

T&E COMMITTEE #1
February 25, 2010

Worksession

MEMORANDUM

February 23, 2010

TO: Transportation, Infrastructure, Energy, and Environment Committee

FROM:  Keith Levchenko, Senior Legislative Analyst

SUBJECT: **Worksession: FY11-16 Capital Improvements Program: Washington Suburban Sanitary Commission**

Councilmembers were provided a spiral bound copy of WSSC's Proposed FY11-16 CIP. Excerpts from this document are attached to this memorandum.

The following officials and staff are expected to attend this meeting:

WSSC

Commission Chair Gene Counihan
(invited)
Commissioner Adrienne Mandel (invited)
Commissioner Roscoe Moore (invited)
Jerry Johnson, General Manager/CEO
Teresa Daniell, Deputy General Manager
Tom Traber, Chief Financial Officer
Sheila Cohen, Budget Group Leader
Mark Brackett, Budget Unit Coordinator
Kathy McGinnis (Project Delivery Group
Leader).

County Government

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

Background/Timeline

Under Article 29, Washington Suburban Sanitary District, Title 7, WSSC Capital Improvements Program, Annotated Code of Maryland, 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 (described later) that involves both Montgomery and Prince George's County Council approval in the fall of each year.

The FY11-16 WSSC CIP timeline is presented below:

- September 23, 2009: WSSC transmitted its Proposed FY11-16 CIP
- October 20, 2009: Council Approval of WSSC's FY11 Spending Control Limits
- January 15, 2010: County Executive's recommendations transmitted (Excerpt on ©38-53)
- January 20, 2010: WSSC transmitted a Mid-Cycle update to its proposed FY11-16 CIP (see ©28-37)
- February 16, 17, 2010: Council's Public Hearings on the FY11-16 CHP (including WSSC).
- **February 25, 2010: T&E Committee review of the WSSC CIP**
- March 1, 2010: Deadlile for Transmittal of WSSC's Proposed FY11 Operating and Capital Budget
- March 9, 2010: Council review of the WSSC CIP (tentative date)
- Early May, 2010: 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 Proposed FY11-16 CIP without WSSC's proposed mid-cycle update revisions¹ 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.

¹ The mid-cycle update was submitted on January 20. These changes reflect the latest actions by WSSC and are consistent with the assumptions to be included in WSSC's soon to be transmitted FY11 Operating and Capital Budget request (deadline of March 1, 2010). 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, 2009.

Table 1: Total WSSC Expenditures
Original Proposed FY11-16 CIP versus Approved FY10-15 CIP
(\$ in 000s)

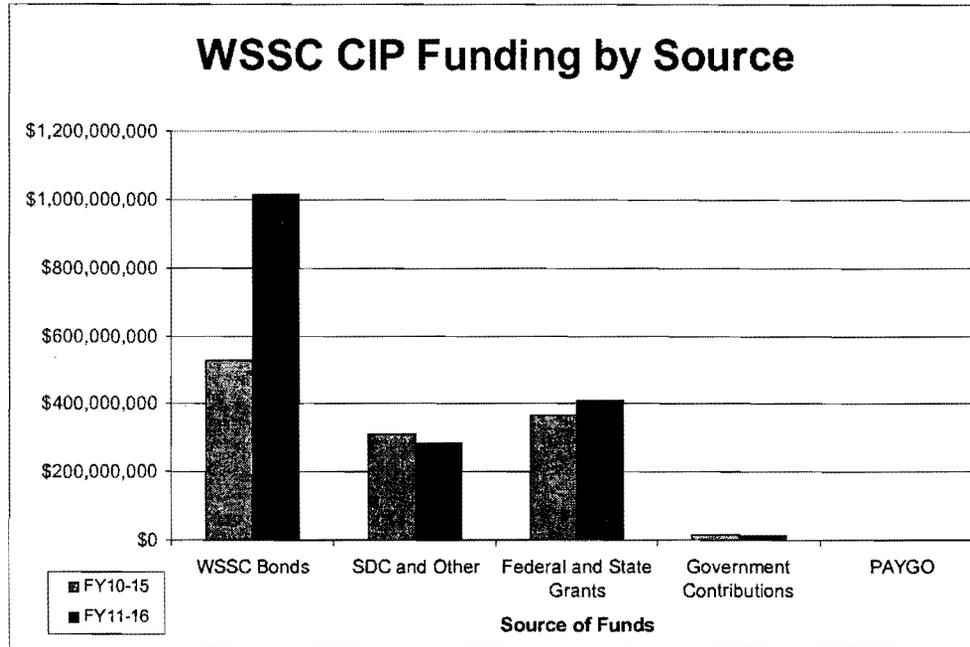
	Approved FY10	Six-Year Total	FY11	FY12	FY13	FY14	FY15	FY16
Total Water Projects								
Approved FY10-15	78,106	352,682	121,513	94,481	46,689	7,234	4,659	
Proposed FY11-16		383,958	102,321	124,274	85,219	29,153	24,735	18,256
Difference		31,276	(19,192)	29,793	38,530	21,919	20,076	
% Change		8.9%	-15.8%	31.5%	82.5%	303.0%	430.9%	
Total Sewer Projects								
Approved FY10-15	136,325	870,402	224,859	227,538	164,146	91,247	26,287	
Proposed FY11-16		1,335,413	209,435	379,803	332,686	236,027	114,879	62,583
Difference		465,011	(15,424)	152,265	168,540	144,780	88,592	
% Change		53.4%	-6.9%	66.9%	102.7%	158.7%	337.0%	
Total								
Approved FY10-15	214,431	1,223,084	346,372	322,019	210,835	98,481	30,946	
Proposed FY11-16		1,719,371	311,756	504,077	417,905	265,180	139,614	80,839
Difference		496,287	(34,616)	182,058	207,070	166,699	108,668	
% Change		40.6%	-10.0%	56.5%	98.2%	169.3%	351.2%	

As shown on the chart, WSSC is recommending a substantial increase in expenditures of over 40 percent (nearly \$500 million). The biggest changes from the Approved CIP, involve a new Trunk Sewer Reconspruction Program (\$484.9 million over six-years) and a Large Diameter (Water) Pipe Rehabilithation Program (\$60 million over six-years), There are some other project increases as well as some project reductions. Interestingly, the impact of the overall increase is not felt in FY11 as the big projects noted above are ramping up so first year costs are lower than future costs and these first year costs are offset by reductions in projects elsewhere in the CIP.

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 FY10-15 CIP and the Proposed FY11-16 CIP. As with the expenditure display, the mid-cycle update is not assumed in these numbers.



Overall, bonds are shooting up sharply to cover costs associated with the two new projects mentioned earlier. Some additional summary charts are attached on ©3-4.

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 FY11-16 CIP versus Approved FY10-15 CIP
(\$s in 000s)

	Approved FY10	Six-Year Total	FY11	FY12	FY13	FY14	FY15	FY16
Total Water Projects								
Approved FY10-15	70,437	294,870	101,705	72,498	39,470	6,397	4,363	
Proposed FY11-16		325,531	84,404	103,239	71,212	24,796	23,932	17,948
Difference		30,661	(17,301)	30,741	31,742	18,399	19,569	
% Change		10.4%	-17.0%	42.4%	80.4%	287.6%	448.5%	
Total Sewer Projects								
Approved FY10-15	98,414	686,025	137,382	174,928	158,666	91,045	25,590	
Proposed FY11-16		1,157,477	154,957	323,255	292,167	213,218	112,895	60,985
Difference		471,452	17,575	148,327	133,501	122,173	87,305	
% Change		68.7%	12.8%	84.8%	84.1%	134.2%	341.2%	
Total								
Approved FY10-15	168,851	980,895	239,087	247,426	198,136	97,442	29,953	
Proposed FY11-16		1,483,008	239,361	426,494	363,379	238,014	136,827	78,933
Difference		502,113	274	179,068	165,243	140,572	106,874	
% Change		51.2%	0.1%	72.4%	83.4%	144.3%	356.8%	

Montgomery County and Bi-County expenditures are moving in a similar direction to overall spending. This is not surprising, since the bulk of expenditures in the WSSC CIP are in the Bi-County Water and Bi-County Sewer categories.

Mid-Cycle Update (Attached on ©28-37)

WSSC transmitted a mid-cycle update on January 20 in order to reflect more up to date Blue Plains project budget numbers (DCWASA’s General Manager’s Proposed CIP numbers which 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 CIP and to adjust expenditures in one other project, WSSC’s new Trunk Sewer Reconstruction Program. Overall, the changes increase the FY11-16 CIP by approximately \$177 million as shown in the following chart:

Table 3: FY11-16 WSSC CIP Mid-Cycle Update Changes

Project	Six-Year Total	FY11	FY12	FY13	FY14	FY15	FY16
Blue Plains Projects							
Liquid Train Part II	10,932	699	1,718	4,193	1,177	1,414	1,731
Biosolids Part II	104,747	22,522	81,535	9,836	(8,887)	(5,786)	5,527
BNR	434	(6,229)	3,547	3,116	-	-	-
Plantwide Projects	15,910	3,007	5,370	(823)	3,655	4,162	539
ENR	24,305	16,692	(7,869)	24,051	(22,932)	3,220	11,143
Pipelines and Appurtenances	17,261	(1,041)	(4,449)	11,337	8,448	2,007	959
Blue Plains Projects Subtotal	173,589	35,650	79,852	51,710	(18,539)	5,017	19,899
Other Projects							
Trunk Sewer Reconstruction	3,413	(14,555)	-	17,968	-	-	-
Total Changes	177,002	21,095	79,852	69,678	(18,539)	5,017	19,899

The impact in FY11 is \$21.1 million in bond funding, which will result in an estimated increase of about \$1.1 million more in FY11 debt service in the WSSC Operating Budget.

In late January, subsequent to the Mid-Cycle Update transmittal, DCWASA approved its CIP. The approved numbers are not expected to have a significant impact beyond what the Mid-Cycle Update includes. However, WSSC will forward this information to Council Staff as soon as it is available.

County Executive Recommendations (Excerpt Attached on ©38-53)

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. Therefore, the only remaining difference between the CE Recommendation and the Latest WSSC request is the change in the Trunk Sewer Rehabilitation project which the Executive did not include in his transmittal.

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

	Six-Year						
	Total	FY11	FY12	FY13	FY14	FY15	FY16
WSSC Proposal (MC and Bi-County Only)*	1,306,006	218,266	346,642	293,701	256,553	131,810	59,034
CE Changes	-						
- Revise Blue Plains Costs	173,589	35,650	79,852	51,710	(18,539)	5,017	19,899
Total CE Changes	173,589	35,650	79,852	51,710	(18,539)	5,017	19,899
CE Recommended Totals	1,479,595	253,916	426,494	345,411	238,014	136,827	78,933
change from Approved FY10-15 CIP)	498,700	101,705	72,498	39,470	6,397	4,363	

*without mid-cycle update

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

Growth Funding

WSSC estimates that approximately \$282 million (or 16.4%) of total proposed expenditures in the six-year period are needed to accommodate growth. This percentage is down from past years percentages of (25% to 30%) mainly because of cost growth in the other categories of system improvements and environmental regulations.

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 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 \$138.6 million in revenue over the six-year period once developer credits, SDC exemptions² and private funded projects are considered.

Overall, WSSC estimates a deficit in growth funding versus expenditures over the six-year period of \$138.3 million as shown on ©2. This deficit is relatively close to last year's estimate of \$129.5 million.

² 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.

The SDC Fund has a balance of approximately \$113.1 million (as of January 31, 2010).

WSSC 's Proposed Operating Budget for FY10 is still being finalized. The public hearing draft assumes to increase the maximum rate for FY10 as permitted under State law but leaving 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.

While the SDC fund balance is sufficient to cover most of the projected gap over the next six years, the early years of the CIP assume particularly high gaps (\$37.1 million, \$59.6 million, and \$57.8 million respectively), the rate may need to be increased in the near future if these estimates turn out to be accurate.

Council Staff suggests that the issue of a possible SDC rate increase be discussed 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 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 ten new projects within the FY11-16 CIP totaling \$598 million over the six-year period. These new projects include some minor projects including:

- One new Prince George's County water project, HG415 Zone Water Main (\$1.07 million cost) to construct 1,500 feet of 24 inch diameter water main.
- Four new "growth" projects, paid entirely by developer contributions.

However several new projects represent big investments by WSSC and are described in more detail below.

Trunk Sewer Reconstruction Program (\$505 million over six years, PDF on ©36-37)

This is the largest new project by far and is intended 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 is to inspect 625 miles of sewers in 21 basins by December 2010. Sewer System Evaluation Studies are

to be conducted for 9 basins by December 2013. All rehabilitation work is to be completed within 10 years (2015).

The project is funded with WSSC bonds. WSSC's Mid-Cycle update revised the six-year expenditure schedule slightly (moving some dollars out of FY11). *Note: Some of these costs were previously included in the Sewer Reconstruction Program "information only" project. That project shows a cost reduction of approximately \$120 million over the six year period.*

Council Staff recommends approval of the project as revised in the Mid-Cycle Update.

Large Diameter Pipe Rehabilitation Program (\$60 million over six years, PDF on ©14-15)

This project will fund 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 couple of 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 2008, 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 will remain in the Operating Budget. However, the large section replacements will be done out of this project. Project costs (funded with WSSC bonds) represent order of magnitude costs and will be adjusted as needed as the program moves forward.

Council Staff recommends approval of the project as proposed.

Two New Potomac Water Filtration Plant Projects (totaling \$15.9 million over six years, PDFs on ©7-8)

WSSC is proposing two new projects at the Potomac Water Filtration Plant: Replacement of an outdoor substation at the facility and the upgrade of the plant to address new environmental requirements (EPA Stage 2 Disinfection Byproducts Rule) related to the sulfuric acid system and construct new ferric chloride and caustic soda feed systems.

Council Staff recommends approval of both projects as proposed.

Pressure Valve Rehabilitation Program” (\$17.6 million total cost, \$15.07 million over six years, PDF on ©27)

This “information only” project provides for a systematic program to rehabilitate and replace as needed WSSC’s valves ranging in size from 8 inches to 60 inches in diameter. This is another area of aging infrastructure where WSSC has identified a need to systematically

Council Staff recommends approval of this project as proposed.

Status of Ongoing Projects

Enhanced Nutrient Reduction (ENR) Related Projects

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). New permit requirements set ENR standards of 3 mg/l of effluent nitrogen concentration as a goal, although the standards are not mandatory at this time.

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. Two years ago, major dollars were added to the equivalent ENR project for the Blue Plains plant.

For the FY11-16 CIP, WSSC has proposed ENR projects totaling \$424 million over the six-year period. This represents about a 22.9% increase in six-year costs and is primarily the result of the Blue Plains ENR project which now reflects a higher negotiated cost share.

The requirements to achieve the ENR standard vary by facility. The following chart shows how the costs vary by project.

Proposed Enhanced Nutrient Removal Projects									
Facility	Total Cost	Through FY10	Six-Year Total	FY11	FY12	FY13	FY14	FY15	FY16
Seneca WWTP	13,938	2,952	10,986	4,387	4,387	2,212			
Damascus WWTP	7,147	2,940	4,207	3,702	505				
Western Branch WWTP	38,560	5,230	33,330	15,400	15,400	2,530			
Parkway WWTP	20,719	2,788	17,931	8,527	7,427	1,977			
Piscataway WWTP	7,528	1,145	6,383	6,383					
Proposed Total	87,892	15,055	72,837	38,399	27,719	6,719	-	-	-
Blue Plains ENR Project*	432,673	12,485	349,083	34,982	80,548	95,285	46,569	40,274	51,425
Total with Blue Plains	520,565	27,540	421,920	73,381	108,267	102,004	46,569	40,274	51,425

*Blue Plains ENR Project revised based on WSSC’s Mid-Cycle Update. Assumes \$71.1 million in costs beyond FY16.

WSSC is waiting for final comments and/or permits from the Maryland Department of the Environment before finalizing the Bid Ready construction contract documents/100% Design and beginning the Advertisement/Bidding Phase. An advertisement was posted in the Central Bid Registration (CBR) system in November 2009, and in several newspapers during the week of 2/7-2/14/2010, advising interested parties to sign up for the CBR to get future notifications. WSSC expects all 5 projects to go to bid this summer.

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 ©30-35, reflecting WSSC's Mid-Cycle Update Changes)

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	FY11	FY12	FY13	FY14	FY15	FY16
Total Sewer Projects								
Approved FY10-15	69,037	586,894	103,821	153,653	146,830	87,963	25,590	
Proposed FY11-16 (w/o Mid-Cycle Update)		568,231	67,767	135,810	138,325	123,890	53,522	48,917
Difference		(18,663)	(36,054)	(17,843)	(8,505)	35,927	27,932	
% Change		-3.2%	-34.7%	-11.6%	-5.8%	40.8%	109.2%	
CE Recommended FY11-16		741,820	103,417	215,662	190,035	105,351	58,539	68,816
\$ Change from Proposed		173,589	35,650	79,852	51,710	(18,539)	5,017	19,899
% Change from Proposed		30.5%	52.6%	58.8%	37.4%	-15.0%	9.4%	40.7%

As shown in the table, WSSC's original proposed six-year total is \$568.231 million (a decrease of 3.2% from the Approved FY10-15 CIP). However, as noted earlier, both WSSC (through its Mid-Cycle Update) and the County Executive are recommending a substantial increase in the six-year total for these projects based on more recent WASA budget information. These increases are primarily the result of: increases in the design and construction costs associated with the new digester facilities (part of the Biosolids Management Part 2 project), for the Potomac Interceptor Odor Control subproject and Anacostia Tunnel portion of DCWASA's Long-Term Control Plan (both included in the Pipelines and Appurtenances project), a revised cost share assumption for the Blue Plains ENR project and miscellaneous changes in other subprojects. Other projects, especially related to DCWASA's long-term control plan are expected to be programmed in the future.

