# ADOPTED CIP

## CAPITAL IMPROVEMENTS PROGRAM

# FY 2011-2016

Washington Suburban
Sanitary Commission

# Washington Suburban Sanitary Commission

# Adopted
# Six-Year Capital Improvements Program
# Fiscal Years 2011 - 2016

## June 16, 2010

**Antonio L. Jones, Chair**
**Dr. Roscoe M. Moore, Jr., Vice Chair**
**Prem P. Agarwal, Commissioner**
**Gene W. Counihan, Commissioner**
**Hon. Adrienne A. Mandel, Commissioner**
**Joyce Starks, Commissioner**

**Jerry N. Johnson, General Manager/CEO**

“Maps Copyright 1998, Alexandria Drafting Company, ADC the Map People, Alexandria Virginia.
All data is provided “as-is” and without warranty of any kind.”

## TABLE OF CONTENTS
**(Continued)**

**PAGE NO.**

## TABLE OF CONTENTS
**(Continued)**

**PAGE NO.**

**TABLE OF CONTENTS**
**(Continued)**

**PAGE NO.**

**TABLE OF CONTENTS**
**(Continued)**

**PAGE NO.**

## TABLE OF CONTENTS
**(Continued)**

**PAGE NO.**

## TABLE OF CONTENTS
**(Continued)**

**PAGE NO.**

**WASHINGTON SUBURBAN SANITARY COMMISSION**
**ADOPTED CAPITAL IMPROVEMENTS PROGRAM**
**FISCAL YEARS 2011-2016**

## LEGAL AUTHORITY AND RESPONSIBILITY

### Statutory Basis

Under Article 29, Washington Suburban Sanitary District, Title 7, WSSC Capital Improvements Program, 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.

Article 29 as amended by Chapter 685 (1987) 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 2011-2016 CIP reflects the actions of the Prince George's County Council by Resolution No. CR-37-2010 dated May 27, 2010, and the Montgomery County Council by Resolution No. 16-1379 dated May 27, 2010. By WSSC Resolution No. 2010-1875 dated June 16, 2010, the Commission adopted the FYs 2011-2016 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 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 solids 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.

# 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-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;
- finances 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 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. For the FY'08 CIP, capital reductions totaling $44.8 million were made to meet Spending Affordability Guidelines. The FY'09 CIP did not require any reductions. For the FY'10 CIP, capital reductions and deferrals totaling $51 million were made to the CIP.

The FY'11 expenditures are estimated at $332.9 million, which represents an increase of approximately $118.5 million from the approved funding level for FY'10. The primary reasons for the increase are due to the addition of the new Trunk Sewer Reconstruction Program and the ramping up of construction work for the Patuxent Water Filtration Plant Expansion, Duckett Dam Upgrades, and the Western Branch WWTP projects.

## Major Assumptions

The primary assumptions guiding the overall preparation of the WSSC's CIP include:

- postponing projects where there is no impact to existing customers;
- giving funding priority to projects under construction and to projects deemed critical to meeting established service levels; and
- displaying contributed funding for all Development Services Process projects (100% growth) which, by law, are to be built solely at the Applicant's expense.

The WSSC's mission is to provide safe and reliable water to our customers and to return clean water to the environment in an ethically and financially responsible manner. The Commission, in working with the county governments, has been successful in carrying out this mission and meeting spending affordability limits.

## 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 nutrient removal at existing wastewater treatment plants as part of the Chesapeake Bay Program and Federal Clean Water Act. Additional funding from the state for projects needed to meet environmental mandates will be pursued;
- 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 – 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 directed that no WSSC rate-supported debt is used to pay for the project.

A graph is provided on page 26 which displays the funding allocations for the major funding categories.

**Funding Growth**

The portion of the CIP needed to accommodate growth is approximately $282 million, which equals 15% 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 and for youth facilities. For FY'11, the Prince George's and Montgomery County Councils increased the maximum allowable charge by the 2.1% increase in the CPI, but maintained the current rate of $203 per fixture unit by Resolution Numbers CR-41-2010 approved May 27, 2010, and, 16-1353 approved May 19, 2010, respectively. The Commission adopted the Councils' actions by Resolution Number 2010-1873 dated June 16, 2010. Policies and information associated with the System Development Charge are included in this document as Appendices A, B, C, and D.

It is estimated that there will be an overall growth funding gap of $138.3 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. Further, it is anticipated that additional growth projects will evolve in the later years of the six-year period. (A listing of SDC-eligible projects is included in Appendix D.)

An estimate of the gap or surplus for each fiscal year is presented in the table that follows. To estimate the gap/surplus for an individual fiscal year, it is assumed that 80% of the eligible expenditures will actually be incurred in a given year due to scheduling and other delays. The projected gap/surplus is the difference between the eligible expenditures adjusted for completion and the sum of the various funding sources.

## GROWTH FUNDING GAP
## (In Millions)

| | FY'11 | FY'12 | FY'13 | FY'14 | FY'15 | FY'16 | 6 YEAR TOTAL |
|---|---|---|---|---|---|---|---|
| **CIP GROWTH EXPENDITURES** | $82.4 | $88.3 | $78.2 | $28.7 | $2.6 | $1.8 | $282.0 |
| Expenditures Adjusted for Completion | 65.9 | 87.1 | 80.3 | 38.6 | 7.8 | 1.9 | 281.6 |
| **FUNDING SOURCES** | | | | | | | |
| Privately Funded Projects | 9.8 | 8.4 | 3.3 | 1.1 | 1.3 | 1.2 | 25.1 |
| Estimated SDC Revenue | 22.4 | 22.5 | 22.6 | 23.4 | 23.6 | 24.1 | 138.6 |
| Less SDC Developer Credits | (2.4) | (2.4) | (2.4) | (2.4) | (2.4) | (2.4) | (14.4) |
| Less SDC Exemptions [1] | (1.0) | (1.0) | (1.0) | (1.0) | (1.0) | (1.0) | (6.0) |
| **TOTAL FUNDING SOURCES** | $28.8 | $27.5 | $22.5 | $21.1 | $21.5 | $21.9 | $143.3 |
| **FUNDING GAP ADJUSTED FOR COMPLETION** | **$37.1** | **$59.6** | **$57.8** | **$17.5** | **($13.7)** | **($20.0)** | **$138.3** |

[1] Each County may grant SDC exemptions for biotechnology, elderly, or revitalization projects totaling up to $500,000 per fiscal year as provided for in Maryland State Law (Article 29, Section 6-113(c)(iv)). Unused exemption amounts are available for use in future fiscal years. Cumulative unused SDC exemptions totaled approximately $3.5 million for Montgomery County and $3.8 million for Prince George's County through April 30, 2010.

## Expenditures

The FYs 2011-2016 Capital Improvements Program includes 96 projects for a grand total of nearly $2.9 billion dollars. Expenditures for the six-year program period are estimated at $1.9 billion. FY'11 expenditures are estimated at $332.9 million, which is $118.5 million greater than the funding level approved for FY'10. Of the $332.9 million, $102.3 million is for the Water Program and $230.6 million is for the Sewerage Program. Nearly half of the projects in this CIP are Development Services Process (DSP) growth projects. The DSP projects' estimated six-year program cost is $25.9 million, with approximately $12.7 million programmed in FY'11, approximately the same amount approved last year. There are 9 new CIP projects and one new Information Only project, totaling $598.0 million in the six-year program period. These projects are shown on the New Projects Listing near the end of this section. A table comparing the Adopted FYs 2010-2015 CIP to the Adopted FYs 2011-2016 CIP follows:

**WSSC CIP - ALL PROGRAMS**

(In Thousands)

| | TOTAL PROJECTS | TOTAL 6 YEARS | BUDGET YEARS FY'10 vs. FY'11 |
|---|---|---|---|
| Adopted FYs 2010-2015 | $2,031,569 | $1,223,084 | $214,431 |
| Adopted FYs 2011-2016 | 2,884,605 | 1,896,373 | 332,851 |
| Change | $853,036 | $673,289 | $118,420 |

Six-year program expenditures are estimated at approximately $1.9 billion, $384 million for the Water Program and $1.5 billion for the Sewerage Program. This is a $673.3 million increase from the six-year total in the Adopted FYs 2010-2015 CIP. The net increase is primarily due to the addition of the new Trunk Sewer Reconstruction and Large Diameter Pipe Rehabilitation Programs, partially offset by the Potomac Water Filtration Plant Improvements and Bi-County Water Tunnel projects moving forward through construction.

**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 water or sewerage 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 improvement to an existing facility 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**

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 submissions 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 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 Council members, County Government and M-NCP&PC staffs, civic associations, building and industry associations, civic federations, environmental groups, and the WSSC's Customer Advisory Board. 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 on or 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 Article 29, Section 7-103, of the Annotated Code of Maryland, includes as applicable: estimated diameter, length, and location of pipelines; design capacity and approximate location; 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 facility 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. 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 (refer to W/S-200.00 series). 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 Article 29 of the Annotated Code of Maryland, but may be included for any number of reasons such as: fiscal planning purposes; the reader's improved understanding of the full scope of a specific set of projects; or responding to requests from county governments. Expenditures for Information Only projects 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 approving 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 
- Study Area or Undetermined Site Locations 

## 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 168 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 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 7 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 7 treatment plants have a combined treatment capacity of 89 million gallons per day (mgd). These plants include Piscataway, Western Branch, Marlboro Meadows, 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 1985 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 7 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. 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.

Approximately 65% 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. All WSSC wastewater flows through enclosed trunk line systems. The WSSC's proportionate share of capital costs to meet suburban Maryland's treatment requirements represents major expenditure appropriations in this document.

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.

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 phosphorous reaching the Chesapeake Bay. These features ensure that the quality of the effluent (treated wastewater discharged from the plants) is <u>better</u> 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 and 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 and Planning Commission or county government may provide additional information of local interest.

A further extension of these protections has been funded by the approximately $540 million included in the six-year program which is attributable to meeting environmental regulations. These projects, currently estimated at 28% 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 below, and project details can be found on the individual project description forms included elsewhere in this document.

**Environmental Spending**

| | (dollars in millions) |
|---|---|
| • W-73.16, Potomac WFP Improvements | $0.5 |
| • W-73.20, Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation | 7.1 |
| • W-172.05, Patuxent WFP Phase II Expansion | 21.1 |
| • S-22.08, Blue Plains WWTP: Biological Nutrient Removal | 23.9 |
| • S-22.10, Blue Plains WWTP: Enhanced Nutrient Removal | 349.1 |
| • S-22.11, Blue Plains: Pipelines & Appurtenances | 34.8 |
| • S-53.21, Seneca WWTP Enhanced Nutrient Removal | 11.0 |
| • S-57.93, Western Branch WWTP Enhanced Nutrient Removal | 33.3 |
| • S-77.18, Parkway WWTP Enhanced Nutrient Removal | 17.9 |
| • S-89.22, Anacostia Storage Facility | 30.7 |
| • S-94.12, Damascus WWTP Enhanced Nutrient Removal | 4.2 |
| • S-96.12, Piscataway WWTP Enhanced Nutrient Removal | 6.4 |
| • S-170.07, Wastewater Pumping Station Capacity Evaluation | 0.1 |
| Total Six-Year Program Expenditures Allocated to Environmental Regulations | $540.1 |

The Customer Advisory Board (CAB) was created in the spring of 1989 to provide 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 the Facility Planning Process to include early public involvement in all potentially challenging 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 facility 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 facility-planning goals through a collaborative effort among WSSC staff, technical experts, citizens and/or organizations, and public officials. While community involvement does not guarantee absolute public acceptance, such 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.

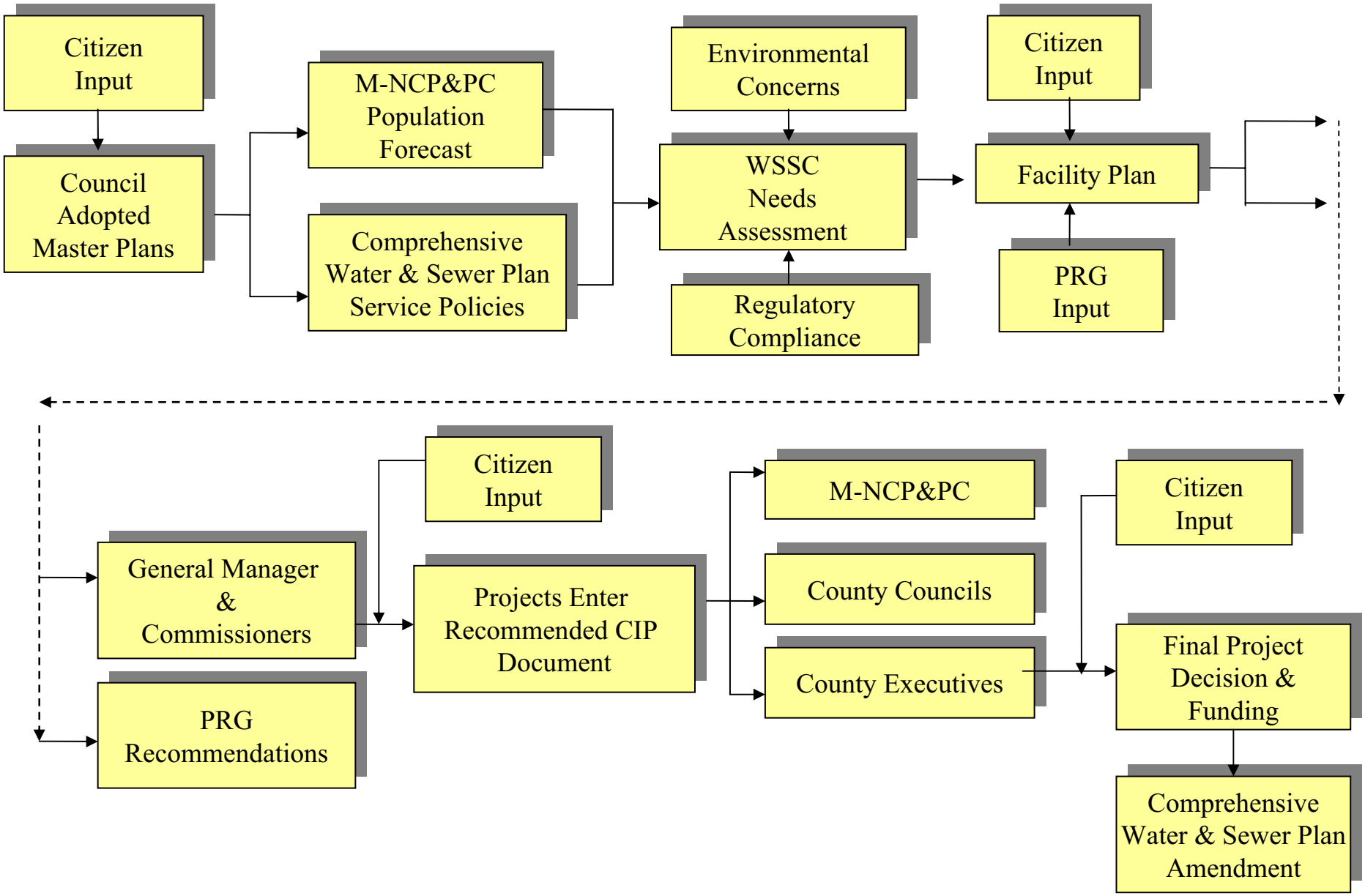
## The Planning Process

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 Facility Planning Process includes a complex study to identify needs, develop and evaluate alternative solutions, organize public outreach, 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 and 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



## How Projects Enter the CIP

The facility planning process is a systematic approach to implementing water and wastewater projects, and is the primary source of new projects. Figure 2 depicts some of the important elements common to WSSC facility planning efforts.

**FIGURE 2**

**Overview of WSSC Facility Planning Process**

| Genesis | PHASE I<br>Project Initiation and Organization | PHASE II<br>Draft Facility Plan Development | PHASE III<br>Review and Approvals |
|---|---|---|---|
| • Establishment of Need<br>• Funding | • Planning Team<br>• Scope<br>• Consultant Selection<br>• Community Outreach Program Design | • Technical Analysis and Documentation<br>• Coordination<br>• Community Outreach Program Implementation | • Public Comment<br>• County Governments<br>• WSSC CIP |
| **Implementation** | | | |

The WSSC's needs assessments may identify other potential projects. Projects needed for rehabilitation (due to age or deteriorated condition of a pipe in a particular area), for relief/replacement (due to extensive monitoring of sewage flows in an existing trunk line), or from maintenance reports (chronic breakage of older water and sewer lines which may have been constructed at a non-standard depth or with materials that were state-of-the-art 30 or 40 years ago), may be added into the CIP. A project may be added in response to relocation requirements due to road improvements or the need to construct a small 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 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 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 to last beyond the year 2000 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, restoring 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 has significantly improved through the inclusion of more site-specific details, previously not considered until advanced stages of design. The number of projects with cost increases that typically occur when a project transitions from the preliminary planning phase to the design phase has been 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 historical data. 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 (when facility projects first appear in the CIP), 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 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; and, a constant of 10% is used to more realistically estimate these expenses for projects with a total estimated cost of $10 million or more.

A project's previous expenditures, which include overhead, are shown under Column (9) of the Expenditure Schedule in Block B of the PDF. These expenditures are accessed from the WSSC's financial information system through the period ending April 30$^{th}$ of each year. End of the fiscal year expenditures were not available in time for the development of project expenditure schedules and are estimated.

**Planning for Future Generations**

One of the WSSC's top priorities, in the core strategy of Infrastructure Asset Management, is to improve capital investment management. A key task is to develop a Utility Master Plan for the Commission to address the existing and future capacity, regulatory, and rehabilitation/ repair/replacement requirements for the next 30 years. The objective of the "Utility-Wide Master Plan" (UMP) 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. The UMP will provide input to the Commission's multi-year financial forecasting and will develop and refine a 30-year capital investment projection based on the following requirements: regulatory, capacity, maintenance, rehabilitation/replacement, process control, energy conservation, and reliability.

The UMP will be completed in phases. Phase 1A, completed in July 2007, provided a high level assessment of the WSSC's assets and was completed in an accelerated time frame in order to have input into both the Fiscal Year 2009 capital planning process and the 10-Year Fiscal Plan. Each group of assets identified in Phase 1A was evaluated with respect to several areas of focus, including: compliance with existing regulatory requirements; providing adequate system capacity for current and future customers; adequately maintaining, rehabilitating, and replacing the existing systems; incorporating energy conservation and reliability measures at existing facilities; and providing process control systems that allow for optimization of the systems. The main outcomes of Phase 1A included: a 30-year investment projection; financial data for the 10-Year Fiscal Plan; asset summary profiles for each of the major asset groups; identification of key strategic drivers, trends, and levels of service; and recommendations for subsequent phases of the UMP. Phase 1B, which refined the asset hierarchy and provided a roadmap for development of asset management plans in future phases, was completed in December 2007. The development of an Asset Management Strategy was completed in April 2008, and included assessment of current asset management processes and practices, a gap analysis, and an Asset Management Implementation Plan (AMIP).

Phase 2 of the UMP, which started in September 2008, includes the development of 5 Asset Management Plans (AMP) and implementation of 13 projects to begin addressing the recommendations identified in the AMIP to improve asset management practices and processes. At the completion of Phase 2, estimated for spring 2011, WSSC will have detailed asset management plans for the Water Distribution and Transmission Systems, Piscataway WWTP, Broad Creek WWPS, and Broad Creek Basin. The organization will also have improved guidelines and processes to define its level of services, assess the condition of water and wastewater assets, determine business risk associated with the assets, improve maintenance and operations strategies, determine assets life cycle cost, and optimize investment decisions.

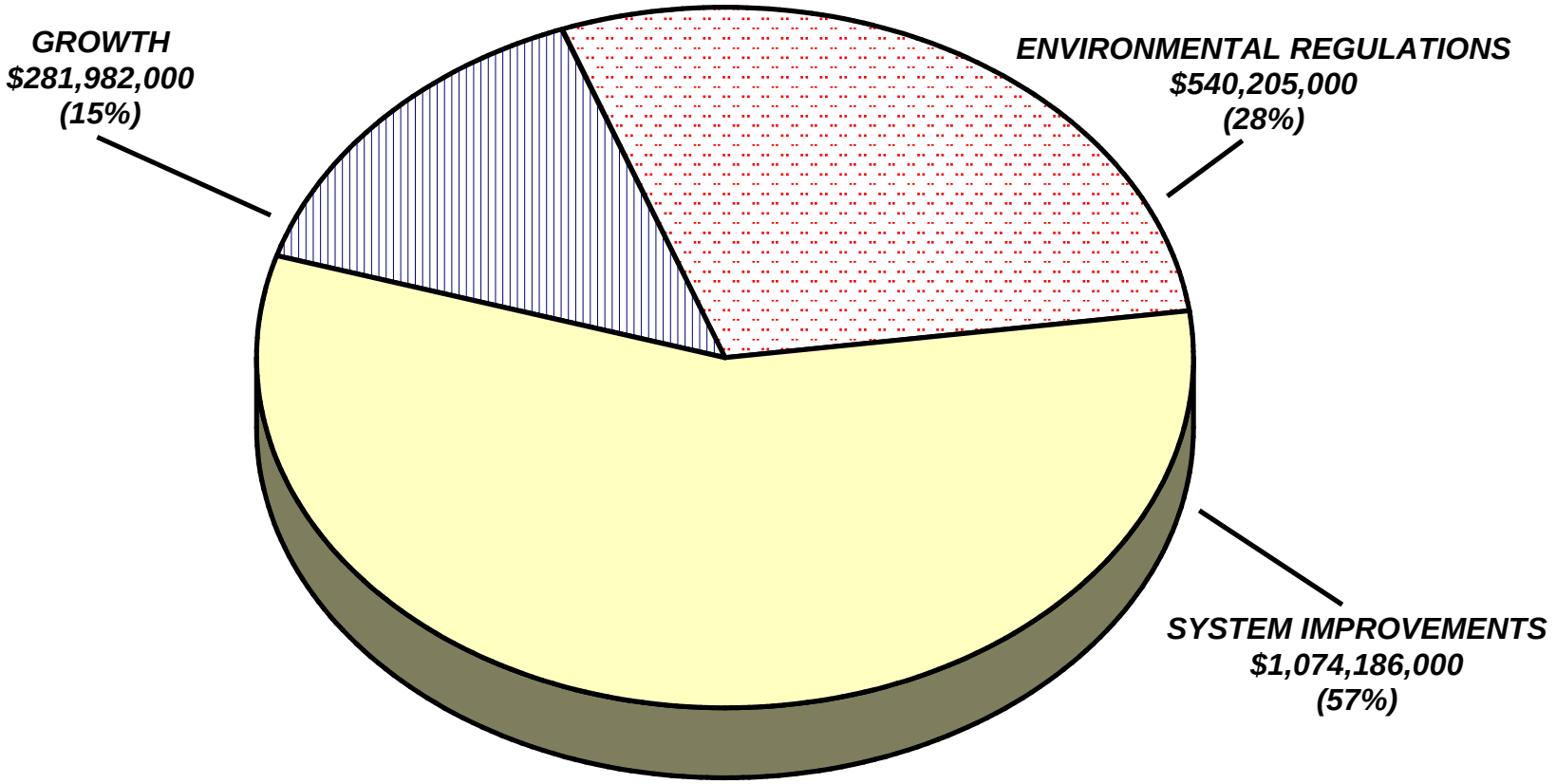
In each phase of the UMP, the core concepts of asset management will be applied more comprehensively to the individual components of the aggregated assets from Phase 1A to provide a highly detailed and well-defined evaluation of life-cycle cost for all assets throughout the WSSC. The results will include a much-refined 30-year investment projection and the ability to do optimized investment decision-making. In addition, the recommendations outlined in the AMIP will be implemented to start transitioning to an organization-wide asset management program.

The outcomes of future phases are expected to identify new capital investment requirements which will be included in future CIPs

**FIGURE 3**

# WSSC ADOPTED FYS 2011-16 CIP

## SIX-YEAR PROGRAM EXPENDITURES BY MAJOR CATEGORY*



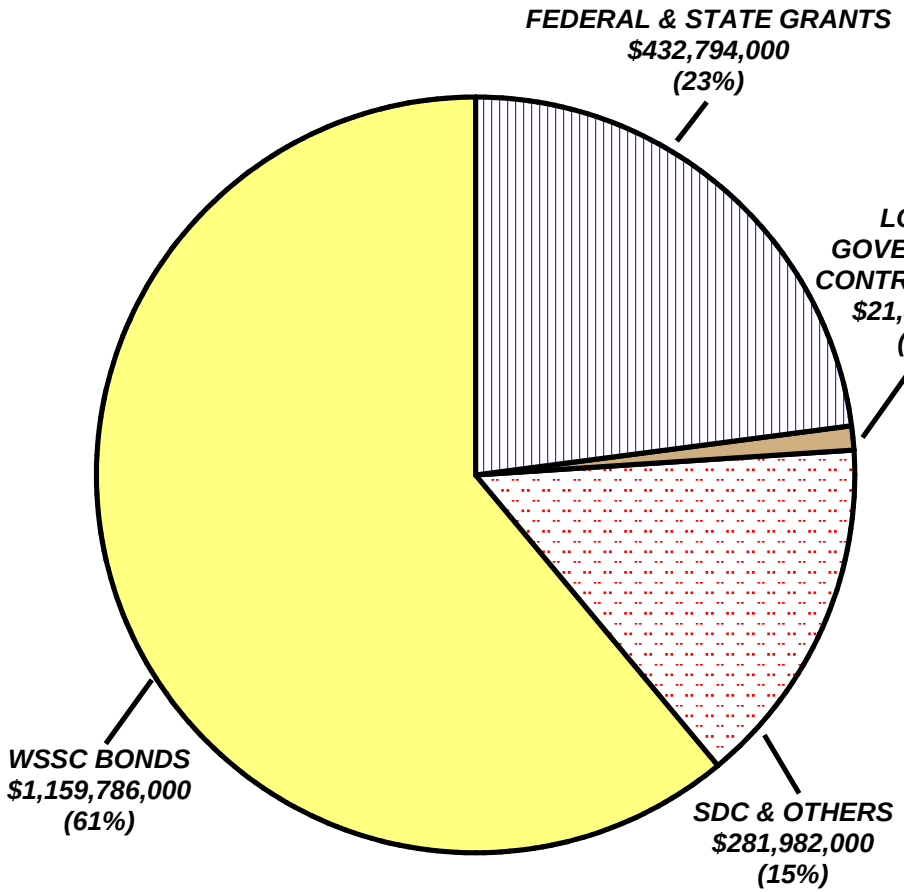

***SIX-YEAR PROGRAM TOTAL***
***$1,896,373,000***

* Totals do not include $1,098,315,000 in System Improvements project capital expenditures for Information Only projects.

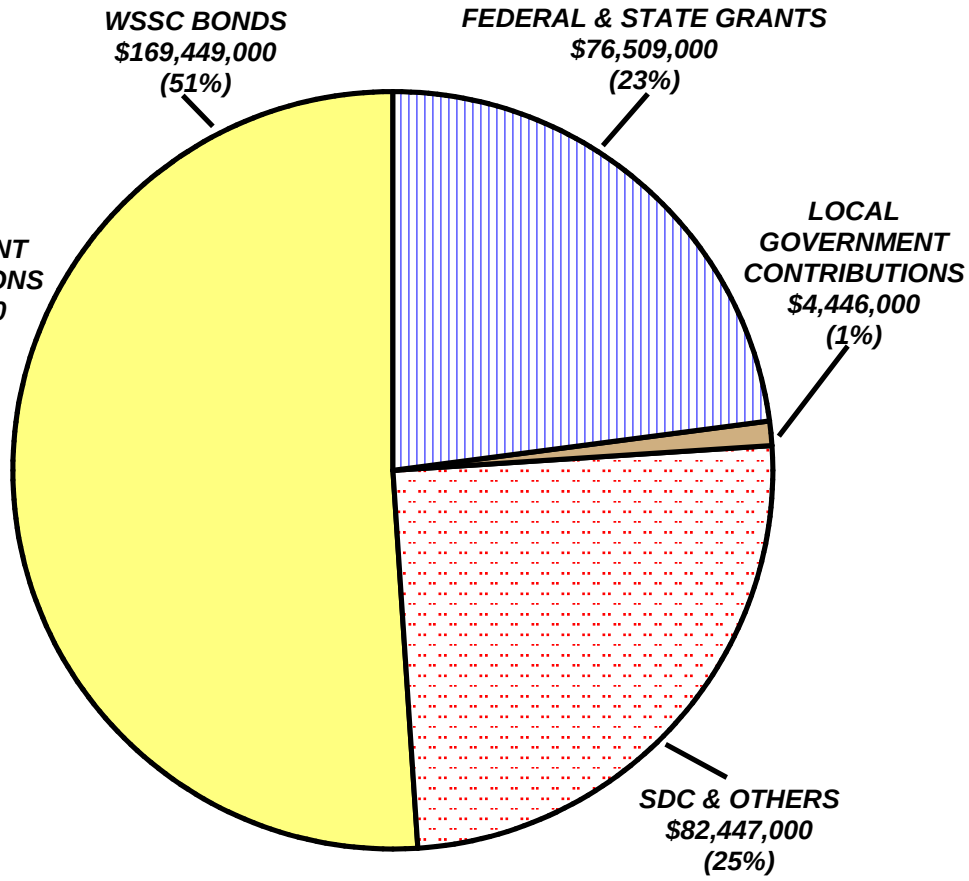
FIGURE 4

# WSSC ADOPTED FYS 2011-16 CIP

## FUNDING BY SOURCE*




**SIX-YEAR PROGRAM TOTAL**
**$1,896,373,000**




**FY'11 BUDGET YEAR TOTAL**
**$332,851,000**

* Totals do not include $1,098,315,000 and $162,875,000 in capital expenditures for Information Only projects in the six-year program and budget year, respectively.

# WSSC FYS 2011 - 2016 CIP

## NEW PROJECTS LISTING

**(costs in thousands)**

| Agency Number | Project Name | Total Project Cost | 6 Year Program Cost | Budget Year Cost | % of Growth |
|---|---|---|---|---|---|
| ***Montgomery County Sewer Projects*** | | | | | |
| S-61.01 | Reddy Branch WWPS Augmentation | $172 | $172 | $172 | 100% |
| ***Bi-County Water Projects*** | | | | | |
| W-73.19 | Potomac WFP Outdoor Substation No. 2 Replacement | 7,934 | 7,934 | 132 | 0% |
| W-73.20 | Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation | 7,959 | 7,131 | 4,531 | 0% |
| W-161.01 | Large Diameter Pipe Rehabilitation Program | 60,000 | 60,000 | 5,000 | 0% |
| ***Bi-County Sewer Projects*** | | | | | |
| S-170.09 | Trunk Sewer Reconstruction Program | 504,993 | 488,320 | 39,079 | 0% |
| ***Prince George's County Water Projects*** | | | | | |
| W-12.02 | Prince George's County HG415 Zone Water Main | 1,074 | 1,062 | 69 | 0% |
| ***Prince George's County Sewer Projects*** | | | | | |
| S-68.01 | Landover Mall Redevelopment | 1,108 | 1,050 | 12 | 100% |
| S-131.08 | Preserves of Piscataway WWPS | 500 | 500 | 190 | 100% |
| S-131.09 | Preserves of Piscataway WWPS Force Main | 77 | 77 | 23 | 100% |
| ***Information Only Projects*** | | | | | |
| A-107.00 | Pressure Reducing Valve Rehabilitation Program | 17,560 | 15,070 | 3,630 | 0% |
| | **TOTALS** | **$601,377** | **$581,316** | **$52,838** | |

10 New Projects

# WSSC FYS 2011 - 2016 CIP

## ALL PROJECTS PENDING CLOSE-OUT

**(costs in thousands)**

| Agency Number | Project Name | Estimated Total Cost | Expenditures Thru FY'09 | Estimated Expenditures FY'10 | Remarks |
|---|---|---|---|---|---|
| ***Montgomery Water Projects*** | | | | | |
| W-46.13 | Clarksburg Town Center Water Main | $1,185 | $991 | $194 | Project completion expected in FY'10. |
| ***Montgomery Sewer Projects*** | | | | | |
| S-49.15 | Rock Creek Wastewater Facilities | 5,839 | 5,839 | 0 | Project completed. |
| ***Prince George's County Water Projects*** | | | | | |
| W-140.01 | Sheriff Road Water Main Replacement | 3,624 | 3,381 | 243 | Project completion expected in FY'10. |
| ***Prince George's County Sewer Projects*** | | | | | |
| S-75.13 | Lakeview at Brandywine Sewer | 0 | 0 | 0 | Project reduced to non-CIP size. |
| S-75.17 | Mattawoman WWTP Enhanced Nutrient Removal | 3,636 | 3,636 | 0 | Project completed. |
| | **TOTALS** | **$14,284** | **$13,847** | **$437** | |

5 Projects Pending Close-Out

# FINANCIAL SUMMARY

DATE: October 1, 2009
REVISED: May 13, 2010

(ALL FIGURES IN THOUSANDS)

TOTAL WSSC CIP

| AGENCY NUMBER | PROJECT NAME | EST. TOTAL COST | EXPEND THRU 09 | EST. EXPEND 10 | TOTAL SIX YEARS | EXPENDITURE SCHEDULE | | | | | | BUDGET REQUEST 11 | PDF PAGE NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | YR 1 11 | YR 2 12 | YR 3 13 | YR 4 14 | YR 5 15 | YR 6 16 | | |
| | Montgomery County Water Projects | 30,118 | 2,431 | 4,139 | 23,548 | 7,925 | 10,254 | 5,369 | 0 | 0 | 0 | 7,925 | 1-1 |
| | Prince George's County Water Projects | 96,384 | 28,094 | 6,113 | 58,427 | 17,917 | 21,035 | 14,007 | 4,357 | 803 | 308 | 17,917 | 5-1 |
| | Bi-County Water Projects | 501,977 | 135,455 | 64,539 | 301,983 | 76,479 | 92,985 | 65,843 | 24,796 | 23,932 | 17,948 | 76,479 | 3-1 |
| | **TOTAL WATER PROJECTS** | **628,479** | **165,980** | **74,791** | **383,958** | **102,321** | **124,274** | **85,219** | **29,153** | **24,735** | **18,256** | **102,321** | |
| | Montgomery County Sewerage Projects | 78,537 | 10,862 | 12,736 | 54,939 | 24,502 | 20,366 | 10,030 | 41 | 0 | 0 | 24,502 | 2-1 |
| | Prince George's County Sewerage Projects | 220,216 | 23,509 | 17,777 | 177,936 | 54,478 | 56,548 | 40,519 | 22,809 | 1,984 | 1,598 | 54,478 | 6-1 |
| | Bi-County Sewerage Projects | 1,957,373 | 491,466 | 90,915 | 1,279,540 | 151,550 | 382,741 | 351,815 | 194,638 | 117,912 | 80,884 | 151,550 | 4-1 |
| | **TOTAL SEWERAGE PROJECTS** | **2,256,126** | **525,837** | **121,428** | **1,512,415** | **230,530** | **459,655** | **402,364** | **217,488** | **119,896** | **82,482** | **230,530** | |
| | **TOTAL WSSC PROGRAM** | **2,884,605** | **691,817** | **196,219** | **1,896,373** | **332,851** | **583,929** | **487,583** | **246,641** | **144,631** | **100,738** | **332,851** | |
| | Total Information Only Projects | 1,268,321 | 26,046 | 132,890 | 1,105,715 | 164,071 | 169,805 | 185,900 | 190,143 | 190,824 | 204,972 | 164,071 | 7-1 |

**Notes for costs beyond six years:**

Includes 3,750 for Prince George's County Water Projects.
Includes 3,750 for Water Projects Total Cost.
Includes 994 for Prince George's County Sewerage Projects.
Includes 95,452 for Bi-County Sewerage Projects.
Includes 96,446 for Sewerage Projects Total Cost.

Includes 100,196 for WSSC Program Total Cost.

# Section 1 - Montgomery County Water Projects

DATE: October 1, 2009

# FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

**MONTGOMERY COUNTY WATER PROJECTS**

| AGENCY NUMBER | PROJECT NAME | EST. TOTAL COST | EXPEND THRU 09 | EST. EXPEND 10 | TOTAL SIX YEARS | EXPENDITURE SCHEDULE | | | | | | BUDGET REQUEST 11 | PDF PAGE NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | YR 1 11 | YR 2 12 | YR 3 13 | YR 4 14 | YR 5 15 | YR 6 16 | | |
| W-3.02 | Olney Standpipe Replacement | 5,365 | 314 | 460 | 4,591 | 1,334 | 2,582 | 675 | 0 | 0 | 0 | 1,334 | 1-2 |
| W-46.14 | Clarksburg Area Stage 3 Water Main, Parts 1, 2, & 3 | 3,586 | 141 | 656 | 2,789 | 2,238 | 551 | 0 | 0 | 0 | 0 | 2,238 | 1-4 |
| W-46.15 | Clarksburg Elevated Water Storage Facility | 4,092 | 132 | 25 | 3,935 | 328 | 2,069 | 1,538 | 0 | 0 | 0 | 328 | 1-5 |
| W-46.18 | Newcut Road Water Main, Part 2 | 825 | 75 | 115 | 635 | 236 | 399 | 0 | 0 | 0 | 0 | 236 | 1-6 |
| W-46.24 | Clarksburg Area Stage 3 Water Main, Part 4 | 1,954 | 68 | 276 | 1,610 | 1,455 | 155 | 0 | 0 | 0 | 0 | 1,455 | 1-7 |
| W-113.19 | Countryside Drive Water Loop | 303 | 10 | 284 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 9 | 1-8 |
| W-138.02 | Shady Grove Standpipe Replacement | 8,058 | 0 | 289 | 7,769 | 288 | 4,325 | 3,156 | 0 | 0 | 0 | 288 | 1-9 |
| W-153.00 | Laytonsville Elevated Tank & Pumping Station | 4,519 | 700 | 1,840 | 1,979 | 1,979 | 0 | 0 | 0 | 0 | 0 | 1,979 | 1-10 |
| W-200.00 | Land & Rights-of-Way Acquisition - Montgomery County | 231 | 0 | 0 | 231 | 58 | 173 | 0 | 0 | 0 | 0 | 58 | 1-12 |
| | Projects Pending Close-Out | 1,185 | 991 | 194 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1-13 |
| | **TOTAL MONTGOMERY COUNTY WATER PROJECTS** | 30,118 | 2,431 | 4,139 | 23,548 | 7,925 | 10,254 | 5,369 | 0 | 0 | 0 | 7,925 | |

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 063801 | W-3.02 | Change |

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **1,196** | 314 | 400 | **482** | 216 | 180 | 86 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **3,510** | | | **3,510** | 944 | 2,065 | 501 | | | | |
| Other | **659** | | 60 | **599** | 174 | 337 | 88 | | | | |
| **Total** | **5,365** | **314** | **460** | **4,591** | **1,334** | **2,582** | **675** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **5,365** | 314 | 460 | **4,591** | 1,334 | 2,582 | 675 | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the community outreach, planning, site selection, design, and construction of 1.0 million gallons (MG) of elevated storage to serve the Olney area. Demolition of the existing Olney Standpipe is part of this project.

**Service Area** Montgomery High Pressure Zone HG660 **Capacity** 1.5 MG

**JUSTIFICATION**

**Plans & Studies**

Montgomery County High Zone Facility Plan, Boyle Engineering (1991); WSSC 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 results in low-pressure complaints during the drawdown efforts. The existing Olney Standpipe with 1.8 MG of non-usable storage requires constant attention to maintain acceptable water quality.

**Cost Change**

The increase in construction costs for this project is a result of increasing the tank capacity from 1 MG to 1.5 MG. The increased tank capacity will allow the Commission to maximize reduced energy rates, provide greater flexibility in maintaining service for longer periods of time during emergencies, and decrease the need for frequent pumping. Additionally, from a system hydraulic perspective, the volume increase is compatible with the Olney location.

**STATUS** Facility Planning (WSSC Contract No. BE4473A06, ).

**OTHER**

The project scope has remained the same. Expenditures shown are planning level estimates only and may change depending on site-specific conditions and design constraints.

**COORDINATION**

Montgomery County Government and Maryland-National Capital Park & Planning Commission (anticipates receiving Mandatory Referral submissions from WSSC as the project reaches the preliminary design stage).

**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 | 468 | .... 14 |
| Total Costs | | 468 | .... 14 |
| Impact on Water or Sewer Rate | | | .... |

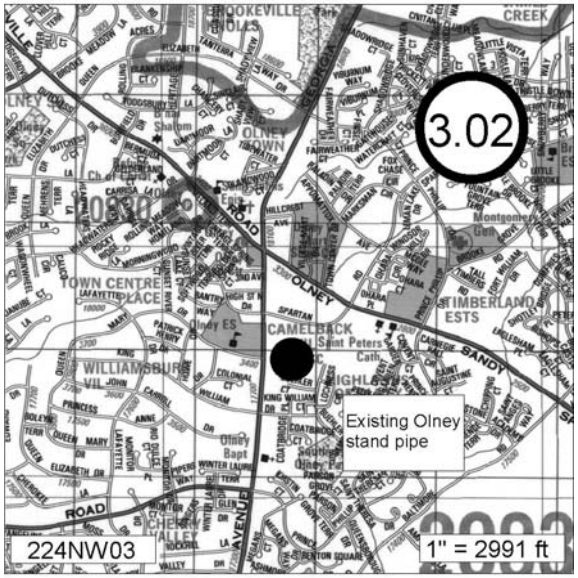
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 06 |
| Date First Approved | FY 06 |
| Initial Cost Estimate | 3,911 |
| Cost Estimate Last FY | 4,556 |
| Present Cost Estimate | 5,365 |
| Approved Request, Last FY | 475 |
| Total Expenditures & Encumbrances | 314 |
| Approval Request FY 11 | 1,334 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not determined |
| % Project Completion: | P-60% |
| Est. Completion Date: | January 2013 |

**H. Map** **Map Reference Code:**



## GERMANTOWN/CLARKSBURG AREA PROJECTS
(costs in thousands)

| PROJECT NUMBER | PROJECT NAME | ADOPTED FY'10 TOTAL COST | ADOPTED FY'11 TOTAL COST | CHANGE $ | CHANGE % | SIX-YEAR COST | COMPLETION DATE (est) |
|---|---|---|---|---|---|---|---|
| W-46.14 | Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3 | $4,694 | $3,586 | ($1,108) | -23.6% | $2,789 | Developer Dependent |
| W-46.15 | Clarksburg Elevated Water Storage Facility | 3,957 | 4,092 | 135 | 3.4% | 3,935 | FY 2013 |
| W-46.18 | Newcut Road Water Main, Part 2 | 825 | 825 | 0 | 0.0% | 635 | Developer Dependent |
| W-46.24 | Clarksburg Area Stage 3 Water Main, Part 4 | split | 1,954 | 1,954 | --- | 1,610 | Developer Dependent |
| | TOTALS | $9,476 | $10,457 | $981 | 10.4% | $8,969 | |

Summary: These projects are in response to the growth in the up-county area including Germantown and Clarksburg. The projects were identified in the General Plan, Clarksburg Master Plan, Montgomery County High Zone Supply Facility Plan-1990, Maryland-National Capital Park & Planning Commission Round 6.2 population forecasts, and numerous other studies. A portion of the Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3 project (W-46.14) to serve the areas designated as "Stage 3" in the Clarksburg Master Plan and Hyattstown Special Study Area was split out to create the Clarksburg Area Stage 3 Water Main, Part 4 project which will now be built by WSSC due to the developer moving forward to slowly to meet WSSC demand needs. 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. The Newcut Road Water Main, Part 2 project (W-46.18) will build 5,700 feet of water main along Newcut Road. The Clarksburg Town Center Water Main project (W-46.13) is expected to by completed in FY'10 and was removed from this table.

Cost Impact: Revised total cost estimates reflect the project split and adjustments for inflation.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 973818 | W-46.14 | Change |

2. Date: October 1, 2009
Revised:

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

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **581** | 141 | 320 | **120** | 96 | 24 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **2,555** | | 250 | **2,305** | 1,850 | 455 | | | | | |
| Other | **450** | | 86 | **364** | 292 | 72 | | | | | |
| **Total** | **3,586** | **141** | **656** | **2,789** | **2,238** | **551** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **3,586** | 141 | 656 | **2,789** | 2,238 | 551 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

Design and construction of this project will be performed in three parts: 9,300 feet of 24-inch diameter water main to the proposed Clarksburg Elevated Water Storage Facility (Project W-46.15); 2,670 feet of 16-inch and 24-inch diameter water main along Clarksburg Road and various streets; and 2,530 feet of 16-inch water main along the southbound I-270 ramp to Clarksburg Road (Md. Rte 121).

**Service Area** Brink Pressure Zone HG760

**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 June 1994.

**Cost Change**

The cost decrease is due to a portion of the project being split out into a separate project.

**STATUS** Final Design (WSSC Contract Nos. DA3326D02 , DA3326F02 , DA3326H02).

**OTHER**

The project scope has changed due to transfer of a portion of this project to WSSC Project W-46.24. Expenditures shown in Block B are planning level estimates only and may change depending on site-specific conditions and design constraints. The estimated completion schedule is developer dependent. No WSSC rate supported debt will be used for this project. Land costs are included in WSSC Project W-200.00.

**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 | 312 | 13 |
| | Debt Service | .... | .... |
| Total Costs | | 312 | 13 |
| Impact on Water or Sewer Rate | | .... | |

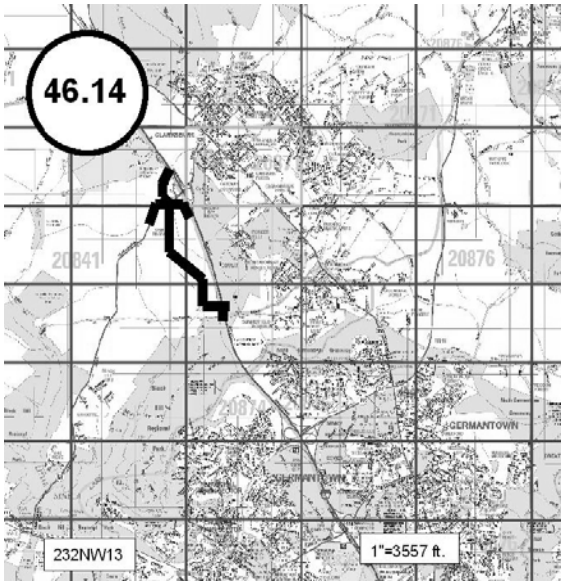
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 97 |
| Date First Approved | FY 97 |
| Initial Cost Estimate | 3,376 |
| Cost Estimate Last FY | 4,694 |
| Present Cost Estimate | 3,586 |
| Approved Request, Last FY | 2,231 |
| Total Expenditures & Encumbrances | 141 |
| Approval Request FY 11 | 2,238 |
| Supplemental Approval Request Current FY (10) | |

**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 |
|---|---|---|
| 973819 | W-46.15 | Change |

2. Date: October 1, 2009
Revised:

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **668** | 132 | 22 | **514** | 285 | 81 | 148 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **2,907** | | | **2,907** | | 1,718 | 1,189 | | | | |
| Other | **517** | | 3 | **514** | 43 | 270 | 201 | | | | |
| **Total** | **4,092** | **132** | **25** | **3,935** | **328** | **2,069** | **1,538** | | | | |

## C. Funding Schedule (000's)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SDC | **4,092** | 132 | 25 | **3,935** | 328 | 2,069 | 1,538 | | | | |

## D. Description & Justification

**DESCRIPTION**

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

**Service Area** Brink Pressure Zone HG760 **Capacity** 0.75 MG

**JUSTIFICATION**

**Plans & Studies**

Montgomery County High Zone Supply Facility Plan, WSSC; M-NCPP&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 needed in anticipation of rapid growth in the 760 pressure zone. Reevaluation of this project with Round 6.2 growth forecasts now indicates a storage deficit for this zone and a need to initiate this project. The facility plan dated December 2004 has 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**

Costs were increased for inflation.

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

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning level estimates only. This project has been delayed by the developer due to the recession and poor market conditions. The resulting decision of the Montgomery County Planning Board Mandatory Referral is for WSSC to hold a design charette to address the aesthetic and landscaping concerns and submit details of the final landscaping surrounding the facility before going into final design. Due to developer delays WSSC will take over the design and construction of the tank. Land costs are included in WSSC Project W-200.00.

**COORDINATION**

Montgomery County Government and Maryland-National Capital Park & Planning Commission (Mandatory Referral Hearing was held on April 3, 2008).

