T&E COMMITTEE #1
February 28, 2011

Worksession

MEMORANDUM

February 25, 2011

TO: Transportation, Infrastructure, Energy & Environment Committee

FROM: Keith Levchenko, Senior Legislative Analyst

SUBJECT: **Worksession: FY12-17 Capital Improvements Program: Washington Suburban Sanitary Commission (WSSC)**

Council Staff Recommendation: Approve the WSSC CIP with the changes included in WSSC's mid-cycle update of January 19, 2011.

Summary of Discussion Topics

- **System Development Charge Revenue and Expenditure Trends (see pages 6-7)**
- **Trunk Sewer Reconstruction Program and SSO Consent Decree (see page 8)**
- **Large Diameter Pipe Rehab Program (see pages 8-9)**
- **Enhanced Nutrient Reduction Projects (see pages 9-10)**
- **Blue Plains Projects (see pages 10-11)**
- **Water and Sewer Reconstruction Programs (see pages 14-15)**
- **Bi-County Infrastructure Funding Working Group (see page 15)**

Councilmembers were provided a spiral bound copy of WSSC's Proposed FY12-17 CIP. Excerpts from this document are attached to this memorandum. The following officials and staff are expected to attend this meeting:

WSSC
Commission Vice Chair Roscoe Moore
Commission Chair Gene Counihan
Jerry Johnson, General Manager/CEO
Gary Gumm, Chief Engineer
Tom Traber, Chief Financial Officer
Sheila Cohen, Budget Group Leader
Mark Brackett, Budget Unit Coordinator

County Government
Dave Lake, Department of Environmental Protection
John Greiner, Office of Management and Budget

Background/Timeline

Under Md. Public Utilities Code Ann.§23-304, WSSC must prepare and submit a six-year CIP proposal to the County Executives and County Councils of Montgomery and Prince George's Counties by October 1 of each year.

Unlike other County agency CIP proposals that are reviewed biennially, Montgomery County reviews the WSSC CIP every year. Also, unlike other agencies, WSSC's budget is not included within the County's Spending Affordability process. Instead, WSSC is subject to a separate affordability process that involves both Montgomery and Prince George's County Council approval in the fall of each year.

The FY12-17 WSSC CIP timeline is presented below:

- September 29, 2010: WSSC transmitted its Proposed FY12-17 CIP (Excerpts on ©1-49)
- October 26, 2010: Council Approval of WSSC's FY12 Spending Control Limits
- January 14, 2011: County Executive's recommendations transmitted (©52-73)
- January 19, 2011: WSSC transmitted a Mid-Cycle update to its proposed FY12-17 CIP (see ©50-51)
- February 8, 2011: Council's Public Hearing on the FY12-17 CIP (including WSSC).
- **February 28, 2011: T&E Committee review of the WSSC CIP**
- March 1, 2011: Transmittal Due Date for WSSC's Proposed FY12 Operating and Capital Budget
- March 15, 2011: Council review of the WSSC CIP
- May 12, 2011: Bi-County meeting to discuss issues between Montgomery County and Prince George's County on the CIP and Operating Budget for WSSC as well as other bi-County budget issues.

Fiscal Overview

For purposes of summary review, Council Staff is using WSSC's original[1] Proposed FY12-17 CIP **without** WSSC's proposed mid-cycle update revisions for comparison with the Approved CIP.

The following chart presents WSSC's original proposed CIP expenditures (prior to its Mid-Cycle Update submittal). This chart includes capital water and sewer expenditures for both Montgomery and Prince George's Counties.

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[1] The mid-cycle update was submitted on January 19. These changes reflect the latest actions by WSSC and are consistent with the assumptions included in WSSC's upcoming FY12 Operating and Capital Budget request. However, for purposes of State law, the official CIP Proposal (and the "default" budget should the two Councils not agree on the CIP) remains the CIP Proposal transmitted by October 1, 2010.

Table 1: Total WSSC Expenditures
Original Proposed FY12-17 CIP versus Approved FY11-16 CIP
($s in 000s)

	Approved FY11	Six-Year Total	FY12	FY13	FY14	FY15	FY16	FY17
Total Water Projects								
Approved FY11-16	102,321	**383,958**	124,274	85,219	29,153	24,735	18,256	
Proposed FY12-17		**411,557**	119,165	118,312	58,548	44,360	33,177	37,995
Difference		**27,599**	(5,109)	33,093	29,395	19,625	14,921	
% Change		**7.2%**	**-4.1%**	**38.8%**	**100.8%**	**79.3%**	**81.7%**	
Total Sewer Projects								
Approved FY11-16	230,530	**1,512,415**	459,655	402,364	217,488	119,896	82,482	
Proposed FY12-17		**1,316,088**	333,639	391,762	266,264	114,287	111,343	98,793
Difference		**(196,327)**	(126,016)	(10,602)	48,776	(5,609)	28,861	
% Change		**-13.0%**	**-27.4%**	**-2.6%**	**22.4%**	**-4.7%**	**35.0%**	
Total								
Approved FY11-16	332,851	**1,896,373**	583,929	487,583	246,641	144,631	100,738	
Proposed FY12-17		**1,727,645**	452,804	510,074	324,812	158,647	144,520	136,788
Difference		**(168,728)**	(131,125)	22,491	78,171	14,016	43,782	
% Change		**-8.9%**	**-22.5%**	**4.6%**	**31.7%**	**9.7%**	**43.5%**	

As shown on the chart, WSSC is recommending an overall decrease in expenditures of 8.9 percent (nearly $169 million). The single biggest project cost change is in the Trunk Sewer Rehabilitation Program project (-$300.1 million). The scope in this project is being revised to reflect a more realistic implementation schedule (see project description form on ©29 for more details) related to work associated with the Sanitary Sewer Overflow (SSO) Consent Decree. Besides inflationary increases in various ongoing projects, there are a number of other major project increases and decreases as well with some of the larger impacts on the FY12-17 CIP period presented below:

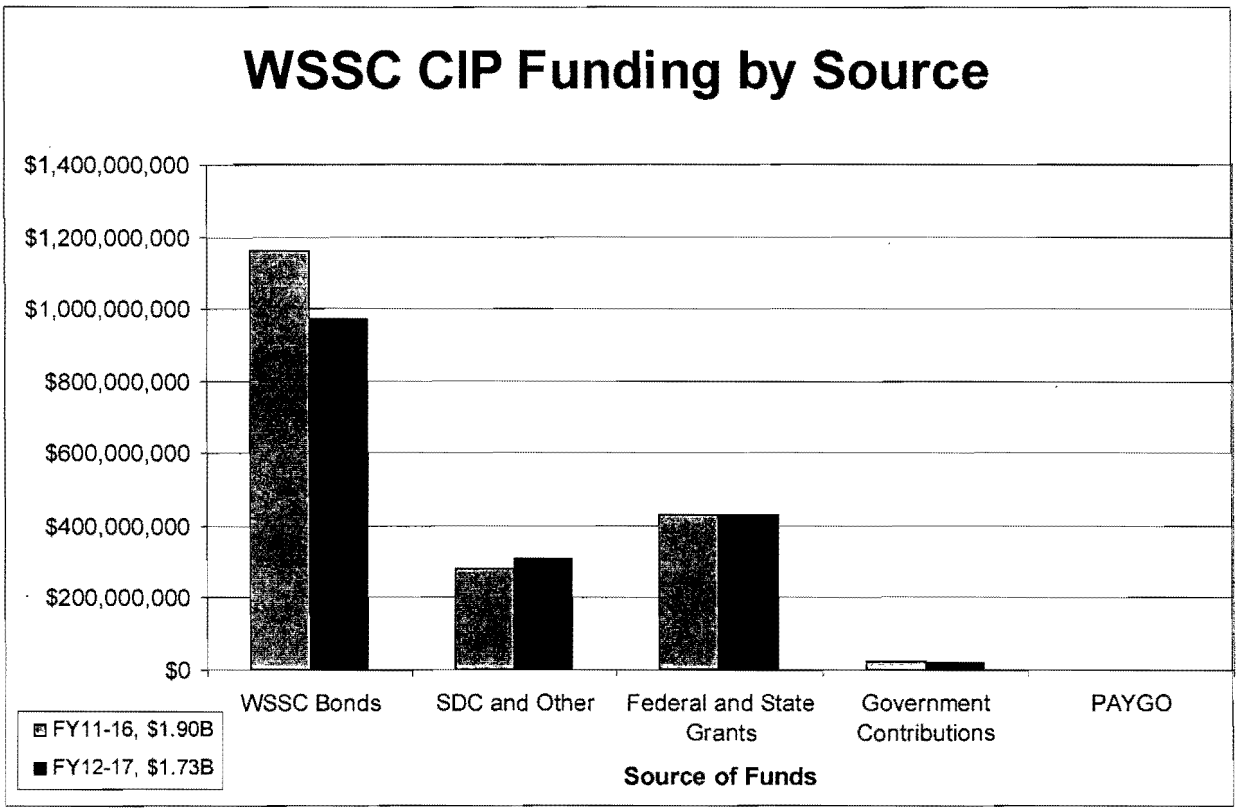
Major changes in 6 Year Costs

(37,237,000)	Bi-County Water Tunnel Cost Decrease
(47,924,000)	Blue Plains Projects (not incl. mid-cycle update)
53,630,000	Large Diameter Pipe Rehab Program
(9,624,000)	Duckett and Brighton Dam Upgrades Cost Decrease
5,100,000	Patuxent Raw Water Pipeline
18,085,000	Patuxent WFP Phase II
(300,104,000)	Trunk Sewer Reconstruction Program
77,836,000	Broad Creek WWPS Augmentation
20,208,000	Parkway WWTP Biosolids
66,396,000	Piscataway WWPT Upgrades

It is important to note that the capital program presented in this fiscal overview reflects "major projects" as defined by State law. WSSC has a number of other infrastructure activities (shown in the "Information Only" section of the CIP) which are not included in the CIP fiscal summary. For example, water and sewer main reconstruction, a major infrastructure issue that has been the subject of much discussion over the past several years, is not formally in the CIP. These non-CIP projects are discussed in this packet because they are part of WSSC's overall effort to address infrastructure needs and because the pace of reconstruction is a major policy and fiscal debate.

Funding Sources

The following chart compares funding sources between the Approved FY11-16 CIP and the Proposed FY12-17 CIP. As with the expenditure display, the mid-cycle update is not assumed in these numbers.



Bonds are down overall because of the major scope reduction in the Trunk Sewer Rehabilitation Program project. Some additional summary charts are attached on ©4.

Montgomery County and Bi-County Projects

Each Council generally focuses on the projects within its County as well as the bi-County projects. The following chart summarizes six-year program information for Montgomery County and Bi-County projects only. Once again, the mid-cycle update is not included in the numbers below.

Table 2: Total WSSC Expenditures (Montgomery County and Bi-County Only)
Original Proposed FY12-17 CIP versus Approved FY11-16 CIP
($s in 000s)

	Approved FY11	Six-Year Total	FY12	FY13	FY14	FY15	FY16	FY17
Total Water Projects								
Approved FY10-15	84,404	**325,531**	103,239	71,212	24,796	23,932	17,948	
Proposed FY11-16		**349,798**	96,640	96,149	48,318	39,769	32,352	36,570
Difference		**24,267**	(6,599)	24,937	23,522	15,837	14,404	
% Change		**7.5%**	**-6.4%**	**35.0%**	**94.9%**	**66.2%**	**80.3%**	
Total Sewer Projects								
Approved FY10-15	176,052	**1,334,479**	403,107	361,845	194,679	117,912	80,884	
Proposed FY11-16		**977,967**	245,400	290,976	167,286	85,269	92,582	96,454
Difference		**(356,512)**	(157,707)	(70,869)	(27,393)	(32,643)	11,698	
% Change		**-26.7%**	**-39.1%**	**-19.6%**	**-14.1%**	**-27.7%**	**14.5%**	
Total								
Approved FY10-15	260,456	**1,660,010**	506,346	433,057	219,475	141,844	98,832	
Proposed FY11-16		**1,327,765**	342,040	387,125	215,604	125,038	124,934	133,024
Difference		**(332,245)**	(164,306)	(45,932)	(3,871)	(16,806)	26,102	
% Change		**-20.0%**	**-32.4%**	**-10.6%**	**-1.8%**	**-11.8%**	**26.4%**	

Montgomery County and Bi-County expenditures are down substantially more than the overall WSSC CIP because the full WSSC CIP includes several Prince George's County projects which include full construction expenditures for the first time or have new cost estimates based on reassessments. These projects include: Broad Creek WWPS Augmentation, Parkway WWTP Biosolids Facility Plan Implementation, and the Piscataway WWTP Facility Upgrades projects.

Mid-Cycle Update (Attached on ©50-51)

WSSC transmitted a mid-cycle update on January 19 in order to reflect more up to date Blue Plains project budget numbers (the DCWater General Manager's Proposed CIP numbers which were not available at the time the WSSC CIP was transmitted last fall). These numbers are the same as those included by the County Executive in his recommendations for the CIP. Overall, the changes increase the FY12-17 CIP request by approximately $10.1 million as shown in the following chart:

Table 3: FY12-17 WSSC CIP Mid-Cycle Update Changes

Project	Six-Year Total	FY12	FY13	FY14	FY15	FY16	FY17
Blue Plains Projects							
Liquid Train Part II	**9,566**	(82)	3,226	(605)	523	1,094	5,410
Biosolids Part II	**(18,654)**	(18,192)	(8,980)	8,092	2,442	(1,313)	(703)
BNR	**2,810**	(4,247)	4,974	1,074	650	359	-
Plantwide Projects	**(1,650)**	(2,105)	1,602	(2,637)	1,028	(430)	892
ENR	**9,205**	(7,704)	(14,214)	23,877	5,808	10,124	(8,686)
Pipelines and Appurtenances	**8,867**	578	2,469	2,055	2,882	1,011	(128)
Blue Plains Projects Subtotal	**10,144**	**(31,752)**	**(10,923)**	**31,856**	**13,333**	**10,845**	**(3,215)**
Total Changes	**10,144**	**(31,752)**	**(10,923)**	**31,856**	**13,333**	**10,845**	**(3,215)**

The impact in FY12 is a $31.8 million reduction with $8.5 million of the reduction in bond funding, which will result in an estimated decrease (according to the County Executive) of about $613,000 in FY12 debt service in the WSSC Operating Budget.

NOTE: On February 17, subsequent to the Mid-Cycle Update transmittal, the DCWater Board of Directors approved the CIP with no changes.

County Executive Recommendations (Excerpt Attached on ©52-73)

The County Executive recommendation was transmitted prior to the Mid-Cycle Update and included the exact changes in the Blue Plains projects assumed in the Mid-Cycle Update.

Table 4: CE Recommended Changes to the WSSC FY11-16 CIP

	Six-Year Total	FY12	FY13	FY14	FY15	FY16	FY17
WSSC Proposal (MC and Bi-County Only)*	**1,327,765**	342,040	387,125	215,604	125,038	124,934	133,024
CE Changes	-						
- Revise Blue Plains Costs	**10,144**	(31,752)	(10,923)	31,856	13,333	10,845	(3,215)
Total CE Changes	**10,144**	**(31,752)**	**(10,923)**	**31,856**	**13,333**	**10,845**	**(3,215)**
CE Recommended Totals	**1,337,909**	**310,288**	**376,202**	**247,460**	**138,371**	**135,779**	**129,809**
change from Approved FY11-16 CIP)	(322,101)	506,346	433,057	219,475	141,844	98,832	

*without mid-cycle update

Council Staff recommends approval of the Blue Plains projects with the adjustments recommended by the County Executive.

The County Executive also recommends that the Sewer Basin Planning Program project which WSSC has proposed moving out of the CIP (from the Bicounty Sewer Projects section to the "Information Only" section) be formally closed out of the CIP (see CE recommendation on ©54 and PDF on ©69). **Council Staff concurs.**

Growth Funding

WSSC estimates that approximately $308 million (or 17.8%) of total proposed expenditures in the six-year period are needed to accommodate growth.[2] This percentage is up slightly from the FY11-16 CIP (14.9%) because of a slight increase in SDC-related expenditures in the requested CIP but an overall reduction in the CIP expenditures.

[2] Environmental regulations and system improvements (about 30% and 52% of requested FY12-17 CIP expenditures respectively) are the two other major categories of spending (see ©3). Note: "information only" projects are not included in these totals.

The major funding sources used to fund growth are:

- A System Development Charge (SDC),
- Direct Developer Contributions, and
- Payments by Applicants.

Many of the projects in the WSSC CIP are funded with the above-mentioned sources. For instance, water and sewer projects needed to accommodate growth in Clarksburg and White Flint are funded with these sources.

The System Development Charge (SDC) is a major source of funding for much of the new water/sewer infrastructure built in the County. WSSC estimates approximately $100.6 million in revenue over the six-year period. Developer credits and SDC exemptions[3] reduce the net revenue to about $80 million.

Overall, WSSC estimates a deficit in growth funding versus expenditures over the six-year period of $203.5 million, as shown on ©2. This deficit is much higher than last year's estimate of $138.5 million as a result of SDC revenue estimates down and expenditures up.

The SDC Fund has a balance of approximately $95 million (as of December 31, 2010).

WSSC's Proposed Operating Budget for FY12 will be transmitted shortly (by March 1). The Proposed Operating Budget is expected to assume to increase the maximum rate for FY12 as permitted under State law but leave the actual rate charged unchanged. WSSC believes increasing the potential maximum rate is advisable, since the six-year projections show a deficit in growth funding versus growth expenditures. However, given current economic conditions, WSSC does not recommend increasing the SDC charge at this time.

The SDC fund balance is sufficient to cover only the FY12 projected gap ($65.3 million). However, with significant gaps shown in FY13 and FY14 ($65.3 million and $89.7 million respectively), the rate will likely need to be increased in the near future if these estimates turn out to be accurate.

Council Staff will review this issue further between now and final Council action on the WSSC budget early May.

Project Discussions

Council Staff has provided some discussion below of the new projects as well as some other important capital projects (and groups of projects). As noted earlier, the water and sewer

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[3] For purposes of projecting future SDC balances, WSSC assumes both Counties utilize the full $1.0 million in exemptions each fiscal year. While, historically, neither county has ever fully used its $500,000 annual share, the surplus carries over to the next year and could be utilized in future years.

reconstruction projects, while discussed in the CIP context, will be subject to further discussion during the review of the WSSC Operating Budget later this spring.

New Projects

WSSC is requesting three new projects within the FY12-17 CIP totaling $67.3 million over the six-year period. These new projects include:

- Montgomery College Germantown Campus Sewer ($750,000, PDF on ©9): Planning, design, and construction of 2,400 feet of 18-inch diameter sewer main to serve the Montgomery College Germantown campus. This project supports 100% growth and is funded completely by Montgomery College.

- Water Transmission Improvements 385 Pressure Zone ($173,000, PDF on ©32): This Prince George's County water project provides for the initial planning for a new water transmission main to improve system reliability in two pressure zones. The project is funded completely with SDC revenue.

- Piscataway WWTP Facility Upgrades ($66.4 million, PDF on ©40): This project provides for a facility plan and design and construction of upgrades at the plant to prevent plant overflows or permit violations during significant rainfall events.

Major Ongoing Projects

Trunk Sewer Reconstruction Program ($188.2 million over six years, PDF on ©29-30)

This project was added last year (funded partially by bond-funded dollars removed from the Sewer Reconstruction Program Information Only project) to address Consent Decree requirements to eliminate sanitary sewer overflows (SSOs).

Under the terms of the Consent Decree (signed in December 2005 with the United States Environmental Protection Agency, the State of Maryland, and four conservation groups), WSSC inspected 625 miles of sewers in 21 basins by December 2010 as required. Sewer System Evaluation Studies are to be conducted for 9 basins by December 2013. This work is on schedule. Rehabilitation work is to be completed within 10 years (2015).

For the FY12-17 CIP, WSSC is recommending a substantial reduction (about $300 million over six-years) and a focusing of the project on "Priority One" work. However, a majority of the trunk sewer work is expected to be completed by 2015 as required.

Large Diameter Pipe Rehabilitation Program ($60 million over six years, PDF on ©23-24)

This project, added to the CIP last year, funds the replacement of transmission mains (pipes greater than 16 inches in diameter) in lengths of 100 feet or greater. WSSC has approximately 960 miles of large diameter water main (mains ranging in size from 16 inches to 96 inches in diameter).

In the past, WSSC has dealt with replacement issues on a reactive basis, with expenditures coming out of the Water Main Reconstruction "information only" project as needed. However, in the last several years, WSSC has ramped up its inspection program for its large diameter mains and done immediate repairs where needed and begun to identify larger replacement projects to be done over time as pipes reach the end of their useful life. In addition to some unexpected large PCCP pipe failures in Montgomery County in 2008 (and a break in Prince George's County on January 24, 2011), the transmission system (like the smaller water distribution lines) is aging and WSSC is moving to a more systematic inspection, repair, and replacement approach as a result.

