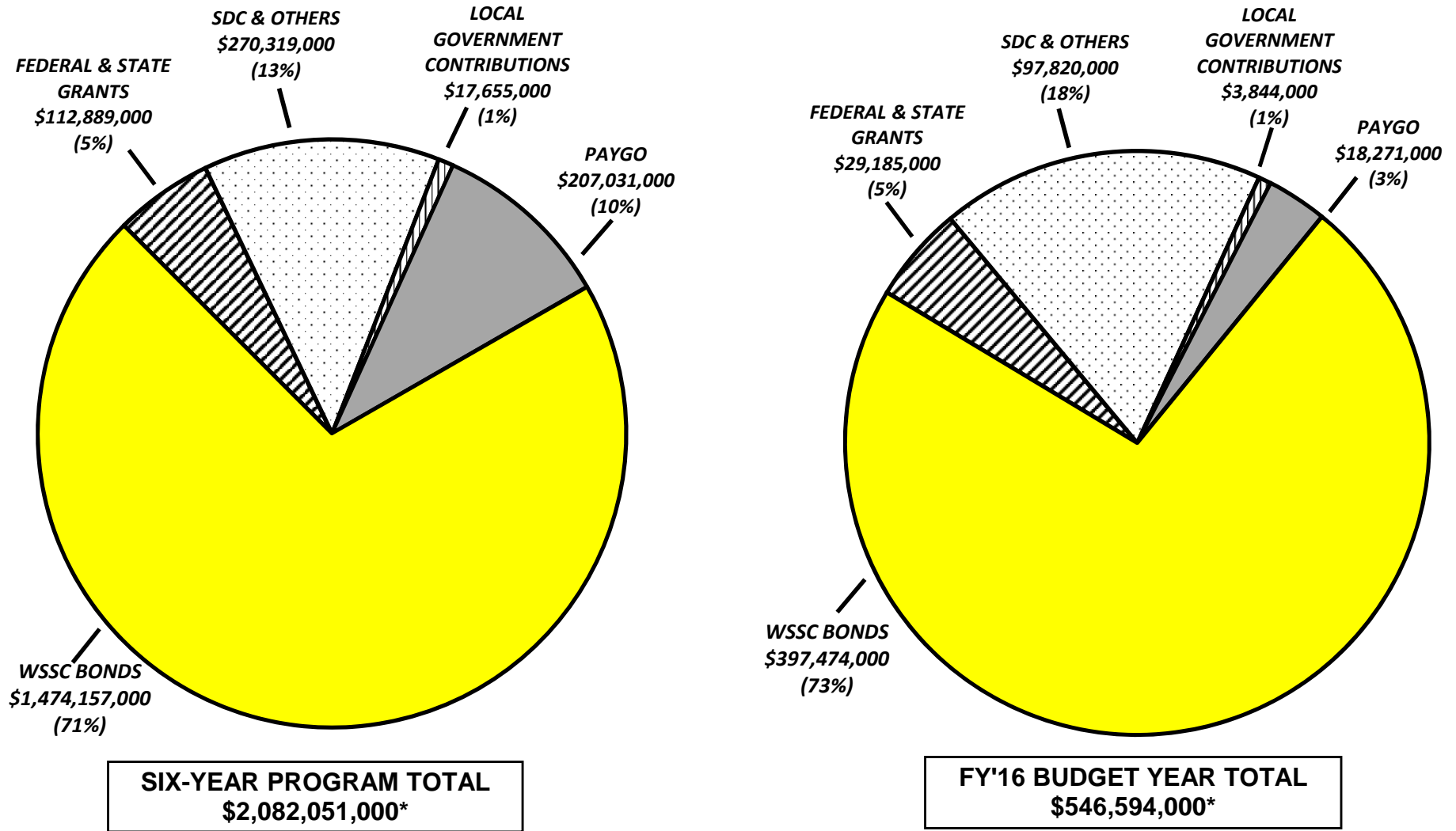


* Totals do not include \$1,117,677,000 in System Improvements project capital expenditures for Information Only Projects.

FIGURE 4

WSSC ADOPTED FYS 2016-21 CIP

FUNDING BY SOURCE*



*Totals do not include \$1,117,677,000 and \$167,953,000 in capital expenditures for Information Only projects in the six-year program and budget year, respectively.

**WSSC FYS 2016 - 2021 CIP
NEW PROJECTS LISTING
(costs in thousands)**

Agency Number	Project Name	Total Project Cost	6 Year Program Cost	Budget Year Cost	% of Growth
<i>Bi-County Sewer Projects</i>					
S-203.00	Land Rights-Of-Way Acquisition - Bi-County	\$424	\$124	\$112	0%
TOTALS		<u>\$424</u>	<u>\$124</u>	<u>\$112</u>	

1 New Project

WSSC FYS 2016 - 2021 CIP
ALL PROJECTS PENDING CLOSE-OUT
(costs in thousands)

Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'14	Estimated Expenditures FY'15	Remarks
<u>Montgomery County Sewer Projects</u>					
S- 94.12	Damascus WWTP Enhanced Nutrient Removal	\$7,485	\$7,318	\$167	Project completion expected in FY'15.
S-201.00	Land & Rights-Of-Way Acquisition - Montgomery County	0	0	0	All land costs are consolidated in Bi-County Sewer.
<u>Bi-County Water Projects</u>					
W-73.18	Power Reliability and Arc Flash Implementation	4,916	4,916	0	Project complete.
W-73.20	Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation	10,481	8,964	1,517	Project completion expected in FY'15.
<u>Bi-County Sewer Projects</u>					
S-89.22	Anacostia Storage Facility	21,865	20,195	1,670	Project completion expected in FY'15.
<u>Prince George's County Water Projects</u>					
W-204.00	Land & Rights-Of-Way Acquisition - Prince George's County	0	0	0	All land costs are consolidated in Bi-County Water.
<u>Prince George's County Sewer Projects</u>					
S-205.00	Land & Rights-Of-Way Acquisition - Prince George's County	0	0	0	All land costs are consolidated in Bi-County Sewer.
TOTALS		<u>\$44,747</u>	<u>\$41,393</u>	<u>\$3,354</u>	

7 Projects Pending Close-Out

FINANCIAL SUMMARY

DATE: October 1, 2014

REVISED: May 7, 2015

(ALL FIGURES IN THOUSANDS)

TOTAL WSSC CIP

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 14	EST. EXPEND 15	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BUDGET REQUEST 16	PDF PAGE NUM
						YR 1 16	YR 2 17	YR 3 18	YR 4 19	YR 5 20	YR 6 21		
	Montgomery County Water Projects	40,780	8,288	5,113	27,379	9,634	10,677	5,955	1,113	0	0	9,634	1-1
	Prince George's County Water Projects	268,408	22,980	24,900	200,295	43,172	52,710	45,580	28,837	17,748	12,248	43,172	5-1
	Bi-County Water Projects	855,447	238,001	77,723	539,723	87,099	102,576	106,048	96,912	84,713	62,375	87,099	3-1
	TOTAL WATER PROJECTS	1,164,635	269,269	107,736	767,397	139,905	165,963	157,583	126,862	102,461	74,623	139,905	
	Montgomery County Sewerage Projects	80,152	50,069	10,573	19,510	9,443	7,410	2,611	46	0	0	9,443	2-1
	Prince George's County Sewerage Projects	446,682	116,562	87,802	229,389	84,400	59,108	31,832	16,892	16,234	20,923	84,400	6-1
	Bi-County Sewerage Projects	2,534,956	1,126,740	274,195	1,065,755	312,846	234,292	240,197	127,419	87,164	63,837	312,846	4-1
	TOTAL SEWERAGE PROJECTS	3,061,790	1,293,371	372,570	1,314,654	406,689	300,810	274,640	144,357	103,398	84,760	406,689	
	TOTAL WSSC PROGRAM	4,226,425	1,562,640	480,306	2,082,051	546,594	466,773	432,223	271,219	205,859	159,383	546,594	
	Total Information Only Projects	1,405,054	51,110	179,031	1,143,267	172,703	187,626	199,300	212,956	203,637	167,045	172,703	7-1

Notes for costs beyond six years:

Includes 68,266 for Bi-County Sewer Projects.

Includes 20,233 for Prince George's County Water Projects.

Includes 12,929 for Prince George's County Sewer Projects.

Includes 31,646 for Information Only Projects.

Includes 133,074 for all costs beyond six years.

Section 1 - Montgomery County Water Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

MONTGOMERY COUNTY WATER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 14	EST. EXPEND 15	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BUDGET REQUEST 16	PDF PAGE NUM
						YR 1 16	YR 2 17	YR 3 18	YR 4 19	YR 5 20	YR 6 21		
W-3.02	Olney Standpipe Replacement	8,079	1,225	104	6,750	2,286	2,668	1,796	0	0	0	2,286	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	1,751	1-4
W-46.15	Clarksburg Elevated Water Storage Facility	4,836	232	472	4,132	127	222	2,670	1,113	0	0	127	1-5
W-46.18	Newcut Road Water Main, Part 2	1,555	1,204	213	138	138	0	0	0	0	0	138	1-6
W-46.24	Clarksburg Area Stage 3 Water Main, Part 4	3,789	1,432	495	1,862	1,149	630	83	0	0	0	1,149	1-7
W-46.25	Clarksburg Area Stage 3 Water Main, Part 5	1,624	0	1,425	199	147	52	0	0	0	0	147	1-8
W-90.04	Brink Zone Reliability Improvements	6,909	65	863	5,981	673	3,968	1,340	0	0	0	673	1-9
W-138.02	Shady Grove Standpipe Replacement	8,088	1,298	736	6,054	3,363	2,691	0	0	0	0	3,363	1-10
	TOTAL MONTGOMERY COUNTY WATER PROJECTS	40,780	8,288	5,113	27,379	9,634	10,677	5,955	1,113	0	0	9,634	

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:	
063801	W-3.02	Change		
3. Project Name: Olney Standpipe Replacement			5. Agency: WSSC	
4. Program: Sanitation			6. Planning Area: Olney & Vicinity P.A. 23	

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,681	1,221	90	370	155	120	95				
Land											
Site Improvements & Utilities											
Construction	5,504	4		5,500	1,833	2,200	1,467				
Other	894		14	880	298	348	234				
Total	8,079	1,225	104	6,750	2,286	2,668	1,796				

C. Funding Schedule (000's)											
WSSC Bonds	8,079	1,225	104	6,750	2,286	2,668	1,796				

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.

Service Area Montgomery High Pressure Zone HG5601

Capacity 1.5 MG

JUSTIFICATION

Plans & Studies

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).

Specific Data

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.

Cost Change

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

STATUS Final Design Complete (WSSC Contract No. BE4473A06,).

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 MDE and the Maryland State Highway Administration.

COORDINATION

Maryland State Highway Administration, Montgomery County Government and Maryland-National Capital Park & Planning Commission (anticipates receiving Mandatory Referral submissions).

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff	.....	.....
	Other	.....	.....
Facility Costs	Maintenance	.....	.....
	Debt Service	.....	533	19
Total Costs.....			533	19
Impact on Water or Sewer Rate.....			1¢	19

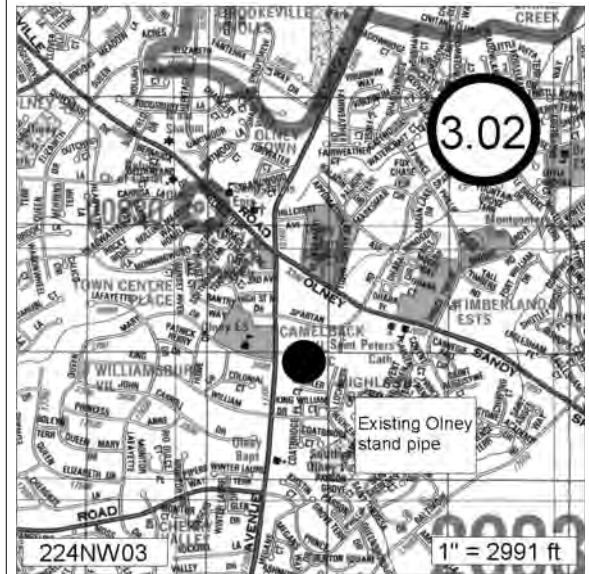
F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 06"/>
Date First Approved	<input type="text" value="FY 06"/>
Initial Cost Estimate	<input type="text" value="3,911"/>
Cost Estimate Last FY	<input type="text" value="6,931"/>
Present Cost Estimate	<input type="text" value="8,079"/>
Approved Request, Last FY	<input type="text" value="2,415"/>
Total Expenditures & Encumbrances	<input type="text" value="1,225"/>
Approval Request FY 16	<input type="text" value="2,286"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: Not determined
 % Project Completion: D-100%
 Est. Completion Date: FY 2018

H. Map Map Reference Code:



GERMANTOWN/CLARKSBURG AREA PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'15 TOTAL COST	ADOPTED FY'16 TOTAL COST	CHANGE \$	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
W-46.14	Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3	\$5,695	\$5,900	\$205	3.6%	\$2,263	Developer Dependent
W-46.15	Clarksburg Elevated Water Storage Facility	4,592	4,836	244	5.3%	4,132	FY 2019
W-46.18	Newcut Road Water Main, Part 2	1,593	1,555	(38)	-2.4%	138	Developer Dependent
W-46.24	Clarksburg Area Stage 3 Water Main, Part 4	5,413	3,789	(1,624)	-30.0%	1,862	Developer Dependent
W-46.25	Clarksburg Area Stage 3 Water Main, Part 5	0	1,624	1,624	0.0%	199	October 2016
	TOTALS	\$17,293	\$17,704	\$411	2.4%	\$8,594	

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), Newcut Road Water Main, Part 2 project (W-46.18), 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 Clarksburg Elevated Water Storage Facility project (W-46.15) provides funding for a .75 million gallon elevated water storage facility, which is needed as the Clarksburg area continues to develop.

Cost Impact: Due to pending area road projects, portions of the developer dependent 24-inch water main in project W-46.24 were split out into project W-46.25. W-46.25 will be funded by SDC.

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
973818	W-46.14	Change			
3. Project Name: Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Clarksburg & Vicinity P.A. 13		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	237	.....	19
	Debt Service .....	.....	.....
Total Costs.....		237	.....	19
Impact on Water or Sewer Rate.....		.....	.....

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) 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				

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 97
Date First Approved	FY 97
Initial Cost Estimate	3,376
Cost Estimate Last FY	5,695
Present Cost Estimate	5,900
Approved Request, Last FY	2,260
Total Expenditures & Encumbrances	2,832
Approval Request FY 16	1,751
Supplemental Approval Request Current FY (15)	

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.

Service Area Brink Pressure Zone HG760A, Cedar Heights Pressure Zone HG836A

JUSTIFICATION

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

Specific Data
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.

Cost Change
Costs were increased based upon an alignment change that adds over 1,000 feet of pipe.

STATUS Under Construction (WSSC Contract Nos. DA3226D02 , DA3226E02 , DA3226F02 , DA3226H02 , DA5636Z13).

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
Montgomery County Government, Maryland-National Capital Park & Planning Commission and WSSC Projects S-84.47, Clarksburg Triangle Outfall Sewer, Part 2, W-46.15, Clarksburg Elevated Water Storage Facility and W-46.24, Clarksburg Area Stage 3 Water Main, Part 4.

NOTE This project supports 100% Growth.

G. Status Information

Land Status: Right-of-Way may be required

% Project Completion: C-60%

Est. Completion Date: Developer Dependent



A. Identification and Coding Information

1. Project Number 973819	Agency Number W-46.15	Update Code Change	2. Date: October 1, 2014	7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.
3. Project Name: Clarksburg Elevated Water Storage Facility			5. Agency: WSSC	
4. Program: Sanitation			6. Planning Area: Clarksburg & Vicinity P.A. 13	

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,022	232	410	380	110	15	180	75			
Land											
Site Improvements & Utilities											
Construction	3,213			3,213		178	2,142	893			
Other	601		62	539	17	29	348	145			
Total	4,836	232	472	4,132	127	222	2,670	1,113			

C. Funding Schedule (000's)

SDC	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	4,836	232	472	4,132	127	222	2,670	1,113			

D. Description & Justification

DESCRIPTION

This project provides for the community outreach, site selection, planning, design, and construction for a 0.75 million gallon (MG) elevated storage facility in the HG760 water pressure zone.

Service Area Clarksburg Pressure Zone HG760B

Capacity 0.75 MG

JUSTIFICATION

Plans & Studies

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).

Specific Data

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.

Cost Change

Not applicable.

STATUS Preliminary Design (WSSC Contract Nos. BE1442A95 , DA3326A02).

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

Montgomery County Government, Maryland-National Capital Park & Planning Commission (Mandatory Referral Hearing was held on April 3, 2008) and WSSC Project W-46.14, Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service .....	....
Total Costs.....		....
Impact on Water or Sewer Rate.....		....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 97
Date First Approved	FY 97
Initial Cost Estimate	138
Cost Estimate Last FY	4,592
Present Cost Estimate	4,836
Approved Request, Last FY	334
Total Expenditures & Encumbrances	232
Approval Request FY 16	127
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Site selected
 % Project Completion: D-0%
 Est. Completion Date: FY 2019

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
013802	W-46.18	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Newcut Road Water Main, Part 2

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Clarksburg & Vicinity P.A. 13

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	406	376	10	20	20						
Land											
Site Improvements & Utilities											
Construction	1,103	828	175	100	100						
Other	46		28	18	18						
Total	1,555	1,204	213	138	138						

C. Funding Schedule (000's)

Contribution/Other	1,555	1,204	213	138	138						
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 6,000 feet of 16-inch diameter water main along Newcut Road between Route 355 and Skylark Road.

Service Area Montgomery High Zone Pressure Zone 560I

JUSTIFICATION

Plans & Studies

Clarksburg Master Plan, Stage 3; M-NCP&PC Round 5 Population Projections; General Plan.

Specific Data

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

Cost Change

Not applicable.

STATUS Under Construction (WSSC Contract Nos. DA4321M06 , DA4321S06 , DA4321W06 , DA4321Z06).

OTHER

The project scope has remained the same. 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 System Extension Permits. The estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

COORDINATION

Montgomery County Department of Public Works and Transportation, Montgomery County Government and Maryland-National Capital Park & Planning Commission.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

				FY of Impact
Program Costs	Staff .....			....
	Other .....			....
Facility Costs	Maintenance	101		16
	Debt Service .....			....
Total Costs.....		101		16
Impact on Water or Sewer Rate.....				....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 01"/>
Date First Approved	<input type="text" value="FY 01"/>
Initial Cost Estimate	<input type="text" value="800"/>
Cost Estimate Last FY	<input type="text" value="1,593"/>
Present Cost Estimate	<input type="text" value="1,555"/>
Approved Request, Last FY	<input type="text" value="477"/>
Total Expenditures & Encumbrances	<input type="text" value="1,204"/>
Approval Request FY 16	<input type="text" value="138"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: No land or R/W required
 % Project Completion: C-75%
 Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
113800	W-46.24	Change			
3. Project Name: Clarksburg Area Stage 3 Water Main, Part 4			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Clarksburg & Vicinity P.A. 13		

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	453	132	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	3,789	1,432	495	1,862	1,149	630	83				

C. Funding Schedule (000's)											
Contribution/Other	3,789	1,432	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.

Service Area Brink Pressure Zone HG760A

JUSTIFICATION

Plans & Studies

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

Specific Data

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.

Cost Change

Costs were adjusted to reflect the amended project scope and splitting of the project into two parts. Refer to the "Other" section below.

STATUS Under Construction (WSSC Contract Nos. DA3326B02 , DA3326C02 , RE7891A14).

OTHER

The project scope has been revised due to pipe alignment changes and the splitting of the original project. Schedules for pending roadway improvements in this vicinity have resulted in the need to accelerate installation of certain water mains to avoid impacting new pavement. WSSC will now process the accelerated portions under project W-46.25. 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

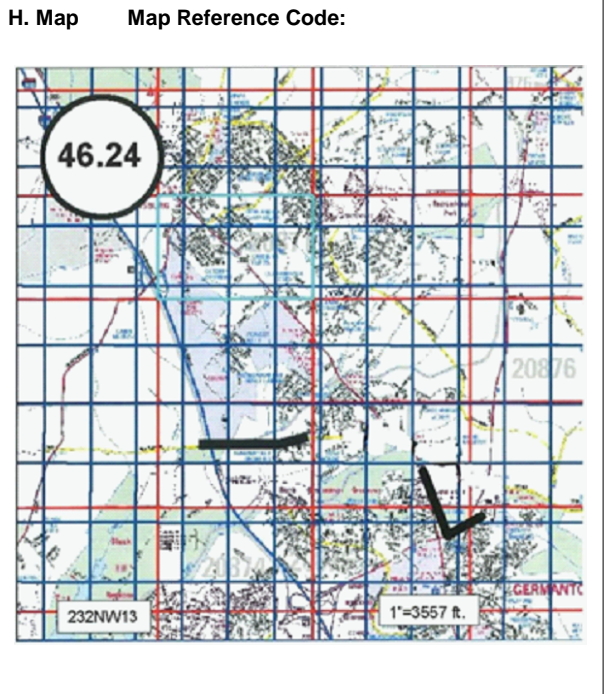
Montgomery County Government, Maryland-National Capital Park & Planning Commission and WSSC Projects W-46.14, Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3, W-46.15, Clarksburg Elevated Water Storage Facility and W-46.25, Clarksburg Area Stage 3 Water Main, Part 5.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	141	.....	19
	Debt Service .....	.....	.....
Total Costs.....		141	.....	19
Impact on Water or Sewer Rate.....			.....

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 11
Date First Approved	FY 97
Initial Cost Estimate	1,954
Cost Estimate Last FY	5,413
Present Cost Estimate	3,789
Approved Request, Last FY	2,111
Total Expenditures & Encumbrances	1,432
Approval Request FY 16	1,149
Supplemental Approval Request Current FY (15)	

G. Status Information	
Land Status:	Right-of-Way may be required
% Project Completion:	C-35%
Est. Completion Date:	Developer Dependent



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
163801	W-46.25	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Clarksburg Area Stage 3 Water Main, Part 5

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Clarksburg & Vicinity P.A. 13

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) 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	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
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.

Service Area Brink Pressure Zone HG760A

JUSTIFICATION

Plans & Studies

General Plan and M-NCPPC Round 6 growth forecasts.

Specific Data

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.

Cost Change

Not applicable.

STATUS Planning

OTHER

The project scope was originally established under WSSC Project W-46.24, Clarksburg Area Stage 3 Water Main, Part 4. Pending area road projects 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 processed under Project W-46.25. No rate supported debt will be used for this project.

COORDINATION

Montgomery County Government, Maryland-National Capital Park & Planning Commission and WSSC Project W-46.24, Clarksburg Area Stage 3 Water Main, Part 4.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance	50	18
	Debt Service .....	....
Total Costs.....		50	18
Impact on Water or Sewer Rate.....		....

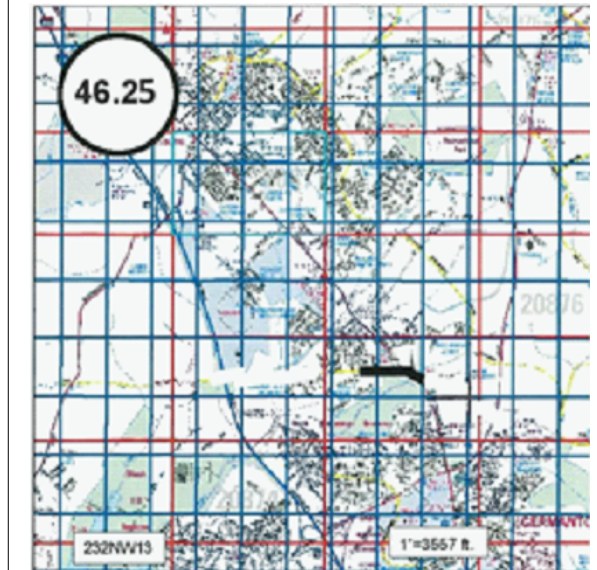
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 16
Date First Approved	FY 97
Initial Cost Estimate	1,624
Cost Estimate Last FY	
Present Cost Estimate	1,624
Approved Request, Last FY	
Total Expenditures & Encumbrances	
Approval Request FY 16	147
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Not Applicable
 % Project Completion: P-0%
 Est. Completion Date: October 2016

H. Map Map Reference Code:



A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:	
143800	W-90.04	Change		
3. Project Name: Brink Zone Reliability Improvements			5. Agency: WSSC	
4. Program: Sanitation			6. Planning Area: Montgomery County	

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	285	.....	19
Total Costs.....		285	.....	19
Impact on Water or Sewer Rate.....			.....

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,715	65	750	900	285	450	165				
Land											
Site Improvements & Utilities											
Construction	4,300			4,300	300	3,000	1,000				
Other	894		113	781	88	518	175				
Total	6,909	65	863	5,981	673	3,968	1,340				

C. Funding Schedule (000's)											
WSSC Bonds	6,909	65	863	5,981	673	3,968	1,340				

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 14
Date First Approved	FY 14
Initial Cost Estimate	345
Cost Estimate Last FY	4,141
Present Cost Estimate	6,909
Approved Request, Last FY	230
Total Expenditures & Encumbrances	65
Approval Request FY 16	673
Supplemental Approval Request Current FY (15)	

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.

Service Area Woodfield Pressure Zone HG740A, Clarksburg Pressure Zone HG740B, Brink Pressure Zone HG760A, Clarksburg Pressure Zone HG760B, Sweepstakes Pressure Zone HG835A, Seneca Springs Pressure Zone HG835B, Cedar Heights Pressure Zone HG836A, Kings Bridge Pressure Zone HG836B, Kingstead Knolls Pressure Zone HG842A, Tralee Pressure Zone HG850A, Damascus Pressure Zone HG960A

Capacity 13 MGD

JUSTIFICATION

Plans & Studies

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

Specific Data

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.

Cost Change

The increase in cost is the result of the decision to design for a built-in-place booster water pumping station as opposed to a prefabricated pumping station.

STATUS Preliminary Design (WSSC Contract No. BP5692A14,).

OTHER

The project scope has remained the same. Expenditure and schedule estimates for design and construction were derived from the Business Case Analysis. Land costs are included in WSSC Project W-202.00.

COORDINATION

Montgomery County Government, Maryland-National Capital Park & Planning Commission and Montgomery County Department of Environmental Protection.

NOTE This project supports 100% System Improvement.

G. Status Information

Land Status: R/W under negotiation
% Project Completion: D-0%
Est. Completion Date: FY 2018

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
093801	W-138.02	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Shady Grove Standpipe Replacement

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Gaithersburg & Vicinity P.A. 20

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,452	1,298	65	89	49	40					
Land											
Site Improvements & Utilities											
Construction	5,750		575	5,175	2,875	2,300					
Other	886		96	790	439	351					
Total	8,088	1,298	736	6,054	3,363	2,691					

C. Funding Schedule (000's)

WSSC Bonds	8,088	1,298	736	6,054	3,363	2,691					
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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.

Service Area Montgomery High Pressure Zone HG660A

Capacity 3.0 MG

JUSTIFICATION

Plans & Studies

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.

Specific Data

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.

Cost Change

Not applicable.

STATUS Final Design (WSSC Contract No. BE5061A09,).

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.

COORDINATION

Montgomery County Government, City of Rockville, Maryland Department of the Environment and Maryland Department of Natural Resources.

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	556	18
Total Costs.....		556	18
Impact on Water or Sewer Rate.....		1¢	18

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 09
Date First Approved	FY 09
Initial Cost Estimate	7,475
Cost Estimate Last FY	8,181
Present Cost Estimate	8,088
Approved Request, Last FY	3,363
Total Expenditures & Encumbrances	1,298
Approval Request FY 16	3,363
Supplemental Approval Request Current FY (15)	

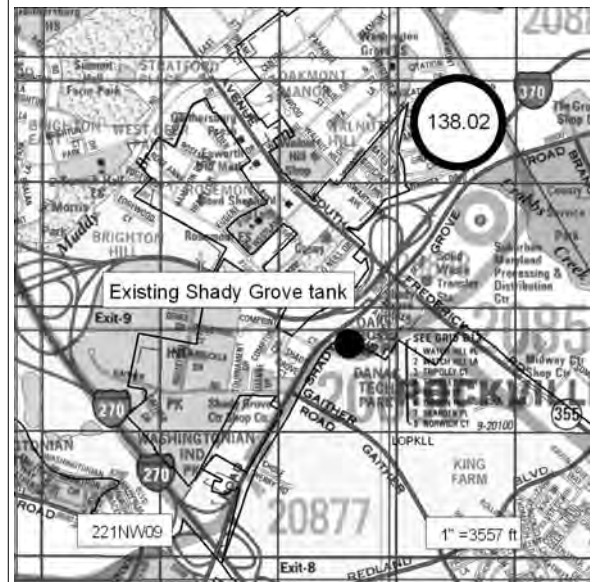
G. Status Information

Land Status: Public/Agency owned land

% Project Completion: D-98%

Est. Completion Date: FY 2017

H. Map Map Reference Code:




Section 2 - Montgomery County Sewer Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

MONTGOMERY COUNTY SEWER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 14	EST. EXPEND 15	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BUDGET REQUEST 16	PDF PAGE NUM
						YR 1 16	YR 2 17	YR 3 18	YR 4 19	YR 5 20	YR 6 21		
S-25.03	Twinbrook Commons Sewer	1,004	607	59	338	159	87	46	46	0	0	159	2-2
S-25.04	Mid-Pike Plaza Sewer Main, Phase 1	3,874	3,693	144	37	37	0	0	0	0	0	37	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	3,107	2-4
S-38.01	Preserve at Rock Creek Wastewater Pumping Station	1,967	91	848	1,028	680	348	0	0	0	0	680	2-5
S-38.02	Preserve at Rock Creek WWPS Force Main	391	108	133	150	150	0	0	0	0	0	150	2-6
 S-53.21	Seneca WWTP Enhanced Nutrient Removal	13,972	12,365	1,585	22	22	0	0	0	0	0	22	2-8
S-53.22	Seneca WWTP Expansion, Part 2	28,990	24,604	4,364	22	22	0	0	0	0	0	22	2-10
S-84.47	Clarksburg Triangle Outfall Sewer, Part 2	2,539	1,126	782	631	555	76	0	0	0	0	555	2-12
S-84.60	Cabin Branch Wastewater Pumping Station	2,342	12	13	2,317	449	1,566	302	0	0	0	449	2-13
S-84.61	Cabin Branch WWPS Force Main	424	0	17	407	143	240	24	0	0	0	143	2-14
S-84.65	Tapestry Wastewater Pumping Station	683	7	231	445	223	222	0	0	0	0	223	2-15
S-84.66	Tapestry WWPS Force Main	134	8	45	81	46	35	0	0	0	0	46	2-16
S-85.21	Shady Grove Station Sewer Augmentation	2,254	11	305	1,938	1,188	750	0	0	0	0	1,188	2-17
S-103.16	Cabin John Trunk Sewer Relief	7,999	0	446	7,553	2,662	2,652	2,239	0	0	0	2,662	2-18
	Projects Pending Close-Out	7,485	7,318	167	0	0	0	0	0	0	0	0	2-19
	TOTAL MONTGOMERY COUNTY SEWER PROJECTS	80,152	50,069	10,573	19,510	9,443	7,410	2,611	46	0	0	9,443	



Denotes projects which include an environmental component (see page 15 in the opening narrative.)

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	S-25.03	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Twinbrook Commons Sewer

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: North Bethesda P.A. 30

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) 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			
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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.

Service Area Rock Creek Drainage Basin

Capacity 3.26 to 4.33 MGD

JUSTIFICATION

Plans & Studies

Phase I Letter of Findings (April 5, 2006).

Cost Change

Not applicable.

STATUS Under Construction (WSSC Contract Nos. DA4159A05 , DA4159B05 , DA4159Z05).

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

Washington Metropolitan Area Transit Authority, Montgomery County Government, City of Rockville and Local Community Civic Associations.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	.....	
	Other .....	.....	
Facility Costs	Maintenance	24	.....	20
	Debt Service .....	.....	.....	.....
Total Costs.....		24	.....	20
Impact on Water or Sewer Rate.....			.....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 08
Date First Approved	FY 08
Initial Cost Estimate	677
Cost Estimate Last FY	1,009
Present Cost Estimate	1,004
Approved Request, Last FY	125
Total Expenditures & Encumbrances	607
Approval Request FY 16	159
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Not applicable

% Project Completion: C-50%

Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
123801	S-25.04	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Mid-Pike Plaza Sewer Main, Phase 1

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: North Bethesda P.A. 30

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	325	293	25	7	7						
Land											
Site Improvements & Utilities											
Construction	3,525	3,400	100	25	25						
Other	24		19	5	5						
Total	3,874	3,693	144	37	37						

C. Funding Schedule (000's)

Contribution/Other	3,874	3,693	144	37	37						
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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.