**NOTE** This project supports 100% Growth.

## E. Annual Operating Budget Impact (000's)

| | | | FY of Impact |
|---|---|---|---|
| Program Costs | Staff | .... | .... |
| | Other | .... | .... |
| Facility Costs | Maintenance | 40 | 14 |
| | Debt Service | .... | .... |
| Total Costs | | 40 | 14 |
| Impact on Water or Sewer Rate | | .... | |

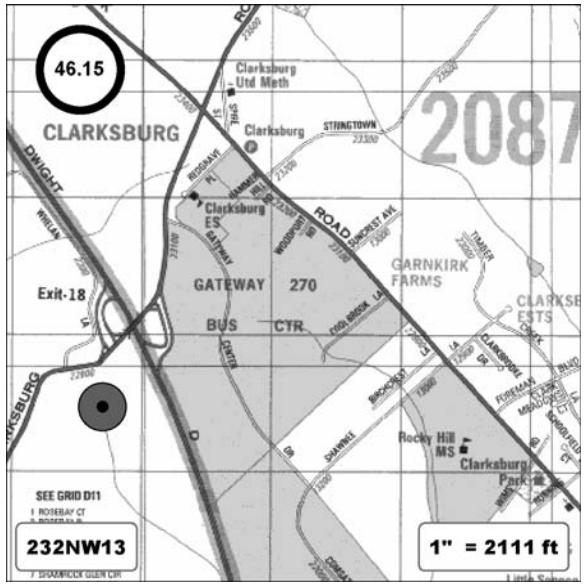
## F. Approval and Expenditure Data (000's)

| | |
|---|---|
| Date First in Capital Program | FY 97 |
| Date First Approved | FY 97 |
| Initial Cost Estimate | 138 |
| Cost Estimate Last FY | 3,957 |
| Present Cost Estimate | 4,092 |
| Approved Request, Last FY | 322 |
| Total Expenditures & Encumbrances | 132 |
| Approval Request FY 11 | 328 |
| Supplemental Approval Request Current FY (10) | |

## G. Status Information

| | |
|---|---|
| Land Status: | Site selected |
| % Project Completion: | D-0% |
| Est. Completion Date: | FY 2013 |

## 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, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **95** | 75 | 10 | **10** | 5 | 5 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **632** | | 90 | **542** | 200 | 342 | | | | | |
| Other | **98** | | 15 | **83** | 31 | 52 | | | | | |
| **Total** | **825** | **75** | **115** | **635** | **236** | **399** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **825** | 75 | 115 | **635** | 236 | 399 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of 5,700 feet of 16-inch diameter water main along Newcut Road between Route 355 and Skylark Road.

**Service Area** Cedar Heights Pressure Zone HG835

**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 & Hyattstown Special Study Area, approved and adopted in June 1994.

**Cost Change**

Not Applicable

**STATUS** Preliminary Design (WSSC Contract Nos. DA3263Q02 , DA3263S02 , DA4321Z06 , DA4446A06).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning-level estimates only and may change depending on site-specific conditions and design constraints. Design and construction will be performed by the developer under a System Extension Permit. The estimated completion schedule 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 | 64 | 13 |
| | Debt Service | .... | .... |
| Total Costs | | 64 | 13 |
| Impact on Water or Sewer Rate | | .... | |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 01 |
| Date First Approved | FY 01 |
| Initial Cost Estimate | 800 |
| Cost Estimate Last FY | 825 |
| Present Cost Estimate | 825 |
| Approved Request, Last FY | 236 |
| Total Expenditures & Encumbrances | 75 |
| Approval Request FY 11 | 236 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W required |
| % Project Completion: | D-80% |
| Est. Completion Date: | Developer Dependent |

**H. Map** **Map Reference Code:**

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 113800 | W-46.24 | Change |

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **330** | 68 | 100 | **162** | 155 | 7 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **1,378** | | 140 | **1,238** | 1,110 | 128 | | | | | |
| Other | **246** | | 36 | **210** | 190 | 20 | | | | | |
| **Total** | **1,954** | **68** | **276** | **1,610** | **1,455** | **155** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SDC | **1,954** | 68 | 276 | **1,610** | 1,455 | 155 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

Design and construction of this project will be performed in two parts: 4,000 feet of 24-inch diameter water main along Brink Road and Route 355 and 1,500 feet of 24-inch diameter water main along West Old Baltimore Road; and 2,400 feet of 24-inch diameter water main along West Old Baltimore Road.

**Service Area** Brink Pressure Zone HG760

**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**

Not Applicable

**STATUS** Final Design (WSSC Contract Nos. BL3326B02 , BL3326C02).

**OTHER**

The project scope was developed for the FY 2011 CIP and has a total cost of $1,954,000. This project was previously part of WSSC Project W-46.14. Expenditures shown in Block B are planning level estimates only and may change depending on site-specific conditions and design constraints. Due to delays by the developer WSSC will take over design and construction of the water mains. Land costs are included in WSSC Project W-200.00.

**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 and W-46.15, Clarksburg Elevated Water Storage Facility.

**NOTE** This project supports 100% Growth.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | 221 | .... | 13 |
| | Debt Service | | .... | |
| Total Costs | | 221 | .... | 13 |
| Impact on Water or Sewer Rate | | | .... | |

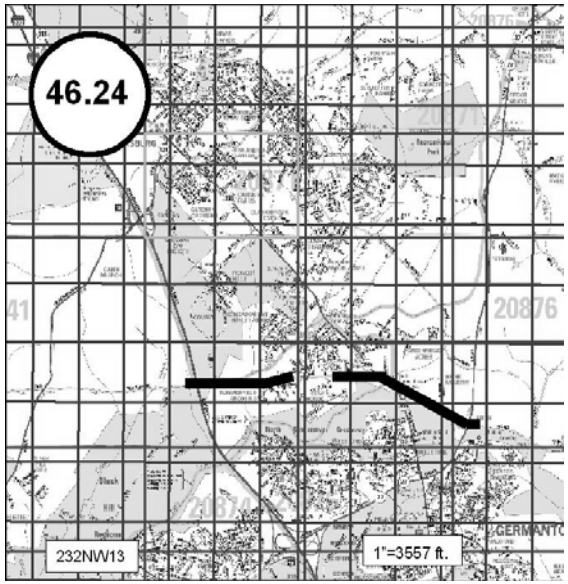
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 11 |
| Date First Approved | FY 97 |
| Initial Cost Estimate | 1,954 |
| Cost Estimate Last FY | |
| Present Cost Estimate | 1,954 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | 68 |
| Approval Request FY 11 | 1,455 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Right-of-Way may be required |
| % Project Completion: | D-50% |
| Est. Completion Date: | April 2012 |

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 093800 | W-113.19 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Countryside Drive Water Loop

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Colesville-White Oak & Vicinity P.A. 33

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **43** | 10 | 31 | **2** | 2 | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **222** | | 216 | **6** | 6 | | | | | | |
| Other | **38** | | 37 | **1** | 1 | | | | | | |
| **Total** | **303** | **10** | **284** | **9** | **9** | | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **303** | 10 | 284 | **9** | 9 | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of approximately 140 feet of 20-inch diameter water main. This short segment will complete an important supply connection for the HG560A Zone and the Colesville Elevated Storage Facility.

**Service Area** Colesville Pressure Zone HG560

**JUSTIFICATION**

**Plans & Studies**

2006 Water Production Projections; WSSC Memorandum dated April 17, 2007, from Nirmala Bennin.

**Specific Data**

WSSC records show the Hardings Subdivsion (Contract No. 846202A) was approved in 1984. This segment was to be completed at a later date under Contract No. 84BL6202L.

**Cost Change**

Not Applicable

**STATUS** Final Design

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning level estimates and may change based upon the site-specific conditions and design constraints.

**COORDINATION**

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

**NOTE** This project supports 100% System Improvement.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | 2 | .... | 12 |
| | Debt Service | 25 | .... | 12 |
| Total Costs | | 27 | .... | 12 |
| Impact on Water or Sewer Rate | | | .... | |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 09 |
| Date First Approved | FY 09 |
| Initial Cost Estimate | 276 |
| Cost Estimate Last FY | 284 |
| Present Cost Estimate | 303 |
| Approved Request, Last FY | 261 |
| Total Expenditures & Encumbrances | 10 |
| Approval Request FY 11 | 9 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not Applicable |
| % Project Completion: | D-80% |
| Est. Completion Date: | June 2010 |

**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, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **642** | | 251 | **391** | 250 | 71 | 70 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **6,364** | | | **6,364** | | 3,690 | 2,674 | | | | |
| Other | **1,052** | | 38 | **1,014** | 38 | 564 | 412 | | | | |
| **Total** | **8,058** | | **289** | **7,769** | **288** | **4,325** | **3,156** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **8,058** | | 289 | **7,769** | 288 | 4,325 | 3,156 | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of up to 3.0 million gallons (MG) of elevated storage to replace the existing Shady Grove Standpipe. This is in lieu of extensive and costly maintenance for the existing facility which, because of the large volume of unusable storage inherent in a standpipe as opposed to an elevated facility, contributes to water quality problems such as loss of disinfectant residual and increases in undesirable disinfectant by-products.

**Service Area** Montgomery High Pressure Zone HG660 **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 new USEPA regulations for disinfectant by-products and improving water quality.

**Cost Change**

Costs were increased for inflation.

**STATUS** Planning

**OTHER**

The project scope has remained the same. The schedule and expenditures shown in Block B are an Order of Magnitude estimate and may increase as the project proceeds.

**COORDINATION**

Maryland State Highway Administration, Montgomery County Government and Maryland-National Capital Park & Planning Commission.

**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 | 671 | .... | 14 |
| Total Costs | | 671 | .... | 14 |
| Impact on Water or Sewer Rate | | 1¢ | .... | 14 |

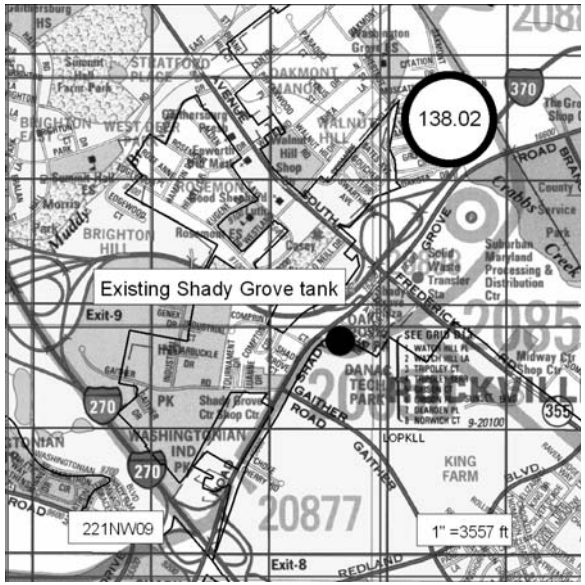
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 09 |
| Date First Approved | FY 09 |
| Initial Cost Estimate | 7,475 |
| Cost Estimate Last FY | 7,699 |
| Present Cost Estimate | 8,058 |
| Approved Request, Last FY | 299 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 288 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not Applicable |
| % Project Completion: | P-0% |
| Est. Completion Date: | March 2013 |

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 023800 | W-153.00 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Laytonsville Elevated Tank & Pumping Station
5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Goshen, Woodfield & Vicinity P.A. 14

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **900** | 700 | 100 | **100** | 100 | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **3,121** | | 1,500 | **1,621** | 1,621 | | | | | | |
| Other | **498** | | 240 | **258** | 258 | | | | | | |
| **Total** | **4,519** | **700** | **1,840** | **1,979** | **1,979** | | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SDC | **1,519** | 700 | 340 | **479** | 479 | | | | | | |
| Contribution/Other | **3,000** | | 1,500 | **1,500** | 1,500 | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

The project provides for the planning, design, and construction for the creation of a new pressure zone to serve the town of Laytonsville and surrounding communities. Community outreach, site selection, design, and construction of an 0.5 million gallon elevated storage tank and a 1.72 MGD pumping station will be part of this project. The purpose of this project is to provide public water service to existing residences and commercial properties in addition to new homes in the town of Laytonsville and the surrounding communities. To the extent that this project will add new hookups to WSSC's existing customer base, 100% of this project supports future growth. Refer to the definition of growth projects in the Expenditure Section of the Program Overview at the front of this document. The project schedule is dependent upon the developer providing the property for the tank site.

**Service Area** Montgomery High Pressure Zone HG660 **Capacity** 0.5 MG

**JUSTIFICATION**

**Plans & Studies**

Preliminary Study for the Proposed Water Service Area for Town of Laytonsville (October 1999); Memorandum dated October 18, 2001, from the Manager of the Well and Septic Section, Montgomery County Department of Permitting Services, to Water and Waste Water Management, Montgomery County Department of Environmental Protection, finding that connection to the public water system will help address problems caused by groundwater contamination and lack of available septic replacement areas; Montgomery County Ten-Year Comprehensive Water Supply and Sewerage Systems Plan.

**Specific Data**

The preliminary Study for Proposed Water Service Area for the Town of Laytonsville indicates that, due to high ground elevations, a new pressure zone which entails a pumping station and an elevated storage tank is required. In May 2001, under CR 14-857, the Montgomery County Council acted to permanently restrict the provision of community water service from any properties in the town currently zoned AG and from any properties adjacent to or near the town within the county zoned RDT. The Town of Laytonsville filed a formal application for water service with the WSSC in November 2001.

**Cost Change**

Costs were increased for inflation.

**STATUS** Various Stages of Planning & Design (WSSC Contract Nos. BM2938A00 , BM2938B00 , BM2938C00).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are estimates based on design estimates and may change based on final bid. It is estimated that an additional $1.85 million of non-CIP sized pipeline work will also be required. The expenditure and construction schedule presented above in Block B reflects that the WSSC, the Developer of the Faulk's property, and the Town of

**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 | | .... |

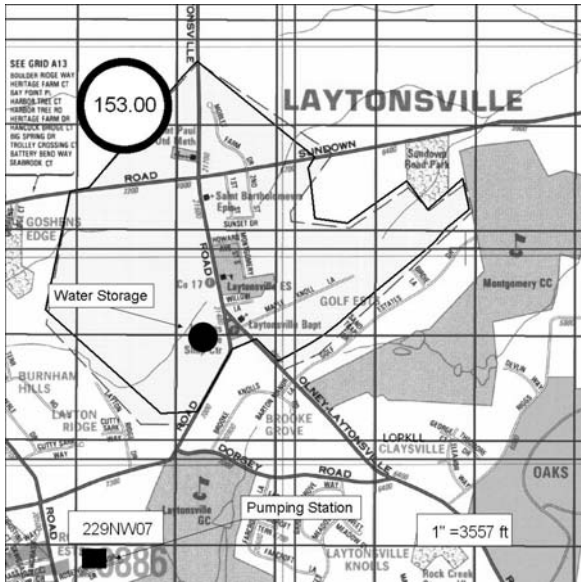
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 02 |
| Date First Approved | FY 02 |
| Initial Cost Estimate | 58 |
| Cost Estimate Last FY | 4,389 |
| Present Cost Estimate | 4,519 |
| Approved Request, Last FY | 696 |
| Total Expenditures & Encumbrances | 700 |
| Approval Request FY 11 | 1,979 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Site or R/W under negotiation |
| % Project Completion: | D-99% |
| Est. Completion Date: | April 2011 |

**H. Map** **Map Reference Code:**



**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: W - 153.00** **Project Name: Laytonsville Elevated Tank & Pumping Station**

Laytonsville have agreed to the funding mechanism for the Contribution/Other funding shown above in Block C. The project has been delayed due to the developer's revised grading plans and the need for additional soil investigation related to percolation.

**COORDINATION**

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

**NOTE** This project supports 100% Growth.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 983849 | W-200.00 | Change |

2. Date: October 1, 2009
Revised:

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

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

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | | | | | | | | | | | |
| Land | **200** | | | **200** | 50 | 150 | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | | | | | | | | | | | |
| Other | **31** | | | **31** | 8 | 23 | | | | | |
| **Total** | **231** | | | **231** | **58** | **173** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SDC | **197** | | | **197** | 41 | 156 | | | | | |
| Contribution/Other | **34** | | | **34** | 17 | 17 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This PDF provides a consolidated estimate of funding for the acquisition of land and rights-of-way for previously approved projects and new projects, as needed. 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 (DSP).

**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. This format change alleviates this restriction, especially for DSP projects, which depend upon actions of the Applicant. Other considerations include the accommodation of unpredictable delays for extended community outreach which impacts the timing of a planned purchase, unanticipated rights-of-way requirements for approved projects 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** Various Stages of Planning & Design

**OTHER**

The project scope has remained the same. The expenditures 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 description form elsewhere in this program.

**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 98 |
| Date First Approved | FY 98 |
| Initial Cost Estimate | |
| Cost Estimate Last FY | 231 |
| Present Cost Estimate | 231 |
| Approved Request, Last FY | 58 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 58 |
| Supplemental Approval Request Current FY (10) | |

**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:**

## PROJECTS PENDING CLOSE-OUT

**Montgomery County Water Projects**

**(costs in thousands)**

| Project Number | Agency Number | Project Name | Estimated Total Cost | Expenditures Thru FY'09 | Estimated Expenditures FY'10 | Remarks |
|---|---|---|---|---|---|---|
| 964860 | W-46.13 | Clarksburg Town Center Water Main | $1,185 | $991 | $194 | Project completion expected in FY'10. |
| | | **TOTALS** | $1,185 | $991 | $194 | |

# Section 2 - Montgomery County Sewer Projects

DATE: October 1, 2009

# FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

**MONTGOMERY COUNTY SEWER PROJECTS**

| AGENCY NUMBER | PROJECT NAME | EST. TOTAL COST | EXPEND THRU 09 | EST. EXPEND 10 | TOTAL SIX YEARS | EXPENDITURE SCHEDULE | | | | | | BUDGET REQUEST 11 | PDF PAGE NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | YR 1 11 | YR 2 12 | YR 3 13 | YR 4 14 | YR 5 15 | YR 6 16 | | |
| S-25.03 | Twinbrook Commons Sewer | 745 | 335 | 55 | 355 | 127 | 98 | 89 | 41 | 0 | 0 | 127 | 2-4 |
| S-38.01 | Preserve at Rock Creek Wastewater Pumping Station | 1,092 | 0 | 636 | 456 | 456 | 0 | 0 | 0 | 0 | 0 | 456 | 2-5 |
| S-38.02 | Preserve at Rock Creek WWPS Force Main | 348 | 16 | 12 | 320 | 165 | 155 | 0 | 0 | 0 | 0 | 165 | 2-6 |
| S-53.21 | Seneca WWTP Enhanced Nutrient Removal | 13,938 | 820 | 2,132 | 10,986 | 4,387 | 4,387 | 2,212 | 0 | 0 | 0 | 4,387 | 2-8 |
| S-53.22 | Seneca WWTP Expansion, Part 2 | 37,693 | 840 | 4,986 | 31,867 | 12,529 | 12,529 | 6,809 | 0 | 0 | 0 | 12,529 | 2-10 |
| S-61.01 | Reddy Branch Wastewater Pumping Station Augmentation | 172 | 0 | 0 | 172 | 172 | 0 | 0 | 0 | 0 | 0 | 172 | 2-11 |
| S-84.46 | Clarksburg Triangle Outfall Sewer, Part 1 | 1,756 | 1,624 | 118 | 14 | 14 | 0 | 0 | 0 | 0 | 0 | 14 | 2-13 |
| S-84.47 | Clarksburg Triangle Outfall Sewer, Part 2 | 2,256 | 13 | 337 | 1,906 | 1,243 | 663 | 0 | 0 | 0 | 0 | 1,243 | 2-14 |
| S-84.60 | Cabin Branch Wastewater Pumping Station | 2,082 | 9 | 14 | 2,059 | 595 | 1,464 | 0 | 0 | 0 | 0 | 595 | 2-15 |
| S-84.61 | Cabin Branch WWPS Force Main | 376 | 0 | 48 | 328 | 274 | 54 | 0 | 0 | 0 | 0 | 274 | 2-16 |
| S-84.64 | Casey West Property Sewer Main | 653 | 489 | 119 | 45 | 45 | 0 | 0 | 0 | 0 | 0 | 45 | 2-17 |
| S-84.65 | Tapestry Wastewater Pumping Station | 607 | 7 | 288 | 312 | 156 | 156 | 0 | 0 | 0 | 0 | 156 | 2-18 |
| S-84.66 | Tapestry WWPS Force Main | 118 | 8 | 43 | 67 | 46 | 21 | 0 | 0 | 0 | 0 | 46 | 2-19 |
| S-94.11 | Damascus Centre WWPS Replacement | 1,207 | 0 | 0 | 1,207 | 26 | 261 | 920 | 0 | 0 | 0 | 26 | 2-20 |
| S-94.12 | Damascus WWTP Enhanced Nutrient Removal | 7,147 | 746 | 2,194 | 4,207 | 3,702 | 505 | 0 | 0 | 0 | 0 | 3,702 | 2-21 |
| S-103.15 | White Flint East (North Bethesda Center) Sewer Main | 2,139 | 116 | 1,409 | 614 | 553 | 61 | 0 | 0 | 0 | 0 | 553 | 2-23 |

DATE: October 1, 2009

# FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

**MONTGOMERY COUNTY SEWER PROJECTS (Continued)**

| AGENCY NUMBER | PROJECT NAME | EST. TOTAL COST | EXPEND THRU 09 | EST. EXPEND 10 | TOTAL SIX YEARS | EXPENDITURE SCHEDULE | | | | | | BUDGET REQUEST 11 | PDF PAGE NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | YR 1 11 | YR 2 12 | YR 3 13 | YR 4 14 | YR 5 15 | YR 6 16 | | |
| S-201.00 | Land & Rights-of-Way Acquisition - Montgomery County | 369 | 0 | 345 | 24 | 12 | 12 | 0 | 0 | 0 | 0 | 12 | 2-24 |
| | Projects Pending Close-Out | 5,839 | 5,839 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 2-25 |
| | **TOTAL MONTGOMERY COUNTY SEWER PROJECTS** | 78,537 | 10,862 | 12,736 | 54,939 | 24,502 | 20,366 | 10,030 | 41 | 0 | 0 | 24,502 | |

## Montgomery County Sewer Projects
**New Projects Listing**
**(costs in thousands)**

| Agency Number | Project Name | Total Project Cost | Budget Year Cost | Page Number |
|---|---|---|---|---|
| S-61.01 | Reddy Branch WWPS Augmentation | $172 | $172 | 2-11 |
| | **TOTALS** | $172 | $172 | |

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 083801 | S-25.03 | Change |

2. Date: October 1, 2009

Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **204** | 170 | 10 | **24** | 10 | 10 | 2 | 2 | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **487** | 165 | 38 | **284** | 100 | 75 | 75 | 34 | | | |
| Other | **54** | | 7 | **47** | 17 | 13 | 12 | 5 | | | |
| **Total** | **745** | **335** | **55** | **355** | **127** | **98** | **89** | **41** | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **745** | 335 | 55 | **355** | 127 | 98 | 89 | 41 | | | |

**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, DA4159A05, is under construction and 50% complete. The second phase, DA4159B05, is in preliminary design and the expenditures shown in Block B may change based upon site specific conditions and design constraints. Estimated completion schedule 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 | 16 | .... | 16 |
| | Debt Service | 16 | .... | 16 |
| Total Costs | | 32 | .... | 15 |
| 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 | 726 |
| Present Cost Estimate | 745 |
| Approved Request, Last FY | 126 |
| Total Expenditures & Encumbrances | 335 |
| Approval Request FY 11 | 127 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not applicable |
| % Project Completion: | C-30% |
| 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, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **100** | | 50 | **50** | 50 | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **850** | | 500 | **350** | 350 | | | | | | |
| Other | **142** | | 86 | **56** | 56 | | | | | | |
| **Total** | **1,092** | | **636** | **456** | **456** | | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **1,092** | | 636 | **456** | 456 | | | | | | |

**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**

MNCPPC Upper Rock Creek Master Plan (April, 2004); The Hydraulic Planning Analysis for the Preserve at Rock Creek subdivision (January, 2009).

**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** Preliminary Design (WSSC Contract No. CP4770A08, ).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning-level estimates only and may change depending on site-specific conditions and design constraints. Estimated completion date is developer dependent. 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..... | | .... |

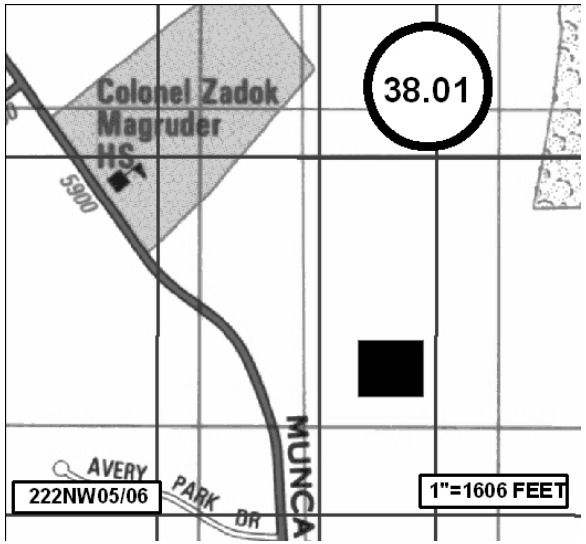
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 10 |
| Date First Approved | FY 10 |
| Initial Cost Estimate | 1,124 |
| Cost Estimate Last FY | 1,124 |
| Present Cost Estimate | 1,092 |
| Approved Request, Last FY | 572 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 456 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Site provided by applicant |
| % 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 |
|---|---|---|
| 103801 | S-38.02 | Change |

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **36** | 16 | 10 | **10** | 5 | 5 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **268** | | | **268** | 138 | 130 | | | | | |
| Other | **44** | | 2 | **42** | 22 | 20 | | | | | |
| **Total** | **348** | **16** | **12** | **320** | **165** | **155** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **348** | 16 | 12 | **320** | 165 | 155 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of 2,600 feet of 4-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**

MNCPPC Upper Rock Creek Area Master Plan (April, 2004); The Hydraulic Planning Analysis for the Preserve at Rock Creek subdivision (January, 2009).

**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** Preliminary Design (WSSC Contract No. DA4770Z08, ).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning-level estimates only and may change depending on site-specific conditions and design constraints. 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)**

| | | FY of Impact | | |
|---|---|---|---|---|
| Program Costs | Staff | | | |
| | Other | | | |
| Facility Costs | Maintenance | 31 | .... | 13 |
| | Debt Service | | | |
| Total Costs | | 31 | .... | 13 |
| Impact on Water or Sewer Rate | | | .... | |

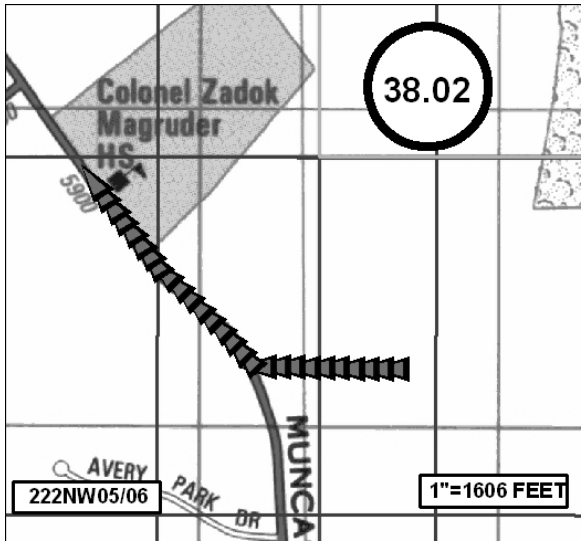
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 10 |
| Date First Approved | FY 10 |
| Initial Cost Estimate | 339 |
| Cost Estimate Last FY | |
| Present Cost Estimate | 348 |
| Approved Request, Last FY | 178 |
| Total Expenditures & Encumbrances | 16 |
| Approval Request FY 11 | 165 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not determined |
| % Project Completion: | D-0% |
| Est. Completion Date: | Developer dependent |

**H. Map** **Map Reference Code:**



## SENECA WASTEWATER TREATMENT PLANT PROJECTS
(costs in thousands)

| PROJECT NUMBER | PROJECT NAME | ADOPTED FY'10 TOTAL COST | ADOPTED FY'11 TOTAL COST | CHANGE $ | CHANGE % | SIX-YEAR COST | COMPLETION DATE (est) |
|---|---|---|---|---|---|---|---|
| S-53.21 | Seneca WWTP Enhanced Nutrient Removal | $13,279 | $13,938 | $659 | 5.0% | $10,986 | OCTOBER 2012 |
| S-53.22 | Seneca WWTP Expansion, Part 2 | 25,027 | 37,693 | 12,666 | 50.6% | 31,867 | OCTOBER 2012 |
| | TOTALS | $38,306 | $51,631 | $13,325 | 34.8% | $42,853 | |

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. The individual project description forms on the pages following this summary provide additional information.

Cost Impact: The Seneca WWTP Enhanced Nutrient Removal (ENR) project (S-53.21) costs were increased for inflation. The Seneca WWTP Expansion, Part 2 project (S-53.22) costs were increased to include an estimate for design services during construction and reflect revised estimates for the aeration basins and solids handling facilities available at the 70% design stage.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 073800 | S-53.21 | Change |

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **3,222** | 820 | 938 | **1,464** | 488 | 488 | 488 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **9,523** | | 1,000 | **8,523** | 3,500 | 3,500 | 1,523 | | | | |
| Other | **1,193** | | 194 | **999** | 399 | 399 | 201 | | | | |
| **Total** | **13,938** | **820** | **2,132** | **10,986** | **4,387** | **4,387** | **2,212** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State Aid | **13,938** | 820 | 2,132 | **10,986** | 4,387 | 4,387 | 2,212 | | | | |

**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 MDE's Environmental Nutrient Removal (ENR) Program at 20 MGD. The preliminary recommendation continues the operation of existing basins in the Modified Ludzack-Ettinger (MLE) mode and provides for an additional 150-foot clarifier and expansion of the filter gallery to include three 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 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)

**Specific Data**

As the result of an Executive Order issued by the Governor of Maryland in November, 2002 calling for Maryland wastewater plants to be upgraded to the "limits of technology" for nutrient removal, the Maryland Department of the Environment introduced the ENR Strategy in May, 2003. The ENR Strategy calls for assigning "load goals" to municipal wastewater treatment plants based on annual average effluent concentrations of total nitrogen (4 mg/l) and total phosphorous (0.3 mg/l), and permitted design capacity. These load goals have been incorporated into the Chesapeake Bay Program tributary strategies Maryland adopted in 2004.
The ENR Strategy also calls for wastewater treatment plants to continue optimizing nutrient removal performance and attempt to achieve an annual average effluent nitrogen concentration of 3 mg/l as a goal, not a permit limit. Maryland has proposed new water quality standards for the Chesapeake Bay. Once these standards have been adopted, the load goals of the ENR Strategy will be incorporated into NPDES permits as enforceable effluent limits. The more stringent concentration goals will remain as goals.

The ENR Strategy also calls for the creation of an ENR grant program to provide funding for the necessary wastewater treatment plant upgrades. The Chesapeake Bay Restoration Act was passed in 2004 and authorized the collection of a surcharge on water and sewer utility bills paid by Maryland residents and businesses. The funds are to be used largely to fund up to 100% of eligible planning, design, and construction costs for ENR upgrades, which are defined generally as the cost of converting a Biological Nutrient Removal (BNR) facility to an ENR facility. The definition of "eligible", while not specifically defined in the legislation, is interpreted as the necessary liquid treatment processes to meet the ENR program limits for total nitrogen and phosphorous.

**Cost Change**

Costs were increased for inflation.

**STATUS** Preliminary Design (WSSC Contract No. CD4260A05, ).

**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 | 22,862 |
| Cost Estimate Last FY | 13,279 |
| Present Cost Estimate | 13,938 |
| Approved Request, Last FY | 5,012 |
| Total Expenditures & Encumbrances | 820 |
| Approval Request FY 11 | 4,387 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W required |
| % Project Completion: | D-70% |
| Est. Completion Date: | October 2012 |

**H. Map** **Map Reference Code:**

MAP NOT AVAILABLE

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: S - 53.21** **Project Name: Seneca WWTP Enhanced Nutrient Removal**

**OTHER**

The project scope has remained the same. The project schedule and expenditures shown in Block B are preliminary design level estimates only and may change further based upon site specific conditions, design constraints and negotiations with the Maryland Department of the Environment (MDE). The project has been delayed as negotiations continue with MDE.

**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, 2009
Revised:

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

3. Project Name: Seneca WWTP Expansion, Part 2

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Lower Seneca P.A. 18

**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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **6,543** | 840 | 1,533 | **4,170** | 1,390 | 1,390 | 1,390 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **27,800** | | 3,000 | **24,800** | 10,000 | 10,000 | 4,800 | | | | |
| Other | **3,350** | | 453 | **2,897** | 1,139 | 1,139 | 619 | | | | |
| **Total** | **37,693** | **840** | **4,986** | **31,867** | **12,529** | **12,529** | **6,809** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SDC | **37,693** | 840 | 4,986 | **31,867** | 12,529 | 12,529 | 6,809 | | | | |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 08 |
| Date First Approved | FY 07 |
| Initial Cost Estimate | 16,478 |
| Cost Estimate Last FY | 25,027 |
| Present Cost Estimate | 37,693 |
| Approved Request, Last FY | 11,316 |
| Total Expenditures & Encumbrances | 840 |
| Approval Request FY 11 | 12,529 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Public/Agency owned land |
| % Project Completion: | D-70% |
| Est. Completion Date: | October 2012 |

**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 MDE's Environmental Nutrient Removal (ENR) Program at 26 MGD (an increase from 20 MGD). The preliminary recommendation is to provide an additional aeration basin, an additional 150-foot clarifier, expansion of the filter gallery to include four 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 26 MGD), and sludge system improvements. The sludge improvements consist of an additional centrifuge and sludge 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)

**Specific Data**

The Maryland Department of the Environment introduced the ENR Strategy in May, 2003, requiring Maryland wastewater plants to be upgraded to the "limits of technology" for nutrient removal. The ENR Strategy calls for eventual enforceable limits and more stringent goals regarding effluent concentrations of nitrogen and phosphorous. The ENR strategy also requires the creation of an ENR grant program to provide a funding mechanism for wastewater treatment plant upgrades.

**Cost Change**

Cost were increased to include an estimate for design services during construction and reflect revised estimates for the aeration basins and solids handling facilities available at the 70% design stage.

**STATUS** Preliminary Design (WSSC Contract No. CD4260B05, ).

**OTHER**

The project scope has remained the same. The schedule and expenditures shown in Block B are preliminary design level estimates only and may change further based upon site specific conditions, design constraints and negotiations with the Maryland Department of the Environment.

**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.

**H. Map** **Map Reference Code:**

**MAP NOT AVAILABLE**

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 113801 | S-61.01 | Add |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Reddy Branch WWPS Augmentation

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **150** | | | **150** | 150 | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | | | | | | | | | | | |
| Other | **22** | | | **22** | 22 | | | | | | |
| **Total** | **172** | | | **172** | **172** | | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SDC | **172** | | | **172** | 172 | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning and initial design of improvements to the Reddy Branch Wastewater Pumping Station. The capacity of the station is currently being evaluated as part of the Wastewater Pumping Station Capacity Evaluation. Any capacity expansion and/or other improvements are expected to occur within the existing footprint of the pumping station.

**Service Area** Rock Creek Drainage Basin **Capacity** To be determined.

**JUSTIFICATION**

**Plans & Studies**

Wastewater Pumping Station Capacity Evaluation, Sewer Basin Planning BOA (Contract No. PM0007A07); Rock Creek Basin Model Development, Calibration, and Application Report, WSSC Dynamic Hydraulic Sewer System Model Study (Contract No. CM4269A05)

**Specific Data**

The Production Team has recently identified reliability issues with the existing pumps in the Reddy Branch Wastewater Pumping Station.

**Cost Change**

Not applicable.

**STATUS** Facility Planning (WSSC Contract No. CM5059A09, ).

**OTHER**

The project scope was developed for the FY 2011 CIP and has a total project cost for planning of $172,000. Expenditures shown in Block B above provide for planning and preliminary design costs for the improvements identified and are expected to increase as the project moves into design and construction costs are added in future CIP's.

**COORDINATION**

Montgomery County Government, U.S. Environmental Protection Agency, Region III and WSSC Project S-170.07, Wastewater Pumping Station Capacity Evaluation.

**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 11 |
| Date First Approved | FY 11 |
| Initial Cost Estimate | 172 |
| Cost Estimate Last FY | |
| Present Cost Estimate | 172 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 172 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Public/Agency owned land |
| % Project Completion: | P-10% |
| Est. Completion Date: | Undetermined |

**H. Map** **Map Reference Code:**

**MAP NOT APPLICABLE**

## CABIN BRANCH AREA PROJECTS
(costs in thousands)

| PROJECT NUMBER | PROJECT NAME | ADOPTED FY'10 TOTAL COST | ADOPTED FY'11 TOTAL COST | CHANGE $ | CHANGE % | SIX-YEAR COST | COMPLETION DATE (est) |
|---|---|---|---|---|---|---|---|
| S-84.46 | Clarksburg Triangle Outfall Sewer, Part 1 | $1,783 | $1,756 | ($27) | -1.5% | $14 | Developer Dependent |
| S-84.47 | Clarksburg Triangle Outfall Sewer, Part 2 | 2,190 | 2,256 | 66 | 3.0% | 1,906 | Developer Dependent |
| S-84.60 | Cabin Branch WWPS | 2,021 | 2,082 | 61 | 3.0% | 2,059 | Development Dependent |
| S-84.61 | Cabin Branch WWPS Force Main | 365 | 376 | 11 | 3.0% | 328 | Development Dependent |
| S-84.64 | Casey West Property Sewer Main | 634 | 653 | 19 | 3.0% | 45 | Developer Dependent |
| | TOTALS | $6,993 | $7,123 | $130 | 1.9% | $4,352 | |

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. No projects were added or closed out of this group. The individual project description forms on the pages following this summary provide additional information.

Cost Impact: The Clarksburg Triangle Outfall Sewer, Part 1 project (S-84.46), was revised based upon information provided by the developer. Other project costs were increased for inflation.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 023806 | S-84.46 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Clarksburg Triangle Outfall Sewer, Part 1

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **164** | 78 | 84 | **2** | 2 | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **1,575** | 1,546 | 19 | **10** | 10 | | | | | | |
| Other | **17** | | 15 | **2** | 2 | | | | | | |
| **Total** | **1,756** | **1,624** | **118** | **14** | **14** | | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **1,756** | 1,624 | 118 | **14** | 14 | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design and construction of approximately 4,220 feet of 24-inch diameter outfall sewer along a tributary west of and parallel to U.S. Interstate 270 and south 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.

**Service Area** Seneca Creek Drainage Basin **Capacity** 9.4 MGD **Population** 12,250

**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 Area Stage 3 and 4 Facility Plan, Rodgers Consulting (December, 2004).

**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 No. DA3326G02, ).

**OTHER**

The project scope has remained the same. Design and construction will be performed by the developer under a System Extension Permit. Estimated completion schedule 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 and U.S. Fish and Wildlife Service.

**NOTE** This project supports 100% Growth.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact |
|---|---|---|---|
| Program Costs | Staff | .... | .... |
| | Other | .... | .... |
| Facility Costs | Maintenance | 65 | 10 |
| | Debt Service | .... | .... |
| Total Costs | | 65 | 12 |
| Impact on Water or Sewer Rate | | | .... |

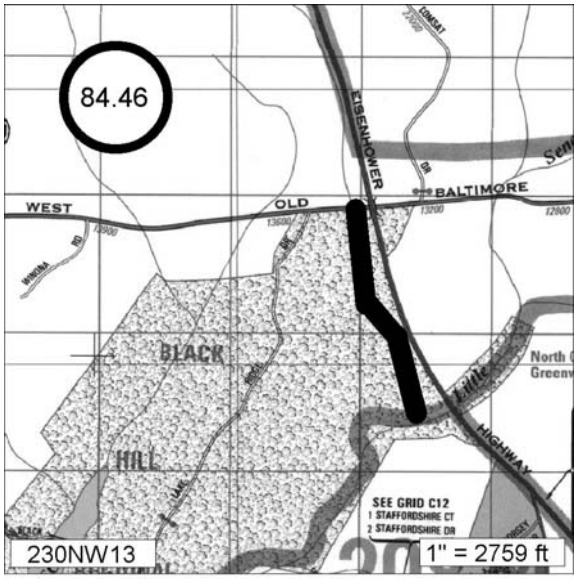
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 02 |
| Date First Approved | FY 02 |
| Initial Cost Estimate | 22 |
| Cost Estimate Last FY | 1,783 |
| Present Cost Estimate | 1,756 |
| Approved Request, Last FY | 35 |
| Total Expenditures & Encumbrances | 1,624 |
| Approval Request FY 11 | 14 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Site or R/W acquired |
| % Project Completion: | C-95% |
| Est. Completion Date: | Developer Dependent |

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 023811 | S-84.47 | Change |

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **392** | 13 | 172 | **207** | 155 | 52 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **1,571** | | 121 | **1,450** | 926 | 524 | | | | | |
| Other | **293** | | 44 | **249** | 162 | 87 | | | | | |
| **Total** | **2,256** | **13** | **337** | **1,906** | **1,243** | **663** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **2,256** | 13 | 337 | **1,906** | 1,243 | 663 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design and construction of approximately 800 feet of 24-inch, 3,300 feet of 21-inch, and 3,500 feet of 18-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** 9.0 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 Stage 3 and 4 Area Facility Plan, Rodgers Consulting (December, 2004).

**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** Preliminary Design (WSSC Contract No. DA3326D02, ).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning level estimates only, and may change depending on pipe size decisions, site specific conditions and design constraints. Estimated completion schedule 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 Project S-84.46, Clarksburg Triangle Outfall Sewer, Part 1.

**NOTE** This project supports 100% Growth.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact |
|---|---|---|---|
| Program Costs | Staff | .... | .... |
| | Other | .... | .... |
| Facility Costs | Maintenance | 86 | 13 |
| | Debt Service | .... | .... |
| Total Costs | | 86 | 13 |
| Impact on Water or Sewer Rate | | .... | |

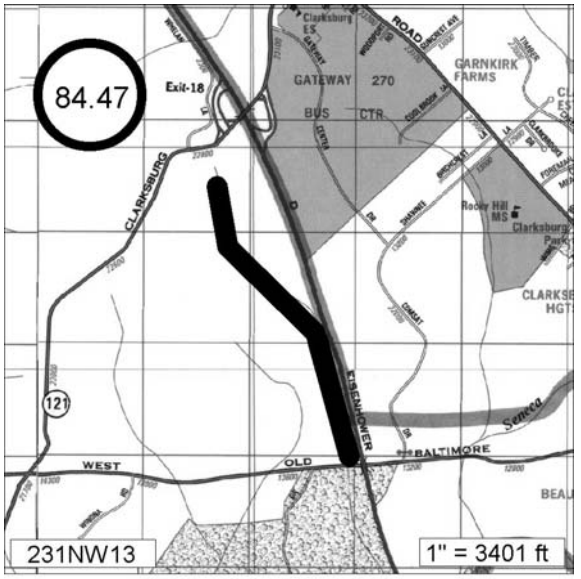
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 02 |
| Date First Approved | FY 02 |
| Initial Cost Estimate | 22 |
| Cost Estimate Last FY | 2,190 |
| Present Cost Estimate | 2,256 |
| Approved Request, Last FY | 1,208 |
| Total Expenditures & Encumbrances | 13 |
| Approval Request FY 11 | 1,243 |
| Supplemental Approval Request Current FY (10) | |

**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 |
|---|---|---|
| 023807 | S-84.60 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Cabin Branch 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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **434** | 9 | 12 | **413** | 201 | 212 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **1,377** | | | **1,377** | 316 | 1,061 | | | | | |
| Other | **271** | | 2 | **269** | 78 | 191 | | | | | |
| **Total** | **2,082** | **9** | **14** | **2,059** | **595** | **1,464** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **2,082** | 9 | 14 | **2,059** | 595 | 1,464 | | | | | |

**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 Stage 3 and 4 Area Facility Plan, Rodgers Consulting (December, 2004).

**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**

Costs were increased for inflation.

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

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning estimates only. 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..... | | .... |

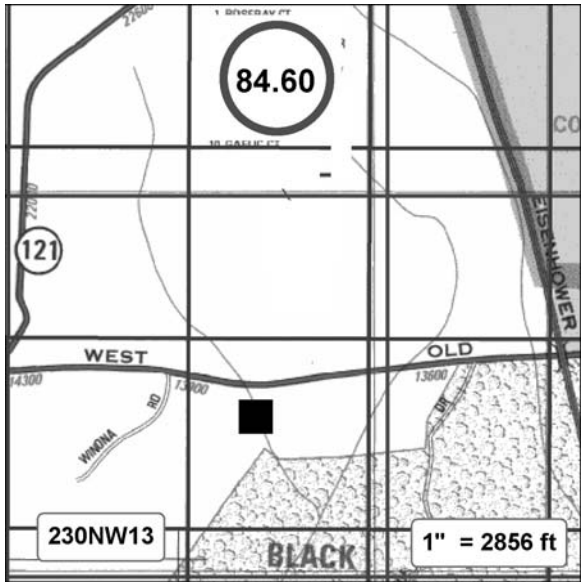
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 02 |
| Date First Approved | FY 02 |
| Initial Cost Estimate | 22 |
| Cost Estimate Last FY | 2,021 |
| Present Cost Estimate | 2,082 |
| Approved Request, Last FY | 531 |
| Total Expenditures & Encumbrances | 9 |
| Approval Request FY 11 | 595 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

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

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

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

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **82** | | 42 | **40** | 30 | 10 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **245** | | | **245** | 208 | 37 | | | | | |
| Other | **49** | | 6 | **43** | 36 | 7 | | | | | |
| **Total** | **376** | | **48** | **328** | **274** | **54** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **376** | | 48 | **328** | 274 | 54 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of 1,900 feet of 10-inch diameter sewerage 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 Stage 3 and 4 Area Facility Plan, Rodgers Consulting (December, 2004).

**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. Expenditures shown in Block B are planning level estimates only and may change depending on pipe size decisions, site specific conditions, and design constraints. 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-201.00.

**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 | 29 | .... | 13 |
| | Debt Service | | .... | |
| Total Costs | | 29 | .... | 13 |
| Impact on Water or Sewer Rate | | | .... | |

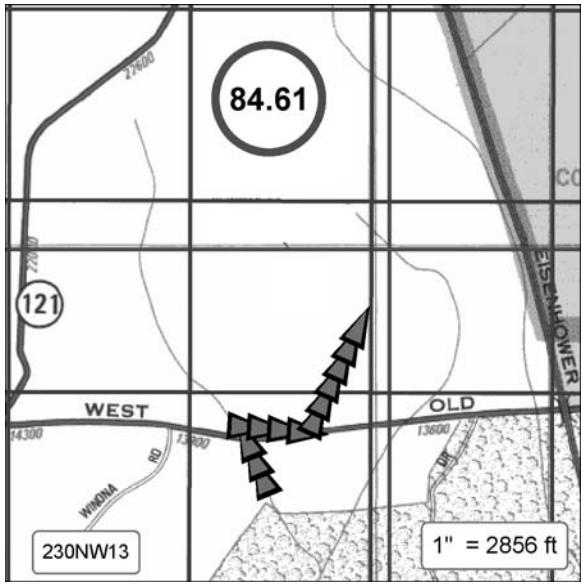
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 02 |
| Date First Approved | FY 02 |
| Initial Cost Estimate | 22 |
| Cost Estimate Last FY | 365 |
| Present Cost Estimate | 376 |
| Approved Request, Last FY | 265 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 274 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Right-of-Way may be required |
| % Project Completion: | P-85% |
| Est. Completion Date: | Development Dependent |

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 053800 | S-84.64 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Casey West Property Sewer Main

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: City of Gaithersburg P.A. 21

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **177** | 173 | 2 | **2** | 2 | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **454** | 316 | 101 | **37** | 37 | | | | | | |
| Other | **22** | | 16 | **6** | 6 | | | | | | |
| **Total** | **653** | **489** | **119** | **45** | **45** | | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **653** | 489 | 119 | **45** | 45 | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the design and construction of 165 feet of 16-inch diameter and 922 feet of 15-inch diameter sewer main to serve the Casey West property.

**Service Area** Seneca Creek Drainage Basin **Capacity** 1.6 to 2.5 MGD **Population** 1,255

**JUSTIFICATION**

**Plans & Studies**

Phase I Letter of Findings for The Parklands subdivision and design plans

**Cost Change**

Not applicable.

**STATUS** Under Construction (WSSC Contract Nos. DA3542A03 , DA3542D03).

**OTHER**

The project scope has remained the same. 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**

Montgomery County Government, City of Gaithersburg and Maryland Department of Natural Resources.

**NOTE** This project supports 100% Growth.

**E. Annual Operating Budget Impact (000's)**

| | | FY of Impact | | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | 23 | .... | 13 |
| | Debt Service | | .... | |
| Total Costs | | 23 | .... | 13 |
| Impact on Water or Sewer Rate | | | .... | |

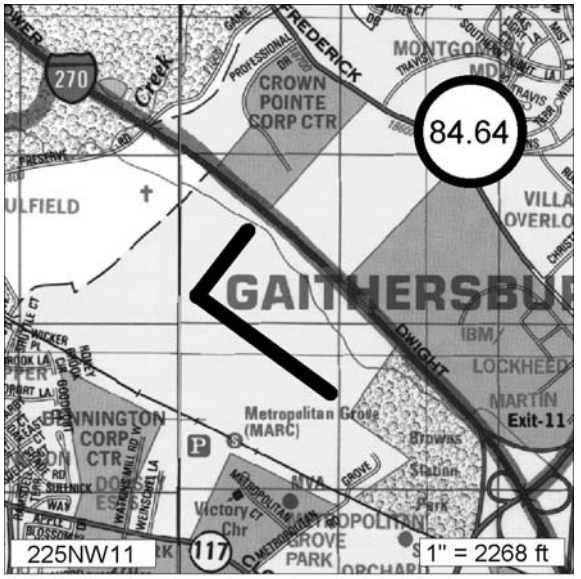
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 05 |
| Date First Approved | FY 05 |
| Initial Cost Estimate | 533 |
| Cost Estimate Last FY | 634 |
| Present Cost Estimate | 653 |
| Approved Request, Last FY | 206 |
| Total Expenditures & Encumbrances | 489 |
| Approval Request FY 11 | 45 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | R/W acquired |
| % 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 |
|---|---|---|
| 083803 | S-84.65 | Change |

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **106** | 7 | 33 | **66** | 33 | 33 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **423** | | 217 | **206** | 103 | 103 | | | | | |
| Other | **78** | | 38 | **40** | 20 | 20 | | | | | |
| **Total** | **607** | **7** | **288** | **312** | **156** | **156** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **607** | 7 | 288 | **312** | 156 | 156 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of a 0.34 MGD wastewater pumping station to serve the Tapestry Subdivision.