The inspection, fiber optic monitoring, and smaller repairs remain in the Operating Budget. However, the large section replacements are now being done out of this project. Order of magnitude costs were included in the project last year. The FY12-17 CIP request includes actual costs for PCCP repairs, an additional year of ramp-up costs, and higher unit cost information based upon actual bid experience.

Planned work includes:

- FY12: 20" Indian Head Highway; 24" Silver Hill Road.
- FY13: 24" Viers Mill Road; 20" Cedarbrook Lane.

Miles to be completed by fiscal year is presented below:

(miles)	FY12	F13	FY14	FY15	FY16	FY17
Design	2	2	4	4	6	6
Construction	1	2	2	4	4	6

Enhanced Nutrient Reduction (ENR) Related Projects

Proposed Enhanced Nutrient Removal Projects

Facility	Total Cost	Through FY11	Six-Year Total	FY12	FY13	FY14	FY15	FY16	FY17
Seneca WWTP	**14,618**	2,300	**12,318**	4,026	4,026	4,026	240		
Damascus WWTP	**7,054**	2,894	**4,160**	3,815	345				
Western Branch WWTP	**39,563**	7,730	**31,833**	14,013	9,867	7,634	319		
Parkway WWTP	**21,181**	2,070	**19,111**	9,217	9,216	678			
Piscataway WWTP	**9,500**	3,364	**6,136**	6,038	98				
Proposed Total	**91,916**	**18,358**	**73,558**	**37,109**	**23,552**	**12,338**	**559**	-	-
Blue Plains ENR Project*	**405,761**	36,896	**363,643**	61,080	79,145	79,813	42,818	56,664	44,123
Total with Blue Plains	**497,677**	**55,254**	**437,201**	**98,189**	**102,697**	**92,151**	**43,377**	**56,664**	**44,123**

*Blue Plains ENR Project revised based on WSSC's Mid-Cycle Update. Assumes $5.2 million in costs beyond FY17.

In 2004, the Maryland Legislature approved the Chesapeake Bay Restoration Act, which authorized the collection of a surcharge on water and sewer utility bills paid by Maryland residents and businesses. Funds raised by this surcharge (commonly known as the "flush tax") are used to fund the conversion of wastewater treatment plants from biological nutrient removal (BNR) to enhanced nutrient removal (ENR).

Starting with the FY07-12 CIP, the WSSC CIP has included ENR projects at WSSC's wastewater treatment plants with State funding assumed to cover the costs. Three years ago, major dollars were added to the equivalent ENR project for the Blue Plains plant.

For the FY12-17 CIP, WSSC has proposed ENR projects totaling $437.2 million over the six-year period. This represents about a 3.6% increase in six-year costs and is primarily the result of adjustments in the Blue Plains ENR project.

The requirements to achieve the ENR standard vary by facility. The agreed-upon cost sharing percentages for each ENR project range from 55 percent to 100 percent State funding, depending on the scope of work in each project. The following chart provided by WSSC staff shows the State aid split as well as the overall costs for each project (PDFs for each project are attached on ©5, ©9a, ©34a, ©35, ©38, and ©65).

WSSC ENR PROJECT STATUS					
	Damascus WWTP ENR	Parkway WWTP ENR	Piscataway WWTP ENR	Seneca WWTP ENR	Western Branch ENR
Permit Status	Complete	Complete	Complete	Complete	Waiting for MDE Construction Permit
Bid Opening Date	November 16, 2010	February 9, 2011	August 3, 2010	Not Advertised	Not Advertised
Current Status	Bid package at MDE for approval	Bids with Acquistion/SLMBE for review	NTP issued January 28, 2011	Final review of Plans & Specifications	Final review of Plans & Specifications
Next Milestone	Commission Approval	Submit Bid Package to MDE for Approval	Substantial Completion	Submit to Acquistion to Advertise	Obtain MDE Construction Permit
Lowest Responsive Responsible Bid Amount	Not Available	Not Available	$4,814,998	Not Available	Not Available
FY'12 Proposed CIP Project	$7,054,000	$21,161,000	$9,500,000	$14,618,000	$39,563,000
MDE Funding Percentage	94.34	95.27	100.00	55.00	100.00

The County Executive recommends approval of the ENR projects as proposed (with the Mid-Cycle Update change to the Blue Plains project).

Council Staff recommends approval of the ENR projects with the Mid-Cycle Update change noted above.

Blue Plains Projects (PDFs on ©56-67)

The WSSC PDFs for Blue Plains represent WSSC's contribution to improvements at the Blue Plains Plant. WSSC's costs for the Blue Plains projects are summarized in the following table as is the CE Recommendation.

Blue Plains Projects: Expenditures (in $000s)

	Approved FY10	Six-Year Total	FY12	FY13	FY14	FY15	FY16	FY17
Total Sewer Projects								
Approved FY11-16	103,417	**741,820**	215,662	190,035	105,351	58,539	68,816	
Proposed FY12-17 (w/o Mid-Cycle Update)		**693,896**	190,993	218,809	104,989	50,993	62,120	65,992
Difference		**(47,924)**	(24,669)	28,774	(362)	(7,546)	(6,696)	
% Change		**-6.5%**	**-11.4%**	**15.1%**	**-0.3%**	**-12.9%**	**-9.7%**	
CE Recommended FY12-17		**704,040**	**159,241**	**207,886**	**136,845**	**64,326**	**72,965**	**62,777**
$ Change from Proposed		**10,144**	(31,752)	(10,923)	31,856	13,333	10,845	(3,215)
% Change from Proposed		**1.5%**	-16.6%	-5.0%	30.3%	26.1%	17.5%	-4.9%

As shown in the table, WSSC's original proposed six-year total is $693.9 million (a decrease of 6.5% from the Approved FY11-16 CIP). However, as noted earlier, both WSSC (through its Mid-Cycle Update) and the County Executive are recommending an increase in the six-year total for these projects, based on more recent DCWater budget information.

Regional renegotiation of the 1985 Intermunicipal Agreement (IMA) has also been ongoing for sometime. The current IMA set capacity allocations for the Blue Plains regional partners (including WSSC). The capacity allocation percentages are used to allocate capital costs for Blue Plains projects. Actual flows to the facility are used to determine operating contributions by the regional partners. These and other components are under negotiation.

The Council is scheduled to be briefed by its DCWater's board members on March 8, with regard to DCWater issues and, in particular, issues such as the IMA and various joint use projects at the Blue Plains facility that impact WSSC's CIP.

Council Staff recommends approval of the Blue Plains project totals as recommended by the County Executive and by WSSC in its Mid-Cycle Update. These numbers are based on the latest project cost estimates included in the Approved CIP for DCWater.

Laytonsville Elevated Tank and Pumping Station (PDF on ©4a-4b)

In 2001, the Council first authorized the extension of public water service to the Town of Laytonsville in order to address well water quality concerns.

This project includes the planning, design and construction of a 1.72 mgd finished water pumping station, 0.5 mg elevated storage tank, approximately 6100 feet of 12 inch transmission main and 10,400 feet of 12 inch recirculation main to provide water service to the Town of Laytonsville. Capital costs are estimated to be $4.7 million. Approximately $2 million in non CIP-sized infrastructure work is also required.

WSSC and the Town of Laytonsville, along with the developer of a residential housing project in the town, agreed to a funding split for the project that assumed $3.0 million in contributions. The balance is to be covered from SDC funds. These assumptions are noted on the Project Description Form. A memorandum of understanding was signed on December 2, 2005.

The water main work is expected to begin construction in September 2011 and be completed by September 2013. The Water Pumping Station and Water Storage Facility projects are expected to begin construction in November 2011 and be completed by April 2013.

Potomac Submerged Channel Intake (PDF on ©17-18)

Planning work on the Potomac WFP Submerged Channel Intake project is ongoing. As noted in the Initiation Report for the ongoing study, "The purpose of the 'Potomac WFP Submerged Channel Intake Feasibility Study' is to determine where to locate an offshore raw water intake and to develop and document the related public health, operational, and environmental considerations." As noted in the PDF, "Both Councils will review the results of the detailed study and must approve continuing the project before design and construction proceed."

Potential benefits of the project include improved and more consistent source water quality, thereby reducing water collection and treatment costs, as well as increased operational flexibility of having two available intakes.

This study was originally expected to come back to both Councils in 2005. However, work by WSSC and the consultant on an environmental impact statement required by the National Park Service and other work as required by the Maryland Department of the Environment caused delays.

Also, subsequent to the completion of the original environmental assessment, WSSC began studying an additional potential intake alternative that would be less costly and more environmentally friendly. WSSC is currently working with the Army Corps of Engineers and the National Park Service to update the draft NEPA assessment application originally submitted in July 2005.

Both Councils will be briefed on the project and must concur before design and construction would begin.

The project cost estimate has been increased for inflation and the expenditure schedule revised slightly with a completion date now assumed in FY17.

Bi-County Water Tunnel (PDF on ©19-21)

This project provides for the construction of 28,400 feet of 84 inch diameter water main to portions of Montgomery and Prince George's Counties. This project will help serve existing and new growth in Prince George's County while also addressing potential future water pressure problems in the Silver Spring/Wheaton areas.

As a 99 percent growth-related project (one percent system improvement), the project is funded nearly completely with SDC revenues. The total project cost decreased based upon the final executed contract and schedule. The project will be substantially completed by August 2013, with punch-list items and site and landscaping restoration occurring during FY14 as well.

"Information Only" Projects

Anaerobic Digestion/Combined Heat & Power (PDF on ©45-47)

This project provides for the design and construction of systems to produce biogas from biosolids at the Seneca and Piscataway Wastewater Treatment Plants.

Cost savings will be achieved from reduced energy purchase costs and from reduced biosolids transportation and disposal costs. The project is intended to include a payback period of no more than 15 years that would be guaranteed by the contractor.

In addition, the project will generate additional savings in the form of carbon credits within the Regional Greenhouse Gas Initiative (RGGI) auction process.

Two years ago, WSSC received a $570,900 earmark in the FY09 Omnibus Appropriations bill for the study/design of a Combined Anaerobic Digester Fuel Cell project. Additional Federal aid will be sought (and is assumed on the PDF) as the project develops. The feasibility study is currently underway and scheduled for completion in June 2011. The construction costs shown in the project continue to be "order of magnitude" estimates.

Utility Master Plan (PDF on ©48-49)

Work continues on WSSC's Utility Master Plan. Phase I of the work (a broad level review) was completed in December 2007.

Two major findings from this phase of work were:

- The above ground assets are in good condition with a few exceptions.
  - Process upgrades needed to comply with existing regulations are programmed in the CIP.
  - Non-process rehabilitations at plants, pumping stations, and water storage tanks are needed.
- The renewal of buried assets is WSSC's most immediate challenge.
  - By 2025 approximately 50% of the entire distribution system will reach or exceed its useful life.
  - 85% of the cast iron pipe in the distribution system will exceed its useful life by 2025.
  - Renewal of the collection system piping is driven by compliance with the Consent Decree signed in 2005 to reduce sanitary sewer overflows (SSOs).

Work is continuing on Phase 2 of the Utility Master Plan (five Asset Management Plans (AMPs) including: Piscataway WWTP, Broad Creek WWPS, Broad Creek Basin, Transmission System, and Distribution Systems). The new Piscataway WWTP Upgrades project ($66.4 million) is the first project to be developed out of this AMP process.

Asset Management Program Update (from WSSC staff)

Phase 2 of the Asset Management Program (formerly UMP) which includes five asset management plans and development of thirteen process technical memorandums remains on schedule for completion by the end of March and will be supported by seventy one procedures developed as part of this phase.

The five Asset Management Plans (AMPs) listed below were selected to address areas of greatest need and cover approximately 160,000 individual assets of an estimated total of 700,000 assets.

Project 1 – Water Distribution System pipe
Project 2 – Water Transmission System pipe
Project 3 – Piscataway Wastewater Treatment Plant
Project 4 – Broad Creek Basin wastewater collection system pipe and manholes
Project 5 – Broad Creek Wastewater Pumping Station

Efforts are also underway to introduce asset management concepts Commission-wide and embed these practices in our business operations. A training plan has been developed to affect the cultural change necessary for the organization to fully benefit from these practices.

The focus of the Asset Management Program is to provide a level of service and risk based framework to be applied in making capital investment and budgeting decisions on how best to manage the assets. This structured approach will apply rigorous data based financial analysis to prospective projects, programs and initiatives, and will serve as the foundation of business case development for these proposals.

Water Reconstruction Program (PDF on ©41-42)

This "information only" project funds small water main replacement throughout the WSSC service area. The project does not include any funding for "major capital projects" as defined in State law.

Over the past several years, WSSC has ramped up the annual number of miles of pipe to be replaced. As part of the Approved FY10-15 CIP, replacement miles were increased from 27 to 31 miles per year. A ramp up to 36 miles per year was done for FY11. For FY12, WSSC is proposing an increase up to 41 miles per year. Over the FY12-17 period, WSSC is assuming to continue the ramp up and replace 321 miles of pipe (an average of 53.5 miles per year).

The need for expanding this program was identified several years ago in the Utility Master Plan effort discussed earlier. Originally, this ramp-up was to be a major multi-year commitment predicated on a substantial increase in the Account Maintenance Fee (ready to serve) charge that was ultimately not agreed upon by the WSSC Commission. Without a new funding source, the ramp up must be accommodated within available dollars from annual water and sewer rate increases.

WSSC has approximately 4,500 miles of small pipe (less than 16" in diameter) in its water distribution system. The 5 mile increase in FY11 resulted in a slightly reduced replacement cycle (from 146 to 126 years). The 5 mile ramp-up proposed for FY12 would reduce this replacement cycle down to about 111 years. While still too long a replacement cycle, especially given the age of the system, this continued ramp up represents real progress. In fact, if WSSC is able to realize its 321 mile goal over the six-year period, the replacement cycle would be down to about 85 years.

Another positive aspect is that in FY10 (as in FY09) WSSC exceeded its mileage replacement goal. In FY10, WSSC completed 38.9 miles (7.9 miles over its goal of 31 miles). For FY11, WSSC estimates it will complete 39 miles (3 miles over its FY11 goal).

While 5 mile increases are small compared to the scale of work required, WSSC will need time to ramp up both its in-house efforts as well as its contractual work to keep increasing its work completed. Beginning in FY11, WSSC has been reducing some contract dollars in favor of more in-house staff. This cost-neutral approach is intended to provide some additional ramp-up capacity while also providing WSSC some extra personnel to react to water main breaks in cold weather months.

Sewer Reconstruction Program (PDF on ©43-44)

This "information only" project funds comprehensive sewer system evaluations and rehabilitation programs. As with the Water Reconstruction Program above, the sewer reconstruction project does not include any funding for "major capital projects" as defined in State law. Capital-size projects that are identified in this project become stand-alone projects.

WSSC has approximately 5,400 miles of sewer pipe. As discussed in past years, this project is a major element of WSSC's SSO Consent Decree compliance efforts. Expenditures have already ramped up in this program as a result. As mentioned earlier, WSSC developed a new project last year to deal specifically with trunk sewer reconstruction. Costs associated with that work were previously included in this project. The focus of this project is on sewer mains and house connections.

For FY11, WSSC assumed to do 42 miles of sewer main reconstruction and 14 miles of sewer lining. For FY12, WSSC is proposing reduced goals for sewer main replacement (22 miles) and lateral sewer lining (5 miles). These lower goals are intended to be more realistic based on the increased costs and complexity experienced with these projects. WSSC still intends to increase its miles of sewer main reconstruction over the six-year period, once the current problems are resolved.

The funded pace of the Water and Sewer reconstruction effort continues to be an area of major concern to Montgomery County. The Bi-County Infrastructure Funding Working Group is working with a consultant to identify and review various funding options to address long-term infrastructure replacement needs (see Working Group charter on ©74).

Summary of the T&E Committee's Recommendations

- **Recommend approval of WSSC's CIP changes noted in its mid-cycle update. This update includes revisions to the Blue Plains projects which are consistent with the County Executive's recommendations as well.**
- **Concur with WSSC on all other projects in the Proposed FY12-17 CIP.**
- **Concur with the County Executive to formally close out the Sewer Basin Planning Program project in the WSSC CIP. NOTE: The project is moving to the WSSC Operating Budget and presented in the "Information Only" section of the CIP.**
- **Bring the SDC charge issue back for discussion later prior to final Council action in May.**

Notes:

- *The Council will review the Potomac WFP Submerged Channel Intake Project once the feasibility study is completed.*
- *The pace of the Water and Sewer reconstruction effort continues to be an area of major concern. Montgomery County Council and Executive Staff will continue to work with WSSC and Prince George's County staff on long-term funding strategies to ramp up this work via the Bicounty Infrastructure Funding Working Group.*

Attachments
F:\Levchenko\WSSC\WSSC CIP\FY12-17\TE WSSC CIP 2 28 11.doc

September 29, 2010

The Honorable Jack B. Johnson
Prince George's County Executive

The Honorable Isiah Leggett
Montgomery County Executive

The Honorable Thomas E. Dernoga
Chairman, Prince George's County Council

The Honorable Nancy Floreen
President, Montgomery County Council

Dear:

On behalf of the Washington Suburban Sanitary Commission (WSSC) and our valued customers, I am hereby transmitting our Proposed Fiscal Years 2012-2017 Capital Improvements Program (CIP). This document includes projects for Prince George's and Montgomery counties, as well as Bi-County projects.

This proposed CIP is the result of work sessions and coordination with representatives from both counties and the Maryland-National Capital Park & Planning Commission. We also received feedback from our customers through written comments and public hearings held on September 15 and 16.

Our proposed CIP includes 90 projects and expenditures of $1.7 billion over the six-year period. Our most significant projects include the ongoing work at the Blue Plains WWTP, the Trunk Sewer Reconstruction Program, the Broad Creek WWPS Augmentation project, the Large Diameter Water Pipe Rehabilitation Program, and the Bi-County Water Tunnel.

In the past year we have reinstated the Bi-County Working Group which will study alternative methods of funding our long-term infrastructure renewal program for the older water and sewer pipes that make up our underground water distribution and wastewater collection systems. The Bi-County Working Group consists of representatives from both counties from the County Executives' Offices, the County Councils, WSSC Commissioners, and WSSC staff and outside subject matter experts.

In undertaking the FY 2012-2017 Capital Improvements Program, we believe we will continue to enhance our ability to successfully fulfill our core mission while also creating economic opportunity, strengthening local businesses and improving the quality of life for residents in Prince George's and Montgomery counties.

Thank you for your consideration and participation in making this proposed CIP an important investment in the continued quality of our water and sewer services.

Sincerely,

ORIGINAL SIGNED

Antonio L. Jones
Chair

MAB:rb

Enclosures

cc: The Honorable Samuel J. Parker, Jr., Chairman
Prince George's County Planning Board

The Honorable Francoise Carrier, Chair
Montgomery County Planning Board

(1)

GROWTH FUNDING GAP
(In Millions)

	FY'12	FY'13	FY'14	FY'15	FY'16	FY'17	6 YEAR TOTAL
CIP GROWTH EXPENDITURES	$108.5	$109.6	$66.4	$14.5	$7.3	$1.7	$308.0
Expenditures Adjusted for Completion	86.8	109.4	75.0	24.9	8.7	2.9	307.7
FUNDING SOURCES							
Privately Funded Projects	9.2	7.3	4.5	1.5	1.0	1.1	24.6
Estimated SDC Revenue	15.7	15.8	16.6	16.8	17.3	17.8	100.0
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	$21.5	$19.7	$17.7	$14.9	$14.9	$15.5	$104.2
FUNDING GAP ADJUSTED FOR COMPLETION	**$65.3**	**$89.7**	**$57.3**	**$10.0**	**($6.2)**	**($12.6)**	**$203.5**

[1] Each County may grant SDC exemptions, as identified in Appendix A, totaling up to $500,000 per fiscal year as provided for in Maryland State Law (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 $3.7 million for Prince George's County through June 30, 2010.