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 was scheduled to be briefed by its DCWASA board members on February 9, but the meeting was cancelled due to the recent snow emergency.

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 assumed in the DCWASA General Manager's Proposed CIP.

NOTE: In late January, subsequent to the Mid-Cycle Update transmittal, DCWASA approved its CIP. The approved numbers are not expected to have a significant impact beyond what the Mid-Cycle Update includes. However, WSSC will forward this information to Council Staff as soon as it is available. These approved numbers can be incorporated into the WSSC CIP prior to final action by the Council in May.

Septage Discharge Facility Planning & Implementation (PDF on ©16)

This project (\$10.97 million total cost) provides for the study of and order of magnitude cost estimates for the design and construction of three septage and two FOG discharge facilities. The project is the outgrowth of a consultant report completed in February 2008.

Copies of the revised Preliminary Report including a Facility Plan for the abandoned Rock Creek WWTP were transmitted to MC DEP on February 12th. Review comments were requested to be returned by March 12th. The planning phase is expected to be completed this summer.

Laytonsville Elevated Tank and Pumping Station (PDF on ©5-6)

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 \$4.4 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 and pressure reducing valve vault date for advertisement for bidding the construction contract is dependent on completion of survey work and receipt of permits. WSSC currently estimates bidding this work this spring. The next scheduled meeting with the Mayor and the Developer is May 2010. The Water Pumping Station and Water Storage Facility designs are essentially complete. WSSC is awaiting approval from MDE for permits. Once permits are received it will take 6 months to advertise, take bids and award the contracts. Construction duration will be 15 months. Assuming WSSC gets MDE approval in April 2010; the in service date would be January 2012.

Potomac Submerged Channel Intake (PDF on ©9-10)

Planning work on the Potomac WFP Submerged Channel Intake project (PDF on ©20-21) 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.

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 FY16.

Bi-County Water Tunnel (PDF on ©11-13)

This project provides for the construction of 28,400 foot 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.

The project is under construction and is approximately 11% complete. Excavation progress at the Connecticut Ave. Shaft continues on schedule. Excavation of the Shaft at Stoney Brook and Beach Drives is in progress. The Tunnel Boring Machine is scheduled to be delivered in late March. The current construction completion date is August 2013.

As a 100% growth-related project, the project is funded completely with SDC revenues.

“Information Only” Projects

Anaerobic Digestion/Combined Heat & Power (PDF on ©22-24)

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.

Last year, 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.

Utility Master Plan (PDF on ©25-26)

Work continues on WSSC’s Utility Master Plan. Phase I of the work (a broad level review) was completed and 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 that are 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 progressing on Phase 2 of the Utility Master Plan. Preliminary findings for the five Asset Management Plans (Piscataway WWTP, Broad Creek WWPS, Broad Creek Basin, Transmission System, and Distribution Systems) will be presented to WSSC Management and County Representatives in June 2010.

Water Reconstruction Program (PDF on ©18-19)

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

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 is proposed for FY11. The need for expanding this program was identified 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 the new funding source, the ramp up will likely have to be much slower to keep within available dollars from annual water and sewer rate increases.

The 4 mile increase in FY10 resulted in a slightly reduced replacement cycle for WSSC’s 5,500 miles of water mains (from 204 to 177 years). The 5 mile ramp-up proposed for FY11, would reduce this replacement cycle down to about 153 years. While still too long a replacement cycle, this continued ramp up represents real progress. Another positive aspect is that in FY09 WSSC exceeded its 27 mile replacement goal and did 34 miles of replacement.

While 4 to 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. For FY11, WSSC is considering reducing 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. This issue will be discussed in more detail during the Operating Budget review.

The funded pace of the Water and Sewer reconstruction effort continues to be an area of major concern to Montgomery County. The WSSC General Manager recently announced plans to reconvene a Bi-County Working Group to study long-term funding solutions for this issue.

Sewer Reconstruction Program (PDF on ©20-21)

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 has developed a new project 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 FY 11, WSSC is assuming to do 42 miles of sewer main lining. For FY10, WSSC's budget assumes 46 miles (with 4 miles paid for with American Recovery and Reinvestment Act (ARRA) dollars.

Summary of Council Staff 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. *Note: Further revisions to the Blue Plains numbers can be made prior to final Council action in May.***
- **Concur with WSSC on all other projects in the Proposed FY11-16 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 to 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.*

Attachments

KML:f:\levchenko\wssc\wssc cip\fy11-16\te wssc cip 2 25 10.doc

FINANCIAL SUMMARY

DATE: October 1, 2009

(ALL FIGURES IN THOUSANDS)

TOTAL WSSC CIP

AGENCY NUMBER	PROJECT NAME	EST. TOTAL COST	EXPEND THRU 09	EST. EXPEND 10	TOTAL SIX YEARS	EXPENDITURE SCHEDULE						BUDGET REQUEST 11	PDF PAGE NUM
						YR 1 11	YR 2 12	YR 3 13	YR 4 14	YR 5 15	YR 6 16		
	Montgomery County Water Projects	30,118	2,431	4,139	23,548	7,925	10,254	5,369	0	0	0	7,925	1-1
	Prince George's County Water Projects	96,384	28,094	6,113	58,427	17,917	21,035	14,007	4,357	803	308	17,917	5-1
	Bi-County Water Projects	501,977	135,455	64,539	301,983	76,479	92,985	65,843	24,796	23,932	17,948	76,479	3-1
	TOTAL WATER PROJECTS	628,479	165,980	74,791	383,958	102,321	124,274	85,219	29,153	24,735	18,256	102,321	
	Montgomery County Sewerage Projects	78,537	10,862	12,736	54,939	24,502	20,366	10,030	41	0	0	24,502	2-1
	Prince George's County Sewerage Projects	220,216	23,509	17,777	177,936	54,478	56,548	40,519	22,809	1,984	1,598	54,478	6-1
	Bi-County Sewerage Projects	1,757,666	495,859	86,144	1,102,538	130,455	302,889	282,137	213,177	112,895	60,985	130,455	4-1
	TOTAL SEWERAGE PROJECTS	2,056,419	530,230	116,657	1,335,413	209,435	379,803	332,686	236,027	114,879	62,583	209,435	
	TOTAL WSSC PROGRAM	2,684,898	696,210	191,448	1,719,371	311,756	504,077	417,905	265,180	139,614	80,839	311,756	
	Total Information Only Projects	1,268,321	26,046	132,890	1,105,715	164,071	169,805	185,900	190,143	190,824	204,972	164,071	7-1

Notes for costs beyond six years:

Includes 3,750 for Prince George's County Water Projects Total Cost.
Includes 3,750 for Water Projects Total Cost.

Includes 994 for Prince George's County Sewerage Projects Total Cost.
Includes 73,125 for Bi-County Sewerage Projects Total Cost.
Includes 74,119 for Sewerage Projects Total Cost.

Includes 77,869 for WSSC Program Total Cost.

GROWTH FUNDING GAP

(In Millions)

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

¹ Each County may grant SDC exemptions for biotechnology, elderly, or revitalization projects totaling up to \$500,000 per fiscal year as provided for in Maryland State Law (Article 29, Section 6-113(c)(iv)). Unused exemption amounts are available for use in future fiscal years. Cumulative unused SDC exemptions totaled approximately \$3.0 million for Montgomery County and \$4.2 million for Prince George's County through June 30, 2009.

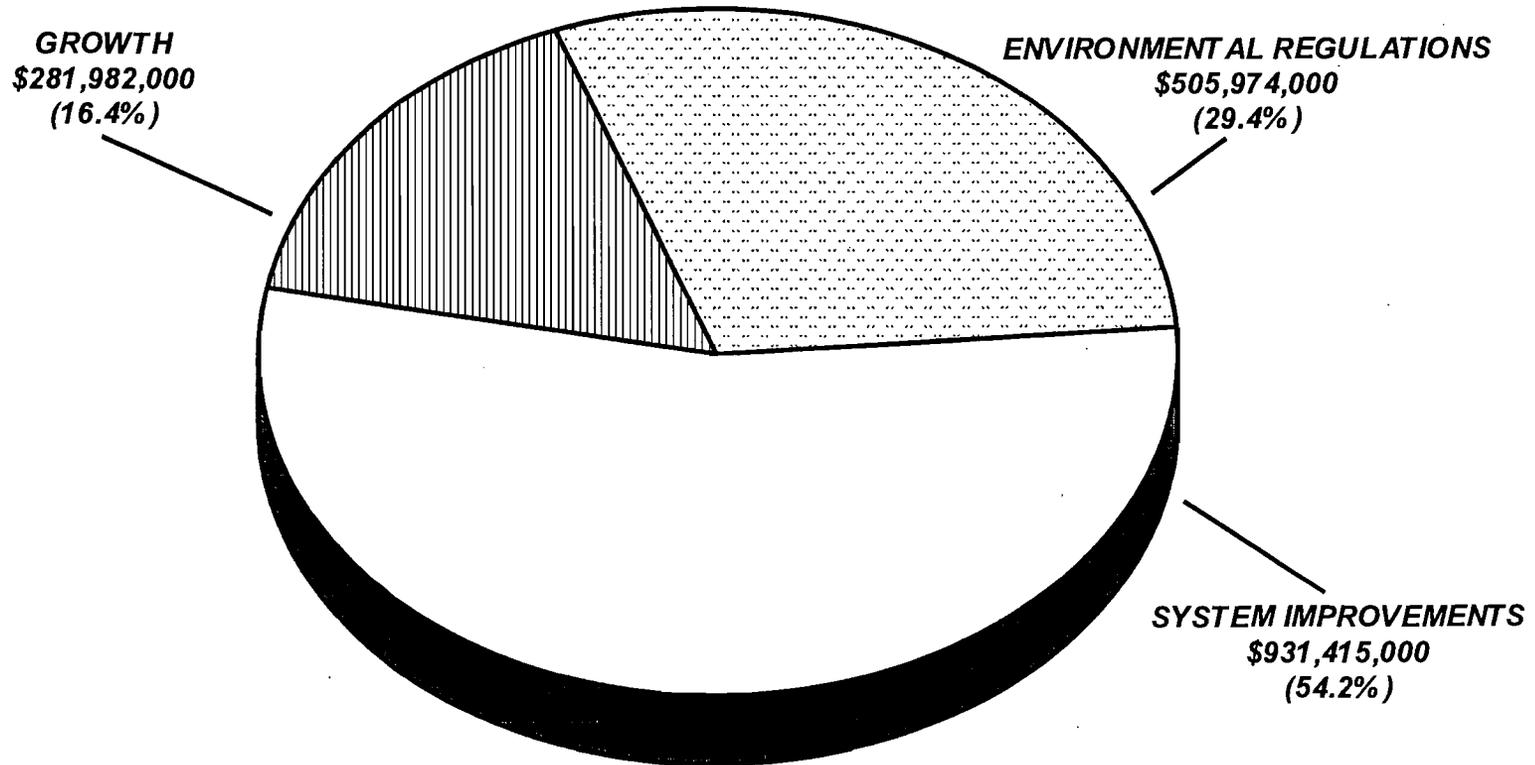
Expenditures

The FYs 2011-2016 Capital Improvements Program includes 96 projects for a grand total of nearly \$2.7 billion dollars. Expenditures for the six-year program period are estimated at \$1.7 billion. FY'11 expenditures are estimated at \$311.8 million, which is \$97.4 million greater than the funding level approved for FY'10. Of the \$311.8 million, \$102.3 million is for the Water Program and \$209.5 million is for the Sewerage Program. Nearly half of the projects in this CIP are Development Services Process (DSP) growth projects. The DSP projects' estimated six-year program cost is \$25.9 million, with approximately \$12.7 million programmed in FY'11, approximately the same amount approved last year. There are 9 new CIP projects and one new Information Only project, totaling \$598.0 million in the six-year program period. These projects are shown on the New Projects Listing near the end of this section. A table comparing the Adopted FYs 2010-2015 CIP to the Proposed FYs 2011-2016 CIP follows:

FIGURE 3

WSSC PROPOSED FYS 2011-16 CIP

SIX-YEAR PROGRAM EXPENDITURES BY MAJOR CATEGORY*



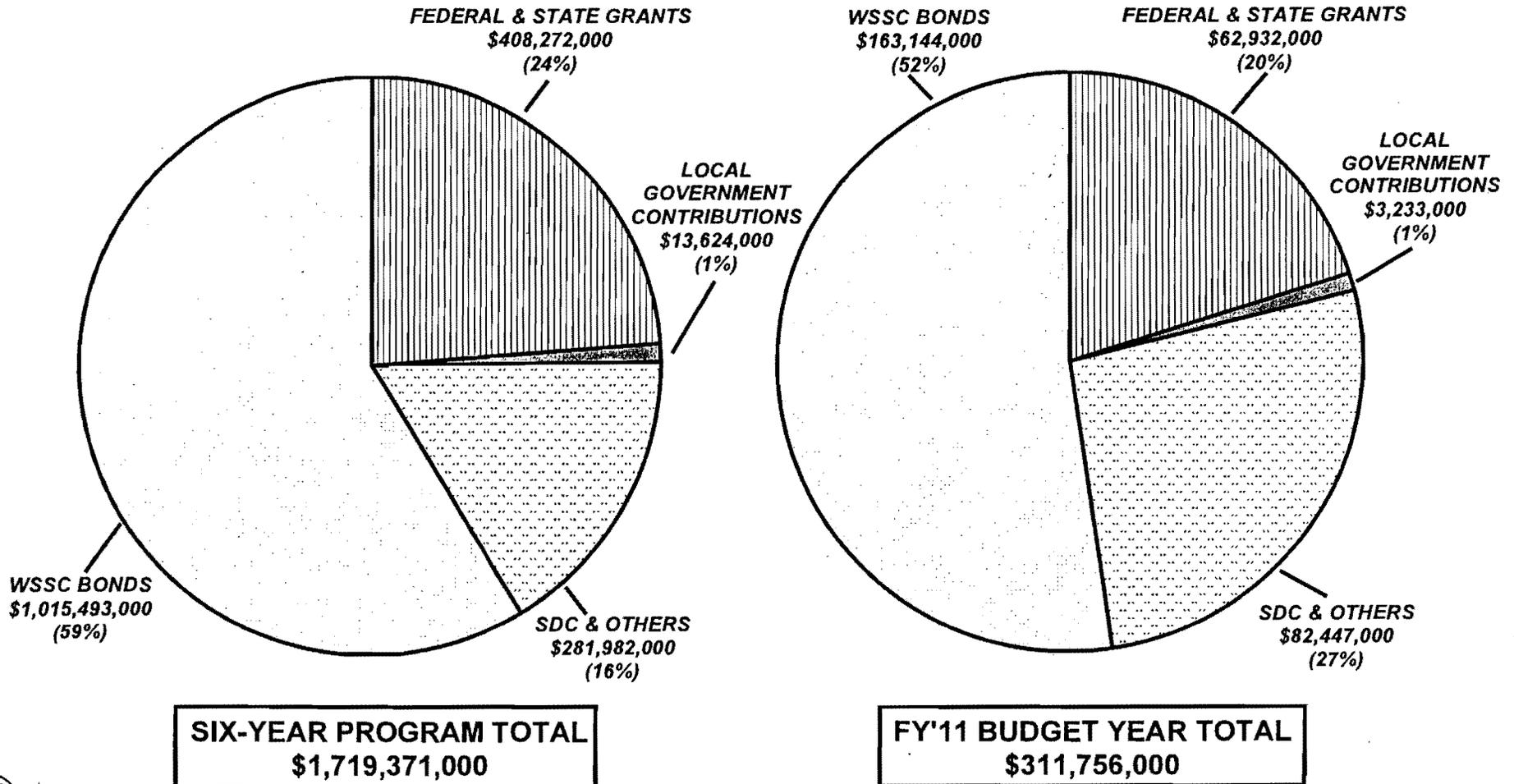
SIX-YEAR PROGRAM TOTAL
\$1,719,371,000

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

FIGURE 4

WSSC PROPOSED FYS 2011-16 CIP

FUNDING BY SOURCE*



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

A. Identification and Coding Information

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

2. Date: October 1, 2009 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

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

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

B. Expenditure Schedule (000's)

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

F. Approval and Expenditure Data (000's)

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

C. Funding Schedule (000's)

SDC	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
SDC	1,519	700	340	479	479						
Contribution/Other	3,000		1,500	1,500	1,500						

D. Description & Justification

DESCRIPTION

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

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

G. Status Information

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

JUSTIFICATION

Plans & Studies

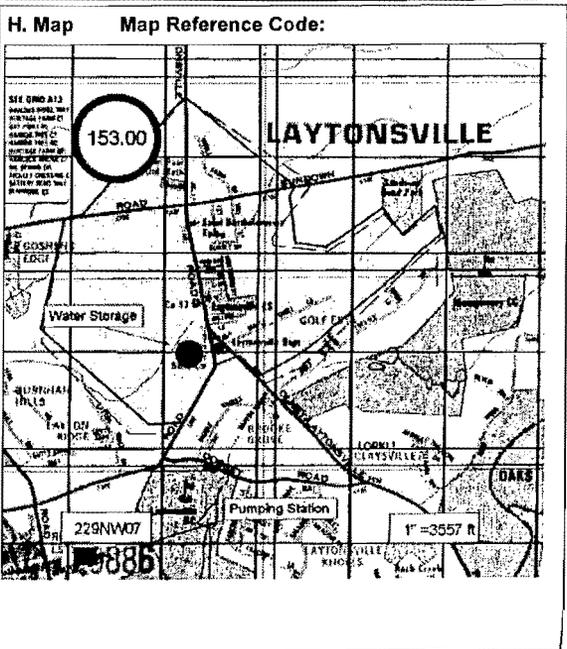
Preliminary Study for the Proposed Water Service Area for Town of Laytonsville (October 1999); Memorandum dated October 18, 2001, from the Manager of the Well and Septic Section, Montgomery County Department of Permitting Services, to Water and Waste Water Management, Montgomery County Department of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

Specific Data

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

Cost Change

Costs were increased for inflation.



