



District of Columbia Water and Sewer Authority

# CAPITAL IMPROVEMENT PROGRAM

APPROVED FY 2009-2018

*Adopted February 4, 2010*

*William M. Walker, Chairman of the Board*

*George S. Hawkins, General Manager*

*Olu Adebo, Chief Financial Officer*



**SUSTAINABILITY**

**MANAGING AGING ASSETS DURING CHALLENGING ECONOMIC TIMES**



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## **ACKNOWLEDGEMENTS**

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## ACKNOWLEDGEMENTS

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*The Finance and Budget Department would like to extend its appreciation to all the departmental staff members whose hard work and dedication helped make this document possible.*



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District of Columbia Water and Sewer Authority

# CAPITAL IMPROVEMENT PROGRAM

APPROVED FY 2009-2018



## Section I GENERAL MANAGER'S MESSAGE

Members of the DC WASA Board of Directors tour Blue Plains site along the Potomac River, to learn about existing and proposed construction projects that will enhance the water, sewer and wastewater infrastructure and facilities. These projects







**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**  
5000 OVERLOOK AVENUE, S.W., WASHINGTON, D.C. 20032

February 4, 2010

Mr. William Walker  
Chairman  
and Members, Board of Directors  
District of Columbia Water and Sewer Authority  
5000 Overlook Avenue, S.W.  
Washington, D.C. 20032

Dear Chairman Walker and DC WASA Board Members:

As the new General Manager of DC WASA, I am extremely pleased to transmit my first District of Columbia Water and Sewer Authority's (DC WASA) approved Capital Improvement Program (CIP) budgets as adopted by the DC WASA Board of Directors at its regular meeting held on February 4, 2010. These budgets are intended to meet the mandate provided for in District of Columbia Law 11-111, which specifies that "...the Board shall annually develop, adopt and submit to the Mayor, a multi-year financial plan for Capital and Operating expenses ..." DC WASA's capital budgets include: a ten-year (FY 2009-2018) CIP disbursement budget, a Lifetime budget and a Capital Authority request and allocates billions of dollars in resources for important environmental and regulatory initiatives that will help improve the health of our surrounding waterways and reduce the carbon footprint of DC WASA within the region. Many of our ongoing capital investments have already resulted in reduced energy use at Blue Plain, nitrogen reduction output levels below the Chesapeake Bay Agreement requirements and nearly 40 percent reductions in combined sewer overflows.

This transmittal amends the October 2009 Interim General Manager's budget message and reflects the major changes and opportunities adopted by the Board through extensive review and analysis by various committees of the Board and the full Board of Directors between October 2009 and final approvals in February 2010. These capital budgets reflect the significant challenge in balancing the needs of the Authority, while at the same time recognizing the impacts that higher rates would have on our customers in these difficult financial times.

This document reflects several significant changes from the October 2009 budget submission which provided for the deferral of certain identified or needed infrastructure improvements beyond FY 2011 in order to mitigate the financial impact on our customers. As is often the case, significant challenges often provide unexpected opportunities and that is what has occurred with the Board adopted ten-year CIP. Due to major reductions in submitted bids as compared with the original estimates, changes in capital financing and project scheduling that have occurred over the same time frame, we are able to meet all of the critical needs identified during the budgeting process. These needs reflect approximately the same CIP expenditure levels for FY 2010 and FY 2011 that were in the originally submitted budget, thus mitigating the rate impact on our customers for FY 2011 while moving forward with much needed infrastructure improvements.

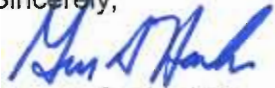
As shown below, this approved budget includes: \$3.8 billion for our FY 2009 – FY 2018 CIP (disbursements basis); \$7.5 billion for lifetime budget; and \$382.3 million in new Capital Authority request. Our FY 2009 – FY 2018 CIP budget (disbursements) increased by approximately \$625 million from last year's approved CIP of \$3.2 billion. This increase funds over \$300 million in additional costs for the Combined Sewer Overflow-Long Term Control Plan (CSO LTCP), driven by updated costs estimates from the project's recently completed facility plan. It also includes a reallocation of costs to the CSO LTCP that were previously allocated to the Blue Plains Total Nitrogen Program (BTN). Another major driver of the increase in our CIP is the addition of over \$300 million in facility projects in our Water and Sewer service area to fund both high priority water and sewer main projects and a service life restoration program designed to ensure the sustainability of our underground infrastructure by replacing approximately 1 percent of the pipes annually.

<b>Capital Improvement Program (CIP) Budget</b>			
<b>(\$000's)</b>			
<b>Program Area</b>	<b>10-Year Disbursement</b>	<b>Lifetime Budget</b>	<b>Capital Authority Request</b>
Wastewater Treatment	1,572,746	2,594,895	22,968
Sanitary Sewer	395,557	700,357	142,591
Combined Sewer Overflow	1,080,116	2,696,269	201,666
Stormwater	21,540	58,743	4,328
Water System	555,278	1,202,923	-
Washington Aqueduct (DCWASA share)	92,728	186,634	5,108
Capital Equipment	98,546	98,546	5,606
<b>Total</b>	<b>3,816,511</b>	<b>7,538,367</b>	<b>382,267</b>

## Acknowledgements

I would like to thank the Interim General Manager, Avis Russell, for her work prior to my arrival, including the development and submission of the capital budgets to the Board of Directors. In addition, I want to acknowledge the support and guidance of the DC WASA Board of Directors during the series of reviews and discussions, along with their willingness to explore new ideas and project delivery methods as we move toward the next generation of capital investment. Finally, I would also like to acknowledge all of the support from the hard working and dedicated professionals of the DC WASA staff for the thoroughness and long hours required to analyze a variety of budget scenarios for Board presentation throughout this review cycle. As we move forward on the implementation of these important investment decisions, I am continually energized by the tremendous talents and support of everyone associated with DC WASA. These are exciting and challenging times and I am thrilled to lead this organization as it moves forward to achieve our vision to “provide world-class water and wastewater services as a leading steward of the environment”.

Sincerely,



George S. Hawkins  
General Manager





**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**  
5000 OVERLOOK AVENUE, S.W., WASHINGTON, D.C. 20032

October 15, 2009

Mr. William Walker  
Chairman  
and Members, Board of Directors  
District of Columbia Water and Sewer Authority  
5000 Overlook Avenue, S.W.  
Washington, D.C. 20032

Dear Chairman Walker and DC WASA Board Members:

I am pleased to submit for your review and consideration the District of Columbia Water and Sewer Authority's (DC WASA) proposed Capital Improvement Program (CIP) budgets. These budgets are intended to meet the mandate provided for in District of Columbia Law 11-111, which specifies that "...the Board shall annually develop, adopt and submit to the Mayor, a multi-year financial plan for Capital and Operating expenses ...". DC WASA's capital budgets include: a ten-year (FY 2009-2018) CIP disbursement budget, a Lifetime budget and a Capital Authority request. The budget preparations began in May 2009. The proposed budgets are submitted for Board review in October, with final Board action planned for January 2010.

As shown below, this budget proposal includes: \$3.8 billion for our FY 2009 – FY 2018 CIP (disbursements basis); \$7.6 billion for lifetime budget; and \$310.1 million in new Capital Authority request. Our FY 2009 – FY 2018 CIP budget (disbursements) increased by approximately \$600 million from last year's approved CIP of \$3.2 billion. This increase funds about \$300 million more in costs for the Combined Sewer Overflow-Long Term Control Plan (CSO LTCP), driven by updated costs estimates from the project's recently completed facility plan, and reallocation of costs for certain projects, previously allocated to the Blue Plains Total Nitrogen Program (BTN), to the CSO LTCP. Another major driver of the increase in our CIP, in the latter half of the plan, is the addition of over \$300 million in facility projects in our Water and Sewer service area to fund both high priority water and sewer main projects and a service life restoration program aimed at ensuring sustainability of our underground infrastructure by implementing a program that replaces approximately 1 percent of the pipes annually. These increases were offset by \$86 million in savings from the reduced Lead Service Replacement program.

<b>Capital Improvement Program (CIP) Budget</b>			
<b>"in 000"</b>			

<b>Program Area</b>	<b>10-Year Disbursement</b>	<b>Lifetime Budget</b>	<b>Capital Authority Request</b>
Wastewater Treatment	1,579,382	2,611,133	-
Sanitary Sewer	413,093	712,727	76,470
Combined Sewer Overflow	1,088,885	2,657,799	218,358
Stormwater	19,886	59,128	4,575
Water	496,346	1,245,066	-
Washington Aqueduct	92,728	186,634	5,108
Capital Equipment	98,546	98,546	5,606
<b>Total</b>	<b>3,788,866</b>	<b>7,571,033</b>	<b>310,117</b>

### **A New Era of Responsibility – A Commitment to Sustainable and Green Infrastructure**

As I discuss in more detail later in this capital budget book and also in the operating budget book, water and wastewater treatment operators provide essential services and ensure protection of public health and the environment. DC WASA, like many operators in older cities, is responsible for underground pipes that are more than 75 years old on average and nearing or at the end of their projected life span. DC WASA and other Utilities' budgets will have to adapt to the fact that pipe networks that have never before required significant upgrades or replacement will now require enhanced financial resources. For example, in previous years, the level of funding provided in our budgets only allowed 0.35 percent per year renewal of most of our underground pipes. At that rate the average age of our underground pipes will be over 286 years, well beyond any conceivable period of service. Continuing to ignore this need could put the reliability and performance of our water and sewer systems at grave risk. As demonstrated in Bethesda, MD on River Road and in Dundalk, MD most recently, failure to plan for and replace aging infrastructure can have catastrophic results on customers and property. As DC WASA and other communities nationally review these issues, there will be a growing conflict between the need to replace worn-out infrastructure and the need to invest in compliance with new and increasingly stringent regulatory standards. This budget emphasizes our clear commitment to sustainable infrastructure by providing funding to start addressing the issue. It also lays out for our customers and stakeholders the extent of the infrastructure crisis we have inherited, and steps we plan to take to ensure that future generations will not be left to address the approaching wave of infrastructure needs that will result from an aging infrastructure.

As an environmental steward, DC WASA recognizes the importance of leading the way on environmentally friendly improvements or "green" initiatives. This budget emphasizes our commitment to "green" initiatives by allocating billions of dollars in resources. We are committed to being energy efficient and making choices to promote green initiatives. The ten-year Capital Improvement Program includes: over \$1 billion in Combined Sewer Overflow Long Term Control projects and \$900 million in the Blue Plains Total Nitrogen

Program, both of which help improve the health of our surrounding waterways. Also over the next four years, we will invest about \$400 million in building a digestion facility. Once completed, this facility will significantly reduce DC WASA's carbon footprint by: producing Class A biosolids, reducing biosolids production by half, and generating 10 MW of green energy annually. Other priority green initiatives funded through this budget include: a comprehensive energy audit of all our facilities-the first of its kind since the organization's inception; an organization-wide recycling program; purchase of two more Hybrid-electric vehicles (Sedans) and replacement of 20 electric carts, thereby improving fuel economy and helping to minimize pollution. However, "green" comes at a cost. The needed funds to address these operational and infrastructure challenges require careful and prioritized trade-offs given DC WASA's commitment to keep water and sewer rates affordable.

### **A Challenging Budget Framework**

This budget was especially challenging as we strived to strike a balance between the resources required to meet the Authority's stringent regulatory requirements, maintain and sustain its aging infrastructure and the impact higher rates will have on its customers during these difficult financial times. To strike this balance, it became necessary to defer some identified or needed Infrastructure improvements, while also changing certain practices. For instance, increased investment in the underground pipe replacement to bring us to about a one percent replacement per year was deferred until later years in the plan. This time-frame will allow for work to proceed on the mandated and high priority projects while at the same time minimize the level of rate increases to our customers. In fact, in order to mitigate the impact on the rates to our customers it was necessary to reduce the combined spending in FY 2010 and FY 2011 in these areas to levels below those indicated in last years submittal.

### **Emerging Issues**

It should be noted that additional risks and contingencies associated with the 20-year LTCP program exist and will be evaluated over time. Given the long time frame of this project and the uncertainties associated with tunneling projects, we will continue to monitor the costs and risks with the expectation of updating the projections when certain milestones have been reached. We have recommended the current change to the program budget based upon completion of one of the major milestones-the facilities plan for the Anacostia Tunnel. There will be similar milestones for the other portions of the LTCP in future years that will provide information that may require re-evaluation of future risks and costs associated with this project.

We are approaching the ten year anniversary of the implementation of the Automated Meter Replacement (AMR) program at DC WASA. The AMR has significantly benefited not only the Authority but also our customers. We have been able to more accurately bill our customers on a monthly basis with fewer resources and lower costs. Our customers have more confidence in the accuracy of their billings and thus the number of billing issues has steadily declined. The battery component of our current AMR system is rapidly approaching the end of its useful life and the units will need to be replaced beginning in FY 2012. Furthermore, meter accuracy is expected to start diminishing after about 12 – 15 years in service. Given the critical role these devices play in our ability to timely and accurately bill our customers (essentially they are our cash registers) we will need to start planning for their upgrade or replacement



in the next few years. The costs to replace the over 130,000 meters associated with this new program have not been included in the 10 year CIP budget at this time, as we are evaluating various cost effective solutions. At this point based on preliminary estimates the costs could range as high as \$40- \$50 million over the next ten years.

In FY 2010, DC WASA will complete an energy audit. This audit will include a review of all activity and electricity use throughout all DC WASA facilities with the intent on establishing a base line comparison as well as continuing toward our objective of environmental stewardship through the reduction of our carbon footprint through conservation and efficiency. The results and recommendations may include operational processes, procurement and asset investment opportunities that will need to be analyzed and vetted to incorporate into future budget proposals.

### **Capital Improvement Program Inflationary Increases**

The economic recession that has been and continues to be experienced by all industries has had an impact on all aspects of construction. Energy costs have materially retreated from their highs of only a few years ago. Major development projects have also fallen to record lows due to the lack of available financing. Unemployment is at record highs. How all of this will impact the future costs of our CIP is yet to be determined. While these are very uncertain economic times, we recognize the magnitude of the multiple challenges facing us and our customers as we attempt to maintain our infrastructure and meet the requirements of the regulatory and government mandates. We will continue to monitor the complex environment we are operating in and assess its impact on our CIP planning and budget.

### **Acknowledgements**

The following sections of this document provide further detail on all DC WASA's capital programs. I would like to acknowledge the DC WASA Board of Directors for their guidance and willingness to explore new ideas and project delivery methods as we move toward the next generation of capital investment. It has been a pleasure to have this opportunity to serve as the Interim General Manager and carry the Agency forward while working with the dedicated leadership of the DC WASA Board. I would also like to acknowledge all of the support from the hard working and dedicated professionals of the DC WASA staff for the thoroughness, hard work and long hours required to produce this document.

Sincerely,



Avis Marie Russell  
Interim General Manager

District of Columbia Water and Sewer Authority

# CAPITAL IMPROVEMENT PROGRAM

APPROVED FY 2009-2018

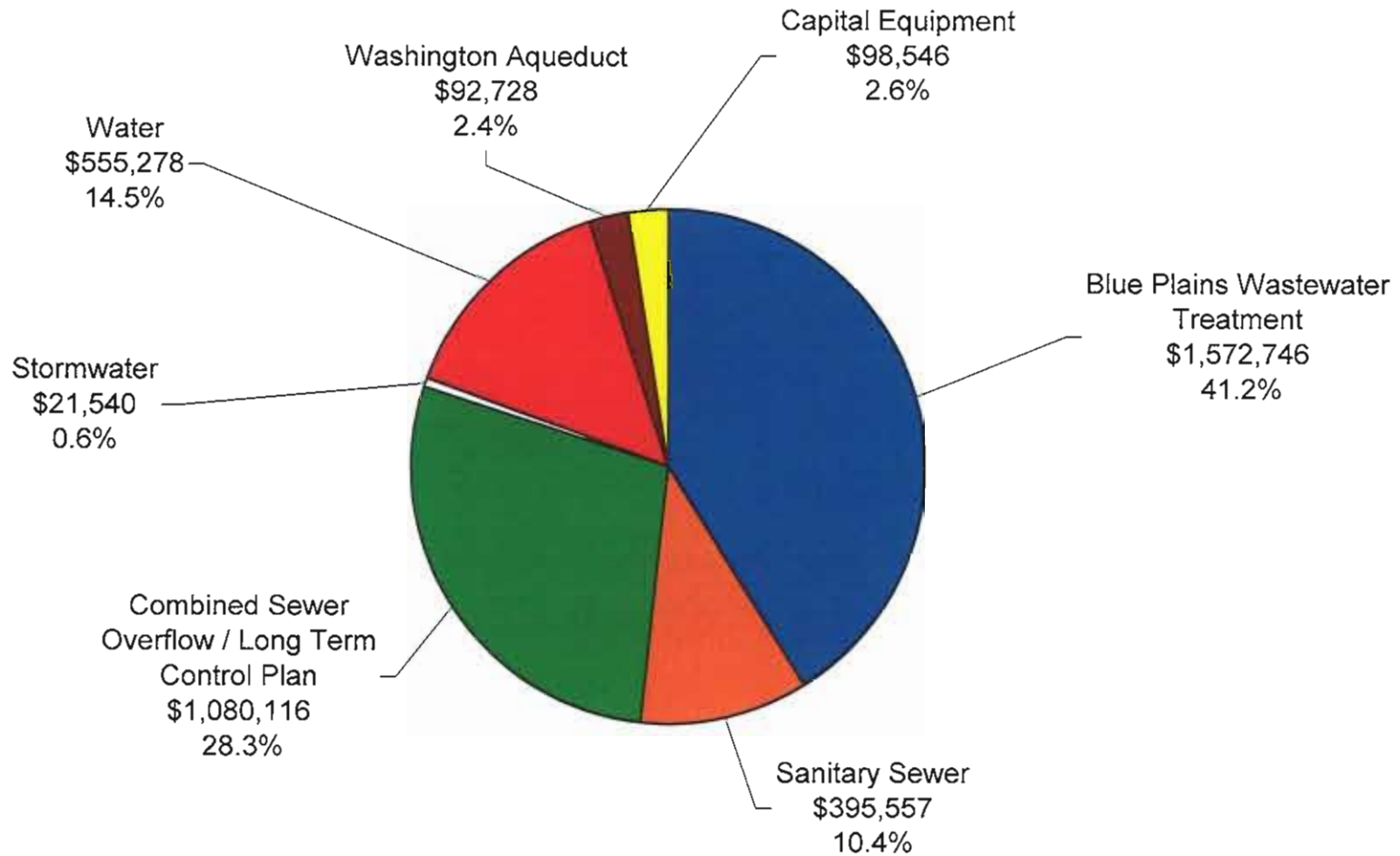


## Section II CAPITAL IMPROVEMENT PROJECTS OVERVIEW

*Ongoing construction projects focus on rehabilitation and upgrades of the advanced wastewater treatment facilities to increase process reliability and efficiency and to reduce cost.*



# FY 2009 - FY 2018 Capital Improvement Program (\$ in 000's)



Total \$3.8 billion (Cash Disbursements)



## **FY 2009 – 2018 CAPITAL IMPROVEMENT PROGRAM OVERVIEW**

District of Columbia Water and Sewer Authority's (DC WASA / Authority) ten-year capital improvement program (CIP) totals \$3.8 billion (cash disbursements basis), approximately \$600 million more than last year's plan. As mentioned in Section I and discussed in more detail later throughout this document, the major drivers of this increase are in the Combined Sewer Overflow-Long Term Control Plan (CSO-LTCP) and the Water and Sewer Service Areas of approximately \$300 million each. The increases in the CSO-LTCP are driven by the updated cost estimates from the recently completed facility plan for this project, and approximately \$100 million worth of projects that were transferred from the Total Nitrogen Removal Program (under the Wastewater Service Area). The higher costs in the Water and Sewer Service Areas, after an offsetting decrease in the Lead Service Replacement Program disbursements of approximately \$80.3 million, were a result of including several high priority water and sewer facility improvement projects and a service life restoration program in the current CIP. Also included in the proposed CIP is \$75.6 million for the Land-Use Facility Plan that provides for a new Warehouse at Blue Plains, Office facilities for the new CSO-LTCP project team, and relocation of Customer Services personnel, among others.

Included within the proposed ten year CIP is implementation of the Biosolids Management Plan including the costs of construction of the Combine Heat and Power plant (CHP) and Digesters with estimated completion in FY 2014. An interim method of financing the digesters has been utilized in this plan for two primary reasons: first, to mitigate the impact of such a large capital addition on our customer's rates; and second, to match the financing costs with the benefits that will accrue to the Authority over the life of these facilities.

The following sections summarize major projects and changes in each service area, with additional details for each project included in each service area section. Please note that all dollar amounts are presented on a project lifetime basis, except where noted otherwise.

### **WASTEWATER TREATMENT**

The lifetime budget for the Wastewater Treatment Service Area is \$2.6 billion dollars, an increase of \$147.2 million from last year's budget. This net increase reflects the transfer of \$100 million from the Blue Plains Total Nitrogen Removal Plan to the CSO LTCP. Other major costs drivers in this area include: Electrical Power Systems Switch Gear Upgrades (\$29.0 million); improvements to the Solid Processing Building and Dewatered Sludge Loading Facility (\$12.2 million); Secondary Treatment Upgrades for the Total Nitrogen Program (\$59.9 million); Blue Plains Tunnel Dewatering Pump Station (\$27.0 million); and, Bolling Overflow and Diversion Project (\$25.0 million).

Also, this Area reflects the implementation of the Biosolids Management Plan including the costs of construction of the CHP and Digesters with estimated completion in FY 2014. The benefits of this plan include producing a Class A biosolids product which can be

more widely disposed of at reduced costs; reduction in the carbon footprint of the existing lime stabilization process; and, the production of an estimated 10MW of power that can be utilized on site. The reduced costs associated with this project should help provide some of the necessary long term funding needed for the improvements to the sewer and water infrastructure identified by the respective facility plans.

Other long-term upgrade projects now under construction include:

- Nitrification-Denitrification Facilities Upgrade - to upgrade the process and/or replace equipment that are at the end of their useful lives.
- Raw Wastewater Pump Station 1 - Upgrade to the Raw Wastewater Pump Station to replace equipment that are at the end of their useful lives, and improve reliability.
- Process Control System – will provide automated monitoring and control for the nitrification-denitrification process that will improve treatment, control and optimize chemical and power costs, and increase reliability of the facilities.
- Biological Sludge Thickening Facilities- will upgrade the existing dissolved air floatation thickening units to restore integrity to this system and reduce sludge processing and chemical costs through improved efficiency.

## **COMBINED SEWER**

The lifetime budget for the Combined Sewer Service Overflow (CSO) Service Area is \$2.7 billion, which includes the twenty-year CSO Long Term Control Plan (LTCP). The benefits of this plan are significant. When fully implemented, combined sewer overflows will be reduced by a projected 96 percent (98 percent on the Anacostia River), resulting in improved water quality. The more than \$400 million increase to this service area's lifetime budget is attributable to two items. First, \$300 million related to the following: updated costs estimates of the recently completed facility plan of the project and transfer of certain projects from the Blue Plains Total Nitrogen program under the Wastewater service area; and, second approximately \$100 million associated with the Northeast Boundary Sewer Project (\$18.5million), Tiber Creek Sewer Lining Project (\$16.5 million) and an increase in the costs for the Combined Sewers Under Buildings (\$60.1 million). The latter are projects recommended under the sewer facility plan and not related to the LTCP.

It should be noted that additional risks and contingencies associated with the 20-year LTCP program exist and will be evaluated over time. Given the long time frame of this project and the uncertainties associated with tunneling projects, we will continue to monitor the costs and risks with the expectation of updating the projections when certain milestones have been reached. We have recommended the current change to the program budget based upon completion of one of the major milestones - the facilities plan for the Anacostia Tunnel. There will be similar milestones for the other portions of the LTCP in future years that will provide information that may require re-evaluation of future risks and costs associated with this project.

## **STORMWATER**

The lifetime budget for the Stormwater Service Area is \$58.7 million, an increase of \$14.8 million from last year primarily due to an increase of \$12 million in the Local Drainage area associated with recommended sanitary sewer facility improvements. As in last year's budget, we have not included funding for stormwater pumping rehabilitation projects. Over the past few years, extensive dialogue among stormwater task force members resulted in a better definition of roles, responsibilities and funding sources for the activities required to enhance DC stormwater management. The DC Department of the Environment (DDOE) entered into agreements with various offices to provide services in support of the District's MS4 permit in accordance with funding availability from the Enterprise Fund. DC WASA provides for the maintenance and replacement of certain public facilities that convey stormwater runoff to the Anacostia and Potomac Rivers, Rock Creek, and other receiving streams within certain areas of the District of Columbia, specifically the areas of the District served by combined sewers. Various other agencies have responsibility for a variety of other stormwater activities. Discussion of other matters, such as the turnover of stormwater pumping facility maintenance and planned capital replacement of infrastructure in areas managed by the District under the MS4 permit continues. DDOE maintains the central responsibility for managing stormwater activities under the MS4 permit and has worked to coordinate with all agencies, activities and funding mechanisms necessary to ensure full compliance.