Service Area Cabin John Drainage Basin **Capacity** 3.47 mgd **Population** 2,007

JUSTIFICATION

Plans & Studies

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

Cost Change

Costs were increased based upon higher revised estimates for paving provided by the developer.

STATUS Under Construction (WSSC Contract Nos. DA5238A11 , DA5238C11 , DA5238Z11 , DA5238E11 , DA5238F11).

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

Montgomery County Government, Montgomery County Department of Environmental Protection and Local Community Civic Associations.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

	Staff	Other	Facility Costs	Debt Service	Total Costs	Impact on Water or Sewer Rate
Program Costs				
Facility Costs			Maintenance 34	.....	
			Debt Service 34	.....	
Total Costs					34	17
Impact on Water or Sewer Rate					

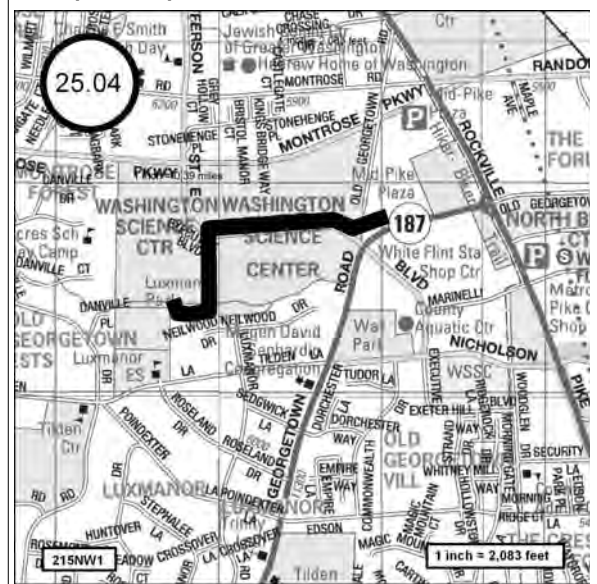
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 12
Date First Approved	FY 12
Initial Cost Estimate	1,488
Cost Estimate Last FY	1,559
Present Cost Estimate	3,874
Approved Request, Last FY	442
Total Expenditures & Encumbrances	3,693
Approval Request FY 16	37
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: R/W required
 % Project Completion: C-75%
 Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
143801	S-25.05	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Mid-Pike Plaza Sewer Main, Phase 2

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: North Bethesda P.A. 30

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) 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					
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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.

Service Area Cabin John Drainage Basin

JUSTIFICATION

Plans & Studies

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

Cost Change

Not applicable.

STATUS Preliminary Design (WSSC Contract Nos. DA5238G11 , DA5238Z11).

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

Montgomery County Government, Montgomery County Department of Environmental Protection and Local Community Civic Associations.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance	66	18
	Debt Service .....	.....
Total Costs.....		66	18
Impact on Water or Sewer Rate.....		.....

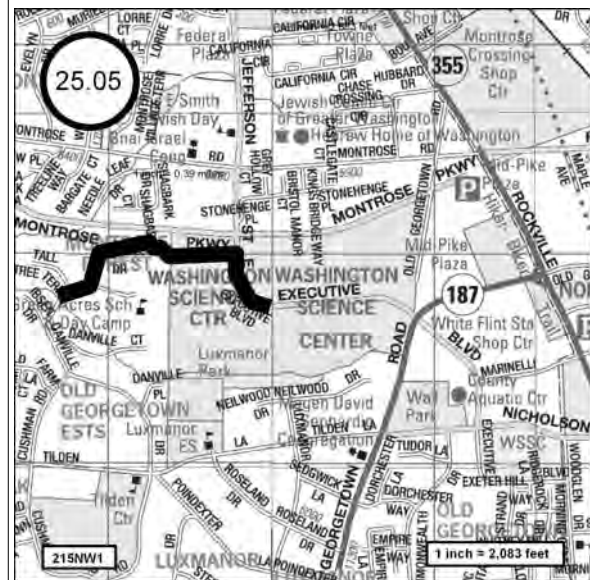
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 14
Date First Approved	FY 14
Initial Cost Estimate	5,917
Cost Estimate Last FY	6,094
Present Cost Estimate	6,094
Approved Request, Last FY	3,107
Total Expenditures & Encumbrances	119
Approval Request FY 16	3,107
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: R/W required
 % Project Completion: D-20%
 Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
103800	S-38.01	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Preserve at Rock Creek Wastewater Pumping Station

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Upper Rock Creek P.A. 22

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	297	91	112	94	84	10					
Land											
Site Improvements & Utilities											
Construction	1,425		625	800	507	293					
Other	245		111	134	89	45					
Total	1,967	91	848	1,028	680	348					

C. Funding Schedule (000's)

Contribution/Other	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	1,967	91	848	1,028	680	348					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of a 0.07 MGD wastewater pumping station to serve The Preserve at Rock Creek Subdivision.

Service Area Rock Creek Drainage Basin **Capacity** 0.07 MGD **Population** 200

JUSTIFICATION

Plans & Studies

M-NCP&PC Upper Rock Creek Master Plan (April 2004); The Amended Hydraulic Planning Analysis and Letter of Findings #2 for the Preserve at Rock Creek Subdivision (August 2012).

Specific Data

Montgomery County required this project and the accompanying force main to avoid gravity sewer construction through an environmentally sensitive area on the project site.

Cost Change

Not applicable.

STATUS Under Construction (WSSC Contract No. CP4770A08,).

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. 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

Montgomery County Government and WSSC Project S-38.02, Preserve at Rock Creek WWPS Force Main.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service .....	....
Total Costs.....		....
Impact on Water or Sewer Rate.....		....

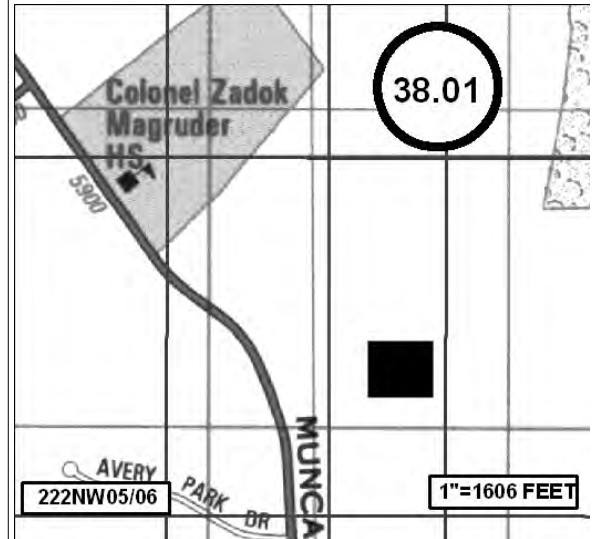
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 10
Date First Approved	FY 10
Initial Cost Estimate	1,124
Cost Estimate Last FY	1,194
Present Cost Estimate	1,967
Approved Request, Last FY	265
Total Expenditures & Encumbrances	10
Approval Request FY 16	680
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Site provided by applicant
 % Project Completion: C-0%
 Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
103801	S-38.02	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Preserve at Rock Creek WWPS Force Main

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Upper Rock Creek P.A. 22

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	44	18	16	10	10						
Land											
Site Improvements & Utilities											
Construction	310	90	100	120	120						
Other	37		17	20	20						
Total	391	108	133	150	150						

C. Funding Schedule (000's)

Contribution/Other	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	391	108	133	150	150						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 2,600 feet of 3-inch diameter force main to serve The Preserve at Rock Creek Subdivision.

Service Area Rock Creek Drainage Basin **Capacity** 0.07 MGD **Population** 200

JUSTIFICATION

Plans & Studies

M-NCP&PC Upper Rock Creek Area Master Plan (April 2004); The Amended Hydraulic Planning Analysis and Letter of Findings #2 for the Preserve at Rock Creek Subdivision (August 2012).

Specific Data

Montgomery County required this project and the accompanying wastewater pumping station to avoid gravity sewer construction through an environmentally sensitive area on the project site.

Cost Change

Not applicable.

STATUS Under Construction (WSSC Contract No. DA4770D08,).

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 support debt will be used for this project.

COORDINATION

Maryland State Highway Administration, Montgomery County Government and WSSC Project S-38.01, Preserve at Rock Creek Wastewater Pumping Station.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

Program Costs	Staff	Other	Maintenance	Debt Service	FY of Impact
	46	.....	17
Facility Costs					
Total Costs			46	.....	17
Impact on Water or Sewer Rate				

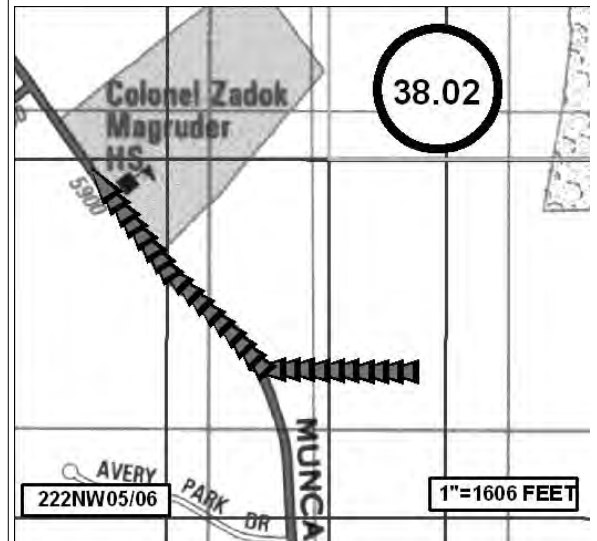
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 10
Date First Approved	FY 10
Initial Cost Estimate	339
Cost Estimate Last FY	391
Present Cost Estimate	391
Approved Request, Last FY	135
Total Expenditures & Encumbrances	108
Approval Request FY 16	150
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Not determined
 % Project Completion: C-30%
 Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



SENECA WASTEWATER TREATMENT PLANT PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'15 TOTAL COST	ADOPTED FY'16 TOTAL COST	CHANGE \$	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
S-53.21	Seneca WWTP Enhanced Nutrient Removal	\$13,618	\$13,972	\$354	2.6%	\$22	April 2015
S-53.22	Seneca WWTP Expansion, Part 2	28,984	28,990	6	0.0%	22	April 2015
	TOTALS	\$42,602	\$42,962	\$360	0.8%	\$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.

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
073800	S-53.21	Change			
3. Project Name: Seneca WWTP Enhanced Nutrient Removal			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Lower Seneca P.A. 18		

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	4,953	4,551	402								
Land											
Site Improvements & Utilities											
Construction	8,873	7,814	1,039	20	20						
Other	146		144	2	2						
Total	13,972	12,365	1,585	22	22						

C. Funding Schedule (000's)											
WSSC Bonds	7,752	6,145	1,585	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).

Service Area Seneca Creek Drainage Basin

JUSTIFICATION

Plans & Studies
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).

Specific Data
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%.

Cost Change
Not applicable.

STATUS Under Construction (WSSC Contract Nos. CD4260A05 , CD4260C05).

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.

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....		....
	Other .....		....
Facility Costs	Maintenance .....		....
	Debt Service	583	....	17
Total Costs.....		583	....	17
Impact on Water or Sewer Rate.....		1¢	....	17

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 07
Date First Approved	FY 07
Initial Cost Estimate	22,862
Cost Estimate Last FY	13,618
Present Cost Estimate	13,972
Approved Request, Last FY	718
Total Expenditures & Encumbrances	12,365
Approval Request FY 16	22
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: No land or R/W required

% Project Completion: C-83%

Est. Completion Date: April 2015

H. Map Map Reference Code:

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 53.21

Project Name: Seneca WWTP Enhanced Nutrient Removal

COORDINATION

Montgomery County Government, Montgomery County Department of Environmental Protection, Maryland Department of the Environment and WSSC Project S-53.22, Seneca WWTP Expansion, Part 2.

NOTE This project supports 100% Environmental Regulation.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
083802	S-53.22	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Seneca WWTP Expansion, Part 2

5. Agency: **WSSC**4. Program: **Sanitation** 6. Planning Area: Lower Seneca P.A. 18**B. Expenditure Schedule (000's)**

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	7,726	6,921	805								
Land											
Site Improvements & Utilities											
Construction	20,865	17,683	3,162	20	20						
Other	399		397	2	2						
Total	28,990	24,604	4,364	22	22						

C. Funding Schedule (000's)

SDC	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	28,990	24,604	4,364	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.

Service Area Seneca Creek Drainage Basin**JUSTIFICATION****Plans & Studies**

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).

Specific Data

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).

Cost Change

Not applicable.

STATUS Under Construction (WSSC Contract No. CD4260B05,).**OTHER**

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

COORDINATION

Montgomery County Government, Montgomery County Department of Environmental Protection, Maryland Department of the Environment and WSSC Project S-53.21, Seneca WWTP Enhanced Nutrient Removal.

NOTE This project supports 100% Growth.**E. Annual Operating Budget Impact (000's)**

		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service .....	....
Total Costs.....		....
Impact on Water or Sewer Rate.....		....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 08"/>
Date First Approved	<input type="text" value="FY 07"/>
Initial Cost Estimate	<input type="text" value="16,478"/>
Cost Estimate Last FY	<input type="text" value="28,984"/>
Present Cost Estimate	<input type="text" value="28,990"/>
Approved Request, Last FY	<input type="text" value="1,970"/>
Total Expenditures & Encumbrances	<input type="text" value="24,604"/>
Approval Request FY 16	<input type="text" value="22"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status:	Public/Agency owned land
% Project Completion:	C-83%
Est. Completion Date:	April 2015

H. Map Map Reference Code:**MAP NOT AVAILABLE**

CABIN BRANCH AREA PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'15 TOTAL COST	ADOPTED FY'16 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. The individual project description forms on the pages following this summary provide additional information.

Cost Impact: Not applicable.

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
023811	S-84.47	Change			
3. Project Name: Clarksburg Triangle Outfall Sewer, Part 2			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Clarksburg & Vicinity P.A. 13		

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) 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.

Service Area Seneca Creek Drainage Basin **Capacity** 10.8 MGD **Population** 16,500

JUSTIFICATION
Plans & Studies
 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).

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

Cost Change
 Not applicable.

STATUS Under Construction (WSSC Contract Nos. DA3326D02 , DA3326H02 , DA5636Z13).

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.

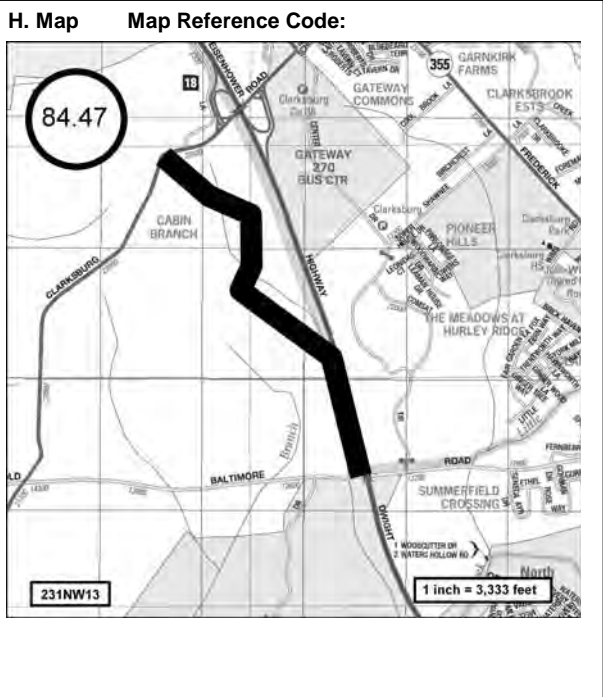
COORDINATION
 Maryland-National Capital Park & Planning Commission, Montgomery County Department of Environmental Protection, Maryland Department of the Environment (Non-Tidal Wetlands Permit), Maryland Department of Natural Resources, U.S. Fish and Wildlife Service and WSSC Projects S-84.46, Clarksburg Triangle Outfall Sewer, Part 1 and W-46.14, Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	140	.....	18
	Debt Service .....	.....	.....
Total Costs.....		140	.....	18
Impact on Water or Sewer Rate.....		.....	.....

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 02
Date First Approved	FY 02
Initial Cost Estimate	22
Cost Estimate Last FY	2,539
Present Cost Estimate	2,539
Approved Request, Last FY	445
Total Expenditures & Encumbrances	1,126
Approval Request FY 16	555
Supplemental Approval Request Current FY (15)	

G. Status Information
 Land Status: Right-of-Way may be required
 % Project Completion: C-70%
 Est. Completion Date: Developer Dependent



A. Identification and Coding Information

1. Project Number: 023807 Agency Number: S-84.60 Update Code: Change

2. Date: October 1, 2014 Revised: _____

3. Project Name: Cabin Branch Wastewater Pumping Station 5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Clarksburg & Vicinity P.A. 13

7. Pre PDF Pg.No.: _____ 8. Req. Adeq. Pub. Fac. _____

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) 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	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	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.

Service Area Seneca Creek Drainage Basin **Capacity** 0.9 MGD **Population** 1,550

JUSTIFICATION

Plans & Studies

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); WSSC Project # DA3326Z02 Cabin Branch - Amended Phase I Letter of Findings #6 (September 2013)

Specific Data

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

Cost Change

Not applicable.

STATUS Facility Planning (WSSC Contract Nos. CP3326A02 , CP3326B02).

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

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 and WSSC Projects S-84.46, Clarksburg Triangle Outfall Sewer, Part 1 and S-84.61, Cabin Branch WWPS Force Main.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's) FY of Impact

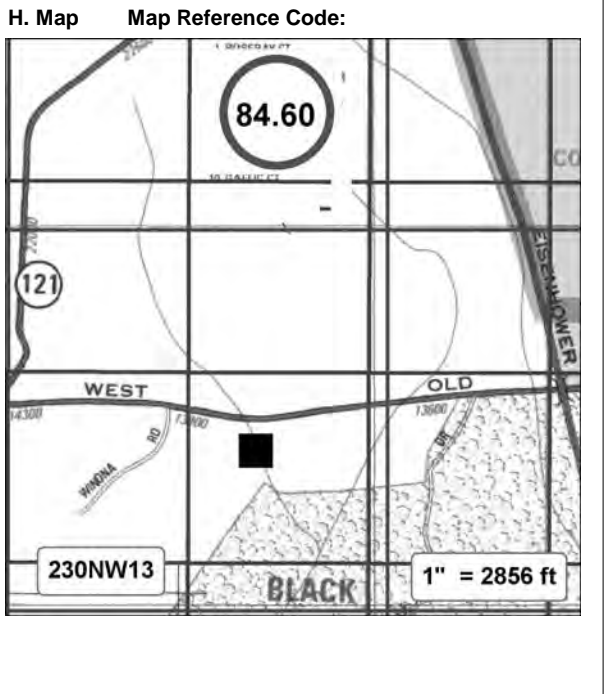
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service .....	....
Total Costs.....		....
Impact on Water or Sewer Rate.....		....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 02
Date First Approved	FY 02
Initial Cost Estimate	22
Cost Estimate Last FY	2,342
Present Cost Estimate	2,342
Approved Request, Last FY	449
Total Expenditures & Encumbrances	12
Approval Request FY 16	449
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status:	Right-of-Way may be required
% Project Completion:	P-95%
Est. Completion Date:	Developer Dependent



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
023808	S-84.61	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Cabin Branch WWPS Force Main

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Clarksburg & Vicinity P.A. 13

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) 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				
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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.

Service Area Seneca Creek Drainage Basin **Capacity** 0.9 MGD **Population** 1,550

JUSTIFICATION

Plans & Studies

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). WSSC Project #DA3326Z02 Cabin Branch - Amended Phase I Letter of Findings #6 (September 2013)

Specific Data

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

Cost Change

Not applicable.

STATUS Planning

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

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 and WSSC Projects S-84.46, Clarksburg Triangle Outfall Sewer, Part 1, S-84.47, Clarksburg Triangle Outfall Sewer, Part 2 and S-84.60, Cabin Branch Wastewater Pumping Station.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance	36	19
	Debt Service .....	.....
Total Costs.....		36	19
Impact on Water or Sewer Rate.....		.....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 02
Date First Approved	FY 02
Initial Cost Estimate	22
Cost Estimate Last FY	424
Present Cost Estimate	424
Approved Request, Last FY	143
Total Expenditures & Encumbrances	
Approval Request FY 16	143
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Right-of-Way may be required
 % Project Completion: P-100%
 Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
083803	S-84.65	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Tapestry Wastewater Pumping Station

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Clarksburg & Vicinity P.A. 13

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	114	7	42	65	33	32					
Land											
Site Improvements & Utilities											
Construction	481		159	322	161	161					
Other	88		30	58	29	29					
Total	683	7	231	445	223	222					

C. Funding Schedule (000's)

Contribution/Other	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	683	7	231	445	223	222					

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.

Service Area Seneca Creek Drainage Basin **Capacity** 0.23 MGD **Population** 590

JUSTIFICATION

Plans & Studies

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

Cost Change

Not applicable.

STATUS Planning (WSSC Contract Nos. DA3993Z04 , CP3993A04).

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

Montgomery County Government, Local Community Civic Associations and WSSC Project S-84.66, Tapestry WWPS Force Main.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service .....	.....
Total Costs.....		.....
Impact on Water or Sewer Rate.....		.....

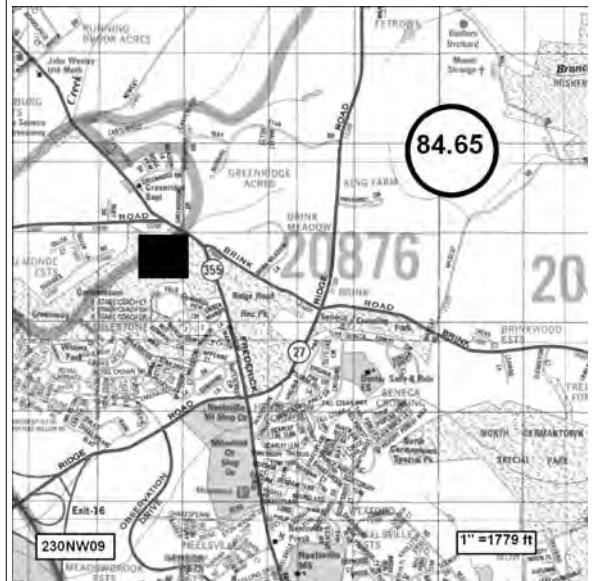
F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 08"/>
Date First Approved	<input type="text" value="FY 08"/>
Initial Cost Estimate	<input type="text" value="552"/>
Cost Estimate Last FY	<input type="text" value="683"/>
Present Cost Estimate	<input type="text" value="683"/>
Approved Request, Last FY	<input type="text" value="223"/>
Total Expenditures & Encumbrances	<input type="text" value="7"/>
Approval Request FY 16	<input type="text" value="223"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: Site provided by applicant
 % Project Completion: P-100%
 Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
083804	S-84.66	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Tapestry WWPS Force Main

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Clarksburg & Vicinity P.A. 13

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	26	8	5	13	8	5					
Land											
Site Improvements & Utilities											
Construction	91		34	57	32	25					
Other	17		6	11	6	5					
Total	134	8	45	81	46	35					

C. Funding Schedule (000's)

Contribution/Other	134	8	45	81	46	35					
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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.

Service Area Seneca Creek Drainage Basin

Population 590

JUSTIFICATION

Plans & Studies

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

Cost Change

Not applicable.

STATUS Preliminary Design (WSSC Contract No. DA3993B04,).

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

Montgomery County Government, Maryland-National Capital Park & Planning Commission (Mandatory Referral Process), Local Community Civic Associations and WSSC Project S-84.65, Tapestry Wastewater Pumping Station.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

	Staff	Other	Maintenance	Debt Service	FY of Impact
Program Costs			
Facility Costs			38		18
Total Costs			38		18
Impact on Water or Sewer Rate					

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 08
Date First Approved	FY 08
Initial Cost Estimate	110
Cost Estimate Last FY	134
Present Cost Estimate	134
Approved Request, Last FY	46
Total Expenditures & Encumbrances	8
Approval Request FY 16	46
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Right-of-Way may be required
 % Project Completion: D-0%
 Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
153800	S-85.21	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Shady Grove Station Sewer Augmentation

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Gaithersburg & Vicinity P.A. 20

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	47	11	15	21	11	10					
Land											
Site Improvements & Utilities											
Construction	1,914		250	1,664	1,022	642					
Other	293		40	253	155	98					
Total	2,254	11	305	1,938	1,188	750					

C. Funding Schedule (000's)

Contribution/Other	2,254	11	305	1,938	1,188	750					
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D. Description & Justification

DESCRIPTION

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

Service Area Rock Creek Drainage Basin **Capacity** 1.0 - 3.0 mgd **Population** 5,500

JUSTIFICATION

Plans & Studies

Due to development density proposed in DA5409Z12, the projected peak wastewater flow exceeds the capacity of existing sewers.

Specific Data

The new 15-inch and 18-inch diameter sewers will serve the area encompassed by Shady Grove Road, I-370 and CSX Railroad.

Cost Change

Not applicable.

STATUS Final Design (WSSC Contract Nos. DA5409Z12 , DA5409A12 , DA5409P12).

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

Montgomery County Department of Public Works and Transportation and Montgomery County Government.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	74	18
	Debt Service .....	.....	.....
Total Costs.....		74	18
Impact on Water or Sewer Rate.....		.....	.....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 15
Date First Approved	FY 15
Initial Cost Estimate	2,254
Cost Estimate Last FY	2,254
Present Cost Estimate	2,254
Approved Request, Last FY	723
Total Expenditures & Encumbrances	11
Approval Request FY 16	1,188
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Right-of-Way may be required
 % Project Completion: D-50%
 Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
153801	S-103.16	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Cabin John Trunk Sewer Relief

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Bethesda-Chevy Chase & Vicinity P.A. 35

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,145		388	757	378	369	10				
Land											
Site Improvements & Utilities											
Construction	5,811			5,811	1,937	1,937	1,937				
Other	1,043		58	985	347	346	292				
Total	7,999		446	7,553	2,662	2,652	2,239				

C. Funding Schedule (000's)

Contribution/Other	7,999		446	7,553	2,662	2,652	2,239				
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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.

Service Area Cabin John Drainage Basin

Capacity 29.37 to 36.74 MGD

JUSTIFICATION

Plans & Studies

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

Cost Change

Not applicable.

STATUS Planning (WSSC Contract Nos. DA5238Z11 , DA5238H11).

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

Maryland-National Capital Park & Planning Commission, Montgomery County Department of Environmental Protection, Maryland Department of the Environment, Maryland Department of Natural Resources and WSSC Projects S-25.04, Mid-Pike Plaza Sewer Main, Phase 1 and S-25.05, Mid-Pike Plaza Sewer Main, Phase 2.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	.....	
	Other .....	.....	
Facility Costs	Maintenance	50	.....	19
	Debt Service .....	.....	.....	.....
Total Costs.....		50	.....	19
Impact on Water or Sewer Rate.....			.....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 14
Date First Approved	FY 14
Initial Cost Estimate	7,999
Cost Estimate Last FY	7,999
Present Cost Estimate	7,999
Approved Request, Last FY	2,666
Total Expenditures & Encumbrances	
Approval Request FY 16	2,662
Supplemental Approval Request Current FY (15)	

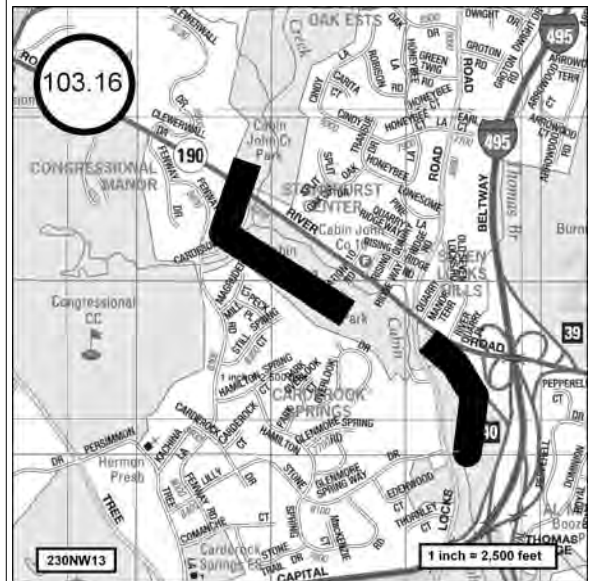
G. Status Information

Land Status: Land & R/W to be acquired

% Project Completion: D-20%

Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



PROJECTS PENDING CLOSE-OUT
Montgomery County Sewer Projects
(costs in thousands)


Project Number	Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'14	Estimated Expenditures FY'15	Remarks
073801	S-94.12	Damascus WWTP Enhanced Nutrient Removal	\$7,485	\$7,318	\$167	Project completion expected in FY'15.
983854	S-201.00	Land & Rights-of-Way Acquisition - Montgomery County	0	0	0	All land costs are consolidated in Bi-County Sewer.
		TOTALS	\$7,485	\$7,318	\$167	

Section 3 - Bi-County Water Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

BI-COUNTY WATER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 14	EST. EXPEND 15	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BUDGET REQUEST 16	PDF PAGE NUM
						YR 1 16	YR 2 17	YR 3 18	YR 4 19	YR 5 20	YR 6 21		
W-73.19	Potomac WFP Outdoor Substation No. 2 Replacement	14,636	1,491	439	12,706	5,258	5,258	2,190	0	0	0	5,258	3-3
W-73.21	Potomac WFP Corrosion Mitigation	15,556	760	8,668	6,128	5,165	963	0	0	0	0	5,165	3-4
W-73.22	Potomac WFP Pre-Filter Chlorination & Air Scour Improvements	7,176	232	2,263	4,681	253	2,706	1,722	0	0	0	253	3-5
W-73.30	Potomac WFP Submerged Channel Intake	82,638	3,438	440	78,760	1,100	8,690	23,100	22,000	20,350	3,520	1,100	3-6
W-73.32	Potomac WFP Main Zone Pipeline	34,670	458	440	33,772	440	220	5,528	11,028	11,028	5,528	440	3-8
W-127.01	Bi-County Water Tunnel	144,258	133,789	9,346	1,123	1,123	0	0	0	0	0	1,123	3-9
W-139.02	Duckett & Brighton Dam Upgrades	16,950	9,104	2,488	5,358	670	2,679	2,009	0	0	0	670	3-12
W-161.01	Large Diameter Water Pipe Rehabilitation Program	411,331	54,895	35,617	320,819	48,293	58,182	54,393	53,317	53,317	53,317	48,293	3-13
 W-172.05	Patuxent WFP Phase II Expansion	65,611	6,578	11,537	47,496	14,372	15,510	12,162	5,452	0	0	14,372	3-16
W-172.07	Patuxent Raw Water Pipeline	23,616	9,094	605	13,917	3,095	1,372	4,355	5,095	0	0	3,095	3-18
W-172.08	Rocky Gorge Pump Station Upgrade	17,932	4,282	110	13,540	6,205	6,771	564	0	0	0	6,205	3-19
W-202.00	Land & Rights-of-Way Acquisition - Bi-County	5,676	0	4,253	1,423	1,125	225	25	20	18	10	1,125	3-20
	Projects Pending Close-Out	15,397	13,880	1,517	0	0	0	0	0	0	0	0	3-21
TOTAL BI-COUNTY WATER PROJECTS		855,447	238,001	77,723	539,723	87,099	102,576	106,048	96,912	84,713	62,375	87,099	



Denotes projects which include an environmental component (see page 15 in the opening narrative.)

POTOMAC WATER FILTRATION PLANT PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'15 TOTAL COST	ADOPTED FY'16 TOTAL COST	CHANGE \$	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
W-73.19	Potomac WFP Outdoor Substation No. 2 Replacement	\$15,572	\$14,636	(\$936)	-6.0%	\$12,706	December 2017
W-73.21	Potomac WFP Corrosion Mitigation	18,164	15,556	(2,608)	-14.4%	6,128	December 2016
W-73.22	Potomac WFP Pre-Filter Chlorination & Air Scour Improvements	7,935	7,176	(759)	-9.6%	4,681	February 2018
W-73.30	Potomac WFP Submerged Channel Intake	28,433	82,638	54,205	190.6%	78,760	FY 2021
	TOTALS	\$70,104	\$120,006	\$49,902	71.2%	\$102,275	

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: Costs were decreased based on updated construction cost estimate (W-73.19), more definitive Engineer's estimates (W-73.21) and execution of design contract (W-73.22). The Potomac WFP Submerged Channel Intake (W-73.30) increased based on the November 2013 Draft Feasibility Study Report.