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

OTHER

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

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 153.00

Project Name: Laytonsville Elevated Tank & Pumping Station

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

COORDINATION

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

NOTE This project supports 100% Growth.

A. Identification and Coding Information

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

2. Date: October 1, 2009 Revised: 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.:

3. Project Name: Potomac WFP Outdoor Substation No. 2 Replacement

4. Program: Sanitation 5. Agency: WSSC 6. Planning Area: Bi-County

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

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	692	16
Total Costs		692	16
Impact on Water or Sewer Rate		1¢	16

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	900			900	115	400	155	115			
Land											
Site Improvements & Utilities											
Construction	6,000			6,000			3,000	2,000	1,000		
Other	1,034			1,034	17	60	473	317	167		
Total	7,934			7,934	132	460	3,628	2,432	1,282		

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 11
Date First Approved	FY 11
Initial Cost Estimate	7,934
Cost Estimate Last FY	
Present Cost Estimate	7,934
Approved Request, Last FY	
Total Expenditures & Encumbrances	
Approval Request FY 11	132
Supplemental Approval Request Current FY (10)	

C. Funding Schedule (000's)

WSSC Bonds	7,934			7,934	132	460	3,628	2,432	1,282		
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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 Reardon & Assoc., and Shah Assoc. (sub-consultants to ESG).

Specific Data

Phase ID - Energy Performance Project was awarded to Energy Systems Group in March 2009. Phase I included engineering, and planning of equipment and operations upgrades to develop an energy efficient and guaranteed savings program to upgrade/replace pumps at the Potomac Raw Water Pumping Stations (RWPS) #1 and #2, and upgrade Main Zone pump #3. Subsequent tests and inspections of OSS-2 serving RWPS #1 and #2 resulted in the development of a report that indicated that OSS-2 was in poor condition, unsafe, and that WSSC should move in an expeditious manner to replace the switchgear in its entirety. Industry practice is to replace 5 kV switchgear between 25 and 30 years old, when in an environment where chemicals are in the air. The old breakers in OSS-2 have misalignment problems, and the switchgear housing is corroded, which can pose safety risks to the plant electrical and mechanical maintenance staff as well as the operators. Also, the electromechanical relays are obsolete and the manufacturer is no longer in business which makes it difficult, costly and requires long lead times to obtain replacement parts.

Cost Change

Not applicable.

STATUS Planning

OTHER

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

COORDINATION

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

NOTE This project supports 100% System Improvement.

G. Status Information

Land Status: Public/Agency owned land

% Project Completion: P-0%

Est. Completion Date: FY 2015

H. Map Map Reference Code:

A. Identification and Coding Information

1. Project Number: 113806 | Agency Number: W-73.20 | Update Code: Add
 2. Date: October 1, 2009 | Revised: _____
 3. Project Name: Potomac WFP Stage 2 Disinfection Byproducts Rule Implementation
 4. Program: Sanitation | 6. Planning Area: Bi-County
 5. Agency: WSSC
 7. Pre PDF Pg.No.: _____ | 8. Req. Adeq. Pub. Fac. _____

B. Expenditure Schedule (000's)

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

C. Funding Schedule (000's)

WSSC Bonds	7,959	20	808	7,131	4,531	2,600					
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D. Description & Justification

DESCRIPTION

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

Service Area: Bi-County Area

JUSTIFICATION

Plans & Studies

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

Specific Data

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

Cost Change

Not applicable.

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

OTHER

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

COORDINATION

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

NOTE This project supports 100% Environmental Regulation.

E. Annual Operating Budget Impact (000's)

Program Costs	Staff	FY of Impact
Facility Costs	Other	
	Maintenance	
	Debt Service	694 13
Total Costs		694 13
Impact on Water or Sewer Rate		1¢ 13

F. Approval and Expenditure Data (000's)

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

G. Status Information

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

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code	2. Date: October 1, 2009	7. Pre PDF Pg.No.:	8. Req. Adeq. Pub. Fac.
033812	W-73.30	Change	Revised:		
3. Project Name: Potomac WFP Submerged Channel Intake			5. Agency: WSSC		
4. Program: Sanitation		6. Planning Area: Bi-County			

B. Expenditure Schedule (000's)											
Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	5,205	1,776		3,429	560	1,400	1,050	309	80	30	
Land											
Site Improvements & Utilities											
Construction	17,874			17,874			580	5,951	8,693	2,650	
Other	2,130			2,130	56	140	163	626	877	268	
Total	25,209	1,776		23,433	616	1,540	1,793	6,886	9,650	2,948	

C. Funding Schedule (000's)											
WSSC Bonds	25,209	1,776		23,433	616	1,540	1,793	6,886	9,650	2,948	

D. Description & Justification

DESCRIPTION

This project includes planning, which involves community outreach and coordination with elected officials, design and construction of a submerged channel intake to provide an additional barrier against drinking water contamination (particularly Giardia cysts and Cryptosporidium oocysts), as well as to enhance reliability and reduce treatment costs by drawing water from a location with cleaner, more stable water quality.

Service Area Bi-County Area

JUSTIFICATION

Plans & Studies

"Technical Memorandum No. 2 Water Quality Needs Assessment," O'Brien & Gere Engineers, Inc. (November, 2001); "Draft Source Water Assessment Study," Maryland Department of the Environment (April, 2002); "Potomac WFP Facility Plan," O'Brien & Gere Engineers, Inc. (September, 2002).

Specific Data

The project is expected to pay for itself over time based upon the reduced chemical and solids handling costs resulting from the cleaner raw water source. It also provides for a more reliable supply by eliminating the current problems associated with ice and vegetation blocking the existing bank withdrawal. This project is consistent with the industry's recommended multiple barrier approach.

Cost Change

Costs were increased for inflation.

STATUS Planning (WSSC Contract No. BF2028F97,).

OTHER

The project scope has remained the same. As part of the planning phase of this project, significant outreach activities will occur. A series of briefings with State legislators, County Council members, County Executive staff and County Council staff will be undertaken prior to commencement of further engineering work. Once the project is underway, elected officials, county government staffs, environmental community members, and the general public will be engaged in an on-going information, outreach and project participation program. Expenditures shown in Block B are planning level estimates only and may increase or decrease. Upon completion of preliminary design, a more reliable estimate can be made. Both Councils will review the results of the detailed study and must approve continuing with the project before design and construction may proceed. Due to budgetary constraints, the project completion date was deferred in the FY'10 Mid-cycle update; completion is not currently expected until FY'16.

E. Annual Operating Budget Impact (000's)		FY of Impact	
Program Costs	Staff .....	.....	.....
	Other .....	.....	.....
Facility Costs	Maintenance .....	.....	.....
	Debt Service	2198	17
Total Costs		2198	17
Impact on Water or Sewer Rate.....		44	17

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 04
Date First Approved	FY 03
Initial Cost Estimate	936
Cost Estimate Last FY	24,536
Present Cost Estimate	25,209
Approved Request, Last FY	
Total Expenditures & Encumbrances	1,776
Approval Request FY 11	616
Supplemental Approval Request Current FY (10)	

G. Status Information

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

H. Map Map Reference Code:

MAP NOT AVAILABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 73.30

Project Name: Potomac WFP Submerged Channel Intake

COORDINATION

Montgomery County Government, Prince George's County Government, National Park Service, Montgomery County Department of Environmental Protection, Maryland Department of the Environment, Prince George's County Department of Environmental Resources and U.S. Army Corps of Engineers.

NOTE This project supports 100% System Improvement.

A. Identification and Coding Information

2. Date: October 1, 2009 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

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

Revised: _____

3. Project Name: **Bi-County Water Tunnel** 5. Agency: **WSSC**

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

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

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

B. Expenditure Schedule (000's)

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

C. Funding Schedule (000's)

	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
WSSC Bonds	700			700		400	300				
SDC	168,271	13,696	38,895	115,680	42,306	40,721	28,522	4,131			

D. Description & Justification

DESCRIPTION

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

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

JUSTIFICATION

Plans & Studies
 Montgomery and Prince George's Main Zone Facility Plan, Black and Veatch, Inc. (October, 1990); Technical Memoranda #1, 2, & 3 (Draft), Louis Berger & Associates (1997); Updated Water Demand Projections (dated April 6, 2001); and the General Plan. Final Alignment Report, Black and Veatch, Inc. (July, 2005).

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

Cost Change
 The cost increase reflects current design, construction management and construction contract amounts.

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

OTHER

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

As part of the permit requirements for work within Cabin John and Rock Creek Parks, M-NCP&PC calls for stream restoration along Old Farm Creek. This work will be handled under a separate contract with costs tracked under a separate contract number. The relining of 450 feet of existing 96-inch PCCP, estimated to cost \$700,000, is being tracked under a separate contract and is not subject to SDC funding.

F. Approval and Expenditure Data (000's)

Date First In Capital Program	FY 93
Date First Approved	FY 93
Initial Cost Estimate	63,000
Cost Estimate Last FY	168,775
Present Cost Estimate	168,971
Approved Request, Last FY	40,403
Total Expenditures & Encumbrances	13,696
Approval Request FY 11	42,306
Supplemental Approval Request Current FY (10)	

G. Status Information

Land Status: Site selected

% Project Completion: C-0%

Est. Completion Date: June 2013

H. Map Map Reference Code:

SEE ATTACHED MAP

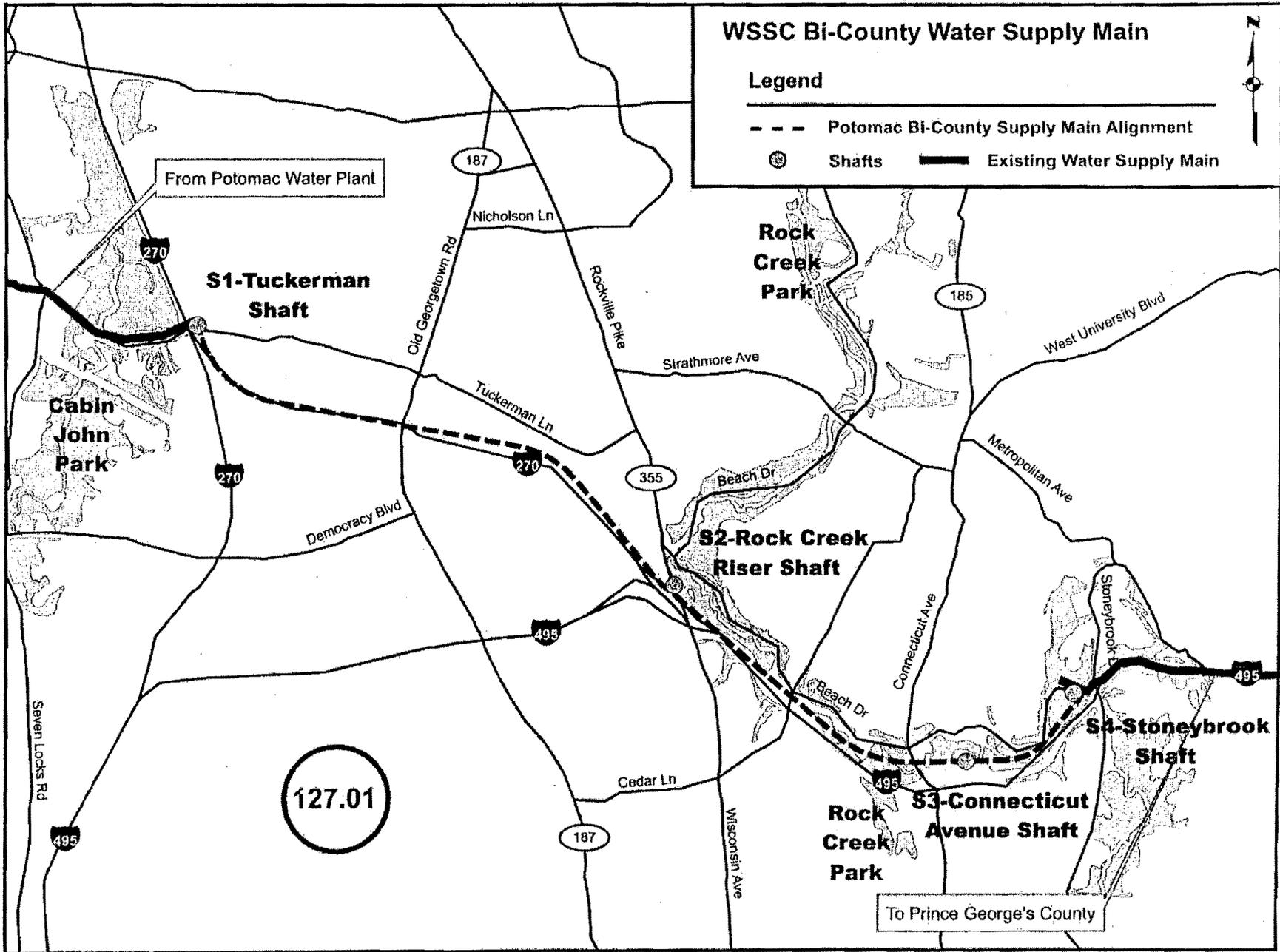
Agency Number: W - 127.01

Project Name: Bi-County Water Tunnel

COORDINATION

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

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



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A. Identification and Coding Information

2. Date: October 1, 2009 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

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

3. Project Name: Large Diameter Pipe Rehabilitation Program 5. Agency: **WSSC**

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

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

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

B. Expenditure Schedule (000's)

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

C. Funding Schedule (000's)

WSSC Bonds	60,000			60,000	5,000	7,000	9,000	11,000	13,000	15,000	
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D. Description & Justification

DESCRIPTION

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

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

JUSTIFICATION

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

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

Cost Change
Not applicable.

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

OTHER
The project scope was developed for the FY 2011 CIP and has a total project cost of \$60,000,000. Expenditure and schedule projections shown in Block B above are Order of Magnitude estimates and are expected to change based upon the results of the inspections and condition assessments. Additional costs associated with inspection/monitoring and emergency repairs are included in the Operating Budget.

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 11"/>
Date First Approved	<input type="text" value="FY 11"/>
Initial Cost Estimate	<input type="text" value="60,000"/>
Cost Estimate Last FY	<input type="text"/>
Present Cost Estimate	<input type="text" value="60,000"/>
Approved Request, Last FY	<input type="text"/>
Total Expenditures & Encumbrances	<input type="text"/>
Approval Request FY 11	<input type="text" value="5,000"/>
Supplemental Approval Request Current FY (10)	<input type="text"/>

G. Status Information

Land Status: Not Applicable

% Project Completion: On-Going

Est. Completion Date: On-going

H. Map Map Reference Code:

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 161.01

Project Name: Large Diameter Pipe Rehabilitation Program

COORDINATION

Maryland State Highway Administration, Montgomery County Department of Public Works and Transportation, Montgomery County Government (including localities where work is to be performed), Prince George's County Government (including localities where work is to be performed), Prince George's County Department of Public Works & Transportation, Local Community Civic Associations and WSSC Projects A-107.00, Pressure Reducing Valve Rehabilitation Program and W-1.00, Water Reconstruction Program.

NOTE This project supports 100% System Improvement.

A. Identification and Coding Information

2. Date: October 1, 2009 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

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

3. Project Name: Septage Discharge Facility Planning & Implementation 5. Agency: **WSSC**

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

B. Expenditure Schedule (000's)

	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Cost Elements											
Planning, Design & Supervision	2,022	522	400	1,100	300	530	270				
Land											
Site Improvements & Utilities											
Construction	8,000			8,000		5,300	2,700				
Other	950		40	910	30	583	297				
Total	10,972	522	440	10,010	330	6,413	3,267				

C. Funding Schedule (000's)

WSSC Bonds	10,972	522	440	10,010	330	6,413	3,267				
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D. Description & Justification

DESCRIPTION

This project provides for a facility plan to develop alternatives to address current and future requirements for managing septage and Fats, Oils, Grease discharge facilities in the sanitary district. The plan will address changes and/or revisions to existing facilities or any new facilities that may be recommended. Outsourcing of portions or the entire process to a privately or publicly owned operation will be one of the alternatives considered. The plan will develop separate and distinct reports and recommendations for each county including outreach programs to provide opportunities for active involvement of interested citizens.