While DC WASA has a long term control plan to address these issues within the combined sewer areas, DC WASA's staff continues to participate in the MS4 task force and to monitor the impact of other MS4 NPDES requirements on DC WASA and its ratepayers. Significant progress has been made throughout the District. Since 2001, DC WASA collected the MS4 stormwater fees on behalf of the District, and acted as the Stormwater Administrator until the creation of DDOE and the transfer of duties in early 2007. DC WASA continues to collect those fees on behalf of the District and transfer them to DDOE quarterly. In FY 2009, we worked closely with DDOE to share our impervious surface area database. Along with DC WASA, DDOE believes that this new rate structure can help to equitably allocate costs to the cost causers and influence future behavior through education.

## **SANITARY SEWER**

A majority of the sewers in the DC WASA system were constructed more than one hundred years ago and are still in operation. Aging infrastructure is a national issue and can impact the condition and performance of the system. DC WASA is responsible for wastewater collection and transmission in the District of Columbia, including operation and maintenance of the sanitary sewer system. DC WASA's sanitary sewer system includes approximately 600 miles of large interceptor sewers and smaller gravity collection sewers. DC WASA is also responsible for sewer lateral connections from the sewer mains to the property lines of residential, government, and commercial properties. In addition, DC WASA is responsible for the 50 mile long Potomac Interceptor System under an agreement with the participating jurisdiction. This provides conveyance of wastewater from areas in Virginia and Maryland to Blue Plains. The existing sanitary sewer system in the District of Columbia dates back to 1810, and includes a variety of materials such as brick and concrete, vitrified clay, reinforced concrete, ductile iron, plastic, steel, brick, cast iron, cast in place concrete, and even fiberglass.



During FY 2009, DC WASA completed a Sewer System Assessment and the Water Facility Plan (“Study”). This document culminated a five year effort involving sewer inspection and condition assessment, development of a sewer GIS and database, hydraulic monitoring and modeling to assess system capacity and the development of a prioritized activities for system improvement. This Study identified a significant increase in funding needed for sewer infrastructure improvements. As recommended by the Study, the current CIP includes funds for an ongoing, annual sewer inspection program, which may identify the need for additional work. Key Findings of the 2009 Sewer Facilities Plan:

- Generally speaking, major sewer pipe infrastructure can meet current and future population needs; however, continued investment in upgrades to major infrastructure elements is needed.
- 88% of the sewers inspected had some defects, 60% of which could be addressed using localized repair and the remaining require, mainly, lining.
- 94% of the manholes inspected were found to have one or more defects
- The number and severity of pipe defects indicates an expected increase in problems in pipes greater than 75 years old. Older pipes can be in good condition (and younger ones can be in poor condition), but at the 75 year mark, DC WASA can assume that more extensive and frequent inspection is needed.
- There are approximately 210 miles of sewers in stream valleys and about 12.3 miles of these sewers were found to need some type of repair.
- There are about 316,000 linear feet of sewers with some portion under buildings; of those inspected, a preliminary list has been developed, and approximately 7,000 linear feet of sewers have been found to have multiple and/or significant defects, warranting rehabilitation or replacement.

Key Recommendation of 2009 Sewer Facilities Plan: continue a two-pronged, parallel approach to the CIP program

- Implement identified projects resulting from ongoing system condition and needs assessment, and an increase in the continued annual sewer pipe renewal program.
- Based on a 20-year planning outlook, this will require a \$1.2 billion increase (2008 dollars) in capital spending to address currently identified projects (\$536 million) and a sewer pipe renewal program (\$664 million).

The lifetime budget in this area has increased by more than \$400 million from last years estimate and the proposed 10-year CIP has been increased by more than \$240 million to reflect these recommendations. Most of the increased spending planned in the sewer area begins in FY 2011 and averages more than \$40.0 million per year through FY 2018.

## **WATER**

The lifetime budget for the Water Service Area (including Meter Replacement / AMR installation) is \$1.2 billion, an increase of \$192 million from last year's CIP. This is primarily driven by the increase of more than \$300 million associated with the Water Facility Plan Update that was completed in FY 2009, offset by a reduction of \$97 million from the lead service line replacement program. This document provided the basis for a ramp up, beginning in FY 2010 with an increase of \$14.5 million, of the replacement of one percent of the water infrastructure per year.

### **Key Findings of the 2009 Water Facilities Plan Update:**

- Major infrastructure – storage, pumping stations, and transmission mains can meet current and future water demands; however, continued investment in upgrades to major infrastructure elements is needed.
- Based on current water quality testing, DC WASA is fully compliant with water quality regulations; however, tuberculation, which is characteristic in old, unlined pipes, can result in discolored water, taste and odor problems, turbidity, low chlorine residual and increases in potential for biofilms.
- The current median age of small diameter water mains is 74 years old, and 180 miles of pipe are greater than 100 years old.
- Unlined cast iron pipe accounts for 740 miles. In 2008 dollars, this will require over \$2.6 billion to replace/rehabilitate.
- Currently, DC WASA is replacing small mains at a renewal rate of 0.35% per year or about 4 miles per year. This needs to be increased to a minimum replacement rate of 1% or about 11 miles per year at a cost of at least \$30 million annually.

### **Key Recommendations of 2009 Water Facilities Plan Update:**

- Continue a two-pronged, parallel approach to the CIP program – implement identified projects resulting from ongoing system condition and needs assessment and increase and continue an annual water main renewal program. Based on a 20-year planning horizon, this will require over a \$900 million increase (2008 dollars) in capital spending to address currently identified projects (\$217 million) and a minimum recommended water main renewal (1% replacement/rehab) program (\$700 million).
- Plan work holistically, e.g. plan valve, fire hydrant and lead service replacements in conjunction with location-specific water main replacements as well as sewer needs and the work of outside agencies working in public space.

Another area worth noting is our current Automated Meter Reading (AMR) system. The batteries of these units are rapidly approaching the end of its useful life and the units will need to be replaced beginning in FY 2012. The total costs associated with this new program have not been completely identified in the 10 year CIP program at this time. This is due to the fact that the overlapping lives of the water meters and AMR units (residential meters accuracy begins to diminish after about 12 – 15 years) provide us with an opportunity to analyze the most cost effective manner in which to provide our customers with bills based on actual reads as well as ones that reflect actual usage. While this CIP includes over \$17 million over the next ten years for future meter replacement, the estimated costs may increase depending on the outcome of the analysis to replace both the meters and the AMR units.

## **WASHINGTON AQUEDUCT**

The Washington Aqueduct (Aqueduct), managed by the U.S. Army Corps of Engineers, provides water, in wholesale, to DC WASA and its partners in Northern Virginia, Arlington County and Falls Church. DC WASA purchases approximately 75 percent of the water produced by the Aqueduct's two treatment facilities, the Dalecarlia and McMillan treatment plants, and thus is responsible for 75 percent of the Aqueduct's operating and capital costs. Under federal legislation and a memorandum of understanding enacted in 1997, DC WASA and its Northern Virginia partners have a much greater role in oversight of the Aqueduct's operations and its capital improvement program.

The proposed lifetime budget for DC WASA's share of Washington Aqueduct projects totals \$186.6 million or \$9.8 million less than last year's 10-year plan of \$196.4 million.

## **CAPITAL EQUIPMENT**

DC WASA's Capital Equipment budget totals approximately \$98.5 million for FY 2009 – FY 2018 plan; a decrease of approximately \$6 million compared to the last ten-year plan. Almost fifty five percent of spending in the capital equipment area continues to be on major information technology projects, including the document management system (budget of \$2 million) and the asset management system (budget of \$6.2 million). DC WASA continues its commitment to scheduled replacement of its vehicle fleet with a budget of \$13.7 million, representing almost fourteen percent of the ten-year plan. Finally, maintenance of large equipment totals \$11.8 million, or twelve percent of the ten-year plan. Other equipment including hydrant and valve equipment necessary for the maintenance of the District's public fire system totals \$10.9 million, or eleven percent of the ten-year plan.

The revised FY 2010 budget at \$15.6 million is \$0.17 million lower than the FY 2010 approved budget. This variance is primarily attributable to decreases in disbursement budgets for the Maintenance, Wastewater, Facilities, and the Sewer Services departments: these were partly offset by the increased disbursements across other departments, namely, Information Technology and Fleet Management.

## **CIP DEVELOPMENT AND APPROVAL PROCESS**

DC WASA's capital budget review process begins each year in the spring, as part of both our capital and operating budget review process. This process includes a review of major accomplishments, priorities, status of major projects and emerging regulatory and related issues impacting the capital program. Projections of changes in project lifetime budgets are also included. The review process involves the DC WASA departments with responsibility for managing the capital projects as well as finance and budget staff and executive management. The CIP is integrated into DC WASA's ten-year financial plan; because of its size, it is the primary driver of DC WASA's projected rate increases over the current 10 year planning period.



This review process lasts over several months and culminates with the presentation of the updated CIP to DC WASA's Board of Directors' Environmental Quality & Operations, Retail Services and Finance & Budget Committees in October. The Committees complete their review from October through December. The operating budgets, capital improvement program, and ten-year financial plan are then forwarded to the full Board for its consideration in late winter; usually January. This year, the Board delayed final review and adoption of a new budget until February due to the extraordinary regional economic challenges and rigorous re-investment requirements necessary to maintain safe, reliable services.

After adoption by the Board of Directors, DC WASA is required to submit its annual operating and capital budgets to the Mayor and the District of Columbia Council for its review and comment; however, neither has power to change DC WASA's annual budgets. Final operating and capital budget numbers, along with the capital authority request will be forwarded to the District for inclusion in the District of Columbia's budget submission to Congress. DC WASA's request for capital authority is ultimately made to and approved by the U.S. Congress.

### **DISBURSEMENTS AND PROJECT LIFETIME BUDGETS**

As in the past, we have presented the CIP on both a project lifetime basis and cash disbursement basis. During the CIP review process, we perform an extensive review of the total project, or "lifetime" budgets, which also reflect historical spending prior to the current ten-year period, projected spending beyond the current ten-year period and project contingencies. Project lifetime budgets are our primary area of focus in budget development and day-to-day monitoring. In addition to lifetime budgets, we also develop cash disbursements forecast. Actual cash disbursements are critical to forecasting the anticipated level of rate increases and the amount and timing of capital financings. While cash disbursements are a function of project lifetime budgets, they reflect a more realistic projection of actual "cash out the door" excluding contingencies and taking into account historical and projected completion rates.

As in prior years, the budget document includes a comparison of this year's vs. last year's lifetime project budgets by program area for the Board's review. Changes have been made to some of the project lifetime budgets approved from last year due to a change in project scope, engineering cost estimates, site changes and other related issues. In addition, some projects are either closed or dropped from the CIP. Projects for which all activities have been completed during a given fiscal year are listed as 'Closed' during that fiscal year; these same projects are, then, listed as 'Dropped' in the immediately following fiscal year.

## **CAPITAL AUTHORITY**

As part of DC WASA's enabling legislation, Congressional appropriation authority is required before any capital design or construction contract can be entered into. The FY 2011 request totals \$382.3 million, and reflects the following:

- Remaining authority from prior years' appropriations;
- Projected commitments in FY 2010 and FY 2011;
- Planned FY 2012 and FY 2013 commitments, to ensure adequate authority exists, in the event that any projects are accelerated.

Due to the timing of the Congressional appropriations process, authority requests must be made well in advance of commitment execution. Including projected FY 2012 and FY 2013 commitments (a 24-month 'look ahead') allows us adequate flexibility to continue with contract commitments in the event that the U.S Congress delays budget approval and allows us to quickly accelerate or reprioritize projects into earlier years as approved by the Board. While this gives us flexibility to reprioritize projects, it should be noted that such changes and execution of any contract still require General Manager's approval, with major projects and contracts requiring Board approval.

## **MAJOR ASSUMPTIONS**

**Inflation:** All project costs are typically inflated at three percent annually to the mid-point of construction.

**Contingency:** DC WASA capital projects include project contingencies ranging from five to fifteen percent, based on the size of the project.

## **PROJECT PAGES**

This document contains individual sections for each of DC WASA's seven service areas. Each service area is made up of specific projects. Within each service area section in this document, there are individual project sheets for each current capital project in that section. The capital project sheets contain general information for each project. The following information is included:

**Service Area Title** – currently, there are seven defined project service areas in DC WASA's CIP. The seven areas are: Wastewater Treatment, Combined Sewer Overflow / LTCP, Stormwater, Sanitary Sewer, Water, Washington Aqueduct and Capital Equipment. The service area categorization groups together similar projects based on facility location and type of work being done in the project. Congressional capital authority is requested at this level.

**Program Title** – is a further categorization within the Service Area and groups projects by type of process. For example, in the Wastewater Treatment Service Area, there are three programs: Liquid Processing, Plantwide projects and Solids Processing.

**Activity Group/Project Title** – The activity group is the level at which DC WASA manages and monitors projects, including in the financial system and project management system. The project title reflects the descriptive name given to the project.

**Service Area Manager** – lists which department or organization manages the project. The majority of the projects in DC WASA's CIP are managed by an internal DC WASA operating department. DC WASA's CIP also includes some projects which are managed by outside organizations. It is advantageous for DC WASA to coordinate some of its capital work on the water and sewer infrastructure with the District's Department of Transportation (DDOT). The funding required for DC WASA's work is included in the CIP, but those projects are managed by DDOT. Approximately 75 percent of the Washington Aqueduct's capital program is funded by DC WASA, but the U.S. Army Corps of Engineers actually manages those projects.

**Priority** – DC WASA engages in and prioritizes capital projects based on specific criteria. A project comprises of one or more jobs which, in turn, have individual priorities. The Priority mentioned on the capital project-sheets (listed in different sections of this book) is the one that has the largest budgeted dollars associated with it. The following is a list of definitions of the priorities shown on the individual project sheets:

1A. Court Ordered, Stipulated Agreements, Etc.

These are the projects that are undertaken to comply with court orders, stipulated agreements, regulatory issues, and the National Pollutant Discharge Elimination Permit (NPDES).

2A. Health Safety

These are projects that are required to eliminate or mitigate impact on public health or safety. These projects are also required to ensure that there is no failure to comply with DC WASA's NPDES permit requirements.

2B. Board Policy, DC WASA's commitment to outside agencies

These are projects that are undertaken to comply with a policy that the Board may adopt as a result of its commitment to outside Agencies.

2C. Potential Failure/Ability to continue meeting permit requirement



These are projects that are undertaken to construct or rehabilitate Facilities or Equipment that is in danger of failing, and that such failure may potentially endanger DC WASA's ability to continue meeting permit requirements.

2D. High Profile, Good Neighbor Policy

These are projects that are undertaken to remediate concerns expressed by Citizens or Public Officials.

3A. Good Engineering, High pay back, Mission / Function

This category includes projects that are needed for rehabilitation and upgrading of facilities and infrastructure required for DC WASA to fulfill its mission and function, as well as projects needed to resolve operational issues and inefficiencies. This category also recognizes cost savings in operation and maintenance.

3B. Good Engineering, Low, M&F over long term

This category includes projects that are needed for rehabilitation and upgrading of facilities and infrastructure, but have a lower priority than projects in 3A above, yet help DC WASA to fulfill its mission over the long term.

**Project Description** – general description of the work to be done within the project.

**Impact on Operations** – describes the anticipated impact on DC WASA's operations when the project is completed.

**Design / Construction / Project Completion Dates**– anticipated dates are shown.

**Funding by User** – lists the anticipated project funding, by source and is based on the current Intermunicipal Agreement (IMA) and anticipates EPA funding where grants have been previously approved or in anticipation of that approval.

**Life Budget** – the full project budget is approved and reviewed each year by DC WASA's Board of Directors. Proposed increases or decreases to the total project life budget are shown, if applicable. Lifetime budgets for program management have been reduced, and project budgets increased, to reflect the allocation of costs for program management services at the conclusion of the prior fiscal year.

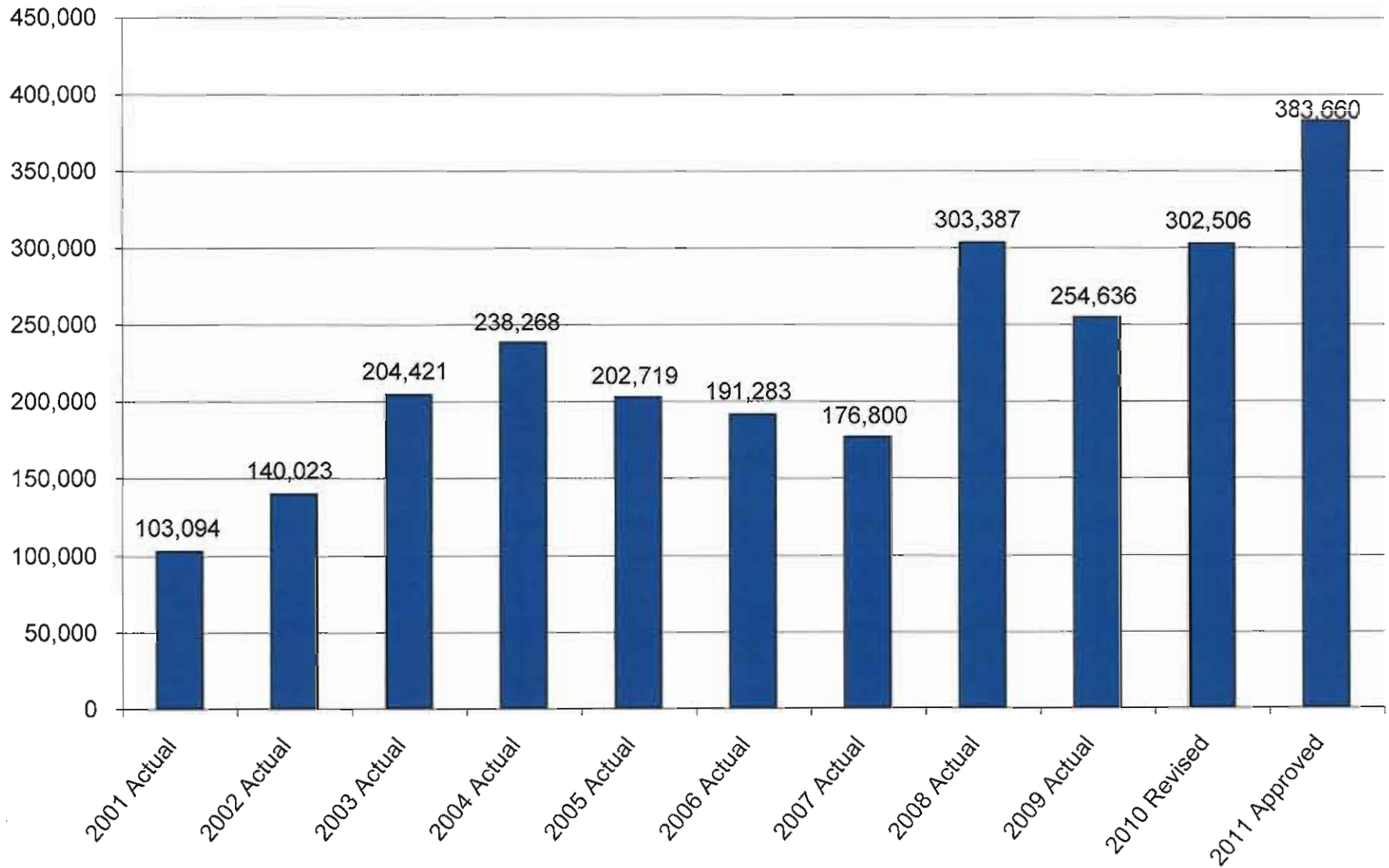
**Disbursements / Commitments Budgets** – projected disbursements and commitments for various projects are shown by fiscal year in which they are anticipated. Commitments budgets are based on total project budgets, which reflect the fully loaded, anticipated costs of a project, including project contingencies. Contingencies are not included when calculating disbursement budgets.

## **CAPITALIZATION POLICY**

DC WASA's capitalization policy determines how expenditures will be recognized and accounted for. Because we also match the financing to the projected useful life of the item, it also determines how projects will be financed. The following guidelines are used to categorize items as capital, capital equipment or operating (maintenance):

- Maintenance related items – are routine, cost under \$5,000, and do not extend the life of the item more than 3 years.
- Capital Equipment – has a life of at least 3 years, a cost exceeding \$5,000 and is financed with short-term debt or cash.
- Capital Project – has a long life (average of 30 years), a minimum cost of \$500,000, and is financed with 30 year bonds.

# Historical and Projected Capital Spending FY 2001 - FY 2011 (\$ in 000's)



**FY 2009 - FY 2018 PROJECTED CAPITAL IMPROVEMENT PLAN - DISBURSEMENTS BASIS (\$ in 000's)**

	FY 2009 Actuals	FY 2010 Revised	FY 2011 Approved	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Total FY '09 -'18
<b>Wastewater Treatment</b>											
Liquid Processing Projects	\$67,598	\$43,970	\$22,774	\$37,428	\$12,820	\$7,241	\$1,623	\$1,755	\$1,540	\$1,594	\$198,342
Plantwide Projects	12,344	18,932	25,702	17,102	16,970	11,084	3,073	6,668	4,914	10,326	127,116
Solids Processing Projects	11,694	33,153	67,674	174,020	144,672	31,926	6,226	6,536	1,248	161	477,310
BTN - Total Nitrogen Program	10,617	19,431	87,929	136,980	160,751	77,864	69,331	98,306	77,728	31,043	769,978
<b>Sub-total</b>	<b>102,253</b>	<b>115,486</b>	<b>204,079</b>	<b>365,530</b>	<b>335,213</b>	<b>128,115</b>	<b>80,253</b>	<b>113,264</b>	<b>85,430</b>	<b>43,124</b>	<b>1,572,746</b>
<b>Sanitary Sewer</b>											
Sanitary Collection Sewers	61	441	3,265	4,883	11,217	10,345	3,792	4,733	6,867	8,754	54,357
Sanitary On-Going Projects	9,222	7,369	10,508	9,226	7,429	7,566	7,814	8,032	8,242	8,512	83,920
Sanitary Pumping Facilities	7,759	3,371	1,012	813	530	530	-	-	-	-	14,014
Sanitary Sewer Projects Program Management	2,541	3,698	4,083	3,627	4,299	5,353	5,171	5,312	5,968	6,911	46,964
Sanitary Interceptor/Trunk Force Sewers	1,958	3,714	28,717	18,105	20,786	31,837	27,511	21,828	22,510	19,336	196,302
<b>Sub-total</b>	<b>21,541</b>	<b>18,593</b>	<b>47,584</b>	<b>36,654</b>	<b>44,260</b>	<b>55,631</b>	<b>44,288</b>	<b>39,904</b>	<b>43,587</b>	<b>43,513</b>	<b>395,557</b>
<b>Combined Sewer Overflow / Long Term Control Plan</b>											
CSO Program Management	1,164	3,067	3,333	2,348	2,026	2,464	1,976	1,666	1,787	2,441	22,272
Combined Sewer Projects:Nine Minimum Controls	19,007	46,986	14,444	4,544	1,521	482	8	-	-	-	86,992
Combined Sewer Projects:Others	338	2,337	7,598	10,629	14,177	7,797	13,208	30,744	22,392	14,249	123,469
Long-Term Control Plan-											
Anacostia Tunnel	10,402	21,977	27,753	74,638	146,131	97,909	107,881	133,962	141,825	61,346	823,824
Potomac Tunnel	-	-	-	-	-	-	1,619	5,381	5,484	9,187	21,671
Rock Creek Tunnel	-	-	-	-	-	-	-	243	808	837	1,888
<b>Sub-total</b>	<b>30,911</b>	<b>74,367</b>	<b>53,128</b>	<b>92,159</b>	<b>163,855</b>	<b>108,652</b>	<b>124,692</b>	<b>171,996</b>	<b>172,296</b>	<b>88,060</b>	<b>1,080,116</b>
<b>Stormwater</b>											
Stormwater Local Drainage	-	64	1,047	401	309	494	692	830	916	955	5,708
Stormwater On-Going Program	207	506	445	278	283	297	308	359	326	338	3,347
Stormwater Pumping Facilities	-	-	-	-	-	-	-	-	-	-	-
DDOT Stormwater Program	-	49	140	86	88	92	193	110	90	99	946
Stormwater Research and Program Management	1,105	1,023	793	257	229	278	223	187	196	267	4,558
Stormwater Trunk/Force Sewers	66	479	1,174	2,467	1,860	930	5	-	-	-	6,980
<b>Sub-total</b>	<b>1,378</b>	<b>2,122</b>	<b>3,600</b>	<b>3,488</b>	<b>2,770</b>	<b>2,091</b>	<b>1,420</b>	<b>1,487</b>	<b>1,527</b>	<b>1,658</b>	<b>21,539</b>
<b>Water</b>											
Water Distribution Systems	33,065	33,574	25,185	24,193	26,558	31,177	27,345	26,497	34,110	35,886	297,590
Water On-Going Projects	10,394	6,301	5,183	2,876	3,211	3,552	3,635	3,833	4,950	4,109	48,043
Water Pumping Facilities	5,505	7,293	8,952	8,755	3,981	1,018	237	1,776	5,107	3,805	46,430
DDOT Water Projects	705	2,381	2,243	1,189	1,188	1,248	1,290	1,284	1,323	1,386	14,238
Water Storage Facilities	716	144	1,611	1,425	5,830	10,915	6,609	814	2,616	3,165	33,845
Water Projects Program Management	2,663	2,657	3,248	3,092	3,080	3,109	3,953	3,851	3,845	3,897	33,394
Water Lead Program	10,470	11,461	4,141	4,751	5,494	5,816	5,603	5,511	5,658	5,555	64,461
Meter Replacement /AMR Installation	2,556	1,876	3,498	1,294	1,301	1,309	1,317	1,326	1,334	1,467	17,278
<b>Sub-total</b>	<b>66,074</b>	<b>65,688</b>	<b>54,060</b>	<b>47,576</b>	<b>50,643</b>	<b>58,145</b>	<b>49,989</b>	<b>44,892</b>	<b>58,941</b>	<b>59,270</b>	<b>555,279</b>
Washington Aqueduct	18,596	10,634	7,920	7,500	8,055	8,023	8,000	8,000	8,000	8,000	92,728
Capital Equipment	13,883	15,618	13,288	12,638	8,097	6,795	7,175	6,928	6,953	7,172	98,546
<b>Total FY 2011 WASA Capital Improvement Program</b>	<b>\$254,636</b>	<b>\$302,508</b>	<b>\$383,659</b>	<b>\$565,545</b>	<b>\$612,893</b>	<b>\$367,452</b>	<b>\$315,817</b>	<b>\$386,471</b>	<b>\$376,734</b>	<b>\$250,797</b>	<b>\$3,816,511</b>