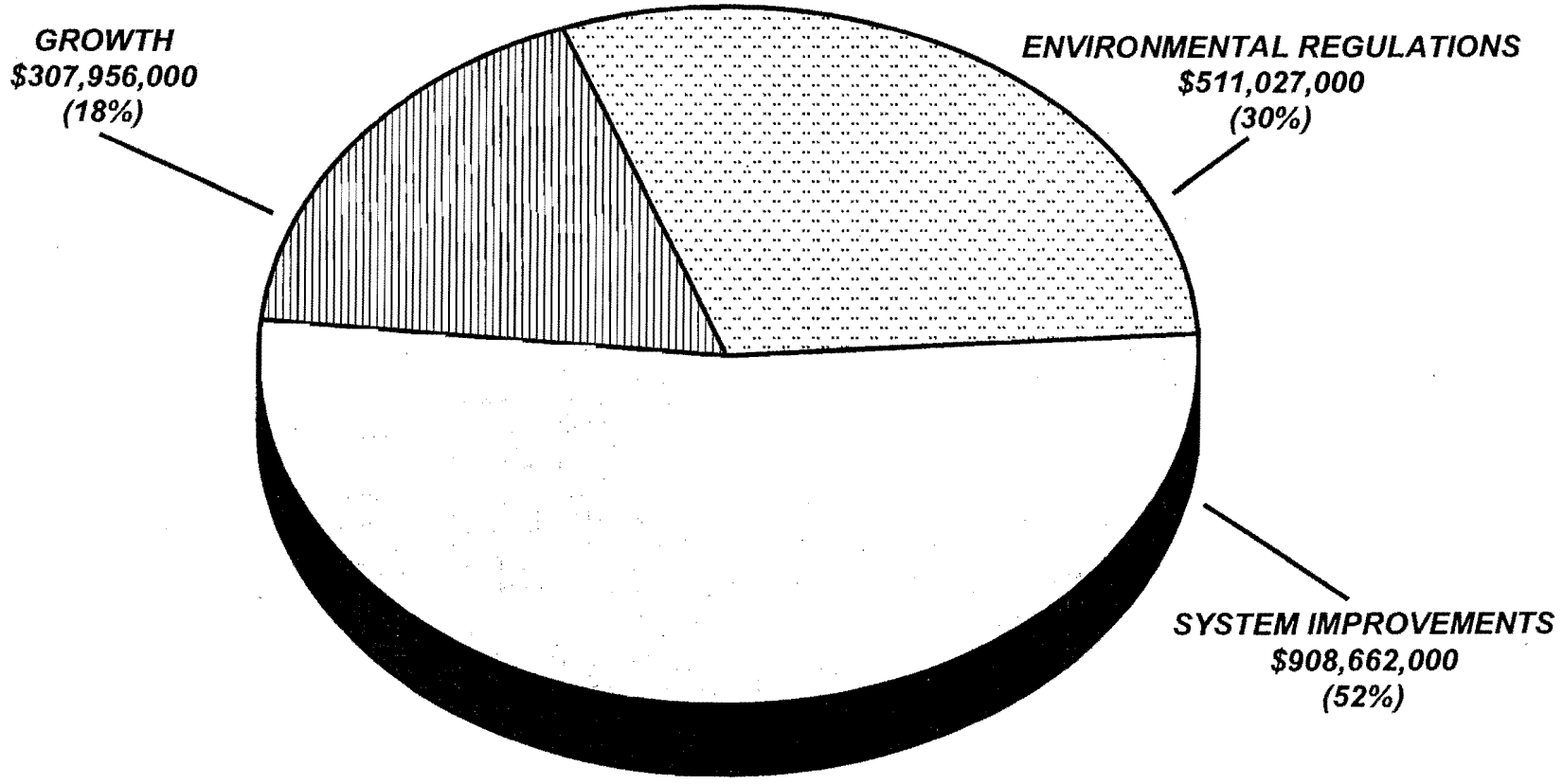
Expenditures

The FYs 2012-2017 Capital Improvements Program includes 90 projects for a grand total of over $2.8 billion dollars. Expenditures for the six-year program period are estimated at $1.7 billion. FY'12 expenditures are estimated at $452.8 million, which is $120 million greater than the funding level approved for FY'11. Of the $452.8 million, $119.2 million is for the Water Program and $333.6 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 $29.1 million, with approximately $12.4 million programmed in FY'12, approximately the same amount approved last year. There are 3 new CIP projects totaling $67.3 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 2011-2016 CIP to the Proposed FYs 2012-2017 CIP follows:

FIGURE 3

WSSC PROPOSED FYS 2012-17 CIP

SIX-YEAR PROGRAM EXPENDITURES BY MAJOR CATEGORY*



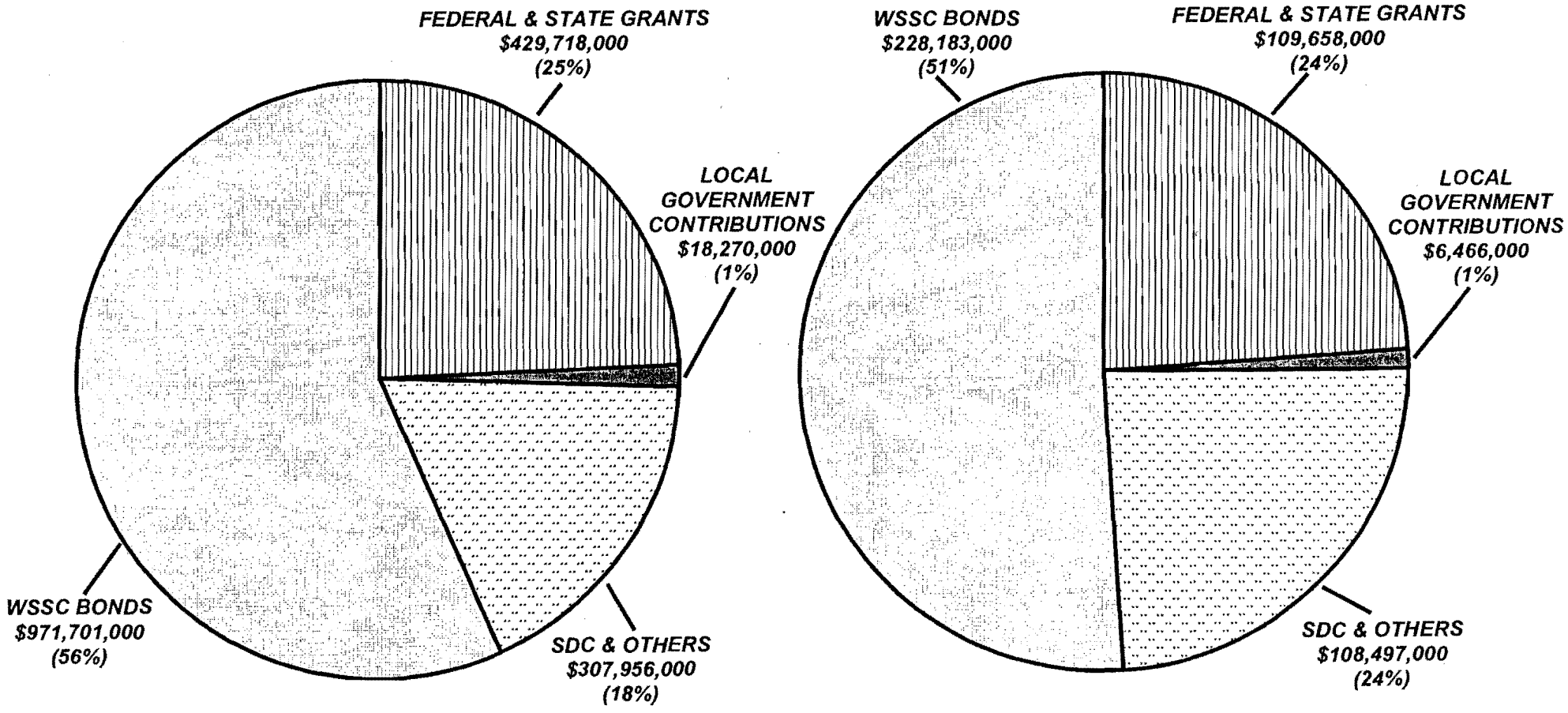
SIX-YEAR PROGRAM TOTAL
$1,727,645,000

* Totals do not include $1,102,689,000 in System Improvements project capital expenditures for Information Only projects.

FIGURE 4

WSSC PROPOSED FYS 2012-17 CIP

FUNDING BY SOURCE*



SIX-YEAR PROGRAM TOTAL
$1,727,645,000

FY'12 BUDGET YEAR TOTAL
$452,804,000

* Totals do not include $1,102,689,000 and $137,541,000 in capital expenditures for Information Only projects in the six-year program and budget year, respectively.

A. Identification and Coding Information

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

2. Date: October 1, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**950**	750	100	**100**	100						
Land											
Site Improvements & Utilities											
Construction	**3,215**		1,545	**1,670**	1,500	170					
Other	**513**		247	**266**	240	26					
Total	**4,678**	**750**	**1,892**	**2,036**	**1,840**	**196**					

C. Funding Schedule (000's)

SDC	**1,678**	750	392	**536**	340	196					
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.

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 Final Design (WSSC Contract Nos. BM2938A00 , BM2938B00 , BM2938C00).

OTHER

The project scope has remained the same. Expenditure and schedule projections shown above are design level estimates and may change based upon site conditions and final bid. It is estimated that an additional $5.41 million of non-CIP sized pipeline work will also be required. The expenditure and construction schedule presented above reflect that the WSSC, the Developer of the Faulk's property, and the Town of Laytonsville have agreed to the funding mechanism for the Contribution/Other funding shown above in Block C.

E. Annual Operating Budget Impact (000's)

		FY of Impact	
Program Costs	Staff	....	....
	Other	....	....
Facility Costs	Maintenance	....	....
	Debt Service	146	14
Total Costs		146	14
Impact on Water or Sewer Rate		....	

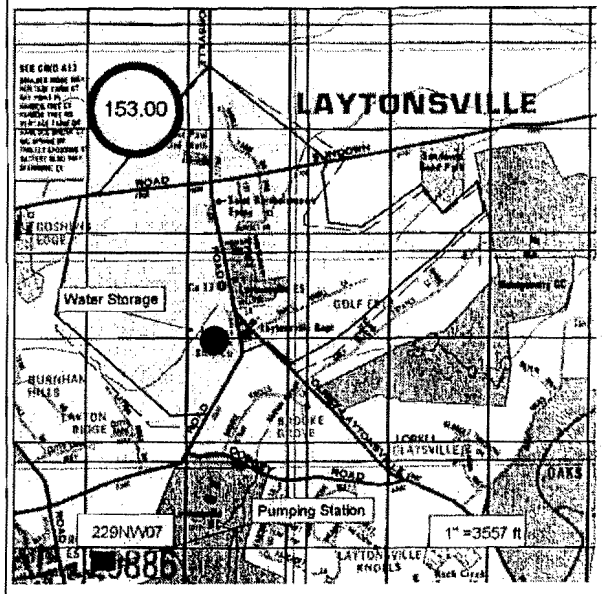
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 02
Date First Approved	FY 02
Initial Cost Estimate	58
Cost Estimate Last FY	4,519
Present Cost Estimate	4,678
Approved Request, Last FY	1,979
Total Expenditures & Encumbrances	750
Approval Request FY 12	1,840
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status: Site acquired
% Project Completion: D-99%
Est. Completion Date: August 2012

H. Map **Map Reference Code:**



D. DESCRIPTION & JUSTIFICATION (CONT.)

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

The project has been delayed due to delays in obtaining the needed permits.

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
073800	S-53.21	Change

2. Date: October 1, 2010
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

E. Annual Operating Budget Impact (000's)

			Impact
Program Costs	Staff	....	....
	Other	....	....
Facility Costs	Maintenance	....	....
	Debt Service	583	 16
Total Costs		583	 16
Impact on Water or Sewer Rate		1¢	 16

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**3,665**	2,021	135	**1,509**	468	468	468	105			
Land											
Site Improvements & Utilities											
Construction	**9,808**		119	**9,689**	3,192	3,192	3,192	113			
Other	**1,145**		25	**1,120**	366	366	366	22			
Total	**14,618**	**2,021**	**279**	**12,318**	**4,026**	**4,026**	**4,026**	**240**			

C. Funding Schedule (000's)

WSSC Bonds	**6,681**	924	127	**5,630**	1,840	1,840	1,840	110			
State Aid	**7,937**	1,097	152	**6,688**	2,186	2,186	2,186	130			

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	13,938
Present Cost Estimate	14,618
Approved Request, Last FY	4,387
Total Expenditures & Encumbrances	2,021
Approval Request FY 12	4,026
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status: No land or R/W required
% Project Completion: D-95%
Est. Completion Date: FY 2015

D. Description & Justification

DESCRIPTION

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

Service Area Seneca Creek Drainage Basin

JUSTIFICATION

Plans & Studies

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

Specific Data

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

Cost Change

The cost estimate increased to reflect the current construction cost estimate and the final cost sharing agreement where the MDE has agreed to pay 55% of the total project cost.

STATUS Final Design (WSSC Contract No. CD4260A05,).

OTHER

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

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

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

The permit application process was started in June 2009. The following MDE permits are still outstanding:

*Sediment & Stormwater Permit
*Construction Permit

The project schedule is based on the MDE providing the Sediment and Stormwater permit by June 2, 2010.

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, 2010
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) 1st Full 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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**7,358**	2,693	369	**4,296**	1,392	1,392	1,392	120			
Land											
Site Improvements & Utilities											
Construction	**28,634**		114	**28,520**	9,240	9,240	9,240	800			
Other	**3,329**		48	**3,281**	1,063	1,063	1,063	92			
Total	**39,321**	**2,693**	**531**	**36,097**	**11,695**	**11,695**	**11,695**	**1,012**			

C. Funding Schedule (000's)

SDC	**39,321**	2,693	531	**36,097**	11,695	11,695	11,695	1,012			

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	37,693
Present Cost Estimate	39,321
Approved Request, Last FY	12,529
Total Expenditures & Encumbrances	2,693
Approval Request FY 12	11,695
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	Public/Agency owned land
% Project Completion:	D-95%
Est. Completion Date:	FY 2015

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

D. Description & Justification

DESCRIPTION

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

Service Area Seneca Creek Drainage Basin

JUSTIFICATION

Plans & Studies

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

Specific Data

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

Cost Change

The cost estimate increased to reflect the current construction cost estimate.

STATUS Final Design (WSSC Contract No. CD4260B05,).

OTHER

The project scope has remained the same. The expenditures and schedule projections shown in Block B are design level estimates only and may change based upon final bids. The project schedule is dependent upon the MDE design and permit approval. The permit application process was started in June 2009. The following MDE permits are still outstanding:

* MDE Sediment & Stormwater Permit
* MDE Construction Permit

The project schedule is based on the MDE providing the Sediment & Stormwater Permit by June 2, 2010.

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 53.22 **Project Name: Seneca WWTP Expansion, Part 2**

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.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
123800	S-82.21	Add

2. Date: October 1, 2010
Revised:

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

3. Project Name: Montgomery College Germantown Campus Sewer

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Germantown & Vicinity P.A. 19

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**222**			**222**	182	40					
Land											
Site Improvements & Utilities											
Construction	**430**			**430**	350	80					
Other	**98**			**98**	80	18					
Total	**750**			**750**	**612**	**138**					

C. Funding Schedule (000's)

Contribution/Other	**750**			**750**	612	138					

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of 2,400 feet of 15-inch and 18-inch diameter sewer main to serve the Montgomery College Germantown Campus.

Service Area Seneca Creek Drainage Basin **Capacity** 1.7 to 2.8 MGD

JUSTIFICATION

Plans & Studies

Montgomery College Germantown Campus Hydraulic Planning Analysis (February 2010).

Cost Change

Not Applicable

STATUS Planning (WSSC Contract No. DA5096Z10,).

OTHER

The project scope was developed for the FY 2012 CIP and has a total project cost of $750,000. The expenditures and schedule projections shown in Block B are planning level estimates 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.

NOTE This project supports 100% Growth.

(9)

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		....	

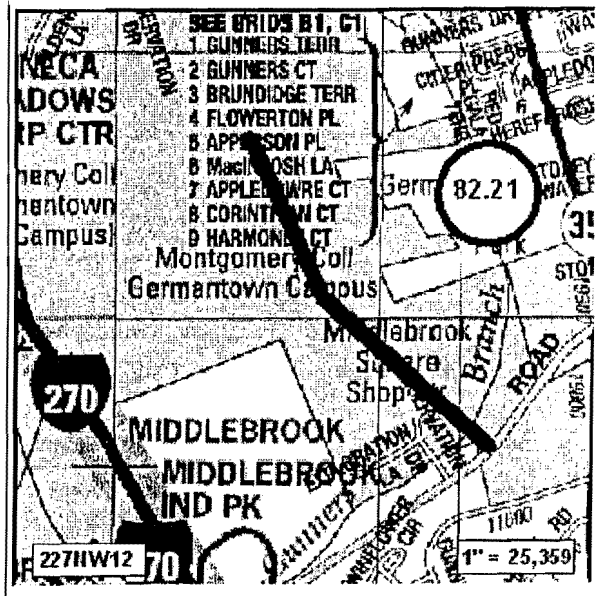
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 12
Date First Approved	FY 12
Initial Cost Estimate	750
Cost Estimate Last FY	
Present Cost Estimate	750
Approved Request, Last FY	
Total Expenditures & Encumbrances	
Approval Request FY 12	612
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	Land & R/W to be acquired
% 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
073801	S-94.12	Change

2. Date: October 1, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**1,722**	972	225	**525**	425	100					
Land											
Site Improvements & Utilities											
Construction	**4,538**		1,446	**3,092**	2,892	200					
Other	**794**		251	**543**	498	45					
Total	**7,054**	**972**	**1,922**	**4,160**	**3,815**	**345**					

C. Funding Schedule (000's)

WSSC Bonds	**403**	55	110	**238**	218	20					
State Aid	**6,651**	917	1,812	**3,922**	3,597	325					

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 the Maryland Department of the Environment (MDE) Enhanced Nutrient Removal (ENR) Program. The recommendation was to convert the 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. Additional improvements will include modifications to reactors, Final Clarifier Distribution Box, Supplemental Carbon Feed Facilities, Supplemental Carbon Feed Building, demolition of existing facilities, instrumentation, and associated site work.

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

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

Cost Change

The cost estimate was revised to reflect the current construction cost estimate and the final cost sharing agreement where the MDE has agreed to pay 94.34% of the total project cost.

STATUS Final Design (WSSC Contract No. CD4261A05,).

OTHER

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

E. Annual Operating Budget Impact (000's)

		FY of Impact	
Program Costs	Staff	....	....
	Other	....	....
Facility Costs	Maintenance	....	....
	Debt Service	35	14
Total Costs		35	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	1,560
Cost Estimate Last FY	7,147
Present Cost Estimate	7,054
Approved Request, Last FY	3,702
Total Expenditures & Encumbrances	972
Approval Request FY 12	3,815
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	No land or R/W required
% Project Completion:	D-95%
Est. Completion Date:	FY 2013

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

The permit application process for the MDE Construction Permit was initiated in May 2009, and is still outstanding. The project start date is July 1, 2011, which corresponds to the draft NPDES permit start date. The start date is dependent on the MDE providing the Construction Permit. The WSSC will request a waiver of the NPDES permit requirements if necessary.

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, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**234**	168	35	**31**	14	17					
Land											
Site Improvements & Utilities											
Construction	**1,703**		1,370	**333**	213	120					
Other	**266**		211	**55**	34	21					
Total	**2,203**	**168**	**1,616**	**419**	**261**	**158**					

C. Funding Schedule (000's)

Contribution/Other	**2,203**	168	1,616	**419**	261	158					

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 to add casing pipes as a condition of Montgomery County permitting requirements.

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

OTHER

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

(10)

E. Annual Operating Budget Impact (000's)

			FY of Impact	
Program Costs	Staff			
	Other			
Facility Costs	Maintenance	38		14
	Debt Service			
Total Costs		38		14
Impact on Water or Sewer Rate				

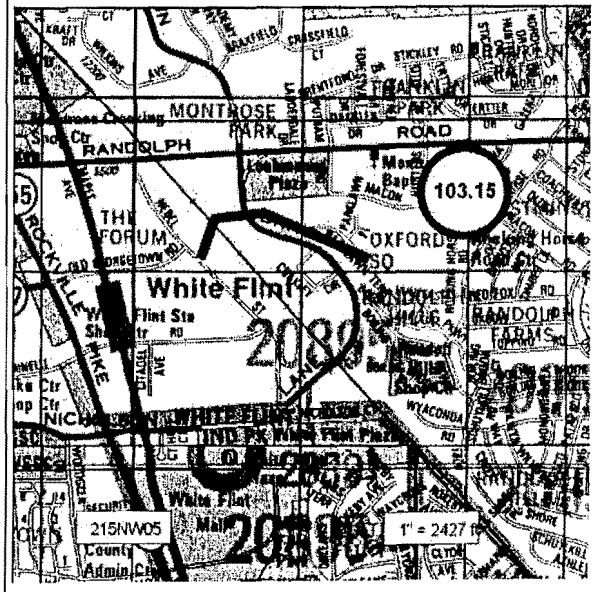
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 06
Date First Approved	FY 06
Initial Cost Estimate	1,053
Cost Estimate Last FY	2,139
Present Cost Estimate	2,203
Approved Request, Last FY	553
Total Expenditures & Encumbrances	168
Approval Request FY 12	261
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status: Not applicable
% Project Completion: D-90%
Est. Completion Date: Developer Dependent

H. Map Map Reference Code:



POTOMAC WATER FILTRATION PLANT PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'11 TOTAL COST	PROPOSED FY'12 TOTAL COST	CHANGE $	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
W-73.16	Potomac WFP Improvements	$131,401	$130,812	($589)	-0.4%	$5,938	FY 2012
W-73.19	Potomac WFP Outdoor Substation No. 2 Replacement	7,934	9,087	1,153	14.5%	8,972	July 2016
W-73.20	Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation	7,959	8,993	1,034	13.0%	6,307	June 2013
W-73.30	Potomac WFP Submerged Channel Intake	25,209	25,899	690	2.7%	23,513	FY 2017
	TOTALS	**$172,503**	**$174,791**	**$2,288**	**1.3%**	**$44,730**	

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, new lime feed facilities, and rehabilitation/replacement of filter underdrains. The Potomac WFP Outdoor Substation No. 2 Replacement Project (W-73.19) 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-73.19 increased for additional planning and supervision during construction; and Project W-73.20 costs increased to include design services during construction.