JUSTIFICATION

Plans & Studies
 Concept Report Waste Haulers Discharges, AMT and Associates, Inc. Consulting Engineers (August, 2005); Preliminary Report for Septage Discharge Facility Study, JMT & Associates (February 2008)

Specific Data
 Currently septage waste is discharged at four locations: Muddy Branch Road Disposal Site in Montgomery County; and Temple Hill Road Disposal Site, Ritchie Road Disposal site and Bladensburg Disposal Site in Prince George's County. The types of waste to be discharged are as follows: Septic Tank Pump-Out (Sludge), Waste Holding Tank Discharge (Gray Water); Grease Trap Pump Out (FOG), Bus Holding Tank Discharge (Sewage and Chemicals), Small Food Service Providers (Low Volume FOG Waste), and Hazardous Materials. FOG wastes should not be returned to the Commission's waste system without treatment. Therefore, means and methods to affect and promote this treatment of FOG wastes at the disposal sites will be included in the facility plan.

Cost Change
 Not applicable.

STATUS Facility Planning (WSSC Contract No. CM4363A06.)

OTHER

The project scope has remained the same. The project provides for facility planning and an Order of Magnitude estimate for the design and construction of three septage and two FOG discharge facilities.

COORDINATION

Montgomery County Government, Prince George's County Government, Maryland-National Capital Park & Planning Commission, Montgomery County Department of Environmental Protection, Prince George's County Department of Environmental Resources and Prince George's County Health Department.

NOTE This project supports 100% System Improvement.

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

Program Costs	Staff	.....	....
	Other	.....	....
Facility Costs	Maintenance	.....	....
	Debt Service	.....	945	14
Total Costs			945	14
Impact on Water or Sewer Rate			24	14

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 10
Date First Approved	FY 10
Initial Cost Estimate	10,835
Cost Estimate Last FY	10,835
Present Cost Estimate	10,972
Approved Request, Last FY	880
Total Expenditures & Encumbrances	522
Approval Request FY 11	330
Supplemental Approval Request Current FY (10)	

G. Status Information

Land Status: Not determined
 % Project Completion: P-85%
 Est. Completion Date: December 2012

H. Map Map Reference Code:

MAP NOT APPLICABLE

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A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
113805	S-170.09	Add

2. Date: October 1, 2009

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

Revised:

3. Project Name: Trunk Sewer Reconstruction Program

5. Agency: **WSSC**

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

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	119,544		14,172	105,372	18,419	34,223	25,564	13,910	10,157	3,099	
Land											
Site Improvements & Utilities											
Construction	306,799			306,799	27,170	91,588	82,543	58,029	40,310	7,159	
Other	75,237		2,501	72,736	8,045	22,202	19,078	12,695	8,906	1,810	
Total	501,580		16,673	484,907	53,634	148,013	127,185	84,634	59,373	12,068	

C. Funding Schedule (000's)

WSSC Bonds	501,580		16,673	484,907	53,634	148,013	127,185	84,634	59,373	12,068	
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D. Description & Justification

DESCRIPTION

The Trunk Sewer Reconstruction Program provides for the inspection, evaluation, planning, design and construction required for the rehabilitation of sewer mains 15-inches in diameter and larger and their associated manholes.

JUSTIFICATION

Plans & Studies

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

Specific Data

Under the terms of the Consent Decree the WSSC Trunk Sewer Inspection program will inspect approximately 625 miles of sewers in 21-basins by December 2010, Sewer System Evaluation Surveys (SSES) will be conducted for 9 basins by December 2013, and WSSC shall conduct rainfall, groundwater and flow monitoring to determine I/I rates and identify areas of limited capacity through collection system modeling. Where appropriate, WSSC shall use additional means to identify sources of I/I, including CCTV, smoke and/or dye testing.

Once the Trunk Sewer Inspections, SSES work and other related collection system evaluations are complete, a Sewer Basin Repair, Replacement, Rehabilitation Plan (SR3 Plan) for each basin will be completed as required by Article 6 of the Consent Decree. To date, five SR3 Plans have been submitted to the EPA and MDE including Broad Creek (SSES), Rock Creek (SSES), Oxon Run (non-SSES), Northwest Branch (non-SSES), and Sligo Creek (non-SSES). Another 16 SR3 Plans are scheduled for submission in FY10 totaling approximately 215 miles of trunk sewers identified for rehabilitation.

Cost Change

Not applicable.

STATUS Planning

OTHER

The project scope was developed for the FY2011 CIP and has a total project cost of \$501,580,000. This project was split out from the existing S-1.01, Sewer Reconstruction Program in the Information Only section of the CIP to separately identify the 15-inch diameter and larger trunk sewers included in WSSC's overall plans for sewer reconstruction. Expenditures shown above in FY 2010 were previously included in the S-1.01, Sewer Reconstruction Program. The expenditures and schedule shown in Block B above are preliminary planning level estimates and are expected to change as the individual basin designs are completed and construction contracts are bid. The design work for the SR3 Plans pertaining to Trunk Sewer reconstruction will begin in FY 2010 and is projected to be completed by the end of FY 2013. Construction will begin in each basin as the individual designs are completed over the three-year period.

See Mid-Cycle Update PDF on @36 for later #s

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance	43348	17
	Debt Service	43348	17
Total Costs.....		43348	17
Impact on Water or Sewer Rate.....		93¢	17

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 11
Date First Approved	FY 11
Initial Cost Estimate	501,580
Cost Estimate Last FY	
Present Cost Estimate	501,580
Approved Request, Last FY	
Total Expenditures & Encumbrances	
Approval Request FY 11	53,634
Supplemental Approval Request Current FY (10)	

G. Status Information

Land Status: Right-of-Way may be required
 % Project Completion: P-30%
 Est. Completion Date: FY 2016

H. Map Map Reference Code:

NOT APPLICABLE

A. Identification and Coding Information

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

2. Date: October 1, 2009

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

Revised:

5. Agency: **WSSC**

3. Project Name: Water Reconstruction Program

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	45579	17
	Debt Service	45579	17
Total Costs.....		45579	17
Impact on Water or Sewer Rate.....		89¢	17

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	192,154		17,621	174,533	20,612	23,768	27,094	30,598	34,289	38,172	
Land											
Site Improvements & Utilities											
Construction	320,970		25,963	295,007	32,002	38,380	45,114	52,215	59,703	67,593	
Other	103,401		10,595	92,806	11,871	13,213	14,626	16,111	17,672	19,313	
Total	616,525		54,179	562,346	64,485	75,361	86,834	98,924	111,664	125,078	

C. Funding Schedule (000's)

WSSC Bonds	616,525		54,179	562,346	64,485	75,361	86,834	98,924	111,664	125,078
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D. Description & Justification

DESCRIPTION

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

* EXPENDITURES FOR WATER RECONSTRUCTION ARE EXPECTED TO CONTINUE INDEFINITELY.

Service Area Bi-CountyArea

JUSTIFICATION

Plans & Studies

Flow studies, water system modeling, and field surveys are routinely conducted. A staff level report: Water Main Condition Assessment, 1915-1998; Analysis and Recommendations by the Water Main Reconstruction Work Group (June, 1999) examined the historical main break data for performance measures to define, characterize, and prioritize the future replacement needs of the distribution system. An early outcome of this project identified the need to increase the frequency of water main replacement.

Specific Data

The program's projected work units and expenditure levels for FY'11 (including overhead) are as follows: design of main replacement, 40 miles - \$8.6M; construction of main replacement, 36 miles - \$43.0; water house connection renewals, 3,450 services - \$7.1M; large water service replacement program - \$5.8 M. Note: The specific mix and type of water main reconstruction may vary in any given year depending on the nature and priority of the work to be addressed, however, work is limited to the fiscal allocation for the program. Program level may change in future years subject to results of the 30 Year Infrastructure Plan.

Cost Change

The program costs increased to reflect an increase in replacement miles and greater emphasis on the large meter replacement program.

STATUS Under Construction

OTHER

The project scope has remained the same. The water reconstruction program has been ongoing since 1979. Funding in the six-year

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY -
Date First Approved	FY -
Initial Cost Estimate	
Cost Estimate Last FY	522,616
Present Cost Estimate	616,525
Approved Request, Last FY	50,634
Total Expenditures & Encumbrances	
Approval Request FY 11	64,485
Supplemental Approval Request Current FY (10)	

G. Status Information

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

H. Map Map Reference Code:

MAP NOT APPLICABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: W - 1.00

Project Name: Water Reconstruction Program

program period is subject to Spending Affordability Guideline limits. The following work accomplishments through FY'09 summarize the magnitude of the reconstruction effort: water main cleaning and lining, 1,142 miles completed; water main replacement, 206 miles completed; large water service/meter replacement, 4 large water service/meters replaced. It is anticipated water reconstruction activity will be a perpetual element of future work programs.

COORDINATION

Maryland State Highway Administration, Montgomery County Department of Public Works and Transportation, Montgomery County Government (including local municipalities where work is to be performed), Prince George's County Government (including local municipalities where work is to be performed), Prince George's County Department of Public Works & Transportation and Local Community Civic Associations.

A. Identification and Coding Information

1. Project Number: Agency Number: Update Code:
 2. Date: October 1, 2009
 3. Project Name: Sewer Reconstruction Program
 4. Program: Sanitation 6. Planning Area: Bi-County
 5. Agency: WSSC
 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	70,097		9,473	60,624	11,742	9,917	9,897	9,404	9,687	9,977	
Land	3,300		2,300	1,000	1,000						
Site Improvements & Utilities											
Construction	276,974		37,025	239,949	46,561	39,531	36,776	37,879	39,016	40,186	
Other	60,151		8,059	52,092	10,142	8,575	8,080	8,184	8,429	8,682	
Total	410,522		56,857	353,665	69,445	58,023	54,753	55,467	57,132	58,845	

C. Funding Schedule (000's)

WSSC Bonds	406,522		52,857	353,885	69,445	58,023	54,753	55,467	57,132	58,845	
Federal Aid	4,000		4,000								

D. Description & Justification

DESCRIPTION

This program funds a comprehensive sewer system rehabilitation program. The main component of this program is the rehabilitation and/or repair of sewer mains and house connections. The program addresses infiltration and inflow control, exposed pipe problems, and future capacity needs for the basin. The rehabilitation and repair funded by this program includes the rehabilitation and repair recommended by comprehensive basin studies as well as that resulting from sewer systems evaluations, line blockage assessments, field surveys, and closed circuit tv inspections. This program does not include funding for any major capital projects (e.g. CIP size relief or replacement sewers) that may result from a comprehensive basin study. These are funded separately in the CIP.

* EXPENDITURES FOR SEWER RECONSTRUCTION ARE EXPECTED TO CONTINUE INDEFINITELY.

Service Area Bi-CountyArea

JUSTIFICATION

Plans & Studies

Comprehensive Basin Studies, Sewer System Evaluation Surveys, Line Blockage Assessments, field surveys, closed circuit TV inspections, and/or other activities investigating specific portions of the collection system.

Specific Data

The program's projected work units and expenditure levels for FY'11 (including overhead) are as follows: 37 miles of residential main and lateral line design - \$2.0 M; 42 miles of residential line construction - \$44.6 M; 14 miles of lateral line construction - \$14.9 M; sewer house connection renewals, 800 services - \$4.5 M; emergency repairs - \$2.5 M; purchase of Patuxent Reservoir buffer properties and easements for water supply protection - \$1.0 M. Note: The specific mix and type of sewer reconstruction may vary in any given year depending on identified system defects. However, work is limited to the fiscal allocation for the program. Program level may change in future years subject to results of the 30 Year Infrastructure Plan.

Cost Change

The program cost increased to reflect an increase in the number of miles and cost per mile.

STATUS Under Construction

OTHER

The project scope has remained the same. The program schedule and expenditures shown above reflect the terms of the Sanitary Sewer Overflow Consent Decree. The Consent Decree between WSSC, Maryland Department of the Environment (MDE), and the

E. Annual Operating Budget Impact (000's)

		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service	47777 17
Total Costs		47777 17
Impact on Water or Sewer Rate	94¢	.... 17

F. Approval and Expenditure Data (000's)

Date First in Capital Program FY --
 Date First Approved FY --
 Initial Cost Estimate
 Cost Estimate Last FY 551,898
 Present Cost Estimate 410,522
 Approved Request, Last FY 56,807
 Total Expenditures & Encumbrances
 Approval Request FY 11 69,445
 Supplemental Approval Request Current FY (10)

G. Status Information

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

H. Map Map Reference Code:

MAP NOT APPLICABLE

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 1.01

Project Name: Sewer Reconstruction Program

EPA was entered into on December 7, 2005. The funding schedule reflects the \$4,000,000 Federal stimulus grant provided under the American Recovery and Reinvestment Act for the planned reconstruction work in Lower Anacostia. The sewer reconstruction program was established in 1979.

The following work accomplishments through FY'09 summarize the magnitude of this reconstruction effort: sewer main reconstruction, 233 miles; and sewer house connection renewals, 14,698. It is anticipated that sewer reconstruction activity will be a perpetual element of future work programs.

COORDINATION

Maryland State Highway Administration, Montgomery County Department of Public Works and Transportation, Montgomery County Government (including local municipalities where work is to be performed), Prince George's County Government (including local municipalities where work is to be performed), Maryland Department of the Environment (SSO Consent Decree Compliance), Prince George's County Department of Public Works & Transportation, U.S. Environmental Protection Agency, Region III (SSO Consent Decree Compliance) and Local Community Civic Associations.

A. Identification and Coding Information

1. Project Number: _____ Agency Number: A-103.01 Update Code: Change
 2. Date: October 1, 2009 Revised: _____
 3. Project Name: Anaerobic Digestion/Combined Heat & Power (Seneca & Piscataway WW 5.Agency: **WSSC**
 4. Program: **Sanitation** 6. Planning Area: Bi-County

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

B. Expenditure Schedule (000's)

(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
Cost Elements	Total	Thru FY '09	Estimate FY '10	Total 6 Years	Year 1 FY '11	Year 2 FY '12	Year 3 FY '13	Year 4 FY '14	Year 5 FY '15	Year 6 FY '16	Beyond 6 Years
Planning, Design & Supervision	3,880		290	3,590	390	500	2,000	700			
Land											
Site Improvements & Utilities											
Construction	26,700		26,700	900	4,500	14,000	7,300				
Other	3,058		29	3,029	129	500	1,600	800			
Total	33,638		319	33,319	1,419	5,500	17,600	8,800			

C. Funding Schedule (000's)

WSSC Bonds	13,392	64	13,328	568	2,200	7,040	3,520			
Federal Aid	20,246	255	19,991	851	3,300	10,560	5,280			

D. Description & Justification

DESCRIPTION

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

If the project, or a portion of it, is accomplished as an Energy Performance Project, a baseline will be established to identify energy usage/costs and biosolids hauling and disposal costs before the energy conservation measures (equipment upgrades) are implemented. After all construction is completed and accepted by the WSSC, the combined baseline for all energy conservation measures will be compared annually to the actual energy savings to determine whether the guaranteed savings have been met. The contractor will pay the WSSC for any yearly shortfall if the total guaranteed savings figure is not achieved on a yearly basis. If the actual savings exceed the guaranteed amount based on a yearly verification, the WSSC retains the savings.

In March 2009, the WSSC received a federal Department of Energy grant of \$571,000 for the feasibility study/conceptual design phase. The WSSC will continue to pursue federal capital funding as the specific requirements of the project develop.

JUSTIFICATION

Plans & Studies

Appel Consultants, Urban Waste Grease Resource Assessment-NREL (November 1998); EPA, Opportunities For and Benefits Of Combined Heat and Power at Wastewater Treatment Facilities (December 2006); Brown & Caldwell, Anaerobic Digestion and Electric Generation Options for WSSC, (November 2007); Metcalf & Eddy, WSSC Sludge Digestion Study for Piscataway and Seneca (December 2007); Black & Veatch, WSSC Digester Scope and Analysis, (December 2007); JMT, Western Research Institute (WRI) Biogas Feasibility Study Scope of Work - WSSC (April 2008); JMT, Prince George's County Septage Discharge Facility Study (FOG); JMT, Montgomery County Septage Discharge Facility Study (FOG).

E. Annual Operating Budget Impact (000's)

		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service	1168 15
Total Costs.....		1168 15
Impact on Water or Sewer Rate.....		24 15

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 10
Date First Approved	FY 10
Initial Cost Estimate	345
Cost Estimate Last FY	345
Present Cost Estimate	33,638
Approved Request, Last FY	230
Total Expenditures & Encumbrances	
Approval Request FY 11	1,419
Supplemental Approval Request Current FY (10)	

G. Status Information

Land Status: No land or R/W required
 % Project Completion: P-10%
 Est. Completion Date: (See "Specific Data" for details.)

H. Map Map Reference Code:

MAP NOT APPLICABLE

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D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: A - 103.01

Project Name: Anaerobic Digestion/Combined Heat & Power (Seneca & Piscataway WWTPs)

Specific Data

The EPA is urging wastewater utilities to utilize this commercially available technology (anaerobic digestion) to produce power at a cost below retail electricity, displace purchased fuels for thermal needs, produce renewable fuel for green power programs, enhance power reliability for the wastewater treatment plant to prevent sanitary sewer overflows, reduce biosolids production and improve the health of the Chesapeake Bay, and to reduce greenhouse gas (GHG) and other air pollutants. In April 2009, the EPA announced that greenhouse gases contributed to air pollution that may endanger public health or welfare, and began proceedings to regulate CO2 under the Clean Air Act.