FY 2009 - FY 2018 Capital Improvement Plan

Project Lifetime Budgets by Program Area (\$ 000's)

	FY 2010 Approved	FY 2010 Revised / FY 2011 Approved	Variance
<b><u>Wastewater Treatment</u></b>			
Liquid Processing Projects	573,746	588,541	14,795
Plantwide Projects	259,325	339,356	80,031
Solids Processing Projects	664,612	689,665	25,053
Blue Plains Total Nitrogen Removal (BTN)	950,000	977,333	27,333
<b>Sub-total</b>	<b>2,447,683</b>	<b>2,594,895</b>	<b>147,212</b>
<b><u>Sanitary Sewer</u></b>			
Sanitary Collection Sewers	10,966	115,686	104,720
Sanitary On-Going Projects	89,295	129,867	40,572
Sanitary Pumping Facilities	22,999	25,898	2,899
Sanitary Sewer Projects Program Management	39,045	100,235	61,190
Sanitary Interceptor/Trunk Force Sewers	125,666	328,671	203,005
<b>Sub-total</b>	<b>287,971</b>	<b>700,357</b>	<b>412,386</b>
<b><u>Combined Sewer Overflow</u></b>			
CSO Program Management	24,199	55,239	31,040
Combined Sewer Projects	383,097	478,663	95,566
Long-Term Control Plan- Total			
Anacostia Tunnel	1,372,545	1,673,325	300,780
Potomac Tunnel	418,700	418,700	-
Rock Creek Tunnel	70,342	70,342	-
<b>Sub-total</b>	<b>2,268,883</b>	<b>2,696,269</b>	<b>427,386</b>
<b><u>Stormwater</u></b>			
Stormwater Extensions/Local Drainage	4,026	15,799	11,773
Stormwater On-Going Program	8,093	8,863	770
Stormwater Pumping Facilities	1,173	0	(1,173)
DDOT Stormwater Program	4,631	4,846	215
Stormwater Projects Program Management	7,630	10,630	3,000
Stormwater Trunk/Force Sewers	18,405	18,605	200
<b>Sub-total</b>	<b>43,958</b>	<b>58,743</b>	<b>14,785</b>

FY 2009 - FY 2018 Capital Improvement Plan

Project Lifetime Budgets by Program Area (\$ 000's)

	FY 2010 Approved	FY 2010 Revised / FY 2011 Approved	Variance
<b><u>Water</u></b>			
Water Distribution Systems	369,634	618,425	248,791
Water Lead Program	297,000	200,000	(97,000)
Water On-Going Projects	74,158	68,432	(5,726)
Water Pumping Facilities	116,143	133,342	17,199
DDOT Water Projects	37,111	39,222	2,111
Water Storage Facilities	33,999	49,562	15,563
Water Projects Program Management	23,342	51,107	27,765
Meter Replacement /AMR Installation	59,638	42,833	(16,805)
<b>Sub-total</b>	<b>1,011,025</b>	<b>1,202,923</b>	<b>191,898</b>
<b>Washington Aqueduct</b>	<b>196,474</b>	<b>186,634</b>	<b>(9,840)</b>
<b>Capital Equipment</b>	<b>104,633</b>	<b>98,546</b>	<b>(6,087)</b>
<b>Total WASA CIP Lifetime (see notes)</b>	<b>6,360,627</b>	<b>7,538,367</b>	<b>1,177,740</b>

Notes:

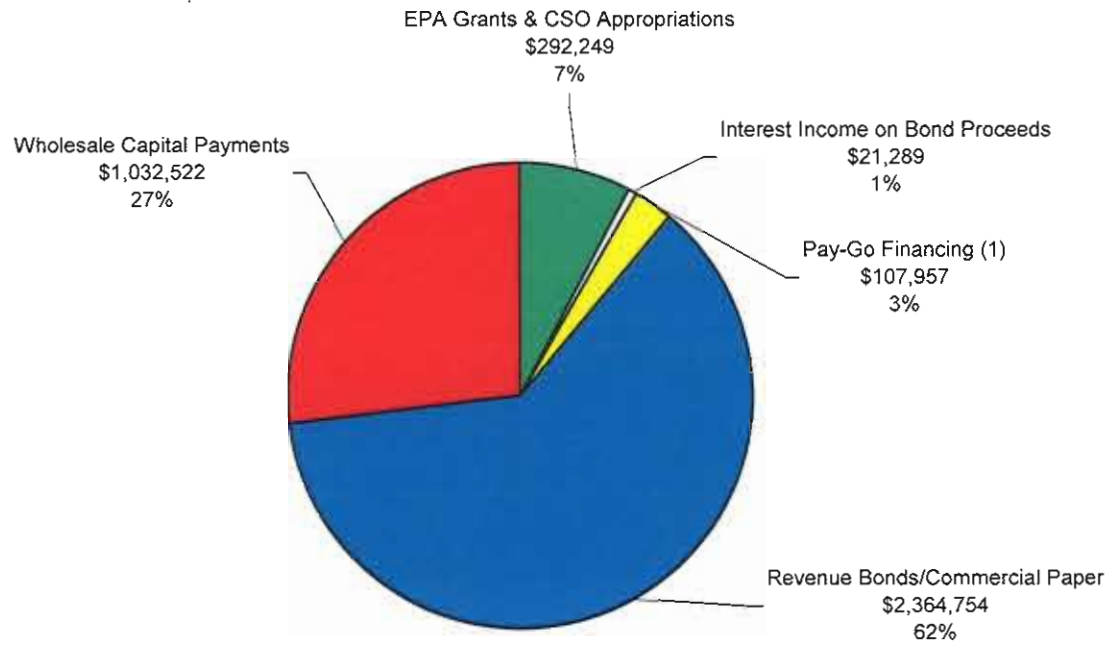
- 1 Lifetime budgets shown here represent total budgets for projects that are active during the current 10-year CIP. Lifetime budgets include historical spending prior to the beginning of the current 10-year plan, spending during the 10-year plan, and projected spending beyond the current 10-year plan. Projects completed in FY 2009 will be dropped from the CIP next year.
- 2 These budgets do not include inhouse labor costs, which historically have averaged \$7 to \$8 million annually and are applicable to, primarily, the time charged to capital projects by employees in the Departments of Engineering, Sewer Services, and Water Services.

**Fiscal Year 2011 Capital Authority Request  
(\$ 000's)**

<u>Service Areas</u>	<u>Fiscal Year 2011 Capital Authority Request</u>
Blue Plains Wastewater Treatment	\$22,968
Sanitary Sewer System	142,591
Combined Sewer Overflow	201,666
Stormwater	4,328
Water System <sup>1</sup>	0
Washington Aqueduct (WASA share)	5,108
Capital Equipment	<u>5,606</u>
<b>Total</b>	<b><u>\$382,267</u></b>

<sup>1</sup> The authority request is zero, as, existing (currently available) capital authority in this service area is in excess of projected commitments in FY 2010, FY 2011, FY 2012 and FY 2013.

FY 2009 - 2018 CAPITAL IMPROVEMENT PROGRAM  
Sources of Funds  
(In \$000's)



(1) Pay-go financing is any funds available after funding the greater of 120 day or 125.5million operating and maintenance reserve, approximately \$125.5million in FY 2010. These transfers reduce the amount of new debt issuance.



**Capital Improvement Program  
Closed and Dropped Project Listing**

Activity Group	Project Title	Service Area	Cost at Completion
<b><u>Closed Projects:</u></b>			
TU	504H7 - CENTRAL OPERATION FACILITY	Wastewater Treatment	\$915,561
VA	ADDITIONAL AERATION FACILITY	Wastewater Treatment	265,901
AA	Rehab. Stormwater Pumping Station	Stormwater	342,789
AJ	FY2007 - DWS Water Projects	Water	6,406,883
			<b>\$7,931,134</b>
<b><u>Dropped Projects:</u></b>			
Q2	FY2002 - DSS Sanitary Sewer Project	Sanitary Sewer	\$87,074
Q5	FY2005 - DSS Sanitary Sewer Project	Sanitary Sewer	4,308,648
Q6	FY2006 - DSS Sanitary Sewer Project	Sanitary Sewer	5,426,944
K0	Replacement of CSO Fabridam	Combined Sewer Overflow	10,031,175
E6	FY2006 - DWS Water Projects	Water	5,293,644
MJ	20" Anacostia 1st High Watermain Replacements	Water	3,742,408
ML	873Y4 - Elim. Dead Ends (Contract 2)	Water	4,040,154
NO	873BR - Good Hope Elev'd Tk. Phase I	Water	769,137
QP	4" CI Watermain Replacements	Water	2,268,184
			<b>\$35,967,368</b>

District of Columbia Water and Sewer Authority

# CAPITAL IMPROVEMENT PROGRAM

APPROVED FY 2009-2018



## Section III

## WASTEWATER TREATMENT SERVICE AREA

*Blue Plains Advanced Wastewater Treatment Plant processes an average of 370 million gallons a day (MGD) and has a peak capacity of 1 billion gallons per day.*



## **WASTEWATER TREATMENT**

DC WASA operates the Blue Plains Advanced Wastewater Treatment Plant, the world's largest advanced wastewater treatment facility. At Blue Plains, DC WASA provides wastewater treatment services to over 2.1 million people in its service area, which includes residents of the District of Columbia and significant portions of Montgomery and Prince George's Counties in Maryland, and Fairfax and Loudoun Counties in Virginia. Wastewater treatment includes liquid process facilities that provide treatment for both sanitary wastewater flows and peak storm flows originating in the sanitary and combined sewer systems respectively, along with solids processing facilities that treat the residual solids removed by the liquid processing facilities. Blue Plains is rated for an average flow of 370 million gallons per day (MGD), and is required by its current National Pollutant Discharge Elimination System (NPDES) permit to treat a peak flow rate of 740 MGD through the complete treatment process for up to four hours, and continuous peak complete treatment flows of 511 MGD thereafter. The plant treats these flows to a level that meets one of the most stringent NPDES discharge permits in the United States. Additionally, up to 336 MGD storm water flow must receive partial treatment, resulting in a total plant capacity of 1,076 MGD. A draft modified permit has been proposed by the U.S. Environmental Protection Agency that includes a higher level of wet weather treatment and increased removal of nitrogen from the wastewater.

DC WASA's Biosolids Management Plan includes construction of four Cambi thermal hydrolysis trains, four digesters, new dewatering equipment and a combined heat and power plant. An interim method of financing this project has been used in this plan to mitigate the impact on customer's rates and to better match the financing costs with the benefits that will be received over the life of these facilities.

### **Overview of the Wastewater Treatment Process**

The first wastewater treatment phase begins as debris and grit are removed by screens and grit chambers and trucked to a landfill. The sewage then flows into primary sedimentation tanks that separate more than half of the suspended solids from the liquid. The liquid flows to the secondary treatment process where oxygen is provided to allow bacteria to break down the organic matter. In the next stages of treatment, bacteria convert ammonia into other forms of nitrogen and then into harmless nitrogen gas. Residual solids are settled out in each biological process. The water is percolated down through dual-media effluent filters, removing most of the remaining suspended solids. The water is disinfected and then treated to remove residual chlorine and discharged into the Potomac River. The solids from primary sedimentation tanks go to gravity thickening process units where the dense sludge settles to the bottom and thickens. Biological solids from the secondary and nitrification processes are thickened separately using flotation thickeners. All thickened sludge is dewatered, lime is added to reduce pathogens, and the organic biosolids are beneficially reused through application to agricultural land in Maryland and Virginia. DC WASA has performed an extensive analysis of alternatives to identify a cost-effective, long-term and sustainable biosolids management project for the Blue Plains Advanced Wastewater Treatment Plant that can produce a diverse Class A biosolids product, significantly reducing lime use and enhance land application.

The lifetime budget for the Wastewater Treatment Service Area is \$2.6 billion dollars, an increase of \$147.2 million from last year's budget. This net increase reflects the transfer of \$100 million from the Enhanced Nitrogen Removal Plan to the CSO LTCP. As described in more detail below, capital projects in the Wastewater Treatment Service Area are required to rehabilitate, upgrade or



provide new facilities at Blue Plains to ensure that it can reliably meet its NPDES permit requirements and produce a consistent, high-quality dewatered solids product for land application. A significant portion of the lifetime budget is comprised of projects in the Blue Plains Total Nitrogen Program, which provides for projects necessary to meet the stringent total nitrogen discharge limit in the NPDES permit.

Five liquid treatment processes (preliminary, primary, secondary, nitrification-denitrification, and filtration) comprise the liquid treatment processes at Blue Plains. The first phases of upgrades to four (of the five) liquid treatment processes are now in service. In tandem with the placing of these facilities in service, the process control system has also been implemented to enable monitoring and control of the upgraded equipment and systems, thus allowing DC WASA to achieve greater process control and treatment efficiency and also yielding operating cost control. The current emphasis of the construction program for the liquid treatment processes is the upgrade of the nitrification-denitrification process and an upgrade to Raw Wastewater Pump Station 1.

### **Projects Scheduled to Start in FY 2010 and FY 2011**

Some of the more significant projects scheduled to start in the near term include:

- Area Substation No. 6 (Projects EV and TZ) - These projects, which involve the installation and upgrade to electrical equipment in Area Substation No. 6, for the Enhanced Nitrogen Removal Facilities and the Digester Project.
- Dual Purpose Sedimentation Basin Rehabilitation (Project BG) – This relates to the replacement of sludge collection equipment, sludge and scum pumps, and support process equipment.
- Gravity Thickening Upgrade ( Project BX) – This project will demolish Thickener Units 5 and 6 and provide a major upgrade to Thickener Units 7 to 10, including collector mechanisms, thickened sludge pumps, and scum pumps.
- Plantwide Fine Bubble Aeration System (Project BI) This project involves replacing the coarse bubble diffusers in the secondary treatment aeration system with a more efficient system. In addition to a more efficient process, this project will result in an overall savings in energy consumption.

### **Long Term Projects**

Long-term upgrade projects now under construction include:

- Nitrification-Denitrification Facilities Upgrade- Upgrade the existing nitrification-denitrification facilities to improve the process and to replace equipment that is at the end of its useful life.
- Raw Wastewater Pump Station 1- Upgrade to the Raw Wastewater Pump Station to replace equipment that is at the end of its useful life, and improve reliability
- Process Control Computer System – will provide automated monitoring and control for the nitrification-denitrification process that will improve treatment, control and optimize chemical and power costs, while increase reliability of the facilities.
- Biological Sludge Thickening Facilities- will upgrade the existing dissolved air floatation thickening units to restore integrity to this system, and reduce sludge processing and chemical costs through improved efficiency.



## Liquid Processing Program – \$588.5 million

(project pages III-9 to III-25)

Projects in this program area encompass upgrading and rehabilitating facilities involved in handling flows from the sanitary and combined sewer systems. These flows progress sequentially through the plant processes to ultimate discharge of the treated effluent into the Potomac River. Liquid treatment systems include headworks facilities that screen and pump the wastewater flows, grit facilities that remove sand and grit particles, primary treatment facilities that remove solids by sedimentation, secondary treatment facilities that remove organic pollutants using a biological process, nitrification/denitrification facilities that remove nitrogen using a biological process, and effluent filtration, disinfection, and dechlorination facilities.

Major projects under this program that are substantially complete include:

- *Grit Chamber Facilities Upgrade (Project TF) \$70.1 million* – This project is for the construction of an automated, continuous grit removal system consisting of sixteen chambers in all. Impact on operations include the elimination of current manual cleaning of each grit tank and lowered maintenance costs of tanks and pumps due to reduced grit load into downstream processes. While all of the grit collection bridges and grit conveyance systems are in operation, a new heating system for Grit Chamber Building No.1, that meets the current low emissions regulations, will be constructed.
- *Influent Screen Facility (Project TM) \$39.0 million* – This project has provided for the installation of fine screens as a preliminary treatment step in the wastewater process. The fine screening removes rags and other debris from the wastewater and thereby improves treatment processes and protects equipment.
- *Primary Treatment Facility (Project TN) \$39.0 million* – This project entailed replacing the clarifier mechanism in the primary sedimentation tanks. As a result, the primary treatment process has been removing additional suspended solids from the wastewater.
- *Secondary Treatment Facility (Project TO) \$70.6 million* – This project entailed replacing sludge and scum collection equipment and rebuilding deteriorated portions of the concrete sedimentation basins in the East and West Secondary Treatment Process.

Major projects under this program that are now underway include:

- *Raw Wastewater Pumping Station 1 Upgrade (Project UD) \$15.2 million* – This project will rehabilitate pumping equipment and appurtenances in one of the two stations that pump incoming wastewater into the plant. Construction began in FY 2007 and is scheduled to be completed in early FY 2010.
- *Biological Nutrient Removal (Project TK & TQ) \$142.8 million* – Project TK is combined with Project TQ in a single construction contract to demonstrate and implement Biological Nitrogen Removal capability in order to meet the goals of the Chesapeake Bay Agreement; that is, to meet a total nitrogen discharge goal of 7.5 mg/l. Construction began in FY 2007 and will continue through FY 2011. This upgrade will provide for better flow distribution to the reactors and better process control within the reactors, methanol feed control, and rehabilitation and upgrade of nitrification sedimentation basins. While this

project alone will not enable DC WASA to meet its new total nitrogen limit of 4.2 mg/l, it will continue to remove a significant portion of nitrogen from the wastewater, provide better process control and optimize methanol feed.

- *Nitrification/Denitrification Facilities Upgrade (Project BR) \$59.5 million* – This project includes major electrical rehabilitation of the entire facility, major HVAC and plumbing upgrade for all building and galleries, and architectural rehabilitation of the Nitrification Blower Building, Control Buildings, and Electrical Buildings. Benefits of this project include lower maintenance and energy costs due to improved efficiency. Design is currently underway. Also included in this project is rehabilitation of the nitrification return sludge line. An investigation was completed in FY 2009 that determined the extent of further rehabilitation required.
- *Filtration and Disinfection Facilities Upgrade (Project UC) \$70.7 million* – Replacement of existing filter media and the addition of an air/water backwash system and improvements to pump operation will result in reduced power usage and treatment costs due to reduced backwash water usage. A portion of the work was designed and bid ahead of the rest of the project to expedite the full rehabilitation of the facility, which had experienced filter failures. The first contract, completed in FY 2007, restored all the filters to operability with new filter underdrains and media. A second contract, which is scheduled to complete construction in FY 2010, will provide a new air-water wash system and improve backwashing controls and instrumentation.
- *Filtration/Disinfection Facility Phase II (Project BT) \$18.1 million* – Design began in FY 2009 on an upgrade to major electrical equipment serving the Filtration/ Disinfection Facility.

Other Liquid Processing Program projects included in the CIP but not scheduled to start until later, include:

- *Primary Treatment Facilities Phase II (Project BQ) \$14.8 million* – Design is scheduled to begin in FY 2015 for structural repairs to the primary sedimentation tanks.
- *Grit Chamber Facilities Phase II (Project BP) \$5.5 million* – Design is scheduled to begin in FY 2015 for upgrades to the grit chamber building structures and facilities. These upgrades include structural, architectural and building system renovation of office and storage spaces in each building.

### **Plantwide Facilities Program – \$339.4 million**

*(project pages III-26 to III-47)*

This program provides for upgrading, rehabilitating, or installing support systems and facilities that are required for both the liquid processing and solids processing programs. Systems include a Process Control System (PCS) for monitoring and control of all processes and facilities, upgrades to city and plant water systems, chemical systems, electrical power and distribution systems upgrade, telephone service, and data highway infrastructure for process, safety, security and information needs. Facilities comprise chemical receiving, storage, transmission and feed systems for chemicals used throughout the liquid and solids processes, including metal salts, polymers, sodium hypochlorite, and sodium bisulfite. Support facilities projects include the rehabilitation of the Central Operations Facility and the Central Maintenance Facility.

Major projects under this program that are substantially complete include:

- *Process Control and Computer System - Phases 1, 2 and 3 (Project TA) \$61.4 million* – This system allows for automation of a significant number of plant processes at Blue Plains, and better management of processes that are currently manually monitored. Operating savings are anticipated from lowered chemical usage and electricity consumption, by minimizing peak demand, as well as lower staffing levels. This project is critical to achieving the goals presented in the Blue Plains Internal Improvement Plan. The new system is being implemented in three phases – Phase I which began with the screens, grit chambers, primary and secondary treatment facilities, and dewatering processes, is substantially complete. Phase II will include nitrification, filtration, and disinfection facilities, and Phase III will add the solids processing facilities. Construction on the project began in August 2002 and will continue through FY 2010. The new system is being constructed in conjunction with the major upgrade projects, and will be placed in service in tandem with the upgrade-projects becoming operational.

Major projects under this program that are now underway include:

- *Instrumentation and Control Engineering Program Management (Project GP) \$11.6 million* - This project would ensure that new projects, from design through construction, are properly coordinated with DC WASA standards for I&C and Electrical and properly interfaced into the plant control system. The project includes programming of the plant control system as well as reviewing design documents and coordinating control strategies between designers and operations.

#### **Solids Processing Program – \$689.7 million**

*(project pages III-48 to III-56)*

Biosolids processing involves reductions in volume along with treatment to meet applicable federal, state and local requirements for the ultimate disposal method. Treatment is provided by a system of processing facilities that include gravity thickening of primary sludge, floatation thickening of the biological waste sludges produced by the secondary and nitrification/denitrification processes, dewatering by centrifuge and lime stabilization. Dewatered-stabilized biosolids are conveyed to the Dewatered Sludge Loading Facility, from which the biosolids are loaded into tractor-trailers and hauled offsite for beneficial reuse. Examples of beneficial reuse are land application, silviculture, and land reclamation. Solids processing facilities are required to produce a biosolids product that can be reused or disposed of in an economical and environmentally acceptable manner.

We are continuing implementation of our Biosolids Management Plan (BMP), originally adopted by the Board in 1999. This plan, which included input from our neighbors, environmental groups, and other stakeholders, evaluated a number of options for long-term biosolids processing and disposal, and identified full biosolids digestion as a common element of all long-term approaches and recommended continuing land application as long as financially advantageous.

The updated BMP includes construction of four Cambi thermal hydrolysis trains, four digesters, new dewatering equipment and a combined heat and power plant. This plan has the potential to significantly manage biosolids operating costs when it is placed in operation as it produces power from digester gas to meet over one third of DC WASA's electric demand at Blue Plains. The digestion process will eliminate nearly one half of the biosolids, which will result in lower reuse costs. There is the possibility that DC WASA can market a substantial portion of the biosolids product, further reducing land application reuse costs.

DC WASA's award-winning Biosolids Management Program has been recognized by the U.S. Environmental Protection Agency for its outstanding operations, technological advances, and promotion of the beneficial uses of municipal wastewater biosolids.

Major projects under this program that are substantially complete include:

- *Gravity Thickeners (Project TP) \$20.0 million* – This project has rehabilitated gravity thickeners 1-4.
- *Additional Dewatering Facilities (Project XC) \$81.7 million* – This project provides new centrifuges to expand the dewatering capacity and efficiency of solids processing at Blue Plains.

Major projects underway in this program include:

- *Biological Sludge Thickening Facilities (Project XB - formerly Centrifuge Thickener Facility) \$47.9 million* - This project will upgrade the existing dissolved air floatation thickening units. Improvements are expected to reduce sludge processing and chemical costs through improved efficiency. The construction contract for this project began in FY 2009 and construction is underway.