**Service Area** Seneca Creek Drainage Basin **Capacity** 0.34 MGD **Population** 590

**JUSTIFICATION**

**Plans & Studies**

Tapestry Subdivision Hydraulic Planning Analysis (March, 2006)

**Cost Change**

Not applicable

**STATUS** Planning (WSSC Contract No. DA3993Z04, ).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning level estimates only, and may change depending on site specific conditions and design constraints. 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..... | | .... |

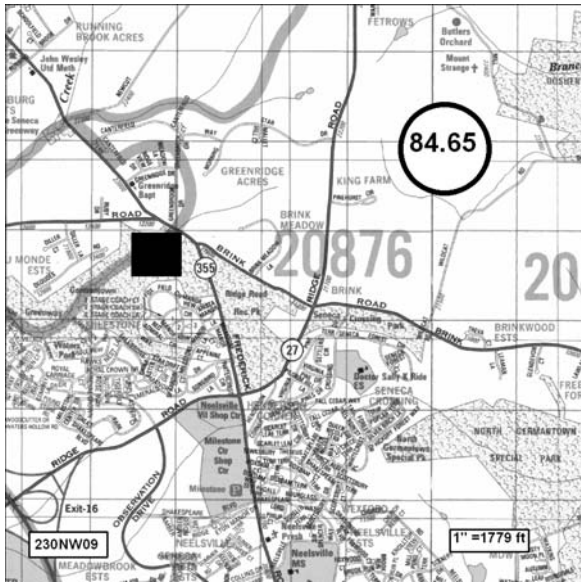
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 08 |
| Date First Approved | FY 08 |
| Initial Cost Estimate | 552 |
| Cost Estimate Last FY | 573 |
| Present Cost Estimate | 607 |
| Approved Request, Last FY | 144 |
| Total Expenditures & Encumbrances | 7 |
| Approval Request FY 11 | 156 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not applicable |
| % 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, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **21** | 8 | 5 | **8** | 5 | 3 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **82** | | 32 | **50** | 35 | 15 | | | | | |
| Other | **15** | | 6 | **9** | 6 | 3 | | | | | |
| **Total** | **118** | **8** | **43** | **67** | **46** | **21** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **118** | 8 | 43 | **67** | 46 | 21 | | | | | |

**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 Hydraulic Planning Analysis (March, 2006)

**Cost Change**

Not Applicable

**STATUS** Planning

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning level estimates only, and may change depending on site specific conditions and design constraints. 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-84.65, Tapestry 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 | 33 | 13 |
| | Debt Service | .... | .... |
| Total Costs | | 33 | 13 |
| 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 | 113 |
| Present Cost Estimate | 118 |
| Approved Request, Last FY | 45 |
| Total Expenditures & Encumbrances | 8 |
| Approval Request FY 11 | 46 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not applicable |
| % 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 |
|---|---|---|
| 063802 | S-94.11 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Damascus Centre WWPS Replacement

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Damascus & Vicinity P.A. 11

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **350** | | | **350** | 23 | 227 | 100 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **700** | | | **700** | | | 700 | | | | |
| Other | **157** | | | **157** | 3 | 34 | 120 | | | | |
| **Total** | **1,207** | | | **1,207** | **26** | **261** | **920** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **1,207** | | | **1,207** | 26 | 261 | 920 | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of a new 0.29 MGD wastewater pumping station to replace the existing Damascus Centre WWPS.

**Service Area** Patuxent North Drainage Basin **Capacity** 0.29 MGD **Population** Damascus Centre Shopping Center and nearby commercial and residential areas.

**JUSTIFICATION**

**Plans & Studies**

Memorandum dated April 6, 2004, from Brian Mosby thru Tom Heikkinen to Steve Gerwin; Design Guideline DG-08.

**Specific Data**

This project is needed to replace the existing Damascus Centre WWPS, a privately-built package plant that was taken over by WSSC in the 1970's. The existing station is plagued with numerous problems and design deficiencies.

**Cost Change**

The costs were increased to reflect the higher expected cost to replace the existing station.

**STATUS** Planning (WSSC Contract No. CP4508A06, ).

**OTHER**

The project scope has remained the same. Costs shown are preliminary planning level estimates only and may change based upon site specific conditions and design constraints. The cost estimate is based on replacement of the existing station with a new station constructed to the new DG-08 Design Guideline for small wastewater pumping stations. If possible, WSSC will coordinate the location and design of the project with development interests in the Damascus Town Center area regarding options to also serve master plan-recommended projects from the replacement WWPS. Due to budgetary constraints this project was deferred in the FY'10 mid-cycle update. Land costs are included in WSSC Project S-201.00.

**COORDINATION**

Montgomery County Government, Maryland-National Capital Park & Planning Commission and Montgomery County Department of Environmental Protection (Draft Damascus Master Plan).

**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 | 40 | .... | 12 |
| Total Costs | | 40 | .... | 12 |
| Impact on Water or Sewer Rate | | | .... | |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 06 |
| Date First Approved | FY 06 |
| Initial Cost Estimate | 460 |
| Cost Estimate Last FY | 544 |
| Present Cost Estimate | 1,207 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 26 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Site not selected |
| % Project Completion: | P-0% |
| Est. Completion Date: | FY 2013 |

**H. Map** **Map Reference Code:**

**MAP NOT AVAILABLE**

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 073801 | S-94.12 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Damascus WWTP Enhanced Nutrient Removal

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Damascus & Vicinity P.A. 11

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **1,542** | 746 | 318 | **478** | 239 | 239 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **4,770** | | 1,590 | **3,180** | 2,980 | 200 | | | | | |
| Other | **835** | | 286 | **549** | 483 | 66 | | | | | |
| **Total** | **7,147** | **746** | **2,194** | **4,207** | **3,702** | **505** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **429** | 45 | 132 | **252** | 222 | 30 | | | | | |
| State Aid | **6,718** | 701 | 2,062 | **3,955** | 3,480 | 475 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of improvements at the Damascus WWTP necessary to meet the requirements of MDE's Enhanced Nutrient Removal (ENR) Program. The preliminary recommendation was to convert existing basin configuration to Bardenpho process and provide methanol feed capability. After additional study, the existing two process trains will be divided into four process trains which will provide tankage/process redundancy for periodic maintenance. Splitting the existing process trains into four trains also allows the treatment capacity to closer match the current influent flows. The carbon source will be designed for methanol and several other biodiesel byproducts.

**Service Area** Patuxent North Drainage Basin

**JUSTIFICATION**

**Plans & Studies**

ENR Alternatives for Damascus WWTP, Gannett Fleming (June, 2005); Maryland Department of the Environment, Feasibility Study Approval Letter (July 27, 2005); Maryland Department of the Environment, Eligibility Determination Letter (December 22, 2008)

**Specific Data**

As the result of an Executive Order issued by the Governor of Maryland in November, 2002 calling for Maryland wastewater plants to be upgraded to the "limits of technology" for nutrient removal, the Maryland Department of the Environment introduced the ENR Strategy in May, 2003. The ENR Strategy calls for assigning "load goals" to municipal wastewater treatment plants based on annual average effluent concentrations of total nitrogen (4 mg/l) and total phosphorous (0.3 mg/l), and permitted design capacity. These load goals have been incorporated into the Chesapeake Bay Program tributary strategies Maryland adopted in 2004.
The ENR Strategy also calls for wastewater treatment plants to continue optimizing nutrient removal performance and attempt to achieve an annual average effluent nitrogen concentration of 3 mg/l as a goal, not a permit limit. Maryland has proposed new water quality standards for the Chesapeake Bay. Once these standards have been adopted, the load goals of the ENR Strategy will be incorporated into NPDES permits as enforceable effluent limits. The more stringent concentration goals will remain as goals.

The ENR Strategy also calls for the creation of an ENR grant program to provide funding for the necessary wastewater treatment plant upgrades. The Chesapeake Bay Restoration Act was passed in 2004 and authorized the collection of a surcharge on water and sewer utility bills paid by Maryland residents and businesses. The funds are to be used largely to fund up to 100% of eligible planning, design, and construction costs for ENR upgrades, which are defined generally as the cost of converting a Biological Nutrient Removal (BNR) facility to an ENR facility. The definition of "eligible", while not specifically defined in the legislation, is interpreted as the necessary liquid treatment processes to meet the ENR program limits for total nitrogen and phosphorous.
.

**E. Annual Operating Budget Impact (000's)**

| | | FY of Impact | | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 37 | .... | 13 |
| Total Costs | | 37 | .... | 13 |
| 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 | 1,560 |
| Cost Estimate Last FY | 5,805 |
| Present Cost Estimate | 7,147 |
| Approved Request, Last FY | 5,149 |
| Total Expenditures & Encumbrances | 746 |
| Approval Request FY 11 | 3,702 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W required |
| % Project Completion: | D-95% |
| Est. Completion Date: | July 2011 |

**H. Map** **Map Reference Code:**

MAP NOT AVAILABLE

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: S - 94.12** **Project Name: Damascus WWTP Enhanced Nutrient Removal**

.

**Cost Change**

The cost estimate for this project has been revised to reflect the current construction cost estimate and the final cost sharing agreement with the Maryland Department of the Envirionment.

**STATUS** Preliminary Design (WSSC Contract No. CD4261A05, ).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are based upon preliminary design estimates and may change based upon site specific conditions, additional design constraints. The expenditure estimates and funding schedule reflect the final cost sharing agreement with the Maryland Department of the Environment.

**COORDINATION**

Montgomery County Government, Montgomery County Department of Environmental Protection and Maryland Department of the Environment.

**NOTE** This project supports 100% Environmental Regulation.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 063803 | S-103.15 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: White Flint East (North Bethesda Center) Sewer Main

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **211** | 116 | 75 | **20** | 18 | 2 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **1,664** | | 1,150 | **514** | 463 | 51 | | | | | |
| Other | **264** | | 184 | **80** | 72 | 8 | | | | | |
| **Total** | **2,139** | **116** | **1,409** | **614** | **553** | **61** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **2,139** | 116 | 1,409 | **614** | 553 | 61 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design and construction of up to 625 feet of 15-inch diameter, 1,065 feet of 16-inch diameter, and 580 feet of 18-inch diameter replacement/relief sewer to serve the North Bethesda Center.

**Service Area** Rock Creek Drainage Basin **Capacity** 1.4 to 4.5 MGD **Population** 2,660

**JUSTIFICATION**

**Cost Change**

Costs were increased based upon higher cost estimates to tunnel under CSX Railroad and accommodate existing utilities, storm drains and other site specific conditions.

**STATUS** Final Design (WSSC Contract No. DA3079C01, ).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning level estimates only, and may change depending on site specific conditions and design constraints. 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, Montgomery County Department of Environmental Protection, CSX Railroad and Maryland Department of the Environment.

**NOTE** This project supports 100% Growth.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact |
|---|---|---|---|
| Program Costs | Staff | .... | .... |
| | Other | .... | .... |
| Facility Costs | Maintenance | 33 | 13 |
| | Debt Service | .... | .... |
| Total Costs | | 33 | 13 |
| Impact on Water or Sewer Rate | | .... | |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 06 |
| Date First Approved | FY 06 |
| Initial Cost Estimate | 1,053 |
| Cost Estimate Last FY | 1,180 |
| Present Cost Estimate | 2,139 |
| Approved Request, Last FY | 152 |
| Total Expenditures & Encumbrances | 116 |
| Approval Request FY 11 | 553 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not applicable |
| % Project Completion: | D-60% |
| Est. Completion Date: | Developer Dependent |

**H. Map** **Map Reference Code:**

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 983854 | S-201.00 | Change |

2. Date: October 1, 2009
Revised:

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

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

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | | | | | | | | | | | |
| Land | **320** | | 300 | **20** | 10 | 10 | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | | | | | | | | | | | |
| Other | **49** | | 45 | **4** | 2 | 2 | | | | | |
| **Total** | **369** | | **345** | **24** | **12** | **12** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **345** | | 345 | | | | | | | | |
| 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 previously approved projects and new projects, as needed. 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 (DSP).

**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. This format change alleviates this restriction, especially for DSP projects, which depend upon actions of the Applicant. Other considerations include the accommodation of unpredictable delays for extended community outreach which impacts the timing of a planned purchase, unanticipated rights-of-way requirements for approved projects 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** Various Stages of Planning & Design

**OTHER**

The project scope has remained the same. The expenditures 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 description form elsewhere in this program.

**NOTE** This project supports 7% Growth and 93% System Improvement.

**E. Annual Operating Budget Impact (000's)**

| | | FY of Impact | |
|---|---|---|---|
| Program Costs | Staff | .... | .... |
| | Other | .... | .... |
| Facility Costs | Maintenance | .... | .... |
| | Debt Service | 37 | 12 |
| Total Costs | | 37 | 12 |
| 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 | |
| Cost Estimate Last FY | 369 |
| Present Cost Estimate | |
| Approved Request, Last FY | 12 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 12 |
| Supplemental Approval Request Current FY (10) | |

**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:**

## PROJECTS PENDING CLOSE-OUT

**Montgomery County Sewer Projects**
**(costs in thousands)**

| Project Number | Agency Number | Project Name | Estimated Total Cost | Expenditures Thru FY'09 | Estimated Expenditures FY'10 | Remarks |
|---|---|---|---|---|---|---|
| 973820 | S-49.15 | Rock Creek Wastewater Facilities | $5,839 | $5,839 | $0 | Project completed. |
| | | **TOTALS** | $5,839 | $5,839 | $0 | |

# Section 3 - Bi-County Water Projects

DATE: October 1, 2009

# FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

**BI-COUNTY WATER PROJECTS**

| AGENCY NUMBER | PROJECT NAME | EST. TOTAL COST | EXPEND THRU 09 | EST. EXPEND 10 | TOTAL SIX YEARS | EXPENDITURE SCHEDULE | | | | | | BUDGET REQUEST 11 | PDF PAGE NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | YR 1 11 | YR 2 12 | YR 3 13 | YR 4 14 | YR 5 15 | YR 6 16 | | |
| W-73.16 | Potomac WFP Improvements | 131,401 | 107,717 | 21,154 | 2,530 | 2,530 | 0 | 0 | 0 | 0 | 0 | 2,530 | 3-4 |
| W-73.18 | Power Reliability and Arc Flash Studies | 3,709 | 83 | 889 | 2,737 | 1,718 | 1,019 | 0 | 0 | 0 | 0 | 1,718 | 3-5 |
| W-73.19 | Potomac WFP Outdoor Substation No. 2 Replacement | 7,934 | 0 | 0 | 7,934 | 132 | 460 | 3,628 | 2,432 | 1,282 | 0 | 132 | 3-6 |
| W-73.20 | Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation | 7,959 | 20 | 808 | 7,131 | 4,531 | 2,600 | 0 | 0 | 0 | 0 | 4,531 | 3-7 |
| W-73.30 | Potomac WFP Submerged Channel Intake | 25,209 | 1,776 | 0 | 23,433 | 616 | 1,540 | 1,793 | 6,886 | 9,650 | 2,948 | 616 | 3-8 |
| W-127.01 | Bi-County Water Tunnel | 168,971 | 13,696 | 38,895 | 116,380 | 42,306 | 41,121 | 28,822 | 4,131 | 0 | 0 | 42,306 | 3-10 |
| W-139.02 | Duckett & Brighton Dam Upgrades | 27,029 | 1,471 | 858 | 24,700 | 10,292 | 12,350 | 2,058 | 0 | 0 | 0 | 10,292 | 3-13 |
| W-161.01 | Large Diameter Pipe Rehabilitation Program | 60,000 | 0 | 0 | 60,000 | 5,000 | 7,000 | 9,000 | 11,000 | 13,000 | 15,000 | 5,000 | 3-14 |
| W-172.05 | Patuxent WFP Phase II Expansion | 32,673 | 2,433 | 880 | 29,360 | 8,063 | 13,451 | 7,846 | 0 | 0 | 0 | 8,063 | 3-17 |
| W-172.07 | Patuxent Raw Water Pipeline | 21,371 | 6,248 | 0 | 15,123 | 990 | 7,212 | 6,921 | 0 | 0 | 0 | 990 | 3-18 |
| W-172.08 | Rocky Gorge Pump Station Upgrade | 15,621 | 2,011 | 1,010 | 12,600 | 301 | 6,177 | 5,775 | 347 | 0 | 0 | 301 | 3-20 |
| W-202.00 | Land & Rights-of-Way Acquisition - Bi-County | 100 | 0 | 45 | 55 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 3-21 |
| | **TOTAL BI-COUNTY WATER PROJECTS** | 501,977 | 135,455 | 64,539 | 301,983 | 76,479 | 92,985 | 65,843 | 24,796 | 23,932 | 17,948 | 76,479 | |

## Bi-County Water Projects
### New Projects Listing
### (costs in thousands)

| Agency Number | Project Name | Total Project Cost | Budget Year Cost | Page Number |
|---|---|---|---|---|
| W-73.19 | Potomac WFP Outdoor Substation No. 2 Replacements | $7,934 | $132 | 3-6 |
| W-73.20 | Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation | 7,959 | 4,531 | 3-7 |
| W-161.01 | Large Diameter Pipe Rehabilitation Program | 60,000 | 5,000 | 3-14 |
| | **TOTALS** | $75,893 | $9,663 | |

## POTOMAC WATER FILTRATION PLANT PROJECTS
(costs in thousands)

| PROJECT NUMBER | PROJECT NAME | ADOPTED FY'10 TOTAL COST | ADOPTED FY'11 TOTAL COST | CHANGE $ | CHANGE % | SIX-YEAR COST | COMPLETION DATE (est) |
|---|---|---|---|---|---|---|---|
| W-73.16 | Potomac WFP Improvements | $132,628 | $131,401 | ($1,227) | -0.9% | $2,530 | MAY 2010 |
| W-73.19 | Potomac WFP Outdoor Substation No. 2 Replacement | new | 7,934 | 7,934 | --- | 7,934 | FY 2015 |
| W-73.20 | Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation | new | 7,959 | 7,959 | --- | 7,131 | APRIL 2012 |
| W-73.30 | Potomac WFP Submerged Channel Intake | 24,536 | 25,209 | 673 | 2.7% | 23,433 | FY 2016 |
| | TOTALS | $157,164 | $172,503 | $15,339 | 9.8% | $41,028 | |

Summary: This group of projects represents operational improvements to the Potomac Water Filtration Plant (WFP) in Montgomery County. The Potomac WFP Improvements project (W-73.16) consolidates several operational improvement projects including rapid mix/flow splitting modifications, pumping station upgrades, ultraviolet (UV) disinfection facilities, electrical substation upgrades and/or replacements, a new backwash pumping station, and new lime feed facilities. The Potomac WFP Outdoor Substation No. 2 Replacement provides for the design and construction for replacement of the Outdoor Substation No. 2 (OSS-2) at the Potomac Water Filtration Plant due to the fact that it is over 30 years old and contains 5kV switchgear that houses air magnetic breakers which are obsolete. The Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation project (W-73.20) provides for the facilities necessary to meet the EPA Stage 2 Disinfection Byproducts Rule. 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.

Cost Impact: Costs for Project W-73.16 decreased, reflecting actual expenditures as contingencies and allowances for change orders have not materialized. Project W-73.30 costs increased to reflect inflation. Projects W-73.19 and W-73.20 were added as new projects.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 033811 | W-73.16 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Potomac WFP Improvements

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **24,081** | 21,610 | 2,171 | **300** | 300 | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **105,167** | 86,107 | 17,060 | **2,000** | 2,000 | | | | | | |
| Other | **2,153** | | 1,923 | **230** | 230 | | | | | | |
| **Total** | **131,401** | **107,717** | **21,154** | **2,530** | **2,530** | | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **90,667** | 74,325 | 14,596 | **1,746** | 1,746 | | | | | | |
| SDC | **40,734** | 33,392 | 6,558 | **784** | 784 | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for improvements to the Potomac WFP in accordance with the program management plan. Design and construction of rapid mix/flow splitting modifications, pumping station and ultraviolet disinfection facilities, replacement of MCC No. 1, a new backwash pumping station, and new lime feed facilities were packaged as one contract using the CM-at-Risk project delivery method. Outdoor Substation Nos. 1 and 4 were completed under a separate contract in order to expedite replacement of the 5 kV switchgear in the Finished Water Pumping Station.

**Service Area** Bi-County Area

**JUSTIFICATION**

**Plans & Studies**

WSSC Memorandum by Timothy D. Hirrel, April 25, 2001; "Technical Memorandum No. 2," O'Brien & Gere Engineers, Inc. (November, 2001); "Potomac WFP Facility Plan," O'Brien & Gere Engineers, Inc. (September, 2002); Potomac WFP Improvements Design Development Report (August, 2003); "Potomac WFP Improvements Design Criteria Report," Post, Buckley, Schuh & Jernigan, Inc. (January, 2004); 5 kV Switchgear Improvements Design Development Report (January, 2004).

**Specific Data**

These projects are part of the program of improvements needed to reliably produce 273 MGD in the summer and 218 MGD in the winter in order to meet the April 25, 2001, Water Production Projections for the year 2030. Improvements to the flocculation and sedimentation processes may be needed in the future to increase the total plant capacity to meet projected demands.

**Cost Change**

Not Applicable

**STATUS** Under Construction (WSSC Contract Nos. BF2028D97 , BF2028H97).

**OTHER**

The project scope has remained the same. Expenditures and schedule are based upon actual bid. Substantial completion is expected by May 2010. Funding shown in FY'11 is for final "punch-list" items and/or site restoration, and retainage.

**COORDINATION**

Montgomery County Government, Prince George's County Government, 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 WSSC Project W-172.05, Patuxent WFP Phase II Expansion(coordination of UV criteria).

**NOTE** This project supports 31% Growth, 49% System Improvement and 20% Environmental Regulation.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 7980 | .... | 12 |
| Total Costs | | 7980 | .... | 12 |
| Impact on Water or Sewer Rate | | 16¢ | .... | 12 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 04 |
| Date First Approved | FY 03 |
| Initial Cost Estimate | 70,247 |
| Cost Estimate Last FY | 132,628 |
| Present Cost Estimate | 131,401 |
| Approved Request, Last FY | 21,738 |
| Total Expenditures & Encumbrances | 107,717 |
| Approval Request FY 11 | 2,530 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not applicable |
| % Project Completion: | C-75% |
| Est. Completion Date: | May 2010 |

**H. Map** **Map Reference Code:**

**MAP NOT AVAILABLE**

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 033805 | W-73.18 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Power Reliability and Arc Flash Studies

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **3,236** | 83 | 773 | **2,380** | 1,494 | 886 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | | | | | | | | | | | |
| Other | **473** | | 116 | **357** | 224 | 133 | | | | | |
| **Total** | **3,709** | **83** | **889** | **2,737** | **1,718** | **1,019** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **3,709** | 83 | 889 | **2,737** | 1,718 | 1,019 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for a comprehensive analysis of WSSC's emergency power capabilities, reliability and requirements for both the water treatment & distribution system and wastewater treatment & collection system. Requirements identified will be prioritized. This project also provides for an arc flash and shock hazard study for all facilities.

**Service Area** Bi-County Area

**JUSTIFICATION**

**Plans & Studies**

"Draft Chapter III - Needs Assessment Chapter IV - Alternatives Development", O`Brien & Gere Engineers Inc. (November 2001); In-house Study (April 2002); WSSC Memorandum from Chuck Attick to Kathy McGinnis (May 2008).

**Cost Change**

The cost estimate has been increased to reflect inflation.

**STATUS** Planning (WSSC Contract No. BM4620A07, ).

**OTHER**

The project scope has remained the same. Any new CIP-sized projects identified through the modeling and analysis processes may be split out into new, separate projects in the appropriate counties.

**COORDINATION**

Montgomery County Government, Prince George's County Government, Montgomery County Department of Environmental Protection, Potomac Electric Power Company, Washington Gas Light Company, Maryland Department of the Environment, Prince George's County Department of Environmental Resources and Baltimore Gas & Electric.

**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 | 922 | .... | 13 |
| Total Costs | | 922 | .... | 13 |
| Impact on Water or Sewer Rate | | 2¢ | .... | 13 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 04 |
| Date First Approved | FY 03 |
| Initial Cost Estimate | 11,991 |
| Cost Estimate Last FY | 3,610 |
| Present Cost Estimate | 3,709 |
| Approved Request, Last FY | 1,668 |
| Total Expenditures & Encumbrances | 83 |
| Approval Request FY 11 | 1,718 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W required |
| % Project Completion: | P-0% |
| Est. Completion Date: | June 2012 |

**H. Map** **Map Reference Code:**

MAP NOT AVAILABLE

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 113802 | W-73.19 | Add |

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **900** | | | **900** | 115 | 400 | 155 | 115 | 115 | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **6,000** | | | **6,000** | | | 3,000 | 2,000 | 1,000 | | |
| Other | **1,034** | | | **1,034** | 17 | 60 | 473 | 317 | 167 | | |
| **Total** | **7,934** | | | **7,934** | **132** | **460** | **3,628** | **2,432** | **1,282** | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **7,934** | | | **7,934** | 132 | 460 | 3,628 | 2,432 | 1,282 | | |

**D. Description & Justification**

**DESCRIPTION**

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

**JUSTIFICATION**

**Plans & Studies**

Energy Performance Project, Phase ID, Energy Systems Group (ESG). Raw Water Pump Testing performed on April 18, 2009 and subsequent site visits and meetings at Potomac from April – June 2009 by ESG, Whitman Requardt & Assoc., and Shah Assoc. (sub-consultants to ESG).

**Specific Data**

Phase ID - Energy Performance Project was awarded to Energy Systems Group in March 2009. Phase I 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 the development of a report that indicated that OSS-2 was in poor condition, unsafe, 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 where chemicals are in the air. 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. Also, the electromechanical relays are obsolete and the manufacturer is no longer in business which makes it difficult, costly and requires long lead times to obtain replacement parts.

**Cost Change**

Not applicable.

**STATUS** Planning

**OTHER**

The project scope was developed for the FY 2011 CIP and has a total project cost of $7,934,000. Expenditure and schedule projections shown in Block B above are Order of Magnitude estimates and are expected to change as the project moves into design.

**COORDINATION**

WSSC Projects A-103.00, Energy Performance Program and W-73.16, Potomac WFP Improvements.

**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 | 692 | .... | 16 |
| Total Costs | | 692 | .... | 16 |
| Impact on Water or Sewer Rate | | 1¢ | .... | 16 |

**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 | |
| Present Cost Estimate | 7,934 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 132 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Public/Agency owned land |
| % Project Completion: | P-0% |
| Est. Completion Date: | FY 2015 |

**H. Map** **Map Reference Code:**

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 113806 | W-73.20 | Add |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **870** | 20 | 650 | **200** | 140 | 60 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **6,053** | | 53 | **6,000** | 3,800 | 2,200 | | | | | |
| Other | **1,036** | | 105 | **931** | 591 | 340 | | | | | |
| **Total** | **7,959** | **20** | **808** | **7,131** | **4,531** | **2,600** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **7,959** | 20 | 808 | **7,131** | 4,531 | 2,600 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the design, upgrade and expansion of the existing sulfuric acid system and the design and construction of new ferric chloride and caustic soda feed systems and related facilities capable of reliably providing low pH coagulation at the plant design capacity of 285 MGD in order to meet the EPA Stage 2 Disinfection Byproducts Rule.

**Service Area** Bi-County Area

**JUSTIFICATION**

**Plans & Studies**

Stage 2 Disinfection Byproducts Rule Compliance Strategy Studies (November 2008)

**Specific Data**

The sulfuric acid system upgrades and new ferric chloride feed system are necessary to facilitate the enhanced coagulation strategy to comply with the EPA Stage 2 Disinfection Byproducts Rule on or before April 2012. The caustic soda feed system will supplement raw water alkalinity when ferric chloride is fed and may also be used to adjust finished water pH.

**Cost Change**

Not applicable.

**STATUS** Preliminary Design (WSSC Contract Nos. BF5024A09 , BF5027A09).

**OTHER**

The project scope was developed for the FY 2011 CIP and has a total project cost of $7,959,000. Expenditure and schedule projections shown in Block B above are Order of Magnitude estimates and are expected to change as the project moves into design. Funding shown in FY 2009 and FY 2010 was previously included in ESP projects W-708.40, Potomac WFP Ferric Chloride Feed System and W-708.41, Potomac Sulfuric Acid System Improvements.

**COORDINATION**

Montgomery County Department of Environmental Protection, Maryland Department of the Environment, Prince George's County Department of Environmental Resources, U.S. Environmental Protection Agency, Region III and WSSC Project W-73.16, Potomac WFP Improvements.

**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 | 694 | .... | 13 |
| Total Costs | | 694 | .... | 13 |
| Impact on Water or Sewer Rate | | 1¢ | .... | 13 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 11 |
| Date First Approved | FY 11 |
| Initial Cost Estimate | 7,959 |
| Cost Estimate Last FY | |
| Present Cost Estimate | 7,959 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | 20 |
| Approval Request FY 11 | 4,531 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Public/Agency owned land |
| % Project Completion: | D-0% |
| Est. Completion Date: | April 2012 |

**H. Map** **Map Reference Code:**

**MAP NOT AVAILABLE**

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 033812 | W-73.30 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Potomac WFP Submerged Channel Intake

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **5,205** | 1,776 | | **3,429** | 560 | 1,400 | 1,050 | 309 | 80 | 30 | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **17,874** | | | **17,874** | | | 580 | 5,951 | 8,693 | 2,650 | |
| Other | **2,130** | | | **2,130** | 56 | 140 | 163 | 626 | 877 | 268 | |
| **Total** | **25,209** | **1,776** | | **23,433** | **616** | **1,540** | **1,793** | **6,886** | **9,650** | **2,948** | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **25,209** | 1,776 | | **23,433** | 616 | 1,540 | 1,793 | 6,886 | 9,650 | 2,948 | |

**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** Bi-County Area

**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).

**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 were increased for inflation.

**STATUS** Planning (WSSC Contract No. BF2028F97, ).

**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. Once the project 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. Expenditures shown in Block B are planning level estimates only and may increase or decrease. Upon completion of preliminary design, a more reliable estimate can be made. Both Councils will review the results of the detailed study and must approve continuing with the project before design and construction may proceed. Due to budgetary constraints, the project completion date was deferred in the FY'10 Mid-cycle update; completion is not currently expected until FY'16.

.
.
.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 2198 | .... | 17 |
| Total Costs | | 2198 | .... | 17 |
| Impact on Water or Sewer Rate | | 4¢ | .... | 17 |

**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 | 24,536 |
| Present Cost Estimate | 25,209 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | 1,776 |
| Approval Request FY 11 | 616 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Right-of-Way may be required |
| % Project Completion: | P-80% |
| Est. Completion Date: | FY 2016 |

**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, National Park Service, Montgomery County Department of Environmental Protection, Maryland Department of the Environment, 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**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 934855 | W-127.01 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Bi-County Water Tunnel

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **26,618** | 13,696 | 3,359 | **9,563** | 3,460 | 3,383 | 2,202 | 518 | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **128,237** | | 32,000 | **96,237** | 35,000 | 34,000 | 24,000 | 3,237 | | | |
| Other | **14,116** | | 3,536 | **10,580** | 3,846 | 3,738 | 2,620 | 376 | | | |
| **Total** | **168,971** | **13,696** | **38,895** | **116,380** | **42,306** | **41,121** | **28,822** | **4,131** | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **700** | | | **700** | | 400 | 300 | | | | |
| SDC | **168,271** | 13,696 | 38,895 | **115,680** | 42,306 | 40,721 | 28,522 | 4,131 | | | |

**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 PCCP with 84-inch steel pipe at the I-270 connection between this pipeline and the new tunnel.

**Service Area** Montgomery Main Pressure Zone HG495, Prince George's High Pressure Zone HG450

**JUSTIFICATION**

**Plans & Studies**

Montgomery and Prince George's Main Zone Facility Plan, Black and Veatch, Inc. (October, 1990); Technical Memoranda #1, 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 increase reflects current design, construction management and construction contract amounts.

**STATUS** Final Design (WSSC Contract Nos. BL9972A94 , BL9972C94 , BL9972B94).

**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 June 2013. Funding shown in FY'14 is for punch-list items and site/landscaping restoration.

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 tracked under a separate contract number. The relining of 450 feet of existing 96-inch PCCP, estimated to cost $700,000, is being tracked under a separate contract and is not subject to SDC funding.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | 329 | .... | 15 |
| | Debt Service | 61 | .... | 15 |
| Total Costs | | 390 | .... | 15 |
| Impact on Water or Sewer Rate | | | .... | |

**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 | 168,775 |
| Present Cost Estimate | 168,971 |
| Approved Request, Last FY | 40,403 |
| Total Expenditures & Encumbrances | 13,696 |
| Approval Request FY 11 | 42,306 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Site selected |
| % Project Completion: | C-0% |
| Est. Completion Date: | June 2013 |

**H. Map** **Map Reference Code:**

**SEE ATTACHED MAP**

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

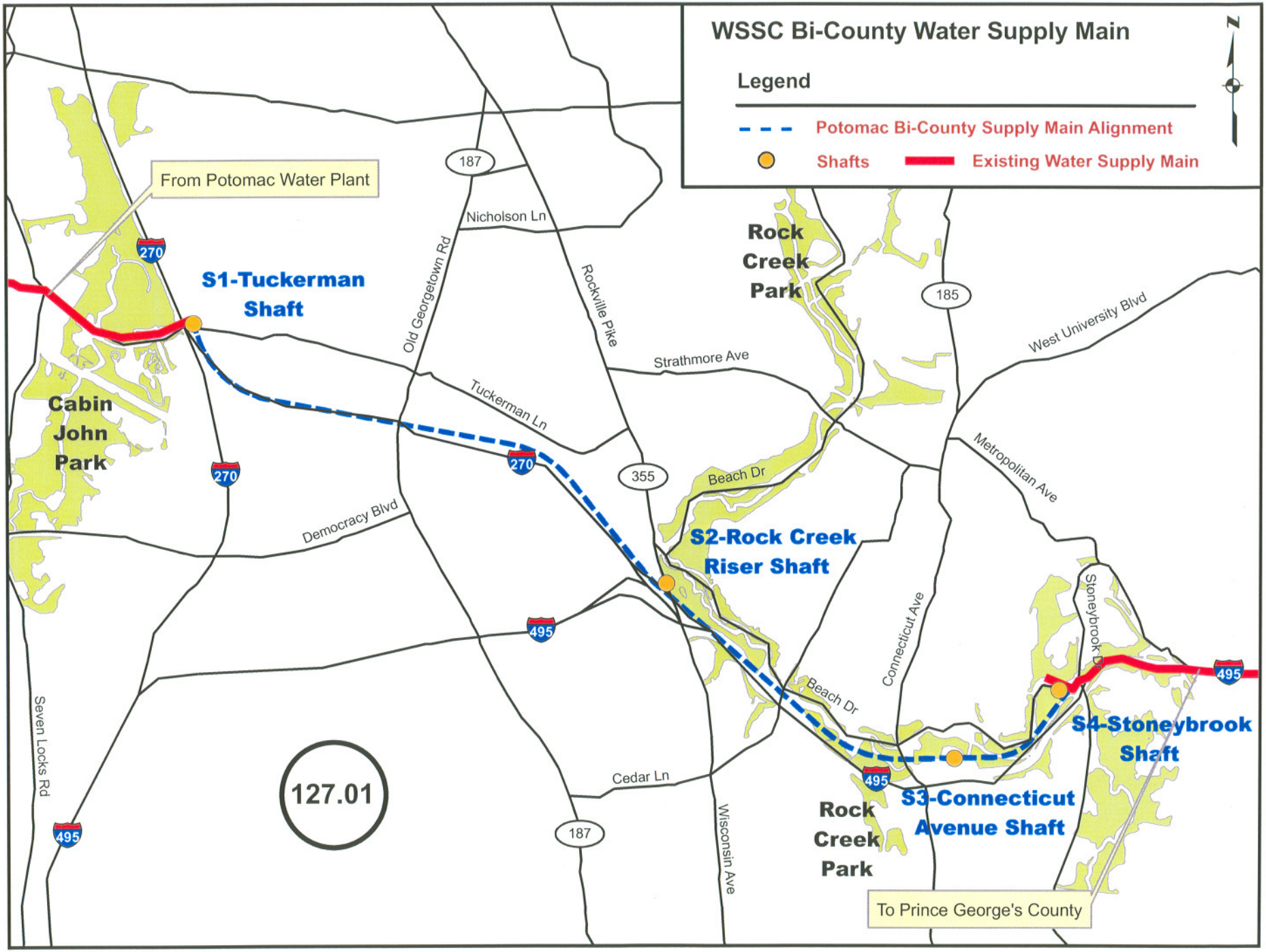
**Agency Number: W - 127.01** **Project Name: Bi-County Water Tunnel**

.

**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.


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

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 073802 | W-139.02 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Duckett & Brighton Dam Upgrades

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **3,487** | 1,471 | 780 | **1,236** | 515 | 618 | 103 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **21,218** | | | **21,218** | 8,841 | 10,609 | 1,768 | | | | |
| Other | **2,324** | | 78 | **2,246** | 936 | 1,123 | 187 | | | | |
| **Total** | **27,029** | **1,471** | **858** | **24,700** | **10,292** | **12,350** | **2,058** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **27,029** | 1,471 | 858 | **24,700** | 10,292 | 12,350 | 2,058 | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design and construction of the selected alternative for the potential upgrades required to enable the T. Howard Duckett Dam to meet current Maryland Department of the Environment (MDE) dam safety standards, including the ability to safely pass the Probable Maximum Flood (PMF) criteria and withstand the maximum credible earthquake loadings. 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 due to additional design work required at Brighton Dam.

**STATUS** Preliminary Design (WSSC Contract No. BD4144A05, ).

**OTHER**

The project scope has remained the same. Expenditures shown above represent a very preliminary order of magnitude estimate from the engineering consultant of the potential upgrades required at 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. A more detailed cost estimate will be developed for the selected alternative during the 30% design stage.

**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.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 2373 | .... | 14 |
| Total Costs | | 2373 | .... | 14 |
| Impact on Water or Sewer Rate | | 5¢ | .... | 14 |

**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 | 26,165 |
| Present Cost Estimate | 27,029 |
| Approved Request, Last FY | 661 |
| Total Expenditures & Encumbrances | 1,471 |
| Approval Request FY 11 | 10,292 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not determined |
| % Project Completion: | D-10% |
| Est. Completion Date: | FY 2013 |

**H. Map** **Map Reference Code:**

MAP NOT AVAILABLE

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 113803 | W-161.01 | Add |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Large Diameter Pipe Rehabilitation Program

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **13,150** | | | **13,150** | 2,804 | 1,803 | 1,922 | 1,925 | 2,180 | 2,516 | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **40,850** | | | **40,850** | 1,696 | 4,497 | 6,178 | 7,975 | 9,520 | 10,984 | |
| Other | **6,000** | | | **6,000** | 500 | 700 | 900 | 1,100 | 1,300 | 1,500 | |
| **Total** | **60,000** | | | **60,000** | **5,000** | **7,000** | **9,000** | **11,000** | **13,000** | **15,000** | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **60,000** | | | **60,000** | 5,000 | 7,000 | 9,000 | 11,000 | 13,000 | 15,000 | |

**D. Description & Justification**

**DESCRIPTION**

The purpose of this program is to plan, design and rehabilitate or replace Large Diameter Water Transmission Mains 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 areas requiring replacement or rehabilitation. The PCCP Inspection and Condition Assessment Program identifies individual pipe sections that require repair or replacement to assure the continued safe and reliablle operation of the pipeline. The Program also identifies mains that require the replacement of an increased number of pipe sections 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.

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

**JUSTIFICATION**

**Plans & Studies**

Utility Wide Master Plan, (December 2007); 30 Year Infrastructure Plan (2007).

**Specific Data**

WSSC has approximately 960 miles of large diameter water main ranging from 16-inch to 96-inch in diameter. This includes 350 miles of cast iron, 225 miles of ductile iron, 35 miles of steel and 350 miles of PCCP. Internal inspection and condition assessment is performed annually on specific PCCP pipelines. Of the 350 miles of PCCP, 150 miles are 36-inch and larger, and 55 miles are greater than 54-inch or larger. The inspection program includes internal visual and sounding, sonic/ultrasonic, and electromagnetic testing to establish the condition of each pipe section and determine if maintenance repairs, rehabilitation, or replacement are needed.

**Cost Change**

Not applicable.

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

**OTHER**

The project scope was developed for the FY 2011 CIP and has a total project cost of $60,000,000. 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.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 1264 | .... | 17 |
| Total Costs | | 1264 | .... | 17 |
| Impact on Water or Sewer Rate | | 2¢ | .... | 17 |

**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 | |
| Present Cost Estimate | 60,000 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 5,000 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

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

**H. Map** **Map Reference Code:**

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: W - 161.01** **Project Name: Large Diameter Pipe Rehabilitation Program**

**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), Prince George's County Department of Public Works & Transportation, Local Community Civic Associations and WSSC Projects A-107.00, Pressure Reducing Valve 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'10 TOTAL COST | ADOPTED FY'11 TOTAL COST | CHANGE $ | CHANGE % | SIX-YEAR COST | COMPLETION DATE (est) |
|---|---|---|---|---|---|---|---|
| W-172.05 | Patuxent WFP Phase II Expansion | $31,813 | $32,673 | $860 | 2.7% | $29,360 | FY 2013 |
| W-172.07 | Patuxent Raw Water Pipeline | 16,015 | 21,371 | 5,356 | 33.4% | 15,123 | FY 2013 |
| W-172.08 | Rocky Gorge Pump Station Upgrade | 14,902 | 15,621 | 719 | 4.8% | 12,600 | JULY 2013 |
| | TOTALS | $62,730 | $69,665 | $6,935 | 11.1% | $57,083 | |

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, and upgrades to the existing sewer system to handle residuals from the plant. 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 of the Rocky Gorge Pump Station to allow the station to deliver up to 110 million gallons per day (MGD) of raw water to the Patuxent WFP, respectively.

Cost Impact: Costs for Project W-172.05 increased to reflect inflation. Costs for Project W-172.07 increased due to the addition of gate valves and blow-off and air relief valves to the Pipeline Cleaning Contract. Costs for Project W-172.08 increased to cover the cost of a turbine upgrade.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 033807 | W-172.05 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Patuxent WFP Phase II Expansion

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **4,658** | 2,433 | 800 | **1,425** | 527 | 567 | 331 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **25,266** | | | **25,266** | 6,803 | 11,661 | 6,802 | | | | |
| Other | **2,749** | | 80 | **2,669** | 733 | 1,223 | 713 | | | | |
| **Total** | **32,673** | **2,433** | **880** | **29,360** | **8,063** | **13,451** | **7,846** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **32,673** | 2,433 | 880 | **29,360** | 8,063 | 13,451 | 7,846 | | | | |

**D. Description & Justification**

**DESCRIPTION**

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

**Service Area** Bi-County Area

**Capacity** 72 MGD nominal/110 MGD emergency

**JUSTIFICATION**

**Plans & Studies**

Patuxent WFP Facility Plan (April, 1997); In-House Study (April, 2002); Patuxent Expansion Design Criteria Report (April 2005)

**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 comply with upcoming EPA regulations for Cryptosporidium treatment and Stage 2 Disinfection Byproducts Rule.

**Cost Change**

Costs were increased for inflation.

**STATUS** Preliminary Design (WSSC Contract No. BF1582H91, ).

**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. WSSC will seek federal funding for this project. Expenditure estimates shown above are preliminary design estimates and may change as the design progresses.

**COORDINATION**

Montgomery County Government, Prince George's County Government, Maryland-National Capital Park & Planning Commission, Maryland Department of the Environment, Baltimore Gas & Electric and WSSC Projects W-172.07, Patuxent Raw Water Pipeline, W-172.08, Rocky Gorge Pump Station Upgrade and W-73.18, Power Reliability and Arc Flash Studies(Coordination of UV Criteria).

**NOTE** This project supports 28% System Improvement and 72% Environmental Regulation.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 2774 | .... | 13 |
| Total Costs | | 2774 | .... | 13 |
| Impact on Water or Sewer Rate | | 5¢ | .... | 13 |

**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 | 31,813 |
| Present Cost Estimate | 32,673 |
| Approved Request, Last FY | 770 |
| Total Expenditures & Encumbrances | 2,433 |
| Approval Request FY 11 | 8,063 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W required |
| % Project Completion: | D-60% |
| Est. Completion Date: | FY 2013 |

**H. Map** **Map Reference Code:**

MAP NOT AVAILABLE

**A. Identification and Coding Information**

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

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **3,817** | 2,399 | | **1,418** | 900 | 243 | 275 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **16,179** | 3,849 | | **12,330** | | 6,313 | 6,017 | | | | |
| Other | **1,375** | | | **1,375** | 90 | 656 | 629 | | | | |
| **Total** | **21,371** | **6,248** | | **15,123** | **990** | **7,212** | **6,921** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **21,371** | 6,248 | | **15,123** | 990 | 7,212 | 6,921 | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for community outreach, planning, design and construction of a new 48-inch diameter or larger 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**

Costs have increased due to the addition of six gate valves and 24 blow-off and air relief valves to the Pipeline Cleaning Contract.

**STATUS** Under Construction (WSSC Contract Nos. BF1582C91 , BF1582E91).

**OTHER**

The project scope has remained the same. The Rocky Gorge Valve Replacement is complete. Design for cleaning the existing raw water pipelines is 100% complete. The new raw water pipeline portion of the project is still under planning review with construction deferred until FY'12. Expenditure estimates for the pipeline portion shown in Block B above are planning level estimates only and may change based upon the alignment chosen and design constraints. At the request of the Systems Control Group, an additional six gate valves and 24 blow-off and air relief valves with extensions have been included under the Pipeline Cleaning Contract No. BF1582C91 along with the necessary appurtenances. The schedule for this project has also been delayed due to budgetary constraints. Construction of the raw water pipeline will not proceed until both County Councils have approved the alignment. Land costs are included in WSSC Project W-202.00.

.
.
.
.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact |
|---|---|---|---|
| Program Costs | Staff | .... | .... |
| | Other | .... | .... |
| Facility Costs | Maintenance | 128 | .... |
| | Debt Service | 1397 | .... |
| Total Costs | | 1525 | .... |
| Impact on Water or Sewer Rate | | 3¢ | .... 14 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 06 |
| Date First Approved | FY 03 |
| Initial Cost Estimate | 18,750 |
| Cost Estimate Last FY | 16,015 |
| Present Cost Estimate | 21,371 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | 6,248 |
| Approval Request FY 11 | 990 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Land & R/W to be acquired |
| % Project Completion: | D-0% |
| Est. Completion Date: | See Block D "Other" |

**H. Map** **Map Reference Code:**

**MAP NOT AVAILABLE**

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: W - 172.07** **Project Name: Patuxent Raw Water Pipeline**

**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.

**A. Identification and Coding Information**

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

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **3,408** | 2,011 | 168 | **1,229** | 24 | 615 | 500 | 90 | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **10,975** | | 750 | **10,225** | 250 | 5,000 | 4,750 | 225 | | | |
| Other | **1,238** | | 92 | **1,146** | 27 | 562 | 525 | 32 | | | |
| **Total** | **15,621** | **2,011** | **1,010** | **12,600** | **301** | **6,177** | **5,775** | **347** | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **15,621** | 2,011 | 1,010 | **12,600** | 301 | 6,177 | 5,775 | 347 | | | |

**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**

Cost estimates were increased to cover the cost of a turbine upgrade.

**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 project schedule has been delayed. The current plan calls for construction to begin in June 2011, following completion of the Prince George's side of the Duckett Dam upgrade.

**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 | 1299 | .... | 14 |
| Total Costs | | 1299 | .... | 14 |
| Impact on Water or Sewer Rate | | 3¢ | .... | 14 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 06 |
| Date First Approved | FY 03 |
| Initial Cost Estimate | 12,930 |
| Cost Estimate Last FY | 14,902 |
| Present Cost Estimate | 15,621 |
| Approved Request, Last FY | 560 |
| Total Expenditures & Encumbrances | 2,011 |
| Approval Request FY 11 | 301 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W required |
| % Project Completion: | D-100% |
| Est. Completion Date: | July 2013 |

**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, 2009
Revised:

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

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

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | | | | | | | | | | | |
| Land | **91** | | 41 | **50** | | 50 | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | | | | | | | | | | | |
| Other | **9** | | 4 | **5** | | 5 | | | | | |
| **Total** | **100** | | **45** | **55** | | **55** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **100** | | 45 | **55** | | 55 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This PDF provides a consolidated estimate of funding for the acquisition of land and rights-of-way for previously approved projects and new projects, as needed. 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 (DSP).