Based on the EPA's engineering "rules of thumb" for considering combined heat and power generation systems at a wastewater treatment plant as well as construction costs for similar plants, the Production Team believes that a capital investment of \$15,000,000 for each plant (Seneca and Piscataway) will result in an estimated savings of \$1,250,000/year per plant in lower electricity and biosolids production costs based in part upon improved solids thickening (4% prior to digestion), two-stage digestion (to improve gas production and digester efficiency), process building, pumps, piping, heat exchangers, and 750 kW fuel cell generator, and Class A biosolids (potential) output for each plant. Funding source estimates are based on federal grant funding for 80% of feasibility/conceptual design study (already announced) and 60% of construction and/or capital costs (projected based on future expected federal grant).

Cost Change

Cost estimates were increased to show an Order of Magnitude estimate of design and construction costs.

STATUS Planning

OTHER

The project scope has remained the same. The project name was changed to more closely align it with the federal grant designation. The feasibility study phase of the project includes analysis and recommended anaerobic process (Mesophilic or Thermophilic); analysis of potential enhancements to optimize gas production; viability of grease trap waste disposal for added energy recovery utilizing WSSC FOG Report recommendations; evaluation of digester processes, evaluation of optimum Solids Residence Time (SRT), etc., to produce Class A or Class B biosolids; odor control mitigation; operational impacts (and mitigation methods) to the liquid side to maintain the integrity and reliability of the Enhanced Nutrient Removal (ENR) design of both plants; analysis of potential biosolids problems including fecal regrowth and odor quality; analysis of engine, turbine, and fuel cell power systems and heat recovery options; and development of preliminary capital cost and lifecycle cost estimates.

The study consists of three Tasks: Task I will provide a technology overview to develop preliminary costs and equipment requirements to allow identification of the options that best support the WSSC's long-term goals; Task II will further develop the selected alternatives to provide detailed cost estimates and equipment requirements, and will provide a Basis of Design document to guide subsequent detailed design; and Task III will summarize the recommendations in a technical report to the Commission.

At the completion of the feasibility study, the Commission will have a defined scope, capital cost, and energy and energy-related cost savings estimates (including GHG credit savings) to be able to proceed with the detailed design and construction of the Biogas and combined heat and power generation system facility. As part of the feasibility study, the digestion and side stream, odor control, and all primary processes will be determined, as will the bi-product selection and generation technology, size, and capacity of all major process equipment.

It is envisioned that either the entire project, or only the portion of the project that includes the production of bio-methane, methanol, or combined heat and power, include a guarantee by the Contractor that the capital cost will be paid back 100% from energy and energy-related cost savings with the payback period not exceeding 15 years. The energy savings for other completed WSSC Energy Performance projects have surpassed the contracts' guaranteed amount every year of the monitoring and verification period. The annual energy and energy-related savings guarantee of the energy performance portion of the project is estimated to be \$2,500,000 for both plants.

Additional savings in the form of Carbon Credits are estimated to be captured starting in FY'11, within the Regional Greenhouse Gas Initiative (RGGI) auction process established by the Maryland Department of the Environment or through a new Federal Cap and Trade Program. The value of these credits is expected to add approximately 10-15% to the anticipated annual energy and energy-related (biosolids reduction) savings from the installation of energy efficient equipment in the WSSC's wastewater treatment plants included in this program. We will be able to develop more detailed information on which to base a more accurate estimate of the value of these credits as State and Federal programs regulations are formalized.

D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: A - 103.01

Project Name: Anaerobic Digestion/Combined Heat & Power (Seneca & Piscataway WWTPs)

COORDINATION

Montgomery County Government, Prince George's County Government, Montgomery County Department of Environmental Protection, Maryland Department of the Environment, Prince George's County Department of Environmental Resources and WSSC Projects S-53.21, Seneca WWTP Enhanced Nutrient Removal, S-53.22, Seneca WWTP Expansion, Part 2 and S-96.12, Piscataway WWTP Enhanced Nutrient Removal.

NOTE This project supports 100% System Improvement.

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A. Identification and Coding Information

1. Project Number: _____ Agency Number: A-106.00 Update Code: Change

2. Date: October 1, 2009 Revised: _____

3. Project Name: Utility Master Plan

4. Program: Sanitation 5. Agency: WSSC

6. Planning Area: Bi-County

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

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

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	629
Total Costs.....		629
Impact on Water or Sewer Rate.....	1¢	18

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	13,643	3,675	2,395	6,300	1,200	1,100	1,000	1,000	1,000	1,000	1,273
Land											
Site Improvements & Utilities											
Construction											
Other	997		240	630	120	110	100	100	100	100	127
Total	14,640	3,675	2,635	6,930	1,320	1,210	1,100	1,100	1,100	1,100	1,400

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 10
Date First Approved	FY 08
Initial Cost Estimate	6,900
Cost Estimate Last FY	14,214
Present Cost Estimate	14,640
Approved Request, Last FY	1,649
Total Expenditures & Encumbrances	3,675
Approval Request FY 11	1,320
Supplemental Approval Request Current FY (10)	

C. Funding Schedule (000's)

	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
WSSC Bonds	8,022	1,301	1,591	4,290	924	726	660	660	660	660	840
Water Operating Funds	3,309	1,187	522	1,320	198	242	220	220	220	220	280
Sewer Operating Funds	3,309	1,187	522	1,320	198	242	220	220	220	220	280

D. Description & Justification

DESCRIPTION

This project provides for establishing an Asset Management Strategy and the development of Asset Management Plans which will identify and examine overall infrastructure needs over the next 30 years. The Plans will encompass the water and wastewater networks (treatment, transmission, distribution, collection, pumping and storage), buildings and grounds, and information technology assets (SCADA system, security services, telephony, land mobile radio system, data network, paging system, microwave network and antenna support structures). The Plans will examine existing and future capacity needs, regulatory needs and 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'18.

JUSTIFICATION

Plans & Studies
 WSSC Strategic Sewerage Study (March, 1993); Patuxent WFP Facility Plan (1997); Facility Master Plan Potomac WFP (2000); Facility Master Plan Patuxent WFP (2000); Potomac Facility Plan (2002); WSSC Sanitary Sewer Overflows Consent Decree (December 7, 2005); WSSC Dynamic Sewer System Model (Contract No. CM4269A05); WSSC Strategic Sewerage Study Update (April 2006); WSSC 2007 Annual Action Item No 13; Phase 1 High Level Utility Wide Master Plan Reports (December 2007).

Specific Data
 The initial phase of the project includes analysis of the results of the baseline sewer system modeling conducted in FY's 2006 and 2007, review of completed and planned Sewer System Evaluation Surveys (SSES), condition assessments, and trunk sewer inspections.

Cost Change
 Planning level cost estimates were increased for inflation.

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

G. Status Information

Land Status: Not Applicable
 % Project Completion: P-20%
 Est. Completion Date: FY 2018

H. Map Map Reference Code:

MAP NOT APPLICABLE

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D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: A - 106.00

Project Name: Utility Master Plan

OTHER

The project scope has remained the same. The program includes six phases. Phase 1 has been completed. Phase 2, which includes 18 projects to establish an asset management framework and develop 5 detailed Asset Management Plans (AMPs), is presently underway. Future phases will continue development of detailed AMPs for various types of assets.

COORDINATION

Maryland-National Capital Park & Planning Commission, Montgomery County Department of Environmental Protection and Prince George's County Department of Environmental Resources.

NOTE This project supports 100% System Improvement.

A. Identification and Coding Information

2. Date: October 1, 2009 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

1. Project Number	Agency Number	Update Code	Revised:
	A-107.00	Add	

3. Project Name: Pressure Reducing Valve Rehabilitation Program 5. Agency: **WSSC**

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

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	2,000	400	300	1,200	300	300	200	200	100	100	100
Land											
Site Improvements & Utilities											
Construction	14,000		500	12,500	3,000	2,000	2,000	2,000	2,000	1,500	1,000
Other	1,560		80	1,370	330	230	220	220	210	160	110
Total	17,560	400	880	15,070	3,630	2,530	2,420	2,420	2,310	1,760	1,210

C. Funding Schedule (000's)

WSSC Bonds	17,560	400	880	15,070	3,630	2,530	2,420	2,420	2,310	1,760	1,210
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D. Description & Justification

DESCRIPTION

This program provides for the planning, design and construction of improvements and replacement of Pressure Reducing Valves (PRV) and their associated vaults as well as some specialty valves and vaults such as altitude or metering valve vaults throughout the water distribution system. The program includes valves ranging in size from 8-inches to 60-inches in diameter. The program will systematically evaluate the condition of individual installations, some of which were constructed as early as the 1930's, and upgrade or relocate the structures and equipment as necessary. The PRV rehabilitation program will improve reliability and increase efficiency of system operation.

JUSTIFICATION

Plans & Studies

Candidate PRV's were originally identified in an October 26, 2005 memo from Jeff Asner to Karen Wright and a subsequent May 7, 2007 memo from Karen Wright to Thomas Heikkinen. Currently there are 25 candidate vaults within this program as identified by the Systems Control Group.

Specific Data

The facilities included in this program are in need of rehabilitation due to factors such as: location within heavily traveled roadways, age deterioration, and obsolescence. For the valves currently under design: (1) Bright Seat PRV - 30" PRV built in 1976. Valves are in poor condition and need to be upgraded to include flow control to increase efficiency; (2) Old Baltimore Ave. PRV - 24" PRV's built in 1955. Isolation valves no longer hold and need replacement. The PRV's need to be updated to include flow control to increase efficiency; (3) Adelphi Road PRV - this facility is located on a 60" water main and is in extremely poor condition, located in a major county road, and parts are of limited availability. This vault is being relocated and updated to current standards.

Cost Change

Not applicable.

STATUS Various Stages of Planning & Design (WSSC Contract No. BL4830B08,).

OTHER

The project scope was developed for the FY 2011 CIP and has a total project cost of \$17,560,000. Funding shown in FY 2010 and before was previously included in ESP project W-745.20, PRV Vaults. PRV rehabilitation will be developed into individual projects or may be combined in some locations based upon proximity to one another and operational considerations.

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

Program Costs	Staff
	Other
Facility Costs	Maintenance .....	....
	Debt Service	1435
Total Costs.....		1435
Impact on Water or Sewer Rate.....		3¢

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 2011
Date First Approved	FY 2011
Initial Cost Estimate	16,460
Cost Estimate Last FY	
Present Cost Estimate	17,560
Approved Request, Last FY	
Total Expenditures & Encumbrances	400
Approval Request FY 11	3,630
Supplemental Approval Request Current FY (10)	

G. Status Information

Land Status: Land & R/W to be acquired

% Project Completion: Not Applicable

Est. Completion Date: Ongoing

H. Map Map Reference Code:



Washington Suburban Sanitary Commission

14501 Sweitzer Lane • Laurel, Maryland 20707-5902

COMMISSIONERS
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GENERAL MANAGER
Jerry N. Johnson

January 20, 2010

The Honorable Nancy M. Floreen
President
Montgomery County Council
Stella Werner Office Building
100 Maryland Avenue
Rockville, MD 20850

Dear Council President Floreen:

The purpose of this letter is to transmit a mid-cycle update to the WSSC's Proposed Fiscal Years 2011-2016 Capital Improvements Program transmitted on September 23, 2009. 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 2011 Preliminary Proposed Budget published on January 15, 2010.

Revisions are recommended for all six Blue Plains WWTP projects to reflect the expenditure schedules included in DCWASA's Proposed CIP document dated October 15, 2009. In WSSC's new Trunk Sewer Reconstruction Program, some work has been deferred to later years in recognition of the complications and associated delays in obtaining required environmental permits for work along the right-of-way.

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

Sincerely,

Gene W. Counihan
Chair

Enclosure

cc: Stephen Farber, Staff Director
Montgomery County Council

Keith Levchenko, Legislative Analyst
Montgomery County Council

EXPENDITURE IMPACTS OF REVISIONS
TO THE
WSSC PROPOSED FYs 2011-2016 CIP
(\$ in thousands)

<u>Projects</u>	<u>Planning & Design Costs</u>	<u>Construction Costs</u>	<u>Other Costs</u>	<u>FY'11 Totals</u>	<u>6-Year Totals</u>
S-22.06 Blue Plains WWTP: Liquid Train Projects, Part 2	\$ 290	\$ 402	\$ 7	\$ 699	\$ 10,932
S-22.07 Blue Plains WWTP: Biosolids Management, Part 2	3,668	18,631	223	22,522	104,747
S-22.08 Blue Plains WWTP: Biological Nutrient Removal	(755)	(5,412)	(62)	(6,229)	434
S-22.09 Blue Plains WWTP: Plant-wide Projects	293	2,684	30	3,007	15,910
S-22.10 Blue Plains WWTP: Enhanced Nutrient Removal	(2,555)	19,082	165	16,692	24,305
S-22.11 Blue Plains: Pipelines & Appurtenances	667	(1,697)	(11)	(1,041)	17,261
S-170.09 Trunk Sewer Reconstruction Program	<u>(1,257)</u>	<u>(11,115)</u>	<u>(2,183)</u>	<u>(14,555)</u>	<u>3,413</u>
Net Impacts	<u>\$ 351</u>	<u>\$ 22,575</u>	<u>\$ (1,831)</u>	<u>\$ 21,095</u>	<u>\$ 177,002</u>

A. Identification and Coding Information

2. Date: October 1, 2009 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

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

Revised: January 20, 2010

3. Project Name: Blue Plains WWTP: Liquid Train Projects, Part 2 5. Agency: **WSSC**

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

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

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	19555
Total Costs.....		19555
Impact on Water or Sewer Rate.....		42#

B. Expenditure Schedule (000's)

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

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	224,120
Present Cost Estimate	240,383
Approved Request, Last FY	4,803
Total Expenditures & Encumbrances	207,641
Approval Request FY 11	2,834
Supplemental Approval Request Current FY (10)	

C. Funding Schedule (000's)

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
WSSC Bonds	227,187	196,243	6,207	20,275	2,678	5,487	6,007	1,546	1,545	3,012	4,462
City of Rockville	13,196	11,398	360	1,179	156	319	349	90	90	175	259

D. Description & Justification

DESCRIPTION

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

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

JUSTIFICATION

Plans & Studies

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

Specific Data

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

Cost Change

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

STATUS Not Applicable

OTHER

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

COORDINATION

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

NOTE This project supports 100% System Improvement.

G. Status Information

Land Status: Not applicable

% Project Completion: On-Going

Est. Completion Date: On-Going

H. Map Map Reference Code:

MAP NOT AVAILABLE

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A. Identification and Coding Information

2. Date: October 1, 2009 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

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

Revised: January 20, 2010

3. Project Name: Blue Plains WWTP: Biosolids Management, Part 2 5. Agency: **WSSC**

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

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

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	29895
Total Costs.....		29895
Impact on Water or Sewer Rate.....		64¢

B. Expenditure Schedule (000's)

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

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	310,198
Present Cost Estimate	360,331
Approved Request, Last FY	16,351
Total Expenditures & Encumbrances	98,622
Approval Request FY 11	38,980
Supplemental Approval Request Current FY (10)	

C. Funding Schedule (000's)

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
WSSC Bonds	340,549	93,208	12,491	232,258	36,840	97,479	56,867	33,003	2,752	5,317	2,592
City of Rockville	19,782	5,414	726	13,491	2,140	5,662	3,303	1,917	160	309	151

D. Description & Justification

DESCRIPTION

This project includes funding for WSSC's share of the Blue Plains Wastewater Treatment Plant biosolids handling projects for which construction began after June 30, 1993. Major projects include: new digestion facilities; gravity and centrifuge thickener facilities; area electrical substation #6; and solids processing building/dewatered sludge loading facility.

Service Area Bi-County Area Capacity 370 MGD

JUSTIFICATION

Plans & Studies

The Blue Plains Intermunicipal Agreement of 1985; the DCWASA Master Plan (1998); EPMC IV Facility Plan (CH2MHILL, 2001); the Biosolids Management at DCWASA Blue Plains Wastewater Treatment Plant Phase II - Design and Cost Considerations for Treatment Alternatives Report (December 2007); and the DCWASA Proposed FY 2009 - FY 2018 Capital Improvement Program information (October, 2009).

Specific Data

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

Cost Change

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

STATUS Not Applicable

OTHER

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

COORDINATION

District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 100% System Improvement.

G. Status Information

Land Status: Not applicable

% Project Completion: On-Going

Est. Completion Date: On-Going

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

2. Date: October 1, 2009 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

1. Project Number	Agency Number	Update Code	Revised: January 20, 2010
973817	S-22.08	Change	

3. Project Name: Blue Plains WWTP: Biological Nutrient Removal 5. Agency: **WSSC**

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

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

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	3307	14
Total Costs.....		3307	14
Impact on Water or Sewer Rate.....		7¢	14

B. Expenditure Schedule (000's)

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

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	89,115
Present Cost Estimate	81,051
Approved Request, Last FY	21,344
Total Expenditures & Encumbrances	43,949
Approval Request FY 11	7,506
Supplemental Approval Request Current FY (10)	

C. Funding Schedule (000's)

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

G. Status Information

Land Status: Not applicable

% Project Completion: C-85%

Est. Completion Date: FY 2014

D. Description & Justification

DESCRIPTION

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

Service Area Bi-County Area Capacity 370 MGD

JUSTIFICATION

Plans & Studies

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

Specific Data

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

Cost Change

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

STATUS Under Construction

OTHER

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

COORDINATION

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

NOTE This project supports 100% Environmental Regulation.

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

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

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

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

5. Agency: **WSSC**

3. Project Name: Blue Plains WWTP: Plant-wide Projects
 4. Program: **Sanitation** 6. Planning Area: **Bi-County**

E. Annual Operating Budget Impact (000's)

Program Costs	Staff .....	.....	FY of Impact
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	15070	.....
Total Costs.....		15070	.....
Impact on Water or Sewer Rate.....		32¢	.....