**BTN- Total Nitrogen Program – \$977.3 million**

*(project pages III-57 to III-64)*

This program provides for new facilities and upgrades to existing facilities needed at Blue Plains to meet the total nitrogen discharge limit that has been included in DC WASA's NPDES permit. Projects included in the Blue Plains Total Nitrogen Program were identified through a strategic planning process that resulted in development of DC WASA's proposed Total Nitrogen -Wet Weather (TN/WW) Plan, which addresses the requirements of the Long Term Control Plan as well as the Chesapeake Bay Tributary Strategies for reducing nitrogen discharged into the Chesapeake Bay. The recommended alternative in the plan requires removal of additional nitrogen from the wastewater prior to discharge, and improves the quality of discharge to the Potomac and Anacostia Rivers during wet weather events. Significant work on refining and resequencing the alignment, facilities and schedule has been completed. Review of the estimates and inflationary risks is ongoing.

- *Enhanced Clarification Facilities - (Project E8) \$239.2 million* – The principal components of this project are grit removal and screening for influent wastewater followed by an enhanced clarification facility. The new facilities will treat excess flow during wet weather events resulting in improved water quality of the excess flow discharge.
- *Enhanced Nitrogen Removal Facilities (Project E9) \$346.6 million* – This project includes an expanded facility to remove additional nitrogen from the wastewater prior to discharge to the Potomac River as well as improvements to upstream processes that are required to ensure the reliability of the expanded system.
- *Centrate Treatment Facilities – (Project EE) \$89.1 million* - This project provides for the treatment of recycle streams from the sludge dewatering process. Digestion of sludge, which results in a greatly reduced volume of sludge, also results in a high concentration of ammonia in the centrate from the dewatering process. This high concentration of ammonia has the potential



to overload the nitrogen removal processes. DC WASA is currently developing design concepts for this project and is participating in research to determine the most cost-effective and reliable methods to provide separate treatment of the centrate recycle stream.

- *Wet Weather Peak Mitigation (aka Blue Plains Tunnel – (Project EG) \$177.4 million* - The principal components of this project are a 23 foot diameter tunnel from Main and O Streets to Blue Plains and a tunnel dewatering pump station at Blue Plains and a diversion structure at Bolling Air Force Base. The impact of this project will be to reduce peak flow rates through Blue Plains without reducing the total volume of wet weather flow that receives treatment. It is important to note that the proposed project will not increase combined sewer overflows beyond those anticipated in the Long Term Control Plan. The budget has been reduced (approximately \$100 million) as part of the work has been transferred to the CSO-LTCP, as a result of the agreement by the Chief Administrative Offices of the User Jurisdictions.

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **A2 Liquid Processing Program Management**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2018

**Project Description:**

Program management services are provided during planning, design, and construction of upgrades to the liquid wastewater treatment process at the Blue Plains AWTP, to ensure continued reliability of the facilities and compliance with the plant's NPDES discharge permit. Program management services are required because of the comprehensive nature of the upgrades throughout the plant.

**Impact on Operations:**

Program Management has no direct impact on operations; however, the impact of each project on operations is identified on individual project sheets.

**Funding by User (percent):**

DC - 41.62%  
 EPA/Fed - 0.00%  
 WSSC - 45.53%  
 Fairfax - 8.32%  
 Loudoun/PI - 4.53%



<b>FY2009 Approved Life Budget</b>	11,781,095
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	14,368,222
<b>Increase/(Decrease) to Approved Life Budget:</b>	2,587,127

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	3,701	1,535	459	443	336	181	770	1,108	1,065	735	0
<b>Commitments Budget</b>	9,268	0	0	0	1,100	4,000	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **BG Dual Purpose Rehabilitation**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Jan 2011
<b>Construction:</b>	Oct 2012
<b>Project Completion:</b>	Aug 2015

**Project Description:**

This project replaces the sludge collection equipment, sludge and scum pumps, and other process equipment for the 8 Dual Purpose Sedimentation Basins and provides for improved flow distribution to these basins.

**Impact on Operations:**

The new sludge collection equipment provides improved reliability and increased settling performance but has no significant impact on operational costs.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	20,033,500
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	20,871,445
<b>Increase/(Decrease) to Approved Life Budget:</b>	837,945

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	644	190	1,666	544	4,894	6,662	736	0	0	0	0
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	651	1,349	2,120	2,438	14,313	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **BP Grit Chamber Facilities Phase II**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jun 2015
<b>Construction:</b>	Mar 2018
<b>Project Completion:</b>	Mar 2022

**Project Description:**

This project will upgrade the grit chamber building structures and facilities including structural, architectural and building system renovation of office and storage spaces in each building. Project would include architectural repairs to exterior of buildings.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	5,500,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	5,500,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	21	163	120	224	4,435
<b>Commitments Budget</b>	0	0	0	0	0	0	425	0	0	5,075	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **BQ Primary Treatment Facilities Ph II**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Jun 2015
<b>Construction:</b>	Mar 2018
<b>Project Completion:</b>	Mar 2022

**Project Description:**

This project provides structural repairs to the primary sedimentation tanks and conduits and would be initiated based on future structural inspection of the facilities. Concrete inspection and testing performed in 2001 indicated that the tanks did not require concrete repairs in the Primary Treatment Facilities Upgrade contract, but the inspection should be repeated in 10 years, when possibly repairs may be required. Concrete repairs would be made to maintain the integrity of the structures and protect WASA's investment in these facilities.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	14,800,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	14,800,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	0	0	0	0	0	61	483	356	636	12,576
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	0	0	0	0	0	1,200	0	0	13,600	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **BR Nitrification/Denitrification Fac**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Aug 2007
<b>Construction:</b>	Feb 2011
<b>Project Completion:</b>	Mar 2013

**Project Description:**

The concept design report for ongoing Projects TK Biological Nutrient Removal and TQ Nitrification Facility Upgrade provided a comprehensive list of facilities and equipment that needed to be rehabilitated or replaced. The list of scope items was prioritized and the highest priority tasks were included in the Project TK and TQ scope of work for design and construction. Project BR provides for rehabilitating the lower priority tasks and includes major electrical rehabilitation of the entire facility, major HVAC and plumbing upgrade for all building and galleries, and architectural rehabilitation for the Nitrification Blower Building, control buildings, and electrical buildings.

**Impact on Operations:**

Maintenance costs are anticipated to be reduced.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	51,056,112
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	59,494,112
<b>Increase/(Decrease) to Approved Life Budget:</b>	8,438,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,141	7,322	9,141	21,618	4,354	0	0	0	0	0	0
<b>Commitments Budget</b>	7,084	12,140	40,270	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **BT Filtration/Disinfection Fac PH II**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Mar 2009
<b>Construction:</b>	Mar 2011
<b>Project Completion:</b>	Aug 2014

**Project Description:**

This project replaces existing switchgear F1 and F2 and appurtenances, including control panels, transformers, and control panels. Also included in the project are upgrades to Electrical Buildings 10 and 11 and a new electrical building. Reliability of the power service to the Filtration and Disinfection Facility will be improved by implementation of this project.

**Impact on Operations:**

Energy and operational cost savings will be realized by installation of variable frequency drives.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	14,616,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	18,106,288
<b>Increase/(Decrease) to Approved Life Budget:</b>	3,490,288

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	416	1,398	1,780	8,097	2,566	60	0	0	0	0	0
<b>Commitments Budget</b>	1,444	524	16,138	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **DA DWT Research Projects**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Board Policy, WASA's commitment to outside agencies

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Mar 2015

**Project Description:**

This project is to conduct research and pilot work performed by the Department of Wastewater Treatment (DWT) and the Department of Engineering Services (DETS) in an effort to help DC WASA more cost effectively address pending future regulations for nutrient removal and wet weather treatment.

**Impact on Operations:**

This project has no impact on current operations or operating budgets but has the potential to minimize additional operating costs resulting from the new processes required at Blue Plains. The research should identify the most appropriate and cost effective technologies that use less energy and chemicals.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	2,996,091
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	3,796,091
<b>Increase/(Decrease) to Approved Life Budget:</b>	800,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,106	673	673	673	673	0	0	0	0	0	0
<b>Commitments Budget</b>	1,346	613	613	613	613	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** TF 504C5 - Grit Chamber Bldg. 1&2  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-I  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

Phase	Start Date
Design:	Jul 1998
Construction:	Jan 2003
Project Completion:	Mar 2011

**Project Description:**

This project provides new grit removal systems consisting of traveling bridges and pumps to remove grit from the grit chambers in Grit Chamber Buildings 1 and 2. Project includes conveyance and loading systems to load the grit into transport trailers for offsite disposal. Odor Control Systems for both East and West Facilities are provided. This project is needed to replace aged equipment and upgrade process technology to improve treatment and restore integrity and reliability to the facilities.

**Impact on Operations:**

This project eliminates the current contract for vacuum truck cleaning of the screens and grit chambers, however, this savings is essentially offset by the cost of hauling an increased quantity of screenings and grit produced by the more efficient equipment. The project requires sodium hypochlorite to be used for odor control and increased electricity costs for the operation of new mechanical equipment.

**Funding by User (percent):**

DC - 14.78%  
 EPA/Fed - 26.55%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.46%



FY2009 Approved Life Budget	70,138,133
FY2010 Revised/FY2011 Proposed Life Budget	70,144,788
Increase/(Decrease) to Approved Life Budget:	6,655

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	65,588	1,847	1,280	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	67,326	2,819	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **TK 504G3 - Biological Nutrient Removal**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Sep 1998
<b>Construction:</b>	Jun 1999
<b>Project Completion:</b>	Sep 2011

**Project Description:**

This project funds multiple construction contracts to demonstrate and implement Biological Nutrient Removal. The first contract involved construction of and operations assistance for the Denitrification Demonstration Facility (DDF). The DDF included methanol storage and feed facilities enabling WASA to conduct a half-plant-scale nitrogen removal pilot study in the Nitrification Facility. The second contract provided the capability for full-scale nitrogen removal, which is currently in operation. The third contract will upgrade the process aeration blowers and reactors to optimize the process, reduce energy consumption and provide reliable operation. The blower upgrade will include rehabilitation of the motors and provision of new blower support systems. The updated blower control system will provide improved control to match blower output with process aeration requirements to reduce energy consumption. This project is needed to implement nitrogen removal and provide reliable treatment systems to maintain the high quality effluent from the Blue Plains AWTP, under a voluntary nitrogen removal program. Increase in budget resulted, primarily, from the construction contract bid coming in at an amount higher than the previously approved budget.

**Impact on Operations:**

The project provides capability to remove nitrogen to meet the goals of the Chesapeake Bay Agreement. Operation of the reactors in the denitrification mode requires the purchase of methanol to provide a carbon source for the denitrification process to work. The cost of methanol represents a significant added operating cost. Upgrade of the blowers, conversion to a fine bubble diffuses system, and automated dissolved oxygen control system should provide a significant electrical cost savings when blower operation is controlled to meet process aeration needs. This is expected to result in an annual energy cost savings of about \$1 million.

**Funding by User (percent):**

DC - 35.17%  
 EPA/Fed - 6.04%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	94,797,324
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	95,469,814
<b>Increase/(Decrease) to Approved Life Budget:</b>	672,490

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	78,339	12,326	2,628	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	94,382	600	488	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority**  
**FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **TM 504G6 - Influent Screen Facility**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Dec 1998
<b>Construction:</b>	Jan 2003
<b>Project Completion:</b>	Jul 2010

**Project Description:**

This project provides for the upgrade of the influent screen facilities by replacing the coarse screens with fine screen technology. The four existing screens in West Process Grit Chamber Building 1 and the nine existing screens in Raw Wastewater Pump Station 2 are replaced with fine screens. Included are screenings' washing, conveyance and loading systems to load the screenings into enclosed containers for transport to disposal sites. This project upgrades screening technology to improve treatment efficiency and reliability of the facilities.

**Impact on Operations:**

The new fine screens and mechanical conveying systems eliminate the need for the contract to remove screenings from beneath the screens, using a vacuum truck. Use of fine screens essentially eliminates clogging of sludge pumping equipment and reduces the quantity of trash that accumulates on the surface of sedimentation tanks and basins and in the effluent filters. The labor required to clean pumps and tanks is reduced. Due to the smaller-sized screen openings, the quantity of screenings captured by the fine screens that must be disposed of increases. The increased screening quantity could result in an annual increase in hauling cost of approximately \$360,000.

**Funding by User (percent):**

DC - 15.05%  
 EPA/Fed - 26.27%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.46%



<b>FY2009 Approved Life Budget</b>	38,983,697
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	38,983,697
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	38,190	770	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	38,984	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **TN 504G9 - Primary Treatment Facility**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jul 1999
<b>Construction:</b>	Oct 2001
<b>Project Completion:</b> Mar 2011	

**Project Description:**

Project TN provides a comprehensive upgrade of the East and West Process Primary Treatment Facilities. This project replaces the circular sludge collector mechanisms in Primary Sedimentation Tanks 3 through 36 with state-of-the-art mechanisms that improve suspended solids removal efficiency. The project also replaces all of the equipment, piping and valves in all nine control houses, providing new sludge, scum, and dewatering pumps. The upgraded system uses the plantwide process control and computer system to automate the sludge and scum pumping systems. The upgraded automated system will simplify the pumping systems, providing increased reliability and less operator interface. The project increases integrity and reliability of the facilities.

**Impact on Operations:**

Improved primary treatment performance results in a decreased organic load to secondary and reduction in total plant sludge production. This project is projected to impact chemical, energy and contract costs in the operations budget. Chemical costs increase by about \$260,000 per year due to addition of polymer in Primary and decrease by a like amount due to the reduction in polymer added in dewatering as a result of lower overall sludge production. Electrical costs decrease due to lower aeration requirements in secondary treatment and reduced sludge loading to the centrifuges. The overall cost of the sludge hauling contracts is expected to decrease by nearly \$1 million per year, prior to startup of the digester facilities, because the amount of sludge to be hauled off-site is reduced.

**Funding by User (percent):**

DC - 14.25%  
 EPA/Fed - 27.16%  
 WSSC - 45.78%  
 Fairfax - 8.37%  
 Loudoun/PI - 4.45%



<b>FY2009 Approved Life Budget</b>	38,519,262
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	38,519,262
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
<b>Disbursements Budget</b>	37,792	567	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	38,367	152	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** TO 504H1 - Secondary Treatment Fac.  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	Aug 1999
Construction:	Feb 2002
Project Completion:	Jan 2012

**Project Description:**

Project TO rebuilds the concrete sedimentation basin structures in the West Process Secondary Sedimentation Basins 1-12 to replace deteriorated concrete, railings, gratings and weirs. New sludge and scum collection equipment is provided in all twenty four East and West secondary sedimentation basins. Project also rehabilitates the process aeration blowers and motors and provides new blower support systems. This project upgrades process technology to improve treatment efficiency and increase integrity and reliability of the facilities.

**Impact on Operations:**

This project, in conjunction with PCCS, automates sludge and scum pumping which reduces labor for monitoring and control and eliminates the need for contractors to periodically pump scum from the basins. The project upgrades the process aeration blowers to permit automated dissolved oxygen control via the PCCS. Annual energy cost savings from automated Dissolved Oxygen control is expected to be \$1 million.

**Funding by User (percent):**

DC - 30.30%  
 EPA/Fed - 10.98%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.50%



FY2009 Approved Life Budget	70,593,858
FY2010 Revised/FY2011 Proposed Life Budget	70,593,858
Increase/(Decrease) to Approved Life Budget:	0

Disbursements Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	68,352	1,778	206	69	0	0	0	0	0	0	0
Commitments Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	70,089	505	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** TQ 504H3 - Nitrification Facility  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	Apr 2003
Construction:	Jun 2005
Project Completion:	Dec 2011

**Project Description:**

This project upgrades the 28 Nitrification sedimentation basins. The sludge and scum collection equipment and pumping systems in the sedimentation basins are replaced. This project upgrades process technology, improves treatment, reduce energy consumption, and increase reliability of the facilities. Instrumentation and controls are provided to monitor and control the process using PCCS.

**Impact on Operations:**

The impact of not replacing this equipment would be decreased plant reliability and an increased risk of a permit violation.

**Funding by User (percent):**

DC - 35.51%  
 EPA/Fed - 6.04%  
 WSSC - 45.58%  
 Fairfax - 8.33%  
 Loudoun/PI - 4.54%



FY2009 Approved Life Budget	46,924,238
FY2010 Revised/FY2011 Proposed Life Budget	47,296,738
Increase/(Decrease) to Approved Life Budget:	372,500

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	37,709	6,820	1,329	17	0	0	0	0	0	0	0
<b>Commitments Budget</b>	46,990	300	6	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **TS 504H5 - IMP EAST PRIM EFFL EXCESS FL**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	
Construction:	Jan 1999
Project Completion:	Mar 2012

**Project Description:**

This project provides improvements to the control valves and instrumentation systems that control the extreme wet weather flows through the Blue Plains AWTP. During extreme wet weather events, most of the East Process flow continues into Secondary Treatment for complete treatment and discharges to the Potomac River through Outfall 002. However, a portion of the East Process flow proceeds from Primary treatment into disinfection tanks and discharges into the Potomac River through Outfall 001. The improvements to the instrumentation system that controls excess flows into the disinfection tanks and Outfall 001 ensure accurate compliance with flow limitations stipulated in the NPDES permit. This project is needed to replace aged equipment and upgrade process technology to ensure compliance with the NPDES permit.

**Impact on Operations:**

This project automates control of excess flow during storms and reduces the labor to monitor and adjust gate positions during storms.

**Funding by User (percent):**

DC - 16.48%  
 EPA/Fed - 24.83%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.46%



<b>FY2009 Approved Life Budget</b>	1,684,749
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,684,749
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,533	50	63	19	0	0	0	0	0	0	0
<b>Commitments Budget</b>	1,553	132	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title** **UC 504J1 - Filtration/Disinfection Fac.**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
<b>Design:</b>	Aug 2002
<b>Construction:</b>	Mar 2004
<b>Project Completion:</b>	May 2012

**Project Description:**

This project upgrades the Filtration and Disinfection Facility at the Blue Plains AWTP. The project converts the filters to an air-water wash type backwash system, which eliminates the surface wash system. Projects provides new underdrains, filter media, process aeration blowers and piping, and the instruments and controls to automatically backwash the filters, using the PCCS. This project upgrades process technology to improve treatment and increase reliability of the facilities. In FY 2010 a survey will be conducted on the reliability of reinforced and non-reinforced concrete structures plant-wide. Based on results from this survey, some impact on the final project budget may be required.

**Impact on Operations:**

The air/water backwash improves the cleaning of the filter beds, providing longer filter run times. Also, the air-water backwash system reduces the quantity of spent washwater, which is recycled throught the plant by one-third. The net impact on annual energy cost is a savings of approximately \$86,000. This considers the increased energy to operate the aeration blowers.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	64,206,160
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	64,556,160
<b>Increase/(Decrease) to Approved Life Budget:</b>	350,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	52,305	7,068	2,415	2,768	0	0	0	0	0	0	0
<b>Commitments Budget</b>	59,882	430	4,244	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **UD 504J2 - Raw Water Pump Stations 1&2**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	May 2001
Construction:	Apr 2007
<b>Project Completion:</b>	Nov 2011

**Project Description:**

This project rehabilitates the pumps, motors, and drives in Raw Wastewater Pump Station 1 and replaces the smallest pump with a larger 80 mgd pump. The project also repairs or replaces the pump discharge conduits and provides new pump controls and pump support systems. This project rehabilitates the pumping equipment to ensure reliability of this facility.

Increase in budget resulted primarily from the construction contract bid coming at an amount higher than the previously approved budget.

**Impact on Operations:**

Project provides the capability to automate influent pumping which reduces labor required to monitor and control influent raw wastewater pumping.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	14,752,129
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	15,225,929
<b>Increase/(Decrease) to Approved Life Budget:</b>	473,800

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	12,503	1,497	531	41	0	0	0	0	0	0	0
<b>Commitments Budget</b>	14,342	460	424	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Liquid Processing  
**Activity Group/Project Title:** **YN 700E8 - Filtration Fac Pumping Sys**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Health Safety

Phase	Start Date
Design:	Apr 1997
Construction:	Dec 1999
Project Completion:	Feb 2009

**Project Description:**

This project upgrades the filtration facility pumping systems by providing all new filter influent pumps, wastewater pumps, surface wash pumps, spent wastewater pumps, high pressure reclaimed final effluent pumps and low pressure reclaimed final effluent pumps. The project refurbishes all of the associated motors and drives. This project increases the reliability of the pumping systems .

**Impact on Operations:**

Project has no material impact on operatng costs.

**Funding by User (percent):**

DC - 10.31%  
 EPA/Fed - 31.04%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



FY2009 Approved Life Budget	12,363,502
FY2010 Revised/FY2011 Proposed Life Budget	0
Increase/(Decrease) to Approved Life Budget:	-12,363,502

**CLOSED**

Disbursements Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	12,361										
Commitments Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	12,361										

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** **AL Plantwide Project Program Management**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Apr 2018

**Project Description:**

Program management services are required for planning, design, and construction of new or upgraded plantwide systems at the Blue Plains AWTP to ensure continued reliability of the facilities and compliance with the plant's NPDES discharge permit. Program management services are required because of the comprehensive nature of the upgrades throughout the plant.

**Impact on Operations:**

Program Management has no direct impact on operations; however, impact of each project on operations is identified on individual project sheets.

**Funding by User (percent):**

DC - 41.79%  
 EPA/Fed - 0.00%  
 WSSC - 45.39%  
 Fairfax - 8.30%  
 Loudoun/PI - 4.52%



<b>FY2009 Approved Life Budget</b>	12,760,771
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	12,884,889
<b>Increase/(Decrease) to Approved Life Budget:</b>	124,118

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	5,467	586	618	615	388	740	727	846	586	305	0
<b>Commitments Budget</b>	8,885	0	0	0	4,000	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** **AZ COF Renovations**  
**Managing Department:** Facilities and Security **EPMC:** EPMC-I  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Jan 2012

**Project Description:**

This project provides for the renovation of the Central Operations Facility and will improve the functionality and appearance of the building. Project includes budget for renovation of office spaces used by the Authority's personnel, COF Windows replacement, HVAC upgrades and Landscaping, among others. Office space renovations have been completed for the Department of Engineering and Technical Services (DETS) and the Boardroom, while those for other departments are in different stages of completion. The budget increase is mostly attributable to the reallocation the Program Management costs.

**Impact on Operations:**

This project has no material impact on the operating budget.

**Funding by User (percent):**

DC - 72.37%  
 EPA/Fed - 0.00%  
 WSSC - 21.61%  
 Fairfax - 3.96%  
 Loudoun/PI - 2.07%



<b>FY2009 Approved Life Budget</b>	15,768,063
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	17,809,441
<b>Increase/(Decrease) to Approved Life Budget:</b>	2,041,378

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	10,701	1,313	2,361	74	0	0	0	0	0	0	0
<b>Commitments Budget</b>	12,580	2,212	3,017	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** **BI Plantwide Fine Bubble Aeration**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Health Safety

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Aug 2009
<b>Construction:</b>	Jun 2012
<b>Project Completion:</b>	Apr 2015

**Project Description:**

This project replaces the coarse bubble diffusers in the Secondary Treatment process with fine bubble diffusers. Conversion to a fine bubble aeration system provides the capability to transfer more oxygen to the process while saving overall energy consumption. The project retrofits or replaces the Secondary process blowers and motors that are needed to operate at the higher-pressure requirements of fine bubble systems. This project also modifies Secondary Reactors 3 and 4, to reduce short-circuiting and improve their detention time and performance. An activity to expand Secondary Reactors 5 and 6 was removed from this project which resulted in a reduction of the budget by over \$36 million.

**Impact on Operations:**

These improvements provide added reliability and flexibility in operating the Secondary process and achieving the plant current total nitrogen goal and future permit limit. Annual energy cost savings of approximately \$500,000 is expected. These savings will be offset to some degree by the need for maintenance to clean and replace, periodically, the fine bubble diffusers. Aside from energy savings, this project could have a positive impact on other operational costs by providing a more consistent feed to the BNR process. These improvements will provide improved treatment levels in the Secondary process, which will reduce the capital cost of other projects that will be required to provide added nitrogen removal.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	23,645,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	27,099,405
<b>Increase/(Decrease) to Approved Life Budget:</b>	3,454,405

	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
<b>Disbursements Budget</b>	210	1,332	1,781	1,200	9,737	6,150	16	0	0	0	0
<b>Commitments Budget</b>	2,366	0	2,884	21,850	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** **BY Additional Chemical Systems PH III**  
**Managing Department:** Engineering and Technical Services **EPMC: #N/A**  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jun 2018
<b>Construction:</b>	Sep 2020
<b>Project Completion:</b>	Mar 2024

**Project Description:**

This project is moving into the 10-year budget window through normal progression. This project will provide additional chemical feed lines and application points for process needs such as polymer distribution in the grit chambers, polymer for spent wash water treatment, chemicals for wet weather flow treatment, and chemicals for solids recycle side stream treatment.