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
113802	W-73.19	Change			
3. Project Name: Potomac WFP Outdoor Substation No. 2 Replacement			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	2,441	1,491	32	918	380	380	158				
Land											
Site Improvements & Utilities											
Construction	11,000		367	10,633	4,400	4,400	1,833				
Other	1,195		40	1,155	478	478	199				
Total	14,636	1,491	439	12,706	5,258	5,258	2,190				

C. Funding Schedule (000's)											
WSSC Bonds	14,636	1,491	439	12,706	5,258	5,258	2,190				

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction required to replace the Outdoor Substation No. 2 (OSS-2) and 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

Plans & Studies

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).

Specific Data

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.

Cost Change

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

STATUS Final Design Complete (WSSC Contract No. BF5157A10,).

OTHER

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

COORDINATION

WSSC Project A-103.00, Energy Performance Program.

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	1071	.....	19
Total Costs.....		1071	.....	19
Impact on Water or Sewer Rate.....		2¢	.....	19

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 11
Date First Approved	FY 11
Initial Cost Estimate	7,934
Cost Estimate Last FY	15,572
Present Cost Estimate	14,636
Approved Request, Last FY	4,785
Total Expenditures & Encumbrances	1,491
Approval Request FY 16	5,258
Supplemental Approval Request Current FY (15)	

G. Status Information	
Land Status:	Public/Agency owned land
% Project Completion:	D-100%
Est. Completion Date:	December 2017

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
143802	W-73.21	Change			
3. Project Name: Potomac WFP Corrosion Mitigation			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....		....
	Other .....		....
Facility Costs	Maintenance .....		....
	Debt Service	1250	....	18
Total Costs.....		1250	....	18
Impact on Water or Sewer Rate.....		3¢	....	18

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,210	760	180	270	195	75					
Land											
Site Improvements & Utilities											
Construction	13,000		7,700	5,300	4,500	800					
Other	1,346		788	558	470	88					
Total	15,556	760	8,668	6,128	5,165	963					

C. Funding Schedule (000's)											
WSSC Bonds	15,556	760	8,668	6,128	5,165	963					

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

Plans & Studies

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).

Specific Data

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.

Cost Change

The decrease in cost is a result of a more definitive Engineer's estimate.

STATUS Final Design Complete (WSSC Contract No. BF5250A11,).

OTHER

The project scope has remained the same. Expenditures and schedule projections shown in Block B above are design level estimates and may change based on site-specific conditions and actual bid.

COORDINATION

WSSC Project W-73.20, Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation(Ferric Chloride Feed System).

NOTE This project supports 100% System Improvement.

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 14
Date First Approved	FY 14
Initial Cost Estimate	7,443
Cost Estimate Last FY	18,164
Present Cost Estimate	15,556
Approved Request, Last FY	7,590
Total Expenditures & Encumbrances	760
Approval Request FY 16	5,165
Supplemental Approval Request Current FY (15)	

G. Status Information	
Land Status:	Not applicable
% Project Completion:	D-100%
Est. Completion Date:	December 2016

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
143803	W-73.22	Change			
3. Project Name: Potomac WFP Pre-Filter Chlorination & Air Scour Improvements			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area:		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	546	.....	19
Total Costs.....		546	.....	19
Impact on Water or Sewer Rate.....		1¢	.....	19

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,270	232	668	370	20	214	136				
Land											
Site Improvements & Utilities											
Construction	5,000		1,300	3,700	200	2,139	1,361				
Other	906		295	611	33	353	225				
Total	7,176	232	2,263	4,681	253	2,706	1,722				

C. Funding Schedule (000's)											
WSSC Bonds	7,176	232	2,263	4,681	253	2,706	1,722				

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

Plans & Studies

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);

Specific Data

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.

Cost Change

Total project cost has decreased based on cost of executed design contract.

STATUS Preliminary Design (WSSC Contract No. BF5339A12,).

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above are planning level estimates, and may change based on site-specific conditions and design constraints.

COORDINATION

Montgomery County Government and Prince George's County Government.

NOTE This project supports 100% System Improvement.

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 14
Date First Approved	FY 14
Initial Cost Estimate	5,602
Cost Estimate Last FY	7,935
Present Cost Estimate	7,176
Approved Request, Last FY	767
Total Expenditures & Encumbrances	232
Approval Request FY 16	253
Supplemental Approval Request Current FY (15)	

G. Status Information	
Land Status:	Not Applicable
% Project Completion:	D-0%
Est. Completion Date:	February 2018

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
033812	W-73.30	Change			
3. Project Name: Potomac WFP Submerged Channel Intake			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	2198	.....	22
Total Costs.....		2198	.....	22
Impact on Water or Sewer Rate.....		4¢	.....	22

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	8,738	3,438	400	4,900	1,000	1,200	1,000	1,000	500	200	
Land											
Site Improvements & Utilities											
Construction	66,700			66,700	6,700	20,000	19,000	18,000	3,000		
Other	7,200		40	7,160	100	790	2,100	2,000	1,850	320	
Total	82,638	3,438	440	78,760	1,100	8,690	23,100	22,000	20,350	3,520	

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 04
Date First Approved	FY 03
Initial Cost Estimate	936
Cost Estimate Last FY	28,433
Present Cost Estimate	82,638
Approved Request, Last FY	1,076
Total Expenditures & Encumbrances	3,438
Approval Request FY 16	1,100
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	82,638	3,438	440	78,760	1,100	8,690	23,100	22,000	20,350	3,520	

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.

Service Area Potomac WFP Pressure Zone HGPOWF

JUSTIFICATION

Plans & Studies

"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).

Specific Data

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.

Cost Change

Costs increase is based on cost information from the November 2013 Draft Feasibility Study Report.

STATUS Planning (WSSC Contract Nos. BF2028F97 , BF2028I97).

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.

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G. Status Information	
Land Status:	Right-of-Way may be required
% Project Completion:	P-90%
Est. Completion Date:	FY 2021

H. Map Map Reference Code:

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 73.30

Project Name: Potomac WFP Submerged Channel Intake

COORDINATION

Montgomery County Government, Prince George's County Government, Maryland-National Capital Park & Planning Commission, 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 and U.S. Army Corps of Engineers.

NOTE This project supports 100% System Improvement.

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
133800	W-73.32	Change			
3. Project Name: Potomac WFP Main Zone Pipeline			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Potomac-Cabin John & Vicinity P.A. 29		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	28	.....	22
	Debt Service	77	.....	22
Total Costs.....		105	.....	22
Impact on Water or Sewer Rate.....			.....

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,558	458	400	700	400	200	25	25	25	25	
Land											
Site Improvements & Utilities											
Construction	30,000			30,000			5,000	10,000	10,000	5,000	
Other	3,112		40	3,072	40	20	503	1,003	1,003	503	
Total	34,670	458	440	33,772	440	220	5,528	11,028	11,028	5,528	

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 13
Date First Approved	FY 13
Initial Cost Estimate	330
Cost Estimate Last FY	1,125
Present Cost Estimate	34,670
Approved Request, Last FY	690
Total Expenditures & Encumbrances	458
Approval Request FY 16	440
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	34,670	458	440	33,772	440	220	5,528	11,028	11,028	5,528	

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.

Service Area Montgomery Main Pressure Zone 495A, Prince George's Main Pressure Zone **Capacity** Approximately 200 mgd HG320A, Prince George's High Pressure Zone HG450A

JUSTIFICATION

Plans & Studies

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)

Specific Data

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.

Cost Change

Initial cost estimates were increased to include an Order of Magnitude estimate for design and construction work.

STATUS Preliminary Design (WSSC Contract No. BL5285A11,).

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

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 and U.S. Army Corps of Engineers.

NOTE This project supports 100% System Improvement.

G. Status Information	
Land Status:	Right-of-Way may be required
% Project Completion:	D-5%
Est. Completion Date:	FY 2021

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
934855	W-127.01	Change			
3. Project Name: Bi-County Water Tunnel			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....			....
	Other .....			....
Facility Costs	Maintenance	329		....
	Debt Service	61		....
Total Costs.....		390		....
Impact on Water or Sewer Rate.....				....

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	27,721	23,947	3,654	120	120						
Land											
Site Improvements & Utilities											
Construction	115,585	109,842	4,842	901	901						
Other	952		850	102	102						
Total	144,258	133,789	9,346	1,123	1,123						

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 93
Date First Approved	FY 93
Initial Cost Estimate	63,000
Cost Estimate Last FY	146,489
Present Cost Estimate	144,258
Approved Request, Last FY	2,401
Total Expenditures & Encumbrances	133,789
Approval Request FY 16	1,123
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	700	700									
SDC	143,558	133,089	9,346	1,123	1,123						

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.

Service Area Prince George's High Pressure Zone HG450A, Montgomery Main Pressure Zone HG495A

JUSTIFICATION

Plans & Studies
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).

Specific Data
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.

Cost Change
The cost decrease reflects the latest available estimates.

STATUS Under Construction (WSSC Contract Nos. BL9972A94 , BL9972B94 , BL9972C94).

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. Substantial completion of the tunnel is expected in December 2014.

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'16. 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.

G. Status Information	
Land Status:	Site selected
% Project Completion:	C-95%
Est. Completion Date:	January 2016

H. Map Map Reference Code:

SEE ATTACHED MAP

D. DESCRIPTION & JUSTIFICATION (CONT.)

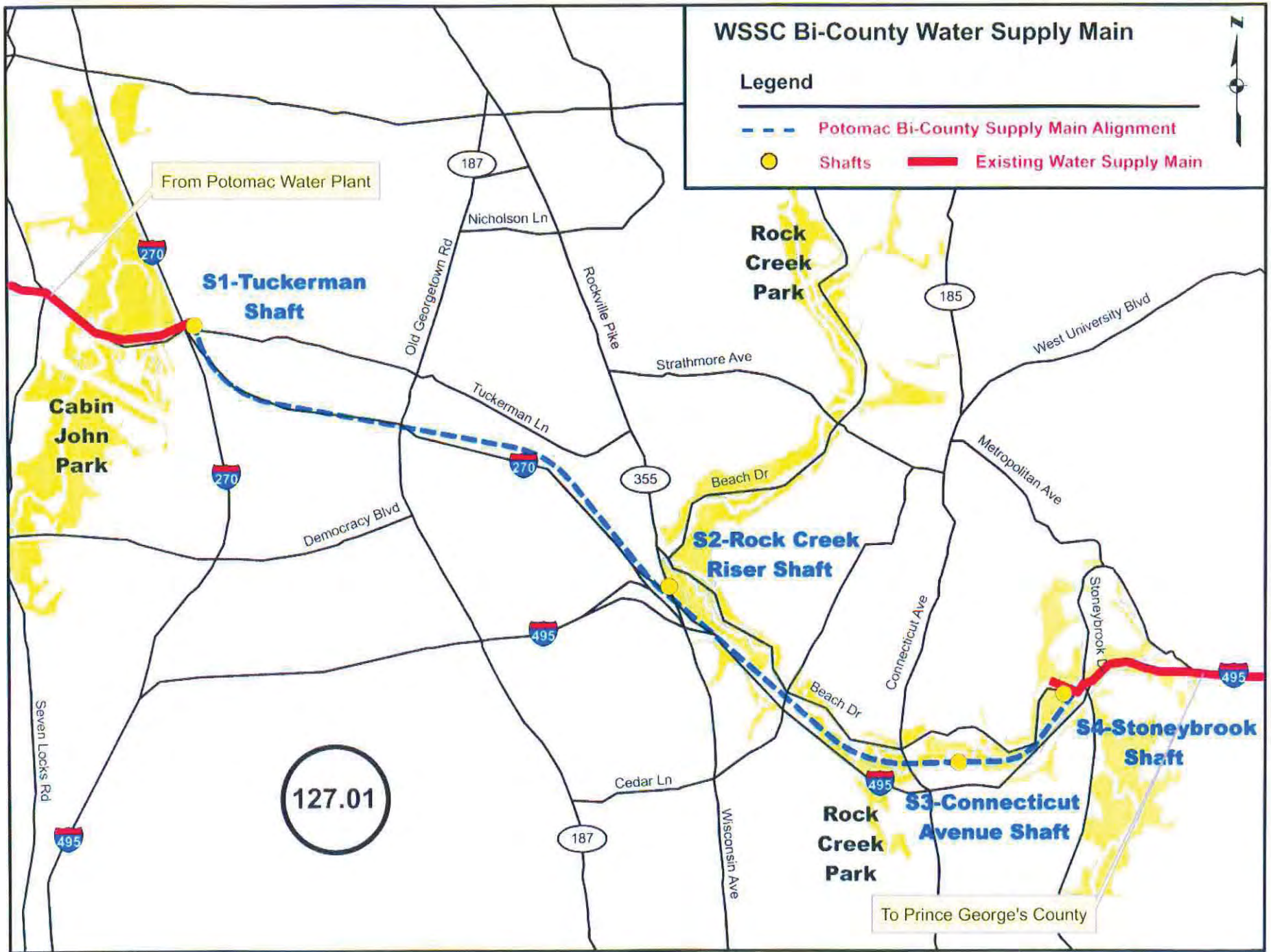
Agency Number: W - 127.01

Project Name: Bi-County Water Tunnel

COORDINATION

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

NOTE This project supports 99% Growth and 1% System Improvement.



A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
073802	W-139.02	Change			
3. Project Name: Duckett & Brighton Dam Upgrades			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	1043	.....	19
Total Costs.....		1043	.....	19
Impact on Water or Sewer Rate.....		2¢	.....	19

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	6,067	4,850	467	750	94	375	281				
Land											
Site Improvements & Utilities											
Construction	10,169	4,254	1,795	4,120	515	2,060	1,545				
Other	714		226	488	61	244	183				
Total	16,950	9,104	2,488	5,358	670	2,679	2,009				

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 07
Date First Approved	FY 07
Initial Cost Estimate	575
Cost Estimate Last FY	15,167
Present Cost Estimate	16,950
Approved Request, Last FY	3,689
Total Expenditures & Encumbrances	9,104
Approval Request FY 16	670
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	16,950	9,104	2,488	5,358	670	2,679	2,009				

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

Plans & Studies

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.

Specific Data

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.

Cost Change

Costs were increased to include design services during construction for Brighton Dam.

STATUS Under Construction (WSSC Contract No. BD4144A05,).

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. The information shown in Block G is based on the work at Duckett Dam. Brighton Dam is currently in design. The estimated completion date has been delayed 7 months due to time needed to obtain required permits for Brighton Dam construction.

COORDINATION

Maryland State Highway Administration, Montgomery County Government, Prince George's County Government, Howard County Government, City of Laurel, Maryland Department of the Environment and U.S. Army Corps of Engineers.

NOTE This project supports 100% System Improvement.

G. Status Information	
Land Status:	Not applicable
% Project Completion:	C-60%
Est. Completion Date:	January 2017

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
113803	W-161.01	Change			
3. Project Name: Large Diameter Water Pipe Rehabilitation Program			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	15803	.....	21
Total Costs.....		15803	.....	21
Impact on Water or Sewer Rate.....		32¢	.....	21

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	37,692	6,179	3,680	27,833	4,097	4,235	4,936	4,855	4,855	4,855	
Land											
Site Improvements & Utilities											
Construction	356,665	48,716	30,241	277,708	41,896	51,176	46,867	45,923	45,923	45,923	
Other	16,974		1,696	15,278	2,300	2,771	2,590	2,539	2,539	2,539	
Total	411,331	54,895	35,617	320,819	48,293	58,182	54,393	53,317	53,317	53,317	

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 11
Date First Approved	FY 11
Initial Cost Estimate	60,000
Cost Estimate Last FY	345,476
Present Cost Estimate	411,331
Approved Request, Last FY	38,275
Total Expenditures & Encumbrances	54,895
Approval Request FY 16	48,293
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	411,331	54,895	35,617	320,819	48,293	58,182	54,393	53,317	53,317	53,317	

D. Description & Justification
DESCRIPTION
 The purpose of this Program is to plan, 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 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 catastrophic 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

Plans & Studies

Utility Wide Master Plan, (December 2007); 30 Year Infrastructure Plan (2007); FY2016 Water Transmission System Asset Management Plan (February 2014); WSSC FY 2016 Buried Water Asset Systems Asset Management Plan (January 2014)

Specific Data

WSSC has approximately 1,061 miles of large diameter water main ranging from 16-inch to 96-inch in diameter. This includes 350 miles of cast iron, 326 miles of ductile iron, 35 miles of steel and 350 miles of PCCP. Internal inspection and condition assessment is performed annually on PCCP pipelines 36-inch and larger in diameter. Of the 350 miles of PCCP, 145 miles are 36-inch diameter and larger, and 59 miles are 54-inch diameter or 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.

WSSC has approximately 1,700 large diameter valves. The large valve inspection and repair program provides for the inspection, exercise, design, and repair or replacement of large diameter valves throughout the system. This program purpose is to minimize the risk associated with large valves inoperability and possible water outages.

Cost Change

The cost increase is due to an increase in PCCP replacement and repairs as well as the continued ramp-up of the number of miles of cast iron pipe being replaced and receiving cathodic protection. The Program includes replacement of up to one mile of the 54-inch

G. Status Information	
Land Status:	Not applicable
% Project Completion:	On-Going
Est. Completion Date:	On-going

H. Map Map Reference Code:

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 161.01

Project Name: Large Diameter Water Pipe Rehabilitation Program

diameter South Adelphi Main with 60-inch steel main. In addition, design for the new large valve inspection and repair program is included.

STATUS Not Applicable (WSSC Contract Nos. BM5063A09 , BM5063B09).

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 inspection, monitoring and emergency repairs are included in the Operating Budget.

COORDINATION

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 Public Works & Transportation, Local Community Civic Associations and WSSC Projects A-107.00, Specialty Valve Vault Rehabilitation Program and W-1.00, Water Reconstruction Program.

NOTE This project supports 100% System Improvement.

PATUXENT WATER FILTRATION PLANT PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'15 TOTAL COST	ADOPTED FY'16 TOTAL COST	CHANGE \$	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
W-172.05	Patuxent WFP Phase II Expansion	\$62,904	\$65,611	\$2,707	4.3%	\$47,496	FY 2019
W-172.07	Patuxent Raw Water Pipeline	22,973	23,616	643	2.8%	13,917	FY 2019
W-172.08	Rocky Gorge Pump Station Upgrade	17,685	17,932	247	1.4%	13,540	August 2017
	TOTALS	\$103,562	\$107,159	\$3,597	3.5%	\$74,953	

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 reflect revised design and construction cost estimates.

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
033807	W-172.05	Change			
3. Project Name: Patuxent WFP Phase II Expansion			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	4328	.....	20
Total Costs.....		4328	.....	20
Impact on Water or Sewer Rate.....		9¢	.....	20

B. Expenditure Schedule (000's)											
	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Cost Elements	Total	Thru FY '14	Estimate FY '15	Total 6 Years	Year 1 FY '16	Year 2 FY '17	Year 3 FY '18	Year 4 FY '19	Year 5 FY '20	Year 6 FY '21	Beyond 6 Years
Planning, Design & Supervision	13,303	6,544	1,325	5,434	1,688	1,771	1,583	392			
Land	34	34									
Site Improvements & Utilities											
Construction	49,463		9,663	39,800	12,000	13,000	10,000	4,800			
Other	2,811		549	2,262	684	739	579	260			
Total	65,611	6,578	11,537	47,496	14,372	15,510	12,162	5,452			

C. Funding Schedule (000's)											
WSSC Bonds	65,611	6,578	11,537	47,496	14,372	15,510	12,162	5,452			

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 04
Date First Approved	FY 03
Initial Cost Estimate	33,002
Cost Estimate Last FY	62,904
Present Cost Estimate	65,611
Approved Request, Last FY	11,130
Total Expenditures & Encumbrances	6,578
Approval Request FY 16	14,372
Supplemental Approval Request Current FY (15)	

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.

Service Area Bi-County Area

Capacity 72 MGD nominal/110 MGD emergency

JUSTIFICATION

Plans & Studies

"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)

Specific Data

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 from Rocky Gorge 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.

Cost Change

Project costs were increased due to a revised construction cost estimate.

STATUS Final Design Complete (WSSC Contract Nos. BF1582H91 , CT1582A91 , CT1582B91).

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. Expenditure and schedule estimates shown above are design level estimates and may change when the construction contracts are bid and awarded. The project has experienced delays caused by very long permit application processes and difficulties in obtaining Rights-of-Way.

G. Status Information	
Land Status:	R/W acquired
% Project Completion:	D-100%
Est. Completion Date:	FY 2019

H. Map Map Reference Code:

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 172.05

Project Name: Patuxent WFP Phase II Expansion

COORDINATION

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 and WSSC 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 and W-73.18, Power Reliability and Arc Flash Implementation(Coordination of UV Criteria).

NOTE This project supports 80% System Improvement and 20% Environmental Regulation.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
063804	W-172.07	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Patuxent Raw Water Pipeline

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Bi-County

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	4,582	3,346	350	886	207	210	239	230			
Land											
Site Improvements & Utilities											
Construction	17,714	5,748	200	11,766	2,607	1,037	3,720	4,402			
Other	1,320		55	1,265	281	125	396	463			
Total	23,616	9,094	605	13,917	3,095	1,372	4,355	5,095			

C. Funding Schedule (000's)

WSSC Bonds	23,616	9,094	605	13,917	3,095	1,372	4,355	5,095			
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D. Description & Justification

DESCRIPTION

This project provides for planning, design and construction of a 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

Plans & Studies

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

Specific Data

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 MGD.

Cost Change

Not applicable.

STATUS Preliminary Design (WSSC Contract Nos. BF1582C91 , BF1582E91).

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

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 and WSSC Projects W-172.05, Patuxent WFP Phase II Expansion and W-172.08, Rocky Gorge Pump Station Upgrade.

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	128	20
	Debt Service	1397	20
Total Costs.....		1525	20
Impact on Water or Sewer Rate.....		3¢	20

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 06"/>
Date First Approved	<input type="text" value="FY 03"/>
Initial Cost Estimate	<input type="text" value="18,750"/>
Cost Estimate Last FY	<input type="text" value="22,688"/>
Present Cost Estimate	<input type="text" value="23,616"/>
Approved Request, Last FY	<input type="text" value="3,095"/>
Total Expenditures & Encumbrances	<input type="text" value="9,094"/>
Approval Request FY 16	<input type="text" value="3,095"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: Land & R/W to be acquired
 % Project Completion: D-90%
 Est. Completion Date: FY 2019

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
063805	W-172.08	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Rocky Gorge Pump Station Upgrade

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Bi-County

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	4,275	2,793	100	1,382	633	691	58				
Land											
Site Improvements & Utilities											
Construction	12,416	1,489		10,927	5,008	5,464	455				
Other	1,241		10	1,231	564	616	51				
Total	17,932	4,282	110	13,540	6,205	6,771	564				

C. Funding Schedule (000's)

WSSC Bonds	17,932	4,282	110	13,540	6,205	6,771	564				
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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

Plans & Studies

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

Specific Data

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.

Cost Change

Not applicable

STATUS Final Design (WSSC Contract No. BF1582G91,).

OTHER

The project scope remains the same. Expenditure estimates 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 2014, following completion of the Prince George's side of the Duckett Dam upgrade. The construction expenditures through FY'14 include the upgrade of the station's existing turbines, which were part of the overall station upgrade, but were contracted separately.

COORDINATION

Maryland State Highway Administration, Montgomery County Government, Prince George's County Government, Maryland Department of the Environment, Baltimore Gas & Electric and WSSC Projects W-139.02, Duckett & Brighton Dam Upgrades, W-172.05, Patuxent WFP Phase II Expansion and W-172.07, Patuxent Raw Water Pipeline.

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	1234	19
Total Costs.....		1234	19
Impact on Water or Sewer Rate.....		2¢	19

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 06"/>
Date First Approved	<input type="text" value="FY 03"/>
Initial Cost Estimate	<input type="text" value="12,930"/>
Cost Estimate Last FY	<input type="text" value="17,685"/>
Present Cost Estimate	<input type="text" value="17,932"/>
Approved Request, Last FY	<input type="text" value="6,772"/>
Total Expenditures & Encumbrances	<input type="text" value="4,282"/>
Approval Request FY 16	<input type="text" value="6,205"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: No land or R/W required
 % Project Completion: D-99%
 Est. Completion Date: August 2017

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
983857	W-202.00	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Land & Rights-of-Way Acquisition - Bi-County

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area:

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision											
Land	5,676		4,253	1,423	1,125	225	25	20	18	10	
Site Improvements & Utilities											
Construction											
Other											
Total	5,676		4,253	1,423	1,125	225	25	20	18	10	

C. Funding Schedule (000's)

WSSC Bonds	4,269		3,431	838	540	225	25	20	18	10	
SDC	1,407		822	585	585						

D. Description & Justification

DESCRIPTION

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

Plans & Studies

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.

Specific Data

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.

Cost Change

Not applicable.

STATUS 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.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	10	22
Total Costs.....		10	22
Impact on Water or Sewer Rate.....		.....	.....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 98"/>
Date First Approved	<input type="text" value="FY 98"/>
Initial Cost Estimate	<input type="text"/>
Cost Estimate Last FY	<input type="text"/>
Present Cost Estimate	<input type="text" value="5,676"/>
Approved Request, Last FY	<input type="text"/>
Total Expenditures & Encumbrances	<input type="text"/>
Approval Request FY 16	<input type="text" value="1,125"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: Land & R/W to be acquired
 % Project Completion: Not Applicable
 Est. Completion Date: Not Applicable

H. Map Map Reference Code:

MAP NOT AVAILABLE

PROJECTS PENDING CLOSE-OUT
Bi-County Water Projects
(costs in thousands)

Project Number	Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'14	Estimated Expenditures FY'15	Remarks
033805	W-73.18	Power Reliability and Arc Flash Implementation	\$4,916	\$4,916	\$0	Project complete.
113806	W-73.20	Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation	10,481	8,964	1,517	Project completion expected in FY'15.
		TOTALS	\$15,397	\$13,880	\$1,517	

Section 4 - Bi-County Sewer Projects



FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

DATE: October 1, 2014

REVISED: May 7, 2015

BI-COUNTY SEWER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 14	EST. EXPEND 15	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BUDGET REQUEST 16	PDF PAGE NUM
						YR 1 16	YR 2 17	YR 3 18	YR 4 19	YR 5 20	YR 6 21		
S-22.06	Blue Plains WWTP: Liquid Train Projects, Part 2	345,636	241,755	11,322	79,994	8,008	15,901	19,878	20,107	9,521	6,579	8,008	4-4
S-22.07	Blue Plains WWTP: Biosolids Management, Part 2	409,909	342,793	33,012	31,888	4,558	8,401	5,541	2,720	2,784	7,884	4,558	4-5
S-22.09	Blue Plains WWTP: Plant-wide Projects	286,513	181,623	10,272	63,267	5,977	6,377	6,472	8,688	21,577	14,176	5,977	4-6
 S-22.10	Blue Plains WWTP: Enhanced Nutrient Removal	386,171	185,939	61,588	137,614	65,284	37,105	29,689	3,392	1,600	544	65,284	4-7
 S-22.11	Blue Plains: Pipelines & Appurtenances	178,731	54,284	15,309	88,034	22,007	19,815	12,801	13,748	11,808	7,855	22,007	4-8
S-103.02	Anaerobic Digestion/Combined Heat & Power	144,019	1,261	4,760	137,998	14,276	42,826	42,826	38,070	0	0	14,276	4-9
S-170.08	Septage Discharge Facility Planning & Implementation	14,374	815	304	13,255	758	6,628	4,402	1,467	0	0	758	4-11
S-170.09	Trunk Sewer Reconstruction Program	747,314	98,075	135,658	513,581	191,866	97,227	118,588	39,227	39,874	26,799	191,866	4-12
S-203.00	Land & Rights-Of-Way Acquisition - Bi County	424	0	300	124	112	12	0	0	0	0	112	4-14
	Projects Pending Close-Out	21,865	20,195	1,670	0	0	0	0	0	0	0	0	4-15
TOTAL BI-COUNTY SEWER PROJECTS		2,534,956	1,126,740	274,195	1,065,755	312,846	234,292	240,197	127,419	87,164	63,837	312,846	



Denotes projects which include an environmental component (see page 15 in the opening narrative.)

Notes for costs beyond six years:

- Includes 12,565 for Project S-22.06, Blue Plains WWTP: Liquid Train Projects, Part 2
- Includes 2,216 for Project S-22.07, Blue Plains WWTP: Biosolids Management, Part 2
- Includes 31,351 for Project S-22.09, Blue Plains WWTP: Plant-wide Projects
- Includes 1,030 for Project S-22.10, Blue Plains WWTP: Enhanced Nutrient Removal
- Includes 21,104 for Project S-22.11, Blue Plains: Pipelines & Appurtenances

Bi-County Sewer Projects
New Projects Listing
(costs in thousands)

Agency Number	Project Name	Total Project Cost	Budget Year Cost	Page Number
S-203.00	Land & Rights-Of-Way Acquisition - Bi-County	\$424	\$112	4-14
	TOTALS	\$424	\$112	

BLUE PLAINS WASTEWATER TREATMENT PLANT PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'15 TOTAL COST	ADOPTED FY'16 TOTAL COST	CHANGE \$	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
S-22.06	Blue Plains WWTP: Liquid Train Projects, Part 2	\$280,210	\$345,636	\$65,426	23.3%	\$79,994	On-Going
S-22.07	Blue Plains WWTP: Biosolids Management, Part 2	387,209	409,909	22,700	5.9%	31,888	On-Going
S-22.09	Blue Plains WWTP: Plant-wide Projects	212,336	286,513	74,177	34.9%	63,267	On-Going
S-22.10	Blue Plains WWTP: Enhanced Nutrient Removal	366,743	386,171	19,428	5.3%	137,614	On-Going
S-22.11	Blue Plains: Pipelines & Appurtenances	161,952	178,731	16,779	10.4%	88,034	On-Going
	TOTALS	\$1,408,450	\$1,606,960	\$198,510	14.1%	\$400,797	

Summary: These five projects, with an estimated total cost of \$1.6 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.

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised: May 7, 2015	
954812	S-22.07	Change		
3. Project Name: Blue Plains WWTP: Biosolids Management, Part 2			5. Agency: WSSC	
4. Program: Sanitation			6. Planning Area: Bi-County	

E. Annual Operating Budget Impact (000's)			FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	25178	.....
Total Costs.....		25178	.....
Impact on Water or Sewer Rate.....		55¢	..... 21

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	139,864	124,904	7,275	6,987	1,315	1,645	1,144	511	947	1,425	698
Land											
Site Improvements & Utilities											
Construction	269,380	217,889	25,410	24,585	3,198	6,673	4,342	2,182	1,809	6,381	1,496
Other	665		327	316	45	83	55	27	28	78	22
Total	409,909	342,793	33,012	31,888	4,558	8,401	5,541	2,720	2,784	7,884	2,216

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 95
Date First Approved	FY 95
Initial Cost Estimate	77,296
Cost Estimate Last FY	387,209
Present Cost Estimate	409,909
Approved Request, Last FY	27,969
Total Expenditures & Encumbrances	342,793
Approval Request FY 16	4,558
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	387,408	323,976	31,200	30,138	4,308	7,940	5,237	2,571	2,631	7,451	2,094
City of Rockville	22,501	18,817	1,812	1,750	250	461	304	149	153	433	122

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.

Service Area Bi-County Area **Capacity** 370 MGD

JUSTIFICATION

Plans & Studies

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 2014 Capital Improvement Program.

Specific Data

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

Cost Change

Cost increase is due to revised higher estimates for Gravity Thickeners Upgrades Phase II and Dewatering Additional Centrifuges; and, the addition of Combined Heat and Power as backup power project.

STATUS 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. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION

City of Rockville (responsible for a share of funding) and District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 100% System Improvement.

G. Status Information	
Land Status:	Not applicable
% Project Completion:	On-Going
Est. Completion Date:	On-Going

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
023805	S-22.09	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised: May 7, 2015

3. Project Name: Blue Plains WWTP: Plant-wide Projects

5. Agency: **WSSC**4. Program: **Sanitation**

6. Planning Area: Bi-County

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	96,815	72,229	3,522	17,000	1,958	1,948	1,434	2,398	4,842	4,420	4,064
Land											
Site Improvements & Utilities											
Construction	188,660	109,394	6,648	45,641	3,960	4,366	4,974	6,204	16,521	9,616	26,977
Other	1,038		102	626	59	63	64	86	214	140	310
Total	286,513	181,623	10,272	63,267	5,977	6,377	6,472	8,688	21,577	14,176	31,351

C. Funding Schedule (000's)

WSSC Bonds	270,786	171,653	9,708	59,795	5,649	6,027	6,117	8,211	20,393	13,398	29,630
City of Rockville	15,727	9,970	564	3,472	328	350	355	477	1,184	778	1,721

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: Plantwide Program Management; comprehensive Management Program; Electrical Power Systems - Switch Gear; Instrumentation, Control, and Electric Engineering Project Management Consultant; New Warehouse Facility; and Central Office Facility (COF) Renovations and Additions. Control System Replacement and Upgrades have been added to this project.