B. Expenditure Schedule (000's)

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

C. Funding Schedule (000's)

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

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC's share of Blue Plains plant-wide projects for which construction began after June 30, 1993. Major projects include: Process Control Computer Systems; Electrical Power Systems Additions, Phases I & II; High Priority Rehabilitation Program; and Plant-wide Fine Bubble Aeration Conversion.

Service Area **Bi-County Area**

Capacity **370 MGD**

JUSTIFICATION

Plans & Studies

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

Specific Data

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

Cost Change

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

STATUS Not Applicable

OTHER

The project scope has been revised for the FY 2011 CIP to exclude expenditures for currently active projects outside the fence of plant. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect DCWASA's current expenditure estimates and schedules. Given the open-ended nature of the project, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION

District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 100% System Improvement.

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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	197,842
Present Cost Estimate	179,915
Approved Request, Last FY	18,126
Total Expenditures & Encumbrances	130,059
Approval Request FY 11	9,784
Supplemental Approval Request Current FY (10)	

G. Status Information

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

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

2. Date: October 1, 2009 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

1. Project Number	Agency Number	Update Code	Revised: January 20, 2010	
083800	S-22.10	Change		

3. Project Name: Blue Plains WWTP: Enhanced Nutrient Removal 5. Agency: **WSSC**

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

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

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

B. Expenditure Schedule (000's)

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

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	290,352
Present Cost Estimate	432,673
Approved Request, Last FY	8,413
Total Expenditures & Encumbrances	1,587
Approval Request FY 11	34,982
Supplemental Approval Request Current FY (10)	

C. Funding Schedule (000's)

State Aid	432,673	1,587	10,898	349,083	34,982	80,548	95,285	46,569	40,274	51,425	71,105
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G. Status Information.

Land Status: Not Applicable

% Project Completion: P-65%

Est. Completion Date: FY 2019

D. Description & Justification

DESCRIPTION

This project provides funding for WSSC's share of the Blue Plains Enhanced Nutrient Removal projects required to achieve nutrient removal to levels below BNR levels to meet the Chesapeake Bay water quality targets determined in the 2005 Tributary Strategy process. Sub-projects include: Nitrogen Removal Facilities, Centrate Treatment, Enhanced Clarification Facility, and Blue Plains Tunnel and Dewatering Pumping Station.

Service Area Bi-County Area Capacity 370 MGD

JUSTIFICATION

Plans & Studies

Chesapeake Bay Program Tributary Strategies Process (2005); Blue Plains Strategic Process Study, Metcalf & Eddy (2005); Selection of the Enhanced Nitrogen Removal Process Alternative for the Blue Plains Advanced Wastewater Treatment Facility, Metcalf & Eddy (2009); DCWASA Proposed FY 2009 - FY 2018 Capital Improvement Program information (October, 2009).

Specific Data

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

Cost Change

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

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

OTHER

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

COORDINATION

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

NOTE This project supports 100% Environmental Regulation.

H. Map Map Reference Code:

MAP NOT AVAILABLE

34

A. Identification and Coding Information

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

2. Date: October 1, 2009

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

Revised: January 20, 2010

5. Agency: **WSSC**

3. Project Name: Blue Plains: Pipelines & Appurtenances

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

B. Expenditure Schedule (000's)

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

C. Funding Schedule (000's)

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

D. Description & Justification

DESCRIPTION

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

Service Area **Bi-County Area**

Capacity **Various**

JUSTIFICATION

Plans & Studies

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

Specific Data

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

Cost Change

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

STATUS Not Applicable

OTHER

The project scope was developed for the FY 2011 CIP as a split from the existing, S-22.09, Blue Plains WWTP: Plant-wide Projects. The creation of this Pipelines & Appurtenances project is justified by language in the Blue Plains Intermunicipal Agreement, and the expected increases in costs for new and existing projects outside the fence. Expenditures shown above include costs for currently active projects outside the fence which were previously shown in the Plant-wide project. Project costs are derived from the DC-WASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect WASA's current expenditure estimates and schedules. Given the open-ended nature of the project, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION

District of Columbia Water & Sewer Authority (responsible for design and construction).

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

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

Program Costs	Staff	.....	....
	Other	.....	....
Facility Costs	Maintenance	.....	....
	Debt Service	.....	8475
Total Costs.....			8475
Impact on Water or Sewer Rate.....			18¢

F. Approval and Expenditure Data (000's)

Date First in Capital Program	<input type="text" value="FY 11"/>
Date First Approved	<input type="text" value="FY 02"/>
Initial Cost Estimate	<input type="text" value="102,833"/>
Cost Estimate Last FY	<input type="text"/>
Present Cost Estimate	<input type="text" value="102,833"/>
Approved Request, Last FY	<input type="text"/>
Total Expenditures & Encumbrances	<input type="text" value="7,639"/>
Approval Request FY 11	<input type="text" value="9,331"/>
Supplemental Approval Request Current FY (10)	<input type="text"/>

G. Status Information

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

H. Map Map Reference Code:

MAP NOT AVAILABLE

A. Identification and Coding Information

1. Project Number	Agency Number	Update Code
113805	S-170.09	Add

2. Date: October 1, 2009

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

Revised: January 20, 2010

3. Project Name: Trunk Sewer Reconstruction Program

5. Agency: **WSSC**

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

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	121,768		14,172	107,596	17,162	34,223	29,045	13,910	10,157	3,099	
Land											
Site Improvements & Utilities											
Construction	307,476			307,476	16,055	91,588	94,335	58,029	40,310	7,159	
Other	75,749		2,501	73,248	5,862	22,202	21,773	12,695	8,906	1,810	
Total	504,993		16,673	488,320	39,079	148,013	145,153	84,634	59,373	12,068	

C. Funding Schedule (000's)

WSSC Bonds	504,993		16,673	488,320	39,079	148,013	145,153	84,634	59,373	12,068	
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D. Description & Justification

DESCRIPTION

The Trunk Sewer Reconstruction Program provides for the inspection, evaluation, planning, design and construction required for the rehabilitation of sewer mains 15-inches in diameter and larger and their associated manholes.

JUSTIFICATION

Plans & Studies

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

Specific Data

Under the terms of the Consent Decree the WSSC Trunk Sewer Inspection program will inspect approximately 625 miles of sewers in 21-basins by December 2010, Sewer System Evaluation Surveys (SSES) will be conducted for 9 basins by December 2013, and WSSC shall conduct rainfall, groundwater and flow monitoring to determine I/I rates and identify areas of limited capacity through collection system modeling. Where appropriate, WSSC shall use additional means to identify sources of I/I, including CCTV, smoke and/or dye testing.

Once the Trunk Sewer Inspections, SSES work and other related collection system evaluations are complete, a Sewer Basin Repair, Replacement, Rehabilitation Plan (SR3 Plan) for each basin will be completed as required by Article 6 of the Consent Decree. To date, five SR3 Plans have been submitted to the EPA and MDE including Broad Creek (SSES), Rock Creek (SSES), Oxon Run (non-SSES), Northwest Branch (non-SSES), and Sligo Creek (non-SSES). Another 16 SR3 Plans are scheduled for submission in FY10 totaling approximately 215 miles of trunk sewers identified for rehabilitation.

Cost Change

Not applicable.

STATUS Planning

OTHER

The project scope was developed for the FY2011 CIP and has a total project cost of \$504,993,000. This project was split out from the existing S-1.01, Sewer Reconstruction Program in the Information Only section of the CIP to separately identify the 15-inch diameter and larger trunk sewers included in WSSC's overall plans for sewer reconstruction. Expenditures shown above in FY 2010 were previously included in the S-1.01, Sewer Reconstruction Program. The expenditures and schedule shown in Block B above are preliminary planning level estimates and are expected to change as the individual basin designs are completed and construction contracts are bid. The design work for the SR3 Plans pertaining to Trunk Sewer reconstruction will begin in FY 2010 and is projected to be completed by the end of FY 2013. Construction will begin in each basin as the individual designs are completed over the three-year period.

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

Program Costs	Staff		
	Other		
Facility Costs	Maintenance		
	Debt Service	44035	17
Total Costs		44035	17
Impact on Water or Sewer Rate		95¢	17

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 11
Date First Approved	FY 11
Initial Cost Estimate	504,993
Cost Estimate Last FY	
Present Cost Estimate	504,993
Approved Request, Last FY	
Total Expenditures & Encumbrances	
Approval Request FY 11	39,079
Supplemental Approval Request Current FY (10)	

G. Status Information

Land Status: Right-of-Way may be required
 % Project Completion: P-30%
 Est. Completion Date: FY 2016

H. Map Map Reference Code:

NOT APPLICABLE

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D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 170.09

Project Name: Trunk Sewer Reconstruction Program

For FY 2011, construction is scheduled to begin in the Broad Creek, Rock Creek and Sligo Creek Basins, encompassing approximately 13 miles of mainline reconstruction and including pipeline protection from high stream flows and stream bank erosion where required.

The reconstruction that will be performed in each sewer basin will be prioritized to most effectively prevent SSOs and backups. Reconstruction work will include: reduction of inflow and infiltration; replacement of substandard sewer segments; in situ lining of sewer segments; pipeline and manhole protection; rebuilding of manholes; and correction of structural defects and poor alignment. The Consent Decree requires that all rehabilitation work be substantially complete by December 5, 2015.

COORDINATION

Maryland State Highway Administration, Montgomery County Department of Public Works and Transportation, Maryland-National Capital Park & Planning Commission, Maryland Department of the Environment, Prince George's County Department of Public Works & Transportation, U.S. Environmental Protection Agency, Region III and WSSC Project S-1.01, Sewer Reconstruction Program.

NOTE This project supports 100% System Improvement.

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Washington Suburban Sanitary Commission (WSSC)

AGENCY DESCRIPTION

The Washington Suburban Sanitary Commission (WSSC) is a bi-county agency directed by a board of six commissioners, three each from Prince George's County and Montgomery County. The commissioners are appointed by the respective jurisdiction's Executive and confirmed by its County Council.

The WSSC is responsible for providing water and sanitary sewer service within the Washington Suburban Sanitary District, which includes most of Montgomery and Prince George's counties and which, in Montgomery County, excludes the Town of Poolesville and portions of the City of Rockville.

PROGRAM DESCRIPTION AND OBJECTIVES

The principal objective of the Capital Improvements Program (CIP) is the programming of planning, design, land acquisition, and construction activities on a yearly basis for major water and sewerage facilities. These facilities may be necessary for system improvements and/or service to existing customers, to comply with Federal and/or State environmental mandates, and to support new development in accordance with the counties' approved plans and policies for orderly growth and development.

The CIP submission includes all major projects, defined as extensions, projects, or programs involving water and sewer facilities. Major projects include: sewer lines 15 inches in diameter or larger; sewage pumping stations, storage facilities, and force mains; sewage treatment facilities; water mains 16 inches in diameter or larger; water pumping stations; water storage facilities for raw and potable water; water treatment facilities; and other major facilities.

The section following this narrative shows only the WSSC project description forms (PDFs) for which the Executive recommends changes to the Commission's request. Those PDFs are preceded by project briefs which provide a description of the change and the Executive's rationale. The complete set of PDFs submitted by the Commission can be found on the WSSC web site at http://www.wsscwater.com/budget/cip/FY2011/FY11ProposedCIP_Rollup.pdf.

PROGRAM CONTACTS

Contact Mark Brackett of WSSC's Budget Group at 01.206.8179 or John Greiner of the Office of Management

and Budget at 240.777.2765 for more information regarding this agency's capital budget.

CAPITAL PROGRAM REVIEW

This narrative applies only to the Montgomery County and Bi-County water and sewerage projects. Projects that serve only Prince George's County are not included.

Agency Request

The total of \$1,483.0 million in six-year expenditures proposed by the WSSC for FY11-16 is \$502.1 million (51.2 percent) greater than the FY10-15 approved total of \$980.9 million. The increase in six-year costs is primarily attributable to the inclusion of seven new projects – especially the Trunk Sewer Reconstruction Program and the Large Diameter Pipe Rehabilitation Program.

The FY11-16 CIP request includes 50 ongoing, 3 closeout, and 2 pending closeout projects. There are 7 new projects:

- Blue Plains: Pipelines and Appurtenances
- Trunk Sewer Reconstruction Program
- Large Diameter Pipe Rehabilitation Program
- Potomac Water Filtration Plant Substation 2 Replacement
- Potomac Water Filtration Plant Stage 2 Disinfection By-products Rule Implementation
- Clarksburg Area Stage 3 Water Main, Part 4, and
- Reddy Branch Wastewater Pumping Station Augmentation.

The following table compares the six-year expenditures and funding approved for FY10-15, requested by WSSC for FY11-16, and recommended by the County Executive for FY11-16.

WSSC CIP COMPARISON: FY11-16 vs. FY10-15					
(\$000)					
(SIX-YEAR DATA)	CURRENT APPROVED FY10-15	AGENCY REQUEST FY11-16	CHANGE FROM APPROVED	CE RECOMMENDED FY11-16	CHANGE FROM APPROVED
EXPENDITURES					
MONTGOMERY COUNTY SEWERAGE	48,135	54,939	6,804	54,939	6,804
BI-COUNTY SEWERAGE	637,890	1,102,538	464,648	1,276,127	638,237
MONTGOMERY COUNTY WATER	21,386	23,548	2,162	23,548	2,162
BI-COUNTY WATER	273,484	301,983	28,499	301,983	280,597
TOTAL EXPENDITURES	980,895	1,483,008	502,113	1,656,597	675,702
FUNDING					
WSSC BONDS	460,463	945,331	484,868	1,086,211	625,748
SYSTEMS DEVELOPMENT CHARGE	187,759	161,798	(25,961)	161,798	(25,961)
CONTRIBUTIONS	12,389	11,686	(703)	11,686	(703)
ALL OTHER SOURCES	320,284	364,193	43,909	396,902	76,618
TOTAL FUNDING	980,895	1,483,008	502,113	1,656,597	675,702

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Executive Recommendations

The Executive’s recommended FY11-16 CIP is identical to the Commission’s proposed CIP except for the 6 Blue Plains Advanced Wastewater Treatment Plant projects, which have been adjusted to reflect the cost estimates included in the Proposed FY09-18 CIP for the District of Columbia Water and Sewer Authority (WASA). The latter amounts were not incorporated into WSSC’s Proposed FY11-16 CIP because WASA’s Proposed FY09-18 CIP was received after WSSC’s CIP was published.

Because of the revised estimates for the Blue Plains projects, the Executive’s recommended six-year expenditures for WSSC’s CIP total \$1,656.6 million, which is a \$675.7 million (68.9 percent) increase from the approved FY10-15 CIP of \$980.9 million and a \$173.6 million increase over WSSC’s proposed FY11-16 CIP. The increase in total Blue Plains project costs is largely due to receiving higher estimates from WASA for the design and construction costs associated with the new digester facilities (part of the Biosolids Management Part 2 project), for the Potomac Interceptor Odor Control sub-project (included in the Pipelines and Appurtenances project), and for other subprojects.

The following table summarizes the recommended changes for each of the Blue Plains projects.

BLUE PLAINS WWTP PROJECTS - COST COMPARISON							
(S000)							
Projects	TOTAL 6 YR	FY11	FY12	FY13	FY14	FY15	FY16
WSSC REQUEST							
Liquid Train Projects, Part 2	10,522	2,135	4,088	2,163	459	221	1,456
Biosolids Management, Part 2	141,002	16,458	21,606	50,334	43,807	8,698	99
Biological Nutrient Removal	23,513	13,735	8,454	1,324	0	0	0
Plant Wide Projects	22,469	6,777	2,514	7,199	4,423	1,145	411
Enhanced Nutrient Removal	324,778	18,290	88,417	71,234	69,501	37,054	40,282
Pipelines and Appurtenances	45,947	10,372	10,731	6,071	5,700	6,404	6,669
WSSC REQUEST TOTAL	568,231	67,767	135,810	138,325	123,890	53,522	48,917
CE RECOMMENDED							
Liquid Train Projects, Part 2	21,454	2,834	5,806	6,356	1,636	1,635	3,187
Biosolids Management, Part 2	245,749	38,980	103,141	60,170	34,920	2,912	5,626
Biological Nutrient Removal	23,947	7,506	12,001	4,440	0	0	0
Plant Wide Projects	38,379	9,784	7,884	6,376	8,078	5,307	950
Enhanced Nutrient Removal	349,083	34,982	80,548	95,285	46,569	40,274	51,425
Pipelines and Appurtenances	63,208	9,331	6,282	17,408	14,148	8,411	7,628
CE RECOMMENDED TOTAL	741,820	103,417	215,662	190,035	105,351	58,539	68,816
CE Recommended - WSSC Request	173,589	35,650	79,852	51,710	(18,539)	5,017	19,899

HIGHLIGHTS

- Continue to enhance wastewater treatment and solids handling facilities at the regional Blue Plains Advanced Wastewater Treatment Plant in order to achieve environmental goals and greater efficiency.
- Continue to improve reliability and reduce treatment costs at the Potomac Water Filtration plant.
- Move forward with the Bi-County Water Tunnel, for which construction got underway in 2009.