**Impact on Operations:**

This project would increase operations and maintenance costs for operation and maintenance of the chemical feed pumps and systems.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	3,821,638
<b>Increase/(Decrease) to Approved Life Budget:</b>	3,821,638

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	22	3,390
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	0	285	3,537

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** CH Misc Facility Projects  
**Managing Department:** Facilities and Security **EPMC:** EPMC-I  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jul 2012

**Project Description:**

This will rehab and upgrade various facilities and apparatus throughout the Wastewater Treatment Plant. Security cameras will be installed throughout the WWTP, a proposed new entrance to the plant is planned, rehabilitate and upgrade of portions of the 2nd Floor of the Central Maintenance Facility (CMF) for relocated DETS and DMS staff and to meet current code requirements and other miscellaneous activities.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 84.04%  
 EPA/Fed - 0.00%  
 WSSC - 12.47%  
 Fairfax - 2.28%  
 Loudoun/PI - 1.21%



<b>FY2009 Approved Life Budget</b>	5,476,762
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	5,489,501
<b>Increase/(Decrease) to Approved Life Budget:</b>	12,739

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	2,303	448	552	1,330	0	0	0	0	0	0	0
<b>Commitments Budget</b>	2,973	396	2,120	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** **CK WWTP Sampler Program**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Mar 2011

**Project Description:**

The Plant Wide Automatic Sampler Program automates the collection of analytical operating data and is designed to accomplish the following; 1) Allow the plant to continue its sample collection effort, 2) Increase accuracy of data (by increasing sampling frequency) thereby allowing optimization of chemical dosage, 3) Move DCWASA into the mainstream of US plant operations where automatic samplers have been in use for the past 15 years. Additionally, there would be an increase in frequency of sampling from once every 4 hours to once every 10-15 minutes thereby increasing the accuracy of results and allowing optimization of chemical usage.

**Impact on Operations:**

Project will increase the accuracy of analytical operation data to allow more efficient operation and lower chemical costs. As samples are now collected by hand, the automated samplers permit Department of Wastewater Treatment to reduce staff by one operator per shift for a total of 4 positions.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	1,225,861
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,265,861
<b>Increase/(Decrease) to Approved Life Budget:</b>	40,000

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	1,149	59	18	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	1,217	48	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** CV Laboratory Upgrades  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Health Safety

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Sep 2007
<b>Construction:</b>	Jul 2010
<b>Project Completion:</b>	Feb 2013

**Project Description:**

This project will renovate the central laboratory building located at Blue Plains. This building was constructed around 1935 and was last renovated in the early 1980s. The project will refurbish the building interior, including floors, walls, and ceilings and replace laboratory benches, fume hoods, and the analytical equipment. This project would also abate the asbestos contained in the older building materials.

**Impact on Operations:**

This project will have no direct impact on the operating budget. However, upgrading of the laboratory, including repairs to doors and windows, upgrade of the heating, ventilation, and air conditioning systems will provide for energy savings, and provide a safe and improved work environment for the lab personnel.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	4,829,400
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	4,829,400
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	785	2,022	2,022	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	912	1,959	1,959	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** CW Perimeter Security at Blue Plains  
**Managing Department:** Facilities and Security **EPMC:** EPMC-I  
**Priority:** Good Engineering, Low, M&F over long term

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Jun 2012

**Project Description:**

This project will provide for a security assessment, placement of exterior and interior cameras throughout Blue Plains Facilities, install traffic control devices (i.e., bollards & speed bumps), install perimeter fencing (i.e., dock enclosures) and install portable guard houses.

**Impact on Operations:**

This project will have no material impact on the operating budget. However, minimal costs for maintenance of cameras will be required in future year budgets.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	1,450,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,450,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	18	716	716	0	0	0	0	0	0	0
<b>Commitments Budget</b>	3	724	724	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** **DP Chemical Building Enhancements**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Health Safety

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Aug 2008
<b>Construction:</b>	Nov 2010
<b>Project Completion:</b>	Nov 2011

**Project Description:**

This project is to enhance operability, safety, and housekeeping in the various chemical buildings throughout Blue Plains and extend the life expectancy of various elements of the chemical systems.

**Impact on Operations:**

This project will help avoid future impacts on the operating budget through extended life expectancy of chemical systems.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	1,550,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,670,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	120,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	219	0	1,300	151	0	0	0	0	0	0	0
<b>Commitments Budget</b>	269	0	1,401	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** DQ PCCS PLC Interface(s) / Replacements  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2015

**Project Description:**

This project is to interface the non-OEM Programmable Logic Controllers (PLCs) across the plant with the Ovation control software within the PCCS. WASA has installed a number of PLCs over the past 8 years to provide monitoring and control of various plant systems - these PLCs were used before the Emerson PCCS was available. There are other PLCs in the system that have been supplied with process equipment by the Original Equipment Manufacturer (OEM) to control and safe-guard specific pieces of equipment, such as the influent screens, traveling grit bridges and centrifuges. This project is to provide the non-OEM PLCs across the plant the capability, with proper interfaces, to communicate with the Ovation control software within the PCCS.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	2,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	2,040,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	40,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	77	306	265	98	260	262	149	0	0	0	0
<b>Commitments Budget</b>	1,110	0	0	930	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** EI **Plantwide Painting of Steel Pipes**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Health Safety

Phase	Start Date
Design:	
Construction:	Dec 2011
Project Completion:	Dec 2017

**Project Description:**

This project entails painting the steel piping throughout the Advanced Wastewater Treatment Plant at Blue Plains. The steel pipes at Blue Plains exist in a corrosive environment and require painting to protect them from corrosion. The extent of piping, especially large diameter pipes, throughout the plant is beyond the scope of typical maintenance.

**Impact on Operations:**

This project will prevent unforeseen repair / replacement costs.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



FY2009 Approved Life Budget	4,960,000
FY2010 Revised/FY2011 Proposed Life Budget	4,960,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	174	417	829	949	622	404	135	0
<b>Commitments Budget</b>	0	0	0	4,960	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** **EN Central Fire Alarm System**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Health Safety

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	Sep 2010
<b>Project Completion:</b>	Oct 2011

**Project Description:**

This project entails the construction of a central fire alarm system to deliver signals from fire alarm systems throughout the Blue Plains plant to one central location. Fire alarms throughout Blue Plains sound at the building in which a fire is detected. Installation of a central fire alarm system will deliver the local fire alarms to a location at which there is coverage 24 hours per day. Therefore, a more timely call to the fire department will result in prevention of potential damage to buildings, critical infrastructure and equipment and most importantly, improve the health and safety of employees and others on-site at Blue Plains.

**Impact on Operations:**

This project will have no impact on the operating budget.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	2,392,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	2,589,530
<b>Increase/(Decrease) to Approved Life Budget:</b>	197,530

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	162	6	1,656	14	0	0	0	0	0	0	0
<b>Commitments Budget</b>	168	2,421	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Wastewater Treatment Service Area  
 Program Title: Plantwide  
 Activity Group/Project Title: **FF WWTP Flood Protection**  
 Managing Department: Engineering and Technical Services EPMC: EPMC-I  
 Priority: Good Engineering, Low, M&F over long term  
 Project Description:  
 Impact on Operations:

Phase	Start Date
Design:	
Construction:	
Project Completion:	Mar 2012

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



FY2009 Approved Life Budget	
FY2010 Revised/FY2011 Proposed Life Budget	500,000
Increase/(Decrease) to Approved Life Budget:	500,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget	0	57	221	111	0	0	0	0	0	0	0
Commitments Budget	0	500	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** GP Instrumentation, Control, & Electric -EPMC  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jun 2016

**Project Description:**

Professional services related to Instrumentation and Control (I&C) support and programming for new and upgraded facilities throughout Blue Plains. Specific tasks would include verifying that the designs are meeting WASA standards for I&C and Electrical work, QA/QC of the designs for I&C and Electrical and review of I&C and Electrical shop drawings. This work is needed to ensure that the project is properly coordinated with WASA standards for I&C and Electrical. The work was previously included under management of many different projects, prominently, TA, E8, E9 and EE, among others. Certain tasks (and associated budgets) for these projects were appropriately reduced, and consolidated under this new project.

**Impact on Operations:**

There will be no significant impacts on operational costs.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



FY2009 Approved Life Budget	9,496,253
FY2010 Revised/FY2011 Proposed Life Budget	11,636,084
Increase/(Decrease) to Approved Life Budget:	2,139,831

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
Disbursements Budget	71	2,547	2,197	138	737	1,305	967	193	0	0	0
Commitments Budget	7,145	0	1,131	0	3,360	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** **H1 MWCOG Budget Items**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Health Safety

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2011

**Project Description:**

The Metropolitan Washington Council of Governments (MWCOG) provides regional planning services for the District of Columbia and its metropolitan area. DC WASA contributes, in proportion to its benefit, to the regional wastewater planning efforts performed by MWCOG. The capital funding for these tasks have been budgeted in the past under Project YD, Miscellaneous Projects. Project H1 is proposed as a new project to track these efforts independent of the other projects under YD.

**Impact on Operations:**

There are no anticipated impacts on operations or maintenance costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,097,332
<b>Increase/(Decrease) to Approved Life Budget:</b>	1,097,332

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	258	556	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	1,097	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** **H9 Blue Plains Capital Equipment**  
**Managing Department:** EPMC: EPMC-I  
**Priority:** Good Engineering, Low, M&F over long term  
**Project Description:**  
 Annual program for the repair and replacement of Major Pumps, Large Motors, and Centrifuges at Blue Plains  
**Impact on Operations:**

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2011

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	2,282,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	2,282,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	659	725	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	1,396	886	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority**  
**FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** **TA Process Control & Computer System**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Sep 1998
<b>Construction:</b>	Aug 2002
<b>Project Completion:</b>	Mar 2011

**Project Description:**

The Process Control & Computer System provides monitoring and control for the Raw Wastewater Pumping Stations, Grit and Screen Facilities, Primary and Secondary Treatment Facilities, additional Chemical Systems, alternate Disinfection System, additional Dewatering Systems, Nitrification, Filtration and Disinfection Facilities, and Gravity Thickening in the first two phases of a plant-wide system. The PCCS provides monitoring and control of key process functions such as aeration, sludge pumping, and chemical feed dosing. Monitoring of energy usage is provided by plant process area and for large pumps and blowers. This project upgrades technology to improve treatment, control and optimize chemical and power costs and increase reliability of the facilities.

**Impact on Operations:**

The new Process Control Computer System (PCCS) assists in optimizing labor, chemical and electricity costs. The PCCS permits plant operations from a centralized location by allowing operations staff to monitor process condition and equipment status remotely. The system monitors power usage and permits discretionary operation of non-critical equipment during off-peak hours. Dissolved oxygen (DO) control is provided in the Secondary and Nitrification processes to match blower operation with process air needs, thereby saving power costs of approximately \$1 million per year. The system automates chemical feed, paced by plant flows and other variables, to optimize chemical usage and cost. Implementation of PCCS, in conjunction with the Grit and Screen Facility Upgrades and Gravity Thickener Upgrade is expected to save about \$200,000 per year in labor costs. Implementation of PCCS, in conjunction with the Primary Treatment, Secondary Treatment and Nitrification Facility Upgrade projects is expected to save nearly \$2 million per year in labor costs.

**Funding by User (percent):**

DC - 41.37%  
 EPA/Fed - 0.00%  
 WSSC - 45.72%  
 Fairfax - 8.36%  
 Loudoun/PI - 4.55%



<b>FY2009 Approved Life Budget</b>	59,008,696
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	61,392,358
<b>Increase/(Decrease) to Approved Life Budget:</b>	2,383,662

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	43,976	6,203	4,597	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	61,372	20	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** **TC 504B6 - Additional Chemical Systems**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	Dec 1998
Construction:	Apr 2001
<b>Project Completion:</b>	Oct 2010

**Project Description:**

This project provides new centralized chemical receiving and storage facilities, replacing the existing systems located in the chemical building. The project also constructs pipe chases and galleries to contain chemical piping currently buried throughout the Blue Plains AWTP to protect piping, reduce potential for soil contamination and provide ready access for repair. New dry polymer receiving, storage, batching, and pumping systems are provided in the Solids Processing Building. New metal salt receiving, storage and pumping systems are provided in the Chemical Building. This project replaces aged equipment and upgrades process technology to improve treatment efficiency and reliability.

**Impact on Operations:**

Ferrous sulfate will be added to plant influent to prevent odors. The ferrous sulfate used at Blue Plains is waste pickle liquor for which the only cost is shipping. Use of ferrous sulfate for odor control reduces the need for sodium hypochlorite and should result in a cost savings.

**Funding by User (percent):**

DC - 15.36%  
 EPA/Fed - 25.98%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.44%



<b>FY2009 Approved Life Budget</b>	74,060,046
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	74,060,546
<b>Increase/(Decrease) to Approved Life Budget:</b>	500

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	73,190	522	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	74,061	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** TU 504H7 - Central Operation Facility  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Good Engineering, Low, M&F over long term

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Dec 1999
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2009

**Project Description:**

Project provides for upgrade of the Central Operation Facility at the Blue Plains AWTP to meet current BOCA/BC/DC Building Code compliance, HVAC standards, ADA compliance, and fire protection codes. The majority of scheduled work within this project has been transferred to project AZ - Renovation of Central Operations Building during FY04.

**Impact on Operations:**

Project has no material impact on operations costs

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed -  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	<u>1,201,489</u>
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	<u>0</u>
<b>Increase/(Decrease) to Approved Life Budget:</b>	<u>-1,201,489</u>

**CLOSED**

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	916										
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	916										

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** TZ 50416 - Elec Power Sys - Switch Gear  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	Apr 2016
Construction:	Mar 2003
Project Completion:	Mar 2020

**Project Description:**

This project replaces the 5 KV switchgear at the Secondary Blower Building and Raw Wastewater Pump Station 1. This project is needed to update the electrical equipment and ensure reliability of the plant processes. Replacement of the plant's main switchgear has been transferred to Project XZ, Solids Processing Building Upgrade.

**Impact on Operations:**

Project has no material impact on operations costs

**Funding by User (percent):**

DC - 40.60%  
 EPA/Fed - 0.62%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



FY2009 Approved Life Budget	7,974,932
FY2010 Revised/FY2011 Proposed Life Budget	37,023,479
Increase/(Decrease) to Approved Life Budget:	29,048,547

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	2,484	332	25	0	1,015	664	0	0	256	6,198	7,796
<b>Commitments Budget</b>	2,829	14,165	270	0	2,300	0	0	70	965	16,425	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title** **VA Additional Aeration Facility**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-I**  
**Priority:** Good Engineering, Low, M&F over long term

<u>Phase</u>	<u>Start Date</u>
Design:	
Construction:	
Project Completion:	Jan 2009

**Project Description:**

This project provides an additional effluent aeration channel and air diffuser piping to increase hydraulic capacity in the channels from the Nitrification sedimentation basins to the Filtration Facility fore bays at the Blue Plains AWTP.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed -  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



FY2009 Approved Life Budget	400,000
FY2010 Revised/FY2011 Proposed Life Budget	0
Increase/(Decrease) to Approved Life Budget:	-400,000

**CLOSED**

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	266										
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	266										

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Plantwide  
**Activity Group/Project Title:** YD 700D5 - Miscellaneous Projects  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Health Safety

Phase	Start Date
Design:	Mar 2010
Construction:	Apr 2010
Project Completion:	Jun 2016

**Project Description:**

This project includes the study, design, and construction of miscellaneous improvements to the Blue Plains AWTP that are not included in major capital projects. Examples of such improvements include general site, roadways, truck access, process upgrades, re-roofing of the Central Maintenance Facility, and a plant-wide odor study to identify, characterize and control on-site plant odors. This project is needed to improve conditions for plant workers, neighbors, and haulers as well as improve treatment. This also includes the high priority rehabilitation program which is used to repair and replace equipment to keep systems operational until the long term upgrade projects are completed.

**Impact on Operations:**

Project has no material impact on operating costs.

**Funding by User (percent):**

DC - 38.79%  
 EPA/Fed - 2.84%  
 WSSC - 45.53%  
 Fairfax - 8.32%  
 Loudoun/PI - 4.52%



FY2009 Approved Life Budget	31,126,059
FY2010 Revised/FY2011 Proposed Life Budget	37,126,059
Increase/(Decrease) to Approved Life Budget:	6,000,000

Disbursements Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	23,832	4,756	1,878	4,756	476	476	476	476	0	0	0
Commitments Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	27,735	4,756	1,878	919	0	919	919	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Solids Processing  
**Activity Group/Project Title:** **AM Solids Processing Program Management**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Jun 2019

**Project Description:**

This project provides program management services during planning, design and construction of biosolids processes upgrade at the Blue Plains AWTP. These projects will ensure continued reliability of the facilities and compliance with the plant's NPDES discharge permit. Program management services are required because of the comprehensive nature of the upgrades throughout the plant.

**Impact on Operations:**

Program Management has no direct impact on operations; however, impact of each project on operations is identified on individual project sheets.

**Funding by User (percent):**

DC - 41.54%  
 EPA/Fed - 0.00%  
 WSSC - 45.59%  
 Fairfax - 8.33%  
 Loudoun/PI - 4.54%



<b>FY2009 Approved Life Budget</b>	15,919,942
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	20,599,567
<b>Increase/(Decrease) to Approved Life Budget:</b>	4,679,625

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	736	3,077	3,779	3,108	4,914	2,137	132	198	213	149	110
<b>Commitments Budget</b>	9,700	0	0	9,900	0	1,000	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Solids Processing  
**Activity Group/Project Title:** **BX Gravity Thickener Upgrades Ph II**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Nov 2010
<b>Construction:</b>	Feb 2013
<b>Project Completion:</b>	Feb 2017

**Project Description:**

This project will demolish Thickener Units 5 and 6, and provide a major upgrade to Thickener Units 7-10, including new collector mechanisms, thickened sludge pumps, and scum pumps. Project would also repair cracks in gallery roof in vicinity of Thickener Units 7-10.

**Impact on Operations:**

Performance of Thickeners 7-10 will improve. No significant impacts on operational costs.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	14,620,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	15,497,200
<b>Increase/(Decrease) to Approved Life Budget:</b>	877,200

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	570	553	924	4,778	4,038	1,681	26	0	0
<b>Commitments Budget</b>	0	0	1,272	0	14,225	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Solids Processing  
**Activity Group/Project Title:** EV Area Substation No. 6  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Nov 2008
<b>Construction:</b>	Apr 2010
<b>Project Completion:</b>	Jan 2013

**Project Description:**

This project replaces the 5 KV switchgear, Area Substation No. 4, at the south end of the Blue Plains AWTP, which services the Filtration & Disinfection Facility and Dual Purpose Sedimentation Basins with the proposed new Area Substation No. 6. This project is needed to replace obsolete electrical equipment and ensure reliability of these critical plant processes. Funding for this new project was transferred from Project XA. Construction of the new substation, which was designed as part of the Egg Digestion Facility project, should start as soon as possible and not be deferred until FY 2010.

**Impact on Operations:**

This project will eliminate repeated shut-downs, resulting in (unquantifiable) savings in O & M costs.

**Funding by User (percent):**

DC - 40.90%  
 EPA/Fed - 0.32%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	17,398,470
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	22,857,532
<b>Increase/(Decrease) to Approved Life Budget:</b>	5,459,062

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	431	1,158	10,913	4,906	32	0	0	0	0	0	0
<b>Commitments Budget</b>	787	21,590	480	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Solids Processing  
**Activity Group/Project Title:** **TP 504H2 - Gravity Thickeners**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	Oct 1999
Construction:	Dec 2002
Project Completion:	Jan 2011

**Project Description:**

This project provides a comprehensive upgrade for Gravity Thickeners 1 through 4, replacing the circular thickener mechanisms, as well as sludge and scum pumps, and piping systems. The new state-of-the-art thickeners mechanisms improve thickener performance. A flow distribution station is added to improve control of sludge feed to each of the thickeners that remain in service. New covers for Thickeners 1 through 4 are provided. The new equipment is designed to improve process efficiency and reliability of the facilities.

**Impact on Operations:**

This project, in conjunction with PCCS, provides the capability to automate sludge and scum pumping which reduces labor for monitoring and control.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	19,957,737
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	19,958,237
<b>Increase/(Decrease) to Approved Life Budget:</b>	500

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	19,440	377	18	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	19,897	61	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Solids Processing  
**Activity Group/Project Title:** **XA New Digestion Facilities**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Aug 2002
<b>Construction:</b>	Jun 2010
<b>Project Completion:</b>	Apr 2017

**Project Description:**

Project provides for construction of a new advanced digestion facility capable of anaerobically digesting all biosolids generated at the Blue Plains AWTP, as called for in the Biosolids Master Plan. The anaerobic digestion process reduces the volume and weight of biosolids to be transported to land application sites resulting in reduced truck traffic, odor, noise and pollution. In FY 2006, The Board decided to reject the single bid received on the first phase digester construction contract and defer the project until 2010. An update to the Biosolids Management Plan was started in FY 2007 to review biosolids technologies that are now available to WASA and to evaluate less expensive digester vessels. The final options being considered utilize digestion and can produce a Class A biosolids product. WASA proposes to utilize the Cambi Thermal Hydrolysis digestion process, which has resulted in most of the budget increase.

**Impact on Operations:**

The new digestion facility reduces biosolids production by half, produces a stable product for beneficial reuse, and generates excess digester gas that can supply 1/3 of the plant's electrical needs. The facility provides savings of approximately \$16 million per year that include savings in biosolids hauling and reuse, personnel, chemicals, contracts, and energy costs.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	438,901,949
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	444,415,724
<b>Increase/(Decrease) to Approved Life Budget:</b>	5,513,775

	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
<b>Disbursements Budget</b>	31,196	11,677	38,843	155,216	137,313	24,359	46	2	0	0	0
<b>Commitments Budget</b>	37,010	22,895	384,511	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Solids Processing  
**Activity Group/Project Title:** **XB Biological Sludge Thickening Facility**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jun 2005
<b>Construction:</b>	Mar 2009
<b>Project Completion:</b>	Feb 2013

**Project Description:**

Project upgrades the existing Dissolved Air Flotation thickening facility and provides new mechanical thickening equipment to thicken all biological waste secondary, nitrification and denitrification sludges generated at the Blue Plains AWTP. This project provides consistent and reliable production of thickened biological sludge at the desired concentration that is required for efficient operation of the Digester Facility. It also improves process efficiency and reliability and reduces objectionable odors.

**Impact on Operations:**

This project provides improved process efficiency and reliability, and reduces objectionable odors.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	47,604,047
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	47,947,646
<b>Increase/(Decrease) to Approved Life Budget:</b>	343,599

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	13,226	14,215	8,691	3,341	303	0	0	0	0	0	0
<b>Commitments Budget</b>	47,848	100	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Solids Processing  
**Activity Group/Project Title:** **XC Additional Dewatering Facilities**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Dec 1998
<b>Construction:</b>	Dec 2001
<b>Project Completion:</b>	Jun 2011

**Project Description:**

Project provides seven new centrifuge dewatering units and appurtenances, and implements modifications to the existing centrifuges in the Solids Processing Building. This project provides adequate capacity to dewater all biosolids generated at the plant without the need for contract dewatering. The project became operational in late FY 2006.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 15.55%  
 EPA/Fed - 25.77%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.46%



<b>FY2009 Approved Life Budget</b>	81,544,523
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	81,725,849
<b>Increase/(Decrease) to Approved Life Budget:</b>	181,326

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	80,053	1,102	161	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	81,406	320	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Solids Processing  
**Activity Group/Project Title** **XZ Solids Processing Building / DSLF**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-I**  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	Jul 2013
Construction:	Dec 2010
Project Completion:	Feb 2018

**Project Description:**

This project involves repairs to chemical systems and provides for miscellaneous improvements to the Solids Processing Building and Dewatered Sludge Loading Facility. This project replaces aged equipment to ensure integrity and reliability of the systems and facilities which results in improved performance of chemical feed systems and other solids processing operations, and improved biosolids quality. Construction of a vault and switchgear improvements at the main substation are also included in this project. Additional funding has been conditionally provided pending the review and final determination of odor control systems requirements in accordance with the Clean Air Act.

**Impact on Operations:**

This project could increase operations and maintenance cost depending on final study findings and determination of Clean Air requirements, if any. A study of emissions data is ongoing.

**Funding by User (percent):**

DC - 40.19%  
 EPA/Fed - 1.03%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



FY2009 Approved Life Budget	22,203,505
FY2010 Revised/FY2011 Proposed Life Budget	34,428,762
Increase/(Decrease) to Approved Life Budget:	12,225,257

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	5,870	1,432	4,151	6,804	1,185	653	2,012	4,655	1,009	12	0
<b>Commitments Budget</b>	8,252	0	14,837	0	1,170	0	10,170	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Solids Processing  
**Activity Group/Project Title:** **YZ Digestion Facilities Site Preparation**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-I**  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	Oct 2000
Construction:	May 2010
Project Completion:	May 2012

**Project Description:**

This project is comprised of two sub-projects: YZ01 Primary Sludge Screening & Degritting Wet Well Control involves installation of new controls for the primary sludge screens and the Degritting and Grinding Facility wet well at the Blue Plains AWTP; and YZ02 Digestion Facility Demolition and Site Preparation involves demolition of the decommissioned digester gas storage tank and sphere. Project YZ01 is needed to upgrade process technology to improve efficiency and reliability of sludge screening and to minimize potential for sludge spills. Project YZ02 would clear and prepare the site for future use.