A. Identification and Coding Information

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

2. Date: October 1, 2010
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

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

		Impact		
Program Costs	Staff			
	Other			
Facility Costs	Maintenance			
	Debt Service	7871		12
Total Costs		7871		12
Impact on Water or Sewer Rate		15¢		12

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**25,640**	24,569	400	**671**	671						
Land											
Site Improvements & Utilities											
Construction	**104,392**	97,665	2,000	**4,727**	4,727						
Other	**780**		240	**540**	540						
Total	**130,812**	**122,234**	**2,640**	**5,938**	**5,938**						

C. Funding Schedule (000's)

WSSC Bonds	**92,101**	84,341	1,822	**5,938**	5,938						
SDC	**38,711**	37,893	818								

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	131,401
Present Cost Estimate	130,812
Approved Request, Last FY	2,530
Total Expenditures & Encumbrances	122,234
Approval Request FY 12	5,938
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	Not applicable
% Project Completion:	C-95%
Est. Completion Date:	See Block D "Other"

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. The project will also address rehabilitation of the filter underdrains.

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. Biological buildup on the filter underdrains has resulted in headloss.

Cost Change

Not applicable.

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

OTHER

The project scope has been extended to address the issues with the filter underdrains. Expenditures and schedule are based upon actual bid. Substantial completion is expected summer 2010. Funding shown in FY'11 is for static mix building change order work, final "punch-list" items, site restoration, and retainage. WSSC Bond funding shown in FY'12 is reserved for rehabilitation or replacement of filter underdrains.

COORDINATION

Montgomery County Government, Prince George's County Government, Montgomery County Department of Environmental Protection,

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 73.16 **Project Name: Potomac WFP Improvements**

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.

A. Identification and Coding Information

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

2. Date: October 1, 2010
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

E. Annual Operating Budget Impact (000's)

			Impact
Program Costs	Staff	....	....
	Other	....	....
Facility Costs	Maintenance	....	....
	Debt Service	922	14
Total Costs		922	14
Impact on Water or Sewer Rate		2¢	14

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**4,698**	107	2,000	**2,591**	2,000	591					
Land											
Site Improvements & Utilities											
Construction											
Other	**689**		300	**389**	300	89					
Total	**5,387**	**107**	**2,300**	**2,980**	**2,300**	**680**					

C. Funding Schedule (000's)

WSSC Bonds	**5,387**	107	2,300	**2,980**	2,300	680					

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	3,709
Present Cost Estimate	5,387
Approved Request, Last FY	1,718
Total Expenditures & Encumbrances	107
Approval Request FY 12	2,300
Supplemental Approval Request Current FY (11)	

G. Status Information

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

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 and an investigation of possible alternative energy sources.

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 scope change and negotiated contract upset limit.

STATUS Planning (WSSC Contract No. BM4620A07,).

OTHER

The project scope has been expanded to include the study of alternative energy sources. 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.

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
113802	W-73.19	Change

2. Date: October 1, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**1,900**		100	**1,800**	800	400	150	250	150	50	
Land											
Site Improvements & Utilities											
Construction	**6,000**			**6,000**			1,500	2,500	1,500	500	
Other	**1,187**		15	**1,172**	120	60	248	413	248	83	
Total	**9,087**		**115**	**8,972**	**920**	**460**	**1,898**	**3,163**	**1,898**	**633**	

C. Funding Schedule (000's)

WSSC Bonds	**9,087**		115	**8,972**	920	460	1,898	3,163	1,898	633	

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

The total project cost has been increased to reflect the need for additional planning and supervision during construction.

STATUS Planning

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above are Order of Magnitude estimates and are expected to change 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	792	....	18
Total Costs		792	....	18
Impact on Water or Sewer Rate		2¢	....	18

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	7,934
Present Cost Estimate	9,087
Approved Request, Last FY	132
Total Expenditures & Encumbrances	
Approval Request FY 12	920
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	Public/Agency owned land
% Project Completion:	P-0%
Est. Completion Date:	July 2016

H. Map **Map Reference Code:**

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
113806	W-73.20	Change

2. Date: October 1, 2010
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

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

		Impact		
Program Costs	Staff		....	
	Other		....	
Facility Costs	Maintenance		....	
	Debt Service	694	....	14
Total Costs		694	....	14
Impact on Water or Sewer Rate		1¢	....	14

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**1,633**	366	500	**767**	467	300					
Land											
Site Improvements & Utilities											
Construction	**6,234**		1,517	**4,717**	3,200	1,517					
Other	**1,126**		303	**823**	550	273					
Total	**8,993**	**366**	**2,320**	**6,307**	**4,217**	**2,090**					

C. Funding Schedule (000's)

WSSC Bonds	**8,993**	366	2,320	**6,307**	4,217	2,090					

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	7,959
Present Cost Estimate	8,993
Approved Request, Last FY	4,531
Total Expenditures & Encumbrances	366
Approval Request FY 12	4,217
Supplemental Approval Request Current FY (11)	1,512

G. Status Information

Land Status:	Public/Agency owned land
% Project Completion:	D-35%
Est. Completion Date:	June 2013

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

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

This project cost increased due to the inclusion of costs for design services during construction.

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

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above are preliminary design estimates and may change as the project moves through design.

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.

(16)

A. Identification and Coding Information

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

2. Date: October 1, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**5,305**	1,880	460	**2,965**	1,000	1,500	310	80	45	30	
Land											
Site Improvements & Utilities											
Construction	**18,410**			**18,410**				3,010	7,700	7,700	
Other	**2,184**		46	**2,138**	100	150	31	309	775	773	
Total	**25,899**	**1,880**	**506**	**23,513**	**1,100**	**1,650**	**341**	**3,399**	**8,520**	**8,503**	

C. Funding Schedule (000's)

WSSC Bonds	**25,899**	1,880	506	**23,513**	1,100	1,650	341	3,399	8,520	8,503	

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. Expenditure and schedule projections 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.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff	....	....
	Other	....	....
Facility Costs	Maintenance	....	....
	Debt Service	2198	18
Total Costs		2198	18
Impact on Water or Sewer Rate		4¢	18

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	25,209
Present Cost Estimate	25,899
Approved Request, Last FY	616
Total Expenditures & Encumbrances	1,880
Approval Request FY 12	1,100
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status: Right-of-Way may be required
% Project Completion: P-80%
Est. Completion Date: FY 2017

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, Maryland Department of Natural Resources, Prince George's County Department of Environmental Resources and U.S. Army Corps of Engineers.

NOTE This project supports 100% System Improvement.

A. Identification and Coding Information

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

2. Date: October 1, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**25,545**	14,482	3,359	**7,704**	3,720	3,583	401				
Land											
Site Improvements & Utilities											
Construction	**121,692**	22,448	35,000	**64,244**	34,000	26,997	3,247				
Other	**11,031**		3,836	**7,195**	3,772	3,058	365				
Total	**158,268**	**36,930**	**42,195**	**79,143**	**41,492**	**33,638**	**4,013**				

C. Funding Schedule (000's)

WSSC Bonds	**700**			**700**	400	300					
SDC	**157,568**	36,930	42,195	**78,443**	41,092	33,338	4,013				

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 decrease reflects current design, construction management and construction contract amounts.

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

OTHER

The project scope remains the same. Expenditures shown in Block B above are definitive and are the sum of the design services, construction management services and construction contract amounts. In late 2005, both Councils reviewed the results of the detailed alignment study and agreed upon the final alignment and construction method. Substantial completion of the tunnel is expected in August 2013. Funding shown in FY'14 is for punch-list items and site/landscaping restoration.

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	168,971
Present Cost Estimate	158,268
Approved Request, Last FY	42,306
Total Expenditures & Encumbrances	36,930
Approval Request FY 12	41,492
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status: Site selected
% Project Completion: C-21%
Est. Completion Date: August 2013

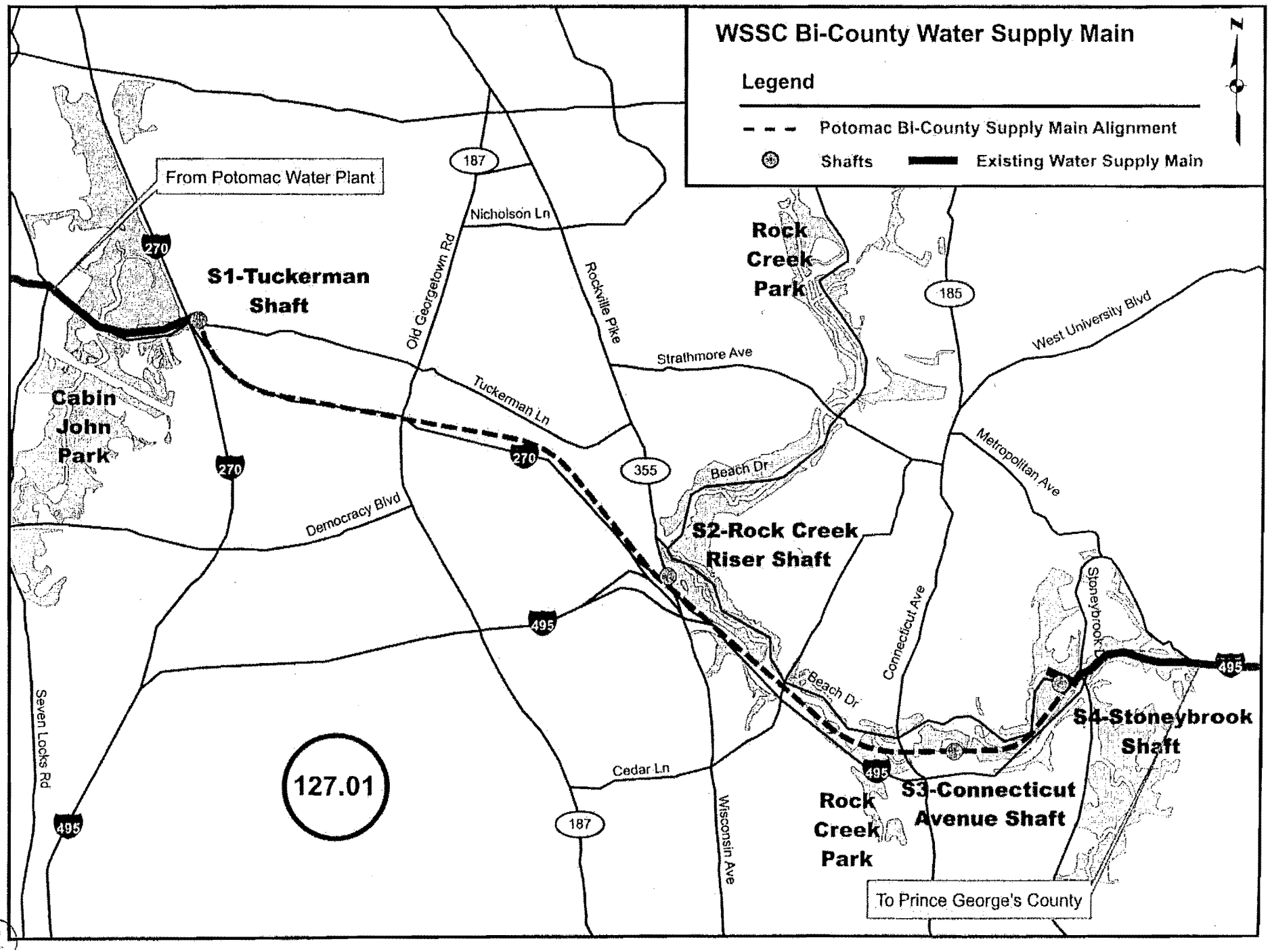
H. Map **Map Reference Code:**

SEE ATTACHED MAP

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

(21)

A. Identification and Coding Information

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

2. Date: October 1, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**3,505**	1,652	898	**955**	637	318					
Land											
Site Improvements & Utilities											
Construction	**17,000**		4,250	**12,750**	8,500	4,250					
Other	**1,886**		515	**1,371**	914	457					
Total	**22,391**	**1,652**	**5,663**	**15,076**	**10,051**	**5,025**					

C. Funding Schedule (000's)

WSSC Bonds	**22,391**	1,652	5,663	**15,076**	10,051	5,025					

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 decreased due to a more detailed cost estimate available at the 90% design stage.

STATUS Final Design (WSSC Contract No. BD4144A05,).

OTHER

The project scope has remained the same. Expenditures and schedule projections shown in block B above are design level estimates and may change based on actual bids. 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.

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 ([illegible])

Program Costs	Staff	....	....	
	Other	....	....	
Facility Costs	Maintenance	....	....	
	Debt Service	....	1597	 14
Total Costs		....	1597	 14
Impact on Water or Sewer Rate		....	3¢	 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	27,029
Present Cost Estimate	22,391
Approved Request, Last FY	10,292
Total Expenditures & Encumbrances	1,652
Approval Request FY 12	10,051
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	Not determined
% Project Completion:	D-90%
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	Change

2. Date: October 1, 2010
Revised:

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

3. Project Name: Large Diameter Water 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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**8,480**		800	**7,680**	640	640	1,280	1,280	1,920	1,920	
Land											
Site Improvements & Utilities											
Construction	**107,830**		12,210	**95,620**	10,520	13,020	13,020	18,020	18,020	23,020	
Other	**11,631**		1,301	**10,330**	1,116	1,366	1,430	1,930	1,994	2,494	
Total	**127,941**		**14,311**	**113,630**	**12,276**	**15,026**	**15,730**	**21,230**	**21,934**	**27,434**	

C. Funding Schedule (000's)

WSSC Bonds	**127,941**		14,311	**113,630**	12,276	15,026	15,730	21,230	21,934	27,434	

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 lengths of pipe 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 reliable operation of the pipeline. The Program also identifies extended lengths of pipe 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 WATER 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, 145 miles are 36-inch diameter and larger, and 59 miles are 54-inch diameter or larger. The inspection program includes internal visual and sounding, sonic/ultrasonic testing, and electromagnetic testing to establish the condition of each pipe section and determine if maintenance repairs, rehabilitation, or replacement are needed.

Cost Change

The cost increase is due to the addition of estimates for PCCP repairs, the inclusion of an additional year of ramp up within the six-year period for this ongoing program and higher unit cost factors based upon available bid information.

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

OTHER

The project scope has remained the same. Expenditure and schedule projections shown in Block B above are Order of Magnitude estimates and are expected to change based upon the results of the inspections and condition assessments. Additional costs associated with inspection, monitoring and emergency repairs are included in the Operating Budget.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff	....	....
	Other	....	....
Facility Costs	Maintenance	....	....
	Debt Service	7128	18
Total Costs		7128	18
Impact on Water or Sewer Rate		14¢	18

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	60,000
Present Cost Estimate	127,941
Approved Request, Last FY	5,000
Total Expenditures & Encumbrances	
Approval Request FY 12	12,276
Supplemental Approval Request Current FY (11)	

G. Status Information

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

H. Map **Map Reference Code:**

COORDINATION

Maryland State Highway Administration, Montgomery County Department of Public Works and Transportation, Montgomery County Government (including localities where work is to be performed), Prince George's County Government (including localities where work is to be performed), Maryland-National Capital Park & Planning Commission, Prince George's County Department of Public Works & Transportation, Local Community Civic Associations and WSSC Projects A-107.00, 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'11 TOTAL COST	PROPOSED FY'12 TOTAL COST	CHANGE $	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
W-172.05	Patuxent WFP Phase II Expansion	$32,673	$52,508	$19,835	60.7%	$47,445	FY 2015
W-172.07	Patuxent Raw Water Pipeline	21,371	21,589	218	1.0%	10,790	FY 2014
W-172.08	Rocky Gorge Pump Station Upgrade	15,621	16,110	489	3.1%	12,308	November 2013
	TOTALS	**$69,665**	**$90,207**	**$20,542**	**29.5%**	**$70,543**	

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

A. Identification and Coding Information

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

2. Date: October 1, 2010
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

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

			Impact	
Program Costs	Staff		....	
	Other		....	
Facility Costs	Maintenance		....	
	Debt Service	4579	....	16
Total Costs		4579	....	16
Impact on Water or Sewer Rate		9¢	....	16

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**8,412**	3,317	1,587	**3,508**	881	1,051	1,051	525			
Land											
Site Improvements & Utilities											
Construction	**39,624**			**39,624**		15,849	15,850	7,925			
Other	**4,472**		159	**4,313**	88	1,690	1,690	845			
Total	**52,508**	**3,317**	**1,746**	**47,445**	**969**	**18,590**	**18,591**	**9,295**			

C. Funding Schedule (000's)

WSSC Bonds	**52,508**	3,317	1,746	**47,445**	969	18,590	18,591	9,295			

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	32,673
Present Cost Estimate	52,508
Approved Request, Last FY	8,063
Total Expenditures & Encumbrances	3,317
Approval Request FY 12	969
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	No land or R/W required
% Project Completion:	D-60%
Est. Completion Date:	FY 2015

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. The removal of Patuxent Solids from going to Parkway WWTP has been added to this project

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), Parkway WWTP Biosolids Facility Plan by CH2m Hill (October 2009).

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. This project also adds a solid removal facility to remove the solids from impacting the Parkway WWTP

Cost Change

Costs were increased for the addition of Solids Removal project and inflation

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

OTHER

The project scope has changed to add the Patuxent Solids removal as recommended in the Parkway WWTP Biosolids Facility Plan. 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-

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 172.05 **Project Name: Patuxent WFP Phase II Expansion**

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 80% System Improvement and 20% Environmental Regulation.

(21)

BLUE PLAINS WASTEWATER TREATMENT PLANT PROJECTS
(costs in thousands)

PROJECT NUMBER	PROJECT NAME	ADOPTED FY'11 TOTAL COST	PROPOSED FY'12 TOTAL COST	CHANGE $	CHANGE %	SIX-YEAR COST	COMPLETION DATE (est)
S-22.06	Blue Plains WWTP: Liquid Train Projects, Part 2	$240,383	$245,643	$5,260	2.2%	$22,050	On-Going
S-22.07	Blue Plains WWTP: Biosolids Management, Part 2	360,331	362,183	1,852	0.5%	216,304	On-Going
S-22.08	Blue Plains WWTP: Biological Nutrient Removal	81,051	83,628	2,577	3.2%	16,977	FY 2013
S-22.09	Blue Plains WWTP: Plant-wide Projects	179,915	194,826	14,911	8.3%	31,685	On-Going
S-22.10	Blue Plains WWTP: Enhanced Nutrient Removal	432,673	426,778	(5,895)	-1.4%	354,438	FY 2019
S-22.11	Blue Plains: Pipelines & Appurtenances	102,833	90,998	(11,835)	-11.5%	52,442	On-Going
	TOTALS	**$1,397,186**	**$1,404,056**	**$6,870**	**0.5%**	**$693,896**	

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 move forward and new sub-projects are approved, the costs of these new sub-projects are added to the appropriate existing Blue Plains project. The expenditures displayed represent the WSSC's calculated share. There are four main funding divisions: liquid treatment train (S-22.06); biosolids management (S-22.07); plant-wide projects (S-22.09); and, pipelines & appurtenances (S-22.11). Project S-22.08 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.