- Enhance water and sewer system reliability and safety while helping to protect the environment through two major new projects – the Trunk Sewer Reconstruction Program and the Large Diameter Pipe Rehabilitation Program – that provide for the replacement of deteriorating large water mains and trunk sewers.
- Increase the replacement of small water mains from 31 to 36 miles per year, while continuing to rehabilitate 42 miles of small sewer lines per year.
- Continue to upgrade the Blue Plains, Seneca, and Damascus wastewater treatment plants for enhanced nutrient removal to meet the environmental goals in the Chesapeake 2000 plan.
- Evaluate, design, and add sustainable energy equipment and systems to produce and use biogas at the Seneca and Piscataway Wastewater Treatment Plants.

SPENDING CONTROL LIMITS

In order to reduce the magnitude of water and sewer rate increases, the Montgomery and Prince George’s County councils adopted a spending affordability process in April 1994. The process requires the counties to set annual ceilings on WSSC’s water and sewer rates and debt (both bonded indebtedness and debt service), and then to adopt corresponding limits on the size of the capital and operating budgets.

While the spending limits technically apply only to the first year of the six-year program, the purpose of the limits includes controlling debt, debt service, and rate increases over the longer term. The FY11 spending control limits recommended by the Executive and adopted by the Montgomery County Council are shown below with their outyear projections.

FY11 WSSC SPENDING CONTROL LIMITS ADOPTED BY THE MONTGOMERY COUNTY COUNCIL (AND OUTYEAR PROJECTIONS)						
	FY11	FY12	FY13	FY14	FY15	FY16
New Debt Requirement (\$000)	\$273,279	\$382,480	\$368,386	\$307,317	\$262,973	\$226,284
Total W/S Operating Budget (\$000)	\$549,142	\$608,465	\$667,788	\$717,057	\$759,836	\$801,208
Debt Service (\$000)	\$175,803	\$208,071	\$240,984	\$268,952	\$289,431	\$308,455
Average Rate Increase	9.9%	12.6%	10.5%	7.9%	6.3%	5.7%

Source: Montgomery County Council Resolution 16-1170 and WSSC Budget Group.

The first year of WSSC’s proposed CIP is consistent with the spending control limits shown above. However, the effects of the recommended increases to the Blue Plains project costs will need to be considered in this and future CIPs and operating budgets to ensure adherence to the spending affordability limits.

The Prince George’s County Council has adopted spending control limits for WSSC that differ from those adopted by the Montgomery County Council. The Prince George’s County limits include a maximum average rate increase of 8.0%.

An estimate of the impact on the water or sewer rate (i.e., the charge to users) is calculated for each project for which the

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estimated annual debt service and operating and maintenance (O&M) costs would result in at least a one cent increase per 1,000 gallons of total consumption. The WSSC Budget Group estimates the relationship between annual debt service and O&M costs and the water and sewer rates. For water projects, approximately \$509,700 of debt service and/or O&M costs equates to a one cent increase in the water rate. For sewer projects, approximately \$463,500 of debt service and/or O&M costs equates to a one cent increase in the sewer rate.

WSSC has cautioned that the calculated impact on water and sewer rates represents only a broad indication of the effect that a particular project has on the rate schedule. The impact on water and sewer rates is influenced by a number of factors, including the actual interest rate on the bonds sold to fund the project, the availability of grants for sewer projects, and fluctuations in water usage (which affects sales revenue).

WSSC'S LEVEL OF BONDED INDEBTEDNESS

Debt Service

The Executive and Council monitor the WSSC's bonded indebtedness and debt service level. The rates of growth in the absolute size of the outstanding water and sewer debt and in debt service have been relatively stable through FY09, as shown in the following table, while debt service as a percentage of water and sewer operating expenditures has fluctuated between 30.9 and 35.6 percent.

WSSC BONDED INDEBTEDNESS AND DEBT SERVICE						
(\$ in Millions)	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ESTIMATED
	FY05	FY06	FY07	FY08	FY09	FY10
End of Fiscal Year - Total Outstanding Bond Debt (includes Storm Water Drainage Bonds)	\$1,454.1	\$1,425.4	\$1,342.0	\$1,336.4	\$1,346.7	\$1,513.2
Outstanding Water and Sewer Bond Debt	\$755.4	\$788.3	\$768.8	\$829.4	\$890.5	\$1,102.3
Total Debt Service - All Operating Funds	\$196.6	\$214.6	\$218.6	\$212.4	\$214.0	\$224.2
Debt Service as a % of Total Operating Exp.	44.8%	43.9%	45.1%	41.8%	40.3%	39.1%
Debt Service in Water/Sewer Operating Exp.	\$133.0	\$139.5	\$141.4	\$136.5	\$141.1	\$155.9
Water/Sewer Debt Service as a % of Total Water/Sewer Operating Expenditures	35.6%	33.9%	34.8%	31.7%	30.9%	31.0%

Source: WSSC Budget Group

The debt service ratio is projected to rise to 32.0% in FY11.

PROJECTED WSSC DEBT SERVICE RATIO UNDER THE COUNTY'S APPROVED SPENDING CONTROL LIMITS						
	FY11	FY12	FY13	FY14	FY15	FY16
Debt Service as a % of Total Water and Sewer Operating Expenditures	32.0%	34.2%	36.1%	37.5%	38.1%	38.5%

Source: WSSC Budget Group

Debt Capacity

State law provides for the option of a tax levy against all assessable property in the Washington Suburban Sanitary District by Montgomery and Prince George's counties to pay for the principal and interest on WSSC bonds. This provision, which would be exercised only if requested by the WSSC, does not constitute a pledge of the full faith and credit of the two counties. However, WSSC bonds are part of the overlapping debt of county agencies. As of June 30, 2009, WSSC

debt represented 48.9 percent of Montgomery County's gross overlapping debt. The amount of debt that the WSSC issues is therefore a factor in rating agency assessments of the credit worthiness of Montgomery County. In addition, increasing levels of debt service can result in increases in the combined water and sewer rate.

"INFORMATION ONLY" PROJECTS

The WSSC is obligated by State law to submit for CIP review and approval only major water and sewerage projects. The agency undertakes other kinds of capital projects as well. These other projects, which total \$1,105.7 million for FY11-16, are presented in the CIP for information only and include Water and Sewer Reconstruction, the Anaerobic Digestion/Combined Heat and Power Program (formerly called the Biogas Production Feasibility Study), Engineering Support, the Energy Performance Program, Entrepreneurial Projects, the Water Storage Rehabilitation Program, the Utility Master Plan, and the Pressure Reducing Valve Rehabilitation Program (new for the FY11-16 CIP).

"Information Only" projects may be included for any number of reasons, including fiscal planning purposes; to improve the reader's understanding of the full scope of a specific set of projects; or in response to a request from one or both of the county governments. "Information Only" projects are subject to review and approval as part of the annual WSSC Operating and Capital Budget, which is acted on by the Council in the spring.

The Water and Sewer Reconstruction "Information Only" projects in WSSC's proposed FY11-16 CIP provide for an increase in small water main replacement from 31 to 36 miles per year in FY11, while sewer main rehabilitation remains at the base level of 42 miles per year (see the following table).

INFRASTRUCTURE RENEWAL INCLUDED IN WSSC'S PROPOSED FY11-16 CIP								
	Approved FY10	Proposed FY11-16						FY11-16 Total
		FY11	FY12	FY13	FY14	FY15	FY16	
Water Main Replacement (mi.)	31	36	41	46	51	56	61	291
Sewer Main Rehabilitation (mi.)	46*	42	35	30	30	30	30	197

*Includes 4 miles of sewer reconstruction funded by an American Recovery and Reinvestment Act (stimulus package) grant.

Source: WSSC Budget Group

PROGRAM FUNDING

The WSSC Capital Improvements Program is funded through a variety of sources described below.

WSSC Bonds

The WSSC raises revenue for CIP projects by issuing water and sewer bonds. These bonds are amortized through periodic charges to the users of water and sewer services. Bond funding for the FY11-16 CIP, as recommended by the Executive, is \$1,086.2 million.

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System Development Charge

The System Development Charge (SDC) is a charge to new development to pay for the part of the CIP which is needed to accommodate growth. The WSSC collects SDC revenue from charges to builders based on the number and type of plumbing fixtures installed in new construction projects. The Executive recommends that \$161.8 million in SDC funds be used to fund growth projects in FY11-16.

State Aid

For sewerage projects such as Blue Plains Wastewater Treatment Plant (WWTP) Enhanced Nutrient Removal, Blue Plains WWTP Biological Nutrient Removal, Seneca WWTP Enhanced Nutrient Removal, and Damascus WWTP Enhanced Nutrient Removal, State funds are recommended to cover \$376.0 million of the costs in FY11-16 (including all costs associated with the Blue Plains WWTP Enhanced Nutrient Removal Project).

WSSC asserts that all WSSC projects receiving State aid conform to the requirements of local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

Municipal Financing

The WSSC CIP contains projects in which neighboring jurisdictions such as the District of Columbia, Rockville, and Fairfax County join the WSSC in financing the construction of sewerage facilities serving the metropolitan area. These jurisdictions contribute an agreed-upon share of the project cost. A total of \$20.9 million in project expenditures is recommended to be financed by these jurisdictions during FY11-16.

Contributions

When the actual costs of water and sewerage facilities required to serve new development are estimated to exceed expected revenues, the difference may be financed by developers in the form of contributions. Contributions toward CIP projects are estimated at \$11.7 million for FY11-16.

STATUTORY AUTHORITY

The Montgomery County CIP review process for the WSSC is governed by laws and regulations of the State of Maryland, the Montgomery County Charter, and the Montgomery County Code. Relevant projects authorized for Montgomery County review include only Montgomery and Bi-County water and sewer projects.

The Montgomery County Executive reviews relevant WSSC CIP proposals and includes them, along with comments and recommendations, in the Executive's Recommended Capital Improvements Program. After a public hearing and subsequent committee work sessions, the Montgomery County Council approves by resolution WSSC's six-year capital program and annual operating and capital budgets, with modifications as desired.

Bi-County projects are projects located completely or partially within Montgomery County or Prince George's County that are designed to provide service in whole or in substantial part to the other county. A proposed Bi-County project may be disapproved only with the concurrence of the governing body of the county which is to receive the designated service. However, the county in which the project is to be physically located has the authority to direct modifications in project location and scheduling, provided that such modifications or changes do not prevent the service from being available when needed.

This authority to modify location may only be exercised during the year in which the project is first introduced. Thereafter, the authority to make modifications is limited to those changes that would not result in substantial net additional costs to the WSSC, unless the county directing the modification reimburses the WSSC for any additional net cost increases resulting from the modification.

The WSSC is responsible for constructing approved capital projects on a schedule as close as possible to the schedule set forth in the adopted CIP. The Commission is limited to undertaking only those projects which are scheduled in the first year of the program. However, it is not obligated to implement any project determined to be not financially feasible.

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 14, 2009
 Required Adequate Public Facility: No

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru		Est. 6 Year						Beyond	
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15	FY16	6 Years
Planning, Design and Supervision	12,089	7,077	1,479	3,533	1,473	1,336	724	0	0	0	0
Construction	67,378	35,655	11,546	20,177	5,959	10,546	3,672	0	0	0	0
Other	794	427	130	237	74	119	44	0	0	0	0
Total	80,261	43,159	13,155	23,947	7,506	12,001	4,440	0	0	0	0

FUNDING SCHEDULE (\$000)

Municipal (WSSC only)	2,203	1,185	361	657	206	329	122	0	0	0	0
State Aid	40,132	21,580	6,578	11,974	3,753	6,001	2,220	0	0	0	0
WSSC Bonds	37,926	20,394	6,216	11,316	3,547	5,671	2,098	0	0	0	0

COMPARISON (\$000)

	Total	Thru		Est. 6 Year						Beyond		Approp. Request
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15	FY16	6 Years	
Current Approved	89,115	43,160	21,344	24,611	16,434	7,366	798	13	0	0	0	0
Agency Request	85,457	43,159	18,785	23,513	13,735	8,454	1,324	0	0	0	0	13,735
Recommended	80,261	43,159	13,155	23,947	7,506	12,001	4,440	0	0	0	0	7,506
CHANGE												
Agency Request vs Approved			(3,658)	(4.1%)	(1,098)	(4.5%)			13,735	0.0%		
Recommended vs Approved			(8,854)	(9.9%)	(664)	(2.7%)			7,506	0.0%		
Recommended vs Request			(5,196)	(6.1%)	434	1.8%			(6,229)	(45.4%)		

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. The Executive recommends changes in project estimates to align with the amounts proposed by the District of Columbia Water and Sewer Authority (WASA) in its Proposed FY2009-2018 CIP.

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A. Identification and Coding Information

2. Date: October 1, 2009 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

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

3. Project Name: Blue Plains WWTP: Biological Nutrient Removal 5. Agency: **WSSC**

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

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

Program Costs	Staff .....	.....
	Other .....	.....
Facility Costs	Maintenance .....	.....
	Debt Service	3521	14
Total Costs.....		3521	14
Impact on Water or Sewer Rate.....		8¢	14

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	12,906	7,077	2,195	3,634	2,228	1,141	265				
Land											
Site Improvements & Utilities											
Construction	71,705	35,655	16,404	19,646	11,371	7,229	1,046				
Other	846	427	186	233	136	84	13				
Total	85,457	43,159	18,785	23,513	13,735	8,454	1,324				

C. Funding Schedule (000's)

WSSC Bonds	40,381	20,394	8,876	11,111	6,490	3,995	626				
State Aid	42,730	21,580	9,393	11,757	6,868	4,227	662				
City of Rockville	2,346	1,185	516	645	377	232	36				

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 2008 - FY 2017 Capital Improvement Program information (January, 2009).

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

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

STATUS Under Construction

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

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

NOTE This project supports 100% Environmental Regulation.

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	89,115
Present Cost Estimate	85,457
Approved Request, Last FY	21,344
Total Expenditures & Encumbrances	43,159
Approval Request FY 11	13,735
Supplemental Approval Request Current FY (10)	

G. Status Information

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

H. Map Map Reference Code:

MAP NOT AVAILABLE

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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 17, 2009
 Required Adequate Public Facility: No

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru Est. 6 Year						Beyond			
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15	FY16	6 Years
Planning, Design and Supervision	79,881	37,289	5,996	36,037	8,958	11,027	10,353	4,858	375	466	559
Construction	279,270	62,745	7,090	207,278	29,636	91,093	49,221	29,716	2,508	5,104	2,157
Other	3,592	1,000	131	2,434	386	1,021	596	346	29	56	27
Total	362,743	101,034	13,217	245,749	38,980	103,141	60,170	34,920	2,912	5,626	2,743

FUNDING SCHEDULE (\$000)

Municipal (WSSC only)	19,914	5,546	726	13,491	2,140	5,662	3,303	1,917	160	309	151
System Development Charge	0	0	0	0	0	0	0	0	0	0	0
WSSC Bonds	342,829	95,488	12,491	232,258	36,840	97,479	56,867	33,003	2,752	5,317	2,592

COMPARISON (\$000)

	Total	Thru Est. 6 Year						Beyond		Approp.		
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15	FY16	6 Years	Request
Current Approved	310,198	101,034	16,351	192,546	46,498	59,836	59,449	24,778	1,985	0	267	0
Agency Request	252,064	101,034	10,028	141,002	16,458	21,606	50,334	43,807	8,698	99	0	16,458
Recommended	362,743	101,034	13,217	245,749	38,980	103,141	60,170	34,920	2,912	5,626	2,743	38,980
CHANGE												
Agency Request vs Approved			(58,134)	(18.7%)	(51,544)	(26.8%)			16,458	0.0%		
Recommended vs Approved			52,545	16.9%	53,203	27.6%			38,980	0.0%		
Recommended vs Request			110,679	43.9%	104,747	74.3%			22,522	136.8%		

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. The Executive recommends changes in project estimates to align with the amounts proposed by the District of Columbia Water and Sewer Authority (WASA) in its Proposed FY2009-2018 CIP. The Executive's recommended expenditures exhibit significant increases over the FY10-15 Approved and the FY11-16 Requested amounts because of higher design and construction cost estimates for the new digester facilities as reflected in WASA's Proposed FY2009-2018 CIP.

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A. Identification and Coding Information

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

2. Date: October 1, 2009

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

Revised:

5. Agency: **WSSC**

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

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

B. Expenditure Schedule (000's)

	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Cost Elements											
Planning, Design & Supervision	69,499	37,289	5,761	26,449	5,290	6,450	6,112	5,324	3,222	51	
Land											
Site Improvements & Utilities											
Construction	180,070	62,745	4,168	113,157	11,005	14,942	43,724	38,049	5,390	47	
Other	2,495	1,000	99	1,396	163	214	498	434	86	1	
Total	252,064	101,034	10,028	141,002	16,458	21,606	50,334	43,807	8,698	99	

C. Funding Schedule (000's)

WSSC Bonds	238,229	95,488	9,478	133,263	15,555	20,420	47,571	41,402	8,221	94
City of Rockville	13,835	5,546	550	7,739	903	1,186	2,763	2,405	477	5

D. Description & Justification

DESCRIPTION

This project includes funding for WSSC's share of the Blue Plains Wastewater Treatment Plant biosolids handling projects for which construction began after June 30, 1993. Major projects include: new digestion facilities; 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 2008 - FY 2017 Capital Improvement Program information (January, 2009).

Specific Data

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

Cost Change

The cost decrease is due to reduced construction cost estimates for the Digester Facility, Centrifuge Thickener Facility, and Solids Processing Building/Dewatered Sludge Loading Facility.

STATUS Not Applicable

OTHER

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

COORDINATION

District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 100% System Improvement.