**Impact on Operations:**

No significant O&M cost impact.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	6,461,500
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	2,234,454
<b>Increase/(Decrease) to Approved Life Budget:</b>	-4,227,046

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,319	113	549	92	0	0	0	0	0	0	0
<b>Commitments Budget</b>	1,357	877	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Blue Plains Total Nitrogen  
**Activity Group/Project Title:** **E8 Enhanced Clarification Facilities**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Dec 2011
<b>Construction:</b>	Oct 2014
<b>Project Completion:</b>	Jul 2018

**Project Description:**

The Enhanced Clarification Facility is part of DC WASA's proposed Total Nitrogen -Wet Weather (TN/WW) Plan, which addresses the requirements of the Long Term Control Plan as well as the Chesapeake Bay Tributary Strategies for reducing nitrogen discharged into the Chesapeake Bay. The principal components of this project are grit removal and screening for influent wastewater followed by an enhanced clarification facility. The new facilities will treat excess flow during wet weather events.

**Impact on Operations:**

Operation of the ECF will increase operating and maintenance costs, and specifically power and chemical costs, beginning in FY 2014. The estimated increase in annual O&M costs is \$3,000,000 per year in 2007 dollars.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	239,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	239,150,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	150,000

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	146	183	877	3,861	6,317	3,858	28,035	76,230	61,260	28,482	0
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	150	1,000	3,000	14,200	0	20,800	200,000	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Blue Plains Total Nitrogen  
**Activity Group/Project Title:** **E9 Nitrogen Removal Facilities**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Mar 2009
<b>Construction:</b>	Aug 2010
<b>Project Completion:</b>	Jul 2015

**Project Description:**

This project entails a new or expanded nutrient removal system to lower the concentration of total nitrogen in the Blue Plains effluent to 3 mg/l.

The Total Nitrogen Removal Project is part of DC WASA's proposed Total Nitrogen -Wet Weather (TN/WW) Plan, which addresses the requirements of the Long Term Control Plan as well as the Chesapeake Bay Tributary Strategies for reducing nitrogen discharged into the Chesapeake Bay. The principal components of this project are this project and Project EE, Centrate Treatment Facilities. Project EE provides for a new treatment system that will remove nitrogen from the recycle stream from solids processing.

**Impact on Operations:**

Operation of the new system will increase operating and maintenance costs beginning in FY 2014 by approximately \$8 million per year (2007 dollars and unit prices). Increased chemical addition and power consumption comprise most of the cost increase.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	345,650,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	346,550,818
<b>Increase/(Decrease) to Approved Life Budget:</b>	900,818

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	8,711	14,814	79,105	82,554	61,942	37,131	19,465	0	0	0	0
<b>Commitments Budget</b>	25,205	140,599	177,548	0	3,200	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Blue Plains Total Nitrogen  
**Activity Group/Project Title:** **EE Centrate Treatment Facilities**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

Phase	Start Date
<b>Design:</b>	Aug 2009
<b>Construction:</b>	Jan 2012
<b>Project Completion:</b>	Aug 2014

**Project Description:**

This project provides for a new treatment system that will remove nitrogen from the recycle stream from solids processing. The Total Nitrogen Removal Project is part of DC WASA's proposed Total Nitrogen -Wet Weather (TN/WW) Plan, which addresses the requirements of the Long Term Control Plan as well as the Chesapeake Bay Tributary Strategies for reducing nitrogen discharged into the Chesapeake Bay. The principal components are the TN/WW(E) and project E9, Total Nitrogen Removal. Project E9 entails a new or expanded nitrogen removal process to lower the concentration of total nitrogen in the Blue Plains effluent to 3 mg/l.

**Impact on Operations:**

Operation of the new system will increase operating and maintenance costs beginning in FY 2014 by approximately \$8 million per year (2007 dollars and unit prices). Increased chemical addition and power consumption comprise most of the cost increase.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	88,875,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	89,125,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	250,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	664	1,144	2,406	26,013	45,938	1,048	0	0	0	0	0
<b>Commitments Budget</b>	4,224	2,326	0	82,575	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Blue Plains Total Nitrogen  
**Activity Group/Project Title:** **EG Wet Weather Peak Mitigation (Blue Plains Tunnel)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

Phase	Start Date
Design:	May 2011
Construction:	May 2011
Project Completion:	Sep 2015

**Project Description:**

The Blue Plains Tunnel is part of DC WASA's proposed Total Nitrogen -Wet Weather (TNWW) Plan, which addresses the requirements of the Long Term Control Plan as well as the Chesapeake Bay Tributary Strategies for reducing nitrogen discharged into the Chesapeake Bay. The principal components of this project are a 23 foot diameter tunnel from Main and O Streets to Blue Plains and a tunnel dewatering pump station at Blue Plains.

The Blue Plains Tunnel has been included in the draft TN/Wet Weather Plan that WASA submitted to the USEPA. The recommended alternative in the plan removes additional nitrogen from the wastewater prior to discharge and improves the quality of discharge to the Potomac and Anacostia Rivers during wet weather events.

**Impact on Operations:**

Dewatering pump station costs will increase operating and maintenance costs beginning in FY 2014. The estimated annual cost increase is \$3 million per year, in 2007 dollars.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



FY2009 Approved Life Budget	276,475,000
FY2010 Revised/FY2011 Proposed Life Budget	177,380,058
Increase/(Decrease) to Approved Life Budget:	-99,094,942

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	417	1,298	3,492	24,551	46,552	33,991	19,437	0	0	0	0
<b>Commitments Budget</b>	848	1,538	174,994	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority**  
**FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Blue Plains Total Nitrogen  
**Activity Group/Project Title:** **FG Secondary Treatment Upgrades for TN**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Jan 2025

**Project Description:**

This project will expand Secondary Reactors 5 and 6 to double their size. The design of the reactor expansion was included in the current Secondary Treatment Facilities Upgrade – Phase 2 project because prior Blue Plains flow projections indicated that the 370 MGD design conditions would be realized by 2010. This work has been removed from the current construction bid documents because the MWCOG flow projections, updated in 2002, now indicate that the 370 MGD design conditions will not be seen until 2025. Thus expanded facilities are not required at this time. Construction of expanded facilities will be completed in time to meet design conditions.

**Impact on Operations:**

This project would improve plant performance but would have marginal increased operational and maintenance costs.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	59,925,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	59,925,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	218	54,889
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	0	8,175	51,750

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Blue Plains Total Nitrogen  
**Activity Group/Project Title:** FR BP Tunnel Dewatering Pumping Sta  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-I  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

Phase	Start Date
Design:	
Construction:	
Project Completion:	Mar 2018

**Project Description:**

This pump station located at Blue Plains at the terminus and lowest point of the tunnel system is designed to dewater the entire contents of the tunnel system and pump it to treatment at Blue Plains treatment plant during and after a rain event.

**Impact on Operations:**

The dewatering pump station is an integral part of the underground storage solution to CSO control. Without a dewatering pump station a deep underground storage tunnel solution cannot be employed.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	27,020,635
Increase/(Decrease) to Approved Life Budget:	27,020,635

**NEW**

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	0	0	0	0	0	950	1,082	9,553	9,503	2,344	0
<b>Commitments Budget</b>	0	0	0	0	0	1,649	25,372	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Blue Plains Total Nitrogen  
**Activity Group/Project Title:** **FS Div D - Bolling Overflow and Diversion**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-I  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<u>Phase</u>	<u>Start Date</u>
Design:	
Construction:	
<b>Project Completion:</b>	Sep 2017

**Project Description:**

This project will include a diversion chamber to capture overflows from the Potomac outfall sewers and direct them into the Anacostia CSO tunnel during a rain event and an overflow structure for the Anacostia CSO tunnel when it reaches it's full capacity. It also includes the internals of the tunnel drop shaft which is constructed a part of Blue Plains tunnel project. This is one of the two overflows for the Anacostia CSO tunnel system.

**Impact on Operations:**

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	25,042,180
<b>Increase/(Decrease) to Approved Life Budget:</b>	25,042,180

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	883	1,312	12,523	6,966	0	0
<b>Commitments Budget</b>	0	0	0	0	0	1,550	23,493	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Wastewater Treatment Service Area  
**Program Title:** Blue Plains Total Nitrogen  
**Activity Group/Project Title:** **H7 Blue Plains Tunnel Site Preparation**  
**Managing Department:** Engineering and Technical Services **EPMC:** LTCP  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

Phase	Start Date
Design:	Apr 2009
Construction:	Feb 2010
Project Completion:	Apr 2011

**Project Description:**

This project is to demolish existing abandoned digesters to make way for the new dewatering pump station and the enhanced clarification facility (ECF). This revised location was necessary because these facilities would not fit at the original planned location.

**Impact on Operations:**

There are no anticipated impacts on operations or maintenance costs.

**Funding by User (percent):**

DC - 41.22%  
 EPA/Fed - 0.00%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.56%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	13,139,200
Increase/(Decrease) to Approved Life Budget:	13,139,200

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	1,993	2,046	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	754	12,385	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

District of Columbia Water and Sewer Authority

# CAPITAL IMPROVEMENT PROGRAM

APPROVED FY 2009-2018



## Section IV

## SANITARY SEWER SERVICE AREA

*DC WASA's sewer investigation crews investigate approximately 1,000 sewer blockages per year, using two different robots, the 150-pound Crawler, and its lighter-weight counterpart, the Prawler.*





## **SANITARY SEWER**

DC WASA is responsible for wastewater collection and transmission in the District of Columbia, including operation and maintenance of the sanitary sewer system. DC WASA's sanitary sewer system includes approximately 600 miles of large interceptor sewers and smaller gravity collection sewers. DC WASA is also responsible for sewer lateral connections from the sewer mains to the property lines of residential, government, and commercial properties. In addition, DC WASA is responsible for the 50 mile long Potomac Interceptor System, which provides conveyance of wastewater from areas in Virginia and Maryland to Blue Plains. The existing sanitary sewer system in the District of Columbia dates back to 1810, and includes a variety of materials such as brick and concrete, vitrified clay, reinforced concrete, ductile iron, plastic, steel, brick, cast iron, cast in place concrete, and even fiberglass.

During FY 2009, DC WASA completed a Sewer System Facilities Plan. This document culminated a five year effort involving sewer inspection and condition assessment, development of a sewer GIS and database, hydraulic monitoring and modeling to assess system capacity and the development of prioritized activities for system improvement. This Sewer System Facilities Plan identified a significant increase in funding needed for sewer infrastructure improvements.

As a result, the lifetime budgets in this area have increased by more than \$400 million from last year's estimate and the proposed 10 year CIP has been increased by more than \$240 million to reflect these recommendations. Most of the increased spending planned in the sewer area begins in FY 2011 and averages more than \$40.0 million per year through FY 2018.

Some of the projects that are planned to begin in FY 2011 and FY 2012 include:

- A6 – Lining of the NWBSO at 22<sup>nd</sup> and P Sts, NW
- BO01 - Henson Ridge Storm Sewer
- BO02 - Branch Road Storm Sewer
- BO03 - Macomb Street Relief Storm Sewer
- BO06 - Park St and Bangor Drive Storm Sewer Rehabilitation
- I 105 - Metro Groundwater Reduction
- DM - Upper Anacostia Main Interceptor
- DR02 - Lower Area Trunk Sewer Rehabilitation
- FW01 - Piney Branch Trunk Sewer Rehabilitation
- G4 - Upper Potomac Interceptor Sewer Rehabilitation
- JO01 - B Street and New Jersey Ave Trunk Sewer Rehabilitation
- J1 - Oxon Run Sewer Leakage Correction
- N708 - Potomac Interceptor Repairs at Waxpool Road, Loudoun County, Virginia
- N709 - Potomac Interceptor System Internal Inspections
- N 710 – Potomac Interceptor Erosion Control Study

- N711 – Potomac Interceptor Access Road Improvements

Key Findings of the 2009 Sewer Facilities Plan:

- Generally speaking, major sewer pipe infrastructure can meet current and future population needs; however, continued investment in upgrades to major infrastructure elements is needed.
- 88% of the sewers inspected had some defects, 60% of which could be addressed using localized repair and the remaining require mainly lining.
- 94% of the manholes inspected were found to have one or more defects.
- The number and severity of pipe defects indicates an expected increase in problems in pipes greater than 75 years old. Older pipes can be in good condition (and younger ones can be in poor condition), but at the 75 year mark, DC WASA can assume more extensive and frequent inspection is needed.
- There are approximately 210 miles of sewers in stream valleys and about 12.3 miles of these sewers were found to need some type of repair.
- There are about 316,000 linear feet of sewers with some portion under buildings; of those inspected, a preliminary list has been developed, and approximately 7,000 linear feet of sewers have been found to have multiple and/or significant defects, warranting rehabilitation or replacement.

Key Recommendation of 2009 Sewer Facilities Plan:

- Continue a two-pronged, parallel approach to the CIP program – implement identified projects resulting from ongoing system condition and needs assessment *and* increase and continue an annual sewer pipe renewal program. Based on a 20-year planning outlook, this will require a \$1.2 billion increase (2008 dollars) in capital spending to address currently identified projects (\$536 million) and a sewer pipe renewal program (\$664 million).

The current CIP includes the following projects:

**Collection Sewer Projects – \$115.7 million**

*(project pages IV-8 to IV-19)*

This program includes studies and projects to effectively eliminate stormwater, groundwater, and other infiltration and inflow to the sewer system, to separate stormwater flows, and to reduce other extraneous flows to Blue Plains. This category also includes projects to rehabilitate collection system sewers as well as projects that serve existing properties and new development. Noteworthy projects are:

- East Side Interceptor Rehabilitation – Project ‘J3’ - The portion of the sewer that traverses the National Arboretum has significant structural distress. Design is complete for the rehabilitation of the sewer with construction started in 2009.



- Sewer Rehabilitation on 10<sup>th</sup> & 12<sup>th</sup>, N.W. – Project ‘19’ - This project consists of rehabilitation of deteriorated 36” and 30” diameter sewers on 10<sup>th</sup> Street, N.W. and on 12<sup>th</sup> Street, N.W in the vicinity of Pennsylvania Avenue.

**Ongoing Sanitary Sewer Projects – \$129.9 million**

*(project pages IV-20 to IV-33)*

This area includes capital projects managed by the Department of Sewer Services including the replacement of sewer laterals and related capital improvements. The program also includes funding for the District of Columbia Department of Transportation (DDOT) road projects, which often require the relocation of sewers. Budget requirements are projected based on the best available information from DDOT. Other projects include:

- Pope Branch 12 inch Sewer Replacement – Project Q3 - This involves the complete rehabilitation of the existing sanitary sewer that runs along Pope Branch as part of an intergovernmental project to restore the park. Project includes rehabilitation of approximately 4400 feet of sewer. Design was completed during 2009 and construction is scheduled to start in 2010.

**Pumping Facilities – \$25.9 million**

*(project pages IV-34 to IV-38)*

This program includes projects required for the rehabilitation or replacement of existing wastewater pumping stations as well as projects for the engineering and construction of new wastewater pumping facilities, as needed to enhance reliability and integrity of DC WASA’s sanitary sewer system. In addition, a Security Upgrade (Project ‘CX’) is scheduled to begin in FY 2010, which will place interior and exterior cameras throughout DC WASA’s Sewer Services facilities, install traffic control devices, and install perimeter fencing. Additionally, this program includes costs for activities related to the Authority’s planned relocation of certain facilities located at the Main and ‘O’ Street Pumping stations.

The current program includes projects to rehabilitate existing wastewater pumping stations:

- Rock Creek – Project ‘L3’ – The design is complete and construction is underway.
- Upper Anacostia – Project ‘L4’ - The pumping station design is complete and construction is underway.

**Sanitary Sewer Service Area - Management – \$100.2 million**

*(project pages IV-39 to IV-40)*

During FY 2010, DC WASA will continue with an ongoing evaluation of the sanitary and combined sewer systems, as well as design management for sewer pumping station rehabilitations and sewer infrastructure projects, as described in more detail below.

- Sanitary Sewer Program Management & Planning (EPMC-III A/IIIB) – Project ‘AU’ - This project provides design, review and management of the sewer system to determine if it is in an adequate structural condition and has sufficient capacity to meet

current service demands and planned growth. The planning effort is also required to comply with the current National Pollutant Discharge Elimination System (NPDES) permit, the Nine Minimum Controls consent decree, and prevention of non-permitted sewer overflows.

- Design Management for Sanitary Sewer Pumping Stations - This ongoing project began in FY 2001, and provides for the management of the design and construction of three small sanitary sewage pumping stations requiring major rehabilitation or replacement.

### **Interceptor/Trunk Sewer/Force Sewers – \$328.7 million**

*(project pages IV-41 to IV-60)*

This program includes the replacement or rehabilitation of large diameter sewers that have reached their useful life or are in need of major repair. In addition, this category includes additional funding for sewer projects (G5 and G6) that were identified as part of the comprehensive assessment of the sewer system. A description is included below.

The current CIP contains several projects in this service area, including:

- Potomac Interceptor Rehabilitation – Project ‘N7’ - The Potomac Interceptor Sewer System is a 50-mile long sewer that provides conveyance of wastewater from areas in Virginia, Maryland and the District to Blue Plains. DC WASA has been working with its wholesale customers on a variety of capital projects to address odor control issues related to the Potomac Interceptor and to ensure the long-term structural integrity of this major sewer. The project (\$47.9 million) has faced challenges, such as, larger equipment needed to control odors, high architectural costs related in part to historical preservation requirements of the National Park Service, and difficult construction locations, including:
  - Potomac Interceptor Rehabilitation in Fairfax and Loudon Counties – This capital improvement Project includes funding to design and reconstruct portions of the interceptor in Fairfax and Loudoun Counties. The design revisions were needed as part of a project design reassessment.
  - Additional Inspections and Access Road Improvements – There are three projects to further assess over 20 miles of the pipeline, improve deteriorated access roads for operations and maintenance needs, and to evaluate soil erosion along the pipeline at stream crossings and along the banks of the C&O Canal.
  - PI Repair @ Waxpool Rd - This capital project involves the relining of 930 feet of the 48-inch Potomac Interceptor in Loudoun County near Waxpool Road. The final design was submitted in FY-2008 after the original contract was modified to remove a portion of the Upper Potomac Interceptor repair in Washington DC due to unresolved access issues with the National Park Service.

- Odor Control Projects – Project ‘N7’
  - Interim Odor Controls – As an interim step, DC WASA installed odor-absorbing chemicals and passive carbon filters in manholes at selected locations where problems have been experienced. These interim controls have been continually maintained, pending the implementation of the permanent odor controls, currently scheduled to begin in FY 2010.
  - Permanent Odor Controls – DC WASA plans to install a permanent odor control system that includes a forced air/activated carbon filter system. This project will cost approximately \$47.9 million. The conceptual design was completed in FY 2003. During the past six years, DC WASA has been seeking the requisite National Park Service permit, performing associated environmental assessments, and coordinating with the community. Permits and property access issues are continuing and recent acceptance of architectural features by the National Park Service indicate that DC WASA is nearing completion of all coordination issues.
  
- Upper Potomac Interceptor Rehabilitation – Project ‘G4’ - This project involves the repair of a major portion of the trunk sewer. This project was separated out as a stand alone contract due to access restriction and ongoing negotiation with National Park Service. The design was completed in FY2009, and construction is anticipated to start in early 2011.
  
- Future Sewer System Upgrades – Project A4
  - Tide Gate Replacements - This project is for the replacement of the structures at various outfalls to prevent the river from flowing into the combined sewer system during high tides. It is estimated that approximately 40,000 gallons per day of river water that is currently being treated at Blue Plains WWTP can be prevented from entering the combined sewer system upon completion of the project.
  - Georgetown Sewer Rehabilitation - Combined sewer inspections performed throughout the Georgetown neighborhood of the District found severe structural defects in the existing sewer system. This project is for the design and construction for rehabilitation of approximately 2,600 feet of the existing sanitary system. This project will utilize trenchless technologies to limit the impact to the existing neighborhood.
  - Watts Branch Sewers Rehabilitation – The DC Department of Environment (DDOE), DC WASA, and United States Fish & Wildlife Service (USFWS) are working together to design plans for the stream restoration of Watts Branch. The sewer system improvements are being performed by DC WASA staff. The project was to be broken into three phases 1, 2, and 3 and involves the improvements to the sewers along Watts Branch. Phase 1 work was necessary to begin prior to the USACE / DDOE Stream restoration projects. It involved three sites for excavation and some lining of a few sewers that currently cross

Watts Branch. Phase 2 involves the relocation of the Watts Branch interceptor for approximately 2 blocks to eliminate sewer crossings of Watts Branch as well as lining of the interceptor from west of Grant Street / 46<sup>th</sup> Street to where the sewer exits the park. Phase 3 is miscellaneous work such as manhole lining or additional manhole placement for ease of maintenance.

Projects scheduled to begin in FY 2010 and FY 2011:

- G5 Sewer Rehab Near Creek Beds – The Sewer Facilities Plan identified several areas within the city's stream valleys where sewer systems have become exposed due to creek bed erosion. Start up-funds were programmed to begin planning, design and coordination with park authorities so some progress can be made to begin addressing vulnerable sewers in these very vulnerable locations.
- G6 – This project rehabilitates sanitary sewers located under buildings citywide. Other activities included in this project are cleaning, pre and post closed circuit television inspection (CCTV), sealing joints and repair of offset pipe.

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **G1 Small Local Sewer Rehab 1**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Jan 2015

**Project Description:**

This multi-phase / multi-job project was developed from the suggested project list of Local Sewer Rehabilitation Projects included in the 2009 Sewer System Facilities Plan. These projects rehabilitate defective collection sewers using appropriate lining methods and point repairs at various locations throughout the District. Project includes job G100, Local Sewer Rehabilitation – Contract 1, for the rehabilitation of approximately 13,000 feet of sewers in five neighborhoods (Wards 2, 3, 4, 5 and 7). Project includes job G101, Rehabilitation of Local Sewers in Georgetown, for the rehabilitation of approximately 4,500 feet in Georgetown. Project also includes the non-Sewer Facilities Plan related job G102, Barry Road Sanitary Sewer Replacement, for replacement of the sanitary sewer at Barry Road.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	28,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	28,000,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	547	926	8,380	9,536	1,168	0	0	0	0
<b>Commitments Budget</b>	0	0	1,864	3,827	22,309	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **G8 Small Local Sewer Rehab 2**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Mar 2016

**Project Description:**

This project to rehabilitate and repair local sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project would repair approximately 10,000 liner feet of defective sewer pipes with an average sewer diameter of 18 inches. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs. The selected local neighborhood sewers to be rehabilitated would be distributed throughout the four quadrants of the city.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	2,750,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	2,750,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	53	81	471	1,160	264	0	0	0
<b>Commitments Budget</b>	0	0	0	183	0	2,567	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **G9 Small Local Sewer Rehab 3**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-III**  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Mar 2017

**Project Description:**

This project to rehabilitate and repair local sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project would repair approximately 20,000 liner feet of defective sewer pipes with an average sewer diameter of 18 inches. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs. The selected local neighborhood sewers to be rehabilitated would be distributed throughout the four quadrants of the city.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	5,650,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	5,650,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	108	169	970	2,375	543	0	0
<b>Commitments Budget</b>	0	0	0	0	377	0	5,273	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **GA Small Local Sewer Rehab 4**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Mar 2018

**Project Description:**

This project to rehabilitate and repair local sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project would repair approximately 30,000 liner feet of defective sewer pipes with an average sewer diameter of 18 inches. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs. The selected local neighborhood sewers to be rehabilitated would be distributed throughout the four quadrants of the city.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	8,700,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	8,700,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	168	261	1,496	3,651	847	0
<b>Commitments Budget</b>	0	0	0	0	0	580	0	8,120	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **GB Small Local Sewer Rehab 5**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Mar 2019

**Project Description:**

This project to rehabilitate and repair local sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project would repair approximately 40,000 liner feet of defective sewer pipes with an average sewer diameter of 18 inches. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs. The selected local neighborhood sewers to be rehabilitated would be distributed throughout the four quadrants of the city.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	12,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	12,000,000

**NEW**

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	0	0	0	0	0	233	358	2,058	5,111	1,408
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	0	0	0	0	0	800	0	11,200	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **GC Small Local Sewer Rehab 6**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Mar 2020

**Project Description:**

This project to rehabilitate and repair local sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project would repair approximately 40,000 liner feet of defective sewer pipes with an average sewer diameter of 18 inches. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs. The selected local neighborhood sewers to be rehabilitated would be distributed throughout the four quadrants of the city.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	12,400,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	12,400,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	240	370	2,155	7,820
<b>Commitments Budget</b>	0	0	0	0	0	0	0	827	0	11,573	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **GD Small Local Sewer Rehab 7**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Mar 2021

**Project Description:**

This project to rehabilitate and repair local sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project would repair approximately 40,000 liner feet of defective sewer pipes with an average sewer diameter of 18 inches. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs. The selected local neighborhood sewers to be rehabilitated would be distributed throughout the four quadrants of the city.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	12,700,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	12,700,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	246	383	10,667
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	847	0	11,853

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **GE Small Local Sewer Rehab 8**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Mar 2022

**Project Description:**

This project to rehabilitate and repair local sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project would repair approximately 40,000 liner feet of defective sewer pipes with an average sewer diameter of 18 inches. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs. The selected local neighborhood sewers to be rehabilitated would be distributed throughout the four quadrants of the city.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	13,100,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	13,100,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	256	11,481
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	0	874	12,226

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **HB Sewer Capital Equipment**  
**Managing Department:** Sewer Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, Low, M&F over long term  
**Project Description:**  
 Annual program for the repair and replacement of large motors and pumps in the Sewer Service area.  
**Impact on Operations:**

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2011

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,520,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	1,520,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	196	622	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	760	760	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **I1 Selective Sewer Separation & I/I Sewer Rehab.**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Apr 2013

**Project Description:**

This project consists of five jobs to reduce extraneous flows into the sewer system. Extraneous flows to be removed include inflow and infiltration (I/I) into the sewer system, and sewer separation projects in the combined sewer area of the District to reduce flows to the Blue Plains Advanced Wastewater Treatment Plant. I/I is caused by groundwater and stormwater leaking into sewer pipes and manholes, and is controlled by rehabilitation projects. Sewer separation projects reduce flow by separating storm flow from sanitary flow in the combined sewer system.