**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. This format change alleviates this restriction, especially for DSP projects, which depend upon actions of the Applicant. Other considerations include the accommodation of unpredictable delays for extended community outreach which impacts the timing of a planned purchase, unanticipated rights-of-way requirements for approved projects 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** Various Stages of Planning & Design

**OTHER**

The project scope has remained the same. The expenditures 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 description form elsewhere in this 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 | .... 4 | .... 12 |
| Total Costs | | .... 4 | .... 12 |
| 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 | |
| Cost Estimate Last FY | 320 |
| Present Cost Estimate | 100 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | |
| Supplemental Approval Request Current FY (10) | |

**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:**

# Section 4 - Bi-County Sewer Projects

DATE: October 1, 2009
REVISED: May 13, 2010

# FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

**BI-COUNTY SEWER PROJECTS**

| AGENCY NUMBER | PROJECT NAME | EST. TOTAL COST | EXPEND THRU 09 | EST. EXPEND 10 | TOTAL SIX YEARS | EXPENDITURE SCHEDULE | | | | | | BUDGET REQUEST 11 | PDF PAGE NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | YR 1 11 | YR 2 12 | YR 3 13 | YR 4 14 | YR 5 15 | YR 6 16 | | |
| S-22.06 | Blue Plains WWTP: Liquid Train Projects, Part 2 | 240,383 | 207,641 | 6,567 | 21,454 | 2,834 | 5,806 | 6,356 | 1,636 | 1,635 | 3,187 | 2,834 | 4-4 |
| S-22.07 | Blue Plains WWTP: Biosolids Management, Part 2 | 360,331 | 98,622 | 13,217 | 245,749 | 38,980 | 103,141 | 60,170 | 34,920 | 2,912 | 5,626 | 38,980 | 4-5 |
| S-22.08 | Blue Plains WWTP: Biological Nutrient Removal | 81,051 | 43,949 | 13,155 | 23,947 | 7,506 | 12,001 | 4,440 | 0 | 0 | 0 | 7,506 | 4-6 |
| S-22.09 | Blue Plains WWTP: Plant-wide Projects | 179,915 | 130,059 | 8,170 | 38,379 | 9,784 | 7,884 | 6,376 | 8,078 | 5,307 | 950 | 9,784 | 4-7 |
| S-22.10 | Blue Plains WWTP: Enhanced Nutrient Removal | 432,673 | 1,587 | 10,898 | 349,083 | 34,982 | 80,548 | 95,285 | 46,569 | 40,274 | 51,425 | 34,982 | 4-8 |
| S-22.11 | Blue Plains: Pipelines & Appurtenances | 102,833 | 7,639 | 18,410 | 63,208 | 9,331 | 6,282 | 17,408 | 14,148 | 8,411 | 7,628 | 9,331 | 4-9 |
| S-89.22 | Anacostia Storage Facility | 36,971 | 1,153 | 1,667 | 34,151 | 6,006 | 11,352 | 12,140 | 4,653 | 0 | 0 | 6,006 | 4-10 |
| S-89.23 | Anacostia No. 2 Screenings Handling System | 2,196 | 3 | 676 | 1,517 | 1,436 | 81 | 0 | 0 | 0 | 0 | 1,436 | 4-12 |
| S-170.06 | Sewer Basin Planning Program | 4,832 | 252 | 920 | 3,660 | 1,220 | 1,220 | 1,220 | 0 | 0 | 0 | 1,220 | 4-13 |
| S-170.07 | Wastewater Pumping Station Capacity Evaluation | 223 | 39 | 122 | 62 | 62 | 0 | 0 | 0 | 0 | 0 | 62 | 4-14 |
| S-170.08 | Septage Discharge Facility Planning & Implementation | 10,972 | 522 | 440 | 10,010 | 330 | 6,413 | 3,267 | 0 | 0 | 0 | 330 | 4-15 |
| S-170.09 | Trunk Sewer Reconstruction Program | 504,993 | 0 | 16,673 | 488,320 | 39,079 | 148,013 | 145,153 | 84,634 | 59,373 | 12,068 | 39,079 | 4-16 |
| | **TOTAL BI-COUNTY SEWER PROJECTS** | 1,957,373 | 491,466 | 90,915 | 1,279,540 | 151,550 | 382,741 | 351,815 | 194,638 | 117,912 | 80,884 | 151,550 | |

**Notes for costs beyond six years:**

Includes 4,721 for Project S-22.06, Blue Plains WWTP: Liquid Train Projects, Part 2
Includes 2,743 for Project S-22.07, Blue Plains WWTP: Biosolids Management, Part 2
Includes 3,307 for Project S-22.09, Blue Plains WWTP: Plant-wide Projects
Includes 71,105 for Project S-22.10, Blue Plains WWTP: Enhanced Nutrient Removal
Includes 13,576 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-170.09 | Trunk Sewer Reconstruction Program | $504,993 | $39,079 | 4-16 |
| | TOTALS | 504,993 | 39,079 | |

## BLUE PLAINS WASTEWATER TREATMENT PLANT PROJECTS
(costs in thousands)

| PROJECT NUMBER | PROJECT NAME | ADOPTED FY'10 TOTAL COST | ADOPTED FY'11 TOTAL COST | CHANGE $ | CHANGE % | SIX-YEAR COST | COMPLETION DATE (est) |
|---|---|---|---|---|---|---|---|
| S-22.06 | Blue Plains WWTP: Liquid Train Projects, Part 2 | $224,120 | $240,383 | $16,263 | 7.3% | $21,454 | On-Going |
| S-22.07 | Blue Plains WWTP: Biosolids Management, Part 2 | 310,198 | 360,331 | 50,133 | 16.2% | 245,749 | On-Going |
| S-22.08 | Blue Plains WWTP: Biological Nutrient Removal | 89,115 | 81,051 | (8,064) | -9.0% | 23,947 | FY 2014 |
| S-22.09 | Blue Plains WWTP: Plant-wide Projects | 197,842 | 179,915 | (17,927) | -9.1% | 38,379 | On-Going |
| S-22.10 | Blue Plains WWTP: Enhanced Nutrient Removal | 290,352 | 432,673 | 142,321 | 49.0% | 349,083 | FY 2019 |
| S-22.11 | Blue Plains: Pipelines & Appurtenances | split | 102,833 | 102,833 | --- | 63,208 | On-Going |
| | TOTALS | $1,111,627 | $1,397,186 | $285,559 | 25.7% | $741,820 | |

Summary: These six projects, with an estimated total cost of $1.4 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 moves 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 three main funding divisions: liquid treatment train (S-22.06); biosolids management (S-22.07); and plant-wide projects (S-22.09). Project S-22.08 adds Biological Nutrient Removal (BNR) facilities to the plant. 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. Project S-22.11 was split from the plant-wide projects (S-22.09) and provides funding for WSSC's share of Blue Plains-associated projects which are "outside the fence" of the treatment plant.

Cost Impact: These six Blue Plains projects, the largest group of expenditures in the CIP, represent 48% 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**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 954811 | S-22.06 | Change |

2. Date: October 1, 2009
Revised: January 20, 2010

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

3. Project Name: Blue Plains WWTP: Liquid Train Projects, Part 2

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **42,562** | 32,205 | 2,140 | **6,603** | 490 | 1,015 | 2,310 | 842 | 823 | 1,123 | 1,614 |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **195,441** | 173,380 | 4,362 | **14,639** | 2,316 | 4,734 | 3,983 | 778 | 796 | 2,032 | 3,060 |
| Other | **2,380** | 2,056 | 65 | **212** | 28 | 57 | 63 | 16 | 16 | 32 | 47 |
| **Total** | **240,383** | **207,641** | **6,567** | **21,454** | **2,834** | **5,806** | **6,356** | **1,636** | **1,635** | **3,187** | **4,721** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **227,187** | 196,243 | 6,207 | **20,275** | 2,678 | 5,487 | 6,007 | 1,546 | 1,545 | 3,012 | 4,462 |
| City of Rockville | **13,196** | 11,398 | 360 | **1,179** | 156 | 319 | 349 | 90 | 90 | 175 | 259 |

**D. Description & Justification**

**DESCRIPTION**

This project provides funding for WSSC's share of Blue Plains liquid train projects for which construction began after June 30, 1993. Major projects include: Filtration and Disinfection Rehabilitation; and Dual Purpose Sedimentation Basins Rehabilitation.

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

**JUSTIFICATION**

**Plans & Studies**

The Blue Plains Intermunicipal Agreement of 1985; the DCWASA Master Plan (1998); and the DCWASA Proposed FY 2009 - FY 2018 Capital Improvement Program information (October, 2009).

**Specific Data**

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

**Cost Change**

The cost increase is due to revised higher design and construction cost estimates for Filtration and Disinfection Facilities, process research and pilot projects, and associated project management.

**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**

District of Columbia Water & Sewer Authority (responsible for design and construction). (Biological Nutrient Removal costs are carried on WSSC Project S-22.08). (Enhanced Nutrient Removal costs are carried on WSSC Project S-22.10).

**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 | 19555 | .... |
| Total Costs | | 19555 | .... |
| Impact on Water or Sewer Rate | | 42¢ | .... |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 95 |
| Date First Approved | FY 95 |
| Initial Cost Estimate | 243,633 |
| Cost Estimate Last FY | 224,120 |
| Present Cost Estimate | 240,383 |
| Approved Request, Last FY | 4,803 |
| Total Expenditures & Encumbrances | 207,641 |
| Approval Request FY 11 | 2,834 |
| Supplemental Approval Request Current FY (10) | |

**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 |
|---|---|---|
| 954812 | S-22.07 | Change |

2. Date: October 1, 2009
Revised: January 20, 2010

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

3. Project Name: Blue Plains WWTP: Biosolids Management, Part 2

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **78,662** | 36,070 | 5,996 | **36,037** | 8,958 | 11,027 | 10,353 | 4,858 | 375 | 466 | 559 |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **278,101** | 61,576 | 7,090 | **207,278** | 29,636 | 91,093 | 49,221 | 29,716 | 2,508 | 5,104 | 2,157 |
| Other | **3,568** | 976 | 131 | **2,434** | 386 | 1,021 | 596 | 346 | 29 | 56 | 27 |
| **Total** | **360,331** | **98,622** | **13,217** | **245,749** | **38,980** | **103,141** | **60,170** | **34,920** | **2,912** | **5,626** | **2,743** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **340,549** | 93,208 | 12,491 | **232,258** | 36,840 | 97,479 | 56,867 | 33,003 | 2,752 | 5,317 | 2,592 |
| City of Rockville | **19,782** | 5,414 | 726 | **13,491** | 2,140 | 5,662 | 3,303 | 1,917 | 160 | 309 | 151 |

**D. Description & Justification**

**DESCRIPTION**

This project includes funding for WSSC's share of the Blue Plains Wastewater Treatment Plant biosolids handling projects for which construction began after June 30, 1993. Major projects include: new digestion facilities; gravity and centrifuge thickener facilities; area electrical substation #6; 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 1985; 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 Proposed FY 2009 - FY 2018 Capital Improvement Program information (October, 2009).

**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**

The cost increase is primarily due to refinements in design and construction of the new Digester Facilities and associated program management.

**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**

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 | 29895 | .... |
| Total Costs | | 29895 | .... |
| Impact on Water or Sewer Rate | | 64¢ | .... |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 95 |
| Date First Approved | FY 95 |
| Initial Cost Estimate | 361,252 |
| Cost Estimate Last FY | 310,198 |
| Present Cost Estimate | 360,331 |
| Approved Request, Last FY | 16,351 |
| Total Expenditures & Encumbrances | 98,622 |
| Approval Request FY 11 | 38,980 |
| Supplemental Approval Request Current FY (10) | |

**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 |
|---|---|---|
| 973817 | S-22.08 | Change |

2. Date: October 1, 2009
Revised: January 20, 2010

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

3. Project Name: Blue Plains WWTP: Biological Nutrient Removal

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **17,446** | 12,434 | 1,479 | **3,533** | 1,473 | 1,336 | 724 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **62,803** | 31,080 | 11,546 | **20,177** | 5,959 | 10,546 | 3,672 | | | | |
| Other | **802** | 435 | 130 | **237** | 74 | 119 | 44 | | | | |
| **Total** | **81,051** | **43,949** | **13,155** | **23,947** | **7,506** | **12,001** | **4,440** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **38,300** | 20,768 | 6,216 | **11,316** | 3,547 | 5,671 | 2,098 | | | | |
| State Aid | **40,527** | 21,975 | 6,578 | **11,974** | 3,753 | 6,001 | 2,220 | | | | |
| City of Rockville | **2,224** | 1,206 | 361 | **657** | 206 | 329 | 122 | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides funding for WSSC's share of the Blue Plains Biological Nutrient Removal Pilot Project and BNR Permanent Facility design and construction. The project includes modifications to the nitrification basins, methanol storage and feed facilities, a control building, addition of fine bubble diffusers, and improvements to the nitrification facilities (Phase II). This project is stipulated in the 1995 Consent Decree signed by the District of Columbia and the United States Department of Justice.

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

**JUSTIFICATION**

**Plans & Studies**

Porter, MacNamee & Seely Study (1992); Civil Action No. 90-163; Civil Action No. 84-2842 JGP; the DCWASA Master Plan (1998); and the DCWASA Proposed FY 2009 - FY 2018 Capital Improvement Program information (October, 2009).

**Specific Data**

The initial $12.1 million Pilot Project was planned as a phased, four year, half-plant trial. For the Pilot, portions of the nitrification basins were converted to anoxic zones with methanol added as the carbon source. After the Pilot Project proved successful in the first two years, the third and fourth years were not required and the design and construction of permanent BNR facilities commenced. The Consent Decree acknowledged that applying this technology was experimental.

**Cost Change**

The cost decrease is due to sub-projects moving through construction.

**STATUS** Under Construction

**OTHER**

The project scope has remained the same. The expenditure schedule shown above reflects the cost of permanent BNR facilities as required under the Consent Decree. Phase I and portions of Phase II are complete. The Maryland Department of the Environment (MDE) has, by agreement, committed to providing 50% grant funding for eligible costs.

**COORDINATION**

Maryland Department of the Environment and District of Columbia Water & Sewer Authority (responsible for design and construction).

**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 | 3307 | .... | 14 |
| Total Costs | | 3307 | .... | 14 |
| Impact on Water or Sewer Rate | | 7¢ | .... | 14 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 96 |
| Date First Approved | FY 96 |
| Initial Cost Estimate | 83,227 |
| Cost Estimate Last FY | 89,115 |
| Present Cost Estimate | 81,051 |
| Approved Request, Last FY | 21,344 |
| Total Expenditures & Encumbrances | 43,949 |
| Approval Request FY 11 | 7,506 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not applicable |
| % Project Completion: | C-85% |
| Est. Completion Date: | FY 2014 |

**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, 2009
Revised: January 20, 2010

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **44,172** | 35,077 | 1,558 | **6,705** | 1,062 | 2,207 | 1,123 | 1,121 | 880 | 312 | 832 |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **133,961** | 93,694 | 6,531 | **31,294** | 8,625 | 5,599 | 5,190 | 6,877 | 4,374 | 629 | 2,442 |
| Other | **1,782** | 1,288 | 81 | **380** | 97 | 78 | 63 | 80 | 53 | 9 | 33 |
| **Total** | **179,915** | **130,059** | **8,170** | **38,379** | **9,784** | **7,884** | **6,376** | **8,078** | **5,307** | **950** | **3,307** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **170,040** | 122,920 | 7,722 | **36,273** | 9,247 | 7,451 | 6,026 | 7,635 | 5,016 | 898 | 3,125 |
| City of Rockville | **9,875** | 7,139 | 448 | **2,106** | 537 | 433 | 350 | 443 | 291 | 52 | 182 |

**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: Process Control Computer Systems; Electrical Power Systems Additions, Phases I & II; High Priority Rehabilitation Program; and Plant-wide Fine Bubble Aeration Conversion.

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

**JUSTIFICATION**

**Plans & Studies**

The Blue Plains Intermunicipal Agreement of 1985; the WASA Master Plan (1998); and the DCWASA Proposed FY 2009 - FY 2018 Capital Improvement Program information (October, 2009).

**Specific Data**

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

**Cost Change**

Expenditures shown above now exclude costs for currently active projects "outside the fence" of the wastewater treatment plant. Beginning with the FY 2011 CIP, those costs have been split out and are shown under project S-22.11: Blue Plains Pipelines and Appurtenances. However, the design and construction costs for Electrical Power System Switch Gear and Process Computer Control System have increased.

**STATUS** Not Applicable

**OTHER**

The project scope has been revised for the FY 2011 CIP to exclude expenditures for currently active projects outside the fence of plant. 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**

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 | 15070 | .... |
| Total Costs | | 15070 | .... |
| Impact on Water or Sewer Rate | | 32¢ | .... |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 95 |
| Date First Approved | FY 02 |
| Initial Cost Estimate | 179,915 |
| Cost Estimate Last FY | 197,842 |
| Present Cost Estimate | 179,915 |
| Approved Request, Last FY | 18,126 |
| Total Expenditures & Encumbrances | 130,059 |
| Approval Request FY 11 | 9,784 |
| Supplemental Approval Request Current FY (10) | |

**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 |
|---|---|---|
| 083800 | S-22.10 | Change |

2. Date: October 1, 2009
Revised: January 20, 2010

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

3. Project Name: Blue Plains WWTP: Enhanced Nutrient Removal

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **63,573** | 1,571 | 7,843 | **48,055** | 7,057 | 9,366 | 11,765 | 9,161 | 6,960 | 3,746 | 6,104 |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **364,816** | | 2,947 | **297,572** | 27,579 | 70,384 | 82,577 | 36,947 | 32,915 | 47,170 | 64,297 |
| Other | **4,284** | 16 | 108 | **3,456** | 346 | 798 | 943 | 461 | 399 | 509 | 704 |
| **Total** | **432,673** | **1,587** | **10,898** | **349,083** | **34,982** | **80,548** | **95,285** | **46,569** | **40,274** | **51,425** | **71,105** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State Aid | **432,673** | 1,587 | 10,898 | **349,083** | 34,982 | 80,548 | 95,285 | 46,569 | 40,274 | 51,425 | 71,105 |

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

**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 Proposed FY 2009 - FY 2018 Capital Improvement Program information (October, 2009).

**Specific Data**

The costs for this program are anticipated to be covered by the Bay Restoration Fund.

**Cost Change**

The cost increase is due to revised estimates from DCWASA and a higher negotiated WSSC cost share.

**STATUS** Various Stages of Planning & Design (WSSC Contract Nos. CB4168L05 , CB4168Q05).

**OTHER**

The project scope has remained the same. Expenditures and schedule shown in Block B are planning level estimates and may change based upon site conditions and design constraints.

**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.

**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 08 |
| Date First Approved | FY 07 |
| Initial Cost Estimate | 426,753 |
| Cost Estimate Last FY | 290,352 |
| Present Cost Estimate | 432,673 |
| Approved Request, Last FY | 8,413 |
| Total Expenditures & Encumbrances | 1,587 |
| Approval Request FY 11 | 34,982 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not Applicable |
| % Project Completion: | P-65% |
| 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 |
|---|---|---|
| 113804 | S-22.11 | Change |

2. Date: October 1, 2009
Revised: January 20, 2010

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **20,901** | 1,129 | 2,896 | **13,639** | 3,134 | 1,907 | 2,892 | 2,320 | 1,968 | 1,418 | 3,237 |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **80,915** | 6,434 | 15,332 | **48,944** | 6,105 | 4,313 | 14,344 | 11,688 | 6,360 | 6,134 | 10,205 |
| Other | **1,017** | 76 | 182 | **625** | 92 | 62 | 172 | 140 | 83 | 76 | 134 |
| **Total** | **102,833** | **7,639** | **18,410** | **63,208** | **9,331** | **6,282** | **17,408** | **14,148** | **8,411** | **7,628** | **13,576** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **97,187** | 7,220 | 17,399 | **59,737** | 8,819 | 5,937 | 16,452 | 13,371 | 7,949 | 7,209 | 12,831 |
| City of Rockville | **5,646** | 419 | 1,011 | **3,471** | 512 | 345 | 956 | 777 | 462 | 419 | 745 |

**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 the new 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 1985; the WASA Master Plan (1998); and the DCWASA Proposed FY 2009 - FY 2018 Capital Improvement Program information (October, 2009).

**Specific Data**

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

**Cost Change**

The cost for this project has increased due to increased costs for design and construction for Potomac Interceptor projects and, the addition of the Anacostia Tunnel portion of the Long Term Control Program.

**STATUS** Not Applicable

**OTHER**

The project scope was developed for the FY 2011 CIP as a split from the existing, S-22.09, Blue Plains WWTP: Plant-wide Projects. The creation of this Pipelines & Appurtenances project is justified by language in the Blue Plains Intermunicipal Agreement, and the expected increases in costs for new and existing projects outside the fence. Expenditures shown above include costs for currently active projects outside the fence which were previously shown in the Plant-wide project. 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.

**COORDINATION**

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 | 8475 | .... |
| Total Costs | | 8475 | .... |
| Impact on Water or Sewer Rate | | 18¢ | .... |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 11 |
| Date First Approved | FY 02 |
| Initial Cost Estimate | 90,997 |
| Cost Estimate Last FY | |
| Present Cost Estimate | 102,833 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | 7,639 |
| Approval Request FY 11 | 9,331 |
| Supplemental Approval Request Current FY (10) | |

**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 |
|---|---|---|
| 083807 | S-89.22 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Anacostia Storage Facility

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **5,038** | 1,153 | 665 | **3,220** | 1,060 | 1,020 | 910 | 230 | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **28,676** | | 850 | **27,826** | 4,400 | 9,300 | 10,126 | 4,000 | | | |
| Other | **3,257** | | 152 | **3,105** | 546 | 1,032 | 1,104 | 423 | | | |
| **Total** | **36,971** | **1,153** | **1,667** | **34,151** | **6,006** | **11,352** | **12,140** | **4,653** | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **33,275** | 1,038 | 1,500 | **30,737** | 5,406 | 10,217 | 10,926 | 4,188 | | | |
| SDC | **3,696** | 115 | 167 | **3,414** | 600 | 1,135 | 1,214 | 465 | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the customer outreach, planning, design and construction of a new seven million gallon sewer overflow storage facility and needed power reliability upgrades at the existing Anacostia No.2 Wastewater Pumping Station. It includes relocation of existing PCCP material storage yard, being displaced by new storage facility, to another location.

**Service Area** Lower Anacostia Drainage Basin **Capacity** 7 MG

**JUSTIFICATION**

**Plans & Studies**

"Anacostia Wastewater Pumping Station No.2 Hydraulic Study", Whitman Requardt and Associates, LLP (October 2005); "Overflow Event June 25 - 26; 2006 Anacostia WWPS", Whitman Requardt and Associates, LLP (November 2006); Preliminary Design Criteria Report, Whitman, Requardt & Associates (March 2008); Anacostia WWPS Power Reliability Study, Whitman Requardt and Associates, Shah & Associates (April 2008).

**Specific Data**

Currently, Anacostia WWPS No. 2 receives flows from the Hyattsville WWPS and by gravity from several basins within the Tributary Area of the Anacostia River. The WWPS discharge is piped directly to DCWASA's sewer system. By agreement between WSSC and DCWASA, the Anacostia WWPS No. 2 cannot discharge wastewater at a rate in excess of 199 MGD. In the past, during extreme rainfall events, the influent flow to Anacostia WWPS No. 2 exceeded the 199 MGD limit, thus creating sanitary overflows on the station site and/or at Junction Chamber No.1, in the vicinity of the Hyattsville WWPS. The Consent Decree between WSSC, MDE, and the EPA was entered into on December 7, 2005, stipulating that the WSSC develop and formally submit a Facility Plan for the Anacostia No. 2 Pump Station to EPA/MDE. The Facility Plan, which recommends the building of a new storage facility intended to eliminate weather related sanitary sewer overflows at the Anacostia No. 2 Pump Station, was approved by EPA/MDE July 31, 2006.

**Cost Change**

Costs were increased for inflation.

**STATUS** Final Design (WSSC Contract Nos. CS4441A06 , CP4441B06).

**OTHER**

The project scope remains the same. Expenditures shown in Block B are planning level estimates and may change based upon site specific conditions, design constraints and negotiations with the Maryland Department of the Environment (MDE). The new sewer overflow storage facility will be built on the site of the existing Anacostia No.2 Wastewater Pumping Station. Final design WSSC Contract No. CP4441B06. Anacostia WWPS Power Reliability project, Contract No. CP4441B06, was advertised for construction bids in March 2009. Planning stage for the relocation of the existing PCCP material storage yard to another location.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 2828 | .... | 15 |
| Total Costs | | 2828 | .... | 15 |
| Impact on Water or Sewer Rate | | 6¢ | .... | 15 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 08 |
| Date First Approved | FY 08 |
| Initial Cost Estimate | 33,957 |
| Cost Estimate Last FY | 36,035 |
| Present Cost Estimate | 36,971 |
| Approved Request, Last FY | 1,572 |
| Total Expenditures & Encumbrances | 1,153 |
| Approval Request FY 11 | 6,006 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Public/Agency owned land |
| % Project Completion: | D-60% |
| Est. Completion Date: | December 2013 |

**H. Map** **Map Reference Code:**

**MAP NOT AVAILABLE**

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: S - 89.22** **Project Name: Anacostia Storage Facility**

**COORDINATION**

Montgomery County Government, Prince George's County Government, Potomac Electric Power Company, Maryland Department of the Environment, 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 10% Growth and 90% Environmental Regulation.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 093802 | S-89.23 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Anacostia No. 2 Screenings Handling System

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **295** | 3 | 148 | **144** | 124 | 20 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **1,615** | | 440 | **1,175** | 1,125 | 50 | | | | | |
| Other | **286** | | 88 | **198** | 187 | 11 | | | | | |
| **Total** | **2,196** | **3** | **676** | **1,517** | **1,436** | **81** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **1,867** | 3 | 575 | **1,289** | 1,220 | 69 | | | | | |
| District of Columbia Government/W | **329** | | 101 | **228** | 216 | 12 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the collection and compaction of wastewater screened solids at Anacostia WWPS No. 2, allowing for off-site disposal, prior to conveyance to Blue Plains WWTP.

**Service Area** Lower Anacostia Drainage Basin **Capacity** 199 MGD

**JUSTIFICATION**

**Plans & Studies**

Anacostia Wastewater Pumping Station No. 2, Screenings Upgrade Study, Final Draft, Whitman, Requardt & Associates (March 2007)

**Specific Data**

This project is needed to replace the present practice of grinding wastewater screened solids and returning them to the flow for conveyance to Blue Plains WWTP, where they clog and damage filters. WSSC contributes a significant share of the cost of repairing and replacing those filters. Essentially all other sewage pumped to Blue Plains has the screenings removed for off-site disposal. The proposed screenings handling project will both increase the efficiency of the filter media and extend the service life of the filter bottoms at Blue Plains.

**Cost Change**

Not applicable.

**STATUS** Preliminary Design (WSSC Contract No. CP4733A07, ).

**OTHER**

The project scope has remained the same. Expenditures in Block B are planning level estimates only and may change based upon site specific conditions and design constraints.

**COORDINATION**

District of Columbia Water & Sewer Authority (DC-WASA funding in proportion to its 14 of 199 mgd sewage pumping station transmission limit.).

**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 | 173 | .... 13 |
| Total Costs | | 173 | .... 13 |
| Impact on Water or Sewer Rate | | | .... |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 09 |
| Date First Approved | FY 09 |
| Initial Cost Estimate | 2,071 |
| Cost Estimate Last FY | 2,134 |
| Present Cost Estimate | 2,196 |
| Approved Request, Last FY | 736 |
| Total Expenditures & Encumbrances | 3 |
| Approval Request FY 11 | 1,436 |
| Supplemental Approval Request Current FY (10) | 18 |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not applicable |
| % Project Completion: | D-0% |
| Est. Completion Date: | July 2011 |

**H. Map** **Map Reference Code:**

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 093804 | S-170.06 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Sewer Basin Planning Program

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **4,235** | 252 | 800 | **3,183** | 1,061 | 1,061 | 1,061 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | | | | | | | | | | | |
| Other | **597** | | 120 | **477** | 159 | 159 | 159 | | | | |
| **Total** | **4,832** | **252** | **920** | **3,660** | **1,220** | **1,220** | **1,220** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SDC | **4,832** | 252 | 920 | **3,660** | 1,220 | 1,220 | 1,220 | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the development of basin-specific Facility Plans to address capacity constraints identified in the WSSC Sewer Models for the Sanitary Sewer Overflow Consent Decree for capital-sized conveyance facilities. The project will also identify alternative projects for capacity augmentation. Public input and outreach for alternatives will be required based on economic, environmental, and community impacts. This project also funds the hydraulic modeling support for WSSC reviews of specific development proposals.

**Service Area** Bi-County Area

**JUSTIFICATION**

**Plans & Studies**

WSSC Dynamic Hydraulic Sewer System Model Study (Contract #CM4269A05).

**Cost Change**

Not Applicable.

**STATUS** Facility Planning (WSSC Contract No. PM0007A07, ).

**OTHER**

The project scope has remained the same. Any new CIP-sized projects identified through this planning process may be split out into new, separate projects in the appropriate County in future CIP's. A facility plan for the Paint Branch Basin was initiated in FY 2009. Additional basins are expected to be initiated in FY 2010.

**COORDINATION**

Maryland-National Capital Park & Planning Commission, Montgomery County Department of Environmental Protection, Maryland Department of the Environment ((SSO Consent Decree Compliance)), Prince George's County Department of Environmental Resources, U.S. Environmental Protection Agency, Region III ((SSO Consent Decree Compliance)) 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 ..... | .... |
| | Debt Service ..... | .... |
| Total Costs..... | | .... |
| Impact on Water or Sewer Rate..... | | .... |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 09 |
| Date First Approved | FY 09 |
| Initial Cost Estimate | 4,600 |
| Cost Estimate Last FY | 4,732 |
| Present Cost Estimate | 4,832 |
| Approved Request, Last FY | 1,184 |
| Total Expenditures & Encumbrances | 252 |
| Approval Request FY 11 | 1,220 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not Applicable |
| % Project Completion: | P-10% |
| Est. Completion Date: | FY 2013 |

**H. Map** **Map Reference Code:**

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 093805 | S-170.07 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Wastewater Pumping Station Capacity Evaluation

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **199** | 39 | 106 | **54** | 54 | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | | | | | | | | | | | |
| Other | **24** | | 16 | **8** | 8 | | | | | | |
| **Total** | **223** | **39** | **122** | **62** | **62** | | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **223** | 39 | 122 | **62** | 62 | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for an assessment of WSSC wastewater pumping stations' sizing and capacity in handling current and future wastewater flow as required under Article Ten of the 2005 Sanitary Sewer Overflow Consent Decree.

**Service Area** Bi-County Area

**JUSTIFICATION**

**Plans & Studies**

WSSC Strategic Sewerage Study (March, 1993); WSSC Sanitary Sewer Overflow Consent Decree (December 7, 2005); WSSC Strategic Sewerage Study Update (April, 2006)

**Specific Data**

The Consent Decree specifies under Article Ten – Pump Stations, Section B.6. that WSSC shall re-evaluate its Pump Stations to assure that each Pump Station is of sufficient size and capacity to handle expected waste water flows. The results of the re-evaluation shall be reported to EPA, MDE and the Citizens Groups in the appropriate Annual Report to be submitted under Section VII of the Consent Decree.

**Cost Change**

The cost has decreased to reflect negotiated contract with consultant.

**STATUS** Planning (WSSC Contract No. PM0007A07, ).

**OTHER**

The project scope has remained the same. Specific facility plans and/or any new CIP-sized projects identified through the planning processes may be split out into new, separate projects in the appropriate County in future CIP's.

**COORDINATION**

Montgomery County Government, Prince George's County Government, Montgomery County Department of Environmental Protection, Maryland Department of the Environment, Prince George's County Department of Environmental Resources, U.S. Environmental Protection Agency, Region III (Part of Article X Requirements for the Sanitary Sewer Overflow Consent Decree (Civil Action PJM-04-3679) by December 2010.) and Local Community Civic Associations.

**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 | 40 | 12 |
| Total Costs | | 40 | 12 |
| Impact on Water or Sewer Rate | | | .... |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 09 |
| Date First Approved | FY 09 |
| Initial Cost Estimate | 460 |
| Cost Estimate Last FY | 473 |
| Present Cost Estimate | 223 |
| Approved Request, Last FY | 118 |
| Total Expenditures & Encumbrances | 39 |
| Approval Request FY 11 | 62 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not Applicable |
| % Project Completion: | P-10% |
| Est. Completion Date: | FY 2011 |

**H. Map** **Map Reference Code:**

**MAP NOT APPLICABLE**

**A. Identification and Coding Information**

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

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **2,022** | 522 | 400 | **1,100** | 300 | 530 | 270 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **8,000** | | | **8,000** | | 5,300 | 2,700 | | | | |
| Other | **950** | | 40 | **910** | 30 | 583 | 297 | | | | |
| **Total** | **10,972** | **522** | **440** | **10,010** | **330** | **6,413** | **3,267** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **10,972** | 522 | 440 | **10,010** | 330 | 6,413 | 3,267 | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for a facility plan to develop alternatives to address current and future requirements for managing septage and Fats, Oils, Grease discharge facilities in the sanitary district. The plan will address changes and/or revisions to existing facilities or any new facilities that may be recommended. Outsourcing of portions or the entire process to a privately or publicly owned operation will be one of the alternatives considered. The plan will develop separate and distinct reports and recommendations for each county including outreach programs to provide opportunities for active involvement of interested citizens.

**JUSTIFICATION**

**Plans & Studies**

Concept Report Waste Haulers Discharges, AMT and Associates, Inc. Consulting Engineers (August, 2005); Preliminary Report for Septage Discharge Facility Study, JMT & Associates (February 2008)

**Specific Data**

Currently septage waste is discharged at four locations: Muddy Branch Road Disposal Site in Montgomery County; and Temple Hill Road Disposal Site, Ritchie Road Disposal site and Bladensburg Disposal Site in Prince George's County. The types of waste to be discharged 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. Therefore, means and methods to affect and promote this treatment of FOG wastes at the disposal sites will be included in the facility plan.

**Cost Change**

Not applicable.

**STATUS** Facility Planning (WSSC Contract No. CM4363A06, ).

**OTHER**

The project scope has remained the same. The project provides for facility planning and an Order of Magnitude estimate for the design and construction of three septage and two FOG discharge facilities.

**COORDINATION**

Montgomery County Government, Prince George's County Government, Maryland-National Capital Park & Planning Commission, Montgomery County Department of Environmental Protection, Prince George's County Department of Environmental Resources and Prince George's County Health Department.

**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 | 945 | .... | 14 |
| Total Costs | | 945 | .... | 14 |
| Impact on Water or Sewer Rate | | 2¢ | .... | 14 |

**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 | 10,835 |
| Present Cost Estimate | 10,972 |
| Approved Request, Last FY | 880 |
| Total Expenditures & Encumbrances | 522 |
| Approval Request FY 11 | 330 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not determined |
| % Project Completion: | P-85% |
| Est. Completion Date: | December 2012 |

**H. Map** **Map Reference Code:**

MAP NOT APPLICABLE

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| 113805 | S-170.09 | Add |

2. Date: October 1, 2009
Revised: January 20, 2010

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

3. Project Name: Trunk Sewer Reconstruction Program

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **121,768** | | 14,172 | **107,596** | 17,162 | 34,223 | 29,045 | 13,910 | 10,157 | 3,099 | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **307,476** | | | **307,476** | 16,055 | 91,588 | 94,335 | 58,029 | 40,310 | 7,159 | |
| Other | **75,749** | | 2,501 | **73,248** | 5,862 | 22,202 | 21,773 | 12,695 | 8,906 | 1,810 | |
| **Total** | **504,993** | | **16,673** | **488,320** | **39,079** | **148,013** | **145,153** | **84,634** | **59,373** | **12,068** | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **504,993** | | 16,673 | **488,320** | 39,079 | 148,013 | 145,153 | 84,634 | 59,373 | 12,068 | |

**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 15-inches in diameter and larger and their associated manholes.

**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 will inspect approximately 625 miles of sewers in 21-basins by December 2010, Sewer System Evaluation Surveys (SSES) will be conducted for 9 basins by December 2013, and WSSC shall conduct rainfall, groundwater and flow monitoring to determine 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.

Once the Trunk Sewer Inspections, SSES work and other related collection system evaluations are complete, a Sewer Basin Repair, Replacement, Rehabilitation Plan (SR3 Plan) for each basin will be completed as required by Article 6 of the Consent Decree. To date, five SR3 Plans have been submitted to the EPA and MDE including Broad Creek (SSES), Rock Creek (SSES), Oxon Run (non-SSES), Northwest Branch (non-SSES), and Sligo Creek (non-SSES). Another 16 SR3 Plans are scheduled for submission in FY10 totaling approximately 215 miles of trunk sewers identified for rehabilitation.

**Cost Change**

Not applicable.

**STATUS** Planning

**OTHER**

The project scope was developed for the FY2011 CIP and has a total project cost of $504,993,000. This project was split out from the existing S-1.01, Sewer Reconstruction Program in the Information Only section of the CIP to separately identify the 15-inch diameter and larger trunk sewers included in WSSC's overall plans for sewer reconstruction. Expenditures shown above in FY 2010 were previously included in the S-1.01, Sewer Reconstruction Program. The expenditures and schedule shown in Block B above are preliminary planning level estimates and are expected to change as the individual basin designs are completed and construction contracts are bid. The design work for the SR3 Plans pertaining to Trunk Sewer reconstruction will begin in FY 2010 and is projected to be completed by the end of FY 2013. Construction will begin in each basin as the individual designs are completed over the three-year period.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 44035 | .... | 17 |
| Total Costs | | 44035 | .... | 17 |
| Impact on Water or Sewer Rate | | 95¢ | .... | 17 |

**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 | |
| Present Cost Estimate | 504,993 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 39,079 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Right-of-Way may be required |
| % Project Completion: | P-30% |
| Est. Completion Date: | FY 2016 |

**H. Map** **Map Reference Code:**

**NOT APPLICABLE**

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: S - 170.09** **Project Name: Trunk Sewer Reconstruction Program**

For FY 2011, construction is scheduled to begin in the Broad Creek, Rock Creek and Sligo Creek Basins, encompassing approximately 13 miles of mainline reconstruction and including pipeline protection from high stream flows and stream bank erosion where required.

The reconstruction that will be performed in each sewer basin will be prioritized to most effectively prevent SSOs and backups. Reconstruction work will include: reduction of inflow and infiltration; 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 Consent Decree requires that all rehabilitation work be substantially complete by December 5, 2015.

**COORDINATION**

Maryland State Highway Administration, Montgomery County Department of Public Works and Transportation, Maryland-National Capital Park & Planning Commission, Maryland Department of the Environment, Prince George's County Department of Public Works & Transportation, U.S. Environmental Protection Agency, Region III and WSSC Project S-1.01, Sewer Reconstruction Program.

**NOTE** This project supports 100% System Improvement.

# Section 5 - Prince George's County Water Projects

DATE: October 1, 2009

# FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

**PRINCE GEORGE'S COUNTY WATER PROJECTS**

| AGENCY NUMBER | PROJECT NAME | EST. TOTAL COST | EXPEND THRU 09 | EST. EXPEND 10 | TOTAL SIX YEARS | EXPENDITURE SCHEDULE | | | | | | BUDGET REQUEST 11 | PDF PAGE NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | YR 1 11 | YR 2 12 | YR 3 13 | YR 4 14 | YR 5 15 | YR 6 16 | | |
| W-12.02 | Prince George's County HG415 Zone Water Main | 1,074 | 12 | 0 | 1,062 | 69 | 69 | 462 | 462 | 0 | 0 | 69 | 5-3 |
| W-34.02 | Old Branch Avenue Water Main | 10,993 | 70 | 385 | 10,538 | 1,087 | 4,983 | 3,973 | 495 | 0 | 0 | 1,087 | 5-4 |
| W-69.03 | Accokeek Elevated Water Storage Facility | 5,684 | 4,879 | 745 | 60 | 60 | 0 | 0 | 0 | 0 | 0 | 60 | 5-5 |
| W-111.05 | Hillmeade Road Water Main | 3,763 | 497 | 621 | 2,645 | 1,481 | 1,164 | 0 | 0 | 0 | 0 | 1,481 | 5-6 |
| W-119.01 | John Hanson Highway Water Main, Part 1 | 6,368 | 445 | 288 | 5,635 | 242 | 1,881 | 2,347 | 1,165 | 0 | 0 | 242 | 5-7 |
| W-123.16 | Marlboro Meadows System | 20,000 | 15,243 | 272 | 4,485 | 3,076 | 1,409 | 0 | 0 | 0 | 0 | 3,076 | 5-8 |
| W-123.20 | Oak Grove/Leeland Roads Water Main, Part 2 | 12,360 | 924 | 1,432 | 10,004 | 5,716 | 4,288 | | 0 | 0 | 0 | 5,716 | 5-10 |
| W-129.12 | Church Road Water Main & PRV, Part 2 | 683 | 0 | 0 | 683 | 28 | 64 | 285 | 306 | 0 | 0 | 28 | 5-11 |
| W-147.00 | Collington Elevated Water Storage Facility | 9,648 | 534 | 460 | 4,904 | 1,442 | 2,486 | 976 | 0 | 0 | 0 | 1,442 | 5-12 |
| W-147.01 | Marlboro Zone Water Storage Facility | 8,492 | 85 | 89 | 8,318 | 2,755 | 2,415 | 2,415 | 733 | 0 | 0 | 2,755 | 5-13 |
| W-197.00 | DSP & Conceptual Design Water Projects | 13,599 | 2,024 | 1,578 | 9,997 | 1,885 | 2,270 | 3,535 | 1,196 | 803 | 308 | 1,885 | 5-14 |
| W-204.00 | Land & Rights-of-Way Acquisition - Prince George's County | 96 | 0 | 0 | 96 | 76 | 6 | 14 | 0 | 0 | 0 | 76 | 5-20 |
| | Projects Pending Close-Out | 3,624 | 3,381 | 243 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5-21 |
| | **TOTAL PRINCE GEORGE'S COUNTY WATER PROJECTS** | 96,384 | 28,094 | 6,113 | 58,427 | 17,917 | 21,035 | 14,007 | 4,357 | 803 | 308 | 17,917 | |

**Notes for costs beyond six years:**

Includes 3,750 for Project W-147.00, Collington Elevated Water Storage Facility.

## Prince George's County Water Projects

**New Projects Listing**

**(costs in thousands)**

| Agency Number | Project Name | Total Project Cost | Budget Year Cost | Page Number |
|---|---|---|---|---|
| W-12.02 | Prince George's County HG415 Zone Water Main | $1,074 | $69 | 5-3 |
| | **TOTALS** | $1,074 | $69 | |

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | W-12.02 | Add |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Prince George's County HG415 Zone Water Main

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Patuxent P.A. 15

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **132** | 12 | | **120** | 60 | 60 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **804** | | | **804** | | | 402 | 402 | | | |
| Other | **138** | | | **138** | 9 | 9 | 60 | 60 | | | |
| **Total** | **1,074** | **12** | | **1,062** | **69** | **69** | **462** | **462** | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **1,074** | 12 | | **1,062** | 69 | 69 | 462 | 462 | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of 1,500 feet of 24-inch diameter water main, which will improve system reliability by improving the flexibility of the delivery system to the existing HG 415 Zone 30-inch and 42-inch diameter transmission mains leaving the Patuxent Plant.

**Service Area** Patuxent Zone Pressure Zone HG415

**JUSTIFICATION**

**Plans & Studies**

BOA Contract No. PM0003A05, Task Order No. 12: HG 415 Redundancy Study, Whitman, Requardt & Associates, LLP (February 2009).

**Specific Data**

The submitted alternative will provide a redundant feed to the HG 415 Zone from the Potomac Plant in the event the Patuxent Plant is out of service.

**Cost Change**

Not applicable.

**STATUS** Planning (WSSC Contract No. BL5057A09, ).

**OTHER**

The project scope was developed for the FY 2011 CIP and has an estimated total cost of $1,074,000. Expenditures shown in Block B above are planning level estimates only and may change depending on site-specific conditions and design constraints. The previous expenses shown above in Block B were funded under a BOA task to study alternatives for improving system reliability for the existing HG 415 Zone. Land costs are included in WSSC Project W-204.00.

**NOTE** This project supports 100% System Improvement.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | 23 | .... | 15 |
| | Debt Service | 94 | .... | 15 |
| Total Costs | | 117 | .... | 15 |
| Impact on Water or Sewer Rate | | | .... | |

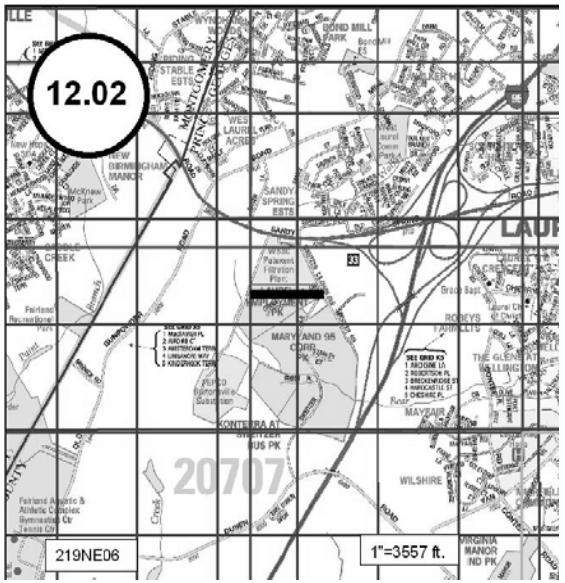
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 11 |
| Date First Approved | FY 11 |
| Initial Cost Estimate | 1,074 |
| Cost Estimate Last FY | |
| Present Cost Estimate | 1,074 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | 12 |
| Approval Request FY 11 | 69 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | R/W required |
| % Project Completion: | P-100% |
| Est. Completion Date: | FY 2014 |

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | W-34.02 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Old Branch Avenue Water Main

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **1,173** | 70 | 350 | **753** | 538 | 130 | 65 | 20 | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **8,827** | | | **8,827** | 450 | 4,400 | 3,547 | 430 | | | |
| Other | **993** | | 35 | **958** | 99 | 453 | 361 | 45 | | | |
| **Total** | **10,993** | **70** | **385** | **10,538** | **1,087** | **4,983** | **3,973** | **495** | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **5,497** | 35 | 193 | **5,269** | 543 | 2,492 | 1,986 | 248 | | | |
| SDC | **5,496** | 35 | 192 | **5,269** | 544 | 2,491 | 1,987 | 247 | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of approximately 10,600 feet of 24-inch diameter water main and approximately 4,400 feet of 30-inch diameter water main along Old Branch Avenue, from Allentown Road to Piscataway Road.

**Service Area** Clinton Pressure Zone HG385

**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 the HG 385B 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 with the loss of any one water system facility and this project will meet that goal for the HG 385B and dependent zones.

**Cost Change**

Costs were increased for inflation.

**STATUS** Planning (WSSC Contract No. BL4985A09, ).

**OTHER**

The project scope has remained the same. The project schedule and expenditures shown above in Block B are Order of Magnitude estimates and may change based upon site selection and design constraints.

**COORDINATION**

Prince George's County Government and Prince George's County Department of Public Works & Transportation.

**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 | 182 | .... | 15 |
| | Debt Service | 463 | .... | 15 |
| Total Costs | | 645 | .... | 15 |
| Impact on Water or Sewer Rate | | 1¢ | .... | 15 |

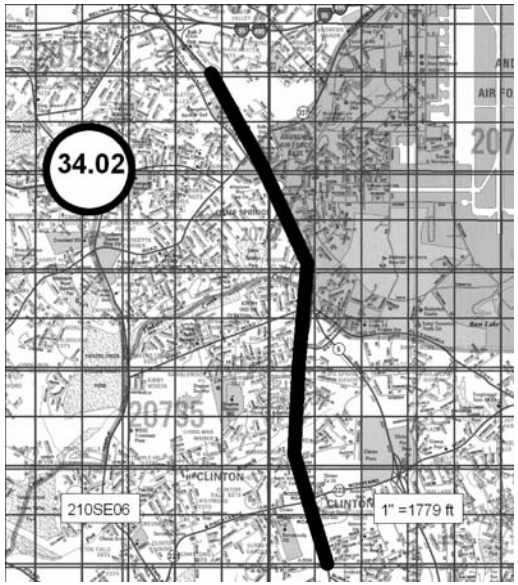
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 08 |
| Date First Approved | FY 08 |
| Initial Cost Estimate | 10,350 |
| Cost Estimate Last FY | 10,605 |
| Present Cost Estimate | 10,993 |
| Approved Request, Last FY | 501 |
| Total Expenditures & Encumbrances | 70 |
| Approval Request FY 11 | 1,087 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Right-of-Way may be required |
| % Project Completion: | P-0% |
| Est. Completion Date: | FY 2014 |

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | W-69.03 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Accokeek Elevated Water Storage Facility
5.Agency: **WSSC**
4. Program: **Sanitation** 6. Planning Area: Accokeek P.A. 83, Piscataway & Vicinity P. A. 84

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **1,887** | 1,797 | 70 | **20** | 20 | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **3,692** | 3,082 | 578 | **32** | 32 | | | | | | |
| Other | **105** | | 97 | **8** | 8 | | | | | | |
| **Total** | **5,684** | **4,879** | **745** | **60** | **60** | | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **5,684** | 4,879 | 745 | **60** | 60 | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for community outreach, planning, design, and construction of a 750,000 gallon elevated storage tank to replace the existing Accokeek Standpipe, construction of a new pressure regulating vault, and demolition of the existing 3.6 million gallon (MG) standpipe. This is in lieu of extensive and costly maintenance for the existing facility which, because of the large volume of unusable storage inherent in a standpipe as opposed to an elevated facility, tends to create water quality problems, such as loss of chlorine residual and an increase in trihalomethanes.

**Service Area** Marlboro Pressure Zone HG280 **Capacity** 750,000 Gallon

**JUSTIFICATION**

**Plans & Studies**

WSSC Memorandum from Jeff Asner, Principal Civil Engineer, to Karen Wright, Systems Control Group Leader, dated March 2001; 2001 Water Production Projections; Water Storage Volume Criteria Report (November 2005); Whitman Requardt, and Associates, LLP (April 2006).

**Specific Data**

The existing 3.6 MG standpipe in this zone is removed from service during much of the year due to water quality concerns. Since this is a single feed zone at the end of the system, there is a strong hydraulic need for storage. Hydraulic/Quality modeling has indicated that replacing the standpipe with a 750,000 gallon elevated tank will substantially reduce detention time. The replacement tank will be constructed on the existing site.