Cost Impact: These six Blue Plains projects, the largest group of expenditures in the CIP, represent 49% 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
113805	S-170.09	Change

2. Date: October 1, 2010
Revised:

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

E. Annual Operating Budget Impact (000's)

Program Costs	Staff		....	
	Other		....	
Facility Costs	Maintenance		....	
	Debt Service	44035	....	18
Total Costs		44035	....	18
Impact on Water or Sewer Rate		95¢	....	18

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**42,106**		11,165	**30,941**	10,038	9,000	5,325	3,600	1,489	1,489	
Land											
Site Improvements & Utilities											
Construction	**132,725**			**132,725**	7,254	25,471	25,000	25,000	25,000	25,000	
Other	**26,225**		1,675	**24,550**	2,594	5,171	4,549	4,290	3,973	3,973	
Total	**201,056**		**12,840**	**188,216**	**19,886**	**39,642**	**34,874**	**32,890**	**30,462***	**30,462***	

C. Funding Schedule (000's)

WSSC Bonds	**201,056**		12,840	**188,216**	19,886	39,642	34,874	32,890	30,462	30,462	

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	504,993
Present Cost Estimate	201,056
Approved Request, Last FY	39,079
Total Expenditures & Encumbrances	
Approval Request FY 12	19,886
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	Right-of-Way may be required
% Project Completion:	P-30%
Est. Completion Date:	See Block D

H. Map **Map Reference Code:**

NOT APPLICABLE

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, seven 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), Cabin John (SSES), Paint Branch (non-SSES), and Sligo Creek (non-SSES).

* At the current rate of acquiring environmental permits, the required trunk sewer reconstruction work is now expected to extend beyond the Consent Decree's December 2015 deadline. WSSC is experiencing significant delays in acquiring both permission and required permits to work in environmentally sensitive areas. WSSC is currently working with the environmental regulators to identify ways to expedite environmental permit approvals. In addition, due to the total volume of work in the region, there is limited availability of contractor work crews to perform the work.

Cost Change

The cost has decreased to reflect the reduced scope of work, focusing primarily on the Priority One work required under the Consent Decree. Work may go beyond six years, based on current productivity and permitting delays.

STATUS Planning

OTHER

The project scope has been revised for the FY 2012 CIP to focus more closely on Priority One work, in order to meet Consent Decree requirements. This project separately identifies the 15-inch diameter and larger trunk sewers included in WSSC's overall plans for

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 170.09 **Project Name: Trunk Sewer Reconstruction Program**

sewer reconstruction. The expenditures and schedule shown in Block B above are Order of Magnitude level estimates and are expected to change as individual basin designs are completed and construction contracts are bid. The design work for the SR3 Plans pertaining to Trunk Sewer reconstruction began in FY 2010. Construction will begin in each basin as the individual designs are completed over the three-year period.

For FY 2012, construction is scheduled for the Broad Creek Basin, encompassing approximately 5 miles of mainline reconstruction, and providing exposed pipeline and manholes 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, National Park Service, Maryland Department of the Environment, Maryland Department of Natural Resources (Critical Area Commission, FSD Approval Forest Conservation/Reforestation Rare, Threatened or Endangered Species), Prince George's County Department of Public Works & Transportation, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, Region III and WSSC Project S-1.01, Sewer Reconstruction Program.

NOTE This project supports 100% System Improvement.

(30)

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	W-34.02	Change

2. Date: October 1, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**1,415**	142	550	**723**	450	173	60	40			
Land											
Site Improvements & Utilities											
Construction	**9,935**			**9,935**		3,500	5,000	1,435			
Other	**1,120**		60	**1,060**	50	367	500	143			
Total	**12,470**	**142**	**610**	**11,718**	**500**	**4,040**	**5,560**	**1,618**			

C. Funding Schedule (000's)

WSSC Bonds	**6,235**	71	305	**5,859**	250	2,020	2,780	809			
SDC	**6,235**	71	305	**5,859**	250	2,020	2,780	809			

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 in the event of the loss of any one water system facility and this project will meet that goal for the HG 385B and dependent zones.

Cost Change

The cost of this project has increased based upon revised design fee estimates as the project has transitioned from the planning stage into design.

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

OTHER

The project scope has remained the same. The expenditures and schedule projections shown above are planning level estimates and may change based upon final pipeline alignment and design constraints.

COORDINATION

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

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

(2)

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff	....	....
	Other	....	....
Facility Costs	Maintenance	182	 16
	Debt Service	463	 16
Total Costs		645	 16
Impact on Water or Sewer Rate		1¢	 16

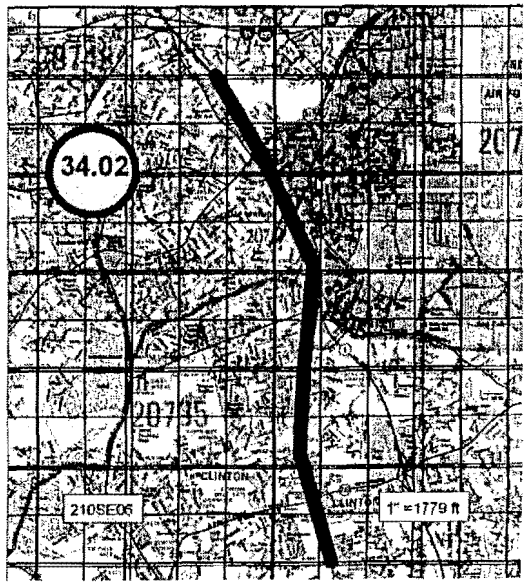
F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 08
Date First Approved	FY 08
Initial Cost Estimate	10,350
Cost Estimate Last FY	10,993
Present Cost Estimate	12,470
Approved Request, Last FY	1,087
Total Expenditures & Encumbrances	142
Approval Request FY 12	500
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status: R/W required
% Project Completion: D-0%
Est. Completion Date: FY 2015

H. Map **Map Reference Code:**



A. Identification and Coding Information

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

2. Date: October 1, 2010
Revised:

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

3. Project Name: Water Transmission Improvements 385 Pressure Zone

5.Agency: **WSSC**

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

E. Annual Operating Budget Impact (000's) Yr 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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**150**			**150**	150						
Land											
Site Improvements & Utilities											
Construction											
Other	**23**			**23**	23						
Total	**173**			**173**	**173**						

C. Funding Schedule (000's)

SDC	**173**			**173**	173						

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 12
Date First Approved	FY 12
Initial Cost Estimate	173
Cost Estimate Last FY	
Present Cost Estimate	173
Approved Request, Last FY	
Total Expenditures & Encumbrances	
Approval Request FY 12	173
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status: Not determined
% Project Completion: P-0%
Est. Completion Date: FY2012

D. Description & Justification

DESCRIPTION

This project provides for the initial planning for a new water transmission main that will improve system reliability through the 385 and 345 pressure zones.

Service Area Clinton Pressure Zone HG385

JUSTIFICATION

Plans & Studies

None

Specific Data

The existing transmission mains in the 385 pressure zone have been stressed by recent development in southern Prince George's County. In addition, head-loss due to increased water use is preventing the Accokeek elevated tank from operating as designed. A new water main will improve our transmission capacity to serve recent and future growth and will also improve overall reliability for southern Prince George's County customers.

Cost Change

Not applicable.

STATUS Planning

OTHER

The project scope was developed for the FY 2012 CIP and has an Order of Magnitude cost estimate of $173,000 for the initial planning work. As the project develops design and construction cost estimates will be added to the project.

COORDINATION

Prince George's County Government, Prince George's County Department of Environmental Resources and WSSC Projects W-34.02, Old Branch Avenue Water Main and W-62.04, Clinton Zone Water Storage Facility (BE4507A06).

NOTE This project supports 100% Growth.

H. Map **Map Reference Code:**

MAP NOT APPLICABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	S-43.02	Change

2. Date: October 1, 2010
Revised:

3. Project Name: Broad Creek WWPS Augmentation

4. Program: **Sanitation** 6. Planning Area: South Potomac Sector P.A. 80

5.Agency: **WSSC**

E. Annual Operating Budget Impact

Program Costs	Staff	....	....
	Other	....	....
Facility Costs	Maintenance	....	....
	Debt Service	2466	 17
Total Costs		2466	 17
Impact on Water or Sewer Rate		5¢	 17

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**15,790**	2,090	4,500	**9,200**	2,000	1,800	1,800	1,800	1,800		
Land											
Site Improvements & Utilities											
Construction	**136,603**	10,603		**126,000**	31,000	42,000	42,000	6,000	5,000		
Other	**13,970**		450	**13,520**	3,300	4,380	4,380	780	680		
Total	**166,363**	**12,693**	**4,950**	**148,720**	**36,300**	**48,180**	**48,180**	**8,580**	**7,480**		

C. Funding Schedule (000's)

WSSC Bonds	**28,283**	2,158	841	**25,284**	6,171	8,191	8,191	1,459	1,272		
SDC	**138,080**	10,535	4,109	**123,436**	30,129	39,989	39,989	7,121	6,208		

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	85,775
Present Cost Estimate	166,363
Approved Request, Last FY	2,748
Total Expenditures & Encumbrances	12,693
Approval Request FY 12	36,300
Supplemental Approval Request Current FY (11)	

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 AVAILABLE

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 the 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 the Environmental Protection Agency and the Maryland Department of the Environment (MDE). Construction costs shown above also provide for an emergency generator in the event of power outages.

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 10, Section B.8 (Pump Stations - Broad Creek), Sanitary Sewer Overflows (SSO) Consent Order Decree (Civil Action PJM-04-3679), Judge Messite, December 7, 2005.

Cost Change

Costs have increased due to the construction technique associated with the conveyence system, additional rehabilitation at the Piscataway Plant to incorporate the emergency storage, and inclusion of the costs for design services during construction.

STATUS Preliminary Design (WSSC Contract Nos. CM4231A05 , CM4231B05 , CM4231C05 , CP4231B05 , CP4231C05).

OTHER

The project scope has remained the same. The expenditures and schedule projections shown in Block B reflect planning level estimates and may change based upon site-specific conditions, design constraints, and negotiations with the MDE. The WSSC has compressed the design schedule and will be implementing multiple contracts for construction in order to expedite the completion of the construction phase.

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 83% Growth and 17% System Improvement.

Identification and Coding Information

Project Number	Agency Number	Update Code
	S-57.93	Change

2. Date: October 1, 2010
Revised:

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

Project Name: Western Branch WWTP Enhanced Nutrient Removal

5.Agency: **WSSC**

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

B. Expenditure Schedule (000's)

ost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
lanning, Design & Supervision	**6,469**	4,100	300	**2,069**	869	650	500	50			
and											
ite Improvements & Utilities											
onstruction	**29,870**		3,000	**26,870**	11,870	8,320	6,440	240			
)ther	**3,224**		330	**2,894**	1,274	897	694	29			
otal	**39,563**	**4,100**	**3,630**	**31,833**	**14,013**	**9,867**	**7,634**	**319**			

C. Funding Schedule (000's)

tate Aid	**39,563**	4,100	3,630	**31,833**	14,013	9,867	7,634	319			

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of improvements at the Western Branch WWTP necessary to meet the requirements of the Maryland Department of the Environment (MDE) Environmental Nutrient Removal (ENR) Program at 30 MGD. The ENR design continues the operation of the existing 3 sludge systems with upgrades. The upgrades include the addition of a Return Activated Sludge pumping station, ENR monitoring and control enhancements, ENR associated electrical upgrades, and waste activated sludge improvements.

Service Area Western Branch Drainage Basin

JUSTIFICATION

Plans & Studies

Western Branch Enhanced Nutrient Removal Evaluation, Johnson, Mirmiran & Thompson (May 2005); Western Branch Enhanced Nutrient Removal and Facility Upgrade Project - Evaluation Phase, Metcalf and Eddy (August 2007); Maryland Department of the Environment Eligibility Determination Letter (July 24, 2008).

Specific Data

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

Cost Change

Costs were increased for inflation.

STATUS Final Design (WSSC Contract No. CD4257A05,).

OTHER

The project scope has remained the same. The expenditures and schedule projections shown in Block B are design level estimates only and may change based upon the MDE permit approval dates and the contractor's bid. The expenditure estimates and funding schedule reflect the final cost sharing agreement where the MDE has agreed to pay 100% of the total project cost.

34a

E. Annual Operating Budget Impact (000's)

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	38,560
Present Cost Estimate	39,563
Approved Request, Last FY	15,400
Total Expenditures & Encumbrances	4,100
Approval Request FY 12	14,013
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	Not Applicable
% Project Completion:	D-99%
Est. Completion Date:	March 2014

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**

The permit application process was started in May 2009. The following MDE permits are still outstanding:

* MDE Sediment & Stormwater Permit
* MDE Construction Permit

The project completion date is March 2014, which corresponds to the draft NPDES permit completion date. The completion date is dependant on the MDE providing Stormwater Management and Construction permits. The WSSC will request a waiver of the NPDES permit requirements if necessary. Costs shown in FY 2015 are for punch-list items and final site restoration.

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-77.18	Change

2. Date: October 1, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**4,383**	1,953	106	**2,324**	1,104	1,104	116				
Land											
Site Improvements & Utilities											
Construction	**15,049**			**15,049**	7,275	7,274	500				
Other	**1,749**		11	**1,738**	838	838	62				
Total	**21,181**	**1,953**	**117**	**19,111**	**9,217**	**9,216**	**678**				

C. Funding Schedule (000's)

WSSC Bonds	**997**	92	6	**899**	433	433	33				
State Aid	**20,184**	1,861	111	**18,212**	8,784	8,783	645				

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 the Maryland Department of the Environment (MDE) Enhanced Nutrient Removal (ENR) Program. The 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 proposed for nitrogen removal. A new pumping station will also be required due to the plant's hydraulic profile. Other upgrades also include Backwash Supply Storage, modifications to Reactor Basins, and Denitrification Chemical Facility.

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

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

Cost Change

The cost estimate increased to reflect the current construction cost estimate.

STATUS Final Design (WSSC Contract No. CD4259A05,).

OTHER

The project scope has remained the same. The expenditures and schedule projections shown in Block B are based on contracted planning and design costs, and updated construction cost estimates. The expenditure estimates and funding schedule reflect the final cost sharing agreement where the MDE has agreed to pay 95% of the total project cost.

E. Annual Operating Budget Impact (000's)

		FY of Impact		
Program Costs	Staff			
	Other			
Facility Costs	Maintenance			
	Debt Service	87	....	15
Total Costs		87	....	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	11,971
Cost Estimate Last FY	20,719
Present Cost Estimate	21,181
Approved Request, Last FY	8,527
Total Expenditures & Encumbrances	1,953
Approval Request FY 12	9,217
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	No land or R/W required
% Project Completion:	D-95%
Est. Completion Date:	FY 2014

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

The permit application process was started in June 2009. The following MDE permits are still outstanding:

* MDE Sediment & Stormwater Permit
* MDE Construction Permit

The project completion date is July 2013, which corresponds to the draft NPDES permit completion date. The completion date is dependent on the MDE providing Stormwater Management and Construction permits. The WSSC will request a waiver of the NPDES permit requirements if necessary.

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, 2010
Revised:

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

3. Project Name: Parkway WWTP Biosolids Facility Plan Implementation

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: South Laurel - Montpelier P.A. 62

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**3,456**	906	1,000	**1,550**	1,000	250	250	50			
Land											
Site Improvements & Utilities											
Construction	**16,900**			**16,900**		6,800	9,200	900			
Other	**1,945**		100	**1,845**	100	705	945	95			
Total	**22,301**	**906**	**1,100**	**20,295**	**1,100**	**7,755**	**10,395**	**1,045**			

C. Funding Schedule (000's)

WSSC Bonds	**22,301**	906	1,100	**20,295**	1,100	7,755	10,395	1,045			

D. Description & Justification

DESCRIPTION

This project provides for the planning, design, and construction of new solids handling facilities and equipment for the Parkway WWTP.

Service Area Parkway Drainage Basin **Capacity** 7.5 MGD

JUSTIFICATION

Plans & Studies

Memorandum from the Production Team dated April 27, 2007; WSSC Parkway WWTP Biosolids Facility Plan, Volumes I & II, CH2M Hill, Inc. (October 2009).

Specific Data

Currently, the facility utilizes centrifuges to dewater approximately 1,500 wet tons of solids/month. The centrifuges are installed in 2 parallel configurations which cannot be operated simultaneously. One side consists of 3 35-year old centrifuges and supporting equipment, such as plow blenders and belt conveyors. The other side consists of 1 centrifuge, lime screw conveyors, a pugmill, lime stabilized conveyors, and a lime stabilized sludge storage silo.

Cost Change

The project cost increased due to the addition of estimated design and construction costs.

STATUS Preliminary Design (WSSC Contract Nos. CD4643B07 , CP4643A07 , CP4643B07).

OTHER

The project scope has remained the same. The expenditures and schedule projections shown in Block B represent an Order of Magnitude cost estimate for the design and construction and may change depending on site-specific conditions and design constraints. The facility plan evaluated the solids handling capabilities of the Parkway WWTP and recommended the replacement of the aging facility and equipment.

COORDINATION

Prince George's County Government, Maryland Department of the Environment, 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.

(25)

E. Annual Operating Budget Impact (000's)

		FY of Impact		
Program Costs	Staff			
	Other			
Facility Costs	Maintenance			
	Debt Service	1945	....	16
Total Costs		1945	....	16
Impact on Water or Sewer Rate		4¢	....	16

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	917
Present Cost Estimate	22,301
Approved Request, Last FY	87
Total Expenditures & Encumbrances	906
Approval Request FY 12	1,100
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status: Not applicable
% Project Completion: D-0%
Est. Completion Date: FY 2015

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	S-96.12	Change

2. Date: October 1, 2010
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

E. Annual Operating Budget Impact (000's)

		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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**2,914**	1,179	400	**1,335**	1,300	35					
Land											
Site Improvements & Utilities											
Construction	**5,500**		1,500	**4,000**	3,950	50					
Other	**1,086**		285	**801**	788	13					
Total	**9,500**	**1,179**	**2,185**	**6,136**	**6,038**	**98**					

C. Funding Schedule (000's)

State Aid	**9,500**	1,179	2,185	**6,136**	6,038	98					

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	7,528
Present Cost Estimate	9,500
Approved Request, Last FY	6,383
Total Expenditures & Encumbrances	1,179
Approval Request FY 12	6,038
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status: No land or R/W required
% Project Completion: D-100%
Est. Completion Date: September 2012

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 the Maryland Department of the Environment (MDE) Environmental Nutrient Removal (ENR) Program at 30 MGD. The ENR project design includes provisions for the installation of supplemental carbon storage and feed facilities, to include a 1,500 square foot masonry building to house pumping and electrical equipment, an adjacent outdoor bulk storage and containiment area for 3 12,000-gallon tanks, a 120 square foot pre-cast concrete engineered building for housing analyzer equipment, a chemical unloading station, and various related improvements associated with the carbon feed system.

Service Area Piscataway Creek Drainage Basin

JUSTIFICATION

Plans & Studies

ENR Alternatives for Piscataway WWTP, Gannett Fleming (June 2005); Design Criteria Report, O'Brien & Gere (October 2008); Maryland Department of the Environment Eligibility Determination Letter (April 17, 2009).

Specific Data

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

Cost Change

The cost has increased due to a change in the scope of work to include an engineering records upgrade providing an indexing system with a GIS link. In addition, the estimated design services during construction costs exceed last year's estimate.

STATUS Final Design (WSSC Contract No. CD4258A05,).

OTHER

The project scope has changed to include an engineering records upgrade and GIS-linked indexing system. The expenditures and schedule projections shown in Block B are final design level estimates and may change based upon actual bids. The expenditure estimates and funding schedule reflect the final cost sharing agreement where the MDE has agreed to pay 100% of the total project cost.

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 96.12 **Project Name: Piscataway WWTP Enhanced Nutrient Removal**

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.

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A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	S-96.14	Add

2. Date: October 1, 2010
Revised:

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

3. Project Name: Piscataway WWTP Facility Upgrades

5.Agency: **WSSC**

4. Program: **Sanitation** 6. Planning Area: Accokeek P.A. 83

E. Annual Operating Budget Impact (000's)

			Impact	
Program Costs	Staff		....	
	Other		....	
Facility Costs	Maintenance		....	
	Debt Service	5790	....	18
Total Costs		5790	....	18
Impact on Water or Sewer Rate		13¢	....	18

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**10,060**			**10,060**	3,000	3,000	1,560	1,200	1,000	300	
Land											
Site Improvements & Utilities											
Construction	**50,300**			**50,300**		7,000	18,000	15,300	9,000	1,000	
Other	**6,036**			**6,036**	300	1,000	1,956	1,650	1,000	130	
Total	**66,396**			**66,396**	**3,300**	**11,000**	**21,516**	**18,150**	**11,000**	**1,430**	

C. Funding Schedule (000's)

WSSC Bonds	**66,396**			**66,396**	3,300	11,000	21,516	18,150	11,000	1,430	

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 12
Date First Approved	FY 12
Initial Cost Estimate	66,396
Cost Estimate Last FY	
Present Cost Estimate	66,396
Approved Request, Last FY	
Total Expenditures & Encumbrances	
Approval Request FY 12	3,300
Supplemental Approval Request Current FY (11)	

D. Description & Justification

DESCRIPTION

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

Service Area Piscataway Creek Drainage Basin **Capacity** 30 MGD

JUSTIFICATION

Plans & Studies

Piscataway WWTP Asset Management Plan (In Progress).