**Impact on Operations:**

Jobs in this project will reduce operating costs at Blue Plains by reducing overall wastewater flows requiring treatment.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	5,542,597
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	6,682,537
<b>Increase/(Decrease) to Approved Life Budget:</b>	1,139,940

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	4,114	47	96	913	576	0	0	0	0	0	0
<b>Commitments Budget</b>	4,297	75	130	2,181	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **I9 Sewer Rehab.10th-12th St, Bet. Penn**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-III**  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This project assesses the condition of a sewer in the Downtown area between 10th and 12th Streets on Pennsylvania Avenue. At the completion of the assessment, a suitable design will be completed and the sewer will be rehabilitated.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	1,150,000
FY2010 Revised/FY2011 Proposed Life Budget	1,150,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	169	113	80	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	357	793	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Collection Sewers  
**Activity Group/Project Title:** **J3 Sewer Upgrade - City Wide**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-III**  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2013

**Project Description:**

This project is for the assessment, design and construction of sanitary sewer interceptors, trunk sewers and force mains that require upgrade. Sewers rehabilitated by this project are defined by the major planning and condition assessment program underway for the sanitary sewer system. This project consist of four jobs to address sewer upgrade needs. This project increases the reliability, restores the integrity, and maintains the capacity of WASA's sanitary sewer system.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/Pi - 0.00%



<b>FY2009 Approved Life Budget</b>	4,273,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	11,033,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	6,760,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,062	85	1,921	2,992	2,072	0	0	0	0	0	0
<b>Commitments Budget</b>	1,332	4,326	575	4,800	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** **A9 FY2010 - DSS Sanitary Sewer Projects**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Jul 2011

**Project Description:**  
 This project provides for the FY2010 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the sanitary sewer system.

**Impact on Operations:**  
 This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	4,640,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	6,790,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	2,150,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	1,088	3,667	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	6,790	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** **AP FY2009 - DSS Sanitary Sewer Projects**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jul 2011

**Project Description:**

This project is for the FY2009 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the sanitary sewer system.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	4,640,000
FY2010 Revised/FY2011 Proposed Life Budget	5,720,000
Increase/(Decrease) to Approved Life Budget:	1,080,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	558	2,061	1,613	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	3,625	2,095	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** **BF FY2011 - DSS Sanitary Sewer Projects**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Apr 2012

**Project Description:**

This project provides for the FY2011 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the sanitary sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	4,785,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	8,165,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	3,380,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	3,198	2,525	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	8,165	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** CE FY2012 - DSS Sanitary Sewer Projects  
**Managing Department:** Sewer Services EPMC: N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Apr 2013

**Project Description:**

This project provides for the FY2012 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the sanitary sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	4,785,000
FY2010 Revised/FY2011 Proposed Life Budget	9,385,000
Increase/(Decrease) to Approved Life Budget:	4,600,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	0	0	0	4,481	2,106	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	0	9,385	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** **CQ FY2013 - DSS Sanitary Projects**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	May 2014

**Project Description:**

This project provides for the FY2013 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the sanitary sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	5,505,000
FY2010 Revised/FY2011 Proposed Life Budget	10,205,000
Increase/(Decrease) to Approved Life Budget:	4,700,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	4,952	2,381	0	0	0	0	0
<b>Commitments Budget</b>	0	0	0	0	10,205	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** **D6 FY2014 - DSS Sanitary Projects**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	May 2015

**Project Description:**

This project provides for the FY2014 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the sanitary sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	<b>5,675,000</b>
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	<b>10,575,000</b>
<b>Increase/(Decrease) to Approved Life Budget:</b>	<b>4,900,000</b>

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	0	0	0	0	5,186	2,478	0	0	0	0
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	0	0	0	0	10,575	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** **DI FY2015 - DSS Sanitary Projects**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Apr 2016

**Project Description:**

This project provides for the FY2015 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the sanitary sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	5,846,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	10,846,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	5,000,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	5,335	2,529	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	10,846	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** DW FY2016 - DSS Sanitary Projects  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Apr 2017

**Project Description:**

This project is for the FY2016 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the sanitary sewer system. Job numbers will be issued to identify the location of projects

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	6,015,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	11,215,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	5,200,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	5,503	2,607	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	11,215	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** EU Sewer Lateral Rehab and Main Lining  
**Managing Department:** Sewer Services EPMC: N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	Dec 2008
Project Completion:	Mar 2013

**Project Description:**

This project has been created as a comprehensive program to accelerate the repair or replacement of sewer laterals which have already been reported and cleaned out by the Department of Sewer Services on. In cases such as deterioration, tree roots and grease buildup damage have made straightforward solutions unlikely and given rise to the need for a more comprehensive program to provide permanent solutions in these types of situations. There are approximately 650 identified laterals of this nature. In addition, the TV assessment program implemented by Sewer Services has identified 30 mains which require lining to be restored to their full capacity within WASA's sanitary sewer system.

**Impact on Operations:**

While there will be no financial impact on the operating budget, this project will eliminate repeated service calls by Sewer Services personnel for these laterals and mains, freeing the Sewer staff to address other tasks.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	14,600,000
FY2010 Revised/FY2011 Proposed Life Budget	14,600,000
Increase/(Decrease) to Approved Life Budget:	0

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	2,930	2,540	1,223	568	96	0	0	0	0	0	0
<b>Commitments Budget</b>	7,400	7,200	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** **FP FY2017 - DSS Sanitary Projects**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	May 2018

**Project Description:**

This project is for the FY2017 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the sanitary sewer system. Job numbers will be issued to identify the location of projects

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	6,200,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	11,500,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	5,300,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	5,637	2,720	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	11,500	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** **H6 FY2018 - DSS Sanitary Projects**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Apr 2019

**Project Description:**

This project was created as an annual program for planned projects by the Department of Sewer Services in FY2018 for sanitary infrastructure improvements. Job numbers will be issued to identify different jobs within the project.

**Impact on Operations:**

Not implementing this project may result in the possible failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	11,845,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	11,845,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	5,791	3,328
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	0	11,845	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** Q3 FY2003 - DSS Sanitary Sewer Project  
**Managing Department:** Sewer Services EPMC: N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2012

**Project Description:**

This project was created as an annual program for planned projects by the Department of Sewer Services in FY2003 for sanitary infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 89.43%  
 EPA/Fed - 10.57%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	6,471,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	8,711,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	2,240,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	4,121	344	787	1,652	273	0	0	0	0	0	0
<b>Commitments Budget</b>	4,657	665	3,389	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** **Q7 FY2007 - DSS Sanitary Sewer Project**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This project was created as an annual program for planned projects by the Department of Sewer Services in FY2007 for sanitary infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	5,670,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	5,670,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	5,050	413	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	5,670	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary On-Going  
**Activity Group/Project Title:** Q8 FY2008 - DSS Sanitary Sewer Project  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	
Construction:	
Project Completion:	Dec 2010

**Project Description:**

This project was created as an annual program for planned projects by the Department of Sewer Services in FY2008 for sanitary infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	4,640,000
FY2010 Revised/FY2011 Proposed Life Budget	4,640,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	3,445	925	19	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	4,640	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Pumping Facilities  
**Activity Group/Project Title:** **CX Sewer Facilities Security Upgrades**  
**Managing Department:** Facilities and Security **EPMC:** N/A  
**Priority:** Good Engineering, Low, M&F over long term

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Jun 2012

**Project Description:**

This project will provide for a security assessment, placement of exterior and interior cameras throughout Sewer Services Facilities, install traffic control devices (i.e., bollards & speed bumps), and install perimeter fencing (i.e., shoreline enclosures).

**Impact on Operations:**

This project will have no material impact on the operating budget, however minor O & M costs for maintenance and monitoring of security cameras will occur in future budget years.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	635,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,135,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	500,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	641	244	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	1,135	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Pumping Facilities  
**Activity Group/Project Title:** **GZ Sewer Instrumentation & Control**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2014

**Project Description:**

This project will provide instrumentation and control enhancements at sewer pump stations and other sewer facilities located outside of Blue Plains throughout the District. The proposed controls would maximize flows to Blue Plains in wet weather, automate data capture for more efficient responses and optimize energy use at the sewer facilities. Project includes installation of flow meters, rain gauges, and SCADA equipment and controls. This project is a suggested project in the 2009 Sewer System Facilities Plan.

**Impact on Operations:**

Project would reduce wet weather CSO flow during high intensity, short duration events, reduce energy costs and would increase the useful life of WASA facilities.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	2,400,000
Increase/(Decrease) to Approved Life Budget:	2,400,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	177	527	525	530	0	0	0	0	0
<b>Commitments Budget</b>	0	0	2,400	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Pumping Facilities  
**Activity Group/Project Title:** **L3 Rock Creek Sewage Pumping Station**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Nov 2003
<b>Construction:</b>	Apr 2007
<b>Project Completion:</b>	Dec 2011

**Project Description:**

Project L3 provides for a comprehensive rehabilitation of this pumping station. This project provides for new pumps, electrical system, control system, HVAC system, odor control system and structural repairs as recommended by the consultant's Rehabilitation Concept Report.

**Impact on Operations:**

Rehabilitation of this station will restore its rated pumping capacity and improve reliability by replacing pumps, motors and controls, provide for new ventilation systems, odor control, electrical system and other support systems. The project will repair structural defects, improve the safety provisions in the building and improve the exterior appearance of the facility. There will be no material impact on operating costs.

**Funding by User (percent):**

DC - 44.11%  
 EPA/Fed - 0.00%  
 WSSC - 35.39%  
 Fairfax - 12.41%  
 Loudoun/PI - 8.08%



<b>FY2009 Approved Life Budget</b>	11,131,290
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	11,131,290
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	7,001	1,025	120	15	0	0	0	0	0	0	0
<b>Commitments Budget</b>	11,013	119	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Pumping Facilities  
**Activity Group/Project Title:** **L4 Upper Anacostia Sew. Pump. Station**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Nov 2003
<b>Construction:</b>	May 2008
<b>Project Completion:</b>	Dec 2012

**Project Description:**

Project L4 originally provided for a comprehensive rehabilitation of this pumping station. The deficiencies were identified and the correction costs were estimated. The cost of a new replacement station on the same site was also estimated and found to be more cost effective. The new station will feature submersible pumps and motors in a below grade wet well. A separate above grade structure will house the electrical equipment, controls, instrumentation, ventilation equipment and odor control system.

**Impact on Operations:**

There will be no material impact on operating costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	9,134,739
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	9,134,559
<b>Increase/(Decrease) to Approved Life Budget:</b>	-180

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	4,887	2,086	70	27	5	0	0	0	0	0	0
<b>Commitments Budget</b>	8,946	188	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Pumping Facilities  
**Activity Group/Project Title:** **L5 Earl Place Sewage Pumping Station**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Feb 2002
<b>Construction:</b>	Aug 2005
<b>Project Completion:</b>	Oct 2010

**Project Description:**

Project L5 provides for a comprehensive rehabilitation of this pumping station. This project provides for new pumps, electrical system, control system, HVAC system, a new force main and structural repairs as recommended by Rehabilitation Concept Report.

**Impact on Operations:**

Rehabilitation of this station will restore its rated pumping capacity and improve reliability by replacing pumps, motors and controls, provide new ventilation systems, electrical system and other support systems. The project will repair structural defects and improve the exterior appearance of the facility. There will be no material impact on operating costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	2,097,568
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	2,097,568
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,434	261	4	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	2,048	50	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Sewer Program Mgmt  
**Activity Group/Project Title:** **AU Sanitary Sewer Program Management**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2021

**Project Description:**

This project provides engineering program management services for the sanitary sewer service area in the District. This five-year project involves planning, assessments, and conceptual designs for capital projects related to the sanitary sewer system. This project also provides design management services for the rehabilitation of three sewage pumping stations. This project increases the reliability, restores the integrity, and maintains the capacity of WASA's sanitary sewer system.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	21,044,994
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	61,094,994
<b>Increase/(Decrease) to Approved Life Budget:</b>	40,050,000

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	12,822	3,195	3,519	2,797	2,876	3,497	2,805	2,366	2,546	3,478	12,206
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	21,035	10	19,250	0	0	0	0	20,800	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Sewer Program Mgmt  
**Activity Group/Project Title:** **DN Sewer Inspection Program**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function  
**Project Description:**  
 The program will provide an ongoing effort to further inspect the Authority's existing sewer system  
**Impact on Operations:**  
 This project will have no material impact on the operating budget.

Phase	Start Date
Design:	
Construction:	
Project Completion:	Dec 2022

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	18,000,000
FY2010 Revised/FY2011 Proposed Life Budget	39,140,000
Increase/(Decrease) to Approved Life Budget:	21,140,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	504	565	829	1,423	1,856	2,366	2,946	3,422	3,432	13,001
<b>Commitments Budget</b>	0	2,000	2,000	2,000	2,680	3,400	4,260	5,100	5,200	3,400	9,100

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **A4 Future Sewer System Upgrades**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	Jul 2006
Project Completion:	Aug 2022

**Project Description:**

This project is to design and construct sanitary sewer interceptors, trunk sewers and force mains identified as requiring upgrade by the major planning and condition assessment program underway for the sanitary sewer system. This project is needed to construct new and rehabilitate or replace aged infrastructure to restore integrity and reliability of WASA's sanitary sewer system.

**Impact on Operations:**

This project includes activities that will enhance system reliability and reduce emergency maintenance or repairs. Therefore, the project provides cost avoidance to future operating budgets.

**Funding by User (percent):**

DC - 85.28%  
 EPA/Fed - 5.43%  
 WSSC - 9.28%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	49,000,000
FY2010 Revised/FY2011 Proposed Life Budget	48,900,000
Increase/(Decrease) to Approved Life Budget:	-100,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	8,686	1,611	5,611	3,624	3,536	3,836	2,693	2,038	703	249	0
<b>Commitments Budget</b>	16,637	19,963	0	8,300	2,000	2,000	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **DM Upper Anacostia Main Interceptor Relief Sewer**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2014

**Project Description:**

This project involves the replacement of approximately 2000 LF of 18-inch separate sanitary sewer installed 70 years ago with a 30-inch relief sewer. This will relieve the UAMI from surcharging during high flow periods minimizing flooding and back-ups, and was moved forward from FY13. This will also provide capacity for the high level of development that is revitalizing Anacostia Gardens, Lily Pond and Kenwilworth Terrace neighborhoods.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	2,500,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	12,350,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	9,850,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	7	416	444	4,294	3,693	77	0	0	0	0
<b>Commitments Budget</b>	0	750	0	11,600	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **DR Low Area Trunk Sewer Rehabilitation**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jul 2013

**Project Description:**

This project provides for the cleaning, assessing, design and repair of the Low Area Trunk Sewer after a collapse of a section of the sewer near the US Capitol Building. The Section from 13 St, NW to the siphons at 3rd St, NW, approximately 5,200 linear feet of 42" sewer requires heavy cleaning and inspection. Light cleaning is required on 6,800 linear feet of 42" sewer from the siphon to the Main Pumping Station.

**Impact on Operations:**

Repair of this Trunk Sewer will ensure WASA's ability to collect and transmit the full sewer capacity to Blue Plains. Repair and reliability of the sewer will provide cost avoidance of future major emergency response in this area.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	4,600,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	4,616,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	16,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	81	288	212	385	997	0	0	0	0	0	0
<b>Commitments Budget</b>	2,400	0	308	1,908	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **FV Rehab Lower East Side Interceptor**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2015

**Project Description:**

This project will rehabilitate approximately 15,300 feet of the 72 inch diameter Lower East Side Interceptor using a slip lining method. The portion of the Lower East Side Interceptor proposed for rehabilitation is located between RFK Stadium and the Southeast Federal Center.

**Impact on Operations:**

Not implementing this project may result in the possible failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	14,800,500
<b>Increase/(Decrease) to Approved Life Budget:</b>	14,800,500

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	405	286	4,048	5,238	783	0	0	0
<b>Commitments Budget</b>	0	0	0	988	13,813	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **FW Rehab Piney Branch Trunk Sewer**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Jan 2016

**Project Description:**

This project will rehabilitate the Piney Branch Trunk Sewer from the intersection of 3rd Street and Madison Street, NW to Structure No. 70, which is located at the outfall to Piney Branch in the vicinity of Piney Branch Parkway and 17th Street, NW. The project proposes to rehabilitate approximately 11,200 feet of the deteriorated sewer with an internal lining method.

**Impact on Operations:**

Not implementing this project may result in the possible failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	25,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	25,000,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	558	575	2,636	8,391	5,225	1,045	0	0	0
<b>Commitments Budget</b>	0	0	1,668	0	23,333	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **FY Rehab Upper Rock Creek Interceptor**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2017

**Project Description:**

This project will rehabilitate approximately 13,800 feet of the upper part of the Rock Creek Main Interceptor (RCMI). The project will repair all known defects of the RCMI including broken pipes, holes, missing mortar, and visibly exposed aggregate and structural reinforcement. The project proposes rehabilitation by lining methods of the Rock Creek Main Interceptor between the intersection of Joyce Road & Ross Drive, NW and Beach Drive, NW close to the intersection of Oregon Avenue, NW and Western Avenue.

**Impact on Operations:**

Not implementing this project may result in the possible failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	16,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	16,000,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	127	564	836	5,821	4,487	462	0
<b>Commitments Budget</b>	0	0	0	0	1,070	0	14,930	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **G2 Sewer Structure Rehabilitation (1)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2015

**Project Description:**

This multi-phase / multi-job project was developed from the suggested project list included in the 2009 Sewer System Facilities Plan. Each job within the project proposes improvements to various sewer structures throughout the District. Project includes job G201, Rehabilitation of Structure 35B, to abandon the existing sewer structure inside the Kennedy Center and reinstate the structure at the intersection of 27th & G Street., NW. Project includes job G202, Sewer Structure 24 and 34 Improvements, to install access to the inflatable dams and rehabilitate Structures 24 and 34. Project includes job G203, Access Improvements to CSO 061, to provide maintenance accessibility to NPDES Outfall 061. Project includes job G204, Rehabilitation of Gates at Structures 5A, 5B and 5C, to replace the sluice gates for the sewer structures located outside of the Poplar Point Pumping Station.

**Impact on Operations:**

Not implementing this project may result in the possible failure or inability to access this infrastructure in an emergency in the future, resulting in undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	9,000,000
Increase/(Decrease) to Approved Life Budget:	9,000,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	236	833	5,114	294	0	0	0
<b>Commitments Budget</b>	0	0	0	0	593	5,607	2,800	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **G4 Upper Potomac Intercept Sewer Rehab.**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Oct 2013

**Project Description:**

Repair and return to service approximately 2,000 feet of the 48-inch diameter Upper Potomac Interceptor Sewer, which has been out of service since a failure occurred during Hurricane Agnes in June 1972. This project will divert future flow from the Upper Potomac Interceptor Relief Sewer, which will be at capacity in future years.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 69.66%  
 EPA/Fed - 0.00%  
 WSSC - 30.34%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	3,000,000
FY2010 Revised/FY2011 Proposed Life Budget	3,825,000
Increase/(Decrease) to Approved Life Budget:	825,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	228	63	909	1,349	225	20	0	0	0	0	0
<b>Commitments Budget</b>	270	140	3,030	385	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **G5 Sewer Rehab Near Creek Beds**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Health Safety

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2018

**Project Description:**

This project consists of multiple jobs to protect infrastructure in the vicinity of streams and creeks located throughout the District. The project intends to relocate and rehabilitate manholes and sewer pipes vulnerable to flooding or erosion, infrastructure exposed to or adjacent to surface waters. Project also includes rehabilitation for outfalls and other tasks required to protect exposed sewers due to stream bank erosion.

**Impact on Operations:**

There will be no significant impacts on operational costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	7,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	32,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	25,000,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	369	449	3,786	6,859	4,555	3,618	2,455	1,252	120
<b>Commitments Budget</b>	0	0	870	1,700	11,830	5,870	5,600	3,630	2,500	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **G6 Sanitary Sewers Under Buildings 1**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	Jan 2010
<b>Project Completion:</b>	Oct 2021

**Project Description:**

This project rehabilitates sanitary sewers located under buildings citywide. Other activities included in this project are cleaning, pre and post CCTV, sealing joints and repair of offset pipe.

**Impact on Operations:**

There will be no significant impacts on operational costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	3,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	28,968,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	25,968,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	66	1,042	862	625	1,114	1,803	2,520	2,919	3,038	8,840
<b>Commitments Budget</b>	0	3,000	59	941	1,873	2,855	3,907	4,007	4,107	4,207	4,013

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **GG Large Sewer Rehab 2**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Aug 2016

**Project Description:**

This project to rehabilitate and repair major sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project provides a program to rehabilitate major sewer segments after the inspection, evaluation and prioritization as determined by the sewer inspection program. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	3,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	3,000,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	36	79	88	1,182	828	0	0	0
<b>Commitments Budget</b>	0	0	0	200	0	2,800	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **GH Large Sewer Rehab 3**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Aug 2017

**Project Description:**

This project to rehabilitate and repair major sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project provides a program to rehabilitate major sewer segments after the inspection, evaluation and prioritization as determined by the sewer inspection program. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	6,150,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	6,150,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	74	165	180	2,420	1,691	0	0
<b>Commitments Budget</b>	0	0	0	0	410	0	5,740	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **GI Large Sewer Rehab 4**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Aug 2018

**Project Description:**

This project to rehabilitate and repair major sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project provides a program to rehabilitate major sewer segments after the inspection, evaluation and prioritization as determined by the sewer inspection program. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	9,530,000
Increase/(Decrease) to Approved Life Budget:	9,530,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	115	256	277	3,750	2,662	0
<b>Commitments Budget</b>	0	0	0	0	0	636	0	8,894	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **GJ Large Sewer Rehab 5**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Aug 2019

**Project Description:**

This project to rehabilitate and repair major sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project provides a program to rehabilitate major sewer segments after the inspection, evaluation and prioritization as determined by the sewer inspection program. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	13,100,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	13,100,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	159	351	382	5,224	4,409
<b>Commitments Budget</b>	0	0	0	0	0	0	874	0	12,226	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **GK Large Sewer Rehab 6**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Aug 2020

**Project Description:**

This project to rehabilitate and repair major sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project provides a program to rehabilitate major sewer segments after the inspection, evaluation and prioritization as determined by the sewer inspection program. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	13,500,000
Increase/(Decrease) to Approved Life Budget:	13,500,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	163	361	398	11,030
<b>Commitments Budget</b>	0	0	0	0	0	0	0	900	0	12,600	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **GL Large Sewer Rehab 7**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Aug 2021

**Project Description:**

This project to rehabilitate and repair major sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project provides a program to rehabilitate major sewer segments after the inspection, evaluation and prioritization as determined by the sewer inspection program. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	13,900,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	13,900,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	168	377	11,849
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	927	0	12,973

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **GM Large Sewer Rehab 8**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Aug 2022

**Project Description:**

This project to rehabilitate and repair major sewers throughout the District of Columbia is one aspect of the Service Life Improvement Plan outlined in the 2009 Sewer System Facilities Plan. This project provides a program to rehabilitate major sewer segments after the inspection, evaluation and prioritization as determined by the sewer inspection program. Sewer segments would be rehabilitated using an appropriate lining method and include any necessary cleaning and point repairs.