Service Area Bi-County Area**Capacity** 370 MGD**JUSTIFICATION****Plans & Studies**

The Blue Plains Intermunicipal Agreement of 2012; the WASA Master Plan (1998); and the DCWASA Approved FY 2014 Capital Improvement Program.

Specific Data

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

Cost Change

Cost increase is due to the addition of Control System upgrade projects and revised higher estimates for other projects in the program.

STATUS 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. 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

City of Rockville (responsible for a share of funding) and District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 100% System Improvement.**E. Annual Operating Budget Impact (000's)**

		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service	16643
Total Costs.....		16643
Impact on Water or Sewer Rate.....		37¢

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 95
Date First Approved	FY 02
Initial Cost Estimate	84,650
Cost Estimate Last FY	212,236
Present Cost Estimate	286,513
Approved Request, Last FY	8,109
Total Expenditures & Encumbrances	181,623
Approval Request FY 16	5,977
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Not applicable
 % Project Completion: On-Going
 Est. Completion Date: On-Going

H. Map Map Reference Code:**MAP NOT AVAILABLE**

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised: May 7, 2015	
083800	S-22.10	Change		
3. Project Name: Blue Plains WWTP: Enhanced Nutrient Removal			5. Agency: WSSC	
4. Program: Sanitation		6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service	10488
Total Costs.....		10488
Impact on Water or Sewer Rate.....		23¢

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	102,646	61,009	10,814	29,883	9,920	7,671	7,553	2,736	1,467	536	940
Land											
Site Improvements & Utilities											
Construction	281,543	124,930	50,164	106,369	54,718	29,067	21,842	622	117	3	80
Other	1,982		610	1,362	646	367	294	34	16	5	10
Total	386,171	185,939	61,588	137,614	65,284	37,105	29,689	3,392	1,600	544	1,030

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 08
Date First Approved	FY 07
Initial Cost Estimate	648
Cost Estimate Last FY	366,743
Present Cost Estimate	386,171
Approved Request, Last FY	49,031
Total Expenditures & Encumbrances	185,939
Approval Request FY 16	65,284
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	161,672	33,930	38,143	88,626	40,911	26,412	19,585	1,271	230	217	973
State Aid	215,108	150,038	21,230	43,840	21,997	9,159	8,966	2,047	1,357	314	
City of Rockville	9,391	1,971	2,215	5,148	2,376	1,534	1,138	74	13	13	57

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. Sub-projects include: Nitrogen Removal Facilities, Centrate Treatment, Enhanced Clarification Facility, Blue Plains Tunnel and Dewatering Pumping Station, and Program Management.

Service Area Bi-County Area **Capacity** 370 MGD

JUSTIFICATION

Plans & Studies
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 2014 Capital Improvement Program, and the Blue Plains Intermunicipal Agreement of 2012.

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

Cost Change
Not applicable.

STATUS Not Applicable (WSSC Contract Nos. CB4168L05 , CB4168Q05).

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.

COORDINATION
Maryland Department of the Environment, U.S. Environmental Protection Agency, Region III and District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 100% Environmental Regulation.

G. Status Information

Land Status: Not applicable

% Project Completion: On-Going

Est. Completion Date: On-Going

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
113804	S-22.11	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised: May 7, 2015

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3. Project Name: Blue Plains: Pipelines & Appurtenances

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Bi-County

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	39,211	11,492	4,885	18,859	4,659	3,839	2,872	2,605	2,454	2,430	3,975
Land											
Site Improvements & Utilities											
Construction	138,287	42,792	10,272	68,303	17,130	15,780	9,802	11,007	9,237	5,347	16,920
Other	1,233		152	872	218	196	127	136	117	78	209
Total	178,731	54,284	15,309	88,034	22,007	19,815	12,801	13,748	11,808	7,855	21,104

C. Funding Schedule (000's)

WSSC Bonds	172,317	53,012	14,950	85,141	21,557	19,129	12,174	13,182	11,465	7,634	19,214
City of Rockville	6,414	1,272	359	2,893	450	686	627	566	343	221	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: 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).

Service Area Bi-County Area

Capacity Various

JUSTIFICATION

Plans & Studies

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 2014 Capital Improvement Program.

Specific Data

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

Cost Change

Cost increase is due to revised higher estimates for projects to rehabilitate DCWASA interceptor sewers and pumping stations that carry WSSC wastewater to the Blue Plains WWTP, and the addition of creekbed sewer rehabilitation projects.

STATUS 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

City of Rockville (responsible for a share of funding) and District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 45% System Improvement and 55% Environmental Regulation.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	10801
Total Costs.....		10801
Impact on Water or Sewer Rate.....		24¢

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 11
Date First Approved	FY 02
Initial Cost Estimate	102,833
Cost Estimate Last FY	161,952
Present Cost Estimate	178,731
Approved Request, Last FY	23,795
Total Expenditures & Encumbrances	54,284
Approval Request FY 16	22,007
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Not Applicable
 % Project Completion: On-Going
 Est. Completion Date: On-Going

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
153802	S-103.02	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Anaerobic Digestion/Combined Heat & Power

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Bi-County

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	23,921	1,261	4,532	18,128	7,416	3,708	3,708	3,296			
Land											
Site Improvements & Utilities											
Construction	113,300			113,300	6,180	37,080	37,080	32,960			
Other	6,798		228	6,570	680	2,038	2,038	1,814			
Total	144,019	1,261	4,760	137,998	14,276	42,826	42,826	38,070			

C. Funding Schedule (000's)

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
WSSC Bonds	72,069	690	2,380	68,999	7,138	21,413	21,413	19,035			
Federal Aid	71,950	571	2,380	68,999	7,138	21,413	21,413	19,035			

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 at a location(s) to be determined. 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

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).

Specific Data

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.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	3425	20
Total Costs.....		3425	20
Impact on Water or Sewer Rate.....		8¢	20

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 15
Date First Approved	FY 10
Initial Cost Estimate	345
Cost Estimate Last FY	143,980
Present Cost Estimate	144,019
Approved Request, Last FY	7,138
Total Expenditures & Encumbrances	1,261
Approval Request FY 16	14,276
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: No land or R/W required
 % Project Completion: P-99%
 Est. Completion Date: April 2019

H. Map Map Reference Code:

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 103.02

Project Name: Anaerobic Digestion/Combined Heat & Power

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/Mesophilic Anaerobic Digestion/Combined Heat & Power (TH/MAD/CHP) process supplemented by restaurant grease fuel design was recommended with a 36 month construction period. 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.)

Cost Change

Not applicable.

STATUS Planning (WSSC Contract No. CD5901A15,).

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 anaerobic digestion, biomass, and combined heat and power generation system facilities.

The Montgomery and Prince George's Councils must be briefed on the project and approve by resolution before the project can move into design.

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.

COORDINATION

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 and WSSC Project S-96.14, Piscataway WWTP Facility Upgrades.

NOTE This project supports 100% System Improvement.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
103802	S-170.08	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Septage Discharge Facility Planning & Implementation

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Bi-County

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	3,861	815	276	2,770	689	1,385	522	174			
Land											
Site Improvements & Utilities											
Construction	9,280			9,280		4,640	3,480	1,160			
Other	1,233		28	1,205	69	603	400	133			
Total	14,374	815	304	13,255	758	6,628	4,402	1,467			

C. Funding Schedule (000's)

WSSC Bonds	14,374	815	304	13,255	758	6,628	4,402	1,467			
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D. Description & Justification

DESCRIPTION

This project provides for the planning, design and construction of the Septage and Fats, Oils, Grease (FOG) discharge facilities at three locations: (1) the abandoned Rock Creek WWTP, (2) Anacostia WWPS No 2, and (3) Piscataway WWTP.

JUSTIFICATION

Plans & Studies

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).

Specific Data

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 returned to the Commission's waste system without treatment.

Cost Change

Costs have increased due to refinement of the final estimated engineering and construction costs, and the addition of Design Services During Construction costs.

STATUS Preliminary Design (WSSC Contract Nos. CM4363A06 , CM4363B06 , CM4363C06 , CM4363D06).

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.

COORDINATION

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 and WSSC Project S-103.02, Anaerobic Digestion/Combined Heat & Power.

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff	750	....
	Other	482	....
Facility Costs	Maintenance .....		....
	Debt Service	974	.... 20
Total Costs.....		2206	.... 20
Impact on Water or Sewer Rate.....		5¢	.... 20

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 10
Date First Approved	FY 10
Initial Cost Estimate	10,835
Cost Estimate Last FY	11,136
Present Cost Estimate	14,374
Approved Request, Last FY	165
Total Expenditures & Encumbrances	815
Approval Request FY 16	758
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Not determined
 % Project Completion: D-0%
 Est. Completion Date: July 2018

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
113805	S-170.09	Change			
3. Project Name: Trunk Sewer Reconstruction Program			5. Agency: WSSC		
4. Program: Sanitation		6. Planning Area: Bi-County			

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	31194	.....	22
Total Costs.....		31194	.....	22
Impact on Water or Sewer Rate.....		69¢	.....	22

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	136,884	24,731	26,509	85,644	29,686	15,943	19,600	7,243	7,793	5,379	
Land											
Site Improvements & Utilities											
Construction	513,044	73,344	88,800	350,900	133,400	66,700	81,200	26,100	26,100	17,400	
Other	97,386		20,349	77,037	28,780	14,584	17,788	5,884	5,981	4,020	
Total	747,314	98,075	135,658	513,581	191,866	97,227	118,588	39,227	39,874	26,799	

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 11
Date First Approved	FY 11
Initial Cost Estimate	504,993
Cost Estimate Last FY	453,402
Present Cost Estimate	747,314
Approved Request, Last FY	114,319
Total Expenditures & Encumbrances	50,580
Approval Request FY 16	191,866
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	747,314	98,075	135,658	513,581	191,866	97,227	118,588	39,227	39,874	26,799	

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

Plans & Studies
WSSC Sanitary Sewer Overflow Consent Decree (December 7, 2005)

Specific Data
Under the terms of the Consent Decree the WSSC Trunk Sewer Inspection Program inspected all required sewers in 21 basins by December 2010 and Sewer System Evaluation Surveys (SSES) were completed 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 now complete. As required by Article 6 of the Consent Decree, a Sewer Basin Repair, Replacement, Rehabilitation Plan (SR3 Plan) for each basin was completed and submitted to the EPA and MDE by March 2013. The SR3 plans encompassing all 24 Consent Decree basins have been approved by the EPA and MDE as of May 2014.

* At the current rate of acquiring environmental permits, the required trunk sewer reconstruction work is expected to extend beyond the Consent Decree's December 2015 deadline. In addition to limited contractor and subcontractor availability, WSSC is continuing to experience significant delays in acquiring both the required permits and Right of Entry permissions to work in the ESA. WSSC worked with the MDE and USACE to identify means to expedite environmental permit approvals with moderate success. The MDE and USACE issued a Program-wide umbrella permit to be followed by modified joint permits for individual sewer basins. To date, the MDE and USACE has issued modified joint permits for 14 sewer basins and continues to process joint permits for the remaining sewer basins.

Cost Change
The increase in the overall program costs is attributed to constructing extensive access roads, by-pass pumping, and stream stabilization required to complete Consent Decree construction activities in the ESA within the constraints of the permits.

G. Status Information	
Land Status:	Right-of-Way may be required
% Project Completion:	C-31%
Est. Completion Date:	See Block D

H. Map Map Reference Code:

MAP NOT APPLICABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 170.09

Project Name: Trunk Sewer Reconstruction Program

STATUS Under Construction

OTHER

The project scope remains 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 that will be performed 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.

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. For FY2015, construction work will significantly increase in the ESAs, encompassing mainline reconstruction and providing exposed pipeline and manhole protection from high stream flows and stream bank erosion where required.

COORDINATION

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 Public Works & Transportation, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, Region III, Maryland Historical Trust and WSSC Project S-1.01, Sewer Reconstruction Program.

NOTE This project supports 100% System Improvement.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
163800	S-203.0€	Add

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Land & Rights-of-Way Acquisition - Bi-County

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area:

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision											
Land	424		300	124	112	12					
Site Improvements & Utilities											
Construction											
Other											
Total	424		300	124	112	12					

C. Funding Schedule (000's)

WSSC Bonds	68		51	17	17						
SDC	332		249	83	83						
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

Plans & Studies

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.

Specific Data

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.

Cost Change

Not applicable.

STATUS 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.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	5	18
Total Costs.....		5	18
Impact on Water or Sewer Rate.....		.....	.....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 98"/>
Date First Approved	<input type="text" value="FY 98"/>
Initial Cost Estimate	<input type="text"/>
Cost Estimate Last FY	<input type="text"/>
Present Cost Estimate	<input type="text" value="424"/>
Approved Request, Last FY	<input type="text"/>
Total Expenditures & Encumbrances	<input type="text"/>
Approval Request FY 16	<input type="text" value="112"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: Land & R/W to be acquired
 % Project Completion: Not Applicable
 Est. Completion Date: Not Applicable

H. Map Map Reference Code:

MAP NOT APPLICABLE

PROJECTS PENDING CLOSE-OUT
Bi-County Sewer Projects
(costs in thousands)

Project Number	Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'14	Estimated Expenditures FY'15	Remarks
083807	S-89.22	Anacostia Storage Facility	\$21,865	\$20,195	\$1,670	Project completion expected in FY'15.
		TOTALS	\$21,865	\$20,195	\$1,670	

Section 5 - Prince George's County Water Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

PRINCE GEORGE'S COUNTY WATER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 14	EST. EXPEND 15	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BUDGET REQUEST 16	PDF PAGE NUM
						YR 1 16	YR 2 17	YR 3 18	YR 4 19	YR 5 20	YR 6 21		
W-12.02	Prince George's County HG415 Zone Water Main	3,405	93	401	2,911	2,046	865	0	0	0	0	2,046	5-2
W-34.02	Old Branch Avenue Water Main	15,218	1,324	340	13,554	268	3,160	6,592	3,534	0	0	268	5-3
W-34.03	Water Transmission Improvements 385B Pressure Zone	34,670	458	440	33,772	440	220	5,528	11,028	11,028	5,528	440	5-4
W-34.04	Branch Avenue Water Transmission Improvements	57,360	1,930	2,530	52,900	12,305	17,365	17,365	5,865	0	0	12,305	5-5
W-34.05	Marlboro Zone Reinforcement Main	4,366	7	334	4,025	1,342	2,683	0	0	0	0	1,342	5-6
W-62.05	Clinton Zone Water Storage Facility Implementation	12,027	884	440	10,703	275	3,630	5,093	1,705	0	0	275	5-7
W-65.10	St. Barnabas Elevated Tank Replacement	11,284	510	172	10,602	8,682	1,920	0	0	0	0	8,682	5-8
W-84.02	Ritchie Marlboro Road Transmission Main & PRV	12,791	497	770	11,524	440	4,428	4,428	2,228	0	0	440	5-9
W-84.05	Prince George's County 450A Zone Water Main	38,669	5	880	17,852	385	1,467	1,466	1,246	6,644	6,644	385	5-10
W-111.05	Hillmeade Road Water Main	5,490	858	12	4,620	2,310	2,310	0	0	0	0	2,310	5-11
W-119.01	John Hanson Highway Water Main, Part 1	8,373	1,708	460	6,205	1,493	4,712	0	0	0	0	1,493	5-12
W-123.20	Oak Grove/Leeland Roads Water Main, Part 2	12,828	6,410	2,820	3,598	2,322	1,276	0	0	0	0	2,322	5-13
W-129.12	Church Road Water Main & PRV, Part 2	827	188	445	194	194	0	0	0	0	0	194	5-14
W-137.02	South Potomac Supply Improvement	25,606	1,513	5,335	18,758	6,304	6,294	3,080	3,080	0	0	6,304	5-15
W-147.00	Collington Elevated Water Storage Facility	14,726	3,960	8,470	2,296	2,296	0	0	0	0	0	2,296	5-17
W-197.00	DSP & Conceptual Design Water Projects	10,768	2,635	1,051	6,781	2,070	2,380	2,028	151	76	76	2,070	5-18
	Projects Pending Close-Out	0	0	0	0	0	0	0	0	0	0	0	5-23
	TOTAL PRINCE GEORGE'S COUNTY WATER PROJECTS	268,408	22,980	24,900	200,295	43,172	52,710	45,580	28,837	17,748	12,248	43,172	

Notes for costs beyond six years:

Includes 19,932 for Project W-84.05, Prince George's County 450A Zone Water Main.

Includes 301 for Project W-93.01, Konterra Town Center East Water Main (DA4623Z07)

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	W-12.02	Change			
3. Project Name: Prince George's County HG415 Zone Water Main			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Patuxent P.A. 15		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	25	.....	18
	Debt Service	100	.....	18
Total Costs.....		125	.....	18
Impact on Water or Sewer Rate.....			.....

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	447	93	123	231	159	72					
Land											
Site Improvements & Utilities											
Construction	2,526		226	2,300	1,620	680					
Other	432		52	380	267	113					
Total	3,405	93	401	2,911	2,046	865					

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 11
Date First Approved	FY 11
Initial Cost Estimate	1,074
Cost Estimate Last FY	3,391
Present Cost Estimate	3,405
Approved Request, Last FY	2,046
Total Expenditures & Encumbrances	93
Approval Request FY 16	2,046
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	3,405	93	401	2,911	2,046	865					

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, which will improve system reliability by improving the flexibility of the delivery system to the Montgomery County High Zone HG660 and Patuxent Pressure Zone HG415A 30-inch and 42-inch diameter transmission mains leaving the Patuxent Plant.

Service Area Montgomery High Zone Pressure Zone 660A, Patuxent Pressure Zone HG415A

JUSTIFICATION

Plans & Studies
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).

Specific Data
The new water main will provide a redundant feed to the Montgomery County High Zone HG660 and Patuxent Pressure Zone HG415A from the Potomac Plant in the event the Patuxent Plant is out of service.

Cost Change
Not applicable.

STATUS Preliminary Design (WSSC Contract No. BL5057A09,).

OTHER
The project scope has remained the same. Expenditures 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
Prince George's County Government and Prince George's County Department of Environmental Resources.

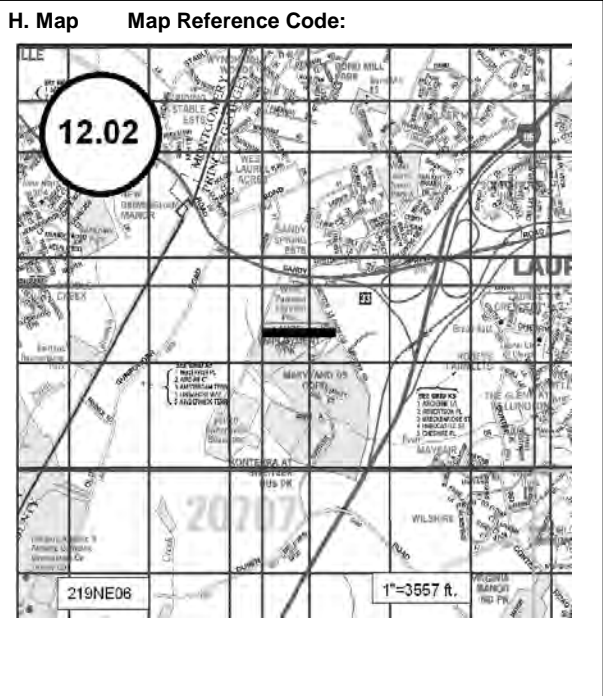
NOTE This project supports 100% System Improvement.

G. Status Information

Land Status: R/W required

% Project Completion: D-30%

Est. Completion Date: FY 2017



A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	W-34.02	Change			
3. Project Name: Old Branch Avenue Water Main			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Clinton & Vicinity P.A. 81A		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	182	.....	20
	Debt Service	463	.....	20
Total Costs.....		645	.....	20
Impact on Water or Sewer Rate.....		1¢	.....	20

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	3,101	1,324	310	1,467	244	260	565	398			
Land											
Site Improvements & Utilities											
Construction	10,856			10,856		2,614	5,428	2,814			
Other	1,261		30	1,231	24	286	599	322			
Total	15,218	1,324	340	13,554	268	3,160	6,592	3,534			

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	<input type="text" value="FY 08"/>
Date First Approved	<input type="text" value="FY 08"/>
Initial Cost Estimate	<input type="text" value="10,350"/>
Cost Estimate Last FY	<input type="text" value="14,946"/>
Present Cost Estimate	<input type="text" value="15,218"/>
Approved Request, Last FY	<input type="text" value="268"/>
Total Expenditures & Encumbrances	<input type="text" value="1,324"/>
Approval Request FY 16	<input type="text" value="268"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

C. Funding Schedule (000's)											
WSSC Bonds	7,609	662	170	6,777	134	1,580	3,296	1,767			
SDC	7,609	662	170	6,777	134	1,580	3,296	1,767			

D. Description & Justification

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

Service Area Clinton Pressure Zone HG385B

JUSTIFICATION

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

Specific Data
 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.

Cost Change
 Not applicable.

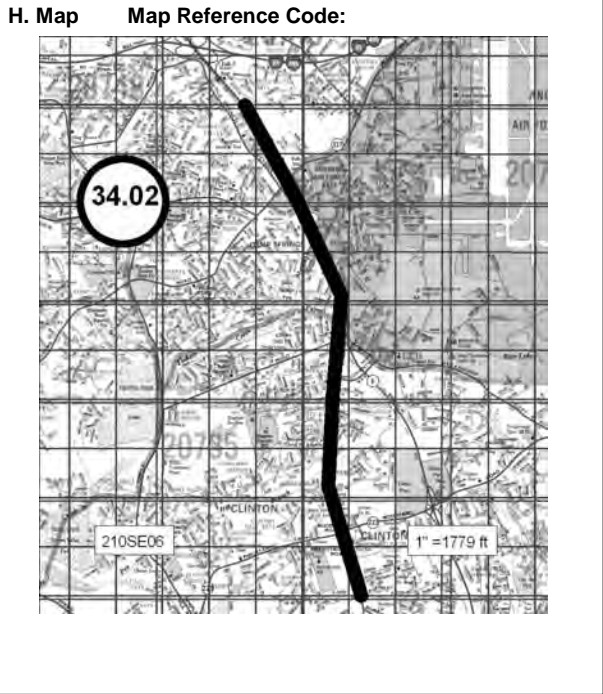
STATUS Preliminary Design (WSSC Contract No. BL4985A09,).

OTHER
 The project scope has remained the same. The expenditures and schedule projections shown in Block B are planning level estimates and may change based upon final pipeline alignment, site-specific conditions, and design constraints. Land costs are included in WSSC Project W-202.00.

COORDINATION
 Maryland State Highway Administration, Prince George's County Government, Maryland-National Capital Park & Planning Commission, Maryland Department of the Environment and Prince George's County Department of Public Works & Transportation.

NOTE This project supports 50% Growth and 50% System Improvement.

G. Status Information	
Land Status:	R/W required
% Project Completion:	D-85%
Est. Completion Date:	FY 2019



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	W-34.03	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Water Transmission Improvements 385B Pressure Zone

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Clinton & Vicinity P.A. 81A

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,558	458	400	700	400	200	25	25	25	25	
Land											
Site Improvements & Utilities											
Construction	30,000			30,000			5,000	10,000	10,000	5,000	
Other	3,112		40	3,072	40	20	503	1,003	1,003	503	
Total	34,670	458	440	33,772	440	220	5,528	11,028	11,028	5,528	

C. Funding Schedule (000's)

SDC	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	34,670	458	440	33,772	440	220	5,528	11,028	11,028	5,528	

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.

Service Area Clinton Pressure Zone HG385B

JUSTIFICATION

Plans & Studies

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

Specific Data

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.

Cost Change

The project cost has increased due to expected tunneling under Accokeek Road and through environmentally sensitive areas.

STATUS Preliminary Design (WSSC Contract No. BL5273A11,).

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. The design phase will determine the final alignment. Land costs are included in WSSC Project W-202.00.

COORDINATION

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 Environmental Resources, Prince George's County Department of Public Works & Transportation, U.S. Army Corps of Engineers and WSSC Projects W-34.02, Old Branch Avenue Water Main, W-34.04, Branch Avenue Water Transmission Improvements, W-34.05, Marlboro Zone Reinforcement Main and W-62.05, Clinton Zone Water Storage Facility Implementation.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

				FY of Impact
Program Costs	Staff			
	Other			
Facility Costs	Maintenance	427		22
	Debt Service			
Total Costs.....		427		22
Impact on Water or Sewer Rate.....				

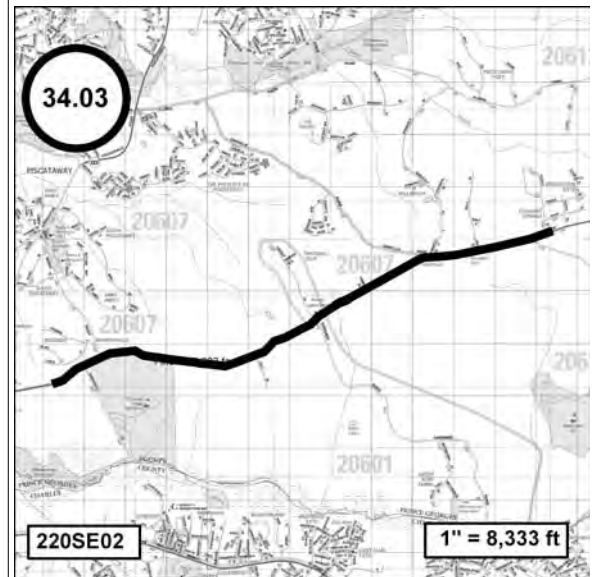
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 12
Date First Approved	FY 12
Initial Cost Estimate	173
Cost Estimate Last FY	26,496
Present Cost Estimate	34,670
Approved Request, Last FY	1,018
Total Expenditures & Encumbrances	458
Approval Request FY 16	440
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Right-of-Way may be required
 % Project Completion: D-5%
 Est. Completion Date: FY 2021

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	W-34.04	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Branch Avenue Water Transmission Improvements

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area:

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,930	230	700	1,000	700	100	100	100			
Land											
Site Improvements & Utilities											
Construction	48,200	1,700	1,500	45,000	10,000	15,000	15,000	5,000			
Other	7,230		330	6,900	1,605	2,265	2,265	765			
Total	57,360	1,930	2,530	52,900	12,305	17,365	17,365	5,865			

C. Funding Schedule (000's)

SDC	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
	57,360	1,930	2,530	52,900	12,305	17,365	17,365	5,865			

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of approximately 28,000 feet of 42-inch diameter water transmission main and a flow control valve along Branch Avenue in the Clinton area.

Service Area Clinton Pressure Zone HG385B

JUSTIFICATION

Plans & Studies

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

Specific Data

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

Cost Change

Construction cost increase from planning level estimate is due to the number of micro tunnels required in environmentally sensitive areas and special design requirements imposed by the State Highway Administration (SHA). Project schedule was adjusted to coordinate with SHA construction of MD 5/Brandywine interchange and MD 5/Surratts Road interchange.

STATUS Preliminary Design (WSSC Contract Nos. BL5273B11 , BL5273D11 , BL5273E11).

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 currently split into three phases. The first phase BL5273D11 is comprised of approximately 1,500 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 1 mile 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 3.8 miles). Land costs are included in WSSC Project W-202.00.

COORDINATION

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 Public Works & Transportation, U.S. Army Corps of Engineers and WSSC Projects W-34.02, Old Branch Avenue Water Main, W-34.03, Water Transmission Improvements 385B Pressure Zone, W-34.05, Marlboro Zone Reinforcement Main and W-62.05, Clinton Zone Water Storage Facility Implementation.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance	498	20
	Debt Service .....	.....
Total Costs.....		498	20
Impact on Water or Sewer Rate.....		.....

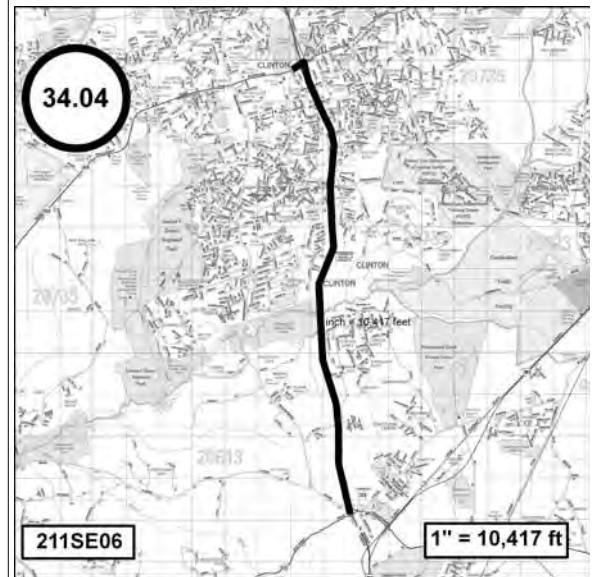
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 14
Date First Approved	FY 14
Initial Cost Estimate	23,705
Cost Estimate Last FY	30,091
Present Cost Estimate	57,360
Approved Request, Last FY	770
Total Expenditures & Encumbrances	1,930
Approval Request FY 16	12,305
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Right-of-Way may be required
 % Project Completion: D-30%
 Est. Completion Date: FY 2019

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	W-34.05	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Marlboro Zone Reinforcement Main

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area:

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	297	7	290								
Land											
Site Improvements & Utilities											
Construction	3,500			3,500	1,167	2,333					
Other	569		44	525	175	350					
Total	4,366	7	334	4,025	1,342	2,683					

C. Funding Schedule (000's)

WSSC Bonds	4,366	7	334	4,025	1,342	2,683					
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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.

Service Area Clinton Pressure Zone HG385B

JUSTIFICATION

Plans & Studies

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

Specific Data

This new water main will provide system reliability and redundancy by connecting the 385B and 280A pressure zones.

Cost Change

Not applicable.

STATUS Preliminary Design (WSSC Contract No. BL5273C11,).

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

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 Public Works & Transportation and WSSC 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 and W-62.05, Clinton Zone Water Storage Facility Implementation.

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance	71	18
	Debt Service	456	18
Total Costs.....		527	18
Impact on Water or Sewer Rate.....		1¢	18

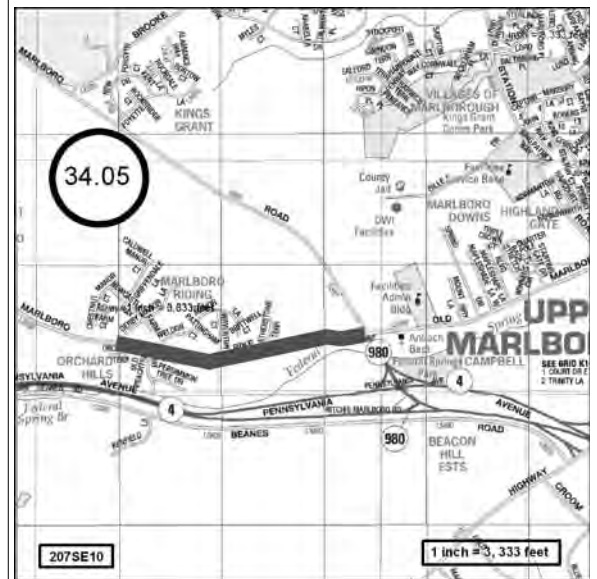
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 14
Date First Approved	FY 14
Initial Cost Estimate	5,234
Cost Estimate Last FY	4,657
Present Cost Estimate	4,366
Approved Request, Last FY	299
Total Expenditures & Encumbrances	7
Approval Request FY 16	1,342
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Right-of-Way may be required
 % Project Completion: D-10%
 Est. Completion Date: FY 2017

H. Map Map Reference Code:



A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	W-62.05	Change			
3. Project Name: Clinton Zone Water Storage Facility Implementation			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Clinton & Vicinity P.A. 81A		

E. Annual Operating Budget Impact (000's)		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service .....	....
Total Costs.....		....
Impact on Water or Sewer Rate.....		....

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	2,014	884	400	730	250	300	130	50			
Land											
Site Improvements & Utilities											
Construction	9,000			9,000		3,000	4,500	1,500			
Other	1,013		40	973	25	330	463	155			
Total	12,027	884	440	10,703	275	3,630	5,093	1,705			

C. Funding Schedule (000's)											
SDC	12,027	884	440	10,703	275	3,630	5,093	1,705			

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.