**Cost Change**

Costs were increased for inflation.

**STATUS** Under Construction (WSSC Contract Nos. BE3452A02 , BE3452B02).

**OTHER**

The project scope has remained the same. The new tank is expected to be placed in service in October 2009. The funds shown in FY 2011 are for final landscaping and any outstanding punch list items.

**COORDINATION**

Prince George's County Government, Prince George's County Department of Environmental Resources and WSSC Project W-62.04, Clinton Zone Water Storage Facility (BE4507A06).

**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 | 477 | .... | 12 |
| Total Costs | | 477 | .... | 12 |
| Impact on Water or Sewer Rate | | | .... | |

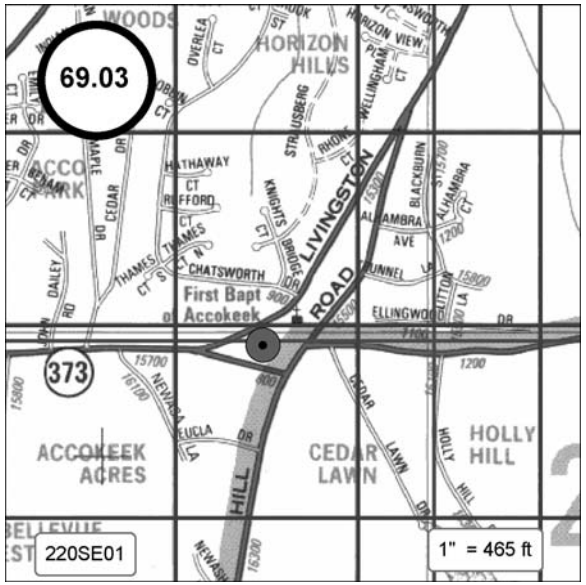
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 03 |
| Date First Approved | FY 03 |
| Initial Cost Estimate | 519 |
| Cost Estimate Last FY | 5,465 |
| Present Cost Estimate | 5,684 |
| Approved Request, Last FY | 225 |
| Total Expenditures & Encumbrances | 4,879 |
| Approval Request FY 11 | 60 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Public/Agency owned land |
| % Project Completion: | C-89% |
| Est. Completion Date: | October 2009 |

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

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

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **579** | 497 | 40 | **42** | 30 | 12 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **2,758** | | 500 | **2,258** | 1,258 | 1,000 | | | | | |
| Other | **426** | | 81 | **345** | 193 | 152 | | | | | |
| **Total** | **3,763** | **497** | **621** | **2,645** | **1,481** | **1,164** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SDC | **3,763** | 497 | 621 | **2,645** | 1,481 | 1,164 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the 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 the Bowie Zone.

**Cost Change**

Costs were increased for inflation.

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

**OTHER**

The project scope has remained the same. The project schedule and expenditures shown in Block B are based upon design estimates and may increase or decrease depending upon actual bids. The project was delayed approximately 20 months due to permitting delays with outside agencies.

**COORDINATION**

Maryland State Highway Administration, Prince George's County Government (Department of Public Works & Transportation), Maryland-National Capital Park & Planning Commission, AMTRAK Railroad, Maryland Department of Natural Resources 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 | 80 | 13 |
| | Debt Service | .... | .... |
| Total Costs | | 80 | 13 |
| Impact on Water or Sewer Rate | | .... | |

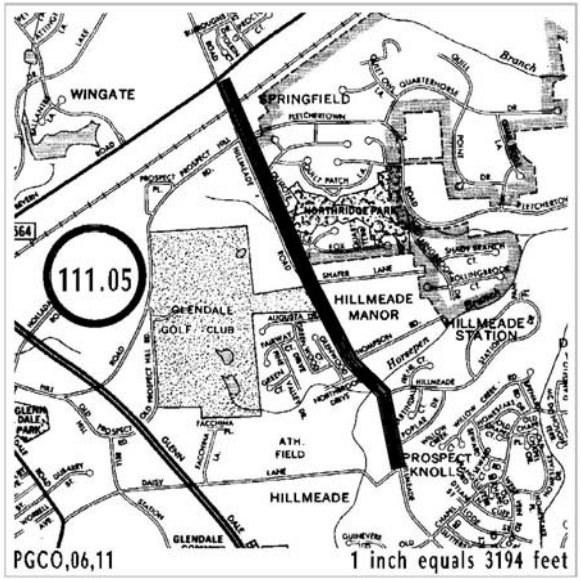
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 98 |
| Date First Approved | FY 98 |
| Initial Cost Estimate | 1,898 |
| Cost Estimate Last FY | 3,668 |
| Present Cost Estimate | 3,763 |
| Approved Request, Last FY | 1,407 |
| Total Expenditures & Encumbrances | 497 |
| Approval Request FY 11 | 1,481 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Right-of-Way may be required |
| % Project Completion: | D-85% |
| Est. Completion Date: | August 2011 |

**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, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **979** | 445 | 250 | **284** | 210 | 36 | 28 | 10 | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **4,616** | | | **4,616** | | 1,600 | 2,013 | 1,003 | | | |
| Other | **773** | | 38 | **735** | 32 | 245 | 306 | 152 | | | |
| **Total** | **6,368** | **445** | **288** | **5,635** | **242** | **1,881** | **2,347** | **1,165** | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SDC | **6,368** | 445 | 288 | **5,635** | 242 | 1,881 | 2,347 | 1,165 | | | |

**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 HG317, Prince George's Main Pressure Zone HG320

**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, HG 320 Zone. This main will provide redundancy to the existing and future developments in the Bowie area.

**Cost Change**

Costs were increased to reflect changed site conditions and inflation.

**STATUS** Preliminary Design (WSSC Contract No. BL7053A86, ).

**OTHER**

The project scope has remained the same. The Planning Group determined that this project was not needed for capacity until after the year 2010. The redundancy and water system reliablity benefits of this project would be immediate. The design will have to be updated prior to construction due to the length of time the project has been deferred. The project schedule and estimated design costs have increased due to the change in exisiting site conditions and the extensive work necessary to update the design plans, and the possiblity of an alignment change to avoid significant impacts to the community and the environment.

**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 | .... | 15 |
| | Debt Service | 31 | .... | 15 |
| Total Costs | | 132 | .... | 15 |
| Impact on Water or Sewer Rate | | | .... | |

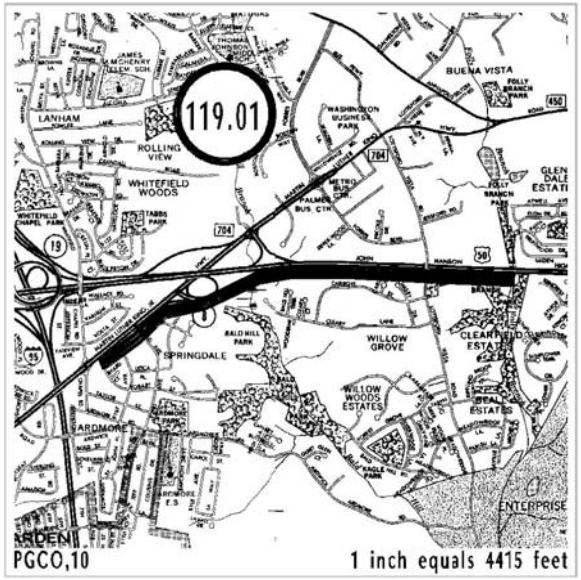
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 82 |
| Date First Approved | FY 82 |
| Initial Cost Estimate | 675 |
| Cost Estimate Last FY | 5,964 |
| Present Cost Estimate | 6,368 |
| Approved Request, Last FY | 230 |
| Total Expenditures & Encumbrances | 445 |
| Approval Request FY 11 | 242 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Site or R/W acquired |
| % Project Completion: | D-0% |
| Est. Completion Date: | FY 2014 |

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | W-123.16 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Marlboro Meadows System

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Upper Marlboro & Vicinity P.A. 79

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **2,515** | 1,768 | 236 | **511** | 275 | 236 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **16,864** | 13,475 | | **3,389** | 2,400 | 989 | | | | | |
| Other | **621** | | 36 | **585** | 401 | 184 | | | | | |
| **Total** | **20,000** | **15,243** | **272** | **4,485** | **3,076** | **1,409** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **6,000** | 2,194 | | **3,806** | 2,397 | 1,409 | | | | | |
| Prince Georges County Government | **6,000** | 5,049 | 272 | **679** | 679 | | | | | | |
| Fund Balance | **8,000** | 8,000 | | | | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides funding for the acquisition of the Marlboro Meadows community water and sewage treatment plant facilities. Funding also includes: planning, design, and construction of a wastewater pumping station; 250 feet of liner plate tunnel for the force main under Route 301; 9,750 feet of 12-inch diameter force main; 1,840 feet of 24-inch diameter water main, crossing Route 301 through a 54-inch liner plate tunnel; and 560 feet of 16-inch diameter water main for the connection to the existing 16-inch diameter water main in Village Drive located within the Marlboro Meadows subdivision.

**Service Area** Prince George's Intermediate Pressure Zone HG317

**JUSTIFICATION**

**Plans & Studies**

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

**Specific Data**

The Marlboro Meadows community has been experiencing discolored water as a result of the iron content in their private system. The community is also concerned that the cost per capita is significantly more than that paid by WSSC customers. Costs in excess of $20 million will be contributed by Prince George's County. If the total project costs are less than $20 million, the savings will be used to reduce the amount of WSSC water and sewer bonds issued for the project, as indicated in the Marlboro Meadows Memorandum of Understanding dated February 24, 2005.

**Cost Change**

Not Applicable

**STATUS** Under Construction (WSSC Contract Nos. BL4232A05 , BL9613A93 , CP4232C05 , CP4232D05).

**OTHER**

The project scope has remained the same. This project was initiated in FY'94 for the acquisition and/or planning, design, construction, modification, reconstruction, and rehabilitation of the existing Marlboro Meadows community water distribution system and sewage treatment plant and collection systems. The present scope of work includes the system acquisition in FY'07; planning, design, and construction of a new water supply main; and planning, design, and construction of a new wastewater pumping station and force main to interconnect the WSSC and Marlboro Meadows systems. The % Project Completion (Design-30%) shown in Block G-Status Information refers to the new wastewater pump station and force main.

**COORDINATION**

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | 138 | .... | 13 |
| | Debt Service | 523 | .... | 13 |
| Total Costs | | 661 | .... | 13 |
| Impact on Water or Sewer Rate | | 1¢ | .... | 13 |

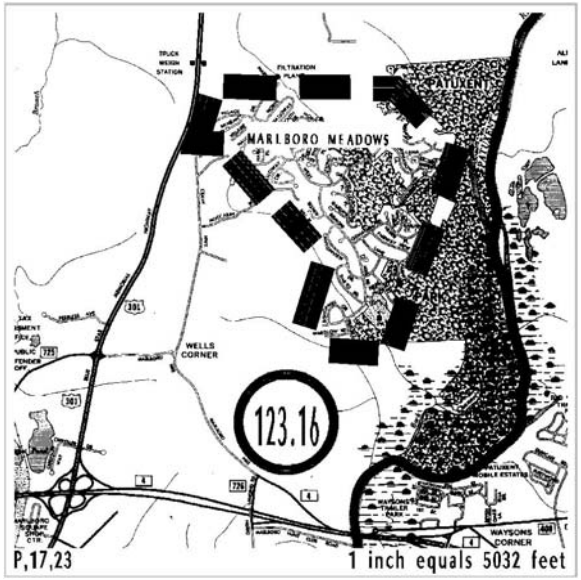
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 94 |
| Date First Approved | FY 94 |
| Initial Cost Estimate | 6,000 |
| Cost Estimate Last FY | 20,000 |
| Present Cost Estimate | 20,000 |
| Approved Request, Last FY | 388 |
| Total Expenditures & Encumbrances | 15,243 |
| Approval Request FY 11 | 3,076 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not determined |
| % Project Completion: | D-30% |
| Est. Completion Date: | October 2011 |

**H. Map** **Map Reference Code:**



**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: W - 123.16** **Project Name: Marlboro Meadows System**

Prince George's County Government, Maryland Department of Natural Resources, Maryland State Department of Transportation, Chesapeake Bay Critical Areas, Utilities Inc. of Maryland, Local Community Civic Associations and Local, State & Congressional Officials (and a Policy Review Group including members of the Marlboro Meadows community).

**NOTE** This project supports 100% System Improvement.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | W-123.20 | Change |

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **980** | 924 | 9 | **47** | 27 | 20 | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **9,888** | | 1,236 | **8,652** | 4,944 | 3,708 | | | | | |
| Other | **1,492** | | 187 | **1,305** | 745 | 560 | | | | | |
| **Total** | **12,360** | **924** | **1,432** | **10,004** | **5,716** | **4,288** | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **6,180** | 462 | 716 | **5,002** | 2,858 | 2,144 | | | | | |
| SDC | **6,180** | 462 | 716 | **5,002** | 2,858 | 2,144 | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of approximately 18,000 feet of 24-inch diameter water main along Oak Grove and Leeland Roads in the Upper Marlboro Planning Area of Prince George's County.

**Service Area** Prince George's Intermediate Pressure Zone HG317

**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 HG317 zone 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**

Costs were increased for inflation.

**STATUS** Final Design (WSSC Contract No. BL3192A01, ).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are design level estimates only and may change depending upon site conditions and actual bids.

**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 | 218 | .... | 13 |
| | Debt Service | 510 | .... | 13 |
| Total Costs | | 728 | .... | 13 |
| Impact on Water or Sewer Rate | | 1¢ | .... | 13 |

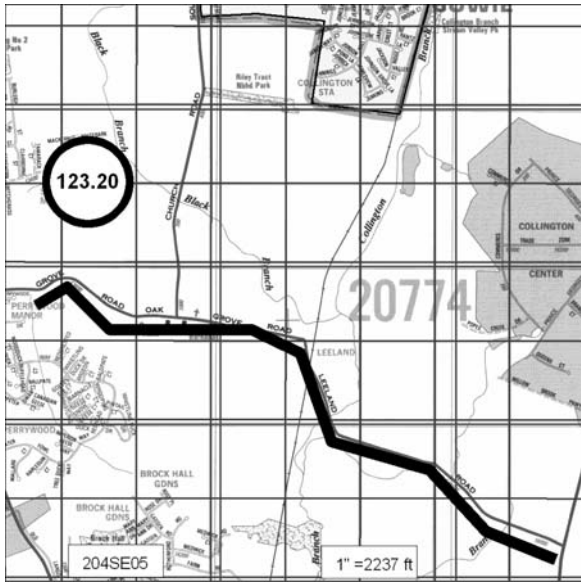
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 02 |
| Date First Approved | FY 02 |
| Initial Cost Estimate | 4,117 |
| Cost Estimate Last FY | 11,702 |
| Present Cost Estimate | 12,360 |
| Approved Request, Last FY | 1,562 |
| Total Expenditures & Encumbrances | 925 |
| Approval Request FY 11 | 5,716 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Right-of-Way may be required |
| % Project Completion: | D-99% |
| Est. Completion Date: | March 2012 |

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

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

2. Date: October 1, 2009
Revised:

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

3. Project Name: Church Road Water Main & PRV, 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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **90** | | | **90** | 24 | 56 | 10 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **504** | | | **504** | | | 238 | 266 | | | |
| Other | **89** | | | **89** | 4 | 8 | 37 | 40 | | | |
| **Total** | **683** | | | **683** | **28** | **64** | **285** | **306** | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SDC | **683** | | | **683** | 28 | 64 | 285 | 306 | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of approximately 1,400 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. This project also provides for the installation of a 10-inch pressure reducing valve in the existing 24-inch diameter water main in Church Road.

**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 the HG350e water pressure zone, meeting year 2010 demands.

**Cost Change**

Costs were increased for inflation.

**STATUS** Planning (WSSC Contract No. BL4263A05, ).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B above are preliminary planning estimates only and may change depending on site-specific conditions and design constraints. Estimated completion date is development dependent. No WSSC rate supported debt will be used for this project.

**COORDINATION**

Maryland State Highway Administration and Prince George's 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 | 15 | .... | 15 |
| | Debt Service | | .... | |
| Total Costs | | 15 | .... | 15 |
| Impact on Water or Sewer Rate | | | .... | |

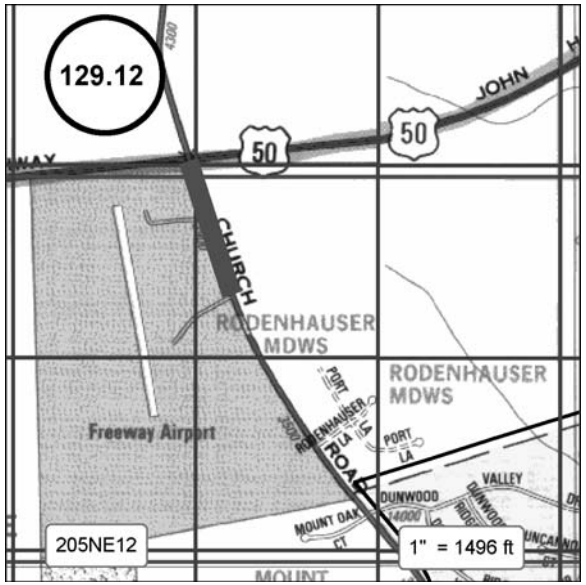
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 07 |
| Date First Approved | FY 07 |
| Initial Cost Estimate | 589 |
| Cost Estimate Last FY | 662 |
| Present Cost Estimate | 683 |
| Approved Request, Last FY | 26 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 28 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W required |
| % Project Completion: | P-0% |
| Est. Completion Date: | Development Dependent |

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

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

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **1,209** | 404 | 400 | **144** | 109 | 25 | 10 | | | | 261 |
| Land | **130** | 130 | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **7,120** | | | **4,120** | 1,146 | 2,136 | 838 | | | | 3,000 |
| Other | **1,189** | | 60 | **640** | 187 | 325 | 128 | | | | 489 |
| **Total** | **9,648** | **534** | **460** | **4,904** | **1,442** | **2,486** | **976** | | | | **3,750** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **4,824** | 267 | 230 | **2,452** | 721 | 1,243 | 488 | | | | 1,875 |
| SDC | **4,824** | 267 | 230 | **2,452** | 721 | 1,243 | 488 | | | | 1,875 |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the site selection, design, and construction of up to 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, has been selected as the site for these storage tanks.

**Service Area** Prince George's Intermediate Pressure Zone HG317 **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**

Not Applicable

**STATUS** Preliminary Design (WSSC Contract No. BE1775A96, ).

**OTHER**

The project scope has remained the same. The project schedule and expenditures shown in Block B are planning level estimates only and may change depending upon site-specific conditions and design constraints. To meet existing needs and allow for adjustments in the total storage provided as future needs become better known, this project will proceed with a single 2 MG elevated tank now and defer action on a possible second elevated tank. The estimated completion date in Block G refers to the schedule for the first tank.

**COORDINATION**

Prince George's County Government, Maryland-National Capital Park & Planning Commission 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 | 421 | .... |
| Total Costs | | 421 | .... |
| Impact on Water or Sewer Rate | | | .... |

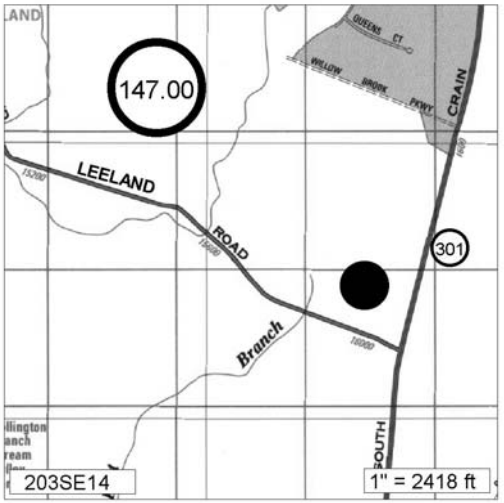
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 98 |
| Date First Approved | FY 98 |
| Initial Cost Estimate | 12,536 |
| Cost Estimate Last FY | 9,473 |
| Present Cost Estimate | 9,648 |
| Approved Request, Last FY | 460 |
| Total Expenditures & Encumbrances | 534 |
| Approval Request FY 11 | 1,442 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

Land Status: Site acquired
% Project Completion: D-0%
Est. Completion Date: December 2012

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | W-147.01 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Marlboro Zone Water Storage Facility

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Upper Marlboro & Vicinity P.A. 79

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **1,085** | 85 | 73 | **927** | 300 | 300 | 300 | 27 | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **6,310** | | 4 | **6,306** | 2,096 | 1,800 | 1,800 | 610 | | | |
| Other | **1,097** | | 12 | **1,085** | 359 | 315 | 315 | 96 | | | |
| **Total** | **8,492** | **85** | **89** | **8,318** | **2,755** | **2,415** | **2,415** | **733** | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **4,246** | 42 | 45 | **4,159** | 1,377 | 1,208 | 1,207 | 367 | | | |
| SDC | **4,246** | 43 | 44 | **4,159** | 1,378 | 1,207 | 1,208 | 366 | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the site selection, planning, design, and construction of up to 2.1 million gallons (MG) of elevated storage to serve the Marlboro Pressure Zone. The tank site selection phase included a Community Outreach Program. The tank site, identified as the Prince George's County Vehicle Impound Lot, requires coordination with the Prince George's County Department of Environmental Resources (DER).

**Service Area** Marlboro Pressure Zone HG280 **Capacity** 2.1 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 2.1 MG of additional storage to the Marlboro Zone to meet demands to the year 2020.

**Cost Change**

Costs were increased for inflation.

**STATUS** Preliminary Design (WSSC Contract No. BE1775C96, ).

**OTHER**

The project scope has remained the same. The project schedule and expenditures shown in Block B are planning level estimates only and may change depending upon the number and type of facilities selected, site conditions, and design constraints. The WSSC will not begin construction of the storage tank until all of the concerns with the use of the proposed site have been resolved. Land costs are included in WSSC Project W-204.00.

**COORDINATION**

Maryland-National Capital Park & Planning Commission, Maryland Department of the Environment, Prince George's County Department of Environmental Resources (site related) and Prince George's County Department of Public Works & Transportation.

**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 | 359 | .... | 15 |
| Total Costs | | 359 | .... | 15 |
| Impact on Water or Sewer Rate | | | .... | |

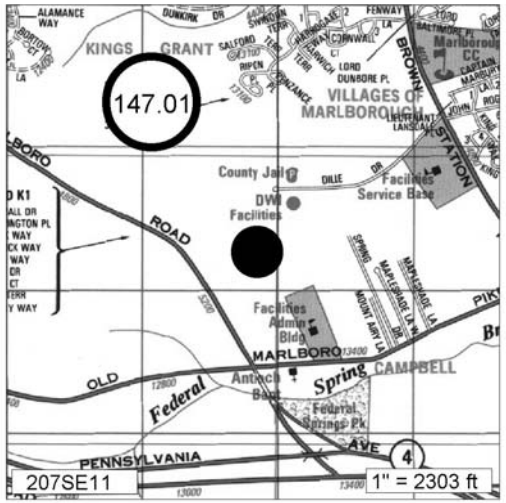
**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 98 |
| Date First Approved | FY 98 |
| Initial Cost Estimate | 5,427 |
| Cost Estimate Last FY | 8,237 |
| Present Cost Estimate | 8,492 |
| Approved Request, Last FY | 76 |
| Total Expenditures & Encumbrances | 85 |
| Approval Request FY 11 | 2,755 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Site or R/W under negotiation |
| % Project Completion: | D-15% |
| Est. Completion Date: | FY 2014 |

**H. Map** **Map Reference Code:**



**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | W-197.00 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: DSP & Conceptual Design Water Projects

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Prince George's County

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **4,180** | 1,079 | 936 | **2,165** | 684 | 629 | 491 | 154 | 165 | 42 | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **7,907** | 945 | 436 | **6,526** | 953 | 1,345 | 2,584 | 886 | 533 | 225 | |
| Other | **1,512** | | 206 | **1,306** | 248 | 296 | 460 | 156 | 105 | 41 | |
| **Total** | **13,599** | **2,024** | **1,578** | **9,997** | **1,885** | **2,270** | **3,535** | **1,196** | **803** | **308** | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **456** | 269 | 152 | **35** | 35 | | | | | | |
| SDC | **4,921** | 523 | 699 | **3,699** | 514 | 442 | 1,942 | 737 | 64 | | |
| Contribution/Other | **8,222** | 1,232 | 727 | **6,263** | 1,336 | 1,828 | 1,593 | 459 | 739 | 308 | |

**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-204.00. 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

**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 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 11 | |
| Supplemental Approval Request Current FY (10) | |

**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 Applicants. 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, nor does it include non-DSP projects which are beyond the 30% design stage for facility projects or the 60% deign stage for pipeline projects. 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 cost containment measures. Construction costs for DSP projects are typically based upon preliminary or final 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-62.04 Clinton Zone Water Storage Facility (BE4507A06)

CD Project. This project provides for the site selection, design, and construction of up to 2.5 million gallons (MG) of water storage to serve the Clinton Pressure Zone. This zone currently includes only one water storage facility (the 3.0 MG Clinton Elevated Tank) which creates operational challenges when the facility must be removed from service for maintenance. Also, the November 2005 Water Storage Volume Criteria Report and the 2001 Water Production Projections for this zone indicate a projected 2.4 MG deficit in 2020. (These storage deficits include the dependent Accokeek Zone.) Status: P-0%; Estimated Study Cost: $803,000. The site selection phase will include a Community Outreach Program. This project is 100% growth.

W-65.09 Prince George's County High Zone Storage Study (BE3227A02)

CD Project. This project provides for community outreach and facility planning for up to 3 million gallons of finished water storage required for the Prince George's County High Zone. The project includes evaluating two existing tank sites (Camp Springs and St. Barnabas) as well as identifying new tank sites. This project also includes an evaluation of the water storage volume criteria and development of new volume standards. Status: P-62%; Estimated Study Cost: $912,000. This study will be completed in two phases. The first phase to evaluate the existing water storage criteria and recommend changes in accordance with present day standards has been completed. The second phase for the planning of the water storage required for the Prince George's County High Zone has begun and is estimated to be completed by December 2009. This project is 50% growth and 50% system improvement.

W-84.02 Prince George's High Zone Water Main (BL5020A09)

CD Project. 3,400 feet of 30-inch diameter water main and 9,700 feet of 24-inch diameter water main for service to the Westphalia area. Service Area: Prince George's High Zones, HG 450A and HG 385B pressure zones. Status: P-10%. Estimated Total Project Cost: $2,894,000. Land costs have not been identified. The estimated completion date has not yet been determined and will be dependent upon the outcome of the Westphalia Sectional Map Amendment. No WSSC rate supported debt will be used for this project. This project is 100% growth.

W-84.03 Smith Home Farms Water Main (DA4358Z06)

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: Clinton Zone (385B); Status: P-50%; Estimated Total Project Cost: $1,765,000. 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

4,000 feet of 16-inch water main to serve Konterra Town Center East ( DA4623Z07), located in the vicinity of Muirkirk Road and Virginia Manor Road. Service Area: Patuxent, Prince George's County, HG 415-A Pressure Zone; Status: P-25%; Estimated Total Project Cost: $640,000. 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: Clinton, HYG 385-B; 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 (DA3599A03) 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: $2,402,000. The estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

W-109.09 Central Avenue Pumping Station Expansion

This project will provide for the planning, design, and construction required for the expansion of the existing Central Avenue Water Pumping Station to provide service to Woodmore Towne Centre, a multi-use development including but not limited to: residential, retail, commercial, office, hotel, restaurant, health, bank, and service establishments. The project provides for the installation of an additional water pump and associated hardware and controls at the existing Central Avenue Pumping Station. Capacity: 10 MGD; Service Area: 350F and 317A Water Pressure Zones; Status: P- 70%; Estimated Total Project Cost: $489,000. 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 water main to serve the Lakeview at Brandywine project. Estimated Total Project Cost: $178,000. The project will need to be re-evaluated when the Owner/Developer is ready to develop the industrial portion of the project. A new cost estimate and schedule will be required at that time. The estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project. Land costs are included in WSSC Project W-204.00.

* New entry on listing

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: W-197.00 Project Name: DSP & Conceptual Design Water Projects**

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

3,700 feet of 16-inch water main to serve the Lakeview at Brandywine project. Estimated Total Project Cost: $558,000. The project will need to be re-evaluated when the Owner/Developer is ready to develop the industrial portion of the project. A new cost estimate and schedule will be required at that time. The estimated completion date is developer dependent. 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 water main to serve the Lakeview at Brandywine project. Estimated Total Project Cost: $45,000. The project will need to be re-evaluated when the Owner/Developer is ready to develop the eastern portion of the project. A new cost estimate and schedule will be required at that time. The estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

W-120.18 Mattawoman/Brandywine Commerce Center, Part 6 (DA9381Z92)

4,100 feet of 16-inch diameter water main to provide service to the Mattawoman/Brandywine Commerce Center. Service Area: Piscataway, HG 385 pressure zone; Status: P-0%; Estimated Total Project Cost: $405,000. The project will need to be re-evaluated when the Owner/Developer approaches the WSSC to restart the project. The current estimate reflects the original plans for the commerce center. A new cost estimate and schedule will be required at restart. The estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

W-120.19 Mattawoman/Brandywine Commerce Center, Part 7 (DA9381Z92)

1,730 feet of 16-inch diameter water main to provide service to the Mattawoman/Brandywine Commerce Center. Service Area: Piscataway, HG 385 pressure zone; Status: P-0%; Estimated Total Project Cost: $243,000. The project will need to be re-evaluated when the Owner/Developer approaches the WSSC to restart the project. The current estimate reflects the original plans for the commerce center. A new cost estimate and schedule will be required at restart. The estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

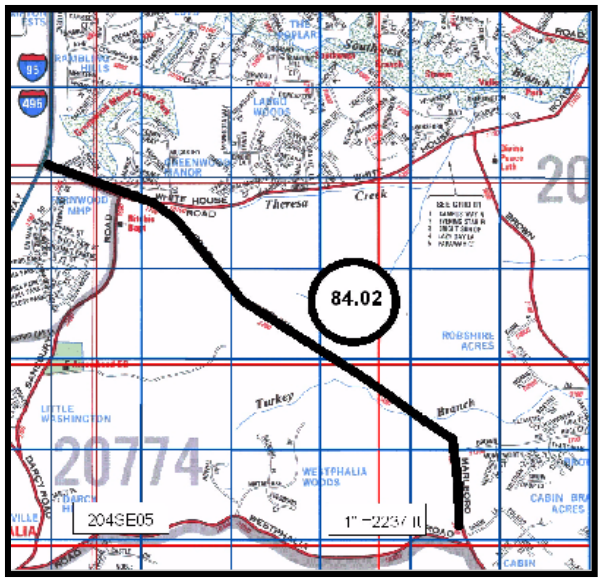
W-123.14 Old Marlboro Pike Water Main (DA3538Z, A,D,E,H&J03)

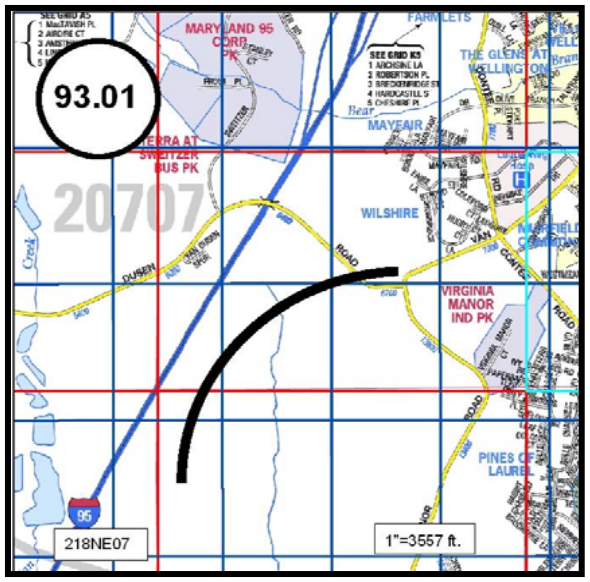
9,000 feet of 16-inch diameter water main along Old Marlboro Pike and on-site at the applicant's property to serve the Addison Property development. Service Area: Clinton HG 385; Status: C-62%; Estimated Project Cost: $1,497,000. Design and construction will be performed by the developer under a System Extension Permit. The estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

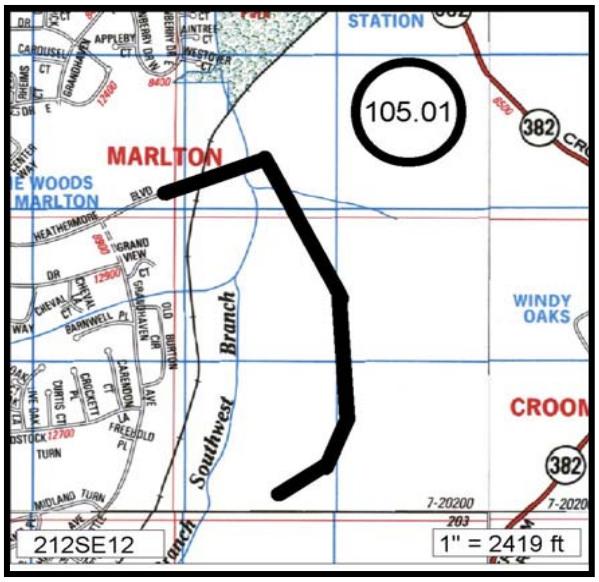
W-137.01 South Potomac Supply Improvement (BR4797A08)

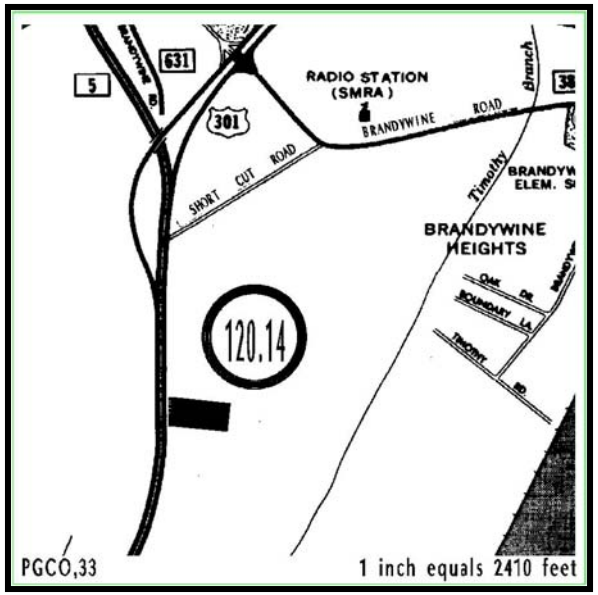
CD Project. This project will provide for the design and construction of a lining for approximately 2.1 miles of an existing 42-inch PCCP water transmission main, and for the construction of a new flow control valve (FCV) vault, piping and apputurtenances, in conformity with the Commission's design guidelines (DG-03). This will provide a second major feed to the HG 290 Zone, which serves southwestern Prince George's County, primarily areas west of Indian Head Highway, including National Harbor. The current primary feed 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 presents a service liability in the event of failure. The main will need to be replaced or rehabilitated prior to placing back in service. Service Area: Prince George's Potomac Zone, HG 290; Status: P-100%; Estimated Total Design Cost: $768,000. No WSSC rate supported debt will be used for this project. This project is 100% growth.

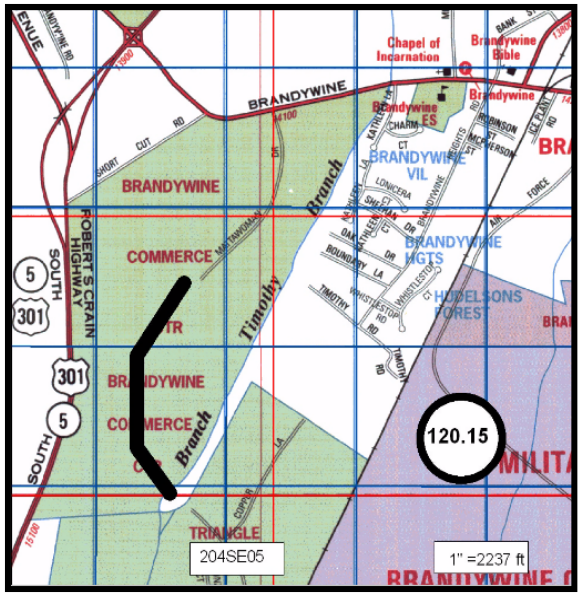
* New entry on listing

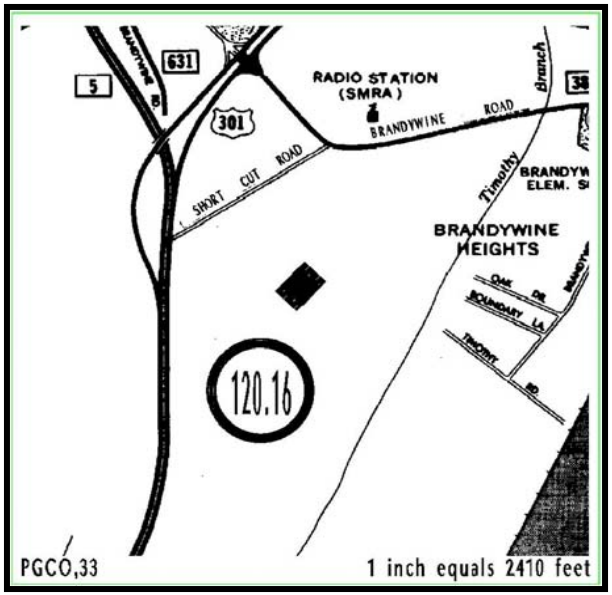

84.02
20774
204SE05
1" =2237 ft

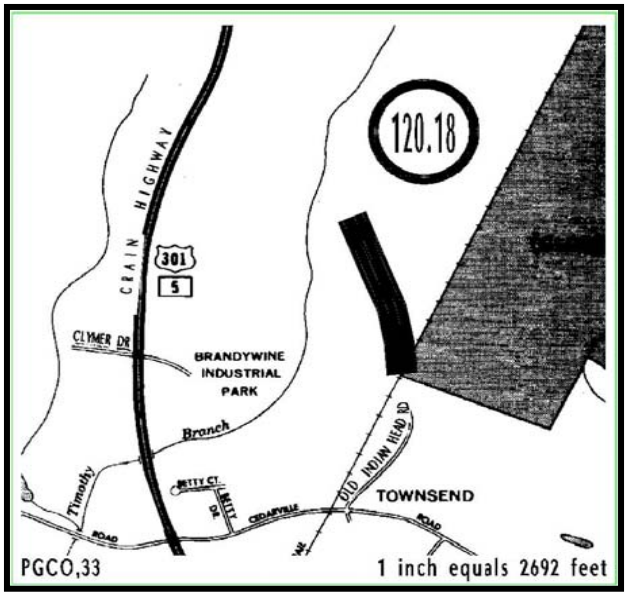

93.01
20707
218NE07
1"=3557 ft.

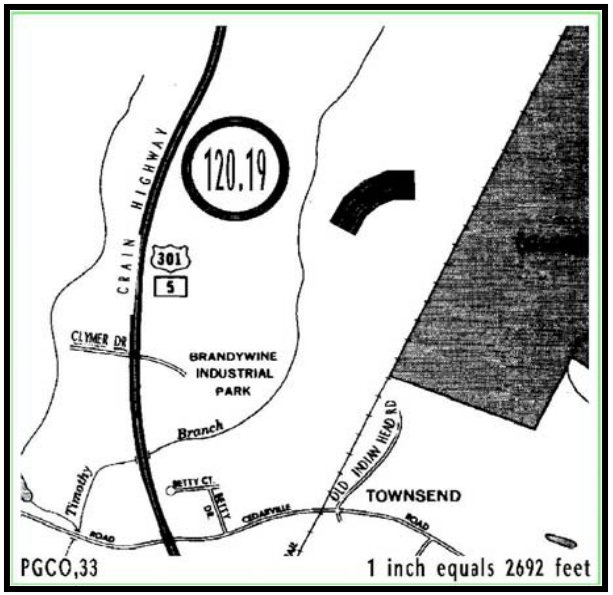

105.01
MARLTON
WINDY OAKS
212SE12
1" = 2419 ft

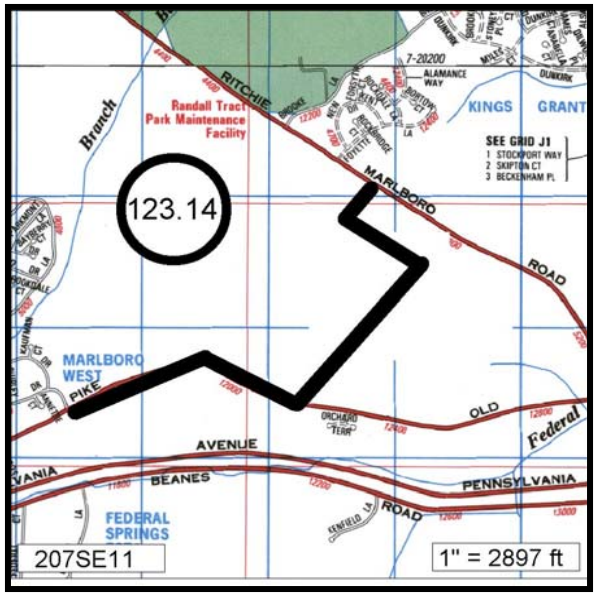

RADIO STATION (SMRA)
BRANDYWINE ROAD
SHORT CUT ROAD
BRANDYWINE HEIGHTS
120.14
PGCO,33
1 inch equals 2410 feet


BRANDYWINE
COMMERCE
TRIANGLE
120.15
204SE05
1" =2237 ft


RADIO STATION (SMRA)
BRANDYWINE ROAD
SHORT CUT ROAD
BRANDYWINE HEIGHTS
120.16
PGCO,33
1 inch equals 2410 feet


120.18
CRAIN HIGHWAY
301
5
CLYMER DR
BRANDYWINE
INDUSTRIAL
PARK
Branch
Timothy
BETTY CT
BETTY
DR
CEDARVILLE
ROAD
OLD INDIAN HEAD RD
TOWNSEND
ROAD
PGCO,33
1 inch equals 2692 feet


120.19
CRAIN HIGHWAY
301
5
CLYMER DR
BRANDYWINE
INDUSTRIAL
PARK
Branch
Timothy
BETTY CT
BETTY
DR
CEDARVILLE
ROAD
OLD INDIAN HEAD RD
TOWNSEND
ROAD
PGCO,33
1 inch equals 2692 feet


123.14
Branch
Randall Tract
Park Maintenance
Facility
RITCHIE
MARLBORO
ROAD
KINGS
GRANT
ALAMANCE
WAY
DUNKIRK
SEE GRID J1
1 STOCKPORT WAY
2 SKIPTON CT
3 BECKENHAM PL
MARLBORO
WEST
PIKE
ORCHARD
TERR
OLD
Federal
AVENUE
BEANES
PENNSYLVANIA
ROAD
FEDERAL
SPRINGS
207SE11
1" = 2897 ft

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | W-204.00 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Land & Rights-of-Way Acquisition - Prince George's County

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Prince George's County

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | | | | | | | | | | | |
| Land | **83** | | | **83** | 66 | 5 | 12 | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | | | | | | | | | | | |
| Other | **13** | | | **13** | 10 | 1 | 2 | | | | |
| **Total** | **96** | | | **96** | **76** | **6** | **14** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **53** | | | **53** | 53 | | | | | | |
| SDC | **23** | | | **23** | 23 | | | | | | |
| Contribution/Other | **20** | | | **20** | | 6 | 14 | | | | |

**D. Description & Justification**

**DESCRIPTION**

This PDF provides a consolidated estimate of funding for the acquisition of land and rights-of-way for previously approved projects and new projects, as needed. 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 (DSP).

**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. This format change alleviates this restriction, especially for DSP projects, which depend upon actions of the Applicant. Other considerations include the accommodation of unpredictable delays for extended community outreach which impacts the timing of a planned purchase, unanticipated rights-of-way requirements for approved projects 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** Various Stages of Planning & Design

**OTHER**

The project scope has remained the same. The expenditures 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 description form elsewhere in this program.

**NOTE** This project supports 45% Growth and 55% System Improvement.

**E. Annual Operating Budget Impact (000's)**

| | | FY of Impact | |
|---|---|---|---|
| Program Costs | Staff | .... | |
| | Other | .... | |
| Facility Costs | Maintenance | .... | |
| | Debt Service | 2 .... | 13 |
| Total Costs | | 2 .... | 13 |
| 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 | |
| Cost Estimate Last FY | 66 |
| Present Cost Estimate | 177 |
| Approved Request, Last FY | 46 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 111 |
| Supplemental Approval Request Current FY (10) | |

**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:**

## PROJECTS PENDING CLOSE-OUT

**Prince George's County Water Projects**

**(costs in thousands)**

| Project Number | Agency Number | Project Name | Estimated Total Cost | Expenditures Thru FY'09 | Estimated Expenditures FY'10 | Remarks |
|---|---|---|---|---|---|---|
| | W-140.01 | Sheriff Road Water Main Replacement | $3,624 | $3,381 | $243 | Project completion expected in FY'10. |
| | | **TOTALS** | $3,624 | $3,381 | $243 | |

# Section 6 - Prince George's  County Sewer Projects

DATE: October 1, 2009

# FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

**PRINCE GEORGE'S COUNTY SEWER PROJECTS**

| AGENCY NUMBER | PROJECT NAME | EST. TOTAL COST | EXPEND THRU 09 | EST. EXPEND 10 | TOTAL SIX YEARS | EXPENDITURE SCHEDULE | | | | | | BUDGET REQUEST 11 | PDF PAGE NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | YR 1 11 | YR 2 12 | YR 3 13 | YR 4 14 | YR 5 15 | YR 6 16 | | |
| S-43.02 | Broad Creek WWPS Augmentation | 85,775 | 8,731 | 5,500 | 70,884 | 2,748 | 13,200 | 30,791 | 22,275 | 1,210 | 660 | 2,748 | 6-3 |
| S-57.92 | Western Branch Facility Upgrade | 43,414 | 1,500 | 2,391 | 39,523 | 17,710 | 17,710 | 4,103 | 0 | 0 | 0 | 17,710 | 6-5 |
| S-57.93 | Western Branch WWTP Enhanced Nutrient Removal | 38,560 | 3,800 | 1,430 | 33,330 | 15,400 | 15,400 | 2,530 | 0 | 0 | 0 | 15,400 | 6-6 |
| S-75.21 | Mattawoman WWTP Upgrades | 2,668 | 322 | 133 | 2,135 | 420 | 755 | 544 | 260 | 78 | 78 | 420 | 6-8 |
| S-77.18 | Parkway WWTP Enhanced Nutrient Removal | 20,719 | 753 | 2,035 | 17,931 | 8,527 | 7,427 | 1,977 | 0 | 0 | 0 | 8,527 | 6-9 |
| S-77.19 | Parkway WWTP Biosolids Facility Plan | 917 | 370 | 460 | 87 | 87 | 0 | 0 | 0 | 0 | 0 | 87 | 6-11 |
| S-96.12 | Piscataway WWTP Enhanced Nutrient Removal | 7,528 | 276 | 869 | 6,383 | 6,383 | 0 | 0 | 0 | 0 | 0 | 6,383 | 6-12 |
| S-187.00 | DSP & Conceptual Design Sewer Projects | 16,900 | 4,121 | 4,959 | 7,564 | 3,168 | 2,010 | 574 | 274 | 678 | 860 | 3,168 | 6-14 |
| S-205.00 | Land & Rights-of-Way Acquisition - Prince George's County | 99 | 0 | 0 | 99 | 35 | 46 | 0 | 0 | 18 | 0 | 35 | 6-21 |
| | Projects Pending Close-Out | 3,636 | 3,636 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6-22 |
| | **TOTAL PRINCE GEORGE'S COUNTY SEWER PROJECTS** | 220,216 | 23,509 | 17,777 | 177,936 | 54,478 | 56,548 | 40,519 | 22,809 | 1,984 | 1,598 | 54,478 | |

**Notes for costs beyond six years:**

Includes 660 for Project S-43.02, Broad Creek WWPS Augmentation

Includes 78 for Project S-75.21, Mattawoman WWTP Upgrades.

Includes 256 for Project S-187.00, DSP & Conceptual Design Sewer Projects.

## Prince George's County Sewer Projects

**New Projects Listing**

**(costs in thousands)**

| Agency Number | Project Name | Total Project Cost | Budget Year Cost | Page Number |
|---|---|---|---|---|
| S-68.01 | Landover Mall Redevelopment | $1,108 | $12 | 6-16 |
| S-131.08 | Preserves of Piscataway WWPS | 500 | 190 | 6-17 |
| S-131.09 | Preserves of Piscataway WWPS Force Main | 77 | 23 | 6-17 |
| | **TOTALS** | $1,685 | $225 | |

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | S-43.02 | Change |

2. Date: October 1, 2009

Revised:

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

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 | | .... |
| | Debt Service | 581 | .... |
| Total Costs | | 581 | .... |
| Impact on Water or Sewer Rate | | 1¢ | .... |

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **7,798** | | 2,000 | **5,698** | 2,498 | 2,000 | 750 | 250 | 100 | 100 | 100 |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **70,973** | 8,731 | 3,000 | **58,742** | | 10,000 | 27,242 | 20,000 | 1,000 | 500 | 500 |
| Other | **7,004** | | 500 | **6,444** | 250 | 1,200 | 2,799 | 2,025 | 110 | 60 | 60 |
| **Total** | **85,775** | **8,731** | **5,500** | **70,884** | **2,748** | **13,200** | **30,791** | **22,275** | **1,210** | **660** | **660** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **6,863** | 699 | 440 | **5,671** | 220 | 1,056 | 2,463 | 1,782 | 97 | 53 | 53 |
| SDC | **78,912** | 8,032 | 5,060 | **65,213** | 2,528 | 12,144 | 28,328 | 20,493 | 1,113 | 607 | 607 |

**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 | 83,277 |
| Present Cost Estimate | 85,775 |
| Approved Request, Last FY | 6,678 |
| Total Expenditures & Encumbrances | 8,731 |
| Approval Request FY 11 | 2,748 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Land & R/W to be acquired |
| % Project Completion: | D-30% |
| Est. Completion Date: | July 2016 |

**H. Map** **Map Reference Code:**

MAP NOT APPLICABLE

**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 (WSSC Project S-43.01), which included assessments of engineering, economic, environmental and local community impacts, recommends the construction of a 42-inch diameter force main and capacity enhancing modifications at the pumping station. At Piscataway WWTP a bladder will be installed 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 EPA and MDE. Construction costs shown above also provide for an emergency generator in the event of power outage.