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

Program Costs	Staff	.....	....
	Other	.....	....
Facility Costs	Maintenance	.....	....
	Debt Service	20774	17
Total Costs		20774	17
Impact on Water or Sewer Rate		45¢	17

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	310,198
Present Cost Estimate	252,064
Approved Request, Last FY	16,351
Total Expenditures & Encumbrances	101,034
Approval Request FY 11	16,458
Supplemental Approval Request Current FY (10)	

G. Status Information

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

H. Map Map Reference Code:

MAP NOT AVAILABLE

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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 17, 2009**
 Required Adequate Public Facility: **No**

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru Est. 6 Year						Beyond			
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15	FY16	6 Years
Planning, Design and Supervision	66,478	4,476	7,843	48,055	7,057	9,366	11,765	9,161	6,960	3,746	6,104
Construction	364,816	0	2,947	297,572	27,579	70,384	82,577	36,947	32,915	47,170	64,297
Other	4,313	45	108	3,456	346	798	943	461	399	509	704
Total	435,607	4,521	10,898	349,083	34,982	80,548	95,285	46,569	40,274	51,425	71,105

FUNDING SCHEDULE (\$000)

State Aid	435,607	4,521	10,898	349,083	34,982	80,548	95,285	46,569	40,274	51,425	71,105
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COMPARISON (\$000)

	Total	Thru Est. 6 Year						Beyond		Approp. Request		
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15		FY16	6 Years
Current Approved	290,352	4,520	8,413	255,349	20,277	75,404	77,975	60,851	20,842	0	22,070	0
Agency Request	398,001	4,521	11,129	324,778	18,290	88,417	71,234	69,501	37,054	40,282	57,573	18,290
Recommended	435,607	4,521	10,898	349,083	34,982	80,548	95,285	46,569	40,274	51,425	71,105	34,982
CHANGE				TOTAL	%	6-YEAR	%			APPROP.		
Agency Request vs Approved				107,649	37.1%	69,429	27.2%			18,290		0.0%
Recommended vs Approved				145,255	50.0%	93,734	36.7%			34,982		0.0%
Recommended vs Request				37,606	9.4%	24,305	7.5%			16,692		91.3%

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. The Executive recommends changes in project estimates to align with the amounts proposed by the District of Columbia Water and Sewer Authority (WASA) in its Proposed FY2009-2018 CIP. The Executive's recommended expenditures exhibit significant increases over the FY10-15 Approved and the FY11-16 Requested amounts because of higher design and construction cost estimates for the nitrogen removal facility, new flow diversion, and site preparation (as reflected in WASA's Proposed FY2009-2018 CIP) plus a higher negotiated WSSC cost share. (WSSC's share of the costs for this project reflects cost allocations agreed to under the Intermunicipal Agreement of 1985.)

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A. Identification and Coding Information

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

2. Date: October 1, 2009 | Revised: []

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

4. Program: Sanitation | 5. Agency: WSSC

6. Planning Area: Bi-County

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

E. Annual Operating Budget Impact (000's)

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

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	71,344	4,476	11,019	50,850	9,612	9,489	12,132	10,645	5,867	3,105	4,999
Land											
Site Improvements & Utilities											
Construction	322,717			270,713	8,497	78,053	58,397	58,168	30,820	36,778	52,004
Other	3,940	45	110	3,215	181	875	705	688	367	399	570
Total	398,001	4,521	11,129	324,778	18,290	88,417	71,234	69,501	37,054	40,282	57,573

C. Funding Schedule (000's)

State Aid	398,001	4,521	11,129	324,778	18,290	88,417	71,234	69,501	37,054	40,282	57,573
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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: Nutrient 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); DCWASA Approved FY 2008 - FY 2017 Capital Improvement Program information (January, 2009).

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

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

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

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

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

NOTE This project supports 100% Environmental Regulation.

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	290,352
Present Cost Estimate	398,001
Approved Request, Last FY	8,413
Total Expenditures & Encumbrances	4,521
Approval Request FY 11	18,290
Supplemental Approval Request Current FY (10)	

G. Status Information

Land Status: Not Applicable

% Project Completion: P-65%

Est. Completion Date: FY 2019

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

MAP NOT AVAILABLE

42-10

5

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 17, 2009
 Required Adequate Public Facility: No

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru Est. 6 Year			Beyond						
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15	FY16	6 Years
Planning, Design and Supervision	36,389	26,032	2,140	6,603	490	1,015	2,310	842	823	1,123	1,614
Construction	198,539	176,478	4,362	14,639	2,316	4,734	3,983	778	796	2,032	3,060
Other	2,349	2,025	65	212	28	57	63	16	16	32	47
Total	237,277	204,535	6,567	21,454	2,834	5,806	6,356	1,636	1,635	3,187	4,721

FUNDING SCHEDULE (\$000)

Municipal (WSSC only)	13,026	11,228	360	1,179	156	319	349	90	90	175	259
System Development Charge	0	0	0	0	0	0	0	0	0	0	0
WSSC Bonds	224,251	193,307	6,207	20,275	2,678	5,487	6,007	1,546	1,545	3,012	4,462

COMPARISON (\$000)

	Total	Thru Est. 6 Year			Beyond						Approp. Request	
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15	FY16		6 Years
Current Approved	224,120	204,535	4,803	7,040	1,668	1,130	1,056	898	2,288	0	7,742	0
Agency Request	225,687	204,535	5,478	10,522	2,135	4,088	2,163	459	221	1,456	5,152	2,135
Recommended	237,277	204,535	6,567	21,454	2,834	5,806	6,356	1,636	1,635	3,187	4,721	2,834
CHANGE			TOTAL	%	6-YEAR	%				APPROP.		
Agency Request vs Approved			1,567	0.7%	3,482	49.5%				2,135	0.0%	
Recommended vs Approved			13,157	5.9%	14,414	204.7%				2,834	0.0%	
Recommended vs Request			11,590	5.1%	10,932	103.9%				699	32.7%	

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. The Executive recommends changes in project estimates to align with the amounts proposed by the District of Columbia Water and Sewer Authority (WASA) in its Proposed FY2009-2018 CIP. The Executive's recommended expenditures exhibit significant six-year increases over the FY10-15 Approved and the FY11-16 Requested amounts because of higher design and construction cost estimates for the Filtration and Disinfection Facilities, Process Research and Pilot subprojects as reflected in WASA's Proposed FY2009-2018 CIP.

A. Identification and Coding Information

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

2. Date: October 1, 2009

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

Revised:

5. Agency: **WSSC**

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

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

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	30,753	26,032	1,381	2,378	200	470	565	388	167	588	962
Land											
Site Improvements & Utilities											
Construction	192,701	176,478	4,043	8,041	1,914	3,578	1,577	66	52	854	4,139
Other	2,233	2,025	54	103	21	40	21	5	2	14	51
Total	225,687	204,535	5,478	10,522	2,135	4,088	2,163	459	221	1,456	5,152

C. Funding Schedule (000's)

WSSC Bonds	213,298	193,307	5,177	9,945	2,018	3,864	2,044	434	209	1,376	4,869
City of Rockville	12,389	11,228	301	577	117	224	119	25	12	80	283

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: Improvements to Nitrification/Denitrification Facilities Upgrade; 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 2008 - FY 2017 Capital Improvement Program information (January, 2009).

Specific Data

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

Cost Change

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

STATUS Not Applicable

OTHER

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

COORDINATION

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

NOTE This project supports 100% System Improvement.

E. Annual Operating Budget Impact (000's)

FY of Impact

Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service	18600
Total Costs.....		18600
Impact on Water or Sewer Rate.....		40¢

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	224,120
Present Cost Estimate	225,687
Approved Request, Last FY	4,803
Total Expenditures & Encumbrances	204,535
Approval Request FY 11	2,135
Supplemental Approval Request Current FY (10)	

G. Status Information

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

H. Map Map Reference Code:

MAP NOT AVAILABLE

42-12

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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, 2009
 Required Adequate Public Facility: No

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru Est. 6 Year						Beyond			
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15	FY16	6 Years
Planning, Design and Supervision	41,288	32,193	1,558	6,705	1,062	2,207	1,123	1,121	880	312	832
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	139,760	99,493	6,531	31,294	8,625	5,599	5,190	6,877	4,374	629	2,442
Other	1,810	1,316	81	380	97	78	63	80	53	9	33
Total	182,858	133,002	8,170	38,379	9,784	7,884	6,376	8,078	5,307	950	3,307

FUNDING SCHEDULE (\$000)

Municipal (WSSC only)	10,037	7,301	448	2,106	537	433	350	443	291	52	182
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	172,821	125,701	7,722	36,273	9,247	7,451	6,026	7,635	5,016	898	3,125

COMPARISON (\$000)

	Total	Thru Est. 6 Year						Beyond		Approp. Request		
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15		FY16	6 Years
Current Approved	197,842	140,641	18,126	38,311	18,944	9,917	7,552	1,423	475	0	764	0
Agency Request	163,847	133,002	8,006	22,469	6,777	2,514	7,199	4,423	1,145	411	370	6,777
Recommended	182,858	133,002	8,170	38,379	9,784	7,884	6,376	8,078	5,307	950	3,307	9,784
CHANGE												
Agency Request vs Approved			(33,995)	(17.2%)	(15,842)	(41.4%)			6,777	0.0%		
Recommended vs Approved			(14,984)	(7.6%)	68	0.2%			9,784	0.0%		
Recommended vs Request			19,011	11.6%	15,910	70.8%			3,007	44.4%		

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. The Executive recommends changes in project estimates to align with the amounts proposed by the District of Columbia Water and Sewer Authority (WASA) in its Proposed FY2009-2018 CIP. Beginning in FY11, costs for currently active "outside the fence" projects (projects that lie outside the boundaries of the Blue Plains plant) are split out of this project and included under Project 113804, "Pipelines and Appurtenances." The Executive's recommended expenditures exhibit significant increases over the FY11-16 Requested amounts because of higher design and construction cost estimates for the Electrical Power System Switchgear and Process Computer Control System subprojects, as reflected in WASA's Proposed FY2009-2018 CIP.

A. Identification and Coding Information

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

2. Date: October 1, 2009 | Revised: _____

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

4. Program: Sanitation | 5. Agency: WSSC | 6. Planning Area: Bi-County

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

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

Program Costs	Staff	.....	....
	Other	.....	....
Facility Costs	Maintenance	.....	....
	Debt Service	.....	13503
Total Costs			13503
Impact on Water or Sewer Rate			29¢

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	36,701	32,193	1,307	3,201	769	856	845	705	26		
Land											
Site Improvements & Utilities											
Construction	125,525	99,493	6,620	19,046	5,941	1,633	6,283	3,674	1,108	407	366
Other	1,621	1,316	79	222	67	25	71	44	11	4	4
Total	163,847	133,002	8,006	22,469	6,777	2,514	7,199	4,423	1,145	411	370

C. Funding Schedule (000's)

	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
WSSC Bonds	154,853	125,701	7,567	21,235	6,405	2,376	6,804	4,180	1,082	388	350
City of Rockville	8,994	7,301	439	1,234	372	138	395	243	63	23	20

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 DC-WASA Approved FY 2008 - FY 2017 Capital Improvement Program information (January 2009).

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

Cost Change
Expenditures shown above now exclude costs for currently active projects "outside the fence" of the wastewater treatment plant. Beginning with the FY 2011 CIP, those costs have been split out and are shown under project S-22.11: Blue Plains Pipelines and Appurtenances.

STATUS Not Applicable

OTHER
The project scope has been revised for the FY 2011 CIP to exclude expenditures for currently active projects outside the fence of plant. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect DCWASA's current expenditure estimates and schedules. Given the open-ended nature of the project, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION
District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE This project supports 100% System Improvement.

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	197,842
Present Cost Estimate	163,847
Approved Request, Last FY	18,126
Total Expenditures & Encumbrances	133,002
Approval Request FY 11	6,777
Supplemental Approval Request Current FY (10)	

G. Status Information

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

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

MAP NOT AVAILABLE

42-14

51

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: January 3, 2010
 Required Adequate Public Facility: No

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru Est. 6 Year			Beyond						
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15	FY16	6 Years
Planning, Design and Supervision	20,901	1,129	2,896	13,639	3,134	1,907	2,892	2,320	1,968	1,418	3,237
Construction	80,915	6,434	15,332	48,944	6,105	4,313	14,344	11,688	6,360	6,134	10,205
Other	1,017	76	182	625	92	62	172	140	83	76	134
Total	102,833	7,639	18,410	63,208	9,331	6,282	17,408	14,148	8,411	7,628	13,576

FUNDING SCHEDULE (\$000)

Contributions	0	0	0	0	0	0	0	0	0	0	0
Municipal (WSSC only)	5,646	419	1,011	3,471	512	345	956	777	462	419	745
WSSC Bonds	97,187	7,220	17,399	59,737	8,819	5,937	16,452	13,371	7,949	7,209	12,831

COMPARISON (\$000)

	Total	Thru Est. 6 Year			Beyond						Approp. Request	
		FY09	FY10	Total	FY11	FY12	FY13	FY14	FY15	FY16		6 Years
Current Approved	0	0	0	0	0	0	0	0	0	0	0	0
Agency Request	75,836	7,639	12,220	45,947	10,372	10,731	6,071	5,700	6,404	6,669	10,030	10,372
Recommended	102,833	7,639	18,410	63,208	9,331	6,282	17,408	14,148	8,411	7,628	13,576	9,331
CHANGE			TOTAL	%	6-YEAR	%			APPROP.			
Agency Request vs Approved			75,836	0.0%	45,947	0.0%			10,372	0.0%		
Recommended vs Approved			102,833	0.0%	63,208	0.0%			9,331	0.0%		
Recommended vs Request			26,997	35.6%	17,261	37.6%			(1,041)	(10.0%)		

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. The Executive recommends changes in project estimates to align with the amounts proposed by the District of Columbia Water and Sewer Authority (WASA) in its Proposed FY2009-2018 CIP. This is a new project that focuses on subprojects that are "outside the fence" (e.g. located outside the boundaries of the Blue Plains treatment plant). It includes active "outside the fence" subprojects that were previously included under Project 023805, "Plant Wide Projects," as well as new subprojects associated with the Combined Sewer Overflow (CSO) Long Term Control Plan. The Executive's recommended expenditures exhibit significant increases over the FY11-16 Requested amounts because of higher design and construction cost estimates for the Potomac Interceptor and Anacostia CSO Tunnel subprojects as reflected in WASA's Proposed FY2009-2018 CIP.

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A. Identification and Coding Information

2. Date: October 1, 2009 7. Pre PDF Pg.No.: 8. Req. Adeq. Pub. Fac.

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

Revised: _____

3. Project Name: Blue Plains: Pipelines & Appurtenances 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	6250
Total Costs.....		6250
Impact on Water or Sewer Rate.....		13¢

B. Expenditure Schedule (000's)

Cost Elements	(8) Total	(9) Thru FY '09	(10) Estimate FY '10	(11) Total 6 Years	(12) Year 1 FY '11	(13) Year 2 FY '12	(14) Year 3 FY '13	(15) Year 4 FY '14	(16) Year 5 FY '15	(17) Year 6 FY '16	(18) Beyond 6 Years
Planning, Design & Supervision	16,591	1,129	2,539	9,819	2,467	1,818	1,738	1,327	1,297	1,172	3,104
Land											
Site Improvements & Utilities											
Construction	58,495	6,434	9,560	35,674	7,802	8,807	4,273	4,317	5,044	5,431	6,827
Other	750	76	121	454	103	106	60	56	63	66	99
Total	75,836	7,639	12,220	45,947	10,372	10,731	6,071	5,700	6,404	6,669	10,030

F. Approval and Expenditure Data (000's)

Date First in Capital Program	FY 11
Date First Approved	FY 02
Initial Cost Estimate	75,836
Cost Estimate Last FY	
Present Cost Estimate	75,836
Approved Request, Last FY	
Total Expenditures & Encumbrances	7,639
Approval Request FY 11	10,372
Supplemental Approval Request Current FY (10)	

C. Funding Schedule (000's)

WSSC Bonds	71,673	7,220	11,549	43,425	9,803	10,142	5,738	5,387	6,052	6,303	9,479
City of Rockville	4,163	419	671	2,522	569	589	333	313	352	366	551

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 DC-WASA Approved FY 2008 - FY 2017 Capital Improvement Program information (January 2009).

Specific Data
This is a continuation of the DC-WASA's upgrading of the Blue Plains-associated projects outside the fence.

Cost Change
The cost for this project has increased due to the addition of the Anacostia Tunnel portion of the Long Term Control Program.

STATUS Not Applicable

OTHER
The project scope was developed for the FY 2011 CIP and has an estimated cost of \$75,836,000. This project is split from the existing, S-22.09, Blue Plains WWTP: Plant-wide Projects. The creation of this Pipelines & Appurtenances project is justified by language in the Blue Plains Intermunicipal Agreement, and the expected increases in costs for new and existing projects outside the fence. Expenditures shown above include costs for currently active projects outside the fence which were previously shown in the Plant-wide project. Project costs are derived from the DC-WASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect WASA's current expenditure estimates and schedules. Given the open-ended nature of the project, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION
District of Columbia Water & Sewer Authority (responsible for design and construction).

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

G. Status Information

Land Status: Not Applicable

% Project Completion: On-Going

Est. Completion Date: On-Going

H. Map Map Reference Code:

MAP NOT AVAILABLE

42-16

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