Service Area Clinton Pressure Zone HG385B

Capacity 4.0 MG

JUSTIFICATION

Plans & Studies

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).

Specific Data

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.

Cost Change

Not applicable.

STATUS Planning (WSSC Contract No. BE4507A06,).

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. Land costs are included in WSSC Project W-202.00.

COORDINATION

Prince George's County Government, Maryland-National Capital Park & Planning Commission, Maryland Department of the Environment, Prince George's County Department of Environmental Resources and WSSC 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 and W-34.05, Marlboro Zone Reinforcement Main.

NOTE This project supports 100% Growth.

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 13
Date First Approved	FY 13
Initial Cost Estimate	7,993
Cost Estimate Last FY	12,938
Present Cost Estimate	12,027
Approved Request, Last FY	589
Total Expenditures & Encumbrances	884
Approval Request FY 16	275
Supplemental Approval Request Current FY (15)	

G. Status Information	
Land Status:	Site selected
% Project Completion:	P-97%
Est. Completion Date:	FY 2019

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	W-65.10	Change			
3. Project Name: St. Barnabas Elevated Tank Replacement			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Suitland-District Heights & Vicinity P.A. 75A		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	317	.....	19
Total Costs.....		317	.....	19
Impact on Water or Sewer Rate.....			.....

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,380	510	100	770	600	170					
Land											
Site Improvements & Utilities											
Construction	8,500		50	8,450	6,950	1,500					
Other	1,404		22	1,382	1,132	250					
Total	11,284	510	172	10,602	8,682	1,920					

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 13
Date First Approved	FY 13
Initial Cost Estimate	7,274
Cost Estimate Last FY	10,666
Present Cost Estimate	11,284
Approved Request, Last FY	8,278
Total Expenditures & Encumbrances	510
Approval Request FY 16	8,682
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	5,642	255	86	5,301	4,341	960					
SDC	5,642	255	86	5,301	4,341	960					

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 it includes the demolition of the existing St. Barnabas elevated water storage tank.

Service Area Clinton Pressure Zone HG385B, Patuxent Pressure Zone HG415A, Prince George's High Pressure Zone HG450A **Capacity** 2.5 MG

JUSTIFICATION

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

Specific Data
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.

Cost Change
Not applicable

STATUS Final Design (WSSC Contract Nos. BE3227A02 , BE3227B02).

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. Land costs are included in WSSC Project W-202.00.

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

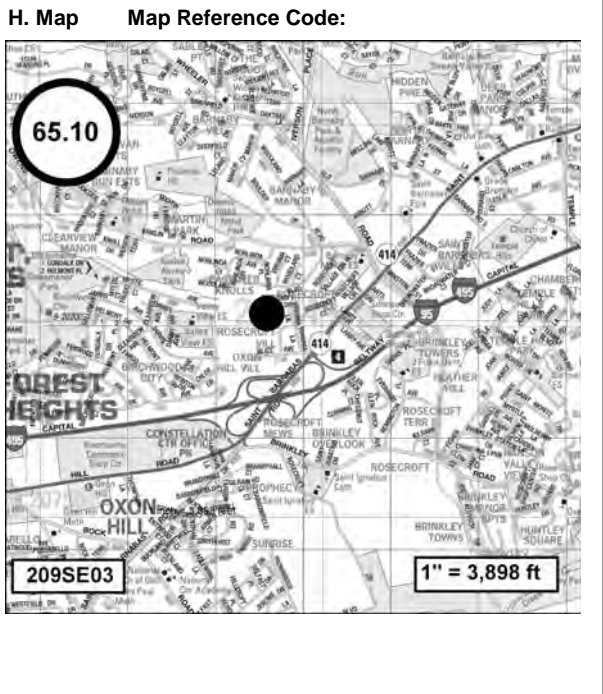
NOTE This project supports 50% Growth and 50% System Improvement.

G. Status Information

Land Status: See text in Block D

% Project Completion: D-98%

Est. Completion Date: FY 2017



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	W-84.02	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Ritchie Marlboro Road Transmission Main & PRV

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Westphalia & Vicinity P.A. 78

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,672	497	700	475	400	25	25	25			
Land											
Site Improvements & Utilities											
Construction	10,000			10,000		4,000	4,000	2,000			
Other	1,119		70	1,049	40	403	403	203			
Total	12,791	497	770	11,524	440	4,428	4,428	2,228			

C. Funding Schedule (000's)

SDC	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	12,791	497	770	11,524	440	4,428	4,428	2,228			

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 watermain will be constructed along Ritchie Marlboro Road from South of Westphalia Road to the Beltway.

Service Area Southern Pressure Zone 385B, Prince George's High Pressure Zone HG450A

JUSTIFICATION

Plans & Studies

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

Cost Change

Project cost has increased due to expected tunneling under Ritchie Marlboro Road and the Beltway and through environmentally sensitive areas.

STATUS Preliminary Design (WSSC Contract No. BL5020A09,)

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

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 Public Works & Transportation and U.S. Army Corps of Engineers.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance	140	20
	Debt Service .....	.....
Total Costs.....		140	20
Impact on Water or Sewer Rate.....		.....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 08
Date First Approved	FY 08
Initial Cost Estimate	2,496
Cost Estimate Last FY	8,811
Present Cost Estimate	12,791
Approved Request, Last FY	909
Total Expenditures & Encumbrances	497
Approval Request FY 16	440
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Right-of-Way may be required
 % Project Completion: D-5%
 Est. Completion Date: FY 2019

H. Map Map Reference Code:



A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	W-84.05	Change			
3. Project Name: Prince George's County 450A Zone Water Main			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Prince George's County		

E. Annual Operating Budget Impact (000's)			FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	972	.....
	Debt Service	26	.....
Total Costs.....		998	.....
Impact on Water or Sewer Rate.....		2¢	..... 23

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	5,155	5	800	4,230	350	1,334	1,333	1,133	40	40	120
Land											
Site Improvements & Utilities											
Construction	30,000			12,000					6,000	6,000	18,000
Other	3,514		80	1,622	35	133	133	113	604	604	1,812
Total	38,669	5	880	17,852	385	1,467	1,466	1,246	6,644	6,644	19,932

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 13
Date First Approved	FY 13
Initial Cost Estimate	374
Cost Estimate Last FY	38,170
Present Cost Estimate	38,669
Approved Request, Last FY	385
Total Expenditures & Encumbrances	5
Approval Request FY 16	385
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	38,669	5	880	17,852	385	1,467	1,466	1,246	6,644	6,644	19,932

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.

Service Area Prince George's High Pressure Zone HG450A

JUSTIFICATION

Specific Data

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

Cost changes are expected after the alignment and capacity study is completed to define the extent of upgrades required.

STATUS Planning

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.

COORDINATION

Maryland State Highway Administration, Prince George's County Government, Maryland-National Capital Park & Planning Commission (Mandatory Referral Process) and Prince George's County Department of Public Works & Transportation.

NOTE This project supports 100% System Improvement.

G. Status Information	
Land Status:	Not determined
% Project Completion:	P-0%
Est. Completion Date:	FY 2023

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	W-111.05	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Hillmeade Road Water Main

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Bowie & Vicinity P.A. 71A

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	964	858	10	96	48	48					
Land											
Site Improvements & Utilities											
Construction	3,922			3,922	1,961	1,961					
Other	604		2	602	301	301					
Total	5,490	858	12	4,620	2,310	2,310					

C. Funding Schedule (000's)

SDC	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	5,490	858	12	4,620	2,310	2,310					

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.

Service Area Bowie Pressure Zone HG350E

JUSTIFICATION

Plans & Studies

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.

Specific Data

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

Cost Change

Not applicable.

STATUS Final Design (WSSC Contract No. BL1782A96,).

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. Land costs are included in WSSC Project W-202.00.

COORDINATION

Maryland State Highway Administration, Prince George's County Government, Maryland-National Capital Park & Planning Commission, AMTRAK Railroad, Maryland Department of Natural Resources, Prince George's County Department of Public Works & Transportation and U.S. Army Corps of Engineers.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	126	18
	Debt Service .....	.....	.....
Total Costs.....		126	18
Impact on Water or Sewer Rate.....		.....	.....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 98
Date First Approved	FY 98
Initial Cost Estimate	1,898
Cost Estimate Last FY	5,490
Present Cost Estimate	5,490
Approved Request, Last FY	2,293
Total Expenditures & Encumbrances	858
Approval Request FY 16	2,310
Supplemental Approval Request Current FY (15)	

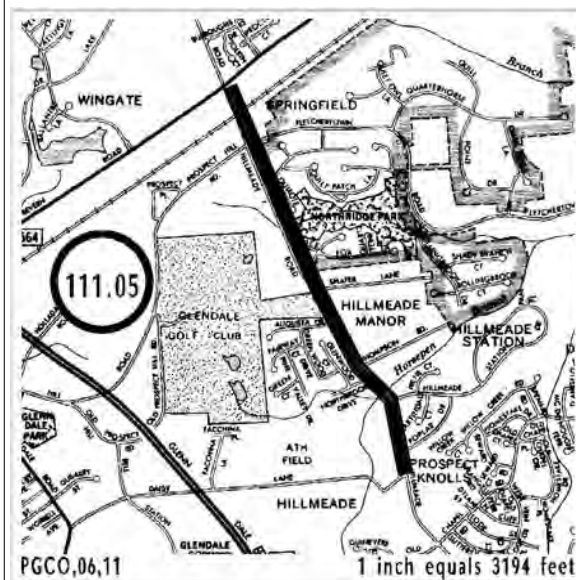
G. Status Information

Land Status: R/W required

% Project Completion: D-95%

Est. Completion Date: June 2017

H. Map Map Reference Code:



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	W-119.01	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: John Hanson Highway Water Main, Part 1

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Largo-Lottsford & Vicinity P.A. 73, Collington & Vicinity P. A. 74B

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	2,309	1,708	400	201	101	100					
Land											
Site Improvements & Utilities											
Construction	5,194			5,194	1,197	3,997					
Other	870		60	810	195	615					
Total	8,373	1,708	460	6,205	1,493	4,712					

C. Funding Schedule (000's)

SDC	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	8,373	1,708	460	6,205	1,493	4,712					

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.

Service Area Prince George's Intermediate Pressure Zone HG317A, Prince George's Main Pressure Zone HG320A

JUSTIFICATION

Plans & Studies

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

Specific Data

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.

Cost Change

Not applicable.

STATUS Final Design (WSSC Contract No. BL7053A86,).

OTHER

The project scope has remained the same. The redundancy and water system reliability benefits of this project would be immediate. Expenditure and schedule projections shown in Block B are design level estimates and may change based upon site-specific conditions and actual bid.

COORDINATION

Maryland State Highway Administration, Prince George's County Government and Prince George's County Department of Environmental Resources.

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's)

				FY of Impact
Program Costs	Staff			
	Other			
Facility Costs	Maintenance	101		18
	Debt Service			
Total Costs.....		101		18
Impact on Water or Sewer Rate.....				

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 82
Date First Approved	FY 82
Initial Cost Estimate	675
Cost Estimate Last FY	7,741
Present Cost Estimate	8,373
Approved Request, Last FY	1,608
Total Expenditures & Encumbrances	1,252
Approval Request FY 16	1,493
Supplemental Approval Request Current FY (15)	

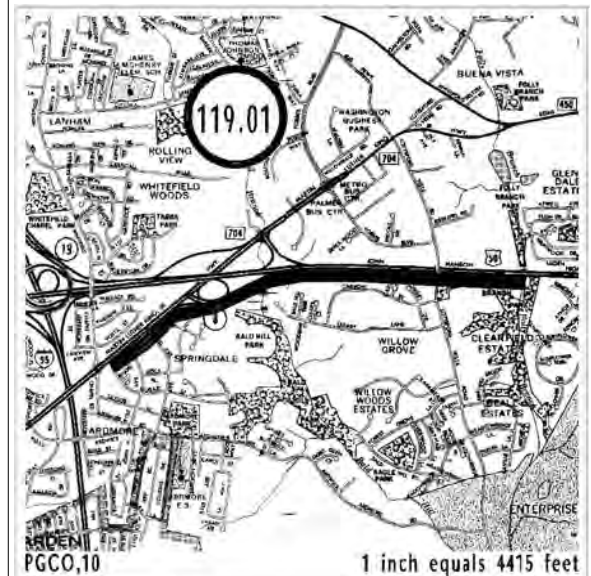
G. Status Information

Land Status: Land & R/W to be acquired

% Project Completion: D-100%

Est. Completion Date: FY 2017

H. Map Map Reference Code:



A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	W-123.20	Change			
3. Project Name: Oak Grove/Leeland Roads Water Main, Part 2			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Mitchellville & Vicinity P.A. 74A		

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) 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	2,000	1,100					
Other	836		368	468	302	166					
Total	12,828	6,410	2,820	3,598	2,322	1,276					

C. Funding Schedule (000's)											
WSSC Bonds	6,414	3,205	1,410	1,799	1,161	638					
SDC	6,414	3,205	1,410	1,799	1,161	638					

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.

Service Area Prince George's Intermediate Pressure Zone HG317A

JUSTIFICATION

Plans & Studies

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

Specific Data

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.

Cost Change

Not applicable.

STATUS Under Construction (WSSC Contract Nos. BL3192A01 , BL3192B01).

OTHER

The project scope has remained the same. Expenditures 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 November 2014 with the ductile iron pipe design.

COORDINATION

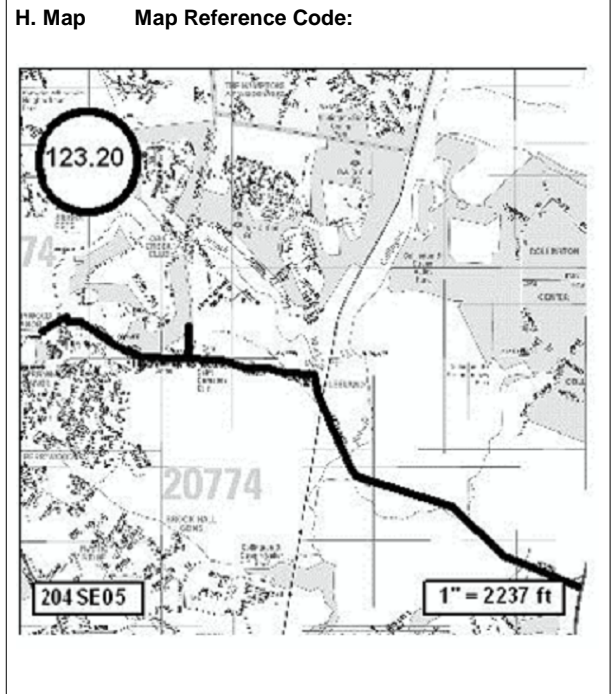
Prince George's County Government and WSSC Project W-147.00, Collington Elevated Water Storage Facility.

NOTE This project supports 50% Growth and 50% System Improvement.

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....			....
	Other .....			....
Facility Costs	Maintenance	322	....	18
	Debt Service	571	....	18
Total Costs.....		893	....	18
Impact on Water or Sewer Rate.....		2¢	....	18

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 02
Date First Approved	FY 02
Initial Cost Estimate	4,117
Cost Estimate Last FY	12,760
Present Cost Estimate	12,828
Approved Request, Last FY	5,080
Total Expenditures & Encumbrances	6,410
Approval Request FY 16	2,322
Supplemental Approval Request Current FY (15)	

G. Status Information	
Land Status:	R/W acquired
% Project Completion:	C-25%
Est. Completion Date:	July 2016



A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	W-129.12	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Church Road Water Main, Part 2

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Bowie & Vicinity P.A. 71A

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	228	188	30	10	10						
Land											
Site Improvements & Utilities											
Construction	516		357	159	159						
Other	83		58	25	25						
Total	827	188	445	194	194						

C. Funding Schedule (000's)

SDC	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	827	188	445	194	194						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of approximately 1,320 feet of 24-inch diameter water main along Church Road from the existing 30-inch diameter water main in John Hanson Highway to an existing 24-inch diameter water main in Church Road. The project includes one Air Release and Vaccum valve and vault.

Service Area Bowie Pressure Zone HG350E

JUSTIFICATION

Plans & Studies

WSSC Memorandum from Planning Group regarding Justification of Church Road Water Main Project dated June 7, 2005; M-NCP&PC Round 6.2 growth forecasts; General Plan.

Specific Data

The purpose of this project is to provide service to future development in Bowie Pressure Zone HG350E.

Cost Change

Costs were decreased to reflect engineer's estimate for construction.

STATUS Final Design Complete (WSSC Contract No. BL4263A05,).

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 site-specific conditions and actual bid.

COORDINATION

Maryland State Highway Administration, Prince George's County Government and Maryland-National Capital Park & Planning Commission (Mandatory Referral Process).

NOTE This project supports 100% Growth.

E. Annual Operating Budget Impact (000's) FY of Impact

Program Costs	Staff	11	....
	Other	143	....
Facility Costs	Maintenance	23	....	17
	Debt Service .....		....
Total Costs.....		177	....	17
Impact on Water or Sewer Rate.....			....

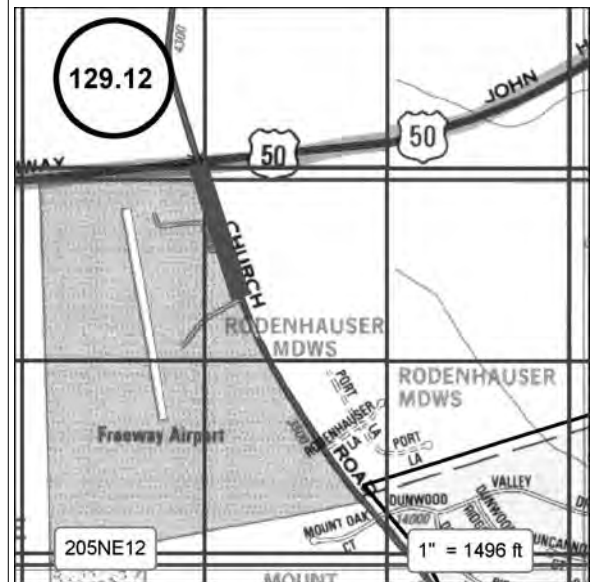
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 07
Date First Approved	FY 07
Initial Cost Estimate	589
Cost Estimate Last FY	950
Present Cost Estimate	827
Approved Request, Last FY	656
Total Expenditures & Encumbrances	188
Approval Request FY 16	194
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: No land or R/W required
 % Project Completion: D-100%
 Est. Completion Date: July 2015

H. Map Map Reference Code:



A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	W-137.02	Change			
3. Project Name: South Potomac Supply Improvement			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Henson Creek P.A. 76B		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	182	.....	20
	Debt Service	876	.....	20
Total Costs.....		1058	.....	20
Impact on Water or Sewer Rate.....		2¢	.....	20

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	4,282	1,513	850	1,919	664	655	300	300			
Land											
Site Improvements & Utilities											
Construction	19,134		4,000	15,134	5,067	5,067	2,500	2,500			
Other	2,190		485	1,705	573	572	280	280			
Total	25,606	1,513	5,335	18,758	6,304	6,294	3,080	3,080			

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 12
Date First Approved	FY 07
Initial Cost Estimate	25
Cost Estimate Last FY	10,543
Present Cost Estimate	25,606
Approved Request, Last FY	4,375
Total Expenditures & Encumbrances	1,513
Approval Request FY 16	6,304
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	12,980		605	12,375	3,113	3,102	3,080	3,080			
SDC	12,626	1,513	4,730	6,383	3,191	3,192					

D. Description & Justification

DESCRIPTION

This project provides for the design and construction of a new 42-inch diameter ductile iron pipe approximately 2.1 miles in length to replace an out-of-service, 42-inch diameter PCCP water transmission main, the relocation of up to 2 miles of existing 42-inch diameter PCCP water transmission main, a new flow control valve vault, and all associated piping and appurtenances.

Service Area Rosecroft Pressure Zone HG290A

JUSTIFICATION

Plans & Studies
 "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)

Specific Data
 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 2 miles of pipe in the southern section that is exposed along eroding stretches of Henson Creek will now be evaluated for relocation.

Cost Change
 Costs were increased due to the decision to relocate up to 2 miles of the water main outside of the sensitive stream area along Henson Creek.

STATUS Final Design Complete (WSSC Contract Nos. BR4797A08 , BT5778A14).

OTHER
 The project scope has changed due to the addition of up to 2 miles of 42-inch diameter water main relocations. Expenditure and schedule projections shown in Block B are Order of Magnitude level estimates and may change based upon a final determination as to the actual length of pipe to be relocated, final alignment, restoration requirements, and other site-specific conditions.

COORDINATION
 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 Public Works & Transportation and

G. Status Information	
Land Status:	Not applicable
% Project Completion:	D-100%
Est. Completion Date:	FY 2019



D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 137.02

Project Name: South Potomac Supply Improvement

U.S. Army Corps of Engineers.

NOTE This project supports 49% Growth and 51% System Improvement.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	W-147.00	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Collington Elevated Water Storage Facility

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Collington & Vicinity P.A. 74B

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,563	1,313	200	50	50						
Land	130	130									
Site Improvements & Utilities											
Construction	12,055	2,517	7,500	2,038	2,038						
Other	978		770	208	208						
Total	14,726	3,960	8,470	2,296	2,296						

C. Funding Schedule (000's)

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
WSSC Bonds	7,363	1,980	4,235	1,148	1,148						
SDC	7,363	1,980	4,235	1,148	1,148						

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.

Service Area Prince George's Intermediate Pressure Zone HG317A

Capacity 4.0 MG

JUSTIFICATION

Plans & Studies

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

Specific Data

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.

Cost Change

Costs were decreased based upon actual bid.

STATUS Under Construction (WSSC Contract Nos. BE1775D96 , BP5410A12).

OTHER

The project scope has remained the same. Expenditures and schedule projections shown in Block B are based upon actual bid.

COORDINATION

Prince George's County Government, Maryland-National Capital Park & Planning Commission, City of Bowie and WSSC Project W-123.20, Oak Grove/Leeland Roads Water Main, Part 2.

NOTE This project supports 50% Growth and 50% System Improvement.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff	Other	Facility Costs	Maintenance	Debt Service	Total Costs	Impact on Water or Sewer Rate

					718	718	1¢
				
					718	718	1¢
				
					1¢	1¢	1¢

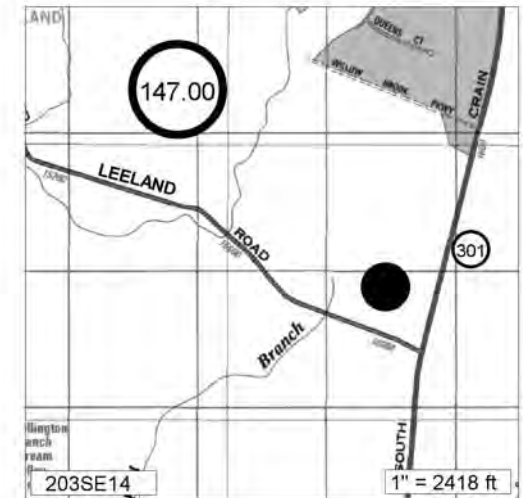
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 98
Date First Approved	FY 98
Initial Cost Estimate	12,536
Cost Estimate Last FY	17,480
Present Cost Estimate	14,726
Approved Request, Last FY	6,742
Total Expenditures & Encumbrances	3,959
Approval Request FY 16	2,296
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Site acquired
 % Project Completion: C-5%
 Est. Completion Date: March 2016

H. Map Map Reference Code:



A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	W-197.00	Change			
3. Project Name: DSP & Conceptual Design Water Projects			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Prince George's County		

E. Annual Operating Budget Impact (000's)		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service .....	....
Total Costs.....		....
Impact on Water or Sewer Rate.....		....

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,609	530	189	862	303	291	240	14	7	7	28
Land											
Site Improvements & Utilities											
Construction	8,100	2,105	725	5,036	1,498	1,780	1,523	117	59	59	234
Other	1,059		137	883	269	309	265	20	10	10	39
Total	10,768	2,635	1,051	6,781	2,070	2,380	2,028	151	76	76	301

C. Funding Schedule (000's)											
Contribution/Other	10,768	2,635	1,051	6,781	2,070	2,380	2,028	151	76	76	301

D. Description & Justification
DESCRIPTION

This PDF provides the necessary approval to design and construct projects which serve new development or are to be built in conjunction with new development to reinforce the existing system or to avoid future disruption to the area. Such projects are referred to as Development Services Process (DSP) projects. This PDF also provides funds for projects in the Conceptual Design (CD) phase or final stages of facility planning for which reliable design costs, construction costs, and completion schedules were not available when this CIP was prepared. Preliminary construction expenditure data for this class of projects has been included at the request of the County government representatives for information to aid in fiscal, infrastructure, and resource planning for the six-year program period. See the pages that follow for a comprehensive project listing.

JUSTIFICATION

Plans & Studies

DSP projects to serve new development do not proceed unless the development has the appropriate service area and an approved preliminary plan of subdivision or a recorded plat. The need for various projects in the Conceptual Design phase has been established through the Facility Planning Process or other mechanisms. The WSSC's intent is to allow for beginning preliminary design for projects which require final planning phase approval, consultant design, contract negotiations, sub-surface investigations, and land and rights-of-way acquisition. Where applicable, anticipated land acquisition costs are included in WSSC Project W-202.00. Further, these projects may require in-house review and County Government Policy Review Group (PRG) interaction, as detailed design data is developed.

Specific Data

When Conceptual Design projects progress beyond the 30% design stage for facility projects and 60% design stage for pipeline projects, a separate PDF will be prepared by the WSSC. These PDF's will include firm construction costs and completion dates, and will be displayed as stand-alone PDF's in the CIP in the next cycle. This last criteria does not apply to DSP projects.

Cost Change

Not applicable.

STATUS Not Applicable

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 85
Date First Approved	FY 85
Initial Cost Estimate	
Cost Estimate Last FY	
Present Cost Estimate	
Approved Request, Last FY	
Total Expenditures & Encumbrances	
Approval Request FY 16	
Supplemental Approval Request Current FY (15)	

G. Status Information	
Land Status:	Not applicable
% Project Completion:	Not Applicable
Est. Completion Date:	Not Applicable

H. Map	Map Reference Code:
SEE ATTACHED MAPS	

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 197.00

Project Name: DSP & Conceptual Design Water Projects

OTHER

The project scope has remained the same. Implementation of DSP projects listed under this PDF is contingent upon the Applicants' meeting the project specified conditions. This requirement indicates that the Applicant is making a "good faith" effort to proceed to construction. Consequently, the implementation schedules of DSP projects are largely beyond the control of the WSSC and, instead, depend upon the actions of the Applicant. All new DSP projects are included with the stipulation that no WSSC rate supported debt will be used for these projects. The expenditure schedule reflected in this PDF is not intended to be a restriction but only an estimate of expenditures based on such considerations as historical trends, market expectations, Applicant schedules, and the number, stage, and scope of projects currently moving through the DSP. This PDF does not include funding for facility planning projects which also require county government review and approval and public interaction. Construction costs for Conceptual Design projects shown in Block B are very preliminary planning level estimates only, with approximate completion schedules, and may increase or decrease depending on site-specific conditions, design constraints, and market conditions. Construction costs for DSP projects are typically based upon preliminary design plans. The information in Block F pertains to this PDF in general and not to the individual projects listed on the pages that follow. DSP projects included in the listing that follows are 100% in support of future growth. The growth percentage for Conceptual Design projects vary and, therefore, is indicated on each individual listing as appropriate.

D. DESCRIPTION & JUSTIFICATION (CONT.)**Agency Number: W-197.00****Project Name: DSP & Conceptual Design Water Projects**W-84.03 Smith Home Farms Water Main (DA4358Z06, DA4358A, C, & F 06)

7,600 feet of 16-inch diameter water main to serve the Smith Home Farms Subdivision. Water main alignment will be dependent on the road alignments selected by the Westphalia Sector Plan. Service Area: Southern Pressure Zone 385B; Status: C-25%; Estimated Total Project Cost: \$2,500,000. Expenditure and schedule projections 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.

W-84.04 Westphalia Town Center Water Main (DA4599Z07, DA4599B07)

4,700 feet of 16-inch diameter water main to serve Westphalia Town Center and vicinity. Service Area: Prince George's County, Prince George's Pressure Zone 385B; Status: C-10%; Estimated Total Project Cost: \$1,438,000. Expenditure and schedule projections 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.

W-93.01 Konterra Town Center East Water Main (DA4623Z07)

9,000 feet of 16-inch diameter water main to serve Konterra Town Center East, located in Prince George's County between Virginia Manor Road, the Intercounty Connector, and Interstate 95. Pressure Zone: Prince George's 415A; Status: P-100%; Estimated Total Project Cost: \$1,571,000. Expenditure and schedule projections 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.

W-105.01 Marlton Section 18 Water Main, Lake Marlton Avenue (DA3599A,C&Z03)

6,500 feet of 16-inch diameter water main to provide service to East Marlton, Section 18, along Heathermore Boulevard and Lake Marlton Avenue. Service Area: Southern Pressure Zone 385B; Status: D-50%. This project will be completed in four phases. The project design for phase one, 900 feet of 16-inch diameter water main extending in an easterly direction along Heathermore Boulevard, has been approved and will be constructed under a System Extension Permit at an estimated cost of \$348,000. The remaining phases will be built in succession. Estimated Total Project Cost: \$2,708,000. Expenditure and schedule projections 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.

W-120.14 Lakeview at Brandywine Water Main, Part 1 (DA9381Z92)

1,100 feet of 16-inch diameter water main to serve the Lakeview at Brandywine project. Status: P-100%; Estimated Total Project Cost: \$193,000. The project will need to be re-evaluated when the developer is ready to develop. A new cost estimate and schedule will be required at that time. No WSSC rate supported debt will be used for this project.