**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)

**Specific Data**

This project stems from the following litigation: Section V (remedial Measures), Article Ten, 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 have been increased to include replacement of the manifold system and addition of a second surge system.

**STATUS** Preliminary Design (WSSC Contract Nos. CM4231A05 , CM4231B05 , CM4231C05 , CP4231B05 , CP4231C05).

**OTHER**

The project scope has remained the same. The project schedule and expenditures shown in Block B above reflect planning level estimates and may change based upon site specific conditions, design constraints and negotiations with the Maryland Department of the Environment (MDE). Upon completion of preliminary design the schedule and expenditures will be updated. WSSC will also investigate compressing the design schedule and implementing multiple contracts for construction in order to evaluate the impact on the project schedule.

.
.
.

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: S - 43.02** **Project Name: Broad Creek WWPS Augmentation**

**COORDINATION**

Prince George's County Government, Maryland-National Capital Park & Planning Commission, National Park Service, Maryland Department of the Environment, Prince George's County Department of Environmental Resources and U.S. Environmental Protection Agency, Region III.

**NOTE** This project supports 92% Growth and 8% System Improvement.

**A. Identification and Coding Information**

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

2. Date: October 1, 2009

Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **6,180** | 1,500 | 750 | **3,930** | 1,600 | 1,600 | 730 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **33,424** | | 1,424 | **32,000** | 14,500 | 14,500 | 3,000 | | | | |
| Other | **3,810** | | 217 | **3,593** | 1,610 | 1,610 | 373 | | | | |
| **Total** | **43,414** | **1,500** | **2,391** | **39,523** | **17,710** | **17,710** | **4,103** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **43,414** | 1,500 | 2,391 | **39,523** | 17,710 | 17,710 | 4,103 | | | | |

**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 seventies. It is the only WSSC WWTP that does not utilize Biological Nitrogen Removal (BNR), relying on the addition of methanol for nitrogen removal.

**Cost Change**

Costs were increased for inflation.

**STATUS** Preliminary Design (WSSC Contract No. CD4173A05, ).

**OTHER**

The project scope has remained the same. The project schedule and expenditures shown in Block B are preliminary design level estimates and may change based upon site specific conditions and design constraints. Upon completion of final design, a more accurate estimate can be made.

**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 | 3682 | .... | 13 |
| Total Costs | | 3682 | .... | 13 |
| Impact on Water or Sewer Rate | | 8¢ | .... | 13 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 06 |
| Date First Approved | FY 06 |
| Initial Cost Estimate | 6,325 |
| Cost Estimate Last FY | 42,220 |
| Present Cost Estimate | 43,414 |
| Approved Request, Last FY | 8,190 |
| Total Expenditures & Encumbrances | 1,500 |
| Approval Request FY 11 | 17,710 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W required |
| % Project Completion: | D-70% |
| Est. Completion Date: | September 2012 |

**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, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **6,400** | 3,800 | 300 | **2,300** | 1,000 | 1,000 | 300 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **29,000** | | 1,000 | **28,000** | 13,000 | 13,000 | 2,000 | | | | |
| Other | **3,160** | | 130 | **3,030** | 1,400 | 1,400 | 230 | | | | |
| **Total** | **38,560** | **3,800** | **1,430** | **33,330** | **15,400** | **15,400** | **2,530** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State Aid | **38,560** | 3,800 | 1,430 | **33,330** | 15,400 | 15,400 | 2,530 | | | | |

**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 MDE's Enhanced Nutrient Removal (ENR) Program. The 2005 Western Branch Enhanced Nutrient Evaluation report identified a Single-Sludge System with Separate Primary Clarifiers as the best solution. After further study, the 2007 Western Branch Enhanced Nutrient Removal and Facility Upgrade Evaluation identified the existing Three-Sludge System with upgrades as a better solution. The newer design and construction activities will include the addition of a Return Activated Sludge pumping station and various improvements to the existing Three-Sludge process.

**Service Area** Western Branch Drainage Basin **Capacity** 30.6 MGD

**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, (July 24, 2008).

**Specific Data**

As the result of an Executive Order issued by the Governor of Maryland in November, 2002 calling for Maryland wastewater plants to be upgraded to the "limits of technology" for nutrient removal, the Maryland Department of the Environment introduced the ENR Strategy in May, 2003. The ENR Strategy calls for assigning "load goals" to municipal wastewater treatment plants based on annual average effluent concentrations of total nitrogen (4 mg/l) and total phosphorous (0.3 mg/l), and permitted design capacity. These load goals have been incorporated into the Chesapeake Bay Program tributary strategies Maryland adopted in 2004.
The ENR Strategy also calls for wastewater treatment plants to continue optimizing nutrient removal performance and attempt to achieve an annual average effluent nitrogen concentration of 3 mg/l as a goal, not a permit limit. Maryland has proposed new water quality standards for the Chesapeake Bay. Once these standards have been adopted, the load goals of the ENR Strategy will be incorporated into NPDES permits as enforceable effluent limits. The more stringent concentration goals will remain as goals.

The ENR Strategy also calls for the creation of an ENR grant program to provide funding for the necessary wastewater treatment plant upgrades. The Chesapeake Bay Restoration Act was passed in 2004 and authorized the collection of a surcharge on water and sewer utility bills paid by Maryland residents and businesses. The funds are to be used largely to fund up to 100% of eligible planning, design, and construction costs for ENR upgrades, which are defined generally as the cost of converting a Biological Nutrient Removal (BNR) facility to an ENR facility. The definition of "eligible", while not specifically defined in the legislation, is interpreted as the necessary liquid treatment processes to meet the ENR program limits for total nitrogen and phosphorous.

.
.

**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 | 38,350 |
| Present Cost Estimate | 38,560 |
| Approved Request, Last FY | 9,900 |
| Total Expenditures & Encumbrances | 3,800 |
| Approval Request FY 11 | 15,400 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not Applicable |
| % Project Completion: | D-70% |
| Est. Completion Date: | September 2012 |

**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**

**Cost Change**

Costs were increased for inflation.

**STATUS** Preliminary Design (WSSC Contract No. CD4257A05, ).

**OTHER**

The project scope has remained the same. The project schedule and expenditures shown in Block B are preliminary design level estimates only and may change based upon site specific conditions and design constraints. The expenditure estimates and funding schedule reflect the final cost sharing agreement with the Maryland Department of the Environment.

**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-75.21 | Change |

2. Date: October 1, 2009
Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **118** | 30 | 52 | **29** | 7 | 3 | 3 | 2 | 7 | 7 | 7 |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **2,527** | 292 | 80 | **2,085** | 409 | 745 | 536 | 255 | 70 | 70 | 70 |
| Other | **23** | | 1 | **21** | 4 | 7 | 5 | 3 | 1 | 1 | 1 |
| **Total** | **2,668** | **322** | **133** | **2,135** | **420** | **755** | **544** | **260** | **78** | **78** | **78** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **2,668** | 322 | 133 | **2,135** | 420 | 755 | 544 | 260 | 78 | 78 | 78 |

**D. Description & Justification**

**DESCRIPTION**

This project provides for WSSC's share of the evaluation, design, and construction of capital projects to upgrade Charles County's Mattawoman Wastewater Treatment Plant. Current projects include: Grit System Re-configuration, Influent/Effluent Pump Station Upgrades, Plant Automation, Electrical System Replacement, Sewer I/I Project, Driveway/Parking Lot Improvements.

**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, and Agreement Addendum No. 1 (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 efficiency of operation and maintenance, thereby minimizing resource utilization and avoiding costs. The I/I Project is justified by high wet weather flows.

**Cost Change**

The expenditure schedule reflects the latest information provided by Charles County.

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

**OTHER**

The project scope has remained the same. Under the terms of a 1980 agreement with Charles County, WSSC has the use of 3 MGD of the WWTP capacity, and pays a proportionate share of 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 from 15 MGD to 20 MGD, and WSSC's proportionate cost share decreased from 20% to 15% under the terms of Agreement Addendum No.1, dated April 15, 2004. This project is expected to continue indefinitely.

**COORDINATION**

Charles County Government (Depts of Utilities, Planning & Growth Management, and Fiscal Services) and WSSC Project S-75.17, Mattawoman 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 | 64 | .... |
| Total Costs | | 64 | .... |
| 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 | 760 |
| Cost Estimate Last FY | 3,304 |
| Present Cost Estimate | 2,668 |
| Approved Request, Last FY | 485 |
| Total Expenditures & Encumbrances | 322 |
| Approval Request FY 11 | 420 |
| Supplemental Approval Request Current FY (10) | |

**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**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | S-77.18 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Parkway WWTP Enhanced Nutrient Removal

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **3,859** | 753 | 850 | **2,256** | 752 | 752 | 752 | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **15,045** | | 1,000 | **14,045** | 7,000 | 6,000 | 1,045 | | | | |
| Other | **1,815** | | 185 | **1,630** | 775 | 675 | 180 | | | | |
| **Total** | **20,719** | **753** | **2,035** | **17,931** | **8,527** | **7,427** | **1,977** | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **980** | 36 | 96 | **848** | 403 | 351 | 94 | | | | |
| State Aid | **19,739** | 717 | 1,939 | **17,083** | 8,124 | 7,076 | 1,883 | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of improvements at the Parkway WWTP necessary to meet the requirements of MDE's Enhanced Nutrient Removal (ENR) Program. The preliminary recommendation is to supplement the current Bardenpho configuration with methanol feed capability in the post-anoxic zones for denitrification. Denitrification filters following the secondary clarifiers are also proposed for nitrogen removal. A new pumping station will also be required due to the plant's hydraulic profile.

**Service Area** Parkway Drainage Basin

**JUSTIFICATION**

**Plans & Studies**

ENR Alternatives for Parkway WWTP, Gannett Fleming (June, 2005); WSSC Preliminary Engineering Report, (September, 2008); Maryland Department of the Environment Eligibility Determination Letter, (June 10, 2009).

**Specific Data**

As the result of an Executive Order issued by the Governor of Maryland in November, 2002 calling for Maryland wastewater plants to be upgraded to the "limits of technology" for nutrient removal, the Maryland Department of the Environment introduced the ENR Strategy in May, 2003. The ENR Strategy calls for assigning "load goals" to municipal wastewater treatment plants based on annual average effluent concentrations of total nitrogen (4 mg/l) and total phosphorous (0.3 mg/l), and permitted design capacity. These load goals have been incorporated into the Chesapeake Bay Program tributary strategies Maryland adopted in 2004.
The ENR Strategy also calls for wastewater treatment plants to continue optimizing nutrient removal performance and attempt to achieve an annual average effluent nitrogen concentration of 3 mg/l as a goal, not a permit limit. Maryland has proposed new water quality standards for the Chesapeake Bay. Once these standards have been adopted, the load goals of the ENR Strategy will be incorporated into NPDES permits as enforceable effluent limits. The more stringent concentration goals will remain as goals.

The ENR Strategy also calls for the creation of an ENR grant program to provide funding for the necessary wastewater treatment plant upgrades. The Chesapeake Bay Restoration Act was passed in 2004 and authorized the collection of a surcharge on water and sewer utility bills paid by Maryland residents and businesses. The funds are to be used largely to fund up to 100% of eligible planning, design, and construction costs for ENR upgrades, which are defined generally as the cost of converting a Biological Nutrient Removal (BNR) facility to an ENR facility. The definition of "eligible", while not specifically defined in the legislation, is interpreted as the necessary liquid treatment processes to meet the ENR program limits for total nitrogen and phosphorous.

**Cost Change**

Costs were revised to reflect the current construction cost estimate.

**E. Annual Operating Budget Impact (000's)**

| | | FY of Impact | |
|---|---|---|---|
| Program Costs | Staff | .... | .... |
| | Other | .... | .... |
| Facility Costs | Maintenance | .... | .... |
| | Debt Service | 85 | 14 |
| Total Costs | | 85 | 14 |
| 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 | 11,971 |
| Cost Estimate Last FY | 25,285 |
| Present Cost Estimate | 20,719 |
| Approved Request, Last FY | 6,180 |
| Total Expenditures & Encumbrances | 753 |
| Approval Request FY 11 | 8,527 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W required |
| % Project Completion: | D-70% |
| Est. Completion Date: | FY 2013 |

**H. Map** **Map Reference Code:**

MAP NOT AVAILABLE

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: S - 77.18** **Project Name: Parkway WWTP Enhanced Nutrient Removal**

**STATUS** Preliminary Design (WSSC Contract No. CD4259A05, ).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are based on contracted planning and design costs, and updated preliminary construction cost estimates. The expenditure estimates and funding schedule reflect the final cost sharing agreement with the Maryland Department of the Environment.

**COORDINATION**

Prince George's County Government, Maryland Department of the Environment, Prince George's County Department of Environmental Resources and Patuxent River Commission.

**NOTE** This project supports 100% Environmental Regulation.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | S-77.19 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Parkway WWTP Biosolids Facility Plan

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **846** | 370 | 400 | **76** | 76 | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | | | | | | | | | | | |
| Other | **71** | | 60 | **11** | 11 | | | | | | |
| **Total** | **917** | **370** | **460** | **87** | **87** | | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **917** | 370 | 460 | **87** | 87 | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for an evaluation of the solids handling capabilities of the Parkway WWTP and will address the replacement of aging equipment, improvements to the gravity thickening system, and improvements to the dewatering system.

**Service Area** Parkway Drainage Basin **Capacity** 7.5 MGD

**JUSTIFICATION**

**Plans & Studies**

Memorandum from the Production Team dated April 27, 2007

**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.

**Cost Change**

The cost of this project has increased because a definitive scope of work has been established and a contract has been executed for the facility plan.

**STATUS** Facility Planning (WSSC Contract Nos. CP4643A07 , CP4643B07).

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are for the evaluation and the facliity planning. An order of magnitude construction cost estimate of $5.6 million may change depending on site specific conditions and design constraints.

**COORDINATION**

Prince George's County Government, Prince George's County Department of Environmental Resources and WSSC Project S-77.18, Parkway 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 | 48 | 12 |
| Total Costs | | 48 | 12 |
| Impact on Water or Sewer Rate | | | .... |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 09 |
| Date First Approved | FY 09 |
| Initial Cost Estimate | 288 |
| Cost Estimate Last FY | 550 |
| Present Cost Estimate | 917 |
| Approved Request, Last FY | 225 |
| Total Expenditures & Encumbrances | 370 |
| Approval Request FY 11 | 87 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not Applicable |
| % Project Completion: | P-15% |
| Est. Completion Date: | FY 2011 |

**H. Map** **Map Reference Code:**

**MAP NOT APPLICABLE**

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | S-96.12 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Piscataway WWTP Enhanced Nutrient Removal

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Accokeek P.A. 83

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **1,082** | 276 | 256 | **550** | 550 | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **5,500** | | 500 | **5,000** | 5,000 | | | | | | |
| Other | **946** | | 113 | **833** | 833 | | | | | | |
| **Total** | **7,528** | **276** | **869** | **6,383** | **6,383** | | | | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| State Aid | **7,528** | 276 | 869 | **6,383** | 6,383 | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of improvements at the Piscataway WWTP necessary to meet the requirements of MDE's Enhanced Nutrient Removal (ENR) Program. The current recommendation is to provide supplemental carbon storage and feed facilities for the existing treatment process.

**Service Area** Piscataway Creek Drainage Basin

**JUSTIFICATION**

**Plans & Studies**

ENR Alternatives for Piscataway WWTP, Gannett Fleming (June, 2005); Maryland Department of the Environment Eligibility Determination Letter, (April 17, 2009)

**Specific Data**

As the result of an Executive Order issued by the Governor of Maryland in November, 2002 calling for Maryland wastewater plants to be upgraded to the "limits of technology" for nutrient removal, the Maryland Department of the Environment introduced the ENR Strategy in May, 2003. The ENR Strategy calls for assigning "load goals" to municipal wastewater treatment plants based on annual average effluent concentrations of total nitrogen (4 mg/l) and total phosphorous (0.3 mg/l), and permitted design capacity. These load goals have been incorporated into the Chesapeake Bay Program tributary strategies Maryland adopted in 2004.
The ENR Strategy also calls for wastewater treatment plants to continue optimizing nutrient removal performance and attempt to achieve an annual average effluent nitrogen concentration of 3 mg/l as a goal, not a permit limit. Maryland has proposed new water quality standards for the Chesapeake Bay. Once these standards have been adopted, the load goals of the ENR Strategy will be incorporated into NPDES permits as enforceable effluent limits. The more stringent concentration goals will remain as goals.

The ENR Strategy also calls for the creation of an ENR grant program to provide funding for the necessary wastewater treatment plant upgrades. The Chesapeake Bay Restoration Act was passed in 2004 and authorized the collection of a surcharge on water and sewer utility bills paid by Maryland residents and businesses. The funds are to be used largely to fund up to 100% of eligible planning, design, and construction costs for ENR upgrades, which are defined generally as the cost of converting a Biological Nutrient Removal (BNR) facility to an ENR facility. The definition of "eligible", while not specifically defined in the legislation, is interpreted as the necessary liquid treatment processes to meet the ENR program limits for total nitrogen and phosphorous. On April 17, 2009, MDE determined that the design, construction management and inspection costs were 100% eligible.

**Cost Change**

The cost has increased to reflect the actual design cost and a more accurate construction cost estimate to provide supplemental carbon storage and feed facilities.

**STATUS** Final Design (WSSC Contract No. CD4258A05, ).

**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 | 2,279 |
| Cost Estimate Last FY | 4,506 |
| Present Cost Estimate | 7,528 |
| Approved Request, Last FY | 2,749 |
| Total Expenditures & Encumbrances | 276 |
| Approval Request FY 11 | 6,383 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W required |
| % Project Completion: | D-95% |
| Est. Completion Date: | April 2011 |

**H. Map** **Map Reference Code:**

MAP NOT AVAILABLE

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: S - 96.12** **Project Name: Piscataway WWTP Enhanced Nutrient Removal**

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning level estimates, and may change based upon site specific conditions, design constraints. The expenditure estimates and funding schedule reflect the final cost sharing agreement with the Maryland Department of the Environment.

**COORDINATION**

Prince George's County Government, Maryland Department of the Environment, Maryland Water Management Administration and Prince George's County Department of Environmental Resources.

**NOTE** This project supports 100% Environmental Regulation.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | S-187.00 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: DSP & Conceptual Design Sewer Projects

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Prince George's County

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **2,841** | 1,452 | 599 | **789** | 301 | 101 | 109 | 40 | 38 | 200 | 1 |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **12,398** | 2,669 | 3,727 | **5,781** | 2,446 | 1,644 | 391 | 200 | 552 | 548 | 221 |
| Other | **1,661** | | 633 | **994** | 421 | 265 | 74 | 34 | 88 | 112 | 34 |
| **Total** | **16,900** | **4,121** | **4,959** | **7,564** | **3,168** | **2,010** | **574** | **274** | **678** | **860** | **256** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **16,900** | 4,121 | 4,959 | **7,564** | 3,168 | 2,010 | 574 | 274 | 678 | 860 | 256 |

**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 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 procceed 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-205.00. 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

**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 85 |
| Date First Approved | FY 85 |
| Initial Cost Estimate | |
| Cost Estimate Last FY | 24,660 |
| Present Cost Estimate | |
| Approved Request, Last FY | 7,033 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | |
| Supplemental Approval Request Current FY (10) | |

**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 Applicants. 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, nor does it include non-DSP projects which are beyond the 30% design stage for facility projects or the 60% design stage for pipeline projects. 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 cost containment measures. Construction costs for DSP projects are typically based upon preliminary or final 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.

S-28.18 Konterra Town Center East Sewer (DA4623A07 DA4623B07 DA4623Z07)

5,400 feet of 24-inch diameter sewer main, 240 feet of 24-inch steel sleeve, and 240 feet of 48-inch steel sleeve to provide service to Konterra Town Center East. Capacity: 6.5 MGD; Service Area: Patuxent, Northeast Branch drainage basin; Population: 8,500; Status: D-50%. Estimated Total Project Cost: $2,275,000. 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.

S-28.19 Konterra Town Center East Sewer, Part 2

10,000 feet of 15-inch through 30-inch diameter sewer main to provide service to Konterra Town Center East (DA4623Z07). Capacity: 6.5 MGD through 1.6 MGD; Service Area: Patuxent, Northeast drainage basin; Population: 8550; Status: P-50%. Estimated Total Project Cost is $1,255,000. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

* S-68.01 Landover Mall Redevelopment

2,500 feet of 27-inch, 300 feet of 24-inch and 1,450 feet of 18-inch diameter sewer mains to provide service to the Landover Mall Redevelopment. Capacity: 5.63 MGD; Status: P-5%; This project is dependent on future sewer augmentation/feasibility study along Cattail Branch. In addition, any Base Sanitary Flow over 100,000 is dependent upon the timing of the Notice To Proceed for project S-89.22, Anacostia Storage Facility. Estimated Total Project Cost: $1,108,000. 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: D-0%; Estimated Total Project Cost: $268,000. Estimated completion date is developer dependent. No WSSC rate suported 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: Patuxent South Pumpover to Mattawoman; Population: 490; Status: D-0%; Estimated Total Project Cost: $106,000. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

S-86.19 Karington Subdivision Sewer (DA4249A05, DA4249C05, DA4249Z05)

5,400 feet of 15-inch and 18-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-25%; Estimated Total Project Cost: $875,000. 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-90%; Estimated Total Project Cost: $1,027,000. Design and construction will be performed by the developer under a Memorandum of Understanding. 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: $148,000. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

S-89.19 Greenbelt Station Trunk Sewer (DA2993A01 & DA2993B01)

2,200 feet of 18-inch diameter trunk sewer to provide service to the Greenbelt Station Subdivision (200 feet of this length is a replacement sewer in Branchville Road). Capacity: 4 MGD; Service Area: Indian Creek of Northeast Branch; Population: 2,000; Status: C-95%; Estimated Total Project Cost: $748,000. This project will impact local wetlands. 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.

* New entry on listing

S-114.06 Science Center WWPS (CP4227A05, CP6529B85, CP7710A88) & Green Branch WWPS Upgrade (CP6529B85

Planning, design and construction of Science Center Wastewater Pumping Station to replace the existing temporary wastewater pumping station. Existing pumping station will be demolished. Capacity: 1.7 MGD; Status: C-90%; Upgrade to existing Green Branch Wastewater Pumping Station to receive the increased flow from the new Science and Technology Center WWPS. Upgrade Capacity: 3.0 MGD; Status: C-10%; Service Area: Maryland Science and Technology Center, Phase I and II; Population: 1,000. Estimated Total Project Cost: $2,616,000. Design and construction will be performed by the developer under a Memorandum Of Understanding. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

S-114.15 MD Science & Technology Center Force Main & Trunk Sewer-DA6603K85

2,400 feet of 15-inch diameter gravity sewer, 380 feet of 48-inch and 36-inch tunnels, and 5,200 feet of 12-inch diameter force main between WSSC Project S-114.06 south across US 50 to the Western Branch collection system. Capacity: 1.7 MGD; Service Area: The Maryland Science & Technology Center, Phases 1 and 2; Population: 1,000; Status: C-60%; Estimated Total Project Cost: $2,124,000. Land costs are included in WSSC Project S-205.00. Design and construction will be completed 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.

S-114.23 Maryland Science & Technology Center Trunk Sewer (DA6603L&Z85)

3,000 feet of 15-inch to 18-inch diameter sewer main to provide service to Phase 2 of the Maryland Science & Technology Center. Capacity: Between 1.4 and 2.4 MGD; Service Area: Patuxent Central; Population: 850; Status: D-60%; Estimated Total Project Cost: $654,000. Design and construction will be completed 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.

S-131.05 Ridges III Sewer Main (DA8810F90)

2,750 feet of 18-inch diameter sewer main to provide service to the Ridges III Subdivision. Capacity: 3.48 MGD; Service Area: Burch Branch of Piscataway Creek; Population: 2,000; Status: D-45%; Estimated Total Project Cost: $713,000. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

S-131.07 Pleasant Valley Sewer Main (DA4757Z08)

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-10%; Estimated Total Project Cost: $1,342,000. Estimated completion date is developer dependent. No WSSC rate-supported debt will be used for this project.

* S-131.08 Preserves of Piscataway WWPS

Planning, design and construction of a new wastewater pumping station to provide service to the Preserves of Piscatway Subdivision (DA1543Z96). Capacity: 0.12mgd; Service Area: Piscatway; Population: 220; Status: D-0%; Estimated Total Project Cost: $500,000. 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

700 feet of 4-inch diameter force main from Preserves of Piscatway Wastewater Pumping Station to provide service to the Preserves of Piscatway Subdivision (DA1543Z96). Capacity: 0.12 mgd; Service Area: Piscatway; Population: 220; Status: D-0%; Estimated Total Project Cost: $77,000. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

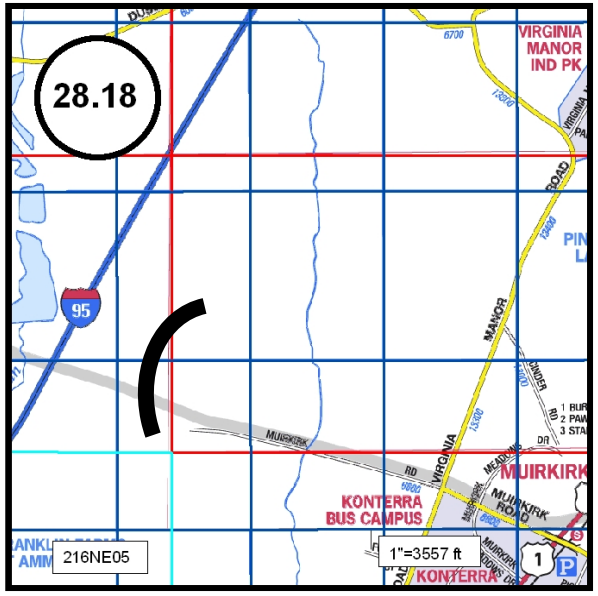
S-149.00 Mataponi Wastewater Pumping Station (CR9092A91)

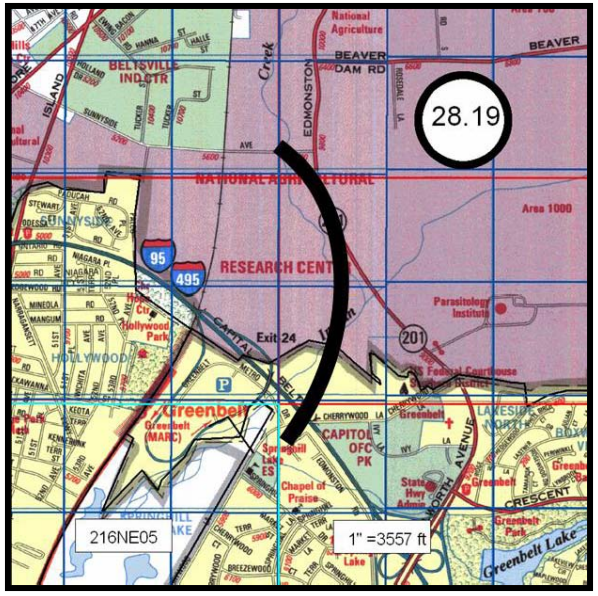
Planning, design and construction of a wastewater pumping station originally authorized for service to Keller's Subdivision. Capacity: 0.2 MGD; Service Area: Patuxent South; Population: 360; Status: P-0%. The project is on hold due to lack of activity and will need to be reevaluated when the Owner/Developer approaches the WSSC to restart the project. The current estimated total project cost of $838,000 reflects the original plans for the subdivision. A new cost estimate and schedule will be required at restart. No WSSC rate supported debt will be used for this project.

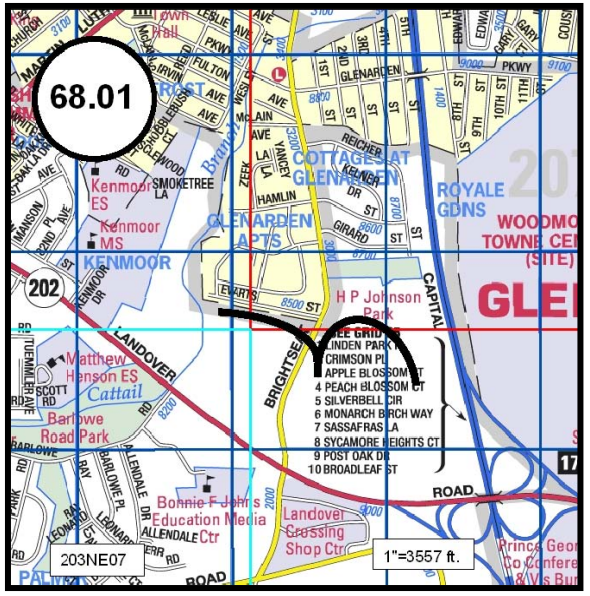
S-149.01 Mataponi WWPS Force Main (DA9092B91)

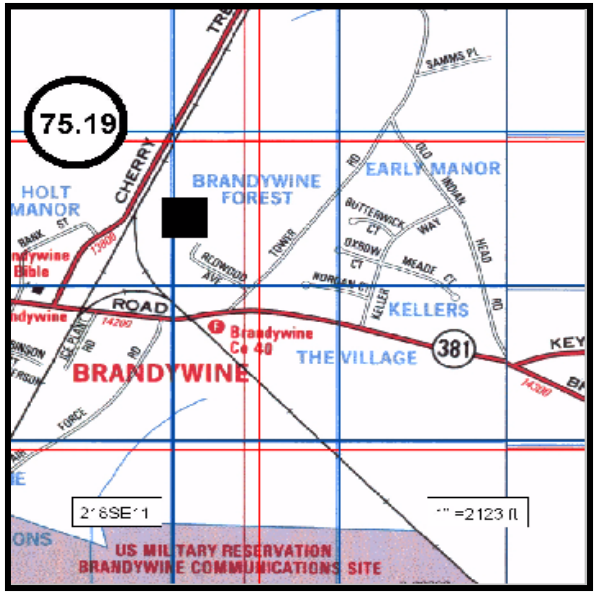
3,300 feet of 6-inch diameter force main from the proposed WSSC Project S-149.00 Mataponi WWPS, originally to provide for service to the Keller's Subdivision. Capacity: 0.2 MGD; Service Area: Patuxent South; Population: 360; Status: P-25%. Project is on hold due to lack of activity for numerous years and will need to be re-evaluated when Owner/Developer approaches the WSSC to restart the project. Land costs are included in WSSC Project S-205.00. The current estimated total project cost of $226,000 reflects the original plans for the subdivision. A new cost estimate and schedule will be required at restart. Estimated completion date is developer dependent. No WSSC rate supported debt will be used for this project.

* New entry on listing

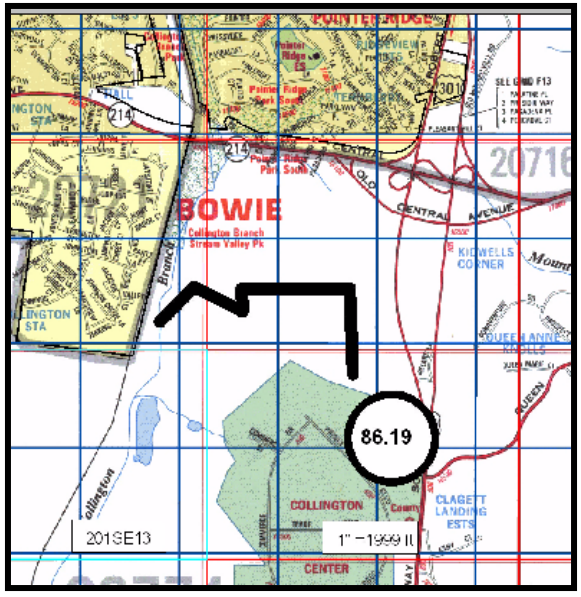

28.18
VIRGINIA MANOR IND PK
95
MUIRKIRK
KONTERRA BUS CAMPUS
216NE05
1"=3557 ft

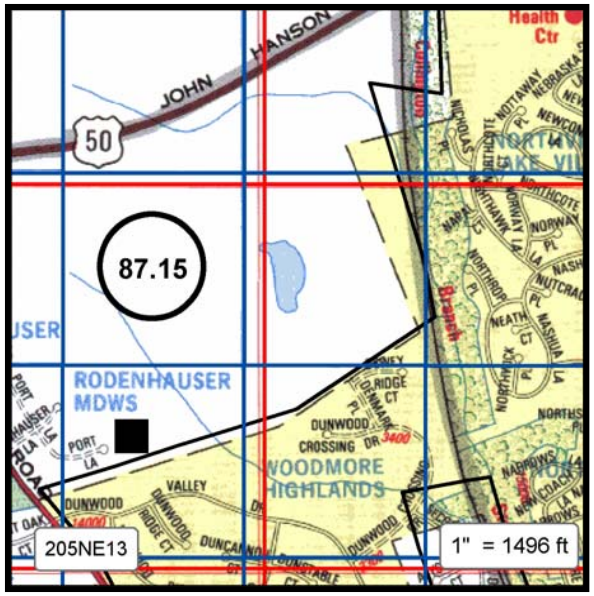

28.19
BELTSVILLE IND CTR
BEAVER DAM RD
RESEARCH CENT
Greenbelt
CAPITOL OFC PK
Greenbelt Lake
216NE05
1" =3557 ft

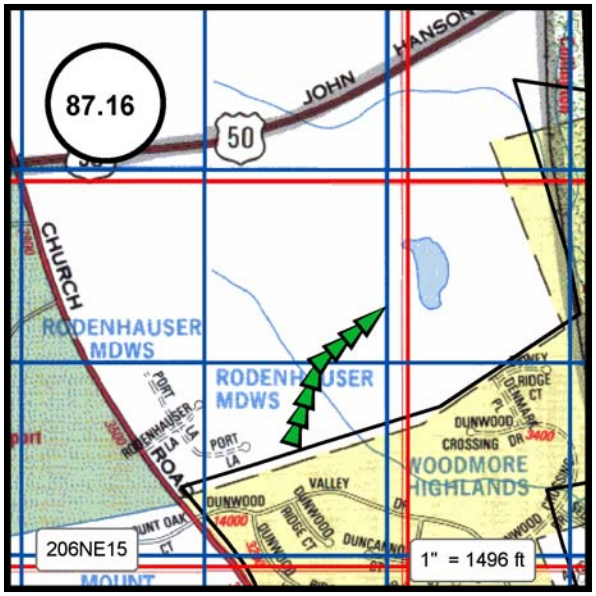

68.01
KENMOOR
GLENARDEN APTS
ROYALE GDNS
Matthew Henson ES
Cattail
Barlowe Road Park
Landover Crossing Shop Ctr
203NE07
1"=3557 ft.

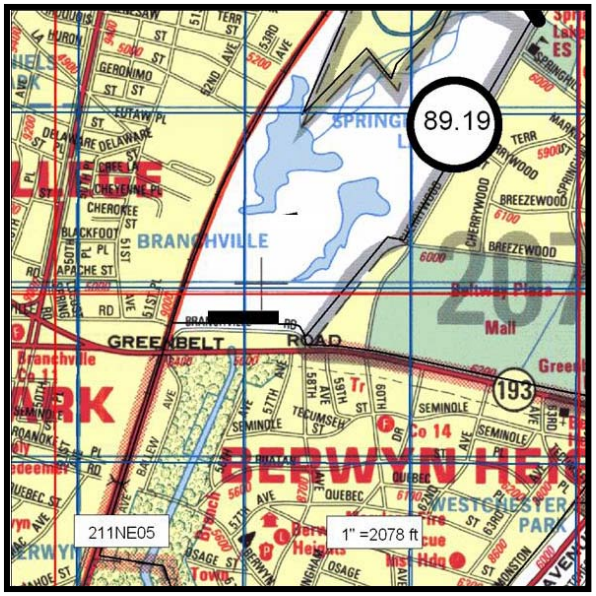

75.19
HOLT MANOR
BRANDYWINE FOREST
EARLY MANOR
KELLERS
THE VILLAGE
BRANDYWINE
381
US MILITARY RESERVATION
BRANDYWINE COMMUNICATIONS SITE

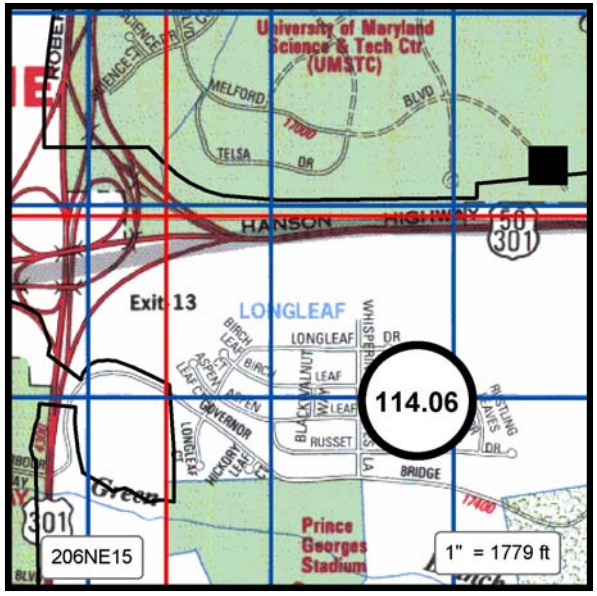

75.20
HOLT MANOR
BRANDYWINE FOREST
KELLERS
THE VILLAGE
BRANDYWINE
381
US MILITARY RESERVATION
BRANDYWINE COMMUNICATIONS SITE
218SE11
1" =2123 ft
US MILITARY RESERVATION

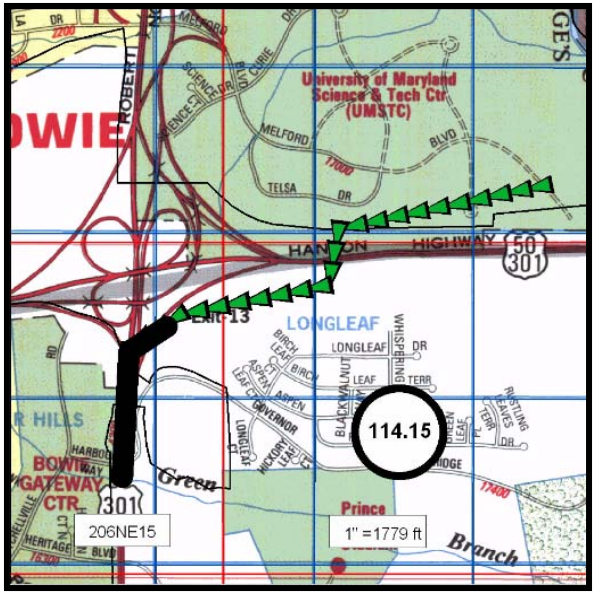

BOWIE
86.19
COLLINGTON
201SE13

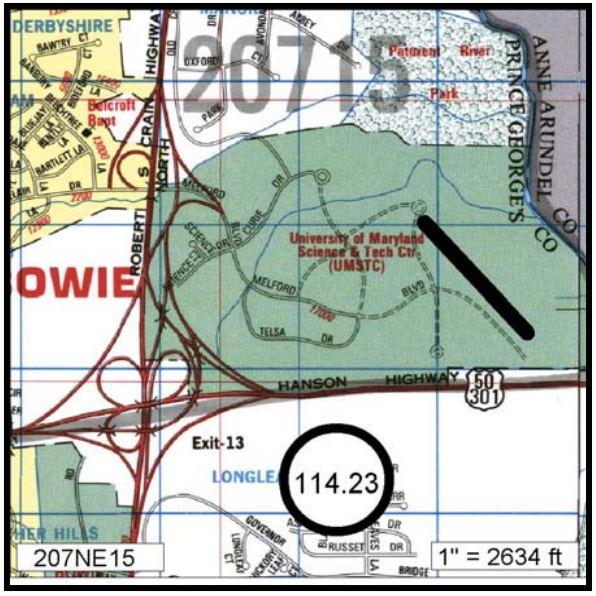

87.15
205NE13
1" = 1496 ft

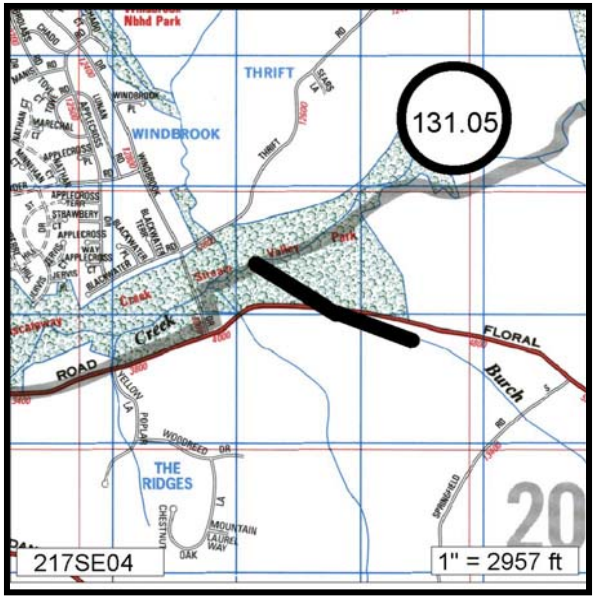

87.16
206NE15
1" = 1496 ft

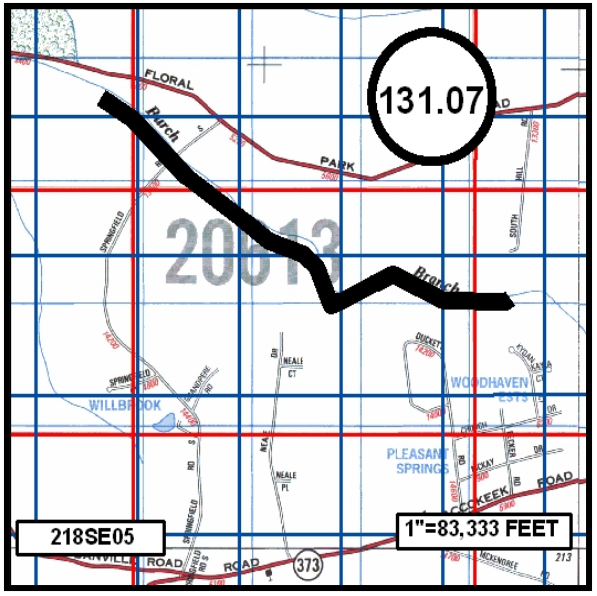

89.19
211NE05
1" =2078 ft

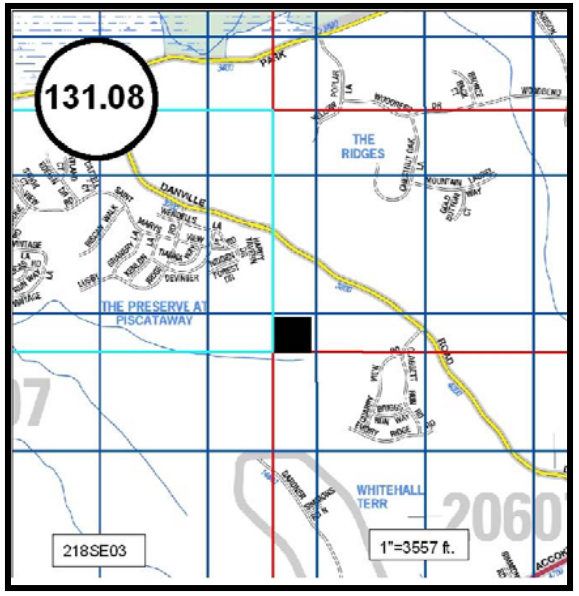

114.06
206NE15
1" = 1779 ft

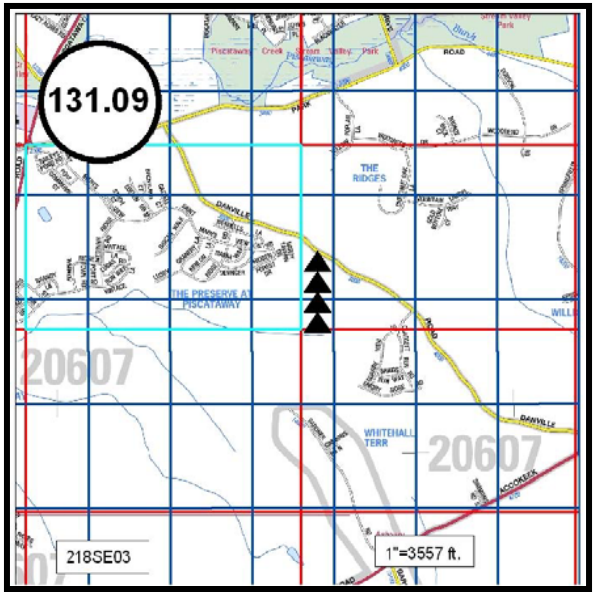

114.15
206NE15
1" =1779 ft

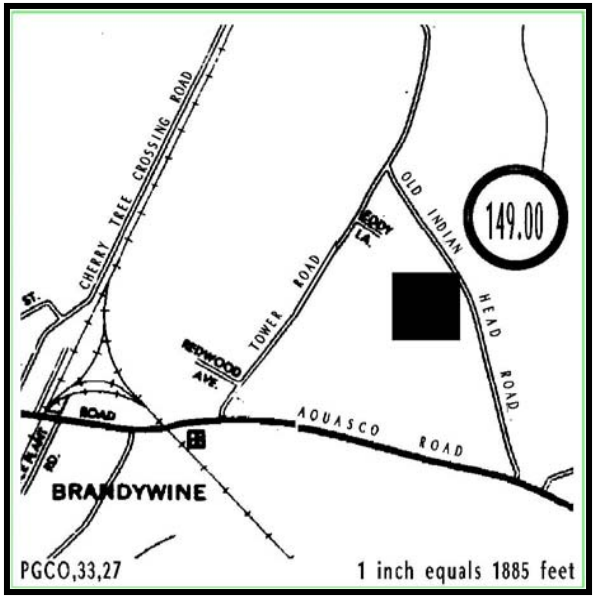

114.23
207NE15
1" = 2634 ft

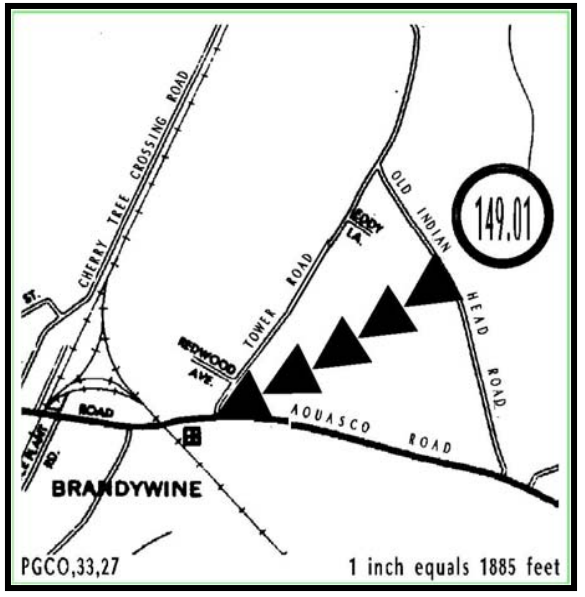

131.05
THRIFT
WINDBROOK
FLORAL
ROAD
Burch
Creek
THE RIDGES
217SE04
1" = 2957 ft


131.07
FLORAL
Burch
PARK
20613
WILLBROOK
WOODHAVEN
PLEASANT SPRINGS
ROAD
218SE05
1"=83,333 FEET


131.08
THE RIDGES
DANVILLE
THE PRESERVE AT PISCATAWAY
WHITEHALL TERR
2060
218SE03
1"=3557 ft.


131.09
THE RIDGES
THE PRESERVE AT PISCATAWAY
20607
WHITEHALL TERR
DANVILLE
218SE03
1"=3557 ft.


149.00
CHERRY TREE CROSSING ROAD
OLD INDIAN HEAD ROAD
TOWER ROAD
REDWOOD AVE.
AQUASCO ROAD
BRANDYWINE
PGCO,33,27
1 inch equals 1885 feet


149.01
CHERRY TREE CROSSING ROAD
OLD INDIAN HEAD ROAD
TOWER ROAD
REDWOOD AVE.
AQUASCO ROAD
BRANDYWINE
PGCO,33,27
1 inch equals 1885 feet

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | S-205.00 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Land & Rights-of-Way Acquisition - Prince George's County

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Prince George's County

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | | | | | | | | | | | |
| Land | **86** | | | **86** | 30 | 40 | | | 16 | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | | | | | | | | | | | |
| Other | **13** | | | **13** | 5 | 6 | | | 2 | | |
| **Total** | **99** | | | **99** | **35** | **46** | | | **18** | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **99** | | | **99** | 35 | 46 | | | 18 | | |

**D. Description & Justification**

**DESCRIPTION**

This PDF provides a consolidated estimate of funding for the acquisition of land and rights-of-way for previously approved projects and new projects, as needed. 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 (DSP).