Specific Data

In the course of preparing the Asset Management Plan for the Piscataway WWTP, preliminary results of the condition assessment process identified several areas of concern within the plant process trains that could potentially result in capacity or level of service failures during significant rainfall events.

Cost Change

Not applicable.

STATUS Planning

OTHER

The project scope was developed for the FY 2012 CIP and has a total estimated cost of $66,396,000. The expenditures and schedule projections shown in Block B represent an Order of Magnitude estimate with a confidence level rating of +/- 30%. These projections may change based upon the results of the Facility Plan. In order to ensure compliance with January 2013 NPDES permit requirements the Facility Planning work will be initiated in a new ESP project beginning in FY'11.

COORDINATION

Prince George's County Government, Maryland Department of the Environment, Prince George's County Department of Environmental Resources and WSSC Projects S-43.02, Broad Creek WWPS Augmentation and S-96.12, Piscataway WWTP Enhanced Nutrient Removal.

NOTE This project supports 100% System Improvement.

G. Status Information

Land Status:	Not Applicable
% Project Completion:	P-0%
Est. Completion Date:	FY 2017

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
	W-1.00	Change

2. Date: October 1, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**219,215**		20,775	**198,440**	25,610	28,603	31,752	35,065	37,454	39,956	
Land											
Site Improvements & Utilities											
Construction	**251,906**		25,095	**226,811**	25,075	29,806	34,798	40,063	45,611	51,458	
Other	**123,300**		10,226	**113,074**	15,175	16,549	17,991	19,504	21,096	22,759	
Total	**594,421**		**56,096**	**538,325**	**65,860**	**74,958**	**84,541**	**94,632**	**104,161**	**114,173**	

C. Funding Schedule (000's)

WSSC Bonds	**594,421**		56,096	**538,325**	65,860	74,958	84,541	94,632	104,161	114,173	

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'12 (including overhead) are as follows: design of main replacement, 40 miles - $7.8M; construction of main replacement and associated water house connection renewals, 41 miles - $53.2M; large water service replacement program - $4.9M. 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 increase in FY 2012 primarily reflects an increase in replacement miles.

STATUS Under Construction

OTHER

The project scope has remained the same. The water reconstruction program has been ongoing since 1979. Funding in the six-year program period is subject to Spending Affordability Guideline limits. The following work accomplishments through FY'09 summarize

E. Annual Operating Budget Impact (000's)

			FY of Impact	
Program Costs	Staff		....	
	Other		....	
Facility Costs	Maintenance		....	
	Debt Service	45579	....	18
Total Costs		45579	....	18
Impact on Water or Sewer Rate		89¢	....	18

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY --
Date First Approved	FY --
Initial Cost Estimate	
Cost Estimate Last FY	616,525
Present Cost Estimate	594,421
Approved Request, Last FY	64,485
Total Expenditures & Encumbrances	
Approval Request FY 12	65,860
Supplemental Approval Request Current FY (11)	

G. Status Information

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

H. Map **Map Reference Code:**

MAP NOT APPLICABLE

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, 2010
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

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff	....	....
	Other	....	....
Facility Costs	Maintenance	....	....
	Debt Service	41097	 18
Total Costs		41097	 18
Impact on Water or Sewer Rate		80¢	 18

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**102,261**		13,677	**88,584**	11,626	13,191	14,439	15,064	16,420	17,844	
Land	**1,200**		1,200								
Site Improvements & Utilities											
Construction	**301,651**		40,825	**260,826**	30,625	35,406	40,447	45,758	51,351	57,239	
Other	**70,180**		9,471	**60,709**	7,309	8,424	9,530	10,573	11,794	13,079	
Total	**475,292**		**65,173**	**410,119**	**49,560**	**57,021**	**64,416**	**71,395**	**79,565**	**88,162**	

C. Funding Schedule (000's)

WSSC Bonds	**471,292**		61,173	**410,119**	49,560	57,021	64,416	71,395	79,565	88,162	
Federal Aid	**4,000**		4,000								

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY --
Date First Approved	FY --
Initial Cost Estimate	
Cost Estimate Last FY	410,522
Present Cost Estimate	475,292
Approved Request, Last FY	69,445
Total Expenditures & Encumbrances	
Approval Request FY 12	49,560
Supplemental Approval Request Current FY (11)	

G. Status Information

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

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 FY'12 work units and associated costs are based on our historical experience with regards to timing of design and construction work, cost per linear foot, availability of authorized contractors for proprietary rehabilitation techniques, and management's availability to oversee and manage the total number of individual contracts. The program's projected work units and expenditure levels for FY'12 (including overhead) are as follows: 37 miles of residential main and lateral line design - $5.5 M; 22 miles of residential line construction - $24.6 M; 5 miles of lateral line construction and associated sewer house connection renewals - $17.0 M; emergency repairs - $2.5 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 overall program cost increased due higher unit costs based upon actual bids received.

STATUS Under Construction

H. Map **Map Reference Code:**

MAP NOT APPLICABLE

OTHER

The project scope has remained the same. The program schedule and expenditures shown above reflect the terms of the Sanitary Sewer Overflow Consent Decree. The Consent Decree between WSSC, Maryland Department of the Environment (MDE), and the EPA was entered into on December 7, 2005. The sewer reconstruction program was established in 1979. Estimated land purchases shown in FY 2011 are for Patuxent Reservoir buffer properties and easements for water supply protection - $1.2 M. Expenditures for an estimated 3 miles of grouting repairs are included in the operating budget. The funding schedule reflects the remaining $4,000,000 of the $6,000,000 total in Federal stimulus grant provided under the American Recovery and Reinvestment Act for the reconstruction work currently underway in Lower Anacostia to be completed in FY 2011.

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-103.01	Change

2. Date: October 1, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**6,796**	47	749	**6,000**	1,500	1,500	500	1,000	1,000	500	
Land											
Site Improvements & Utilities											
Construction	**30,000**			**30,000**			5,000	10,000	10,000	5,000	
Other	**3,675**		75	**3,600**	150	150	550	1,100	1,100	550	
Total	**40,471**	**47**	**824**	**39,600**	**1,650**	**1,650**	**6,050**	**12,100**	**12,100**	**6,050**	

C. Funding Schedule (000's)

WSSC Bonds	**15,480**	9	291	**15,180**	330	330	2,420	4,840	4,840	2,420	
Federal Aid	**24,991**	38	533	**24,420**	1,320	1,320	3,630	7,260	7,260	3,630	

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, biosolids gasification/drying 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 $570,900 for the feasibility study/conceptual design phase. This amount will be supplemented by $179,024 from WSSC towards the feasibility study. On June 16, 2010, WSSC awarded the study contract to AECOM of Laurel, MD. The study will take approximately 10 months to complete. The WSSC will continue to pursue federal capital funding as the specific requirements of the project develop during the study and upon delivery of the final report.

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, Prince George's County Septage (FOG) Discharge Facility Study (February 2008); JMT, Western Research Institute (WRI) Biogas Feasibility Study Scope of Work -

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff	....	....
	Other	....	....
Facility Costs	Maintenance	....	....
	Debt Service	1350	18
Total Costs		1350	18
Impact on Water or Sewer Rate		3¢	18

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	33,638
Present Cost Estimate	40,471
Approved Request, Last FY	1,419
Total Expenditures & Encumbrances	47
Approval Request FY 12	1,650
Supplemental Approval Request Current FY (11)	

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

WSSC (April 2008); JMT, Montgomery County Septage (FOG) Discharge Facility Study (January 2010); Facility Plan for the Rock Creek Wastewater Treatment Plant (January 2010).

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, 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. However, due to the lack of primary wastewater treatment at Seneca, it may be beneficial to add basins and clarifiers to boost biogas economies of scale comparable with Piscataway. Also, the addition of FOG handling facilities at future Seneca and Piscataway anaerobic digestion could dramatically improve biogas and subsequent electricity output. It is estimated that both of these factors would increase the total capital cost by an estimated $5,000,000 over and above the EPA's estimate. Allowing for inflation, the total capital cost is now estimated to be $40,000,000 (total for both plants). The increased cost of Seneca primaries would result in a doubling of the estimated anaerobic digestion and combined heat and power generation and a reduction (600kW) in process efficiency gains. The WSSC's "net capital cost" estimates are based on federal grant funding for 80% of the feasibility/conceptual design study (already approved) and 60% of construction and/or capital costs (projected based on future federal grants).

Cost Change

Cost estimates shown above represent an Order of Magnitude estimate for design and construction costs based on EPA suggested engineering estimates.

STATUS Planning

OTHER

The project scope has remained the same. 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 and other biomass gasification/drying 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 technical Tasks: Task I will provide a technology overview to develop preliminary costs and equipment requirements to allow identification of the three anaerobic digestion and combined heat and power and two biomass options that best support the WSSC's long-term sustainability goals; Task II will further develop the selected best alternatives to provide detailed cost estimates, economic feasibility analysis, conceptual design 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 anerobic digestion, biomass, and combined heat and power generation system facilities should facilities be proven economically viable using anticipated funding sources. As part of the feasibility study, the digestion, biomass, side stream treatment, gas cleaning, odor control, and all primary processes will be determined, as will the bi-product selection, 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'12/FY'13, 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.

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-106.00	Change

2. Date: October 1, 2010
Revised:

3. Project Name: Utility Master Plan
4. Program: **Sanitation** 6. Planning Area: Bi-County
5.Agency: **WSSC**

E. Annual Operating Budget Impact ($000)

Program Costs	Staff		....
	Other		....
Facility Costs	Maintenance		....
	Debt Service	537	....
Total Costs		537	....
Impact on Water or Sewer Rate		1¢	....

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	**19,811**	3,593	1,120	**11,134**	1,657	2,209	1,971	1,891	1,730	1,676	3,964
Land											
Site Improvements & Utilities											
Construction											
Other	**2,433**		168	**1,671**	249	331	296	284	260	251	594
Total	**22,244**	**3,593**	**1,288**	**12,805**	**1,906**	**2,540**	**2,267**	**2,175**	**1,990**	**1,927**	**4,558**

C. Funding Schedule (000's)

WSSC Bonds	**6,156**	2,049	772	**3,335**	736	978	415	225	452	529	
Water Operating Funds	**8,044**	772	258	**4,735**	585	781	926	975	769	699	2,279
Sewer Operating Funds	**8,044**	772	258	**4,735**	585	781	926	975	769	699	2,279

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	14,640
Present Cost Estimate	22,244
Approved Request, Last FY	1,320
Total Expenditures & Encumbrances	3,593
Approval Request FY 12	1,906
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	Not Applicable
% Project Completion:	P-27%
Est. Completion Date:	FY 2020

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 rehabilitation/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 2020.

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 to more accurately reflect the scope and level of effort included in future phases.

STATUS Planning (WSSC Contract Nos. BM4626A07 , CM4626A07).

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. Project % completion is based on completion of the 6 phase.

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.

BUD, FIN & ECON DEV

KL
CC
SBF
LL

Washington Suburban Sanitary Commission

14501 Sweitzer Lane • Laurel, Maryland 20707-5901

January 19, 2011

060212

RECEIVED
MONTGOMERY COUNTY
COUNCIL
2011 JAN 25 PM 1:28

The Honorable Valerie Ervin
President
Montgomery County Council
Stella Werner Office Building
100 Maryland Avenue
Rockville, MD 20850

Dear Council President Ervin:

The purpose of this letter is to transmit a mid-cycle update to the WSSC's Proposed Fiscal Years 2012-2017 Capital Improvements Program transmitted on September 29, 2010. We hereby request you incorporate these changes into your annual comments, recommendations and amendments to the program. The mid-cycle update provides for revised expenditure schedules for certain projects in the Proposed CIP to align them with the revised capital program and resultant capital debt impact incorporated into the Fiscal Year 2012 Preliminary Proposed Budget published on January 14, 2011.

Revisions are recommended for all six Blue Plains WWTP projects to reflect the expenditure schedules included in DCWASA's Proposed CIP document dated October 28, 2010.

Enclosed for your information is a summary table of project expenditure impacts and revised project description forms for each of the projects.

Sincerely,

Antonio L. Jones
Chair

Enclosure

cc: Stephen Farber, Staff Director
Montgomery County Council

Keith Levchenko, Legislative Analyst
Montgomery County Council

(50)

EXPENDITURE IMPACTS OF REVISIONS TO THE WSSC PROPOSED FYs 2012-2017 CIP
($ in thousands)

	Projects	Planning & Design Costs	Construction Costs	Other Costs	FY'12 Totals	6-Year Totals
S-22.06	Blue Plains WWTP: Liquid Train Projects, Part 2	$ (82)	$ -	$ -	$ (82)	$ 9,566
S-22.07	Blue Plains WWTP: Biosolids Management, Part 2	(3,251)	(14,761)	(180)	(18,192)	(18,654)
S-22.08	Blue Plains WWTP: Biological Nutrient Removal	(220)	(3,985)	(42)	(4,247)	2,810
S-22.09	Blue Plains WWTP: Plant-wide Projects	(272)	(1,813)	(20)	(2,105)	(1,650)
S-22.10	Blue Plains WWTP: Enhanced Nutrient Removal	5,323	(12,951)	(76)	(7,704)	9,205
S-22.11	Blue Plains: Pipelines & Appurtenances	343	230	5	578	8,867
	Net Impacts	$ 1,841	$ (33,280)	$ (313)	$ (31,752)	$ 10,144

(57)

BG 1/7/2011

BUD, FIN & ECON DEV

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060082

OFFICE OF THE COUNTY EXECUTIVE
ROCKVILLE, MARYLAND 20850

Isiah Leggett
County Executive

RECEIVED
MONTGOMERY COUNTY
COUNCIL
2011 JAN 14 PM 1:50

MEMORANDUM

January 14, 2011

TO: Valerie Ervin, President, Montgomery County Council

FROM: Isiah Leggett, County Executive

SUBJECT: Washington Suburban Sanitary Commission (WSSC)
FY12-17 Capital Improvements Program (CIP) and FY12 CIP Expenditures

I am pleased to transmit to you, in accordance with State law, my recommended FY12-17 CIP and FY12 capital expenditures for WSSC.

WSSC's Proposed FY12-17 CIP totals $1.728 billion, of which $1.328 billion is for Montgomery County and bi-county projects. The Commission is requesting $342.0 million in FY12 capital expenditures for Montgomery County and bi-county projects, up $81.6 million (31.3%) from the FY11 amount of $260.5 million approved in May, 2010. The net increase is primarily attributable to significant growth in FY12 expenditures for four of the six Blue Plains projects and for the Large Diameter Water Pipe Rehabilitation Program, the Patuxent Raw Water Pipeline, the Rocky Gorge Pump Station Upgrade, and the Potomac Water Filtration Plant Improvements as those projects move through construction. These increases were partially offset by decreased expenditures for the Trunk Sewer Reconstruction Program (due to a reduction in scope) and the Patuxent Water Filtration Plant Phase II Expansion (which is moving towards completion in FY15).

Spending Control Limits

I recommended and the Council adopted Spending Control Limits for WSSC that include a maximum average rate increase of 9.9 percent for FY12 – 1.4 percentage points higher than the 8.5 percent average increase approved for FY11. While this is less than the 10.6 percent increase that WSSC indicates is necessary to sustain a "same services" budget, it reflects the importance of striking a balance between meeting WSSC's urgent needs and limiting the pressure on customer budgets in this difficult economy.

With the 9.9 percent rate increase allowed under the Spending Control Limits adopted by the Council, WSSC would still have to make nearly $3.5 million in unspecified reductions to its same services operating budget to balance receipts and expenditures. Such cuts could affect customer services and could potentially impact capital spending. I strongly urge the Commission to ensure that the following high-priority programs are preserved when deciding on reductions:

- The inspection, repair, and acoustic monitoring (using fiber optic cable) of large diameter pre-stressed concrete cylinder pipe (PCCP), and
- The reconstruction and rehabilitation of WSSC's aging small water and sewer mains.

These initiatives, which are critical to the preservation of WSSC's aging infrastructure, must proceed and – to the extent possible – be intensified. I am encouraged by WSSC's establishment of a Bi-County Working Group and the engagement of a consultant to explore and develop a stable source of funding to ensure that WSSC can adequately maintain and renew these key elements of its infrastructure.

Blue Plains Advanced Wastewater Treatment Plant

The total six-year cost of the six Blue Plains Wastewater Treatment Plant (WWTP) projects in WSSC/s Proposed FY12-17 CIP decreased by $47.9 million (6.5 percent) vs. its FY11-16 approved CIP. After WSSC issued its proposed FY12-17 CIP, the District of Columbia Water and Sewer Authority (WASA), now doing business as DC Water, released its own Proposed FY 2010-2019 CIP, which further refined its capital investment needs. Together, the revised FY12 figures from WASA are nearly $31.8 million less than what WSSC estimated in its proposed FY12-17 CIP, while the total revised six-year cost of the Blue Plains projects is $10.1 million higher than WSSC's earlier estimate. The revised Blue Plains figures include increases in the projected six-year costs for four projects, with decreases for the other two. The increases arise largely from a number of changes in project scope, the addition of certain subprojects, and cost refinements as the projects move through planning and design.

BLUE PLAINS WWTP PROJECTS - COST COMPARISON ($000)

Projects	TOTAL 6 YR	FY12	FY13	FY14	FY15	FY16	FY17
WSSC REQUEST							
Liquid Train Projects, Part 2	22,050	9,536	4,516	4,643	1,483	877	995
Biosolids Management, Part 2	216,304	80,765	97,810	29,234	3,226	4,174	1,095
Biological Nutrient Removal	16,977	12,511	4,466	0	0	0	
Plant Wide Projects	31,685	9,836	8,515	7,934	2,325	2,350	725
Enhanced Nutrient Removal	354,438	68,784	93,359	55,936	37,010	46,540	52,809
Pipelines & Appurtenances	52,442	9,561	10,143	7,242	6,949	8,179	10,368
WSSC REQUEST TOTAL	693,896	190,993	218,809	104,989	50,993	62,120	65,992
CE RECOMMENDED							
Liquid Train Projects, Part 2	31,616	9,454	7,742	4,038	2,006	1,971	6,405
Biosolids Management, Part 2	197,650	62,573	88,830	37,326	5,668	2,861	392
Biological Nutrient Removal	19,787	8,264	9,440	1,074	650	359	0
Plant Wide Projects	30,035	7,731	10,117	5,297	3,353	1,920	1,617
Enhanced Nutrient Removal	363,643	61,080	79,145	79,813	42,818	56,664	44,123
Pipelines & Appurtenances	61,309	10,139	12,612	9,297	9,831	9,190	10,240
CE RECOMMENDED TOTAL	704,040	159,241	207,886	136,845	64,326	72,965	62,777
Increase (Decrease)	10,144	(31,752)	(10,923)	31,856	13,333	10,845	(3,215)

Under the 1985 Inter-Municipal Agreement, WSSC must pay for its share of the capital costs associated with the Blue Plains WWTP, as determined by WASA but subject to certain adjustments by WSSC. I recommend that WSSC's Blue Plains WWTP project estimates be modified to align them with the revised amounts proposed by WASA (as adjusted by WSSC). The foregoing table shows the recommended changes. The revised Blue Plains costs will result in a $31.8 million decrease in FY12 capital spending (vs. WSSC's Proposed FY12-17 CIP). This decrease will reduce the need for WSSC bonds by $8.5 million, which translates to a $613,000 decrease in FY12 debt service.

Sewer Basin Planning Program (Project No. 093804)

WSSC has determined that this project should be funded through the operating budget and has moved it to the "Information Only" section of the CIP. However, since it is a Council-approved project in Montgomery County's current CIP, the project needs to be formally closed out of WSSC's FY12-17 CIP, even though it is being transferred intact to the Information Only list. I recommend that this project be placed on the closeout list for FY12.

Debt Capacity

State law provides for the option of a tax levy by Montgomery and Prince George's counties against all assessable property in the Washington Suburban Sanitary District to pay for the principal and interest on WSSC bonds. This provision, which would be exercised only if requested by WSSC, does not constitute a pledge of the full faith and credit of the two counties. However, WSSC bonds are part of the County's overlapping debt. As of June 30, 2010, WSSC debt represented 46.4% percent of Montgomery County's gross overlapping debt. The amount of debt issued by WSSC is therefore a factor in rating agency assessments of the credit worthiness of Montgomery County.

WSSC's financial forecast assuming implementation of its Proposed FY12-17 CIP and the Spending Control Limits adopted by the Montgomery County Council indicates that debt service will increase by nearly 94% percent between FY11 and FY17 and will begin to exceed 40% of operating expenditures in FY15. WASA's updated Blue Plains expenditure estimates will add about $175 million to the debt required by WSSC's Proposed FY12-17 CIP. On the other hand, one of the reasons for implementing the Systems Development Charge in FY94 was to keep the debt service ratio under 40%. As the Commission and the Bi-County Working Group explore ways to fund the reconstruction and rehabilitation of WSSC's aging infrastructure and its other capital needs, they need to pay close attention to the impacts of those options on WSSC's debt capacity and debt service requirements to ensure that they are not adversely affected.