W-120.15 Lakeview at Brandywine Water Main, Part 2 (DA9381Z92)

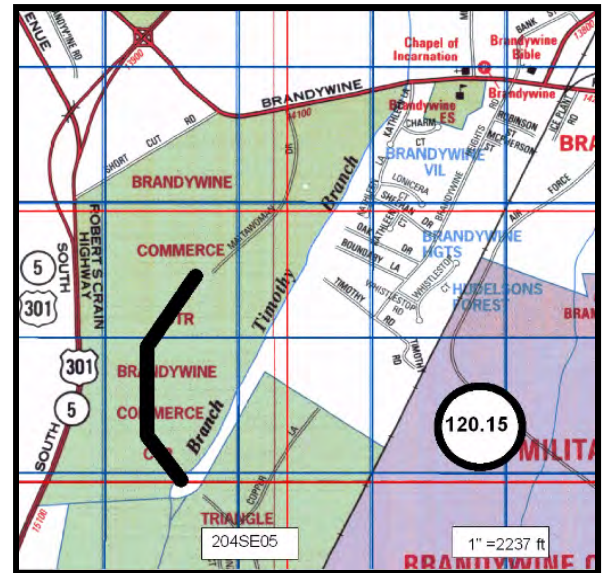
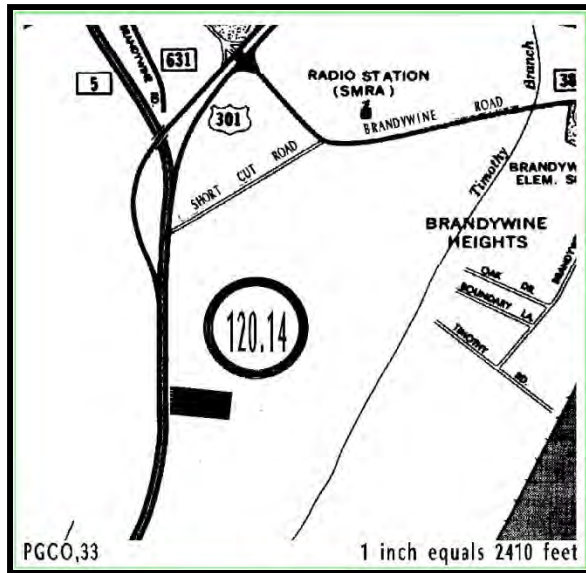
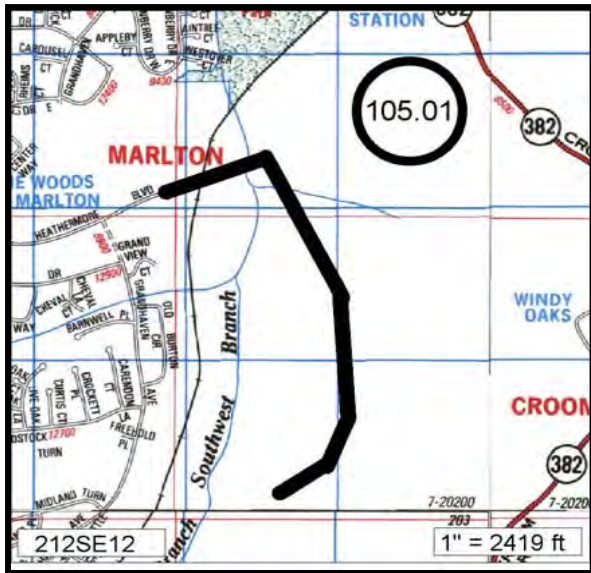
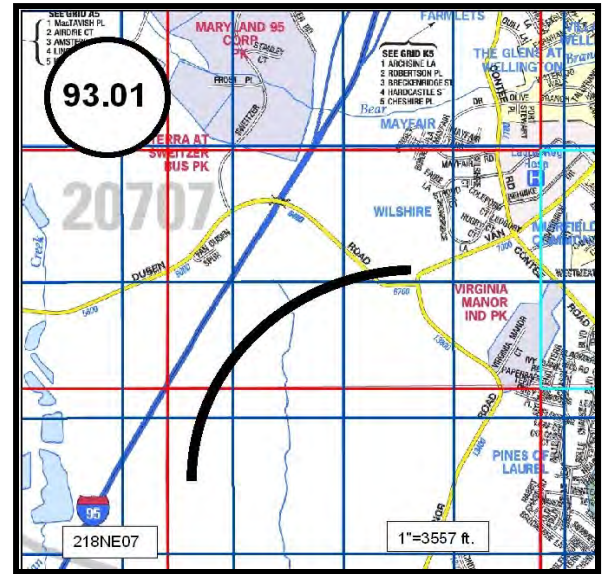
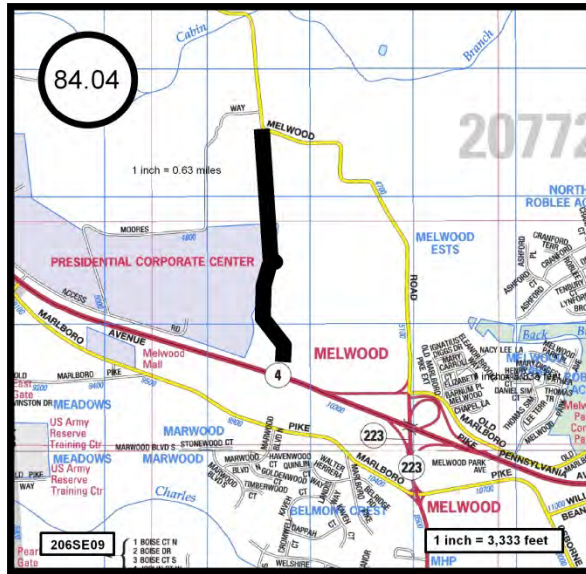
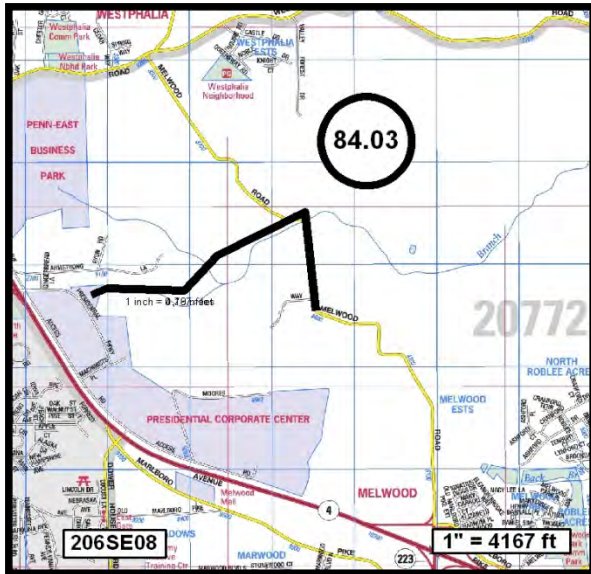
3,700 feet of 16-inch diameter water main to serve the Lakeview at Brandywine project. Status: P-100%; Estimated Total Project Cost: \$617,000. The project will need to be re-evaluated when the developer is ready to develop. A new cost estimate and schedule will be required at that time. No WSSC rate supported debt will be used for this project.

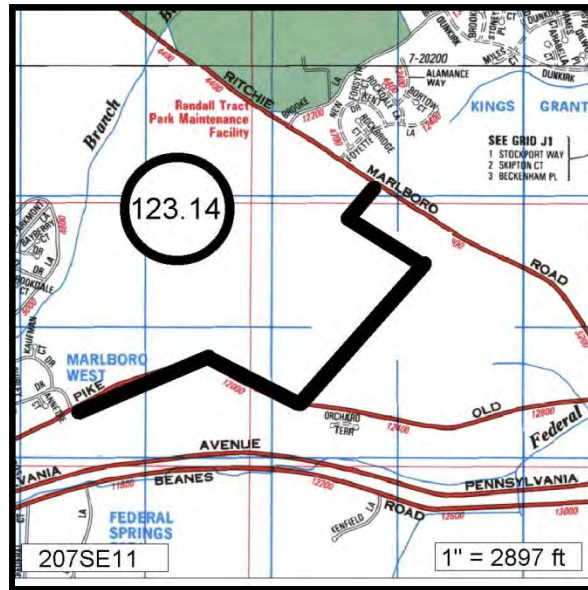
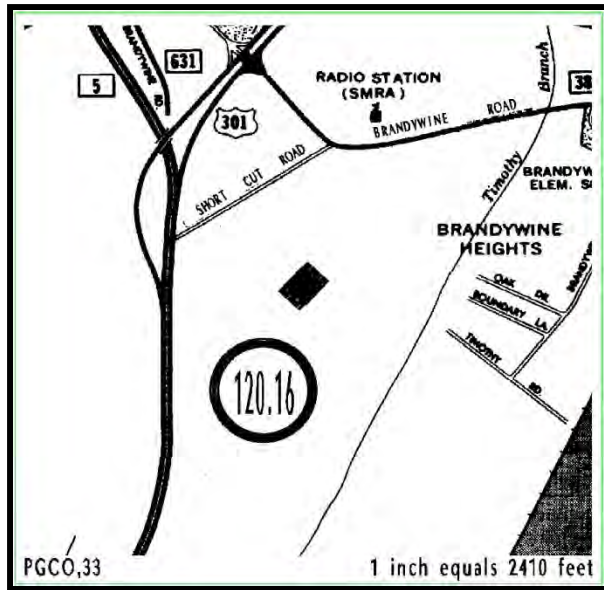
W-120.16 Lakeview at Brandywine Water Main, Part 3 (DA9381Z92)

200 feet of 16-inch diameter water main to serve the Lakeview at Brandywine project. Status: P-100%; Estimated Total Project Cost: \$47,000. The project will need to be re-evaluated when the developer is ready to develop. A new cost estimate and schedule will be required at that time. No WSSC rate supported debt will be used for this project.

W-123.14 Old Marlboro Pike Water Main (DA3538Z, A,D,E,G,H&J03)

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. Service Area: Southern Pressure Zone 385B; Status: C-80%; Estimated Total Project Cost: \$1,694,000. Expenditure and schedule projections 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.





PROJECTS PENDING CLOSE-OUT
Prince George's Water Projects
(costs in thousands)

Project Number	Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'14	Estimated Expenditures FY'15	Remarks
	W-204.00	Land & Rights-Of-Way Acquisition-Prince George's County	\$0	\$0	\$0	All land costs are consolidated in Bi-County Water.
		TOTALS	\$0	\$0	\$0	

Section 6 - Prince George's County Sewer Projects




FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

DATE: October 1, 2014

REVISED: May 7, 2015

PRINCE GEORGE'S COUNTY SEWER PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 14	EST. EXPEND 15	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BUDGET REQUEST 16	PDF PAGE NUM
						YR 1 16	YR 2 17	YR 3 18	YR 4 19	YR 5 20	YR 6 21		
S-43.02	Broad Creek WWPS Augmentation	175,400	20,488	50,925	103,987	61,215	34,879	7,455	438	0	0	61,215	6-2
 S-57.92	Western Branch Facility Upgrade	46,418	39,531	6,837	50	50	0	0	0	0	0	50	6-4
 S-57.93	Western Branch WWTP Enhanced Nutrient Removal	41,057	36,194	4,813	50	50	0	0	0	0	0	50	6-5
 S-57.94	Western Branch WWTP Incinerator Emissions Control	19,856	1,022	1,553	17,281	9,031	7,590	660	0	0	0	9,031	6-7
S-75.21	Mattawoman WWTP Upgrades	12,280	3,719	1,389	7,172	2,162	1,596	1,709	1,705	0	0	2,162	6-8
S-77.19	Parkway WWTP Biosolids Facility Plan Implementation	31,997	9,179	17,389	5,429	5,429	0	0	0	0	0	5,429	6-9
S-96.14	Piscataway WWTP Facility Upgrades	103,836	3,728	798	86,899	1,971	12,466	21,075	14,490	16,104	20,793	1,971	6-10
S-131.10	Fort Washington Forest No. 1 WWPS Augmentation	3,955	484	955	2,516	1,518	782	216	0	0	0	1,518	6-11
S-187.00	DSP & Conceptual Design Sewer Projects	11,883	2,217	3,143	6,005	2,974	1,795	717	259	130	130	2,974	6-12
	Projects Pending Close-Out	0	0	0	0	0	0	0	0	0	0	0	6-18
TOTAL PRINCE GEORGE'S COUNTY SEWER PROJECTS		446,682	116,562	87,802	229,389	84,400	59,108	31,832	16,892	16,234	20,923	84,400	



Denotes projects which include an environmental component (see page 15 in the opening narrative.)

Notes for costs beyond six years:

Includes 518 for Project S-28.18, Konterra Town Center East Sewer (DA4623A,B, & Z07).

Includes 12,411 for Project S-96.14, Piscataway WWTP Facility Upgrades.

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	S-43.02	Change			
3. Project Name: Broad Creek WWPS Augmentation			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: South Potomac Sector P.A. 80		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance	494	.....	20
	Debt Service	2051	.....	20
Total Costs.....		2545	.....	20
Impact on Water or Sewer Rate.....		6¢	.....	20

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	18,104	9,786	2,500	5,818	3,300	1,918	400	200			
Land	227	227									
Site Improvements & Utilities											
Construction	149,692	10,475	46,000	93,217	55,000	31,300	6,700	217			
Other	7,377		2,425	4,952	2,915	1,661	355	21			
Total	175,400	20,488	50,925	103,987	61,215	34,879	7,455	438			

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 09
Date First Approved	FY 09
Initial Cost Estimate	80,850
Cost Estimate Last FY	173,761
Present Cost Estimate	175,400
Approved Request, Last FY	50,925
Total Expenditures & Encumbrances	20,488
Approval Request FY 16	61,215
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	29,817	3,483	8,657	17,677	10,407	5,929	1,267	74			
SDC	145,583	17,005	42,268	86,310	50,808	28,950	6,188	364			

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 one of the existing basins allowing intermittent storage of excess sewage until flows at the plant allow treatment. Implementation of this alternative is dependent on approval from 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.

Service Area Broad Creek Drainage Basin

JUSTIFICATION

Plans & Studies
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).

Specific Data
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.

Cost Change
Costs were increased to reflect the latest available estimate and to address additional regulatory requirements as part of the permitting process.

STATUS Final Design Complete (WSSC Contract Nos. CD4231D05 , CM4231A05 , CM4231B05 , CM4231C05 , CP4231B05 , CP4231C05 , CP4231G05 , CT4231E05 , CT4231F05).

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. Land costs are included in WSSC Project S-203.00.

G. Status Information	
Land Status:	Site or R/W partly acquired
% Project Completion:	C-0%
Est. Completion Date:	FY 2019

H. Map Map Reference Code:

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 43.02

Project Name: Broad Creek WWPS Augmentation

COORDINATION

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 and U.S. Environmental Protection Agency, Region III.

NOTE This project supports 83% Growth and 17% System Improvement.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	S-57.92	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Western Branch Facility Upgrade

5. Agency: **WSSC**4. Program: **Sanitation** 6. Planning Area:**B. Expenditure Schedule (000's)**

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	11,717	10,207	1,485	25	25						
Land											
Site Improvements & Utilities											
Construction	34,074	29,324	4,730	20	20						
Other	627		622	5	5						
Total	46,418	39,531	6,837	50	50						

C. Funding Schedule (000's)

WSSC Bonds	46,418	39,531	6,837	50	50						
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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.

Service Area Western Branch Drainage Basin**Capacity** 30.6 MGD**JUSTIFICATION****Plans & Studies**

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).

Specific Data

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.

Cost Change

Not applicable.

STATUS Under Construction (WSSC Contract No. CD4173A05,).**OTHER**

The project scope has remained the same. The schedule and expenditures projections shown in Block B are based upon actual bid. The permit application process was started in May 2009. 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

Prince George's County Government, Maryland Department of the Environment, Prince George's County Department of Environmental Resources and WSSC Project S-57.93, Western Branch WWTP Enhanced Nutrient Removal.

NOTE This project supports 100% System Improvement.**E. Annual Operating Budget Impact (000's)**

FY of Impact

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	3898	17
Total Costs.....		3898	17
Impact on Water or Sewer Rate.....		9¢	17

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 06"/>
Date First Approved	<input type="text" value="FY 06"/>
Initial Cost Estimate	<input type="text" value="6,325"/>
Cost Estimate Last FY	<input type="text" value="45,815"/>
Present Cost Estimate	<input type="text" value="46,418"/>
Approved Request, Last FY	<input type="text" value="2,784"/>
Total Expenditures & Encumbrances	<input type="text" value="39,531"/>
Approval Request FY 16	<input type="text" value="50"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: No land or R/W required

% Project Completion: C-80%

Est. Completion Date: FY 2016

H. Map Map Reference Code:**MAP NOT AVAILABLE**

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	S-57.93	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Western Branch WWTP Enhanced Nutrient Removal

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area:

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	8,710	8,020	665	25	25						
Land											
Site Improvements & Utilities											
Construction	31,904	28,174	3,710	20	20						
Other	443		438	5	5						
Total	41,057	36,194	4,813	50	50						

C. Funding Schedule (000's)

State Aid	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
	41,057	36,194	4,813	50	50						

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.

Service Area Western Branch Drainage Basin

JUSTIFICATION

Plans & Studies

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).

Specific Data

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%.

Cost Change

Not applicable.

STATUS Under Construction (WSSC Contract No. CD4257A05,).

OTHER

The project scope has remained the same. The expenditures and schedule projections shown in Block B are based upon actual bid. The funding schedule reflects the final cost sharing agreement with MDE. The permit application process was started 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.

E. Annual Operating Budget Impact (000's)

		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service .....	....
Total Costs.....		....
Impact on Water or Sewer Rate.....		....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 07
Date First Approved	FY 07
Initial Cost Estimate	70,950
Cost Estimate Last FY	39,109
Present Cost Estimate	41,057
Approved Request, Last FY	2,924
Total Expenditures & Encumbrances	36,194
Approval Request FY 16	50
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Not Applicable
 % Project Completion: C-80%
 Est. Completion Date: FY 2016

H. Map Map Reference Code:

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 57.93

Project Name: Western Branch WWTP Enhanced Nutrient Removal

COORDINATION

Maryland Department of the Environment, Prince George's County Department of Environmental Resources, Local, State & Congressional Officials, Patuxent River Commission and WSSC Project S-57.92, Western Branch Facility Upgrade.

NOTE This project supports 100% Environmental Regulation.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	S-57.94	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

3. Project Name: Western Branch WWTP Incinerator Emissions Control

5. Agency: **WSSC**4. Program: **Sanitation** 6. Planning Area:**B. Expenditure Schedule (000's)**

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	3,144	1,022	912	1,210	710	400	100				
Land											
Site Improvements & Utilities											
Construction	15,000		500	14,500	7,500	6,500	500				
Other	1,712		141	1,571	821	690	60				
Total	19,856	1,022	1,553	17,281	9,031	7,590	660				

C. Funding Schedule (000's)

WSSC Bonds	19,856	1,022	1,553	17,281	9,031	7,590	660				
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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**Plans & Studies**

Western Branch Incinerator Emissions Control Project - Phase 1 Final Technical Memorandum, HDR Engineering, Inc., (July 2013).

Specific Data

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 required to be in compliance by March 21, 2016.

Cost Change

Not Applicable.

STATUS Preliminary Design (WSSC Contract No. CD5415A12,).

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.

COORDINATION

Maryland Department of the Environment, Prince George's County Department of Environmental Resources and WSSC Project A-103.00, Energy Performance Program.

NOTE This project supports 100% Environmental Regulation.

E. Annual Operating Budget Impact (000's) FY of Impact

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	1366	19
Total Costs.....		1366	19
Impact on Water or Sewer Rate.....		3¢	19

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 14
Date First Approved	FY 14
Initial Cost Estimate	19,457
Cost Estimate Last FY	19,868
Present Cost Estimate	19,856
Approved Request, Last FY	7,590
Total Expenditures & Encumbrances	1,022
Approval Request FY 16	9,031
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Not applicable
 % Project Completion: D-50%
 Est. Completion Date: FY 2018

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	S-75.21	Change			
3. Project Name: Mattawoman WWTP Upgrades			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Accokeek P.A. 83, Brandywine & Vicinity P. A. 85A, Cedarville & Vicinity P. A. 85B, Piscataway & Vicinity P. A. 84		

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	2,299	1,133	231	935	286	243	205	201			
Land											
Site Improvements & Utilities											
Construction	9,896	2,586	1,144	6,166	1,855	1,337	1,487	1,487			
Other	85		14	71	21	16	17	17			
Total	12,280	3,719	1,389	7,172	2,162	1,596	1,709	1,705			

C. Funding Schedule (000's)											
WSSC Bonds	12,280	3,719	1,389	7,172	2,162	1,596	1,709	1,705			

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, and Clarifier and Thickener Upgrades.

Service Area Mattawoman Drainage Basin

Capacity 3 MGD for WSSC in Total Plant Capacity of 20 MGD

JUSTIFICATION

Plans & Studies

Agreement dated October 22, 1980; Agreement Addendum No. 1 dated April 15, 2004.

Specific Data

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.

Cost Change

The expenditure schedule reflects the latest information provided by Charles County. Cost estimates were increased for the Flow Equalization, Influent/Effluent Pump Station, and Clarifier/Thickener projects.

STATUS Not Applicable (WSSC Contract No. CB3555B03,).

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

Charles County Government (Depts of Utilities, Planning & Growth Management, and Fiscal Services).

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	669	.....	20
Total Costs.....		669	.....	20
Impact on Water or Sewer Rate.....		1¢	.....	20

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 08
Date First Approved	FY 08
Initial Cost Estimate	760
Cost Estimate Last FY	8,056
Present Cost Estimate	12,280
Approved Request, Last FY	1,508
Total Expenditures & Encumbrances	3,719
Approval Request FY 16	2,162
Supplemental Approval Request Current FY (15)	

G. Status Information	
Land Status:	Public/Agency owned land
% Project Completion:	On-Going
Est. Completion Date:	On-Going

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	S-77.19	Change			
3. Project Name: Parkway WWTP Biosolids Facility Plan Implementation			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: South Laurel - Montpelier P.A. 62		

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	5,448	3,285	1,623	540	540						
Land											
Site Improvements & Utilities											
Construction	24,474	5,894	14,185	4,395	4,395						
Other	2,075		1,581	494	494						
Total	31,997	9,179	17,389	5,429	5,429						

C. Funding Schedule (000's)											
WSSC Bonds	31,997	9,179	17,389	5,429	5,429						

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of new solids handling facilities and equipment for the Parkway WWTP.

Service Area Parkway Drainage Basin

Capacity 7.5 MGD

JUSTIFICATION

Plans & Studies

Memorandum from the Production Team dated April 27, 2007; WSSC Parkway WWTP Biosolids Facility Plan, Volumes I & II, CH2M Hill, Inc. (October 2009).

Specific Data

Currently, the facility utilizes centrifuges to dewater approximately 1,500 wet tons of solids/month. The centrifuges are installed in two parallel configurations which cannot be operated simultaneously. One side consists of three 35-year-old centrifuges and supporting equipment, such as plow blenders and belt conveyors. The other side consists 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.

Cost Change

Not Applicable.

STATUS Under Construction (WSSC Contract Nos. CD4643B07 , CP4643A07 , CP4643B07).

OTHER

The project scope has remained the same. Expenditure and schedule projections shown above are based upon actual bid.

COORDINATION

Prince George's County Government, Maryland Department of the Environment and Prince George's County Department of Environmental Resources.

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	1945	.....	17
Total Costs.....		1945	.....	17
Impact on Water or Sewer Rate.....		4¢	.....	17

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 09"/>
Date First Approved	<input type="text" value="FY 09"/>
Initial Cost Estimate	<input type="text" value="288"/>
Cost Estimate Last FY	<input type="text" value="32,509"/>
Present Cost Estimate	<input type="text" value="31,997"/>
Approved Request, Last FY	<input type="text" value="12,244"/>
Total Expenditures & Encumbrances	<input type="text" value="9,179"/>
Approval Request FY 16	<input type="text" value="5,429"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: Not applicable

% Project Completion: C-16%

Est. Completion Date: October 2015

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	S-131.10	Change			
3. Project Name: Fort Washington Forest No. 1 WWPS Augmentation			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area:		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	127	.....	19
Total Costs.....		127	.....	19
Impact on Water or Sewer Rate.....			.....

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	928	484	200	244	120	80	44				
Land											
Site Improvements & Utilities											
Construction	2,574		630	1,944	1,200	600	144				
Other	453		125	328	198	102	28				
Total	3,955	484	955	2,516	1,518	782	216				

C. Funding Schedule (000's)											
WSSC Bonds	3,955	484	955	2,516	1,518	782	216				

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 13
Date First Approved	FY 13
Initial Cost Estimate	1,454
Cost Estimate Last FY	2,995
Present Cost Estimate	3,955
Approved Request, Last FY	1,139
Total Expenditures & Encumbrances	484
Approval Request FY 16	1,518
Supplemental Approval Request Current FY (15)	

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 result in more than doubling 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 Fort Washington Estates, improvements will be planned, designed and constructed at the WWPS facility to improve its reliability and the existing force main and downstream gravity sewer will be upsized to accommodate the additional flow.

JUSTIFICATION

Plans & Studies
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.

Specific Data
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.

Cost Change
The cost increase is due to the addition of planning, design and construction estimates for facility upgrades to the Fort Washington Estates WWPS, upsizing approximately 1,100 feet of existing 6-inch diameter force main and approximately 2,600 feet of existing 8-inch diameter downstream gravity sewer to accommodate the additional flow.

STATUS Final Design (WSSC Contract Nos. CP6009A11 , CP6009B11).

OTHER
The project scope has changed to incorporate the facility upgrades to Fort Washington Estates WWPS. 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 FY2016.

COORDINATION
Prince George's County Government, Maryland-National Capital Park & Planning Commission, Prince George's County Department of Environmental Resources and U.S. Environmental Protection Agency, Region III.

NOTE This project supports 100% System Improvement.

G. Status Information	
Land Status:	Not determined
% Project Completion:	C-0%
Est. Completion Date:	March 2018

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number: Agency Number: Update Code:
 2. Date: October 1, 2014
 3. Project Name: DSP & Conceptual Design Sewer Projects
 4. Program: **Sanitation** 6. Planning Area: Prince George's County
 5. Agency: **WSSC**
 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

E. Annual Operating Budget Impact (000's) FY of Impact

Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service .....	....
Total Costs.....		....
Impact on Water or Sewer Rate.....		....

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	1,946	743	448	707	413	154	92	24	12	12	48
Land											
Site Improvements & Utilities											
Construction	8,676	1,474	2,285	4,515	2,173	1,408	531	201	101	101	402
Other	1,261		410	783	388	233	94	34	17	17	68
Total	11,883	2,217	3,143	6,005	2,974	1,795	717	259	130	130	518

C. Funding Schedule (000's)

Contribution/Other	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	11,883	2,217	3,143	6,005	2,974	1,795	717	259	130	130	518

D. Description & Justification

DESCRIPTION

This PDF provides the necessary approval to design and construct projects which serve new development or are to be built in conjunction with new development to reinforce the existing system or to avoid future disruption to the area. Such projects are referred to as Development Services Process (DSP) projects. This PDF also provides funds for projects in the Conceptual Design (CD) phase or final stages of facility planning for which reliable design costs, construction costs, and completion schedules were not available when this CIP was prepared. Preliminary construction expenditure data for this class of projects has been included at the request of the County government representatives for information to aid in fiscal, infrastructure, and resource planning for the six-year program period. See the pages that follow for a comprehensive project listing.

JUSTIFICATION

Plans & Studies

DSP projects to serve new development do not proceed unless the development has the appropriate service area and an approved preliminary plan of subdivision or a recorded plat. The need for various projects in the Conceptual Design phase has been established through the Facility Planning Process or other mechanisms. The WSSC's intent is to allow for beginning preliminary design for projects which require final planning phase approval, consultant design, contract negotiations, sub-surface investigations, and land and rights-of-way acquisition. Where applicable, anticipated land acquisition costs are included in WSSC Project S-203.00. Further, these projects may require in-house review and County Government Policy Review Group (PRG) interaction, as detailed design data is developed.

Specific Data

When Conceptual Design projects progress beyond the 30% design stage for facility projects and 60% design stage for pipeline projects, a separate PDF will be prepared by the WSSC. These PDF's will include firm construction costs and completion dates, and will be displayed as stand-alone PDF's in the CIP in the next cycle. This last criteria does not apply to DSP projects.

Cost Change

Not applicable.

STATUS Not Applicable

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text"/> FY 85
Date First Approved	<input type="text"/> FY 85
Initial Cost Estimate	<input type="text"/>
Cost Estimate Last FY	<input type="text"/>
Present Cost Estimate	<input type="text"/>
Approved Request, Last FY	<input type="text"/>
Total Expenditures & Encumbrances	<input type="text"/>
Approval Request FY 16	<input type="text"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: Not Applicable
 % Project Completion: Not Applicable
 Est. Completion Date: Not Applicable

H. Map Map Reference Code:

SEE ATTACHED MAPS

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 187.00

Project Name: DSP & Conceptual Design Sewer Projects

OTHER

The project scope has remained the same. Implementation of DSP projects listed under this PDF is contingent upon the Applicants' meeting project specified conditions. This requirement indicates that the Applicant is making a "good faith" effort to proceed to construction. Consequently, the implementation schedules of DSP projects are largely beyond the control of the WSSC and, instead, depend upon the actions of the Applicant. All new DSP projects are included with the stipulation that no WSSC rate supported debt will be used for these projects. The expenditure schedule reflected in this PDF is not intended to be a restriction but only an estimate of expenditures based on such considerations as historical trends, market expectations, Applicant schedules, and the number, stage, and scope of projects currently moving through the DSP. This PDF does not include funding for facility planning projects which also require County government review and approval and public interaction. Construction costs for Conceptual Design projects shown in Block B are very preliminary planning level estimates only, with approximate completion schedules, and may increase or decrease depending on site-specific conditions, design constraints, and market conditions. Construction costs for DSP projects are typically based upon preliminary design plans. The information in Block F pertains to this PDF in general and not to the individual projects listed on the pages that follow. DSP projects included in the listing that follows are 100% in support of future growth. The growth percentage for Conceptual Design projects vary and, therefore, is indicated on each individual listing as appropriate.

D. DESCRIPTION & JUSTIFICATION (CONT.)**Agency Number: S-187.00 Project Name: DSP & Conceptual Design Sewer Projects****S-27.08 Westphalia Town Center Sewer Main (DA4599Z07, DA4599A07)**

4,550 feet of 15-inch to 21-inch diameter sewer main to serve the Westphalia Town Center. Capacity: 3.2 MGD; Service Area: Western Branch drainage basin; Population: 7,600; Status: C-10%; Estimated Total Project Cost: \$816,000. Expenditure and schedule projections 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.

S-28.18 Konterra Town Center East Sewer (DA4623A,B,&Z07)

13,400 feet of 15-inch to 24-inch diameter sewer main, 240 feet of 24-inch and 48-inch steel sleeve to provide service to Konterra Town Center East (DA4623Z07). Capacity: 7.95 MGD; Service Area: Northeast Branch drainage basin; Population: 11,300; Status: C-51%; Estimated Total Project Cost: \$4,237,000. Expenditure and schedule projections 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.

S-68.01 Landover Mall Redevelopment (DA5019Z09)

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. Capacity: 5.63 MGD; Status: P-20%. This project is dependent upon a future sewer augmentation/feasibility study along Cattail Branch. Estimated Total Project Cost: \$1,241,000. Expenditure and schedule projections 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.

S-75.19 Brandywine Woods Wastewater Pumping Station (DA4449Z06)

Planning, design, and construction of a new wastewater pumping station to provide service to the Brandywine Woods Property. Capacity: 0.28 MGD; Service Area: Mattawoman; Population: 490; Status: P-100%; Estimated Total Project Cost: \$302,000. Expenditure and schedule projections 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.

S-75.20 Brandywine Woods WWPS Force Main (DA4449Z06)

1,600 feet of 4-inch diameter force main from the Brandywine Woods Wastewater Pumping Station to provide service to the Brandywine Woods Property. Capacity: 0.28 MGD; Service Area: Mattawoman; Population: 490; Status: P-100%; Estimated Total Project Cost: \$117,000. Expenditure and schedule projections 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.

S-86.19 Karington Subdivision Sewer (DA4249A05, DA4249Z05)

970 feet of 15-inch and 20-inch diameter sewer main to serve the Karington Subdivision. Capacity: 1.7 to 2.87 MGD; Service Area: Mitchellville & Vicinity; Population: 2,102; Status: D-100%; Estimated Total Project Cost: \$711,000. Expenditure and schedule projections 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.

S-87.15 Rodenhauser Wastewater Pumping Station (DA4100Z05 & CP4100A05)

Planning, design, and construction of a new wastewater pumping station to provide service to the Rodenhauser Property. Capacity: 0.15 MGD; Service Area: Western Branch; Population: 200; Status: D-100%; Estimated Total Project Cost: \$1,200,000. Expenditure and schedule projections 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.

S-87.16 Rodenhauser WWPS Force Main (DA4100B05, DA4100C05)

2,000 feet of 4-inch diameter force main from the Rodenhauser Wastewater Pumping Station to provide service to the Rodenhauser Property. Capacity: 0.15 MGD; Service Area: Western Branch; Population: 200; Status: D-95%; Estimated Total Project Cost: \$164,000. Expenditure and schedule projections 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.

S-131.05 Pleasant Valley Sewer Main, Part 2 (DA4757B08)

2,750 feet of 21-inch diameter sewer main to provide service to the Estates of Pleasant Valley and the Ridges III Subdivisions. Capacity: 3.5 MGD; Service Area: Burch Branch of Piscataway Creek; Population: 2,000; Status: D-60%; Estimated Total Project Cost: \$825,000. Expenditure and schedule projections 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.