**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. This format change alleviates this restriction, especially for DSP projects, which depend upon actions of the Applicant. Other considerations include the accommodation of unpredictable delays for extended community outreach which impacts the timing of a planned purchase, unanticipated rights-of-way requirements for approved projects 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** Various Stages of Planning & Design

**OTHER**

The project scope has remained the same. The expenditures 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 description form elsewhere in this program.

**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 98 |
| Date First Approved | FY 98 |
| Initial Cost Estimate | |
| Cost Estimate Last FY | 99 |
| Present Cost Estimate | 99 |
| Approved Request, Last FY | 35 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 35 |
| Supplemental Approval Request Current FY (10) | |

**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:**

## PROJECTS PENDING CLOSE-OUT

**Prince George's County Sewer Projects**
**(costs in thousands)**

| Project Number | Agency Number | Project Name | Estimated Total Cost | Expenditures Thru FY'09 | Estimated Expenditures FY'10 | Remarks |
|---|---|---|---|---|---|---|
| | S-75.13 | Lakeview at Brandywine Sewer | $0 | $0 | $0 | Project reduced to non-CIP size. |
| | S-75.17 | Mattawoman WWTP Enhanced Nutrient Removal | 3,636 | 3,636 | 0 | Project completed. |
| | | **TOTALS** | $3,636 | $3,636 | $0 | |

# Section 7 - Information Only Projects

DATE: October 1, 2009

# FINANCIAL SUMMARY

(ALL FIGURES IN THOUSANDS)

**INFORMATION ONLY PROJECTS**

| AGENCY NUMBER | PROJECT NAME | EST. TOTAL COST | EXPEND THRU 09 | EST. EXPEND 10 | TOTAL SIX YEARS | EXPENDITURE SCHEDULE | | | | | | BUDGET REQUEST 11 | PDF PAGE NUM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | YR 1 11 | YR 2 12 | YR 3 13 | YR 4 14 | YR 5 15 | YR 6 16 | | |
| W-1.00 | Water Reconstruction Program | 616,525 | 0 | 54,179 | 562,346 | 64,485 | 75,361 | 86,834 | 98,924 | 111,664 | 125,078 | 64,485 | 7-3 |
| S-1.01 | Sewer Reconstruction Program | 410,522 | 0 | 56,857 | 353,665 | 69,445 | 58,023 | 54,753 | 55,467 | 57,132 | 58,845 | 69,445 | 7-5 |
| A-102.00 | Engineering Support Program | 88,000 | 0 | 10,000 | 78,000 | 13,000 | 13,000 | 13,000 | 13,000 | 13,000 | 13,000 | 13,000 | 7-7 |
| A-103.00 | Energy Performance Program | 51,405 | 21,600 | 2,640 | 26,105 | 6,452 | 8,999 | 4,924 | 5,370 | 180 | 180 | 6,452 | 7-8 |
| A-103.01 | Anaerobic Digestion/Combined Heat & Power (Seneca & Piscataway WWTPs) | 33,638 | 0 | 319 | 33,319 | 1,419 | 5,500 | 17,600 | 8,800 | 0 | 0 | 1,419 | 7-11 |
| A-104.00 | Entrepreneurial Projects | 2,031 | 371 | 380 | 1,280 | 320 | 182 | 269 | 62 | 438 | 9 | 320 | 7-14 |
| A-105.00 | Water Storage Facility Rehabilitation Program | 34,000 | 0 | 5,000 | 29,000 | 4,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 4,000 | 7-15 |
| A-106.00 | Utility Master Plan | 14,640 | 3,675 | 2,635 | 6,930 | 1,320 | 1,210 | 1,100 | 1,100 | 1,100 | 1,100 | 1,320 | 7-16 |
| A-107.00 | Pressure Reducing Valve Rehabilitation Program | 17,560 | 400 | 880 | 15,070 | 3,630 | 2,530 | 2,420 | 2,420 | 2,310 | 1,760 | 3,630 | 7-18 |
| | **TOTAL INFORMATION ONLY PROJECTS** | 1,268,321 | 26,046 | 132,890 | 1,105,715 | 164,071 | 169,805 | 185,900 | 190,143 | 190,824 | 204,972 | 164,071 | |

**Notes for costs beyond six years:**

Includes 1,060 for Project A-103.00, Energy Performance Program

Includes 1,400 for Project A-106.00, Utility Master Plan

Includes 1,210 for Project A-107.00, Pressure Reducing Valve Rehabilitation Program

## Information Only Projects
**New Projects Listing**
**(costs in thousands)**

| Agency Number | Project Name | Total Project Cost | Budget Year Cost | Page Number |
|---|---|---|---|---|
| A-107.00 | Pressure Reducing Valve Rehabilitation Program | $17,560 | $3,630 | 7-18 |
| | **TOTALS** | $17,560 | $3,630 | |

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | W-1.00 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Water Reconstruction Program

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **192,154** | | 17,621 | **174,533** | 20,612 | 23,768 | 27,094 | 30,598 | 34,289 | 38,172 | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **320,970** | | 25,963 | **295,007** | 32,002 | 38,380 | 45,114 | 52,215 | 59,703 | 67,593 | |
| Other | **103,401** | | 10,595 | **92,806** | 11,871 | 13,213 | 14,626 | 16,111 | 17,672 | 19,313 | |
| **Total** | **616,525** | | **54,179** | **562,346** | **64,485** | **75,361** | **86,834** | **98,924** | **111,664** | **125,078** | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **616,525** | | 54,179 | **562,346** | 64,485 | 75,361 | 86,834 | 98,924 | 111,664 | 125,078 | |

**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 of 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.

**Specific Data**

The program's projected work units and expenditure levels for FY'11 (including overhead) are as follows: design of main replacement, 40 miles - $8.6M; construction of main replacement, 36 miles - $43.0; water house connection renewals, 3,450 services - $7.1M; large water service replacement program - $5.8 M. 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, however, work is limited to the fiscal allocation for the program. Program level may change in future years subject to results of the 30 Year Infrastructure Plan.

**Cost Change**

The program costs increased to reflect an increase in replacement miles and greater emphasis on the large meter replacement 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

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 45579 | .... | 17 |
| Total Costs | | 45579 | .... | 17 |
| Impact on Water or Sewer Rate | | 89¢ | .... | 17 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY -- |
| Date First Approved | FY -- |
| Initial Cost Estimate | |
| Cost Estimate Last FY | 522,616 |
| Present Cost Estimate | 616,525 |
| Approved Request, Last FY | 50,634 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 64,485 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

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

**H. Map** **Map Reference Code:**

MAP NOT APPLICABLE

program period is subject to Spending Affordability Guideline limits. The following work accomplishments through FY'09 summarize the magnitude of the reconstruction effort: water main cleaning and lining, 1,142 miles completed; water main replacement, 206 miles completed; large water service/meter replacement, 4 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**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | S-1.01 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Sewer Reconstruction Program

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **70,097** | | 9,473 | **60,624** | 11,742 | 9,917 | 9,897 | 9,404 | 9,687 | 9,977 | |
| Land | **3,300** | | 2,300 | **1,000** | 1,000 | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **276,974** | | 37,025 | **239,949** | 46,561 | 39,531 | 36,776 | 37,879 | 39,016 | 40,186 | |
| Other | **60,151** | | 8,059 | **52,092** | 10,142 | 8,575 | 8,080 | 8,184 | 8,429 | 8,682 | |
| **Total** | **410,522** | | **56,857** | **353,665** | **69,445** | **58,023** | **54,753** | **55,467** | **57,132** | **58,845** | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **404,522** | | 52,857 | **351,665** | 67,445 | 58,023 | 54,753 | 55,467 | 57,132 | 58,845 | |
| Federal Aid | **6,000** | | 4,000 | **2,000** | 2,000 | | | | | | |

**D. Description & Justification**

**DESCRIPTION**

This program funds a comprehensive sewer system rehabilitation program. The main component of this program is the rehabilitation and/or repair of sewer mains and 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-CountyArea

**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 program's projected work units and expenditure levels for FY'11 (including overhead) are as follows: 37 miles of residential main and lateral line design - $2.0 M; 42 miles of residential line construction - $44.6 M; 14 miles of lateral line construction - $14.9 M; sewer house connection renewals, 800 services - $4.5 M; emergency repairs - $2.5 M; purchase of Patuxent Reservoir buffer properties and easements for water supply protection - $1.0 M. Note: The specific mix and type of sewer reconstruction may vary in any given year depending on identified system defects. However, work is limited to the fiscal allocation for the program. Program level may change in future years subject to results of the 30 Year Infrastructure Plan.

.

**Cost Change**

The program cost increased to reflect an increase in the number of miles and cost per mile.

**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

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 47777 | .... | 17 |
| Total Costs | | 47777 | .... | 17 |
| Impact on Water or Sewer Rate | | 94¢ | .... | 17 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY -- |
| Date First Approved | FY -- |
| Initial Cost Estimate | |
| Cost Estimate Last FY | 551,898 |
| Present Cost Estimate | 410,522 |
| Approved Request, Last FY | 56,807 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 69,445 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not applicable |
| % Project Completion: | Not Applicable |
| 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**

EPA was entered into on December 7, 2005. The funding schedule reflects the $6,000,000 Federal stimulus grant provided under the American Recovery and Reinvestment Act for the planned reconstruction work in Lower Anacostia. The sewer reconstruction program was established in 1979.

The following work accomplishments through FY'09 summarize the magnitude of this reconstruction effort: sewer main reconstruction, 233 miles; and sewer house connection renewals, 14,698. 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, 2009

Revised:

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

3. Project Name: Engineering Support Program

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

5.Agency: **WSSC**

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | | | | | | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **88,000** | | 10,000 | **78,000** | 13,000 | 13,000 | 13,000 | 13,000 | 13,000 | 13,000 | |
| Other | | | | | | | | | | | |
| **Total** | **88,000** | | **10,000** | **78,000** | **13,000** | **13,000** | **13,000** | **13,000** | **13,000** | **13,000** | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **83,800** | | 9,400 | **74,400** | 12,400 | 12,400 | 12,400 | 12,400 | 12,400 | 12,400 | |
| Water Operating Funds | **2,100** | | 300 | **1,800** | 300 | 300 | 300 | 300 | 300 | 300 | |
| Sewer Operating Funds | **2,100** | | 300 | **1,800** | 300 | 300 | 300 | 300 | 300 | 300 | |

**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.

.

**Service Area** Bi-County Area

**JUSTIFICATION**

**Plans & Studies**

In-house Study, (April 2002); Utility-Wide Master Plan Phase 1A, Sterns & Wheler (July 2007); Utility Master Plan Asset Management Strategy - Track 2 Phase 1 Final Asset Management Implementation Plan, Sterns & Wheler (April 2008)

**Specific Data**

ESP projects may be identified in the Utility-Wide Master Plan or result from direct requests from the Customer Care 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**

Program cost increase is to address anticipated new sub-projects identified in the Utility-Wide Master Plan.

**STATUS** Under Construction

**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 | 7307 | .... | 17 |
| Total Costs | | 7307 | .... | 17 |
| Impact on Water or Sewer Rate | | 14¢ | .... | 17 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 87 |
| Date First Approved | FY 87 |
| Initial Cost Estimate | |
| Cost Estimate Last FY | |
| Present Cost Estimate | 88,000 |
| Approved Request, Last FY | 10,000 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 13,000 |
| Supplemental Approval Request Current FY (10) | |

**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**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | A-103.00 | Change |

2. Date: October 1, 2009

Revised:

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

3. Project Name: Energy Performance Program

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **6,380** | 2,100 | 400 | **2,820** | 770 | 500 | 790 | 400 | 180 | 180 | 1,060 |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **39,700** | 16,600 | 2,000 | **21,100** | 5,200 | 7,700 | 3,700 | 4,500 | | | |
| Other | **5,325** | 2,900 | 240 | **2,185** | 482 | 799 | 434 | 470 | | | |
| **Total** | **51,405** | **21,600** | **2,640** | **26,105** | **6,452** | **8,999** | **4,924** | **5,370** | **180** | **180** | **1,060** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **42,685** | 19,500 | 2,440 | **20,745** | 5,202 | 7,749 | 3,674 | 4,120 | | | |
| Federal Aid | **4,200** | | | **4,200** | 1,050 | 1,050 | 1,050 | 1,050 | | | |
| Water Operating Funds | **2,260** | 1,050 | 100 | **580** | 100 | 100 | 100 | 100 | 90 | 90 | 530 |
| Sewer Operating Funds | **2,260** | 1,050 | 100 | **580** | 100 | 100 | 100 | 100 | 90 | 90 | 530 |

**D. Description & Justification**

**DESCRIPTION**

This program provides for the engineering audit, design, construction, maintenance, 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).

**Specific Data**

Phase I of the Energy Performance Program was awarded to Constellation Energy Projects and Services (CEPS) in March 2001. Phase I included detailed engineering audits, supply analysis, engineering, and planning of equipment and operations upgrades to .

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | .... | .... | |
| | Other | .... | .... | |
| Facility Costs | Maintenance | .... | .... | |
| | Debt Service | 1705 | .... | |
| Total Costs | | 1705 | .... | |
| Impact on Water or Sewer Rate | | 3¢ | .... | 15 |

**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 | 31,610 |
| Present Cost Estimate | 51,405 |
| Approved Request, Last FY | 3,430 |
| Total Expenditures & Encumbrances | 21,600 |
| Approval Request FY 11 | 6,452 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W involved |
| % Project Completion: | Not Applicable |
| Est. Completion Date: | (See "Specific Data" for details.) |

**H. Map** **Map Reference Code:**

MAP NOT APPLICABLE

.
develop an energy efficient and guaranteed savings program Commission-wide. The Phase IIA implementation plan, 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.

Phase IIB was awarded to CEPS in August 2006 and includes 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 of the Phase IIB project were completed in October 2008, and Anacostia No. 2 WWPS pumps are contributing to a major decrease in electricity consumption. The Seneca generator is available for emergency back-up duty, and ready for peak-shaving starting in the summer of 2009. Incinerator upgrades at Western Branch are proceeding ahead of schedule. The upgrade to Incinerator #1 is 95% complete and start-up is expected in June 2009. As soon as Incinerator # 1 is operational, Incinerator #2 will be shut down and the contractor will begin on interior modifications. Completion of both incinerators is expected in early 2010.

Projects included in Phases IIA and IIB 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 IIA and Phase IIB work is specified for a period of 15 years as mandated by the State of Maryland. The energy savings for projects completed under Phase IIA have surpassed the contract's guaranteed amount of $700,000/year for the first three years of the monitoring and verification period. The annual energy guarantee from Phase IIB is projected to be $860,000 in the first year.

Phase IIC, awarded in March 2004, includes the supply of electricity generation and transmission for a period of 15 years. Phase IIC was amended in December 2006 to include 33% of generation from renewable wind power at a fixed price for a 10-year period, starting in 2008. Phase IIC, including the amendment for wind energy, does not involve any capital funds.

Phase IID will provide for instrumentation, pump replacement, pump rebuild, and valve and piping modifications at the Raw Water Pumping and Main Zone Pumping Stations and underground mains located within the Potomac Water Filtration Plant. The procurement, project delivery method, specifications, and scope of work will be defined during Phase IID with design/construction beginning in the second half of FY'10. Phase IID was awarded to Energy Systems Group (ESG) in March 2009. ESG has performed initial engineering analysis and additional pump tests, and is expected to deliver a preliminary Phase IID proposal in August 2009. During field investigations, it was noted that the new electrical controls and electrical code upgrades were required, as well as a small new building addition to maintain adequate clearances around the electrical gear at Raw Water Pumping Station (RWPS) #1. For this reason, we have added $1,500,000 in capital costs to the Phase IID project, with only a small portion expected to be recouped in the form of energy savings. It is anticipated that this cost can be partially offset through federal grant funding which we hope to receive in the next round of stimulus or energy efficiency EPA/DOE appropriations.

The planned Phase IID work will initially include replacing only one pump in the Main Zone Pumping Station. However, the remaining pumps in the Main Zone Pumping Station are 40-50 years old and have reached their economic useful life. New instrumentation included in Phase IID (power monitors to measure amperage, voltage, power factor, kw, and pressure transducers on pump discharges) will more accurately monitor and track pump efficiency, allowing us to identify and prioritize the replacement of additional pumps and variable frequency drives based upon efficiency and reliability data. Future pump replacements at Potomac are not currently included in the expenditure schedule above and could add an additional $6,000,000 under Phase IID, extending the program into FY'15, if warranted based upon the cost analysis.

Phase IIE was added in the FY 2011 CIP to take advantage of federal and state incentives making the cost of on-site generated photo-voltaic (PV) power competitive with conventional or "brown" power. State Renewable Portfolio Standards, Alternative Compliance Payments (ACP), and federal stimulus grant programs geared towards renewable energy programs all have contributed to a favorable environment to construct a 1 MW solar PV system at the Western Branch WWTP (Prince George's County) and the Potomac WFP (Montgomery County) through one of the following methods:

* Design-Build-Operated by WSSC, leveraging partial federal grant funds with the remaining capital paid 100% by energy savings through the Energy Performance Program. Energy savings would be defined as the avoided cost of the brown power not purchased by WSSC replaced by clean and "free" solar power instead.

.

.

* Purchase Power Agreement (PPA), similar to our wind farm agreement, where the WSSC would negotiate a long-term (20 year) agreement with a power provider to buy electricity at a fixed rate/kWh. The provider would design, build, and operate the solar PV system on WSSC property, with WSSC's input, engineering, and operational interface.

Both of these options require that the Renewable Energy Credits (RECs) be sold to an electric supplier to generate the revenue required for debt retirement or to lower the solar generated electric rate to a price competitive or lower than comparable brown power.

**Cost Change**

Cost estimates were increased to include the additional electrical work described above for Phase IID and the new Phase IIE (Solar PV-Western Branch and Potomac).

**STATUS** Under Construction (WSSC Contract Nos. AM3614E03 , CD3614A03 , CD3614B03 , CD3614C03 , CD3614D03 , CD3614G03 , CD3614H03 , CP3614F03).

**OTHER**

The project scope has remained the same. Phase IID expenditures shown for Planning, Design & Supervision include 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. The program will be financed where possible by a low interest loan through the Maryland Department of the Environment's Water Quality Administration State Revolving Loan Program. Additional savings in the form of Carbon Credits are estimated to be captured starting in FY'11, within the Regional Greenhouse Gas Initiative (RGGI) auction process established by the Maryland Department of the Environment, or through the expected Federal Cap and Trade program. The value of these credits is expected to add approximately 5-7% to the anticipated annual energy savings from the installation of energy efficient equipment in the WSSC's wastewater treatment, water treatment, and wastewater pumping stations included in this program.

Phase IIE expenditures are based on the assumption that each project site (1 MW solar PV at Western Branch, 1 PV at Potomac) will receive partial federal grant fund assistance, either through a future year block grant or competitive grant program (DOE or EPA) for renewable energy. For budget purposes, a $2 million grant was assumed for each of the sites.

**COORDINATION**

Montgomery County Government (including coordination with the County's ICEUM Committee), Prince George's County Government and WSSC Projects W-73.16, Potomac WFP Improvements and W-73.19, Potomac WFP Outdoor Substation No. 2 Replacement.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | A-103.01 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Anaerobic Digestion/Combined Heat & Power (Seneca & Piscataway WW 5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **3,880** | | 290 | **3,590** | 390 | 500 | 2,000 | 700 | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **26,700** | | | **26,700** | 900 | 4,500 | 14,000 | 7,300 | | | |
| Other | **3,058** | | 29 | **3,029** | 129 | 500 | 1,600 | 800 | | | |
| **Total** | **33,638** | | **319** | **33,319** | **1,419** | **5,500** | **17,600** | **8,800** | | | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **13,392** | | 64 | **13,328** | 568 | 2,200 | 7,040 | 3,520 | | | |
| Federal Aid | **20,246** | | 255 | **19,991** | 851 | 3,300 | 10,560 | 5,280 | | | |

**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 the Seneca and Piscataway Wastewater Treatment Plants. The program will provide a reduction in energy and energy-related costs (electricity, natural gas, and 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 may include, but is not limited to, the addition of anaerobic digestion 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.

If the project, or a portion of it, is accomplished as an Energy Performance Project, a baseline will be established to identify energy usage/costs and biosolids hauling and disposal 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 determine whether the guaranteed savings have been met. The contractor will pay the WSSC for any yearly shortfall if the total guaranteed savings figure is not achieved on a yearly basis. If the actual savings exceed the guaranteed amount based on a yearly verification, the WSSC retains the savings.

In March 2009, the WSSC received a federal Department of Energy grant of $571,000 for the feasibility study/conceptual design phase. The WSSC will continue to pursue federal capital funding as the specific requirements of the project develop.

**JUSTIFICATION**

**Plans & Studies**

Appel Consultants, Urban Waste Grease Resource Assessment-NREL (November 1998); 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, Western Research Institute (WRI) Biogas Feasibility Study Scope of Work - WSSC (April 2008); JMT, Prince George's County Septage Discharge Facility Study (FOG); JMT, Montgomery County Septage Discharge Facility Study (FOG).

.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 1168 | .... | 15 |
| Total Costs | | 1168 | .... | 15 |
| Impact on Water or Sewer Rate | | 2¢ | .... | 15 |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 10 |
| Date First Approved | FY 10 |
| Initial Cost Estimate | 345 |
| Cost Estimate Last FY | 345 |
| Present Cost Estimate | 33,638 |
| Approved Request, Last FY | 230 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 1,419 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | No land or R/W required |
| % Project Completion: | P-10% |
| Est. Completion Date: | (See "Specific Data" for details.) |

**H. Map** **Map Reference Code:**

**MAP NOT APPLICABLE**

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: A - 103.01** **Project Name: Anaerobic Digestion/Combined Heat & Power (Seneca & Piscataway WWTPs)**

**Specific Data**

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.

Based on the EPA's engineering "rules of thumb" for considering combined heat and power generation systems at a wastewater treatment plant as well as construction costs for similar plants, the Production Team believes that a capital investment of $15,000,000 for each plant (Seneca and Piscataway) will result in an estimated savings of $1,250,000/year per plant in lower electricity and biosolids production costs based in part upon improved solids thickening (4% prior to digestion), two-stage digestion (to improve gas production and digester efficiency), process building, pumps, piping, heat exchangers, and 750 kW fuel cell generator, and Class A biosolids (potential) output for each plant. Funding source estimates are based on federal grant funding for 80% of feasibility/conceptual design study (already announced) and 60% of construction and/or capital costs (projected based on future expected federal grant).

**Cost Change**

Cost estimates were increased to show an Order of Magnitude estimate of design and construction costs.

**STATUS** Planning

**OTHER**

The project scope has remained the same. The project name was changed to more closely align it with the federal grant designation. The feasibility study phase of the project includes analysis and recommended anaerobic process (Mesophilic or Thermophilic); analysis of potential enhancements to optimize gas production; viability of grease trap waste disposal for added energy recovery utilizing WSSC FOG Report recommendations; evaluation of digester processes, evaluation of optimum Solids Residence Time (SRT), etc., to produce Class A or Class B biosolids; odor control mitigation; operational impacts (and mitigation methods) to the liquid side to maintain the integrity and reliability of the Enhanced Nutrient Removal (ENR) design of both plants; analysis of potential biosolids problems including fecal regrowth and odor quality; analysis of engine, turbine, and fuel cell power systems and heat recovery options; and development of preliminary capital cost and lifecycle cost estimates.

The study consists of three Tasks: Task I will provide a technology overview to develop preliminary costs and equipment requirements to allow identification of the options that best support the WSSC's long-term goals; Task II will further develop the selected alternatives to provide detailed cost estimates and equipment requirements, and will provide a Basis of Design document to guide subsequent detailed design; and Task III will summarize the recommendations in a technical report to the Commission.

At the completion of the feasibility study, the Commission will have a defined scope, capital cost, and energy and energy-related cost savings estimates (including GHG credit savings) to be able to proceed with the detailed design and construction of the Biogas and combined heat and power generation system facility. As part of the feasibility study, the digestion and side stream, odor control, and all primary processes will be determined, as will the bi-product selection and generation technology, size, and capacity of all major process equipment.

It is envisioned that either the entire project, or only the portion of the project that includes the production of bio-methane, methanol, 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 with the payback period not exceeding 15 years. 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 annual energy and energy-related savings guarantee of the energy performance portion of the project is estimated to be $2,500,000 for both plants.

Additional savings in the form of Carbon Credits are estimated to be captured starting in FY'11, within the Regional Greenhouse Gas Initiative (RGGI) auction process established by the Maryland Department of the Environment or through a new Federal Cap and Trade Program. The value of these credits is expected to add approximately 10-15% to the anticipated annual energy and energy-related (biosolids reduction) savings from the installation of energy efficient equipment in the WSSC's wastewater treatment plants included in this program. We will be able to develop more detailed information on which to base a more accurate estimate of the value of these credits as State and Federal programs regulations are formalized.

.

.

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: A - 103.01** **Project Name: Anaerobic Digestion/Combined Heat & Power (Seneca & Piscataway WWTPs)**

.

**COORDINATION**

Montgomery County Government, Prince George's County Government, Montgomery County Department of Environmental Protection, Maryland Department of the Environment, Prince George's County Department of Environmental Resources and WSSC Projects S-53.21, Seneca WWTP Enhanced Nutrient Removal, S-53.22, Seneca WWTP Expansion, Part 2 and S-96.12, Piscataway WWTP Enhanced Nutrient Removal.

**NOTE** This project supports 100% System Improvement.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | A-104.00 | Change |

2. Date: October 1, 2009

Revised:

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

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 '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | | | | | | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **1,820** | 371 | 332 | **1,117** | 279 | 159 | 235 | 54 | 382 | 8 | |
| Other | **211** | | 48 | **163** | 41 | 23 | 34 | 8 | 56 | 1 | |
| **Total** | **2,031** | **371** | **380** | **1,280** | **320** | **182** | **269** | **62** | **438** | **9** | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Contribution/Other | **2,031** | 371 | 380 | **1,280** | 320 | 182 | 269 | 62 | 438 | 9 | |

**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. This project currently reflects the Bolling AFB Contract 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).

**Specific Data**

Under the terms of the contract, the WSSC will own, operate, and maintain the Bolling AFB 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. Capital upgrades required include: 5,253 feet of sewer main replacement/relining; addition of 4 pumping stations to the SCADA system; abandonment of 1 pumping station; installation of a grinder pump; and upgrades to 8 water meter vaults. The expenditure schedule reflects the revisions contained in the Modified Initial Capital Upgrades Plan submitted by the DESC on May 21, 2007.

**Cost Change**

Not Applicable

**STATUS** Not Applicable (WSSC Contract Nos. EW4028A05 , EW4088A05 , FS4029A05 , FS4030A05 , FS4031A05 , FS4032A05 , FS4087A05 , EW4974Z09 , FS4974A09).

**OTHER**

The project scope has remained the same. The contract value over the full 50-year term is up to $23 million. The contract can be adjusted periodically to account for inflation and changed conditions. All expenditures will be reimbursed in full by the Air Force. The WSSC will own, operate, and maintain Bolling's water and wastewater infrastructure for a 50-year term, ending in June 2054. Drinking water supply and wastewater treatment will continue to be supplied to Bolling AFB 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.

**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 06 |
| Date First Approved | FY 05 |
| Initial Cost Estimate | 3,900 |
| Cost Estimate Last FY | 1,957 |
| Present Cost Estimate | 2,031 |
| Approved Request, Last FY | 312 |
| Total Expenditures & Encumbrances | 371 |
| Approval Request FY 11 | 320 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not applicable |
| % Project Completion: | Not Applicable |
| Est. Completion Date: | FY 2054 (See "Other" for details.) |

**H. Map** **Map Reference Code:**

MAP NOT APPLICABLE

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | A-105.00 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Water Storage Facility Rehabilitation Program

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | | | | | | | | | | | |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **34,000** | | 5,000 | **29,000** | 4,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | |
| Other | | | | | | | | | | | |
| **Total** | **34,000** | | **5,000** | **29,000** | **4,000** | **5,000** | **5,000** | **5,000** | **5,000** | **5,000** | |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **34,000** | | 5,000 | **29,000** | 4,000 | 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 57 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 REHABILITATON ARE EXPECTED TO CONTINUE INDEFINITELY.
.

**Service Area** Bi-CountyArea

**JUSTIFICATION**

**Specific Data**

Currently there are more than 20 steel tanks whose last painting contract was finished ten 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**

The Program has been increased in order to more quickly reduce the backlog of tanks requiring rehabilitation.

**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'11 will address the following water storage facilities: Roger Heights, Andrews, Pointer Ridge, Wall Lane, Air Park, North Woodside, Germantown, Greenbelt, Carole Highlands, Falls Road, Forest Heights, and the Hill Road Reservoirs.

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact | |
|---|---|---|---|---|
| Program Costs | Staff | | .... | |
| | Other | | .... | |
| Facility Costs | Maintenance | | .... | |
| | Debt Service | 1570 | .... | 17 |
| Total Costs | | 1570 | .... | 17 |
| Impact on Water or Sewer Rate | | 3¢ | .... | 17 |

**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 | 18,000 |
| Present Cost Estimate | 34,000 |
| Approved Request, Last FY | 3,000 |
| Total Expenditures & Encumbrances | |
| Approval Request FY 11 | 4,000 |
| Supplemental Approval Request Current FY (10) | |

**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**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | A-106.00 | Change |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Utility Master Plan

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **13,643** | 3,675 | 2,395 | **6,300** | 1,200 | 1,100 | 1,000 | 1,000 | 1,000 | 1,000 | 1,273 |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | | | | | | | | | | | |
| Other | **997** | | 240 | **630** | 120 | 110 | 100 | 100 | 100 | 100 | 127 |
| **Total** | **14,640** | **3,675** | **2,635** | **6,930** | **1,320** | **1,210** | **1,100** | **1,100** | **1,100** | **1,100** | **1,400** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **8,022** | 1,301 | 1,591 | **4,290** | 924 | 726 | 660 | 660 | 660 | 660 | 840 |
| Water Operating Funds | **3,309** | 1,187 | 522 | **1,320** | 198 | 242 | 220 | 220 | 220 | 220 | 280 |
| Sewer Operating Funds | **3,309** | 1,187 | 522 | **1,320** | 198 | 242 | 220 | 220 | 220 | 220 | 280 |

**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 the next 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, land mobile radio system, data network, paging system, microwave network and antenna support structures). The Plans will examine existing and future capacity needs, regulatory needs and rehabilatation/replacement needs. This effort will build on a number of previous and existing efforts that address particular components of the networks. Phase 1, completed in December 2007, identified high level infrastructure needs. Track 2, Phase 1, completed in April 2008, developed a road map for establishing an asset management structure. Funding in subsequent fiscal years will be used to complete the development of more detailed Asset Management Plans.

.

EXPENDITURES FOR THE UTILITY MASTER PLAN ARE EXPECTED TO CONTINUE THROUGH FY'18.

.

**JUSTIFICATION**

**Plans & Studies**

WSSC Strategic Sewerage Study (March, 1993); Patuxent WFP Facility Plan (1997); Facility Master Plan Potomac WFP (2000); Facility Master Plan Patuxent WFP (2000); Potomac Facility Plan (2002); WSSC Sanitary Sewer Overflows Consent Decree (December 7, 2005); WSSC Dynamic Sewer System Model (Contract No. CM4269A05); WSSC Strategic Sewerage Study Update (April 2006); WSSC 2007 Annual Action Item No 13; Phase 1 High Level Utility Wide Master Plan Reports (December 2007).

**Specific Data**

The initial phase of the project includes analysis of the results of the baseline sewer system modeling conducted in FY's 2006 and 2007, review of completed and planned Sewer System Evaluation Surveys (SSES), condition assessments, and trunk sewer inspections.

**Cost Change**

Planning level cost estimates were increased for inflation.

**STATUS** Planning (WSSC Contract Nos. BM4626A07 , CM4626A07).

**E. Annual Operating Budget Impact (000's)**

| | | | FY of Impact |
|---|---|---|---|
| Program Costs | Staff | .... | .... |
| | Other | .... | .... |
| Facility Costs | Maintenance | .... | .... |
| | Debt Service | 629 | .... |
| Total Costs | | 629 | .... |
| Impact on Water or Sewer Rate | | 1¢ | .... 18 |

**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 | 14,214 |
| Present Cost Estimate | 14,640 |
| Approved Request, Last FY | 1,649 |
| Total Expenditures & Encumbrances | 3,675 |
| Approval Request FY 11 | 1,320 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

| | |
|---|---|
| Land Status: | Not Applicable |
| % Project Completion: | P-20% |
| Est. Completion Date: | FY 2018 |

**H. Map** **Map Reference Code:**

**MAP NOT APPLICABLE**

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: A - 106.00** **Project Name: Utility Master Plan**

**OTHER**

The project scope has remained the same. The program includes six phases. Phase 1 has been completed. Phase 2, which includes 18 projects to establish an asset management framework and develop 5 detailed Asset Management Plans (AMPs), is presently underway. Future phases will continue development of detailed AMPs for various types of assets.

**COORDINATION**

Maryland-National Capital Park & Planning Commission, Montgomery County Department of Environmental Protection and Prince George's County Department of Environmental Resources.

**NOTE** This project supports 100% System Improvement.

**A. Identification and Coding Information**

| 1. Project Number | Agency Number | Update Code |
|---|---|---|
| | A-107.00 | Add |

2. Date: October 1, 2009
Revised:

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

3. Project Name: Pressure Reducing Valve Rehabilitation Program

5.Agency: **WSSC**

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

**B. Expenditure Schedule (000's)**

| Cost Elements | (8) Total | (9) Thru FY '09 | (10) Estimate FY '10 | (11) Total 6 Years | (12) Year 1 FY '11 | (13) Year 2 FY '12 | (14) Year 3 FY '13 | (15) Year 4 FY '14 | (16) Year 5 FY '15 | (17) Year 6 FY '16 | (18) Beyond 6 Years |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Planning, Design & Supervision | **2,000** | 400 | 300 | **1,200** | 300 | 300 | 200 | 200 | 100 | 100 | 100 |
| Land | | | | | | | | | | | |
| Site Improvements & Utilities | | | | | | | | | | | |
| Construction | **14,000** | | 500 | **12,500** | 3,000 | 2,000 | 2,000 | 2,000 | 2,000 | 1,500 | 1,000 |
| Other | **1,560** | | 80 | **1,370** | 330 | 230 | 220 | 220 | 210 | 160 | 110 |
| **Total** | **17,560** | **400** | **880** | **15,070** | **3,630** | **2,530** | **2,420** | **2,420** | **2,310** | **1,760** | **1,210** |

**C. Funding Schedule (000's)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WSSC Bonds | **17,560** | 400 | 880 | **15,070** | 3,630 | 2,530 | 2,420 | 2,420 | 2,310 | 1,760 | 1,210 |

**D. Description & Justification**

**DESCRIPTION**

This program provides for the planning, design and construction of improvements and replacement of Pressure Reducing Valves (PRV) and their associated valults as well as some specialty valves and vaults such as altitude or metering valve vaults 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. The PRV rehabilitation program will improve reliability and increase efficiency of system operation.

**JUSTIFICATION**

**Plans & Studies**

Candidate PRV's 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. Currently there are 25 candidate vaults within this program as identified by the Systems Control Group.

**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. For the valves currently under design: (1) Bright Seat PRV - 30" PRV built in 1976. Valves are in poor condition and need to be upgraded to include flow control to increase efficiency; (2) Old Baltimore Ave. PRV - 24" PRV's built in 1955. Isolation valves no longer hold and need replacement. The PRV's need to be updated to include flow control to increase efficiency; (3) Adelphi Road PRV - this facility is located on a 60" water main and is in extremely poor condition, located in a major county road, and parts are of limited availability. This vault is being relocated and updated to current standards.

**Cost Change**

Not applicable.

**STATUS** Various Stages of Planning & Design (WSSC Contract No. BL4830B08, ).

**OTHER**

The project scope was developed for the FY 2011 CIP and has a total project cost of $17,560,000. Funding shown in FY 2010 and before was previously included in ESP project W-745.20, PRV Vaults. PRV rehabilitation will be developed into individual projects or may be combined in some locations based upon proximity to one another and operational considerations.

**E. Annual Operating Budget Impact (000's)**

| | | FY of Impact | |
|---|---|---|---|
| Program Costs | Staff | | .... |
| | Other | | .... |
| Facility Costs | Maintenance | | .... |
| | Debt Service | 1435 | .... |
| Total Costs | | 1435 | .... |
| Impact on Water or Sewer Rate | | 3¢ | .... |

**F. Approval and Expenditure Data (000's)**

| | |
|---|---|
| Date First in Capital Program | FY 2011 |
| Date First Approved | FY 2011 |
| Initial Cost Estimate | 17,560 |
| Cost Estimate Last FY | |
| Present Cost Estimate | 17,560 |
| Approved Request, Last FY | |
| Total Expenditures & Encumbrances | 400 |
| Approval Request FY 11 | 3,630 |
| Supplemental Approval Request Current FY (10) | |

**G. Status Information**

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

**H. Map** **Map Reference Code:**

# Appendices

RESOLUTION NO. 2010-1873
Adopted: June 16, 2010
Effective Date: July 1, 2010

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 667, Chapter 423, Laws of Maryland 2007, System Development Charge legislation during its 2007 session, a bill which allows for an exemption for certain properties used exclusively for programs and services to youth; and

**WHEREAS**, the Maryland General Assembly enacted House Bill 1139, Chapter 441, Laws of Maryland 2009, System Development Charge legislation during its 2009 session, a bill which allows the youth exemption to certain properties used primarily for recreational and educational programs and services to youth; and

RESOLUTION NO. 2010-1873
Adopted: June 16, 2010
Effective Date: July 1, 2010

**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

**WHEREAS**, the System Development Charge is a component of the Commission's Fiscal Year 2011 capital and operating budgets prepared pursuant to §1-204, Article 29, Annotated Code of Maryland; and

**WHEREAS**, the Commission last modified the System Development Charge effective July 1, 2009 by Commission Resolution No. 2009-1825; 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 2.1% from November 2008 to November 2009; and

**WHEREAS**, the Commission recommends keeping the System Development Charge rates unchanged for FY'11. However, the Commission recommends increasing

the maximum allowable charge by 2.1% from FY'10 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 16th day of June, 2010, 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:

Definitions:

1) Apartment Unit means one of several single family residential units within one building that is not a "multi-unit dwelling." An "apartment unit" must contain at least one full bath and kitchen, but not more than two toilets. An "apartment unit" typically includes, but is not limited to, an individual dwelling unit in a garden, medium or high-rise type residential building.

2) Biotechnology Research and Development or Manufacturing means any development as jointly defined and approved by the Montgomery and Prince George's County Councils as eligible for a waived System Development Charge, more particularly described in Schedule C, attached.

3) Drainage Charge is the portion of the System Development Charge applicable to drainage fixture units for apartments and residential properties having five or fewer toilets.

4) Drainage Fixture Unit Value is a measure of the probable discharge into the drainage system by a particular plumbing fixture in terms of volume rate of discharge and duration of a single drainage operation and the time between successive operations.

5) Dwelling Unit means a single-family housing unit used as a residence, including trailers and mobile homes.

6) Elderly Housing means residential units as jointly defined and approved by the Montgomery and Prince George's County Councils as eligible for a waived System Development Charge, more particularly described in Schedule D, attached.

7) Hookup means the joining of the on-site water and/or sewer line(s) to the Commission's service connection or the installation of plumbing fixtures in a building served by the Commission's water and/or sewer facilities.

8) Multi-Unit Dwelling means a building that will accommodate several housing units on a lateral basis; namely, semi-attached houses, row houses, or townhouses used as residences.

9) New Service means:

   a) the first-time hook-up of a property to the Commission's water and/or sewer system; or

   b) a new connection or increased water meter size for a property previously or currently served by the Commission if the new connection or increased meter size is needed because of a change in the use of the property or an increase in demand for service at the property.

10) Non-Residential Unit is a structure not otherwise defined as a Residential Unit, generally commercial or industrial in nature. Examples may include shopping malls, non-residential townhouses, warehouses, industrial buildings, restaurants, schools, dormitories, hospitals, hotels, motels, nursing homes, office buildings, churches, theaters, and similar commercial or industrial buildings.

11) Property Used Primarily for Recreational and Educational Programs and Services to Youth means real property, owned in fee simple, by a Community-Based Organization as 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 §6-113, Article 29, Annotated Code of Maryland. (Maximum allowable System Development Charge is the maximum charge authorized by law, but not necessarily imposed in a given year.)

RESOLUTION NO. 2010-1873
Adopted: June 16, 2010
Effective Date: July 1, 2010

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

**BE IT FURTHER RESOLVED**, that the System Development Charge rates for FY'11 shall be as follows:

| Property Type | FY'11 Charge | Maximum Allowable Charge |
|---|---|---|
| Apartment Unit | | |
| Water | $896 | $1,152 |
| Sewer | 1,140 | 1,467 |
| 1-2 Toilets / Residential | | |
| Water | 1,344 | 1,728 |
| Sewer | 1,710 | 2,197 |
| 3-4 Toilets / Residential | | |
| Water | 2,240 | 2,881 |
| Sewer | 2,850 | 3,663 |
| 5 Toilets / Residential | | |
| Water | 3,135 | 4,031 |
| Sewer | 3,991 | 5,132 |
| 6 or More Toilets / Residential* | | |
| Water | 88 | 113 |
| Sewer | 115 | 149 |
| Non-Residential* | | |
| Water | 88 | 113 |
| Sewer | 115 | 149 |

*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

**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. 2010-1873, 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. 2010-1873, 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, and Elderly Housing as defined in Schedules C

RESOLUTION NO. 2010-1873
Adopted: June 16, 2010
Effective Date: July 1, 2010

and D, 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. 2010-1873 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. 2010-1873, 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 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. 2009-1825 adopted June 4, 2009 on the same subject matter be, and the same is hereby superseded by this Commission Resolution No. 2010-1873; and

**BE IT FURTHER RESOLVED**, that the System Development Charge established herein shall take effect on July 1, 2010.

A True Copy

Attest:

Charlett Bundy, 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 programs and service 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 programs and services to youth in Prince George's and/or Montgomery County.

3. "Exempt from Taxation" means:

A not-for-profit, charitable or educational organization as determined by the Internal Revenue Service, under Section 501(c)(3) of the Internal Revenue Code.

# STANDARD PROCEDURES OF THE WASHINGTON SUBURBAN SANITARY COMMISSION

| ORIGINATOR | SP NUMBER | APPROVE BY/DATE | EFFECTIVE DATE | PAGE |
|---|---|---|---|---|
| Joseph P. McNerney<br>Customer Affairs<br>Bureau Director | CUS 98-01<br>Supersedes<br>CUS 94-06 &<br>CUS 93-02 | COMMISSION | July 1, 1998 | 1<br>OF<br>7 |

SUBJECT

SYSTEM DEVELOPMENT CHARGE LEVY AND COLLECTION

PURPOSE

1.1 To document the levy, collection and deposit of the System Development Charge (SDC) in accordance with Article 29, §6-113 of the Annotated Code of Maryland and WSSC's Resolution No. 98-1555.

1.2 Define terms and phrases referencing SDC as commonly used in the issuance of plumbing permits.

DEFINITIONS

2.1 Apartment Unit means one of several single family housing units within one building and not specifically classified as a multi-unit dwelling, e.g., individual dwelling units in garden, medium and high-rise type residential buildings.

2.2 Base SDC Fee is the WSSC approved dollar charge for a plumbing fixture having a Drainage Fixture Unit Value and/or a Water Supply Fixture Unit Value of one for non-residential properties or residential units with more than five toilets. The Base SDC Fee for residential units with five or fewer toilets is the WSSC approved dollar charge based upon the unit's number of toilets

2.3 Drainage Fixture Unit Value is a measure of the probable discharge into the drainage system by a particular plumbing fixture in terms of volume rate of discharge and duration of a single drainage operation and the time period between successive operations.

2.4 Dwelling Unit means a single family housing unit used as a residence, including trailers and mobile homes.

2.5 Hookup means the joining of a property's on-site water and/or sewer line(s) to the Commission's service connection or the installation of plumbing fixtures in a building served by the Commission's water and/or sewer facilities.

2.6 Multi-Unit Dwelling means a building that will accommodate several housing units on a lateral basis; namely, semi-attached houses, row houses or townhouses used as residences.

2.7 New Service means:

(a) the first-time hook-up of a property to the Commission's water and/or sewer system; or

(b) a new connection or increased water meter size for a property, previously or currently served by the Commission, if the new connection or increased meter size is needed because of a change in the use of the property or an increase in demand for service at the property.

2.8 Non-Residential Unit is a structure not otherwise defined as a Residential Unit, generally commercial or industrial in nature. Examples may include Shopping Malls, non-Residential Townhouses, Warehouses, Industrial Buildings, Restaurants, Schools, Dormitories, Hospitals, Hotels, Motels, Nursing Homes, Office Buildings, Churches, Theaters and similar commercial or industrial buildings.

2.9 Plumbing Permit is the approved instrument, resulting from an application filed by a Registered Master Plumber, which allows for hookup of fixtures or onsite piping to the Commission's water and/or sewer systems.

2.10 Property means an improvement(s) or building(s) on a lot or parcel of land containing plumbing fixtures described in terms of Drainage Fixture Unit Values or Water Supply Fixture Unit Values.

2.11 Public Sponsored and Affordable Housing means:

(1) any dwelling unit built or financed under a government program, regulation, or binding agreement that limits for at least 10 years the price or rent charged for the unit in order to make the unit affordable to households earning less than 80% of the area median income, adjusted for family size;

(2) any Moderately Priced Dwelling Unit built under Chapter 25A of the Montgomery County Code or Subtitles 13 and 27 of the Prince George's County Code;

(3) any Productivity Housing Unit, as defined in Section 25B-17(m) of the Montgomery County Code;

(4) any unit in an Opportunity Housing Project built under Sections 56-28 through 56-32 of the Montgomery County Code or Subtitle 13, Division 8, of the Prince George's County Code, which is reserved for occupancy only by persons with low or moderate incomes (as defined in applicable provisions of State and County Law);

(5) any dwelling unit constructed pursuant to the Capturing Housing Opportunities in Communities Everywhere (CHOICE) Program in Prince George's County which is reserved for occupancy only by persons with low or moderate incomes (as defined in applicable provisions of State and County Law).

2.12 Residential Unit means any housing unit defined in Paragraphs 2.1, 2.4, and 2.6 above used as a residence.

2.13 Residential Applicant means a builder on whose behalf a Registered Master Plumber applies for and receives from the Commission plumbing permits for construction of new residential units.

2.14 SDC Sewer Charge is the product of a fixture's Drainage Fixture Unit Value and its associated Base SDC Fee for non-residential properties or dwelling and multi-unit housing units with more than five toilets. For residential properties with five or fewer toilets, the SDC Sewer Charge is the Commission approved drainage portion of the Base SDC Fee.

2.15 SDC Water Charge is the product of a fixture's Water Supply Fixture Unit Value and its associated Base SDC Fee for non-residential properties or dwelling and multi-unit housing units with more than five toilets. For residential properties with five or fewer toilets, the SDC Water Charge is the Commission approved water supply portion of the Base SDC Fee.

2.16 Sub-District Charge means that charge established by the Commission pursuant to the provisions of §6-103, Article 29, Annotated Code of Maryland.

2.17 Toilet means a water closet, as set forth in the WSSD Plumbing and Gasfitting Regulations.

2.18 Water Supply Fixture Unit Value is a measure of the probable hydraulic demand on the water supply by a particular plumbing fixture in terms of volume rate of supply and duration of a single supply operation and the time period between successive operations.

GENERAL

3.1 SDC is a fee established pursuant to provisions of Article 29, § 6-113 of the Annotated Code of Maryland, to help finance the capital cost of upgrading existing plants and facilities as well as the construction of new capital projects attributable to the addition of new service.

3.2 The Base SDC Fee level is established by Commission Resolution representing a formal adoption of the fee level mutually agreed upon by the Montgomery and Prince George's County Councils.

3.3 The SDC fee for a non-residential property or a dwelling unit or housing unit within multi-unit dwelling with more than five toilets is determined by the type and number of fixtures, existing and/or proposed, for which hookup to the WSSC's water and/or sewerage system(s) is proposed. The SDC levy is the sum of SDC Water Charges and SDC Sewer Charges, prevailing at the time of application for hook-up, which are associated with the individual fixtures proposed for hookup.

3.4 The SDC fee for a residential unit with five or fewer toilets is determined by the number of toilets, existing and/or proposed, for which hookup to the WSSC's water and/or sewerage system(s) is proposed. The SDC levy is the sum

of SDC Water Charges and SDC Sewer Charges, prevailing at the time of application for hook-up, which are associated with the number of toilets proposed for hookup.

3.5 Except as provided by Section 3.9, a property's calculated SDC fee is payable in full and shall accompany the application for plumbing permit for hookup of a property's fixtures to the WSSC system. Any "credit" pursuant to WSSC Standard Procedure CUS 94-03, entitled *SDC DEVELOPER CREDITS AND REIMBURSEMENTS*, may be substituted as payment, on a dollar for dollar basis, as therein described. Collected SDC fees shall be deposited in established revenue accounts and reconciled through the Service Applications & Records Section's remittance-processing system.

3.6 When a request is made to add a fixture(s) to a plumbing permit which has been issued under a previous SDC rate structure and which has not received final inspection approval, the additional SDC shall be calculated and collected based upon the fixture unit rate in effect at the time of request, except that the total SDC for a residential unit permit with five or less toilets shall not exceed the current Base SDC fee for such a unit.