Information Only Projects

While "Information Only" projects – which include the small water and sewer reconstruction programs – are subject to review and approval as part of WSSC's annual Operating and Capital Budget, they do not meet the criteria given in Division II of the Public Utilities Article of the Annotated Code of Maryland for inclusion in WSSC's CIP. WSSC shows such projects and their expenditures separately in its capital budget document to provide additional information on and context for its capital program. They are not included in the six-year CIP.

WSSC is proposing to increase small water main reconstruction by 5 miles (14%) in FY12, for a total of 41 miles. At the same time, budgeted sewer reconstruction will fall by 20 miles (48%) from 42 to 22 miles, with a corresponding reduction in the lining of lateral sewer lines (see the following table). FY12 funding for the reconstruction of small water mains will increase by 2.1%, while expenditures for rehabilitating and reconstructing small sewers will fall by 28.6%.

WATER AND SEWER RECONSTRUCTION/REHABILITATION: FY12-17 Proposed vs. FY11-16 Approved

	FY11-16 Approved			FY12-17 Proposed					
				FY12		6-Year		Total	
	FY11	6-Year	Total	Amount	% Change	Amount	% Change	Amount	% Change
Reconstruction Program									
Water Main Replacement ($000)	64,485	562,345	616,525	65,860	2.1%	538,325	-4.3%	594,421	-3.6%
Sewer Reconstruction ($000)	69,445	353,665	410,522	49,560	-28.6%	410,119	16.0%	475,292	15.8%
Water Main Replacement (miles)	36	291	–	41	13.9%	321	10.3%	–	–
Sewer Reconstruction (miles)									
Sewer Main Reconstruction	42	197	–	22	-47.6%	207	5.1%	–	–
Lateral Sewer Lining	14	64	–	5	-64.3%	30	-53.1%	–	–

The reductions shown in the Sewer Reconstruction Program reflect WSSC's efforts to address the problems that have been encountered in the reconstruction effort and to be more realistic in projecting the miles of sewer reconstructed and the costs involved. The Commission is now using updated cost factors based on recent experience, taking into account the limited number of contractors available to do this very specialized work as well as the increased cost and complexity of lining lateral sewers, while incorporating better estimates of the time required to complete the work. The Commission anticipates that, despite the expected FY12 reductions in sewer reconstruction, it will be successful in resolving the problems that have hampered this program, and that it will ultimately be able to reconstruct 207 miles of sewers over the FY12-17 period, a 5% increase over the FY11-16 approved level.

As always, Executive Branch staff are available to assist you in your deliberations. I look forward to discussing with you any policy matters or major resource allocation issues that arise this spring.

IL:jmg

c: Timothy L. Firestine, Chief Administrative Officer
Jerry N. Johnson, General Manager/CEO, Washington Suburban Sanitary Commission
Stephen Farber, Staff Director, Montgomery County Council
Dave Lake, Department of Environmental Protection

Attachments: Executive Recommendation – Blue Plains WWTP: Plant Wide Projects
Executive Recommendation – Blue Plains WWTP: Biological Nutrient Removal
Executive Recommendation – Blue Plains WWTP: Biosolids Mgmt Pt. 2
Executive Recommendation – Blue Plains WWTP: Liquid Train Pt. 2
Executive Recommendation – Blue Plains WWTP: Enhanced Nutrient Removal
Executive Recommendation – Blue Plains WWTP: Pipelines and Appurtenances
Executive Recommendation – Sewer Basin Planning Program
FY12-17 Executive Recommended CIP: Category Summary
Agency Request Compared to Executive Recommended

EXECUTIVE RECOMMENDATION

Blue Plains WWTP:Plant Wide Projects - No. 023805

Category: WSSC
Agency: W.S.S.C.
Planning Area: Bi-County
Relocation Impact: None

Date Last Modified: December 16, 2010
Required Adequate Public Facility: No

EXPENDITURE SCHEDULE ($000)

Cost Element	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years
Planning, Design and Supervision	47,252	40,874	1,192	4,186	1,134	868	398	387	450	949	1,000
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	149,634	104,613	9,776	25,552	6,520	9,149	4,847	2,933	1,451	652	9,693
Other	1,883	1,369	110	297	77	100	52	33	19	16	107
Total	**198,769**	**146,856**	**11,078**	**30,035**	**7,731**	**10,117**	**5,297**	**3,353**	**1,920**	**1,617**	**10,800**

FUNDING SCHEDULE ($000)

Municipal (WSSC only)	10,910	8,061	608	1,648	424	555	291	184	105	89	593
State Aid	0	0	0	0	0	0	0	0	0	0	0
System Development Charge	0	0	0	0	0	0	0	0	0	0	0
WSSC Bonds	187,859	138,795	10,470	28,387	7,307	9,562	5,006	3,169	1,815	1,528	10,207

COMPARISON ($000)

	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years	Approp. Request
Current Approved	182,858	141,172	9,784	28,595	7,884	6,376	8,078	5,307	950	0	3,307	0
Agency Request	194,826	146,856	13,624	31,685	9,836	8,515	7,934	2,325	2,350	725	2,661	9,836
Recommended	198,769	146,856	11,078	30,035	7,731	10,117	5,297	3,353	1,920	1,617	10,800	7,731

CHANGE	TOTAL	%	6-YEAR	%	APPROP.	
Agency Request vs Approved	11,968	6.5%	3,090	10.8%	9,836	0.0%
Recommended vs Approved	15,911	8.7%	1,440	5.0%	7,731	0.0%
Recommended vs Request	3,943	2.0%	(1,650)	(5.2%)	(2,105)	(21.4%)

Recommendation

APPROVE WITH MODIFICATIONS.

Comments

This project includes funding for WSSC's share of the Blue Plains Advanced Wastewater Treatment Plant "Plant Wide Projects" capital project.

WSSC's request was based on cost estimates prepared in the early fall using available information from the District of Columbia Water and Sewer Authority (WASA, now doing business as DC Water). WASA subsequently provided updated figures based on its Proposed 2010 - 2019 Capital Improvement Plan. The Executive recommends changes in the project estimates to align them with the amounts proposed by WASA in its FY2010 - 2019 CIP.

The FY12 appropriation request for this project is $7,731,000.

A. Identification and Coding Information

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

2. Date: October 1, 2010
Revised:

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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	47,872	40,874	2,060	4,474	1,406	754	913	488	465	448	464
Land											
Site Improvements & Utilities											
Construction	145,111	104,613	11,429	26,898	8,333	7,677	6,942	1,814	1,862	270	2,171
Other	1,843	1,369	135	313	97	84	79	23	23	7	26
Total	194,826	146,856	13,624	31,685	9,836	8,515	7,934	2,325	2,350	725	2,661

C. Funding Schedule (000's)

WSSC Bonds	184,131	138,795	12,876	29,945	9,296	8,048	7,498	2,197	2,221	685	2,515
City of Rockville	10,695	8,061	748	1,740	540	467	436	128	129	40	146

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 Approved FY 2009 - FY 2018 Capital Improvement Program (February, 2010).

Specific Data

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

Cost Change

The cost increase is primarily due to revised estimates for Process Computer Control System and Additional Chemical System projects.

STATUS Not Applicable

OTHER

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

COORDINATION

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

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff		....
	Other		....
Facility Costs	Maintenance		....
	Debt Service	15951	....
Total Costs		15951	....
Impact on Water or Sewer Rate		34¢	....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 95
Date First Approved	FY 02
Initial Cost Estimate	84,650
Cost Estimate Last FY	179,915
Present Cost Estimate	194,826
Approved Request, Last FY	9,784
Total Expenditures & Encumbrances	146,856
Approval Request FY 12	9,836
Supplemental Approval Request Current FY (11)	

G. Status Information

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

H. Map Map Reference Code:

MAP NOT AVAILABLE

EXECUTIVE RECOMMENDATION

Blue Plains WWTP: Biological Nutrient Removal - No. 973817

Category: WSSC
Agency: W.S.S.C.
Planning Area: Countywide
Relocation Impact: None

Date Last Modified: December 16, 2010
Required Adequate Public Facility: No

EXPENDITURE SCHEDULE ($000)

Cost Element	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years
Planning, Design and Supervision	18,470	14,223	1,758	2,489	1,279	1,128	82	0	0	0	0
Construction	64,994	45,678	2,214	17,102	6,903	8,219	981	644	355	0	0
Other	801	565	40	196	82	93	11	6	4	0	0
Total	**84,265**	**60,466**	**4,012**	**19,787**	**8,264**	**9,440**	**1,074**	**650**	**359**	**0**	**0**
FUNDING SCHEDULE ($000)											
Municipal (WSSC only)	2,313	1,660	110	543	227	259	29	18	10	0	0
State Aid	42,133	30,233	2,006	9,894	4,132	4,720	537	325	180	0	0
WSSC Bonds	39,819	28,573	1,896	9,350	3,905	4,461	508	307	169	0	0

COMPARISON ($000)

	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years	Approp. Request
Current Approved	80,261	56,314	7,506	16,441	12,001	4,440	0	0	0	0	0	0
Agency Request	83,628	60,466	6,185	16,977	12,511	4,466	0	0	0	0	0	12,511
Recommended	84,265	60,466	4,012	19,787	8,264	9,440	1,074	650	359	0	0	8,264

CHANGE	TOTAL	%	6-YEAR	%	APPROP.	
Agency Request vs Approved	3,367	4.2%	536	3.3%	12,511	0.0%
Recommended vs Approved	4,004	5.0%	3,346	20.4%	8,264	0.0%
Recommended vs Request	637	0.8%	2,810	16.6%	(4,247)	(33.9%)

Recommendation

APPROVE WITH MODIFICATIONS.

Comments

This project includes funding for WSSC's share of the Blue Plains Advanced Wastewater Treatment Plant "Biological Nutrient Removal" capital project.

WSSC's request was based on cost estimates prepared in the early fall using available information from the District of Columbia Water and Sewer Authority (WASA, now doing business as DC Water). WASA subsequently provided updated figures based on its Proposed 2010 - 2019 Capital Improvement Plan. The Executive recommends changes in the project estimates to align them with the amounts proposed by WASA in its FY2010 - 2019 CIP.

The FY12 appropriation request for this project is $8,264,000.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
973817	S-22.08	Change

2. Date: October 1, 2010
Revised:

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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	18,168	14,223	1,724	2,221	1,499	722					
Land											
Site Improvements & Utilities											
Construction	64,666	45,678	4,400	14,588	10,888	3,700					
Other	794	565	61	168	124	44					
Total	83,628	60,466	6,185	16,977	12,511	4,466					

C. Funding Schedule (000's)

WSSC Bonds	39,517	28,573	2,922	8,022	5,912	2,110					
State Aid	41,815	30,233	3,093	8,489	6,256	2,233					
City of Rockville	2,296	1,660	170	466	343	123					

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 Approved FY 2009 - FY 2018 Capital Improvement Program (February, 2010).

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 increase is due to revised estimates from DCWASA.

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

City of Rockville (responsible for a share of funding), 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	3429	 14
Total Costs		3429	 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	12,189
Cost Estimate Last FY	81,051
Present Cost Estimate	83,628
Approved Request, Last FY	7,506
Total Expenditures & Encumbrances	60,466
Approval Request FY 12	12,511
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status: Not applicable
% Project Completion: C-90%
Est. Completion Date: FY 2013

H. Map Map Reference Code:

MAP NOT AVAILABLE

EXECUTIVE RECOMMENDATION

Blue Plains WWTP: Biosolids Mgmt PT2 - No. 954812

Category: **WSSC**
Agency: **W.S.S.C.**
Planning Area: **Countywide**
Relocation Impact: **None**

Date Last Modified: **December 16, 2010**
Required Adequate Public Facility: **No**

EXPENDITURE SCHEDULE ($000)

Cost Element	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years
Planning, Design and Supervision	75,551	46,408	11,080	18,010	7,032	5,549	4,260	622	312	235	53
Construction	261,541	68,729	15,121	177,682	54,921	82,401	32,696	4,990	2,521	153	9
Other	3,328	1,107	262	1,958	620	880	370	56	28	4	1
Total	**340,420**	**116,244**	**26,463**	**197,650**	**62,573**	**88,830**	**37,326**	**5,668**	**2,861**	**392**	**63**

FUNDING SCHEDULE ($000)

Municipal (WSSC only)	18,687	6,381	1,453	10,850	3,435	4,876	2,049	311	157	22	3
System Development Charge	0	0	0	0	0	0	0	0	0	0	0
WSSC Bonds	321,733	109,863	25,010	186,800	59,138	83,954	35,277	5,357	2,704	370	60

COMPARISON ($000)

	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years	Approp. Request
Current Approved	362,743	114,251	38,980	206,769	103,141	60,170	34,920	2,912	5,626	0	2,743	0
Agency Request	362,183	116,244	29,531	216,304	80,765	97,810	29,234	3,226	4,174	1,095	104	80,765
Recommended	340,420	116,244	26,463	197,650	62,573	88,830	37,326	5,668	2,861	392	63	62,573

CHANGE	TOTAL	%	6-YEAR	%	APPROP.	
Agency Request vs Approved	(560)	(0.2%)	9,535	4.6%	80,765	0.0%
Recommended vs Approved	(22,323)	(6.2%)	(9,119)	(4.4%)	62,573	0.0%
Recommended vs Request	(21,763)	(6.0%)	(18,654)	(8.6%)	(18,192)	(22.5%)

Recommendation

APPROVE WITH MODIFICATIONS.

Comments

This project includes funding for WSSC's share of the Blue Plains Advanced Wastewater Treatment Plant "Biosolids Management Part 2" capital project.

WSSC's request was based on cost estimates prepared in the early fall using available information from the District of Columbia Water and Sewer Authority (WASA, now doing business as DC Water). WASA subsequently provided updated figures based on its Proposed 2010 - 2019 Capital Improvement Plan. The Executive recommends changes in the project estimates to align them with the amounts proposed by WASA in its FY2010 - 2019 CIP.

The FY12 appropriation request for this project is $62,573,000.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
954812	S-22.07	Change

2. Date: October 1, 2010
Revised:

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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	82,082	46,408	7,434	28,149	10,283	11,139	5,600	352	482	293	91
Land											
Site Improvements & Utilities											
Construction	276,560	68,729	21,805	186,014	69,682	85,703	23,345	2,842	3,651	791	12
Other	3,541	1,107	292	2,141	800	968	289	32	41	11	1
Total	362,183	116,244	29,531	216,304	80,765	97,810	29,234	3,226	4,174	1,095	104

C. Funding Schedule (000's)

WSSC Bonds	342,301	109,863	27,910	204,430	76,331	92,441	27,629	3,049	3,945	1,035	98
City of Rockville	19,882	6,381	1,621	11,874	4,434	5,369	1,605	177	229	60	6

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC's share of the Blue Plains biosolids handling projects for which construction began after June 30, 1993. Major projects include: new digestion facilities; gravity 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 Approved FY 2009 - FY 2018 Capital Improvement Program (February, 2010).

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

Not Applicable.

STATUS Not Applicable

OTHER

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

COORDINATION

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

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff		....
	Other		....
Facility Costs	Maintenance		....
	Debt Service	29772	....
Total Costs		29772	....
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	77,296
Cost Estimate Last FY	360,331
Present Cost Estimate	362,183
Approved Request, Last FY	38,980
Total Expenditures & Encumbrances	116,244
Approval Request FY 12	80,765
Supplemental Approval Request Current FY (11)	

G. Status Information

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

H. Map Map Reference Code:

MAP NOT AVAILABLE

EXECUTIVE RECOMMENDATION

Blue Plains WWTP: Liquid Train PT 2 - No. 954811

Category: **WSSC**
Agency: **W.S.S.C.**
Planning Area: **Countywide**
Relocation Impact: **None**

Date Last Modified: **December 16, 2010**
Required Adequate Public Facility: **No**

EXPENDITURE SCHEDULE ($000)

Cost Element	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years
Planning, Design and Supervision	50,592	39,269	1,500	8,429	2,135	1,267	1,401	1,185	1,029	1,412	1,394
Construction	207,724	177,450	2,067	22,873	7,225	6,398	2,597	801	922	4,930	5,334
Other	2,538	2,121	36	314	94	77	40	20	20	63	67
Total	**260,854**	**218,840**	**3,603**	**31,616**	**9,454**	**7,742**	**4,038**	**2,006**	**1,971**	**6,405**	**6,795**

FUNDING SCHEDULE ($000)

Municipal (WSSC only)	14,320	12,013	198	1,736	519	425	222	110	108	352	373
System Development Charge	0	0	0	0	0	0	0	0	0	0	0
WSSC Bonds	246,534	206,827	3,405	29,880	8,935	7,317	3,816	1,896	1,863	6,053	6,422

COMPARISON ($000)

	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years	Approp. Request
Current Approved	237,277	211,102	2,834	18,620	5,806	6,356	1,636	1,635	3,187	0	4,721	0
Agency Request	245,643	218,840	4,178	22,050	9,536	4,516	4,643	1,483	877	995	575	9,536
Recommended	260,854	218,840	3,603	31,616	9,454	7,742	4,038	2,006	1,971	6,405	6,795	9,454

CHANGE	TOTAL	%	6-YEAR	%	APPROP.	
Agency Request vs Approved	8,366	3.5%	3,430	18.4%	9,536	0.0%
Recommended vs Approved	23,577	9.9%	12,996	69.8%	9,454	0.0%
Recommended vs Request	15,211	6.2%	9,566	43.4%	(82)	(0.9%)

Recommendation

APPROVE WITH MODIFICATIONS.

Comments

This project includes funding for WSSC's share of the Blue Plains Advanced Wastewater Treatment Plant "Liquid Train Part 2" capital project.

WSSC's request was based on cost estimates prepared in the early fall using available information from the District of Columbia Water and Sewer Authority (WASA, now doing business as DC Water). WASA subsequently provided updated figures based on its Proposed 2010 - 2019 Capital Improvement Plan. The Executive recommends changes in the project estimates to align them with the amounts proposed by WASA in its FY2010 - 2019 CIP.

The FY12 appropriation request for this project is $9,454,000.

A. Identification and Coding Information

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

2. Date: October 1, 2010
Revised:

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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	48,015	39,269	1,538	6,768	2,217	1,270	791	644	861	985	440
Land											
Site Improvements & Utilities											
Construction	195,241	177,450	2,599	15,063	7,225	3,201	3,806	824	7		129
Other	2,387	2,121	41	219	94	45	46	15	9	10	6
Total	245,643	218,840	4,178	22,050	9,536	4,516	4,643	1,483	877	995	575

C. Funding Schedule (000's)

WSSC Bonds	232,159	206,827	3,949	20,840	9,013	4,268	4,388	1,402	829	940	543
City of Rockville	13,484	12,013	229	1,210	523	248	255	81	48	55	32

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 Approved FY 2009 - FY 2018 Capital Improvement Program (February, 2010).

Specific Data

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

Cost Change

Not Applicable.

STATUS Not Applicable

OTHER

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

COORDINATION

City of Rockville (responsible for a share of funding), District of Columbia Water & Sewer Authority (responsible for design and construction) and WSSC Projects S-22.08, Blue Plains WWTP: Biological Nutrient Removal and S-22.10, Blue Plains 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	20079	....
Total Costs		20079	....
Impact on Water or Sewer Rate		43¢	....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 95
Date First Approved	FY 95
Initial Cost Estimate	69,745
Cost Estimate Last FY	240,383
Present Cost Estimate	245,643
Approved Request, Last FY	2,834
Total Expenditures & Encumbrances	218,840
Approval Request FY 12	9,536
Supplemental Approval Request Current FY (11)	

G. Status Information

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

H. Map **Map Reference Code:**

MAP NOT AVAILABLE

EXECUTIVE RECOMMENDATION

Blue Plains WWTP: Enhanced Nutrient Removal - No. 083800

Category: WSSC
Agency: W.S.S.C.
Planning Area: Bi-County
Relocation Impact: None

Date Last Modified: December 20, 2010
Required Adequate Public Facility: No

EXPENDITURE SCHEDULE ($000)

Cost Element	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years
Planning, Design and Supervision	79,592	11,850	12,490	51,983	14,749	13,891	11,223	5,466	3,434	3,220	3,269
Construction	322,155	985	11,210	308,059	45,726	64,470	67,800	36,928	52,669	40,466	1,901
Other	4,014	124	237	3,601	605	784	790	424	561	437	52
Total	**405,761**	**12,959**	**23,937**	**363,643**	**61,080**	**79,145**	**79,813**	**42,818**	**56,664**	**44,123**	**5,222**

FUNDING SCHEDULE ($000)

Municipal (WSSC only)	10,840	0	401	10,185	708	1,580	1,705	1,182	2,840	2,170	254
State Aid	208,306	12,959	16,642	178,122	48,170	50,362	48,738	21,304	4,939	4,609	583
WSSC Bonds	186,615	0	6,894	175,336	12,202	27,203	29,370	20,332	48,885	37,344	4,385

COMPARISON ($000)

	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years	Approp. Request
Current Approved	435,607	15,419	34,982	314,101	80,548	95,285	46,569	40,274	51,425	0	71,105	0
Agency Request	426,778	12,959	36,093	354,438	68,784	93,359	55,936	37,010	46,540	52,809	23,288	68,784
Recommended	405,761	12,959	23,937	363,643	61,080	79,145	79,813	42,818	56,664	44,123	5,222	61,080

CHANGE	TOTAL	%	6-YEAR	%	APPROP.	
Agency Request vs Approved	(8,829)	(2.0%)	40,337	12.8%	68,784	0.0%
Recommended vs Approved	(29,846)	(6.9%)	49,542	15.8%	61,080	0.0%
Recommended vs Request	(21,017)	(4.9%)	9,205	2.6%	(7,704)	(11.2%)

Recommendation

APPROVE WITH MODIFICATIONS.