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S-187.00

Project Name: DSP & Conceptual Design Sewer Projects

S-131.07 Pleasant Valley Sewer Main, Part 1 (DA4757A08)

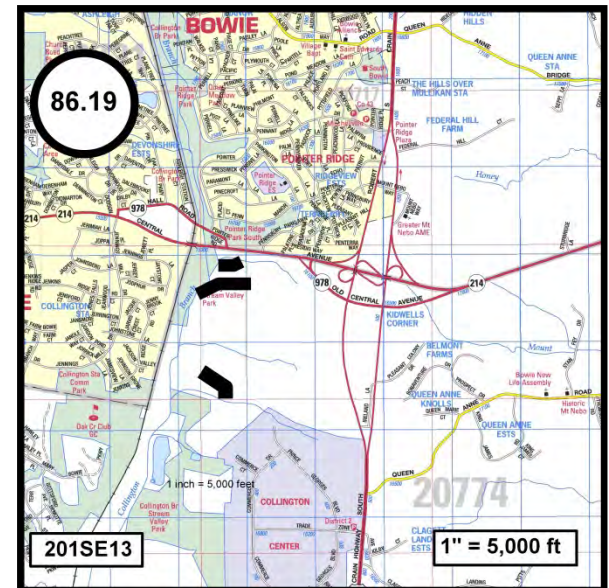
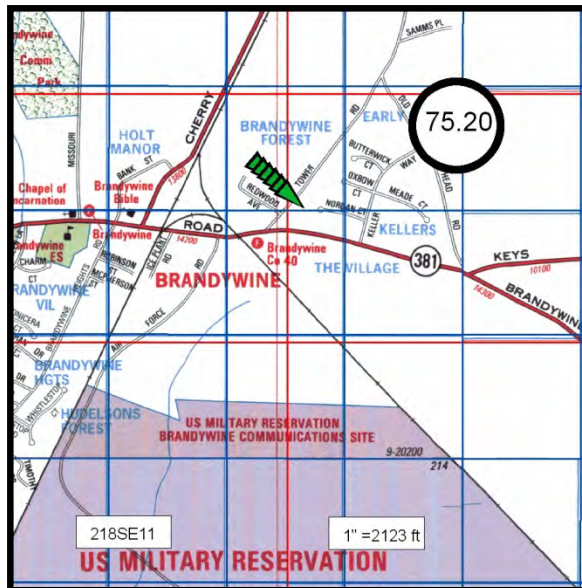
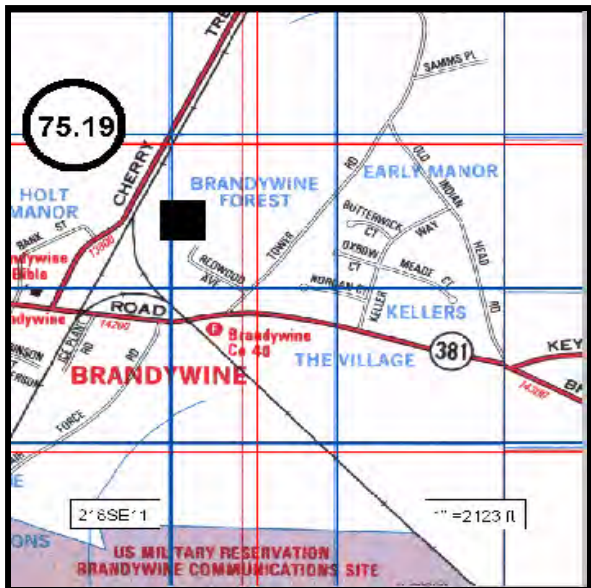
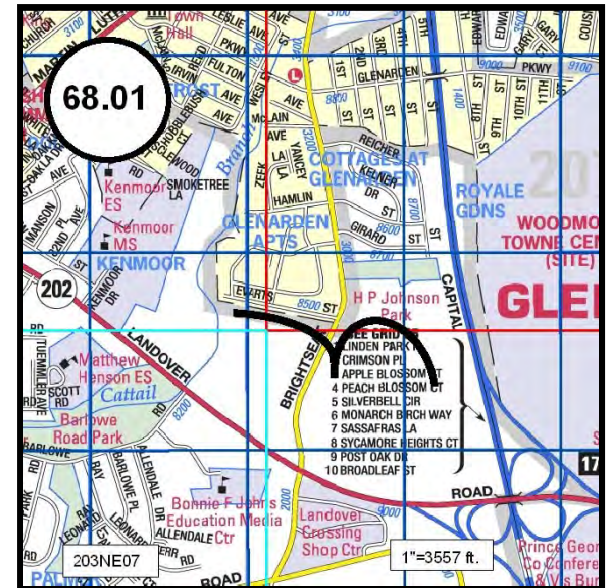
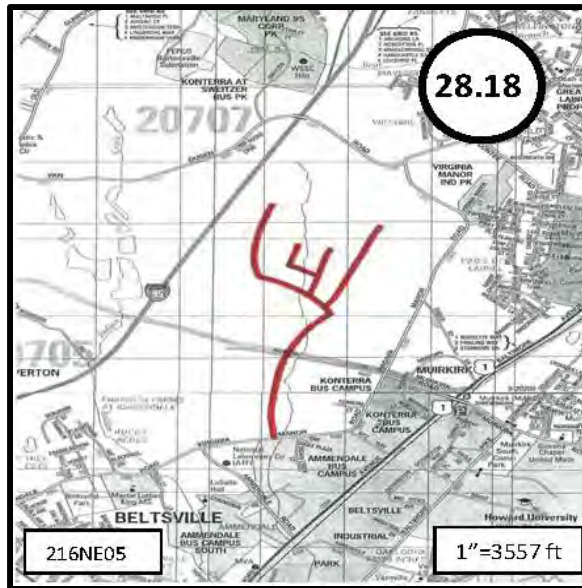
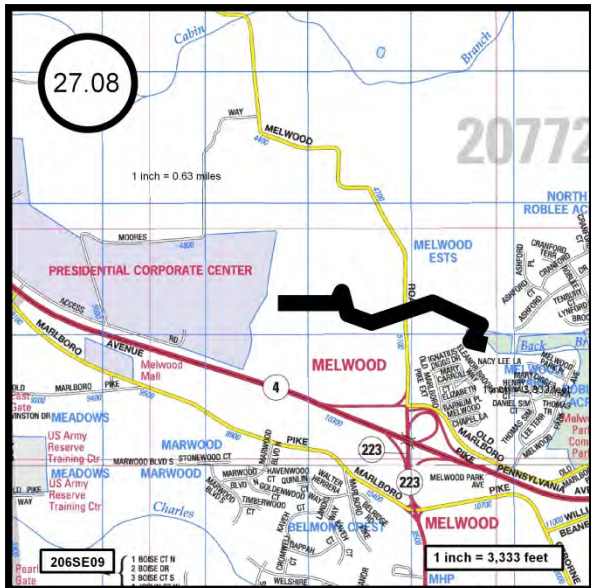
10,000 feet of 15-inch and 18-inch diameter sewer main to serve The Estates at Pleasant Valley Subdivision. Capacity: Between 1.7 and 2.2 MGD; Service Area: Piscataway Creek; Population: 2,800; Status: D-80%; Estimated Total Project Cost: \$1,623,000. Expenditure and schedule projections are based upon information provided by the developer. The estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

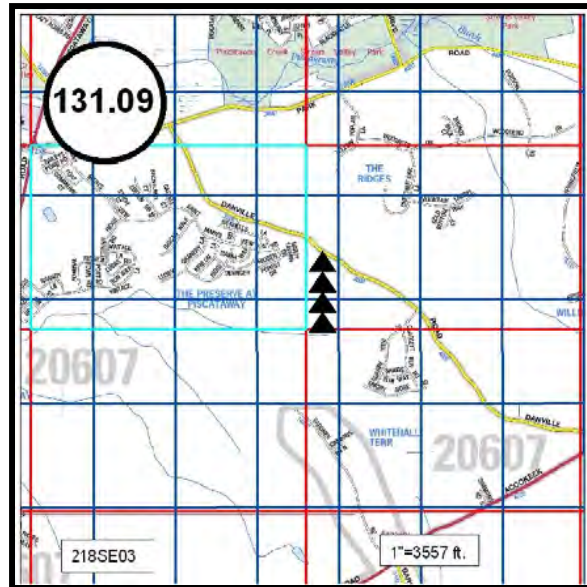
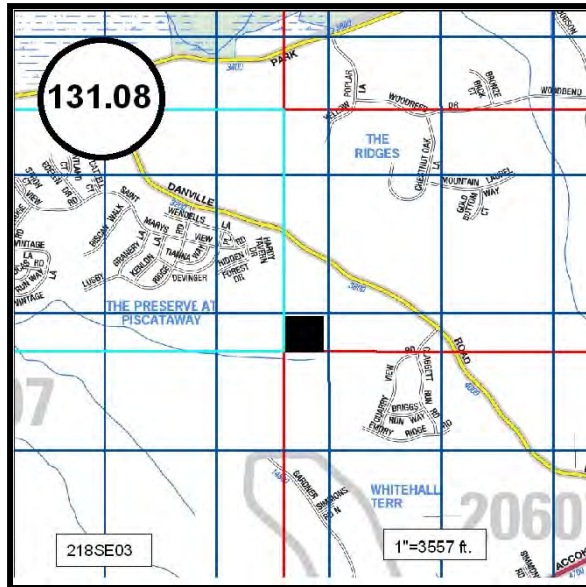
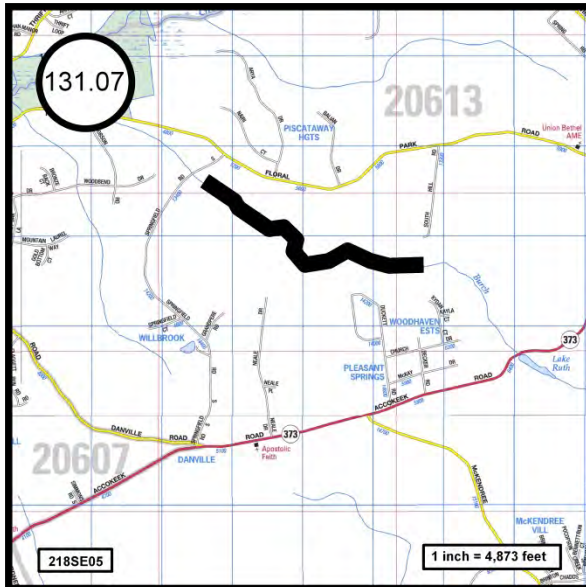
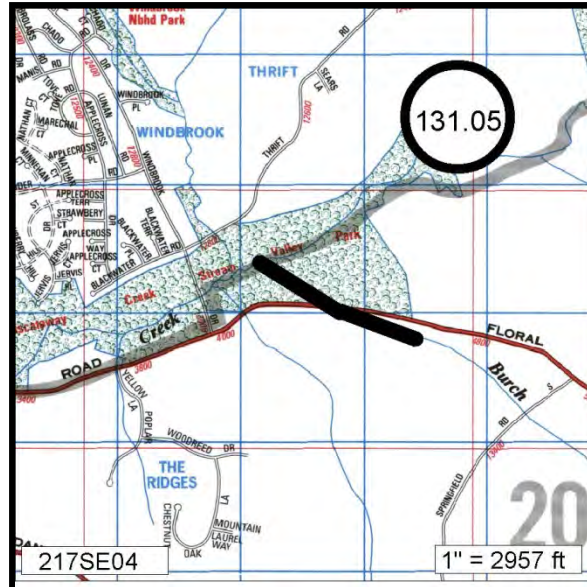
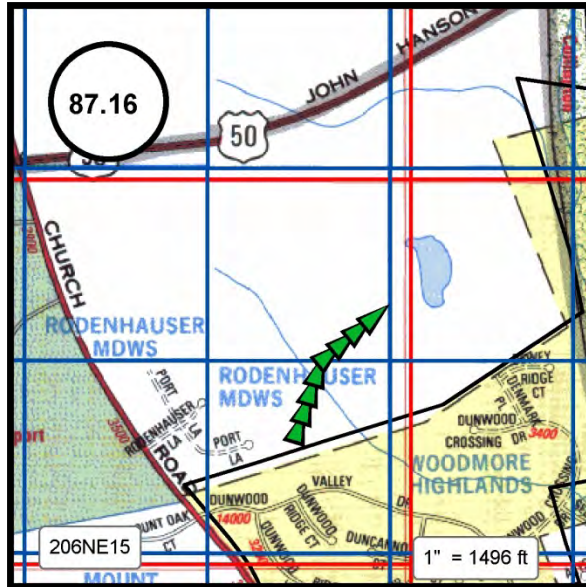
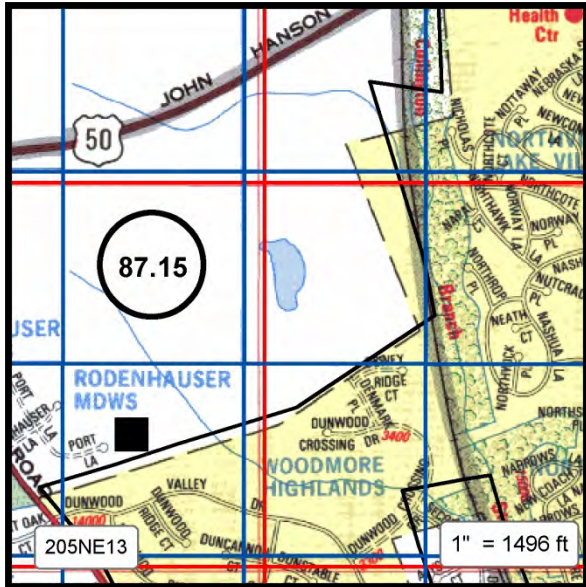
S-131.08 Preserves of Piscataway Wastewater Pumping Station (CP5631A13)

Planning, design, and construction of a new wastewater pumping station to provide service to the Preserves of Piscataway Subdivision. Capacity: 0.12 MGD; Service Area: Piscataway; Population: 220; Status: D-0%; Estimated Total Project Cost: \$562,000. Expenditure and schedule projections 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.

S-131.09 Preserves of Piscataway WWPS Force Main (DA5631B13)

700 feet of 4-inch diameter force main from the Preserves of Piscataway Wastewater Pumping Station to provide service to the Preserves of Piscataway Subdivision. Capacity: 0.12 MGD; Service Area: Piscataway; Population: 220; Status: D-0%; Estimated Total Project Cost: \$85,000. Expenditure and schedule projections 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.





PROJECTS PENDING CLOSE-OUT
Prince George's Sewer Projects
(costs in thousands)



Project Number	Agency Number	Project Name	Estimated Total Cost	Expenditures Thru FY'14	Estimated Expenditures FY'15	Remarks
	S-205.00	Land & Rights-Of-Way Acquisition - Prince George's County	\$0	\$0	\$0	All land costs are consolidated in Bi-County Sewer.
		TOTALS	\$0	\$0	\$0	


Section 7 - Information Only Projects

FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

INFORMATION ONLY PROJECTS

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 14	EST. EXPEND 15	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BUDGET REQUEST 16	PDF PAGE NUM
						YR 1 16	YR 2 17	YR 3 18	YR 4 19	YR 5 20	YR 6 21		
W-1.00	Water Reconstruction Program	728,037	0	99,304	628,733	101,658	103,843	105,808	105,808	105,808	105,808	101,658	7-2
S-1.01	Sewer Reconstruction Program	308,099	0	41,624	266,475	34,784	36,124	41,071	58,449	54,707	41,340	34,784	7-4
 A-102.00	Engineering Support Program	108,000	0	17,000	91,000	18,000	17,000	14,000	14,000	14,000	14,000	18,000	7-6
 A-103.00	Energy Performance Program	41,745	32,035	60	8,770	610	2,920	3,920	1,100	110	110	610	7-7
A-104.00	Entrepreneurial Projects	45,139	2,945	3,491	7,937	2,337	589	501	303	3,987	220	2,337	7-10
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	5,000	7-11
A-106.00	Asset Management Program	14,382	9,912	1,495	2,975	1,725	1,250	0	0	0	0	1,725	7-12
A-107.00	Specialty Valve Vault Rehabilitation Program	34,303	5,253	8,287	20,763	7,370	7,161	2,640	1,936	1,089	567	7,370	7-13
A-109.00	Advanced Metering Infrastructure	89,500	875	2,525	86,100	960	13,484	26,360	26,360	18,936	0	960	7-14
S-300.01	D'Arcy Park North Relief Sewer	849	90	245	514	259	255	0	0	0	0	259	7-15
TOTAL INFORMATION ONLY PROJECTS		1,405,054	51,110	179,031	1,143,267	172,703	187,626	199,300	212,956	203,637	167,045	172,703	

 Denotes projects which include an environmental component (see page 15 in the opening narrative.)

Notes for costs beyond six years:

Includes 880 for Project A-103.00, Energy Performance Program

Includes 30,766 for Project A-104.00, Entrepreneurial Projects

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	W-1.00	Change			
3. Project Name: Water Reconstruction Program			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	61663	.....	20
Total Costs.....		61663	.....	20
Impact on Water or Sewer Rate.....		123¢	.....	20

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	105,369		14,518	90,851	14,386	15,293	15,293	15,293	15,293	15,293	
Land											
Site Improvements & Utilities											
Construction	496,151		67,182	428,969	69,432	70,493	72,261	72,261	72,261	72,261	
Other	126,517		17,604	108,913	17,840	18,057	18,254	18,254	18,254	18,254	
Total	728,037		99,304	628,733	101,658	103,843	105,808	105,808	105,808	105,808	

C. Funding Schedule (000's)											
WSSC Bonds	728,037		99,304	628,733	101,658	103,843	105,808	105,808	105,808	105,808	

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY --
Date First Approved	FY --
Initial Cost Estimate	
Cost Estimate Last FY	775,766
Present Cost Estimate	728,037
Approved Request, Last FY	104,509
Total Expenditures & Encumbrances	
Approval Request FY 16	101,658
Supplemental Approval Request Current FY (15)	

D. Description & Justification

DESCRIPTION

The purpose of this program is to renew and extend the useful life of water mains. 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.

Service Area Bi-CountyArea

JUSTIFICATION

Plans & Studies

Flow studies, water system modeling, and field surveys are routinely conducted. A staff level report: Water Main Condition Assessment, 1915-1998; Analysis and Recommendations by the Water Main Reconstruction Work Group (June, 1999) examined the historical main break data for performance measures to define, characterize, and prioritize the future replacement needs of the distribution system. An early outcome of this project identified the need to increase the frequency of water main replacement. "FY2016 Water Distribution System Asset Management Plan" (February 2014).

Specific Data

The program's projected work units and expenditure levels for FY'16 (including overhead) are as follows: design and construction of main replacement and associated water house connection renewals, 57 miles - \$93.8M; cathodic protection - \$1.3M; 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. WSSC pilot tested one mile of structural lining using new methods intended to add structural integrity to the lined main. An implementation rate of 2 miles/year is planned for the structural lining rehabilitation program.

Cost Change

The six year program cost decreased due to not applying an inflation factor.

G. Status Information	
Land Status:	Not applicable
% Project Completion:	On-Going
Est. Completion Date:	On-Going

H. Map Map Reference Code:

MAP NOT APPLICABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 1.00

Project Name: Water Reconstruction Program

STATUS Under Construction

OTHER

The project scope has remained the same. 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

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), Prince George's County Department of Public Works & Transportation and Local Community Civic Associations.

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	S-1.01	Change			
3. Project Name: Sewer Reconstruction Program			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	21197	.....	22
Total Costs.....		21197	.....	22
Impact on Water or Sewer Rate.....		42¢	.....	22

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	67,522		9,245	58,277	7,709	7,977	8,966	12,630	11,787	9,208	
Land											
Site Improvements & Utilities											
Construction	209,768		28,217	181,551	23,597	24,535	27,998	39,974	37,449	27,998	
Other	30,809		4,162	26,647	3,478	3,612	4,107	5,845	5,471	4,134	
Total	308,099		41,624	266,475	34,784	36,124	41,071	58,449	54,707	41,340	

C. Funding Schedule (000's)											
WSSC Bonds	308,099		41,624	266,475	34,784	36,124	41,071	58,449	54,707	41,340	

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY --
Date First Approved	FY --
Initial Cost Estimate	
Cost Estimate Last FY	428,819
Present Cost Estimate	308,099
Approved Request, Last FY	16,419
Total Expenditures & Encumbrances	
Approval Request FY 16	34,784
Supplemental Approval Request Current FY (15)	

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" 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.

Service Area Bi-County Area

JUSTIFICATION

Plans & Studies

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.

Specific Data

The FY'16 work units and associated costs are based on our historical experience with regards to timing of design and construction work, cost per linear foot, availability of authorized contractors for proprietary rehabilitation techniques, and management's availability to oversee and manage the total number of individual contracts. The program's projected work units and expenditure levels for FY'16 (including overhead) are as follows: 2 miles of mainline construction - \$4.7M; 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.

Cost Change

The overall program cost estimate decreased based on greater refinement of the magnitude of Priority Two sewer rehabilitation work and revised scheduling.

STATUS Under Construction

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

G. Status Information	
Land Status:	Not applicable
% Project Completion:	On-Going
Est. Completion Date:	On-Going

H. Map Map Reference Code:

MAP NOT APPLICABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 1.01

Project Name: Sewer Reconstruction Program

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

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 Public Works & Transportation, U.S. Environmental Protection Agency, Region III (SSO Consent Decree Compliance) and Local Community Civic Associations.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	A-102.00	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Engineering Support Program

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Bi-County

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision											
Land											
Site Improvements & Utilities											
Construction	108,000		17,000	91,000	18,000	17,000	14,000	14,000	14,000	14,000	
Other											
Total	108,000		17,000	91,000	18,000	17,000	14,000	14,000	14,000	14,000	

C. Funding Schedule (000's)

WSSC Bonds	80,000		13,000	67,000	14,000	13,000	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

Plans & Studies

Asset Management Implementation Plan, Sterns & Wheler (April 2008).

Specific Data

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.

Cost Change

Increased FY'15 - FY'17 costs reflect funding for RGH Building Electrical Upgrade projects.

STATUS Not Applicable

OTHER

The project scope has remained the same. 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.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	6104	21
Total Costs.....		6104	21
Impact on Water or Sewer Rate.....		12¢	21

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 87"/>
Date First Approved	<input type="text" value="FY 87"/>
Initial Cost Estimate	<input type="text"/>
Cost Estimate Last FY	<input type="text" value="106,000"/>
Present Cost Estimate	<input type="text" value="108,000"/>
Approved Request, Last FY	<input type="text" value="17,000"/>
Total Expenditures & Encumbrances	<input type="text"/>
Approval Request FY 16	<input type="text" value="18,000"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: Not applicable
 % Project Completion: On-Going
 Est. Completion Date: On-Going

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	A-103.00	Change			
3. Project Name: Energy Performance Program			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service	2627
Total Costs.....		2627
Impact on Water or Sewer Rate.....		5¢

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	8,895	6,545	60	1,490	560	660	70		100	100	800
Land											
Site Improvements & Utilities											
Construction	31,990	25,490		6,500		2,000	3,500	1,000			
Other	860			780	50	260	350	100	10	10	80
Total	41,745	32,035	60	8,770	610	2,920	3,920	1,100	110	110	880

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 03
Date First Approved	FY 03
Initial Cost Estimate	22,200
Cost Estimate Last FY	41,655
Present Cost Estimate	41,745
Approved Request, Last FY	435
Total Expenditures & Encumbrances	32,035
Approval Request FY 16	610
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	39,240	31,570		7,670	550	2,560	3,560	1,000			
Contribution/Other	1,165	465		700		300	300	100			
Water Operating Funds	404		60	212	60	60	60		16	16	132
Sewer Operating Funds	936			188					94	94	748

G. Status Information	
Land Status:	No land or R/W involved
% Project Completion:	Not Applicable
Est. Completion Date:	(See "Specific Data" for details.)

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 "Specific Data" section below.

JUSTIFICATION

Plans & Studies

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).

Specific Data

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

H. Map Map Reference Code:

MAP NOT APPLICABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)**Agency Number: A - 103.00****Project Name: Energy Performance Program**

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 Damascus 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.

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 possible 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.

Phase I-F will provide for detailed engineering audits, supply analysis, engineering, and planning of equipment and operations upgrades to develop an energy-efficient and guaranteed savings program 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. A Phase I-F ESCO contract was awarded in January 2014. It is anticipated that the site visits, analysis, and preparation of a Phase II-F proposal will take approximately 18 months. We project that Phase II-F will be awarded during the summer of 2015, with detailed design/construction lasting approximately 24 months. If the Commission elects to proceed with Phase II-F, we expect energy efficient rebates from BGE, Pepco, and SMECO of approximately \$700,000 to subsidize the total construction cost of the project.

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: A - 103.00

Project Name: Energy Performance Program

Cost Change

The overall project costs were increased based upon revised estimates for Phase II-F.

STATUS Not Applicable (WSSC Contract Nos. AM3614E03 , CD3614A03 , CD3614B03 , CD3614C03 , CD3614D03 , CD3614G03 , CD3614H03 , CP3614F03).

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

Montgomery County Government (including coordination with the County's ICEUM Committee), Prince George's County Government and WSSC Projects W-73.18, Power Reliability and Arc Flash Implementation and W-73.19, Potomac WFP Outdoor Substation No. 2 Replacement.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	A-104.00	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Entrepreneurial Projects

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area:

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision											
Land											
Site Improvements & Utilities											
Construction	41,303	2,945	3,174	7,215	2,125	535	455	275	3,625	200	27,969
Other	3,836		317	722	212	54	46	28	362	20	2,797
Total	45,139	2,945	3,491	7,937	2,337	589	501	303	3,987	220	30,766

C. Funding Schedule (000's)

Contribution/Other	45,139	2,945	3,491	7,937	2,337	589	501	303	3,987	220	30,766
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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

Plans & Studies

"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)

Specific Data

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.

Cost Change

The expenditure schedule has been updated based upon more detailed construction cost estimates.

STATUS Under Construction (WSSC Contract Nos. EW4028A05 , EW4088A05 , EW4974Z09 , FS4029A05 , FS4030A05 , FS4031A05 , FS4032A05 , FS4087A05 , FS4974A09 , FS4974Z09 , FS5294B11 , FS5294C11 , FS5294D11 , FS5294E11 , FS5294F11 , FS5294G11 , FS5294H11 , FS5294I11 , FS5294J11 , FS5294K11 , FS5294L11 , FS5294Z11 , EW5340A12).

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

District of Columbia Water & Sewer Authority and Bolling Air Force Base (Changed to Joint Base Anacostia Bolling).

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service .....	....
Total Costs.....		....
Impact on Water or Sewer Rate.....		....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 05"/>
Date First Approved	<input type="text" value="FY 06"/>
Initial Cost Estimate	<input type="text" value="3,900"/>
Cost Estimate Last FY	<input type="text" value="41,905"/>
Present Cost Estimate	<input type="text" value="45,139"/>
Approved Request, Last FY	<input type="text" value="5,785"/>
Total Expenditures & Encumbrances	<input type="text" value="2,945"/>
Approval Request FY 16	<input type="text" value="2,337"/>
Supplemental Approval Request Current FY (15)	<input type="text"/>

G. Status Information

Land Status: Not applicable
 % Project Completion: C-14%
 Est. Completion Date: FY 2054 (See "Other" for details.)

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	A-105.00	Change			
3. Project Name: Water Storage Facility Rehabilitation Program			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	2808	.....	22
Total Costs.....		2808	.....	22
Impact on Water or Sewer Rate.....		6¢	.....	22

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) 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	

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 09
Date First Approved	FY 09
Initial Cost Estimate	18,000
Cost Estimate Last FY	35,000
Present Cost Estimate	35,000
Approved Request, Last FY	5,000
Total Expenditures & Encumbrances	
Approval Request FY 16	5,000
Supplemental Approval Request Current FY (15)	

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

Specific Data

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.

STATUS 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'16 will address the following water storage facilities: Andrews, Brink, Greenbelt, Alta Vista, North Woodside, Air Park, St. Barnabas, Pointer Ridge, Wall Lane, Camp Springs and Hill Road Reservoirs Nos. 2 and 3.

G. Status Information	
Land Status:	Not applicable
% Project Completion:	On-Going
Est. Completion Date:	On-Going

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	A-106.00	Change			
3. Project Name: Asset Management Program			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	684	.....	20
Total Costs.....		684	.....	20
Impact on Water or Sewer Rate.....		1¢	.....	20

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	13,798	9,912	1,300	2,586	1,500	1,086					
Land											
Site Improvements & Utilities											
Construction											
Other	584		195	389	225	164					
Total	14,382	9,912	1,495	2,975	1,725	1,250					

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 10
Date First Approved	FY 08
Initial Cost Estimate	6,900
Cost Estimate Last FY	19,724
Present Cost Estimate	14,382
Approved Request, Last FY	1,320
Total Expenditures & Encumbrances	9,913
Approval Request FY 16	1,725
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	7,044	4,362	897	1,785	1,035	750					
Water Operating Funds	3,669	2,775	299	595	345	250					
Sewer Operating Funds	3,669	2,775	299	595	345	250					

G. Status Information	
Land Status:	Not Applicable
% Project Completion:	P-60%
Est. Completion Date:	FY 2017

D. Description & Justification

DESCRIPTION

This project provides for establishing an Asset Management Strategy and the development of Asset Management Plans which will identify and examine overall infrastructure needs over 30 years. The Plans will encompass the water and wastewater networks (treatment, transmission, distribution, collection, pumping, and storage); buildings and grounds; and information technology assets (SCADA system, security services, telephony, radio system, data network, paging system, microwave network, and antenna support structures). The Plans will examine rehabilitation/replacement needs, existing and future capacity needs, and regulatory needs. The project will build on previous efforts that address particular components of the networks.

JUSTIFICATION

Plans & Studies
Phase 1 High Level Utility Wide Master Plan Reports (December 2007), Asset Implementation Plan (April 2008).

Cost Change
The cost has decreased as the asset management processes and procedures are institutionalized and work is progressively performed in-house.

STATUS Planning (WSSC Contract Nos. BM4626A07 , CM4626A07).

OTHER
The project scope has remained the same. The program will be delivered in 3 phases instead of 4, and it is expected that the need for outside support will continue to decline. Phase 1, completed in December 2007, identified high level infrastructure needs. Phase 1, Track 2, completed in April 2008, developed a road map for establishing an asset management structure. Phase 2, completed in March 2011, developed 6 Asset Management Plans, 12 Asset Management processes, and 69 Asset Management procedures. Phase 3 started in June 2012 and will develop 9 Asset Management Plans and 70 Asset Management procedures.

COORDINATION
Montgomery County Government and Prince George's County Government.

NOTE This project supports 100% System Improvement.

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information			2. Date: October 1, 2014	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
1. Project Number	Agency Number	Update Code	Revised:		
	A-107.00	Change			
3. Project Name: Specialty Valve Vault Rehabilitation Program			5. Agency: WSSC		
4. Program: Sanitation			6. Planning Area: Bi-County		

E. Annual Operating Budget Impact (000's)				FY of Impact
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	1567	.....	22
Total Costs.....		1567	.....	22
Impact on Water or Sewer Rate.....		3¢	.....	22

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) Beyond 6 Years
Planning, Design & Supervision	5,103	2,589	790	1,724	500	500	400	260	50	14	
Land											
Site Improvements & Utilities											
Construction	26,559	2,664	6,744	17,151	6,200	6,010	2,000	1,500	940	501	
Other	2,641		753	1,888	670	651	240	176	99	52	
Total	34,303	5,253	8,287	20,763	7,370	7,161	2,640	1,936	1,089	567	

F. Approval and Expenditure Data (000's)	
Date First in Capital Program	FY 11
Date First Approved	FY 11
Initial Cost Estimate	17,560
Cost Estimate Last FY	25,290
Present Cost Estimate	34,303
Approved Request, Last FY	7,359
Total Expenditures & Encumbrances	5,253
Approval Request FY 16	7,370
Supplemental Approval Request Current FY (15)	

C. Funding Schedule (000's)											
WSSC Bonds	34,303	5,253	8,287	20,763	7,370	7,161	2,640	1,936	1,089	567	

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

Plans & Studies

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).

Specific Data

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. The new valve vaults will improve operational flexibility and reliability at the Central Avenue Water Pumping Station.

Cost Change

Cost increase reflects updated estimates for design and construction costs. The most significant cost increase comes from the replacement of more valve vaults at the Central Avenue pumping station than originally anticipated.

STATUS Under Construction (WSSC Contract Nos. BL4830A08 , BL4830B08 , BM4396B06 , MV5237C11 , MV5237D11 , MV5237E11).

OTHER

The project scope has remained the same. Land and rights-of-way costs are included in WSSC Project W-202.00.

G. Status Information	
Land Status:	Land & R/W to be acquired
% Project Completion:	C-39%
Est. Completion Date:	On-Going

H. Map Map Reference Code:

MAP NOT APPLICABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	A-109.00	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: Advanced Metering Infrastructure

5. Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area:

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) 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		
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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

Plans & Studies

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).

Specific Data

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.

Cost Change

Not applicable.

STATUS Planning

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

Montgomery County Government and Prince George's County Government.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service	6156	20
Total Costs.....		6156	20
Impact on Water or Sewer Rate.....		12¢	20

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 13
Date First Approved	FY 13
Initial Cost Estimate	86,000
Cost Estimate Last FY	89,500
Present Cost Estimate	89,500
Approved Request, Last FY	960
Total Expenditures & Encumbrances	875
Approval Request FY 16	960
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: Not determined
 % Project Completion: P-15%
 Est. Completion Date: FY 2020

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	S-300.01	Change

2. Date: October 1, 2014

7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

Revised:

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3. Project Name: D'Arcy Park North Relief Sewer

5. Agency: **WSSC**

4. Program: **Sanitation**

6. Planning Area: Suitland-District Heights & Vicinity P.A. 75A

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '14	(10) Estimate FY '15	(11) Total 6 Years	(12) Year 1 FY '16	(13) Year 2 FY '17	(14) Year 3 FY '18	(15) Year 4 FY '19	(16) Year 5 FY '20	(17) Year 6 FY '21	(18) 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	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	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.

Service Area Western Branch Drainage Basin

Capacity 1.6 mgd

JUSTIFICATION

Plans & Studies

D'Arcy Park North Hydraulic Planning Analysis, (September 2008)

Cost Change

Not applicable.

STATUS Planning (WSSC Contract No. DA4850Z08,).