3.7 When an application is made to add a toilet(s) to an existing dwelling or housing unit within an existing multi-unit dwelling, the resulting permit may be subject to a SDC fee only if the unit was previously assessed a SDC fee or an increase is required in the size of the unit's connection or meter. In either situation, a SDC fee will be actually assessed only if the number of toilets is being increased from one toilet based rate category to the next. For housing units with five or fewer toilets, the SDC fee assessed will be equal to the difference in the SDC base charge currently applicable to the number of existing toilets and that applicable to the total number of existing and proposed toilets. The SDC fee assessed for existing housing units with more than five toilets is the sum of the SDC Base fees at the current SDC rate structure for all added fixtures.

3.8 When an application is made to add fixtures to a Non-residential Unit, the resulting permit may be subject to a SDC fee only if the unit was previously assessed a SDC fee or an increase is required in the size of the unit's connection or meter. In either situation, the SDC fee assessed is the sum of the SDC Base fees at the current SDC rate structure for all added fixtures.

3.9 A residential applicant who elects to delay paying a portion of the system development charge shall pay one half the charge at the time of filing application for plumbing permit. The remaining one half of the system development charge for each residential unit shall be paid to the Commission within 12 months after the first payment or prior to the transfer of title to the property, whichever occurs first. A residential applicant must provide security for the remaining one half of the system development charge at the time of filing the plumbing permit application in one of the following forms:

(a). An irrevocable letter of credit that is automatically renewed from a bank that is rated "C" or better by Thomson BankWatch.

(b). A financial guaranty bond in a form substantially similar to the form attached here as Appendix "A." The bond shall be executed by the applicant and a corporate bonding company licensed to transact such business in the State of Maryland and named on the current list of "surety companies acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of this bond shall be paid by the applicant. If at any time the surety on any such bond is declared bankrupt or loses its right to do business in the State of Maryland or is removed from the list of surety companies accepted on Federal bonds, the applicant shall within ten days after notice from the Commission to do so, substitute an acceptable bond in such forms and sum and signed by such other surety or sureties as may be satisfactory to the Commission.

(c). For the residential applicant who certifies that he or she applies for four or fewer permits for the construction of residential units within the same calendar year, the General Counsel is hereby authorized to accept other forms of security proposed by the applicant and that in the judgment of the General Counsel will protect the Commission's interests in the same manner as the letter of credit and financial guaranty bond described above.

3.10 Fixtures verified by WSSC inspection prior to removal may result in credits toward SDC in a replacement structure. Following written application by a Registered Master Plumber, Postcard Permit inspections to confirm fixtures prior to removal will be the basis for calculating any SDC credit. No credit

will be afforded for rough-in piping or fixtures removed prior to inspection. SDC credit under this paragraph may only be obtained by submitting the original Master Plumber's copy of the approved Postcard Permit document at the time of application for hook-up of the replacement or remodeled structure. Credit obtained under this provision may only be used toward the remodeling of the existing structure or the redevelopment of a property from which the original fixtures were removed.

EXEMPTIONS

4.1 Additional fixtures installed in a structure or building are exempt from the levy of an SDC fee only if inspection of the initial hookup of the building or structure's plumbing to the WSSC's system(s) was approved under a permit issued as a result of an application filed before July 19, 1993, and the change in fixtures does not require an increase in the property's connection(s) or meter size.

4.2 The hook-up of a residential unit which is certified by Montgomery or Prince George's County as being a Public Sponsored or Affordable Housing Unit, as defined by Commission Resolution No. 98-1555, shall be exempted from any SDC fee.

4.3 The initial hook-up of a residential unit to the Commission's water and/or sewerage system will be exempted from the levy of any SDC fee if the unit existed and was served by a private well and/or septic system on or before July 16, 1993, and the applicable WSSC water or sewer main was in service or its construction was the subject of "Formal Notice To Proceed" (to the WSSC contractor) on or before the same July 16, 1993.

REFUNDS

5.1 In the event a permit to install plumbing fixtures expires or is canceled pursuant to provisions of Section 206.2 of the Plumbing and Gasfitting Regulations, all SDC fees paid in association with the application for plumbing permit to hook-up may be refunded, provided Code Enforcement Section's inspection records confirm that no work covered by the permit has been accomplished. Such refunds will be made to the original SDC payer at the time of application.

5.2 SDC payments for fixtures represented on an application, but not installed, may be refunded to the original payer provided a written request for refund is filed with the Service Applications & Records Section prior to a request for final inspection. Upon confirmation by the Code Enforcement Section that the fixtures or related rough-in work referenced in the written request have not been installed, the fixtures will be deleted from the permit database record and SDC refund action will be initiated.

5.3 The reimbursement of SDC payments to comply with credit requirements set forth in Article 29, §6-113.(e) of the Annotated Code of Maryland shall be

accomplished as specified by WSSC Standard Procedure CUS 94-03, entitled *SDC CREDITS AND REIMBURSEMENT*.

5.4 A request for full or partial refund of previously remitted SDC which has been denied may be appealed under provisions of Article 29, §6-111 of the Annotated Code of Maryland.

AUTHORITY CLAUSE

The General Counsel certifies that the statutory authority for adoption of this Standard Procedure is Article 29, §§ 6-113 and 9-101 of the Annotated Code of Maryland.

Distribution List

MASTER VOLUME LIST:

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: _____ Date: _____
(Title)

Attest: _____
Secretary of Corporation

Certificate as to Corporation (Corporate Seal)

I, _____, certify that I am Secretary of the Corporation named as Applicant herein, that _____ who signed this Performance Bond on behalf of the Applicant was then _____ of said Corporation; that I know his signature thereto is genuine; that the Bond was duly signed and sealed in behalf of said Corporation by authority of its governing body, and is within the scope of its corporate powers.

_____
Secretary of Corporation

(The following is applicable if Applicant is individual, partnership or unincorporated joint venture.)

Signed and Sealed in the full names of all partners and all members of Joint Ventures.

_____
(Print) Name (Signature)

_____
Address

_____
(Print) Name (Signature)

_____ _____
Address (Seal)

_____ _____
(Print) Name (Signature) (Seal)

_____
Address

_____
(Print) Name (Signature)

_____
Address

# STANDARD PROCEDURES OF THE WASHINGTON SUBURBAN SANITARY COMMISSION



| ORIGINATOR & POSITION | SP NUMBER | APPROVE BY/DATE | EFFECTIVE DATE | PAGE |
|---|---|---|---|---|
| Richard Shagogue, Team Chief Engineering & Construction Team | ENG 04-01 Supercedes CUS 94-03 | Acting Corp Secretary Commissioners March 10, 2004 | March 24, 2004 | 1 OF 8 |

**SUBJECT:**
SDC APPLICANT CREDITS AND REIMBURSEMENTS

## PURPOSE

1.0 Define procedures for the issuance of a System Development Charge (SDC) Credit earned through private design and construction to serve the Applicant's property. These procedures pertain only to either an approved Capital Improvement Program (CIP) Project or a project that provides only local service, is 2,000 feet or less in length, is either a sewer main 15 inches or greater in diameter, or water main 16 inches or greater in diameter and is built to avoid unnecessary and uneconomical duplication when a major project is constructed.

1.1 Describe how the SDC Credit due an Applicant will be determined.

1.2 Describe when SDC credit and reimbursement will occur.

## DEFINITIONS

2.0 Systems Development Charge (SDC) - A fee paid to the WSSC at the time of application for a plumbing permit intended to cover the cost of building CIP Projects needed to accommodate growth.

2.1 Applicant - Any firm, corporation, partnership, joint venture, municipality, agency, person or persons whom WSSC has authorized to design and construct a Qualified Project eligible for SDC credit or whom WSSC has required to provide eligible private funding of the Commission's costs to design and construct such a Project.

2.2 System Extension Permit (SEP) – A permit/agreement made between the WSSC and an Applicant pursuant to the "Development Services Process Manual" adopted by the Commission, effective July 1, 2000, and subsequent adopted revisions. **A qualified project built under a System Extension Permit issued without a signed accompanying SDC Credit Agreement is not eligible for SDC applicant credits or reimbursement.**

2.3 Memorandum of Understanding (MOU) - An agreement made pursuant to provisions of Standard Procedure # PD-93-06 entitled "Procedure for Developing a Memorandum of

Understanding for the Construction of WSSC Systems by Others" between the WSSC and an Applicant which covers the Applicant's design and construction of a CIP Project and which identifies the estimated total Applicant costs eligible for SDC credit and/or reimbursement. **A qualified project built without a signed MOU is not eligible for SDC applicant credits or reimbursement.**

2.4 Qualified Project - Any CIP facility, CIP line, sewer main 15 inches or greater, or water main 16 inches or greater in diameter necessary to serve the Applicant's property, which is designed and constructed by and at the sole expense of an Applicant pursuant to an MOU or SEP or other agreement. Also, any CIP project which is constructed by WSSC that the Applicant is required to provide eligible private funding of WSSC design and construction costs.

2.5 Qualified Properties - The specific properties located within the geographic area which WSSC identifies as served by the Qualified Project, as defined in Section 3.2.

2.6 Eligible Private Funding - Payment required by and made to WSSC by an Applicant to cover WSSC costs to design and construct a CIP Project needed to accommodate growth.

2.7 SDC Credit - A dollar value which is credited to an Applicant against SDC payable in connection with Qualified Properties and which equals the total eligible costs as defined in Section 3.6 incurred by the Applicant in the Applicant's design and construction of a Qualified Project or the amount of eligible private funding made by the Applicant to cover WSSC costs to design and construct a Qualified Project. An Applicant who designs a Qualified Project must also construct that Project in order to be eligible to receive SDC Credits.

2.8 SDC Credit Agreement – An agreement that summarizes the eligible costs considered for SDC Credit (as described in Section3.6). The SDC Credit Agreement is appended to an SEP. The credit agreement is included in the MOU as Attachment A.

2.9 SDC Ledger - The record of SDC credit authorized for an Applicant and the amount(s) of SDC credit issued or reimbursed to the Applicant for fixtures covered by plumbing permits obtained in the course of developing Qualified Properties associated with a Qualified Project.

2.10 Credit Voucher - The document (Attachment "B"), executed by the Applicant, which serves as the instrument to obtain SDC credit associated with an application for permit to install plumbing fixtures. Each Credit Voucher may apply only to a single application for plumbing permit and shall:

- identify the Qualified Project from which credit is derived; and
- specify the Qualified Property for which the credit is requested; and
- be signed by the Applicant or its authorized agent, be duly notarized; and
- show the amount to be credited in lieu of SDC payment

2.11 Qualified Project Scope - The specific scope of the qualified project. For pipelines built under an SEP, the specific scope will be included with the SDC Credit Agreement, and

will include pipeline lengths and diameters, valves, vaults and any other appurtenant structures. For facility projects, the specific scope of work will be included with the MOU.

## PROCEDURES

3.0 An Applicant shall declare a desire to design and construct a Qualified Project eligible for SDC credit either as an element of its request for a Hydraulic Planning Analysis filed with the Development Services Group or in a written response to the Letter of Findings prepared by the Development Services Group. For projects that were previously authorized, but have not yet been issued an SEP or MOU, the Applicant may request an authorization amendment to allow the Applicant to design and construct a Qualified Project eligible for SDC credit.

3.1 The Applicant agrees to pay WSSC all review fees normally due WSSC. Letters of credit are not acceptable in lieu of fees.

3.2 When an Applicant has requested that it be permitted to design and construct a CIP Project, the Development Services Group shall prepare a map during its hydraulic planning analysis that identifies the Qualified Properties to be served by the CIP Project which the Applicant has requested to design and construct. SDC Credit will only be issued to properties within the geographic boundaries identified in the map as Qualified Properties. A copy of the prepared map will be sent to the Applicant.

3.3 If WSSC either authorizes the Applicant to design and construct a Qualified Project or requires eligible private funding from the Applicant of WSSC's design and construction costs, then the properties identified as served by the Project will receive credit and/or be subject to SDC Payments which may be reimbursed to the Applicant up to the total eligible amount. The Permit Services Unit will establish an Applicant's SDC Ledger following either 1) execution of a MOU or SEP covering Applicant design and construction of the Qualified Project or 2) WSSC receipt of eligible private funding of the Qualified Project from the Applicant. Prior to establishing the Applicant's SDC Ledger, the Permit Services Unit requires a map identifying all Qualified Properties to be served by the Qualified Project from the Development Services Group. **Please note that for pipeline jobs, the Applicant will not receive SDC credit or reimbursement unless the SDC credit agreement is signed before the SEP is issued.**

3.4 The SDC Ledger will reflect the total amount of SDC credit/reimbursement that the Applicant is eligible to receive. If the Applicant is designing and constructing the Qualified Project, the Ledger will initially reflect the Applicant's SDC credit based upon the estimated total eligible costs agreed upon in the MOU or SEP. The Applicant's initial Ledger credit amount will be adjusted to reflect the actual total eligible costs for the Qualified Project, as determined by the WSSC's Internal Audit Manager (as discussed in Sections 3.5, 3.6, 3.7, 3.8 and 3.12), after the Qualified Project has been accepted and placed in service by WSSC. If WSSC is designing and constructing a Qualified Project, the Ledger will reflect the total amount of eligible private funding received from the Applicant.

3.5 SDC credits may not exceed 50% of the estimated total eligible project cost (not to

include contingency for increase in scope items (see Section 3.8)) until such time as final audit is completed and the actual total eligible project cost is determined. Once the actual total eligible project cost is determined, SDC credits are available up to the eligible project cost and quarterly refunds (based upon SDC collected for qualified properties) will commence. Prior to the final audit, the Credit Voucher is the only method of reimbursement to the Applicant.

Following WSSC receipt of eligible private funding, SDC credits against the ledger amount may be granted. However in the SDC credits toward the private funding may not exceed 50% of the total estimated project cost.

3.6 When an Applicant is designing and constructing a Qualified Project, SDC Credit is the total eligible Project cost incurred and paid by the Applicant. The SDC Credit is subject to the general guidelines that (1) eligible costs will be the types of costs that WSSC would have incurred had WSSC designed and constructed the Qualified Project, and (2) the SDC Credit will not exceed the maximum amount mutually agreed upon in the SDC Credit Agreement. Eligible costs must be directly allocable to the Qualified Project. Examples include, but are not limited to

**Engineering Costs:** design, reprographics, survey (topo), soil borings, As-built drawing preparation, and bonding fees.

Permits Costs: Costs for permits that WSSC would have had to acquire had WSSC built the project.

**WSSC Fees for Pipelines:** Fees for extra WSSC reviews or re-testing will be considered only if non-eligible portions of the job do not require extra reviews or re-testing. Unless mentioned otherwise, fees will be allocated to the Qualified Project based on estimated costs and overall water and sewer project cost for the project number.

**WSSC Fees for Facilities**: All WSSC direct costs and overhead associated with the qualified project as stated in the MOU.

**Construction Costs:** Contractors bid price, survey (stake out), Geotech (compaction testing), off-site restoration, and construction management.

**Interest Costs**: Interest costs for funds used during design and construction, at an average interest rate not to exceed the rate paid by WSSC on short-term construction notes outstanding during the period beginning with the date of WSSC signature on the SEP or MOU agreement and ending when the Qualified Project is substantially complete.

**Off-Property Rights of Way:** Acquisition costs are eligible up to amount appraised by WSSC for purchase of off-Applicant's property right-of-way and construction strips, plus up to 25 percent of the appraised amount for direct costs associated with purchase of off-site rights-of-way and construction strips.

3.7 Examples of costs that are <u>not eligible</u> include, but are not limited to

Area wide planning not directly related to the Qualified Project;

Attorneys fees

The WSSC Hydraulic Review Fee

Costs for negotiation of SDC Credit Agreement or MOU;

Bonus payments or acceleration costs paid to the contractor for completion of construction;

Third party inspection costs for facility projects;

Applicant's overhead costs not directly attributable to the Qualified Project;

Costs outside the scope of the Qualified Project;

Permit costs associated with a development rather than the Qualified Project;

Site acquisition costs beyond what WSSC would have paid;

Facilities capital cost of money;

Fines and penalties;

Maintenance Costs;

Maintenance Bond Costs that are beyond both two years after substantial completion and beyond one year after release of service or final acceptance.

Grading of rights of way;

Sediment control for grading;

Clearing and grubbing for public rights-of-way in which the Qualified Project will be installed;

Federal and state income taxes;

Administrative or Management Fees not directly associated with the Qualified Project; and

Personal injury compensation or damages.

3.8 The maximum SDC reimbursement shall not exceed 110 percent of the contractor bid price plus other eligible costs.

3.9 The SDC Credit Agreement will not provide payment to the Applicant for costs the Applicant did not incur or for costs reimbursed to the Applicant from other sources. The SDC Credit Agreement will not provide any premiums for expedited work.

3.10 Prior to SDC Credit Agreement or MOU approval, the WSSC project manager for the project is responsible to have components of the SDC Credit Agreement or MOU

reviewed by other offices. The Contract Technical Services Unit should review the Applicant's construction costs using a copy of the signed plans. Internal Audit is to review any item that the WSSC project manager proposes which is contrary to items 3.6 or 3.7. Other appropriate WSSC offices should be consulted such as the Land Acquisition Unit for additional land acquisition costs and the Planning Group for planning costs.

3.11 For Qualified Projects, the SEP or MOU agreements should indicate that the Maintenance Bond should remain in effect at least two years beyond the date of substantial completion for SEP projects or at least one year beyond the date of final acceptance for MOU projects. The Applicant will submit a written request for audit to WSSC's Internal Audit Manager, after the Qualified Project built by the Applicant has been released for service (pipelines) or finally accepted (facilities). Along with the request, the Applicant must submit an itemized listing of eligible Qualified Project costs, incurred and paid, supporting the total amount of SDC Credit claimed. **It should be emphasized that the Applicant should retain all the contracts, invoices and payments for WSSC Internal Audit to inspect and review to determine the SDC credits.**

3.12 In compliance with Article 29 § 6-113(e)(4), of the Annotated Code of Maryland, WSSC's Internal Audit Manager shall review and approve the costs incurred by the Applicant. The Internal Audit Manager will strive to initiate the audit within 90 days of the Applicant's request, if the request includes the required itemized cost listing. The Internal Audit Report will be the formal document that communicates the final results of the audit to WSSC and the Applicant. When an audit is complete, prior to the final Internal Audit Report, the Internal Audit Manager will issue to the Applicant an unsigned DISCUSSION DRAFT to allow the Applicant an opportunity to discuss with Internal Audit any concerns the Applicant has with the proposed SDC Credit. Subsequently, the Internal Audit Manager will issue to the Applicant its final Report on the SDC Credit to be provided the Applicant.

3.13 SDC credits against an Applicant's SDC Credit balance will be issued by WSSC upon receipt of a complete and fully executed Credit Voucher submitted at the time of plumbing permit application. The application must be made in connection with a Qualified Property served by the Qualified Project (being) built by the Applicant. Also, the amount specified in the Credit Voucher shall not exceed the calculated SDC for plumbing fixtures covered by the permit application. Credit Vouchers reflecting and specifying an amount in excess of calculated SDC for the requested permit will not be accepted. The plumbing permit will be issued after verification that a sufficient credit balance remains to cover the Credit Voucher Amount. Insofar as possible, Credit Vouchers will be considered on a "first come-first served" basis. For a plumbing permit application accompanied by a Credit Voucher for which an Applicant's credit balance has been exhausted, the credit voucher and the associated application will be returned to the applicant. WSSC is not responsible for managing or assisting the Applicant in managing the issuance of Credit Vouchers. Managing the issuance of Credit Vouchers is not an eligible cost for reimbursement.

3.14 In the event an issued Plumbing Permit expires or is cancelled by the owner or

plumber, no SDC reimbursement to the Applicant will be approved for that permit. In such cases, any Credit Voucher will be voided and the credit amount added to the Applicant's outstanding Ledger balance.

3.15 In conformance with Section 3.18, SDC payments received in association with applications for plumbing permits for Qualified Properties will be identified as eligible for reimbursement (after the Internal Audit Report has been completed - see Section 3.12) to the Applicant who has constructed the Qualified Projects serving those Qualified Properties.

3.16 For those situations where more than one Qualified Project serves a Qualified Property, SDC reimbursement payments shall be made in proportional shares to the Applicants who have built or funded the Qualified Projects. A proportional share is calculated based upon a Qualified Project's actual eligible costs or funding expressed as a percentage of the sum of all actual eligible costs and/or funding of Qualified Projects serving the Qualified Property.

3.17 At the conclusion of each calendar quarter, the Permit Services Unit will determine the total SDC receipts eligible for reimbursement made for each previously identified Qualified Property. Only those SDC receipts filed in association with plumbing permits under which all covered work has received an approved final inspection are eligible for reimbursement.

3.18 Based upon the quarterly reconciliation, the Permit Services Unit will prepare and forward to the Accounting Group a Payment Request to be made to the appropriate Applicant in an amount equal to the sum of qualifying SDC receipts not yet reimbursed, and a memorandum recommending reimbursement of SDC receipts and identifying the maximum amount recoverable. The memorandum shall be accompanied by a statement detailing eligible plumbing permits.

3.19 Following review of the recommended reimbursement, the Accounting Group will forward the Payment Request and supporting documentation to the Disbursements Group which will issue payment to the Applicant.

3.20 When an Applicant has designed and constructed a Qualified Project, the sum of SDC Credits and Reimbursements pursuant to this procedure will be made only to the maximum determined by the Internal Audit Report and only to the Applicant identified in the MOU or SEP.

3.21 The Applicant may issue credit vouchers to multiple builders to facilitate construction of residential or non-residential structures within the Qualified Property and reimbursement of Qualified Project costs. If the Applicant wishes to transfer its right and title to any remaining SDC credit from a Qualified Project, the Applicant shall notify the Permit Services Unit of the requested transfer. Such notification shall be in writing and shall identify the single entity to receive the entire remaining balance of SDC credit from a Qualified Project. The Permit Services Unit will acknowledge the credit transfer and forward the written request for inclusion in the Qualified Project's MOU or SEP as an amendment. Thereafter, all Qualified Property SDC credits or reimbursements will be issued to the last designated entity in the MOU or SEP as amended.

3.22 Notwithstanding any other provision of this Procedure, SDC Credit or reimbursements

for costs identified in Section 3.3 of this Procedure are limited to SDC transactions for Qualified Properties served by the Qualified Project within a twenty-year period, or until the sum of credits and reimbursements equals the total approved SDC Credit. The twenty-year period will commence for SEP, MOU, or eligible funding projects on the day of release for service. At the conclusion of the twenty-year period, the Permit Services Unit will close the SDC Reimbursement Ledger and will provide written notification of exhaustion or termination of the SDC Credit to the last designated recipient.

## AUTHORITY

The General Counsel certifies that this Standard Procedure was adopted pursuant to the authority of Sections 6-113 and 9-101 of Article 29 of the Annotated Code of Maryland.

**Distribution List:**

**MASTER VOLUME LIST:**

General Manager's Office
Internal Audit Office
Secretary's Office
Human Resources Group

**Other Distribution:**

Commissioner's Office
Engineering and Construction Team
Public Communications
Internal Audit
Customer Care Team
Rate Stabilization and Debt Reduction Team
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

# SDC CREDITS ESTIMATE

| | ESTIMATED AMOUNT |
|---|---|
| Design | |
| Permits | |
| Administration | |
| Interest | |
| WSSC's Fees | |
| Construction Costs | |
| TOTAL ESTIMATED ELIGIBLE COSTS | |

**ATTACHMENT B**

# WASHINGTON SUBURBAN SANITARY COMMISSION

## System Development Charge Credit Voucher

I, _____ hereby affirm under penalty of perjury that I am the Developer
(name printed)
or its authorized agent, entitled to an SDC credit pursuant to an approved System Extension Permit or Memorandum of Understanding for _____, a Qualified Project. Pursuant to the current

(WSSC Contract No. & C.I.P No.)

WSSC Standard Operating Procedure, I hereby request that $_____ be charged against the remaining eligible SDC credit balance for the specified Qualified Project. The above credit amount shall be applied against SDC due in connection with an application for plumbing permit to install fixtures in an improvement on property described as: _____

_____ which is a "Qualified Property" served by the above named "Qualified Project."

I agree to indemnify and hold harmless the Washington Suburban Sanitary Commission to whom this request is presented and its agents and employees, from and against all claims, damages, losses and expenses, including reasonable attorneys' fees, arising out of or by reason of complying with this request.

_____
(Developer's Signature)

Subscribed and sworn to before me this _____ day of _____, 20___.

_____
(Notary Public)

_____
(Name Printed)

My Commission Expires _____

STANDARD PROCEDURES
OF
THE WASHINGTON SUBURBAN SANITARY COMMISSION

| ORIGINATOR | DEPT. & NUMBER | APPROVED BY/DATE | EFFECTIVE DATE | PAGE 1 |
|---|---|---|---|---|
| Water Resources Planning Section | PD 93-01 | Cortez A. White General Manager | July 1, 1993 | OF 3 |

SUBJECT

PROCEDURE FOR DETERMINING PERCENT GROWTH FOR CIP PROJECTS

## I. PURPOSE AND APPLICABILITY

The purpose of this procedure is to establish a method for determining what proportion of certain WSSC CIP projects is for growth. This procedure applies after June 30, 1993: 1) to projects which are added to the CIP; and 2) to any revisions of projects already programmed which change the amount of system capacity added by the projects.

## II. PROCEDURE AND METHODOLOGY

The Water Resources Planning Section will determine the percent growth for all applicable CIP Projects using the following methodology.

The method involves the following three steps:

Step 1. Test for 100% Growth

If flows/demands remained at June 1993 levels, would a project still be required?

No ==> Growth = 100%
Yes ==> Continue to Step 2

Step 2. Test for 0% Growth

Does the project improve or replace components of an existing facility without increasing the capacity of any of the components?

Yes ==> Growth = 0%
No ==> Continue to Step 3

Step 3. Determine Percent Growth

1. Identify system capacity added by the project.
2. Identify and subtract June 30, 1993 capacity deficit, if any.
3. Divide result by total project design capacity.

**Notes:**

1. For most water and wastewater facilities, there is a straight-forward relationship between demand, capacity requirements, and facility size. For water transmission mains, however, the relationship is more complicated. There are many factors other than size which must be considered to determine capacity. These factors include length, the size and number of interconnections and the allowable energy differential between the points connected by the transmission system. Capacity analysis of a transmission network normally requires computer modeling. Previous water system analyses will be used to the extent they are applicable; however, where no previous analysis exists, computer modeling will be required.

2. If an existing facility with available system capacity is being replaced by a new project which increases total system capacity, the available capacity in the existing facility is lost or wasted. In such cases, existing available capacity will be treated as a negative deficit in Step 3, part 2.

**Examples:**

1. An existing sewer has a safe capacity of 20 mgd. The June 30, 1993 peak flow is 17 mgd. A proposed parallel sewer will add 10 mgd of capacity for growth. Since the existing sewer can handle the June 30, 1993 flows the project is 100% for growth. (Step 1)

2. An existing sewer has a safe capacity of 20 mgd; its maximum capacity before overflow is 27 mgd. The June 30, 1993 peak flow is 21 mgd. A proposed parallel sewer will add 10 mgd of capacity for growth. Since the existing sewer can handle the June 30, 1993 flows, the project is 100% for growth. (Step 1)

3. An existing pumping station has 1 mgd of capacity. The June 30, 1993 flow is 0.8 mgd. A proposed replacement pumping station will have a total capacity of 1.5 mgd. The existing pumping station is old, and a rehab project would be needed if the new pumping station were not built. Therefore, the station is not 100% for growth. (Step 1) It adds capacity, so it is not 0% growth. (Step 2) The percent for growth is calculated as follows: 0.5 mgd [the capacity added by the new pumping station] plus 0.2 mgd [the amount of lost available capacity] divided by 1.5 mgd [the total capacity of the new pumping station] = 47%. (Step 3)

4. An existing pumping station in good condition has 1 mgd of capacity. The June 30, 1993 flow is 0.8 mgd. A proposed replacement pumping station, located downstream to increase the service area, will have a total capacity of 1.5 mgd. The proposed pumping station is 100% for growth. (Step 1)

5. A pressure zone has a 1 mg storage deficit based on June 30, 1993 demands. When we finally get agreement to build a 3 mg tank in the zone, the deficit has risen to 2 mg. The tank is 66.7% for growth. [3 mg added - 1 mg deficit]/3 mg total capacity = 67.7%. (Step 3)

DISTRIBUTION:
Commission
General Manager
Deputy General Manager for Administration
Deputy General Manager for Planning, Programs & Policy
Deputy General Manager for Operations
Secretary/Internal Audit (2 copies)
General Counsel
Budget & Financial Planning
Communications
Bureau of Planning and Design
Bureau of Construction
Bureau of Maintenance
Bureau of Operations
MBE Officer

WASHINGTON SUBURBAN SANITARY COMMISSION
ADOPTED FYS 2011 - 2016 CIP
SDC ELIGIBLE PROJECTS
SUMMARY
(In Thousands)

| PROGRAM NAME | TOTAL COST | FY 2009 | FY 2010 | TOTAL 6 YEARS | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | BEYOND 6 YEARS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MONTGOMERY COUNTY WATER PROJECTS | | | | | | | | | | | |
| Total Project Costs * | $15,207 | $1,116 | $2,912 | $11,179 | $6,294 | $3,347 | $1,538 | $0 | $0 | $0 | $0 |
| SDC Eligible Costs | $15,207 | $1,116 | $2,912 | $11,179 | $6,294 | $3,347 | $1,538 | $0 | $0 | $0 | $0 |
| BI-COUNTY WATER PROJECTS | | | | | | | | | | | |
| Total Project Costs * | $300,372 | $121,413 | $60,049 | $118,910 | $44,836 | $41,121 | $28,822 | $4,131 | $0 | $0 | $0 |
| SDC Eligible Costs | $209,005 | $47,088 | $45,453 | $116,464 | $43,090 | $40,721 | $28,522 | $4,131 | $0 | $0 | $0 |
| PRINCE GEORGE'S COUNTY WATER PROJECTS | | | | | | | | | | | |
| Total Project Costs * | $66,002 | $4,579 | $4,853 | $52,820 | $14,712 | $19,557 | $13,545 | $3,895 | $803 | $308 | $3,750 |
| SDC Eligible Costs | $44,745 | $3,504 | $3,516 | $35,850 | $9,125 | $12,470 | $9,864 | $3,280 | $803 | $308 | $1,875 |
| TOTAL WATER PROJECT COSTS | $381,581 | $127,108 | $67,814 | $182,909 | $65,842 | $64,025 | $43,905 | $8,026 | $803 | $308 | $3,750 |
| TOTAL WATER SDC ELIGIBLE COSTS | $268,957 | $51,708 | $51,881 | $163,493 | $58,509 | $56,538 | $39,924 | $7,411 | $803 | $308 | $1,875 |
| MONTGOMERY COUNTY SEWERAGE PROJECTS | | | | | | | | | | | |
| Total Project Costs * | $50,406 | $3,457 | $8,410 | $38,539 | $16,387 | $15,213 | $6,898 | $41 | $0 | $0 | $0 |
| SDC Eligible Costs | $50,085 | $3,457 | $8,089 | $38,539 | $16,387 | $15,213 | $6,898 | $41 | $0 | $0 | $0 |
| BI-COUNTY SEWERAGE PROJECTS | | | | | | | | | | | |
| Total Project Costs * | $41,803 | $1,405 | $2,587 | $37,811 | $7,226 | $12,572 | $13,360 | $4,653 | $0 | $0 | $0 |
| SDC Eligible Costs | $8,527 | $367 | $1,086 | $7,074 | $1,820 | $2,355 | $2,434 | $465 | $0 | $0 | $0 |
| PRINCE GEORGE'S COUNTY SEWERAGE PROJECTS | | | | | | | | | | | |
| Total Project Costs * | $102,774 | $12,852 | $10,459 | $78,547 | $5,951 | $15,256 | $31,365 | $22,549 | $1,906 | $1,520 | $916 |
| SDC Eligible Costs | $95,911 | $12,153 | $10,019 | $72,876 | $5,731 | $14,200 | $28,902 | $20,767 | $1,809 | $1,467 | $863 |
| TOTAL SEWERAGE PROJECT COSTS | $194,983 | $17,714 | $21,456 | $154,897 | $29,564 | $43,041 | $51,623 | $27,243 | $1,906 | $1,520 | $916 |
| TOTAL SEWERAGE SDC ELIGIBLE COSTS | $154,523 | $15,977 | $19,194 | $118,489 | $23,938 | $31,768 | $38,234 | $21,273 | $1,809 | $1,467 | $863 |
| TOTAL PROJECT COSTS | $576,564 | $144,822 | $89,270 | $337,806 | $95,406 | $107,066 | $95,528 | $35,269 | $2,709 | $1,828 | $4,666 |
| TOTAL SDC ELIGIBLE COSTS | $423,480 | $67,685 | $71,075 | $281,982 | $82,447 | $88,306 | $78,158 | $28,684 | $2,612 | $1,775 | $2,738 |

* 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 2011 - 2016 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

| PROJECT NUMBER | PROJECT NAME | TOTAL COST | FY 2009 | FY 2010 | TOTAL 6 YEARS | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | BEYOND 6 YEARS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WATER PROJECTS | | | | | | | | | | | |
| BI-COUNTY PROJECTS | | | | | | | | | | | | |
| W-73.16 | POTOMAC WFP IMPROVEMENTS | $131,401 | $107,717 | $21,154 | $2,530 | $2,530 | $0 | $0 | $0 | $0 | $0 | $0 |
| | TOTAL GROWTH COSTS | 40,734 | 33,392 | 6,558 | $784 | 784 | 0 | 0 | 0 | 0 | 0 | 0 |
| W-127.01 | BI-COUNTY WATER TUNNEL | 168,971 | 13,696 | 38,895 | 116,380 | 42,306 | 41,121 | 28,822 | 4,131 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 168,271 | 13,696 | 38,895 | 115,680 | 42,306 | 40,721 | 28,522 | 4,131 | 0 | 0 | 0 |
| SUBTOTAL BI-COUNTY WATER PROJECTS | | $300,372 | $121,413 | $60,049 | 118,910 | $44,836 | $41,121 | $28,822 | $4,131 | $0 | $0 | $0 |
| SUBTOTAL BI-COUNTY SDC ELIGIBLE COSTS | | $209,005 | $47,088 | $45,453 | 116,464 | $43,090 | $40,721 | $28,522 | $4,131 | $0 | $0 | $0 |
| MONTGOMERY COUNTY PROJECTS | | | | | | | | | | | | |
| W-46.14 | CLARKSBURG AREA STAGE 3 WATER MAIN, PART 1, 2, & 3 | 3,586 | 141 | 656 | 2,789 | 2,238 | 551 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 3,586 | 141 | 656 | 2,789 | 2,238 | 551 | 0 | 0 | 0 | 0 | 0 |
| W-46.15 | CLARKSBURG ELEVATED WATER STORAGE FACILITY | 4,092 | 132 | 25 | 3,935 | 328 | 2,069 | 1,538 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 4,092 | 132 | 25 | 3,935 | 328 | 2,069 | 1,538 | 0 | 0 | 0 | 0 |
| W-46.18 | NEWCUT ROAD WATER MAIN, PART 2 | 825 | 75 | 115 | 635 | 236 | 399 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 825 | 75 | 115 | 635 | 236 | 399 | 0 | 0 | 0 | 0 | 0 |
| W-46.24 | CLARKSBURG AREA STAGE 3 WATER MAIN, PART 4 | 1,954 | 68 | 276 | 1,610 | 1,455 | 155 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 1,954 | 68 | 276 | 1,610 | 1,455 | 155 | 0 | 0 | 0 | 0 | 0 |
| W-153.00 | LAYTONSVILLE ELEVATED TANK AND PUMPING STATION | 4,519 | 700 | 1,840 | 1,979 | 1,979 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 4,519 | 700 | 1,840 | 1,979 | 1,979 | 0 | 0 | 0 | 0 | 0 | 0 |
| W-200.00 | LAND & RIGHTS-OF-WAY ACQUISITION - MONTGOMERY COUNTY | 231 | 0 | 0 | 231 | 58 | 173 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 231 | 0 | 0 | 231 | 58 | 173 | 0 | 0 | 0 | 0 | 0 |
| SUBTOTAL MONTGOMERY COUNTY WATER PROJECTS | | $15,207 | $1,116 | $2,912 | $11,179 | $6,294 | $3,347 | $1,538 | $0 | $0 | $0 | $0 |
| SUBTOTAL MONTGOMERY COUNTY SDC ELIGIBLE COSTS | | $15,207 | $1,116 | $2,912 | $11,179 | $6,294 | $3,347 | $1,538 | $0 | $0 | $0 | $0 |

WASHINGTON SUBURBAN SANITARY COMMISSION
ADOPTED FY'S 2011 - 2016 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

| PROJECT NUMBER | PROJECT NAME | TOTAL COST | FY 2009 | FY 2010 | TOTAL 6 YEARS | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | BEYOND 6 YEARS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PRINCE GEORGE'S COUNTY PROJECTS | | | | | | | | | | | | |
| W-34.02 | OLD BRANCH AVENUE WATER MAIN | $10,993 | $70 | $385 | 10,538 | $1,087 | $4,983 | $3,973 | $495 | $0 | $0 | $0 |
| | TOTAL GROWTH COSTS | 5,496 | 35 | 192 | 5,269 | 544 | 2,491 | 1,987 | 247 | 0 | 0 | 0 |
| W-111.05 | HILLMEADE ROAD WATER MAIN | 3,763 | 497 | 621 | 2,645 | 1,481 | 1,164 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 3,763 | 497 | 621 | 2,645 | 1,481 | 1,164 | 0 | 0 | 0 | 0 | 0 |
| W-119.01 | JOHN HANSON HIGHWAY WATER MAIN, PART 1 | 6,368 | 445 | 288 | 5,635 | 242 | 1,881 | 2,347 | 1,165 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 6,368 | 445 | 288 | 5,635 | 242 | 1,881 | 2,347 | 1,165 | 0 | 0 | 0 |
| W-123.20 | OAK GROVE/LEELAND ROADS WATER MAIN, PART 2 | 12,360 | 924 | 1,432 | 10,004 | 5,716 | 4,288 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 6,180 | 462 | 716 | 5,002 | 2,858 | 2,144 | 0 | 0 | 0 | 0 | 0 |
| W-129.12 | CHURCH ROAD WATER MAIN & PRV, PART 2 | 683 | 0 | 0 | 683 | 28 | 64 | 285 | 306 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 683 | 0 | 0 | 683 | 28 | 64 | 285 | 306 | 0 | 0 | 0 |
| W-147.00 | COLLINGTON ELEVATED WATER STORAGE FACILITY | 9,648 | 534 | 460 | 4,904 | 1,442 | 2,486 | 976 | 0 | 0 | 0 | 3,750 |
| | TOTAL GROWTH COSTS | 4,823 | 267 | 229 | 2,452 | 721 | 1,243 | 488 | 0 | 0 | 0 | 1,875 |
| W-147.01 | MARLBOBO ZONE WATER STORAGE FACILITY | 8,492 | 85 | 89 | 8,318 | 2,755 | 2,415 | 2,415 | 733 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 4,246 | 43 | 44 | 4,159 | 1,378 | 1,207 | 1,208 | 366 | 0 | 0 | 0 |
| W-197.00 | DSP & CONCEPTUAL DESIGN WATER PROJECTS | 13,599 | 2,024 | 1,578 | 9,997 | 1,885 | 2,270 | 3,535 | 1,196 | 803 | 308 | 0 |
| | TOTAL GROWTH COSTS | 13,143 | 1,755 | 1,426 | 9,962 | 1,850 | 2,270 | 3,535 | 1,196 | 803 | 308 | 0 |
| W-204.00 | LAND & RIGHTS-OF-WAY ACQUISITION - PRINCE GEORGE'S COUNTY | 96 | 0 | 0 | 96 | 76 | 6 | 14 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 43 | 0 | 0 | 43 | 23 | 6 | 14 | 0 | 0 | 0 | 0 |
| | | | | | 0 | | | | | | | |
| SUBTOTAL PRINCE GEORGE'S COUNTY WATER PROJECTS | | $66,002 | $4,579 | $4,853 | 52,820 | $14,712 | $19,557 | $13,545 | $3,895 | $803 | $308 | $3,750 |
| SUBTOTAL PRINCE GEORGE'S COUNTY SDC ELIGIBLE COSTS | | $44,745 | $3,504 | $3,516 | 35,850 | $9,125 | $12,470 | $9,864 | $3,280 | $803 | $308 | $1,875 |
| TOTAL WATER PROJECTS COSTS | | $381,581 | $127,108 | $67,814 | 182,909 | $65,842 | $64,025 | $43,905 | $8,026 | $803 | $308 | $3,750 |
| TOTAL WATER SDC ELIGIBLE COSTS | | $268,957 | $51,708 | $51,881 | 163,493 | $58,509 | $56,538 | $39,924 | $7,411 | $803 | $308 | $1,875 |

WASHINGTON SUBURBAN SANITARY COMMISSION
ADOPTED FY'S 2011 - 2016 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

| PROJECT NUMBER | PROJECT NAME | TOTAL COST | FY 2009 | FY 2010 | TOTAL 6 YEARS | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | BEYOND 6 YEARS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SEWERAGE PROJECTS | | | | | | | | | | | |
| BI-COUNTY PROJECTS | | | | | | | | | | | | |
| S-89.22 | ANACOSTIA STORAGE FACILITY | $36,971 | $1,153 | $1,667 | 34,151 | $6,006 | $11,352 | $12,140 | $4,653 | $0 | $0 | $0 |
| | TOTAL GROWTH COSTS | 3,695 | 115 | 166 | 3,414 | 600 | 1,135 | 1,214 | 465 | 0 | 0 | 0 |
| S-170.06 | SEWER BASIN PLANNING PROGRAM | 4,832 | 252 | 920 | 3,660 | 1,220 | 1,220 | 1,220 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 4,832 | 252 | 920 | 3,660 | 1,220 | 1,220 | 1,220 | 0 | 0 | 0 | 0 |
| SUBTOTAL BI-COUNTY SEWERAGE PROJECTS | | $41,803 | $1,405 | $2,587 | 37,811 | $7,226 | $12,572 | $13,360 | $4,653 | $0 | $0 | $0 |
| SUBTOTAL BI-COUNTY SDC ELIGIBLE COSTS | | $8,527 | $367 | $1,086 | 7,074 | $1,820 | $2,355 | $2,434 | $465 | $0 | $0 | $0 |
| MONTGOMERY COUNTY PROJECTS | | | | | | | | | | | | |
| S-25.03 | TWINBROOK COMMONS SEWER | $745 | $335 | $55 | 355 | $127 | $98 | $89 | $41 | $0 | $0 | $0 |
| | TOTAL GROWTH COSTS | 745 | 335 | 55 | 355 | 127 | 98 | 89 | 41 | 0 | 0 | 0 |
| S-38.01 | PRESERVE AT ROCK CREEK WASTEWATER PUMPING STATION | 1,092 | 0 | 636 | 456 | 456 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 1,092 | 0 | 636 | 456 | 456 | 0 | 0 | 0 | 0 | 0 | 0 |
| S-38.02 | PRESERVE AT ROCK CREEK WWPS FORCE MAIN | 348 | 16 | 12 | 320 | 165 | 155 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 348 | 16 | 12 | 320 | 165 | 155 | 0 | 0 | 0 | 0 | 0 |
| S-53.22 | SENECA WWTP EXPANSION, PART 2 | 37,693 | 840 | 4,986 | 31,867 | 12,529 | 12,529 | 6,809 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 37,693 | 840 | 4,986 | 31,867 | 12,529 | 12,529 | 6,809 | 0 | 0 | 0 | 0 |
| S-61.01 | REDDY BRANCH WWPS AUGMENTATION | 172 | 0 | 0 | 172 | 172 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 172 | 0 | 0 | 172 | 172 | 0 | 0 | 0 | 0 | 0 | 0 |
| S-84.46 | CLARKSBURG TRIANGLE OUTFALL SEWER, PART 1 | 1,756 | 1,624 | 118 | 14 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 1,756 | 1,624 | 118 | 14 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| S-84.47 | CLARKSBURG TRIANGLE OUTFALL SEWER, PART 2 | 2,256 | 13 | 337 | 1,906 | 1,243 | 663 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 2,256 | 13 | 337 | 1,906 | 1,243 | 663 | 0 | 0 | 0 | 0 | 0 |
| S-84.60 | CABIN BRANCH WASTEWATER PUMPING STATION | 2,082 | 9 | 14 | 2,059 | 595 | 1,464 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 2,082 | 9 | 14 | 2,059 | 595 | 1,464 | 0 | 0 | 0 | 0 | 0 |

WASHINGTON SUBURBAN SANITARY COMMISSION
ADOPTED FY'S 2011 - 2016 CIP
SDC ELIGIBLE PROJECTS
(In Thousands)

| PROJECT NUMBER | PROJECT NAME | TOTAL COST | FY 2009 | FY 2010 | TOTAL 6 YEARS | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | BEYOND 6 YEARS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MONTGOMERY COUNTY PROJECTS (CONTINUED) | | | | | | | | | | | | |
| S-84.61 | CABIN BRANCH WWPS FORCE MAIN | 376 | 0 | 48 | 328 | 274 | 54 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 376 | 0 | 48 | 328 | 274 | 54 | 0 | 0 | 0 | 0 | 0 |
| S-84.64 | CASEY WEST PROPERTY SEWER MAIN | 653 | 489 | 119 | 45 | 45 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 653 | 489 | 119 | 45 | 45 | 0 | 0 | 0 | 0 | 0 | 0 |
| S-84.65 | TAPESTRY WASTEWATER PUMPING STATION | 607 | 7 | 288 | 312 | 156 | 156 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 607 | 7 | 288 | 312 | 156 | 156 | 0 | 0 | 0 | 0 | 0 |
| S-84.66 | TAPESTRY WWPS FORCE MAIN | 118 | 8 | 43 | 67 | 46 | 21 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 118 | 8 | 43 | 67 | 46 | 21 | 0 | 0 | 0 | 0 | 0 |
| S-103.15 | WHITE FLINT EAST (NORTH BETHESDA CENTER) SEWER MAIN | 2,139 | 116 | 1,409 | 614 | 553 | 61 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 2,139 | 116 | 1,409 | 614 | 553 | 61 | 0 | 0 | 0 | 0 | 0 |
| S-201.00 | LAND & RIGHTS-OF-WAY ACQUISITION - MONTGOMERY COUNTY | 369 | 0 | 345 | 24 | 12 | 12 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL GROWTH COSTS | 48 | 0 | 24 | 24 | 12 | 12 | 0 | 0 | 0 | 0 | 0 |
| SUBTOTAL MONTGOMERY COUNTY SEWERAGE PROJECTS | | $50,406 | $3,457 | $8,410 | $38,539 | $16,387 | $15,213 | $6,898 | $41 | $0 | $0 | $0 |
| SUBTOTAL MONTGOMERY COUNTY SDC ELIGIBLE COSTS | | $50,085 | $3,457 | $8,089 | $38,539 | $16,387 | $15,213 | $6,898 | $41 | $0 | $0 | $0 |
| PRINCE GEORGE'S COUNTY PROJECTS | | | | | | | | | | | | |
| S-43.02 | BROAD CREEK WWPS AUGMENTATION | $85,775 | $8,731 | $5,500 | 70,884 | $2,748 | $13,200 | $30,791 | $22,275 | $1,210 | $660 | $660 |
| | TOTAL GROWTH COSTS | 78,912 | 8,032 | 5,060 | 65,213 | 2,528 | 12,144 | 28,328 | 20,493 | 1,113 | 607 | 607 |
| S-187.00 | DSP & CONCEPTUAL DESIGN SEWER PROJECTS | 16,900 | 4,121 | 4,959 | 7,564 | 3,168 | 2,010 | 574 | 274 | 678 | 860 | 256 |
| | TOTAL GROWTH COSTS | 16,900 | 4,121 | 4,959 | 7,564 | 3,168 | 2,010 | 574 | 274 | 678 | 860 | 256 |
| S-205.00 | LAND & RIGHTS-OF-WAY ACQUISITION - PRINCE GEORGE'S COUNTY | 99 | 0 | 0 | 99 | 35 | 46 | 0 | 0 | 18 | 0 | 0 |
| | TOTAL GROWTH COSTS | 99 | 0 | 0 | 99 | 35 | 46 | 0 | 0 | 18 | 0 | 0 |
| SUBTOTAL PRINCE GEORGE'S COUNTY SEWERAGE PROJECTS | | $102,774 | $12,852 | $10,459 | 78,547 | $5,951 | $15,256 | $31,365 | $22,549 | $1,906 | $1,520 | $916 |
| SUBTOTAL PRINCE GEORGE'S COUNTY SDC ELIGIBLE COSTS | | $95,911 | $12,153 | $10,019 | 72,876 | $5,731 | $14,200 | $28,902 | $20,767 | $1,809 | $1,467 | $863 |
| TOTAL SEWERAGE PROJECTS COSTS | | $194,983 | $17,714 | $21,456 | 154,897 | $29,564 | $43,041 | $51,623 | $27,243 | $1,906 | $1,520 | $916 |
| TOTAL SEWERAGE SDC ELIGIBLE COSTS | | $154,523 | $15,977 | $19,194 | 118,489 | $23,938 | $31,768 | $38,234 | $21,273 | $1,809 | $1,467 | $863 |
| TOTAL SDC PROJECT COSTS | | $576,564 | $144,822 | $89,270 | 337,806 | $95,406 | $107,066 | $95,528 | $35,269 | $2,709 | $1,828 | $4,666 |
| TOTAL SDC ELIGIBLE COSTS | | $423,480 | $67,685 | $71,075 | 281,982 | $82,447 | $88,306 | $78,158 | $28,684 | $2,612 | $1,775 | $2,738 |