Comments

This project includes funding for WSSC's share of the Blue Plains Advanced Wastewater Treatment Plant "Enhanced Nutrient Removal" capital project.

WSSC's request was based on cost estimates prepared in the early fall using available information from the District of Columbia Water and Sewer Authority (WASA, now doing business as DC Water). WASA subsequently provided updated figures based on its Proposed 2010 - 2019 Capital Improvement Plan. The Executive recommends changes in the project estimates to align them with the amounts proposed by WASA in its FY2010 - 2019 CIP.

The FY12 appropriation request for this project is $61,080,000. Beginning in FY11, funding for this project reflects the March 18, 2010 agreement between WSSC and the State of Maryland that WSSC will cover 46% of the overall project's eligible costs and the City of Rockville will cover 2.7%, with the remaining 51.3% to be covered by the State. (The State's share varies year to year due to the differing funding percentages assigned to different subprojects.)

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
083800	S-22.10	Change

2. Date: October 1, 2010
Revised:

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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	67,007	11,850	7,318	44,948	9,426	12,673	9,218	6,601	3,819	3,211	2,891
Land											
Site Improvements & Utilities											
Construction	355,550	985	28,418	305,981	58,677	79,762	46,164	30,043	42,260	49,075	20,166
Other	4,221	124	357	3,509	681	924	554	366	461	523	231
Total	426,778	12,959	36,093	354,438	68,784	93,359	55,936	37,010	46,540	52,809	23,288

C. Funding Schedule (000's)

State Aid	426,778	12,959	36,093	354,438	68,784	93,359	55,936	37,010	46,540	52,809	23,288

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 Approved FY 2009 - FY 2018 Capital Improvement Program (February, 2010).

Specific Data

It is anticipated that the costs for this program will be covered by the Bay Restoration Fund.

Cost Change

The cost decrease is due to revised estimates from DCWASA.

STATUS Under Construction (WSSC Contract Nos. CB4168L05 , CB4168Q05).

OTHER

The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect DCWASA's current expenditure estimates and schedules.

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	648
Cost Estimate Last FY	432,673
Present Cost Estimate	426,778
Approved Request, Last FY	34,982
Total Expenditures & Encumbrances	12,959
Approval Request FY 12	68,784
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	Not Applicable
% Project Completion:	C-8%
Est. Completion Date:	FY 2019

H. Map Map Reference Code:

MAP NOT AVAILABLE

EXECUTIVE RECOMMENDATION

Blue Plains: Pipelines and Appurtenances - No. 113804

Category: WSSC
Agency: W.S.S.C.
Planning Area: Bi-County
Relocation Impact: None

Date Last Modified: December 16, 2010
Required Adequate Public Facility: No

EXPENDITURE SCHEDULE ($000)

Cost Element	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years
Planning, Design and Supervision	23,179	3,405	3,442	12,242	2,787	1,428	1,222	1,923	2,207	2,675	4,090
Construction	71,741	13,101	5,055	48,461	7,252	11,059	7,983	7,811	6,892	7,464	5,124
Other	948	165	85	606	100	125	92	97	91	101	92
Total	95,868	16,671	8,582	61,309	10,139	12,612	9,297	9,831	9,190	10,240	9,306

FUNDING SCHEDULE ($000)

Contributions	0	0	0	0	0	0	0	0	0	0	0
Municipal (WSSC only)	5,262	915	471	3,365	557	692	510	540	504	562	511
WSSC Bonds	90,606	15,756	8,111	57,944	9,582	11,920	8,787	9,291	8,686	9,678	8,795

COMPARISON ($000)

	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years	Approp. Request
Current Approved	102,833	26,049	9,331	53,877	6,282	17,408	14,148	8,411	7,628	0	13,576	0
Agency Request	90,998	16,671	16,371	52,442	9,561	10,143	7,242	6,949	8,179	10,368	5,514	9,561
Recommended	95,868	16,671	8,582	61,309	10,139	12,612	9,297	9,831	9,190	10,240	9,306	10,139

CHANGE	TOTAL	%	6-YEAR	%	APPROP.	
Agency Request vs Approved	(11,835)	(11.5%)	(1,435)	(2.7%)	9,561	0.0%
Recommended vs Approved	(6,965)	(6.8%)	7,432	13.8%	10,139	0.0%
Recommended vs Request	4,870	5.4%	8,867	16.9%	578	6.0%

Recommendation

APPROVE WITH MODIFICATIONS.

Comments

This project includes funding for WSSC's share of the Blue Plains Advanced Wastewater Treatment Plant "Pipelines and Appurtenances" capital project.

WSSC's request was based on cost estimates prepared in the early fall using available information from the District of Columbia Water and Sewer Authority (WASA, now doing business as DC Water). WASA subsequently provided updated figures based on its Proposed 2010 - 2019 Capital Improvement Plan. The Executive recommends changes in the project estimates to align them with the amounts proposed by WASA in its FY2010 - 2019 CIP.

The FY12 appropriation request for this project is $10,139,000.

A. Identification and Coding Information

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

2. Date: October 1, 2010
Revised:

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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	19,083	3,405	3,585	10,445	2,444	1,893	1,280	1,503	1,336	1,989	1,648
Land											
Site Improvements & Utilities											
Construction	71,013	13,101	12,624	41,477	7,022	8,150	5,890	5,377	6,762	8,276	3,811
Other	902	165	162	520	95	100	72	69	81	103	55
Total	90,998	16,671	16,371	52,442	9,561	10,143	7,242	6,949	8,179	10,368	5,514

C. Funding Schedule (000's)

WSSC Bonds	86,002	15,756	15,472	49,563	9,036	9,586	6,844	6,568	7,730	9,799	5,211
City of Rockville	4,996	915	899	2,879	525	557	398	381	449	569	303

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 Approved FY 2009 - FY 2018 Capital Improvement Program (February, 2010).

Specific Data

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

Cost Change

The cost decrease is due to revised estimates from DCWASA.

STATUS Not Applicable

OTHER

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

COORDINATION

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

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

E. Annual Operating Budget Impact (000's)

			FY of Impact
Program Costs	Staff		....
	Other		....
Facility Costs	Maintenance		....
	Debt Service	7499	....
Total Costs		7499	....
Impact on Water or Sewer Rate		15¢	....

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 11
Date First Approved	FY 02
Initial Cost Estimate	102,833
Cost Estimate Last FY	102,833
Present Cost Estimate	90,998
Approved Request, Last FY	9,331
Total Expenditures & Encumbrances	16,671
Approval Request FY 12	9,561
Supplemental Approval Request Current FY (11)	

G. Status Information

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

H. Map Map Reference Code:

MAP NOT AVAILABLE

EXECUTIVE RECOMMENDATION

Sewer Basin Planning Program - No. 093804

Category: **WSSC**
Agency: **W.S.S.C.**
Planning Area: **Bi-County**
Relocation Impact: **None**

Date Last Modified: **December 28, 2010**
Required Adequate Public Facility: **No**

EXPENDITURE SCHEDULE ($000)

Cost Element	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years
Planning, Design and Supervision	0	0	0	0	0	0	0	0	0	0	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

FUNDING SCHEDULE ($000)

System Development Charge	0	0	0	0	0	0	0	0	0	0	0

COMPARISON ($000)

	Total	Thru FY10	Est. FY11	6 Year Total	FY12	FY13	FY14	FY15	FY16	FY17	Beyond 6 Years	Approp. Request
Current Approved	4,832	1,172	1,220	2,440	1,220	1,220	0	0	0	0	0	0
Agency Request	0	0	0	0	0	0	0	0	0	0	0	0
Recommended	0	0	0	0	0	0	0	0	0	0	0	0

CHANGE	TOTAL	%	6-YEAR	%	APPROP.	
Agency Request vs Approved	(4,832)	(100.0%)	(2,440)	(100.0%)	0	0.0%
Recommended vs Approved	(4,832)	(100.0%)	(2,440)	(100.0%)	0	0.0%
Recommended vs Request	0	0.0%	0	0.0%	0	0.0%

Recommendation

MOVE TO CLOSEOUT LIST

Comments

WSSC has determined that this project should be funded through the operating budget and has moved it out of the CIP into the "Information Only" category. As a result, there is no longer a PDF for this project with the other bi-county sewer projects. The PDF that follows is taken from the "Information Only" section of WSSC's Proposed FY12-17 CIP.

Since this is an approved project in Montgomery County's current CIP; the project needs to be formally closed out of WSSC's FY12-17 CIP, even though it is being transferred intact to the "Information Only" list.

The FY12 appropriation request for this project is $0.

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
093804	S-170.06	Change

2. Date: October 1, 2010
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 '10	(10) Estimate FY '11	(11) Total 6 Years	(12) Year 1 FY '12	(13) Year 2 FY '13	(14) Year 3 FY '14	(15) Year 4 FY '15	(16) Year 5 FY '16	(17) Year 6 FY '17	(18) Beyond 6 Years
Planning, Design & Supervision	3,958	775	1,061	2,122	1,061	1,061					
Land											
Site Improvements & Utilities											
Construction											
Other	477		159	318	159	159					
Total	4,435	775	1,220	2,440	1,220	1,220					

C. Funding Schedule (000's)

Sewer Operating Funds	4,435	775	1,220	2,440	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 that may be required based on modeling results. 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.

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 and subsequently put on hold pending re-evaluation of all sewer basins. In FY 2010, all basins were re-evaluated and remodeled using the WSSC's new design storms and a reduced sewer network. These results will be used to develop a work plan for FY 2011 and beyond. In previous CIP documents this project appeared in the Bi-County Sewer section. Since it was determined that this project is properly funded through the operating budget, the project has been moved back to the Information Only section of the CIP.

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.

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	4,832
Present Cost Estimate	4,435
Approved Request, Last FY	1,220
Total Expenditures & Encumbrances	775
Approval Request FY 12	1,220
Supplemental Approval Request Current FY (11)	

G. Status Information

Land Status:	Not Applicable
% Project Completion:	P-30%
Est. Completion Date:	FY 2013

H. Map **Map Reference Code:**

MAP NOT APPLICABLE

FY12-17 EXECUTIVE RECOMMENDED CIP
CATEGORY SUMMARY: WSSC

FY12 New Projects

Project #	Project Name	Total Expenditure ($000s)
Sewerage Montgomery County		
123800	Montgomery College Germantown Campus Sewer	750

Capital Budget Appropriation Requirements

Project #	Project Name ($000s)	FY12 Approp.
Sewerage Bi-County		
093802	Anacostia No. 2 Screenings Handling Facilities	1,432
083807	Anacostia Storage Facility	9,730
973817	Blue Plains WWTP: Biological Nutrient Removal	8,264
954812	Blue Plains WWTP: Biosolids Mgmt PT2	62,573
083800	Blue Plains WWTP: Enhanced Nutrient Removal	61,080
954811	Blue Plains WWTP: Liquid Train PT 2	9,454
023805	Blue Plains WWTP:Plant Wide Projects	7,731
113804	Blue Plains: Pipelines and Appurtenances	10,139
103802	Septage Discharge Facility Planning & Implement.	440
113805	Trunk Sewer Reconstruction Program	19,886
Sewerage Montgomery County		
023807	Cabin Branch WWPS	29
023808	Cabin Branch WWPS Force Main	130
023811	Clarksburg Triangle Outfall Sewer, Part 2	1,254
063802	Damascus Centre WWPS Replacement	28
073801	Damascus WWTP Enhanced Nutrient Removal	3,815
983854	Land & Rights-of-Way Acquisition-Mont County (S)	12
123800	Montgomery College Germantown Campus Sewer	612
103800	Preserve at Rock Creek Wastewater Pumping Station	477
103801	Preserve at Rock Creek WWPS Force Main	167
113801	Reddy Branch WWPS Augmentation	86
073800	Seneca WWTP Enhanced Nutrient Removal	4,026
083802	Seneca WWTP Expansion, Part 2	11,695
083803	Tapestry Wastewater Pumping Station	164
083804	Tapestry WWPS Force Main	46
083801	Twinbrook Commons Sewer	117
063803	White Flint East (No. Bethesda Center) Sewer Main	261
Water Bi-County		
934855	Bi-County Water Tunnel	41,492

FY12-17 EXECUTIVE RECOMMENDED CIP
CATEGORY SUMMARY: WSSC

Project #	Project Name ($000s)	FY12 Approp.
073802	Duckett and Brighton Dam Upgrades	10,051
113803	Large Diameter Water Pipe Rehabilitation Program	12,276
063804	Patuxent Raw Water Pipeline	4,854
033807	Patuxent WFP Phase II Expansion	969
033811	Potomac WFP Improvements	5,938
113802	Potomac WFP Outdoor Substation No. 2 Replacement	920
113806	Potomac WFP Stage 2 Disinfection Byproducts Rule I	4,217
033812	Potomac WFP Submerged Channel Intake	1,100
033805	Power Reliability and Arc Flash Studies	2,300
063805	Rocky Gorge Pump Station Upgrade	4,100
Water Montgomery County		
113800	Clarksburg Area Stage 3 Water Main, Part 4	1,145
973818	Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3	2,011
973819	Clarksburg Elevated Water Storage Facility	18
093800	Countryside Drive Water Loop	19
023800	Laytonsville Elevated Tank and Pumping Station	1,840
013802	Newcut Road Water Main, Part 2	243
063801	Olney Standpipe Replacement	2,827
093801	Shady Grove Standpipe Replacement	320

RECOMMENDED CLOSEOUT PROJECTS

The following capital projects are closed out effective July 1, 2011, and the appropriation for each project is decreased by the amount of that project's unencumbered balance.

Project #	Project Name
Sewerage Bi-County	
093804	Sewer Basin Planning Program
Sewerage Montgomery County	
973820	Rock Creek Wastewater Facilities
Water Montgomery County	
964860	Clarksburg Town Center Water Main

FY12-17 EXECUTIVE RECOMMENDED CIP
Agency Request Compared to Executive Recommended
WSSC

Project	Project Name	Agency Request	Executive Recommended
093802	Anacostia No. 2 Screenings Handling Facilities	1,432	1,432
083807	Anacostia Storage Facility	23,794	23,794
934855	Bi-County Water Tunnel	79,143	79,143
973817	Blue Plains WWTP: Biological Nutrient Removal	16,977	19,787
954812	Blue Plains WWTP: Biosolids Mgmt PT2	216,304	197,650
083800	Blue Plains WWTP: Enhanced Nutrient Removal	354,438	363,643
954811	Blue Plains WWTP: Liquid Train PT 2	22,050	31,616
023805	Blue Plains WWTP:Plant Wide Projects	31,685	30,035
113804	Blue Plains: Pipelines and Appurtenances	52,442	61,309
023807	Cabin Branch WWPS	2,121	2,121
023808	Cabin Branch WWPS Force Main	371	371
113800	Clarksburg Area Stage 3 Water Main, Part 4	1,404	1,404
973818	Clarksburg Area Stage 3 Water Main, Parts 1, 2 & 3	2,249	2,249
973819	Clarksburg Elevated Water Storage Facility	4,051	4,051
023811	Clarksburg Triangle Outfall Sewer, Part 2	1,409	1,409
093800	Countryside Drive Water Loop	19	19
063802	Damascus Centre WWPS Replacement	1,222	1,222
073801	Damascus WWTP Enhanced Nutrient Removal	4,160	4,160
073802	Duckett and Brighton Dam Upgrades	15,076	15,076
983857	Land & Rights-of-Way Acquisition - Bi-County	55	55
983854	Land & Rights-of-Way Acquisition-Mont County (S)	24	24
983849	Land & Rights-of-Way Acquisition-Mont County (W)	115	115
113803	Large Diameter Water Pipe Rehabilitation Program	113,630	113,630
023800	Laytonsville Elevated Tank and Pumping Station	2,036	2,036
123800	Montgomery College Germantown Campus Sewer	750	750
013802	Newcut Road Water Main, Part 2	654	654
063801	Olney Standpipe Replacement	5,089	5,089
063804	Patuxent Raw Water Pipeline	10,790	10,790
033807	Patuxent WFP Phase II Expansion	47,445	47,445
033811	Potomac WFP Improvements	5,938	5,938
113802	Potomac WFP Outdoor Substation No. 2 Replacement	8,972	8,972
113806	Potomac WFP Stage 2 Disinfection Byproducts Rule I	6,307	6,307
033812	Potomac WFP Submerged Channel Intake	23,513	23,513

FY12-17 EXECUTIVE RECOMMENDED CIP
Agency Request Compared to Executive Recommended
WSSC

Project	Project Name	Agency Request	Executive Recommended
033805	Power Reliability and Arc Flash Studies	2,980	2,980
103800	Preserve at Rock Creek Wastewater Pumping Station	477	477
103801	Preserve at Rock Creek WWPS Force Main	329	329
113801	Reddy Branch WWPS Augmentation	86	86
063805	Rocky Gorge Pump Station Upgrade	12,308	12,308
073800	Seneca WWTP Enhanced Nutrient Removal	12,318	12,318
083802	Seneca WWTP Expansion, Part 2	36,097	36,097
103802	Septage Discharge Facility Planning & Implement.	10,120	10,120
093801	Shady Grove Standpipe Replacement	8,024	8,024
083803	Tapestry Wastewater Pumping Station	327	327
083804	Tapestry WWPS Force Main	69	69
113805	Trunk Sewer Reconstruction Program	188,216	188,216
083801	Twinbrook Commons Sewer	330	330
063803	White Flint East (No. Bethesda Center) Sewer Main	419	419

Washington Suburban Sanitary Commission (WSSC)
Bi-County Working Group
Charter

PURPOSE: The Bi-County Working Group provides a structure for key stakeholders, subject matter experts, and management to identify near-, medium- and longer-term options for obtaining access to alternative and/or less costly sources of revenue or methods of funding for operating and capital requirements in the context of the growing need to rehabilitate, upgrade and replace water and wastewater infrastructure and related facilities. .

APPROACH: The Bi-County Working Group approach is to undertake a structured strategic review of:

1. existing WSSC financial instruments and funding methods, e.g. rates, rate structure and rate stabilization, grants, partnerships, investments, short and longer term debt, cash, working capital and other assets, financial plans and relevant aspects of operating and capital budget programs;
2. existing operating and capital program requirements, including exogenous factors such as conservation and affordability;
3. existing statutory and annual budget and financial policy parameters established by the State of Maryland and Prince George's and Montgomery Counties and the WSSC Commissioners;
4. a structured environmental scan of alternative financial strategies, programs and instruments with the potential for providing additional revenues or savings, including regional and national benchmarking;
5. potential capital or operating program/project investments, like automated meter reading, that may yield additional revenues or savings, and;
6. address any impediments to the implementation of proposed actions and strategies.

GOALS: The Bi-County Working Group goals are as follows:

- provide actionable recommendations to the WSSC General Manager/CEO and to the Washington Suburban Sanitary Commissioners for the implementation or further study of near-, medium- and longer-term options for attaining access to alternative and/or less costly, sustainable sources and methods of support for operating and capital requirements of the WSSC
- provide strategic guidance and support in the implementation of Bi-County Working Group recommendations that are adopted by the General Manager/CEO and/or the WSSC Commissioners.

ORGANIZATION: The Bi-County Working Group will be convened by the WSSC General Manager/CEO, and it will be comprised of the WSSC General Manager/CEO, two WSSC Commissioners, a representative of the Montgomery County Council, a representative of the Prince George's County Council, a representative of the Montgomery County Executive and a representative of the Prince George's County Executive. WSSC staff and external subject matter experts will participate as appropriate. The framework and timeline for providing a final report and recommendations will be determined by the GM/CEO in consultation with the Bi-County Working Group.