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 upon site-specific conditions and design constraints. Expenditures shown in prior years are for the Hydraulic Planning Analysis costs for the project. Estimated completion date is developer dependent. No WSSC rate supported debt may be used for this project.

COORDINATION

Prince George's County Government, Prince George's County Department of Environmental Resources and Local Community Civic Associations.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	.....	
	Other .....	.....	
Facility Costs	Maintenance	20	.....	18
	Debt Service .....	.....	
Total Costs.....		20	.....	18
Impact on Water or Sewer Rate.....			.....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 14
Date First Approved	FY 14
Initial Cost Estimate	824
Cost Estimate Last FY	849
Present Cost Estimate	849
Approved Request, Last FY	261
Total Expenditures & Encumbrances	90
Approval Request FY 16	259
Supplemental Approval Request Current FY (15)	

G. Status Information

Land Status: R/W required
 % Project Completion: P-100%
 Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



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

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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:

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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

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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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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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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

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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.

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- (a) the first-time hook-up of a property to the Commission's water and/or sewer system; or
- (b) a new connection or increased water meter size for a property, previously or currently served by the Commission, if the new connection or increased meter size is needed because of a change in the use of the property or an increase in demand for service at the property.

2.8 Non-Residential Unit is a structure not otherwise defined as a Residential Unit, generally commercial or industrial in nature. Examples may include Shopping Malls, non-Residential Townhouses, Warehouses, Industrial Buildings, Restaurants, Schools, Dormitories, Hospitals, Hotels, Motels, Nursing Homes, Office Buildings, Churches, Theaters and similar commercial or industrial buildings.

2.9 Plumbing Permit is the approved instrument, resulting from an application filed by a Registered Master Plumber, which allows for hookup of fixtures or onsite piping to the Commission's water and/or sewer systems.

2.10 Property means an improvement(s) or building(s) on a lot or parcel of land containing plumbing fixtures described in terms of Drainage Fixture Unit Values or Water Supply Fixture Unit Values.

2.11 Public Sponsored and Affordable Housing means:

- (1) any dwelling unit built or financed under a government program, regulation, or binding agreement that limits for at least 10 years the price or rent charged for the unit in order to make the unit affordable to households earning less than 80% of the area median income, adjusted for family size;
- (2) any Moderately Priced Dwelling Unit built under Chapter 25A of the Montgomery County Code or Subtitles 13 and 27 of the Prince George's County Code;
- (3) any Productivity Housing Unit, as defined in Section 25B-17(m) of the Montgomery County Code;
- (4) any unit in an Opportunity Housing Project built under Sections 56-28 through 56-33 of the Montgomery County Code or Subtitle 13, Division 8, of the Prince George's County Code, which is reserved for occupancy only by persons with low or moderate incomes (as defined in applicable provisions of State and County Law);
- (5) any dwelling unit constructed pursuant to the Capturing Housing Opportunities in Communities Everywhere (CHOICE) Program in Prince George's County which is reserved for occupancy only by persons with low or moderate incomes (as defined in applicable provisions of State and County Law).

2.12 Residential Unit means any housing unit defined in Paragraphs 2.1, 2.4, and 2.5 above used as a residence.

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- 2.13 Residential Applicant means a builder on whose behalf a Registered Master Plumber applies for and receives from the Commission plumbing permits for construction of new residential units.
- 2.14 SDC Sewer Charge is the product of a fixture's Drainage Fixture Unit Value and its associated Base SDC Fee for non-residential properties or dwelling and multi-unit housing units with more than five toilets. For residential properties with five or fewer toilets, the SDC Sewer Charge is the Commission approved drainage portion of the Base SDC Fee.
- 2.15 SDC Water Charge is the product of a fixture's Water Supply Fixture Unit Value and its associated Base SDC Fee for non-residential properties or dwelling and multi-unit housing units with more than five toilets. For residential properties with five or fewer toilets, the SDC Water Charge is the Commission approved water supply portion of the Base SDC Fee.
- 2.16 Sub-District Charge means that charge established by the Commission pursuant to the provisions of §6-103, Article 29, Annotated Code of Maryland.
- 2.17 Toilet means a water closet, as set forth in the WSSD Plumbing and Gasfitting Regulations.
- 2.18 Water Supply Fixture Unit Value is a measure of the probable hydraulic demand on the water supply by a particular plumbing fixture in terms of volume rate of supply and duration of a single supply operation and the time period between successive operations.

GENERAL

- 3.1 SDC is a fee established pursuant to provisions of Article 29, § 6-113 of the Annotated Code of Maryland, to help finance the capital cost of upgrading existing plants and facilities as well as the construction of new capital projects attributable to the addition of new service.
- 3.2 The Base SDC Fee level is established by Commission Resolution representing a formal adoption of the fee level mutually agreed upon by the Montgomery and Prince George's County Councils.
- 3.3 The SDC fee for a non-residential property or a dwelling unit or housing unit within multi-unit dwelling with more than five toilets is determined by the type and number of fixtures, existing and/or proposed, for which hookup to the WSSC's water and/or sewerage system(s) is proposed. The SDC levy is the sum of SDC Water Charges and SDC Sewer Charges, prevailing at the time of application for hook-up, which are associated with the individual fixtures proposed for hook-up.
- 3.4 The SDC fee for a residential unit with five or fewer toilets is determined by the number of toilets, existing and/or proposed, for which hookup to the WSSC's water and/or sewerage system(s) is proposed. The SDC levy is the sum

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of SDC Water Charges and SDC Sewer Charges, prevailing at the time of application for hook-up, which are associated with the number of toilets proposed for hookup.

- 3.5 Except as provided by Section 3.9, a property's calculated SDC fee is payable in full and shall accompany the application for plumbing permit for hookup of a property's fixtures to the WSSC system. Any "credit" pursuant to WSSC Standard Procedure CUS 94-03, entitled *SDC DEVELOPER CREDITS AND REIMBURSEMENTS*, may be substituted as payment, on a dollar for dollar basis, as therein described. Collected SDC fees shall be deposited in established revenue accounts and reconciled through the Service Applications & Records Section's remittance-processing system.
- 3.6 When a request is made to add a fixture(s) to a plumbing permit which has been issued under a previous SDC rate structure and which has not received final inspection approval, the additional SDC shall be calculated and collected based upon the fixture unit rate in effect at the time of request, except that the total SDC for a residential unit permit with five or less toilets shall not exceed the current Base SDC fee for such a unit.
- 3.7 When an application is made to add a toilet(s) to an existing dwelling or housing unit within an existing multi-unit dwelling, the resulting permit may be subject to a SDC fee only if the unit was previously assessed a SDC fee or an increase is required in the size of the unit's connection or meter. In either situation, a SDC fee will be actually assessed only if the number of toilets is being increased from one toilet based rate category to the next. For housing units with five or fewer toilets, the SDC fee assessed will be equal to the difference in the SDC base charge currently applicable to the number of existing toilets and that applicable to the total number of existing and proposed toilets. The SDC fee assessed for existing housing units with more than five toilets is the sum of the SDC Base fees at the current SDC rate structure for all added fixtures.
- 3.8 When an application is made to add fixtures to a Non-residential Unit, the resulting permit may be subject to a SDC fee only if the unit was previously assessed a SDC fee or an increase is required in the size of the unit's connection or meter. In either situation, the SDC fee assessed is the sum of the SDC Base fees at the current SDC rate structure for all added fixtures.
- 3.9 A residential applicant who elects to delay paying a portion of the system development charge shall pay one half the charge at the time of filing application for plumbing permit. The remaining one half of the system development charge for each residential unit shall be paid to the Commission within 12 months after the first payment or prior to the transfer of title to the property, whichever occurs first. A residential applicant must provide security for the remaining one half of the system development charge at the time of filing the plumbing permit application in one of the following forms:

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- (a). An irrevocable letter of credit that is automatically renewed from a bank that is rated "C" or better by Thomson BankWatch.
- (b). A financial guaranty bond in a form substantially similar to the form attached here as Appendix "A." The bond shall be executed by the applicant and a corporate bonding company licensed to transact such business in the State of Maryland and named on the current list of "surety companies acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of this bond shall be paid by the applicant. If at any time the surety on any such bond is declared bankrupt or loses its right to do business in the State of Maryland or is removed from the list of surety companies accepted on Federal bonds, the applicant shall within ten days after notice from the Commission to do so, substitute an acceptable bond in such forms and sum and signed by such other surety or sureties as may be satisfactory to the Commission.
- (c). For the residential applicant who certifies that he or she applies for four or fewer permits for the construction of residential units within the same calendar year, the General Counsel is hereby authorized to accept other forms of security proposed by the applicant and that in the judgment of the General Counsel will protect the Commission's interests in the same manner as the letter of credit and financial guaranty bond described above.

3.10. Fixtures verified by WSSC inspection prior to removal may result in credits toward SDC in a replacement structure. Following written application by a Registered Master Plumber, Postcard Permit inspections to confirm fixtures prior to removal will be the basis for calculating any SDC credit. No credit

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will be afforded for rough-in piping or fixtures removed prior to inspection. SDC credit under this paragraph may only be obtained by submitting the original Master Plumber's copy of the approved Postcard Permit document at the time of application for hook-up of the replacement or remodeled structure. Credit obtained under this provision may only be used toward the remodeling of the existing structure or the redevelopment of a property from which the original fixtures were removed.

EXEMPTIONS

- 4.1 Additional fixtures installed in a structure or building are exempt from the levy of an SDC fee only if inspection of the initial hookup of the building or structure's plumbing to the WSSC's system(s) was approved under a permit issued as a result of an application filed before July 19, 1993, and the change in fixtures does not require an increase in the property's connection(s) or meter size.
- 4.2 The hook-up of a residential unit which is certified by Montgomery or Prince George's County as being a Public Sponsored or Affordable Housing Unit, as defined by Commission Resolution No. 98-1555, shall be exempted from any SDC fee.
- 4.3 The initial hook-up of a residential unit to the Commission's water and/or sewerage system will be exempted from the levy of any SDC fee if the unit existed and was served by a private well and/or septic system on or before July 16, 1993, and the applicable WSSC water or sewer main was in service or its construction was the subject of "Formal Notice To Proceed" (to the WSSC contractor) on or before the same July 16, 1993.

REFUNDS

- 5.1 In the event a permit to install plumbing fixtures expires or is canceled pursuant to provisions of Section 206.2 of the Plumbing and Gasfitting Regulations, all SDC fees paid in association with the application for plumbing permit to hook-up may be refunded, provided Code Enforcement Section's inspection records confirm that no work covered by the permit has been accomplished. Such refunds will be made to the original SDC payer at the time of application.
- 5.2 SDC payments for fixtures represented on an application, but not installed, may be refunded to the original payer provided a written request for refund is filed with the Service Applications & Records Section prior to a request for final inspection. Upon confirmation by the Code Enforcement Section that the fixtures or related rough-in work referenced in the written request have not been installed, the fixtures will be deleted from the permit database record and SDC refund action will be initiated.
- 5.3 The reimbursement of SDC payments to comply with credit requirements set forth in Article 29, §6-113.(e) of the Annotated Code of Maryland shall be

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accomplished as specified by WSSC Standard Procedure CUS 94-03, entitled SDC CREDITS AND REIMBURSEMENT.

- 5.4 A request for full or partial refund of previously remitted SDC which has been denied may be appealed under provisions of Article 29, §6-111 of the Annotated Code of Maryland.

AUTHORITY CLAUSE

The General Counsel certifies that the statutory authority for adoption of this Standard Procedure is Article 29, §§ 6-113 and 9-101 of the Annotated Code of Maryland.

Distribution List

MASTER VOLUME LIST:

General Manager's Office
Internal Audit Office
Secretary's Office
Human Resources Division

Other Distribution:

Commissioner's Office
Administration Branch
Operations Branch
General Counsel's Office
Budget and Financial Planning Office
Construction Bureau
Customer Affairs Bureau
Finance Bureau
Customer Services Division
Financial Operations Division
Regulatory Compliance Division
Code Enforcement Section
General Accounting Section
Service Applications & Records Section

APPENDIX "A"

FINANCIAL GUARANTY BOND

Plumbing Permit Number _____

Bond Number _____

Date Bond Executed _____

KNOW ALL MEN BY THESE PRESENTS:

That _____
(here insert the legal name of the Applicant)

(here insert the address of the Applicant)

as Principal, hereinafter called "Applicant", and

(here insert the legal name of the Surety)

(here insert the address of the Surety)

as Surety, hereinafter called "Surety", are held and firmly bound unto the WASHINGTON SUBURBAN SANITARY COMMISSION, Laurel, Maryland, a public and governmental corporate agency of the State of Maryland, as Obligee, hereinafter called the "Commission", in the amount of

_____ dollars (\$ _____), being 50

percent of the System Development Charge of the herein-mentioned application, for the payment whereof Applicant and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

WHEREAS, the Applicant has applied for a plumbing permit to install fixtures or hookup a residential property to the Commission's water and/or sewerage system(s) under Plumbing Permit No. _____ and has promised to pay the full system development charge within 12

months of the date of the application or prior to the transfer of title to the property, whichever occurs first.

NOW, THEREFORE, the condition of this obligation is such that if the Applicant shall promptly and faithfully pay the system development charge in a timely manner, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the Commission.

Whenever Applicant shall be, and declared by Commission to be, in default in payment of the system development charge, the Commission having performed Commission's obligations thereunder, the Surety shall promptly pay the amount owed by the Applicant to the Commission.

Any suit under this bond must be instituted before the expiration of eighteen (18) months from the date payment is due. No right of action shall accrue on this bond to or for the use of any person or corporation other than the Commission or its successors and assigns.

The bond is executed in two (2) counterparts, each of which shall, without proof or accounting for the other counterpart, be deemed an original thereof.

Signed and sealed this _____ day of _____,

ATTEST:

Applicant Name

By: _____

(Title)

(Surety Name)

By: _____

(Title)

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed, or caused to be executed by their duly authorized officials, this performance bond in (_____) copies each of which shall be deemed an original on the date first above written. (The following is applicable if applicant is corporation or incorporated joint venture.)

A Corporation _____

By: _____

(Title)

Date: _____

Attest: _____

Secretary of Corporation

Certificate as to Corporation (Corporate Seal)

I, _____, certify that I am Secretary of the Corporation named as Applicant herein, that _____ who signed this Performance Bond on behalf of the Applicant was then

_____ of said Corporation; that I know his signature thereto is genuine; that the Bond was duly signed and sealed in behalf of said Corporation by authority of its governing body, and is within the scope of its corporate powers.

Secretary of Corporation

(The following is applicable if Applicant is individual, partnership or unincorporated joint venture.)

Signed and Sealed in the full names of all partners and all members of Joint Ventures.

(Print) Name (Signature)

 Address

(Print) Name (Signature)

 Address

(Seal)

(Print) Name (Signature)

 Address

(Seal)

(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 Supersedes CUS 94-03	<i>Secretary Morris</i> <i>Acting Cop Secretary</i> 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

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WSSC STANDARD PROCEDURES

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 Section 3.6). 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

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WSSC STANDARD PROCEDURES

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

WSSC STANDARD PROCEDURES

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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

WSSC STANDARD PROCEDURES

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- 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

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WSSC STANDARD PROCEDURES

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

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WSSC STANDARD PROCEDURES

- 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

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WSSC STANDARD PROCEDURES

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.

Distribution List:

MASTER VOLUME LIST:

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Internal Audit Office
Secretary's Office
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General Counsel's Office
Development Services Group
Project Delivery Group
Regulatory Services Group
Planning Group
Systems Inspection Group
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	<i>Cortez A. White</i> 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: $0.5 \text{ mgd [the capacity added by the new pumping station] plus } 0.2 \text{ mgd [the amount of lost available capacity] divided by } 1.5 \text{ mgd [the total capacity of the new pumping station]} = 47\%$. (Step 3)

WSSC STANDARD PROCEDURES

DEPT. & NUMBER: PD 93-01

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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)

DISTRIBUTION:

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WASHINGTON SUBURBAN SANITARY COMMISSION
ADOPTED FYS 2016 - 2021 CIP
SDC ELIGIBLE PROJECTS
SUMMARY
(In Thousands)

PROGRAM NAME	TOTAL COST	FY 2014	FY 2015	TOTAL 6 YEARS	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	BEYOND 6 YEARS
MONTGOMERY COUNTY WATER PROJECTS											
Total Project Costs *	\$17,704	\$5,700	\$3,410	\$8,594	\$3,312	\$1,350	\$2,819	\$1,113	\$0	\$0	\$0
SDC Eligible Costs	\$17,704	\$5,700	\$3,410	\$8,594	\$3,312	\$1,350	\$2,819	\$1,113	\$0	\$0	\$0
BI-COUNTY WATER PROJECTS											
Total Project Costs *	\$149,934	\$133,789	\$13,599	\$2,546	\$2,248	\$225	\$25	\$20	\$18	\$10	\$0
SDC Eligible Costs	\$144,965	\$133,089	\$10,168	\$1,708	\$1,708	\$0	\$0	\$0	\$0	\$0	\$0
PRINCE GEORGE'S COUNTY WATER PROJECTS											
Total Project Costs *	\$221,968	\$22,875	\$23,285	\$175,507	\$39,399	\$47,695	\$44,114	\$27,591	\$11,104	\$5,604	\$301
SDC Eligible Costs	\$181,960	\$16,773	\$16,779	\$148,107	\$29,502	\$41,415	\$37,738	\$22,744	\$11,104	\$5,604	\$301
TOTAL WATER PROJECT COSTS	\$389,606	\$162,364	\$40,294	\$186,647	\$44,959	\$49,270	\$46,958	\$28,724	\$11,122	\$5,614	\$301
TOTAL WATER SDC ELIGIBLE COSTS	\$344,629	\$155,562	\$30,357	\$158,409	\$34,522	\$42,765	\$40,557	\$23,857	\$11,104	\$5,604	\$301
MONTGOMERY COUNTY SEWERAGE PROJECTS											
Total Project Costs *	\$58,695	\$30,386	\$8,821	\$19,488	\$9,421	\$7,410	\$2,611	\$46	\$0	\$0	\$0
SDC Eligible Costs	\$58,695	\$30,386	\$8,821	\$19,488	\$9,421	\$7,410	\$2,611	\$46	\$0	\$0	\$0
BI-COUNTY SEWERAGE PROJECTS											
Total Project Costs *	\$424	\$0	\$300	\$124	\$112	\$12	\$0	\$0	\$0	\$0	\$0
SDC Eligible Costs	\$356	\$0	\$249	\$107	\$95	\$12	\$0	\$0	\$0	\$0	\$0
PRINCE GEORGE'S COUNTY SEWERAGE PROJECTS											
Total Project Costs *	\$187,283	\$22,705	\$54,068	\$109,992	\$64,189	\$36,674	\$8,172	\$697	\$130	\$130	\$518
SDC Eligible Costs	\$157,466	\$19,222	\$45,411	\$92,315	\$53,782	\$30,745	\$6,905	\$623	\$130	\$130	\$518
TOTAL SEWERAGE PROJECT COSTS	\$246,402	\$53,091	\$63,189	\$129,604	\$73,722	\$44,096	\$10,783	\$743	\$130	\$130	\$518
TOTAL SEWERAGE SDC ELIGIBLE COSTS	\$216,517	\$49,608	\$54,481	\$111,910	\$63,298	\$38,167	\$9,516	\$669	\$130	\$130	\$518
TOTAL PROJECT COSTS	\$636,008	\$215,455	\$103,483	\$316,251	\$118,681	\$93,366	\$57,741	\$29,467	\$11,252	\$5,744	\$819
TOTAL SDC ELIGIBLE COSTS	\$561,146	\$205,170	\$84,838	\$270,319	\$97,820	\$80,932	\$50,073	\$24,526	\$11,234	\$5,734	\$819

* 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
ADOPTED FY'S 2016 - 2021 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

<u>PROJECT NUMBER</u>	<u>PROJECT NAME</u>	<u>TOTAL COST</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>TOTAL 6 YEARS</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>BEYOND 6 YEARS</u>
<u>WATER PROJECTS</u>												
<u>BI-COUNTY PROJECTS</u>												
W-127.01	BI-COUNTY WATER TUNNEL	\$144,258	\$133,789	\$9,346	\$1,123	\$1,123	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL GROWTH COSTS	143,558	133,089	9,346	1,123	1,123	0	0	0	0	0	0
W-202.00	LAND & RIGHTS-OF-WAY ACQUISITION - BI-COUNTY	5,676	0	4,253	1,423	1,125	225	25	20	18	10	0
	TOTAL GROWTH COSTS	1,407	0	822	585	585	0	0	0	0	0	0
	SUBTOTAL BI-COUNTY WATER PROJECTS	\$149,934	\$133,789	\$13,599	\$2,546	\$2,248	\$225	\$25	\$20	\$18	\$10	\$0
	SUBTOTAL BI-COUNTY SDC ELIGIBLE COSTS	\$144,965	\$133,089	\$10,168	\$1,708	\$1,708	\$0	\$0	\$0	\$0	\$0	\$0
<u>MONTGOMERY COUNTY PROJECTS</u>												
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	4,836	232	472	4,132	127	222	2,670	1,113	0	0	0
	TOTAL GROWTH COSTS	4,836	232	472	4,132	127	222	2,670	1,113	0	0	0
W-46.18	NEWCUT ROAD WATER MAIN, PART 2	1,555	1,204	213	138	138	0	0	0	0	0	0
	TOTAL GROWTH COSTS	1,555	1,204	213	138	138	0	0	0	0	0	0
W-46.24	CLARKSBURG AREA STAGE 3 WATER MAIN, PART 4	3,789	1,432	495	1,862	1,149	630	83	0	0	0	0
	TOTAL GROWTH COSTS	3,789	1,432	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	\$17,704	\$5,700	\$3,410	\$8,594	\$3,312	\$1,350	\$2,819	\$1,113	\$0	\$0	\$0
	SUBTOTAL MONTGOMERY COUNTY SDC ELIGIBLE COSTS	\$17,704	\$5,700	\$3,410	\$8,594	\$3,312	\$1,350	\$2,819	\$1,113	\$0	\$0	\$0

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<u>PROJECT NUMBER</u>	<u>PROJECT NAME</u>	<u>TOTAL COST</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>TOTAL 6 YEARS</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>BEYOND 6 YEARS</u>
PRINCE GEORGE'S COUNTY PROJECTS												
W-34.02	OLD BRANCH AVENUE WATER MAIN	\$15,218	\$1,324	\$340	13,554	\$268	\$3,160	\$6,592	\$3,534	\$0	\$0	\$0
	TOTAL GROWTH COSTS	7,609	662	170	6,777	134	1,580	3,296	1,767	0	0	0
W-34.03	WATER TRANSMISSION IMPROVEMENTS 385B PRESSURE ZONE	34,670	458	440	33,772	440	220	5,528	11,028	11,028	5,528	0
	TOTAL GROWTH COSTS	34,670	458	440	33,772	440	220	5,528	11,028	11,028	5,528	0
W-34.04	BRANCH AVENUE WATER TRANSMISSION IMPROVEMENTS	57,360	1,930	2,530	52,900	12,305	17,365	17,365	5,865	0	0	0
	TOTAL GROWTH COSTS	57,360	1,930	2,530	52,900	12,305	17,365	17,365	5,865	0	0	0
W-62.05	CLINTON ZONE WATER STORAGE FACILITY IMPLEMENTATION	12,027	884	440	10,703	275	3,630	5,093	1,705	0	0	0
	TOTAL GROWTH COSTS	12,027	884	440	10,703	275	3,630	5,093	1,705	0	0	0
W-65.10	ST. BARNABAS ELEVATED TANK REPLACEMENT	11,284	510	172	10,602	8,682	1,920	0	0	0	0	0
	TOTAL GROWTH COSTS	5,642	255	86	5,301	4,341	960	0	0	0	0	0
W-84.02	RITCHIE MARLBORO ROAD TRANSMISSION MAIN & PRV	12,791	497	770	11,524	440	4,428	4,428	2,228	0	0	0
	TOTAL GROWTH COSTS	12,791	497	770	11,524	440	4,428	4,428	2,228	0	0	0
W-111.05	HILLMEADE ROAD WATER MAIN	5,490	858	12	4,620	2,310	2,310	0	0	0	0	0
	TOTAL GROWTH COSTS	5,490	858	12	4,620	2,310	2,310	0	0	0	0	0
W-119.01	JOHN HANSON HIGHWAY WATER MAIN, PART 1	8,373	1,708	460	6,205	1,493	4,712	0	0	0	0	0
	TOTAL GROWTH COSTS	8,373	1,708	460	6,205	1,493	4,712	0	0	0	0	0
W-123.20	OAK GROVE/LEELAND ROADS WATER MAIN, PART 2	12,828	6,410	2,820	3,598	2,322	1,276	0	0	0	0	0
	TOTAL GROWTH COSTS	6,414	3,205	1,410	1,799	1,161	638	0	0	0	0	0
W-129.12	CHURCH ROAD WATER MAIN, PART 2	827	188	445	194	194	0	0	0	0	0	0
	TOTAL GROWTH COSTS	827	188	445	194	194	0	0	0	0	0	0
W-137.02	SOUTH POTOMAC SUPPLY IMPROVEMENT	25,606	1,513	5,335	18,758	6,304	6,294	3,080	3,080	0	0	0
	TOTAL GROWTH COSTS	12,626	1,513	4,730	6,383	3,191	3,192	0	0	0	0	0

WASHINGTON SUBURBAN SANITARY COMMISSION
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SDC ELIGIBLE PROJECTS
(In Thousands)

PROJECT NUMBER	PROJECT NAME	TOTAL COST	FY 2014	FY 2015	TOTAL 6 YEARS	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	BEYOND 6 YEARS
<u>PRINCE GEORGE'S COUNTY PROJECTS (CONTINUED)</u>												
W-147.00	COLLINGTON ELEVATED WATER STORAGE FACILITY	\$14,726	\$3,960	\$8,470	\$2,296	\$2,296	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL GROWTH COSTS	7,363	1,980	4,235	1,148	1,148	0	0	0	0	0	0
W-197.00	DSP & CONCEPTUAL DESIGN WATER PROJECTS	10,768	2,635	1,051	6,781	2,070	2,380	2,028	151	76	76	301
	TOTAL GROWTH COSTS	10,768	2,635	1,051	6,781	2,070	2,380	2,028	151	76	76	301
SUBTOTAL PRINCE GEORGE'S COUNTY WATER PROJECTS		\$221,968	\$22,875	\$23,285	\$175,507	\$39,399	\$47,695	\$44,114	\$27,591	\$11,104	\$5,604	\$301
SUBTOTAL PRINCE GEORGE'S COUNTY SDC ELIGIBLE COSTS		\$181,960	\$16,773	\$16,779	\$148,107	\$29,502	\$41,415	\$37,738	\$22,744	\$11,104	\$5,604	\$301
TOTAL WATER PROJECTS COSTS		\$389,606	\$162,364	\$40,294	186,647	\$44,959	\$49,270	\$46,958	\$28,724	\$11,122	\$5,614	\$301
TOTAL WATER SDC ELIGIBLE COSTS		\$344,629	\$155,562	\$30,357	158,409	\$34,522	\$42,765	\$40,557	\$23,857	\$11,104	\$5,604	\$301
<u>SEWERAGE PROJECTS</u>												
<u>BI-COUNTY PROJECTS</u>												
S-203.00	LAND & RIGHTS-OF-WAY ACQUISITION - BI-COUNTY	\$424	\$0	\$300	\$124	\$112	\$12	\$0	\$0	\$0	\$0	\$0
	TOTAL GROWTH COSTS	356	0	249	107	95	12	0	0	0	0	0
SUBTOTAL BI-COUNTY SEWERAGE PROJECTS		\$424	\$0	\$300	\$124	\$112	\$12	\$0	\$0	\$0	\$0	\$0
SUBTOTAL BI-COUNTY SDC ELIGIBLE COSTS		\$356	\$0	\$249	\$107	\$95	\$12	\$0	\$0	\$0	\$0	\$0
<u>MONTGOMERY COUNTY PROJECTS</u>												
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
S-25.04	MID-PIKE PLAZA SEWER MAIN, PHASE 1	3,874	3,693	144	37	37	0	0	0	0	0	0
	TOTAL GROWTH COSTS	3,874	3,693	144	37	37	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

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<u>PROJECT NUMBER</u>	<u>PROJECT NAME</u>	<u>TOTAL COST</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>TOTAL 6 YEARS</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>BEYOND 6 YEARS</u>
<u>MONTGOMERY COUNTY PROJECTS (CONTINUED)</u>												
S-38.01	PRESERVE AT ROCK CREEK WASTEWATER PUMPING STATION	\$1,967	\$91	\$848	\$1,028	\$680	\$348	\$0	\$0	\$0	\$0	\$0
	TOTAL GROWTH COSTS	1,967	91	848	1,028	680	348	0	0	0	0	0
S-38.02	PRESERVE AT ROCK CREEK WWPS FORCE MAIN	\$391	\$108	\$133	\$150	\$150	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL GROWTH COSTS	391	108	133	150	150	0	0	0	0	0	0
S-53.22	SENECA WWTP EXPANSION, PART 2	28,990	24,604	4,364	22	22	0	0	0	0	0	0
	TOTAL GROWTH COSTS	28,990	24,604	4,364	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	683	7	231	445	223	222	0	0	0	0	0
	TOTAL GROWTH COSTS	683	7	231	445	223	222	0	0	0	0	0
S-84.66	TAPESTRY WWPS FORCE MAIN	134	8	45	81	46	35	0	0	0	0	0
	TOTAL GROWTH COSTS	134	8	45	81	46	35	0	0	0	0	0
S-85.21	SHADY GROVE STATION SEWER AUGMENTATION	2,254	11	305	1,938	1,188	750	0	0	0	0	0
	TOTAL GROWTH COSTS	2,254	11	305	1,938	1,188	750	0	0	0	0	0
S-103.16	CABIN JOHN TRUNK SEWER RELIEF	7,999	0	446	7,553	2,662	2,652	2,239	0	0	0	0
	TOTAL GROWTH COSTS	7,999	0	446	7,553	2,662	2,652	2,239	0	0	0	0
SUBTOTAL MONTGOMERY COUNTY SEWERAGE PROJECTS		\$58,695	\$30,386	\$8,821	\$19,488	\$9,421	\$7,410	\$2,611	\$46	\$0	\$0	\$0
SUBTOTAL MONTGOMERY COUNTY SDC ELIGIBLE COSTS		\$58,695	\$30,386	\$8,821	\$19,488	\$9,421	\$7,410	\$2,611	\$46	\$0	\$0	\$0

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SDC ELIGIBLE PROJECTS
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<u>PROJECT NUMBER</u>	<u>PROJECT NAME</u>	<u>TOTAL COST</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>TOTAL 6 YEARS</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>BEYOND 6 YEARS</u>
<u>PRINCE GEORGE'S COUNTY PROJECTS</u>												
S-43.02	BROAD CREEK WWPS AUGMENTATION	\$175,400	\$20,488	\$50,925	\$103,987	\$61,215	\$34,879	\$7,455	\$438	\$0	\$0	\$0
	TOTAL GROWTH COSTS	145,583	17,005	42,268	\$86,310	50,808	28,950	6,188	364	0	0	0
S-187.00	DSP & CONCEPTUAL DESIGN SEWER PROJECTS	11,883	2,217	3,143	6,005	2,974	1,795	717	259	130	130	518
	TOTAL GROWTH COSTS	11,883	2,217	3,143	6,005	2,974	1,795	717	259	130	130	518
SUBTOTAL PRINCE GEORGE'S COUNTY SEWERAGE PROJECTS		\$187,283	\$22,705	\$54,068	\$109,992	\$64,189	\$36,674	\$8,172	\$697	\$130	\$130	\$518
SUBTOTAL PRINCE GEORGE'S COUNTY SDC ELIGIBLE COSTS		\$157,466	\$19,222	\$45,411	\$92,315	\$53,782	\$30,745	\$6,905	\$623	\$130	\$130	\$518
TOTAL SEWERAGE PROJECTS COSTS		\$246,402	\$53,091	\$63,189	\$129,604	\$73,722	\$44,096	\$10,783	\$743	\$130	\$130	\$518
TOTAL SEWERAGE SDC ELIGIBLE COSTS		\$216,517	\$49,608	\$54,481	\$111,910	\$63,298	\$38,167	\$9,516	\$669	\$130	\$130	\$518
TOTAL PROJECT COSTS		\$636,008	\$215,455	\$103,483	316,251	\$118,681	\$93,366	\$57,741	\$29,467	\$11,252	\$5,744	\$819
TOTAL SDC ELIGIBLE COSTS		\$561,146	\$205,170	\$84,838	270,319	\$97,820	\$80,932	\$50,073	\$24,526	\$11,234	\$5,734	\$819