**Impact on Operations:**

Not implementing this project may result in the failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	14,300,000
Increase/(Decrease) to Approved Life Budget:	14,300,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	175	12,659
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	0	954	13,346

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **J0 B St/New Jersey Ave Trunk Sewer Rehab.**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	May 2012

**Project Description:**

This project involves a condition assessment and conceptual design for repair of the B Street / New Jersey Avenue trunk sewer. This project identifies the structural integrity of the sewer system, and develops adequate and cost effective repair approaches. This project increases the reliability, restores the integrity, and maintains the capacity of the sewer.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	3,920,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	3,920,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	101	2	1,411	1,035	0	0	0	0	0	0	0
<b>Commitments Budget</b>	470	0	3,450	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **J1 Oxon Run Sewer Leakage Correction**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jul 2014

**Project Description:**

This project assesses the condition and develops needed repairs for a segment of sewer that crosses Oxon Run. This project will increase the reliability, restore the integrity, stop leakage from the pipe, and maintain the capacity of the sewer.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	7,945,000
FY2010 Revised/FY2011 Proposed Life Budget	7,945,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	127	13	269	356	3,232	1,830	0	0	0	0	0
<b>Commitments Budget</b>	133	500	0	7,312	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority**  
**FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Sanitary Sewer Service Area  
**Program Title:** Sanitary Interceptor/Trunk/Force Sewers  
**Activity Group/Project Title:** **N7 Potomac Sewer System Rehab.**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-III**  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Jul 2018

**Project Description:**

This project provides odor control, sewer modifications, and rehabilitation of the Potomac Interceptor (PI) system. This project consists of eight jobs to control odors, and rehabilitate and modify manholes, sewer pipe, sewer vents, and other related components of the PI system. Implementation of this project will reduce odor complaints, maintain and restore structural integrity, and maintain the design hydraulic capacity of the sewer.

**Impact on Operations:**

The PI Odor Remedy job is expected to increase operating costs.

**Funding by User (percent):**

DC - 10.74%  
 EPA/Fed - 0.00%  
 WSSC - 32.08%  
 Fairfax - 32.08%  
 Loudoun/PI - 25.10%



<b>FY2009 Approved Life Budget</b>	44,700,633
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	47,866,936
<b>Increase/(Decrease) to Approved Life Budget:</b>	3,166,303

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	4,793	1,664	17,919	8,582	654	285	193	193	177	81	0
<b>Commitments Budget</b>	7,553	20,816	17,198	1,200	275	275	275	275	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

District of Columbia Water and Sewer Authority

# CAPITAL IMPROVEMENT PROGRAM

APPROVED FY 2009-2018



## Section V

## COMBINED SEWER OVERFLOW SERVICE AREA

*DC WASA continues making progress on a 20-year Long Term Control Plan that will reduce the number of overflows into local waterways, during rainstorms, from the District's combined sewer system. When completed in 2025, sewer overflows will be reduced by 96 percent overall and 98 percent on the Anacostia River alone.*



## COMBINED SEWER AREA

*(project pages V-5 to V-31)*

Similar to many older communities in the Mid-Atlantic, Northeast, and Midwest portions of the country, a portion of the District of Columbia is served by a combined sewer system. Approximately one-third of the system is combined, mostly in the downtown and older parts of the city. In dry weather, the system delivers wastewater to the Blue Plains Wastewater Treatment Plant. In wet weather, rain water also enters the system, and if the conveyance capacity of the system is exceeded, the excess flow spills into the waterways of the District of Columbia. This discharge is called Combined Sewer Overflow (CSO). There are 53 permitted CSO outfalls in the District.

DC WASA is currently engaged in implementing a Long Term Control Plan (LTCP) for CSOs that discharge to the Anacostia River, Rock Creek and the Potomac River. The schedule for completing the LTCP spans over a 20-year period that ends in 2025 and is included in a Federal Consent Decree between the United States, the District Government and DC WASA. The consent decree was entered by the court in March 2005. Projects to control CSOs to the Anacostia River are at the top of the court ordered schedule and DC WASA has recently completed a draft final Facility Plan for these projects. The Facility Plan includes a Summary Report and detailed implementation schedule which DC WASA has submitted to EPA as required by the consent decree. DC WASA is now moving forward in the design and construction phases of the Anacostia River projects according to the detailed implementation schedule submitted to EPA.

A recent Court decision from an environmental group's lawsuit involving the interpretation of Total Maximum Daily Pollutant Load (TMDL) measurement may have a potential impact on the LTCP implementation schedule, as we ensure that the Plan we undertake can achieve the goals and requirements of the District's water quality standards which are the bases for the LTCP. DC WASA continues to work with EPA to clarify and resolve this issue.

The benefits of our twenty-year plan are significant. When fully implemented, combined sewer overflows will be reduced by a projected 96 percent (98 percent on the Anacostia River) resulting in improved water quality and a significant reduction in debris on our national capital's waterways. In addition, DC WASA's clean-up efforts on the Anacostia River are a key cornerstone of the District's plan to redevelop both sides of the river, including the new baseball stadium and proposed retail development and affordable housing among other projects.

The plan includes a variety of improvements throughout the District:

- \$1.67 billion (Project CY) to construct a ten mile tunnel system to control Anacostia River overflows, three miles of branch tunnels to relieve surface flooding and a tunnels dewatering pumping station with project completion in FY 2025.
- \$419 million (Project CZ) to construct a three-mile tunnel system to control Potomac River overflows and a lift station, with facility planning to begin in 2015 and project completion in FY 2025.
- \$70 million (Project DZ) to construct a mile long tunnel system to control Piney Branch/Rock Creek overflows, with facility planning to begin in 2016 and project completion in FY 2025.



Construction is well underway with completion of projects worth approximately \$170 million that were included in the settlement of a lawsuit against DC WASA regarding implementation of the federal CSO Nine Minimum Controls program. These projects were previously budgeted and planned by DC WASA prior to the lawsuit. We are also underway with engineering to separate additional combined sewer areas in Anacostia and Rock Creek. Additionally, we are completing studies to add Low Impact Development (LID) at several DC WASA facilities. We have undertaken the rehabilitation of our major pumping stations to increase their capacity: three of these stations are in the construction phase and scheduled to be completed in FY 2010 while the fourth (Poplar Point Pumping Station) still the design phase with construction scheduled to be completed in FY 2012.

- Potomac Pumping Station rehabilitation (Project BB), with a lifetime budget of \$20.1 million, provides for replacing pump motors, motor controls, adding variable speed drives, upgrading the electrical system and electrical feeders, and modifying the existing wet-wells and influent channels. The rehabilitation of the pumping equipment has been completed and placed in service. Completion of this station is expected in FY 2010.
- Main & "O" Street Pumping Stations rehabilitation (Project K1), with a project lifetime budget of \$75.9 million, provides for rebuilding and upgrading sanitary pumps, upgrading electrical and ventilation systems, replacing screens and, installing a screening handling system, and installing odor control systems. All major functional equipment has been placed in service. Final completion is expected in FY 2010.
- Poplar Point Pumping Station rehabilitation (Project K4), with a lifetime budget of \$9.7 million, provides for improvements that include replacement of the pump motors and controls and rehabilitation of the pumps, structural and architectural repairs, HVAC upgrades, the addition of an odor control system, and electrical and lighting upgrades. Design of the station is complete and construction will begin in FY 2010.
- Northeast Boundary Swirl Facility (Project EL), with a lifetime budget of \$4.5 million, provides for a partial rehabilitation of this facility including the replacement of the chemical feed systems, partial replacement of the electrical system and the replacement of other components damaged by flooding and chemicals. The design phase of the project has begun.
- DC WASA Low Impact Development Projects (Project BA) with a lifetime budget of \$3.0 million, is designed to control wet weather related pollution from DC WASA own facilities as part of the agreement for the LTCP. LID technology will be evaluated for it's effectiveness in controlling storm water runoff and improvement in water quality. Implementation of LID technologies has begun at several facilities; the design of the remaining facilities will be completed in FY 2010.
- Rock Creek CSO Projects (Project BH) with a lifetime budget of \$18.1 million provides for the design (Job BH01) of modifications to various regulator structures and the separation of several segments of the combined sewer system. Job BH02 provides for the separation of sanitary and storm sewers in the Rock Creek basin Construction has begun and is expected to be completed in FY 2012.



- Outfall Sewer Rehabilitation (Project D2) with a lifetime budget of \$56 million provides for the rehabilitation of approximately 20,000 feet of the influent sewers to Blue Plains AWT to ensure reliable conveyance of 1076 mgd by April 2011. After DC WASA inspected the large diameter sewers which convey wastewater from the pumping stations to Blue Plains, the inspections revealed significant corrosion and exposed reinforcing steel in portions of the pipes. Engineering analyses determined that the conduits could not carry 1076 mgd due to their condition. As a result, this project will rehabilitate approximately 4 miles of the Outfall Sewers. In accordance with the decree, DC WASA has requested approximately a 4 year extension to 2011 to convey 1076 mgd until the rehabilitation project is complete. The cost of this project has been incorporated within the ten-year capital plan to ensure that the benefits of the Long Term Control Plan can be fully realized and that DC WASA is in complete compliance with all requirements.

Additional projects within the combined sewer area include:

- Main & 'O' Pump Station Intermediate Upgrade (Project FQ), with a lifetime budget of \$17.3, reflects work originally anticipated to be completed later in the ten-year plan. However, a small portion of the work was removed from the original upgrade project (EK) and has been brought forward in this new project along with some other needed work to provide for needed replacement of storm water pumps and various sluice gates and gate valves at the Main and O Street Pumping Stations.
- Combined Sewers under Buildings (Project G7) – with a lifetime budget of \$67.1 million (\$60.1 million lifetime increase) has been added to rehabilitate combined sewers located under buildings citywide. This project is a result of the highest priority recommendations from the sewer assessment. Other activities included in this project are cleaning, pre and post CCTV, sealing joints and repair of offset pipe.

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** CSO Program Management  
**Activity Group/Project Title:** **AV CSO Program Management**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2021

**Project Description:**

Project AV provides engineering project management services for planning, design and rehabilitation projects for WASA's combined sewer system for the purpose of reducing adverse impact of combined sewer overflow to the receiving waters. Examples of the projects to be managed are: CSO Long Term Control Plan Development Project, CSO Nine Minimum Control Projects, Fabri-Dam Rehabilitation Project, Pump Stations Rehabilitation, and the CSO control projects recommended under the CSO LTCP Development Project and approved by the regulatory agencies.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 98.33%  
 EPA/Fed - 1.67%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	9,680,146
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	40,720,146
<b>Increase/(Decrease) to Approved Life Budget:</b>	31,040,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	2,883	1,856	3,332	2,348	2,026	2,464	1,976	1,665	1,787	2,441	8,567
<b>Commitments Budget</b>	9,441	239	16,440	0	0	0	0	14,600	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** CSO Program Management  
**Activity Group/Project Title:** **K2 CSO-Long Term Control Plan**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2010

**Project Description:**

The project is to develop the Combined Sewer System (CSS) Long Term Control Plan (LTCP). Development of the plan involves extensive field work collecting data on combined sewer overflow (CSO), water quality of the rivers impact by CSO, investigation of other sources of pollution, development and use of water quality models to track changes in water quality for various CSO control scenario, cost benefit analysis.

In the current phase of this project, the consultant is providing assistance in managing the Anacostia Facility Plan project, transfer of technical information developed during the CSS LTCP process and providing other technical support such as hydraulic analyses and modeling. Services required by WASA related to compliance of the 3-Party Consent Decree and the CSS LTCP Consent Decree are also provided under this project.

**Impact on Operations:**

The work under this project has contributed to more efficient operation and maintenance of the CS system and CSO control structures, and will continue to do so, reducing O&M costs, and compliance with regulatory requirements.

**Funding by User (percent):**

DC - 54.70%  
 EPA/Fed - 44.59%  
 WSSC - 0.55%  
 Fairfax - 0.10%  
 Loudoun/PI - 0.05%



<b>FY2009 Approved Life Budget</b>	14,518,848
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	14,518,848
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	13,279	1,209	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	14,519	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **A7 Supplemental Environmental Projects / Nine Minimum Controls**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

Phase	Start Date
Design:	
Construction:	Feb 2007
Project Completion:	Jul 2013

**Project Description:**

This project was created to respond to requirements negotiated under the 3-Party Consent Decree to settle a lawsuit alleging violation of the Combined Sewer Overflow provisions of the federal Clean Water Act.

Under this project, WASA will provide funds to the Chesapeake Bay Foundation to undertake green roof projects within the CSO area in the District. WASA will also provide funds to the Urban Forestry Administration in the DC DOT to plant 3,000 trees in the CSO area and to install 2 rain gardens in N.E. DC.

**Impact on Operations:**

This project will not have any material impact on the operations.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	1,900,000
FY2010 Revised/FY2011 Proposed Life Budget	1,900,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,366	164	22	22	18	0	0	0	0	0	0
<b>Commitments Budget</b>	1,700	200	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **BA WASA Low Impact Development Projects / Nine Minimum Control**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Feb 2002
<b>Construction:</b>	Jun 2004
<b>Project Completion:</b>	Jan 2015

**Project Description:**

This project was developed in accordance with WASA's commitment to promote Low Impact Development (LID) to control wet weather related pollution, WASA has or will under take projects to implement LID technology at its own facilities, when and where possible. In addition to reduce stormwater runoff and thereby contribute to the water quality of the receiving waters, this also provides WASA the opportunity to examine effectiveness of various LID techniques.

**Impact on Operations:**

There will be some increase in O&M activities when these projects are implemented.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	3,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	3,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	441	115	88	54	697	813	26	0	0	0	0
<b>Commitments Budget</b>	892	0	0	244	1,864	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **BB Potomac Pumping Station Rehab / Nine Minimum Controls**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

Phase	Start Date
Design:	Jul 2002
Construction:	Apr 2005
Project Completion:	Jan 2012

**Project Description:**

Project BB provides for the rehabilitation that will restore the station to reliable operating condition and restore its pumping capacity to the rated flow of 460 MGD. This project provides for the rehabilitation or replacement of pumps, motors, motor controls and the electrical system. It also provides for improvements to the HVAC system.

**Impact on Operations:**

Rehabilitation of this station will increase the overall reliability of the station and the amount of flow that can be pumped to Blue Plains thus reducing the quantity of overflows. There will be no material impact on operating costs.

**Funding by User (percent):**

DC - 25.49%  
 EPA/Fed - 24.40%  
 WSSC - 27.34%  
 Fairfax - 14.44%  
 Loudoun/PI - 8.33%



FY2009 Approved Life Budget	18,575,590
FY2010 Revised/FY2011 Proposed Life Budget	20,052,932
Increase/(Decrease) to Approved Life Budget:	1,477,342

Disbursements Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	15,417	2,717	79	11	0	0	0	0	0	0	0
Commitments Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	20,053	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **BH Rock Creek CSO Projects / Nine Minimum Controls**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Mar 2013

**Project Description:**

These are Combined Sewer System (CSS) Long Term Control Plan (LTCP) early action projects. The regulators at outfalls 033, 036, 047 and 057 will be evaluated to determine if additional combined sewer flows can be contained within the sewer to reduce CSOs to Rock Creek. The CSS area served by outfalls 031, 037, 053, and 058 will be separated into an independent sanitary system and storm sewer system thus eliminating these outfalls and the resultant CSO.

**Impact on Operations:**

Elimination of the outfalls indicated will reduce operating costs by reducing the need for the periodic inspections effort.

**Funding by User (percent):**

DC - 49.96%  
 EPA/Fed - 50.04%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	18,070,900
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	18,070,900
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,507	4,584	3,823	2,840	502	0	0	0	0	0	0
<b>Commitments Budget</b>	13,218	109	4,744	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** BK CSO Nine Minimum Control Projects  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

Phase	Start Date
<b>Design:</b>	
<b>Construction:</b>	Feb 2008
<b>Project Completion:</b>	Jun 2010

**Project Description:**

This project has been added to make financial provisions to comply with requirements in the 3-party consent decree. These funds will provide for:

**CSO Event Indicator Lights:** The lights are triggered by CSO events, and will be placed at two CSO locations to alert potential users of the river of an active CSO. This will be an automatic system including an overflow detector, an automatic electronic communication system and a pole fitted with a light that will be visible to the users of the river.

**Additional CSO Signs:** At a select number of locations, at or near CSO outfall structures, special signs will be installed (pending National Park Service's approval) to alert potential users of CSO impacted rivers about the location of the outfall.

**Impact on Operations:**

Addition of the lights and signs will result in increased operating costs to provide for inspection and maintenance activities.

**Funding by User (percent):**

DC - 63.65%  
 EPA/Fed - 36.35%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	1,315,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,391,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	76,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	745	531	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	1,391	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **CI O Street - Facility Projects**  
**Managing Department:** Facilities and Security **EPMC:** N/A  
**Priority:** Good Engineering, Low, M&F over long term

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2010

**Project Description:**

This project will rehab and upgrade various facilities and apparatus within the "O" street compound. This is a separate project from the rehabilitation of the Main & O Street Pumping Stations and will be managed by Facilities and DMS.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	1,350,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,396,891
<b>Increase/(Decrease) to Approved Life Budget:</b>	46,891

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	574	31	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	1,397	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **D2 Outfall Sewer Rehabilitation / Nine Minimum Controls**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Nov 2011

**Project Description:**

This project will rehabilitate the existing Outfall Sewer System tributary to the headworks of the Blue Plains WWTP. Four 10-foot diameter sewers were inspected in 2005 and it was concluded that the pipelines will need to be rehabilitated in order to provide reliable service. As the design has progressed to the concept finalization phase, the latest estimates require an additional budget of \$26 million, primarily for construction costs. The additional budget is also required for design work to separate the project into multiple contracts in order to meet LTCP deadlines. This project is eligible for 50/50 matching funding from the Congressional CSO Appropriation.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 20.60%  
 EPA/Fed - 20.60%  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.57%



<b>FY2009 Approved Life Budget</b>	56,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	56,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	6,352	27,669	9,726	106	0	0	0	0	0	0	0
<b>Commitments Budget</b>	55,035	965	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **DB Sewer Services Field Facility & Relocation**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jan 2015
<b>Construction:</b>	Jul 2010
<b>Project Completion:</b>	Jun 2018

**Project Description:**

This project is for efforts needed to address the new stadium projects in the vicinity of Main and "O", and the renovations attendant thereto. Both Long- term and short- term alternate locations for Fleet ( and vehicle storage) and Sewer Services' staff must be addressed, as well as the security of the remaining pump station, as also the large sewer main that traverses the property. We expect to be fully reimbursed by the District, through the Anacostia Waterfront Development Corporation (AWDC) for all related costs, and expect no impact on WASA rate-payers.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	40,500,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	39,509,505
<b>Increase/(Decrease) to Approved Life Budget:</b>	-990,495

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	364	15	0	0	58	84	1,480	13,262	7,134	46	0
<b>Commitments Budget</b>	382	990	0	0	525	10,941	37	26,235	400	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **DD Main & O Pump Sta. Development Effort**  
**Managing Department:** EPMC: N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jun 2012

**Project Description:**  
 This project is for preliminary efforts needed to address the new stadium projects in the vicinity of Main and "O", and the renovations attendant thereto.

**Impact on Operations:**  
 This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	2,000,000
FY2010 Revised/FY2011 Proposed Life Budget	2,000,000
Increase/(Decrease) to Approved Life Budget:	0

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	466	111	20	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	784	1,216	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **DS New WASA Headquarters**  
**Managing Department:** EPMC: N/A  
**Priority:** Good Engineering, Low, M&F over long term

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Aug 2011

**Project Description:**

This project is for the construction of the new DC WASA Headquarters building. However, at this time we have budgeted for only \$2 million for the immediate costs of planning and preliminary design; additional budget will be added resulting from the outcome of the planning and preliminary design.

**Impact on Operations:**

Though this project will have an impact on the operating budget; the extent is not determinable at this preliminary stage.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	2,000,000
FY2010 Revised/FY2011 Proposed Life Budget	2,000,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	124	177	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	460	1,540	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** EJ Potomac Pumping Station - Phase III  
**Managing Department:** Engineering and Technical Services EPMC: N/A  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	Oct 2009
Construction:	Dec 2011
Project Completion:	Nov 2014

**Project Description:**

This project will provide a general upgrade to this station that was placed in service in 1963. It will provide for the replacement of the four existing screens, replacement of gate valve actuators, additional sluice gates between the pumps and the wet well, and a replacement lighting system. It will also provide a new fire alarm and suppression system.

**Impact on Operations:**

While there is no financial impact on Operations, this project will increase the efficiency and decrease the maintenance costs associated with the Potomac Pumping Station, as well as provide the flexibility to reroute influent from any wet well to another pump, easing the ability to do maintenance while still processing the maximum amount of flows for the station.

**Funding by User (percent):**

DC - 24.87%  
 EPA/Fed - 24.87%  
 WSSC - 27.42%  
 Fairfax - 14.48%  
 Loudoun/PI - 8.36%



FY2009 Approved Life Budget	9,470,000
FY2010 Revised/FY2011 Proposed Life Budget	14,491,000
Increase/(Decrease) to Approved Life Budget:	5,021,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	0	377	718	2,228	5,337	2,471	49	0	0	0	0
<b>Commitments Budget</b>	0	2,004	0	11,965	390	132	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **EK Long Term Rehabilitation Main & O Pump Stations**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Good Engineering, Low, M&F over long term

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jun 2016
<b>Construction:</b>	Aug 2019
<b>Project Completion:</b>	Jan 2023

**Project Description:**

This project will provide for a 30 year upgrade to the Main Pumping Station and the O Street Pumping Stations. This project will replace the Main Pumping Station's sanitary pumps, motors and controls as necessary, all six storm pumps, motors and controls as necessary, rebuild or replace various large gates in the channels, provide a new roof, provide general HVAC improvements and provide a new and separate pumping station for the low area sewer. This project will replace the O Street Pumping Station's six storm pumps, motors and controls as necessary and provide miscellaneous structural, architectural and electrical upgrades. It will also provide various site improvements around both stations. Parts of this project that pertained to rehabilitation, and identified as necessary prior to 2019, have been rescheduled under a new project (FQ). Accordingly, the budget for this project has been reduced to reflect the cost of such work transferred to the new Project (FQ).

**Impact on Operations:**

While there is minimal financial impact on Operations, this project provides new sanitary and storm pumps, that will be more efficient than the ones currently in place, which were cast into the concrete in 1908 when the station was built. It also provides the long-term upgrade needed for the station for the next 30 years, and installs variable frequency drives to protect the large motors during startup, when the wet wells are unable to provide the flows necessary to cool such large motors.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	72,444,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	72,444,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	642	2,958	2,925	60,038
<b>Commitments Budget</b>	0	0	0	0	0	0	0	11,533	0	0	60,911

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **EL Swirl Facility Rehabilitation**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jan 2010
<b>Construction:</b>	Aug 2011
<b>Project Completion:</b>	Aug 2014

**Project Description:**

This project will provide a partial rehabilitation to this facility that was placed in service in 1990. It will provide for the replacement of deteriorated chemical pumps, repair structural damage done by chemicals, make repairs to the control system and wiring for the chemical pumps, replace deteriorated conduits and wiring in the screen room and swirl room as necessary, replace damaged components of HVAC system and repair the control system for the mixing chamber.

**Impact on Operations:**

This project will decrease maintenance costs by generally improving the condition of the facility. Installing correctly sized pumps for the current capacity, thus decreasing the flooding of the station and the related cleanup costs, as well as preventing water getting into the switch gear and shorting out, which will also improve overall reliability and effectiveness of the station.

**Funding by User (percent):**

DC - 98.40%  
 EPA/Fed - 1.60%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	3,665,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	4,495,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	830,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	64	188	254	1,771	839	154	0	0	0	0	0
<b>Commitments Budget</b>	214	442	3,440	170	230	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** EQ Potomac Pump Station Rehab - Phase IV  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-III  
**Priority:** Good Engineering, Low, M&F over long term

Phase	Start Date
Design:	Jun 2016
Construction:	Nov 2017
Project Completion:	May 2019

**Project Description:**

This project will provide a general upgrade to this station that was placed in service in 1963. It will provide for architectural improvements, painting throughout the station, new men's and women's ADA compliant restrooms, an odor control system, and VFD's for the two large pumps.

**Impact on Operations:**

This project will have no material impact on the operating budget, but will provide protection for the large pumps by installing variable frequency drives to more efficiently handle start ups.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	7,515,000
FY2010 Revised/FY2011 Proposed Life Budget	7,515,000
Increase/(Decrease) to Approved Life Budget:	0

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	150	619	3,801	1,012
<b>Commitments Budget</b>	0	0	0	0	0	0	0	1,085	650	5,550	230

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **FQ Main & O St PS Intermediate Upgrade**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	Feb 2010
Construction:	Oct 2011
<b>Project Completion:</b>	Feb 2014

**Project Description:**

This project will provide for needed replacement of storm water pumps and various sluice gates and gate valves at the Main and O Street Pumping Stations. In Main, this project will replace three storm pumps, motors and controls and add a new sluice gate to isolate the suction side of Pump No. 4. Also, the project will replace the 48" Butterfly Valve 16 on the discharge side of Pump No. 4 with a plug valve, remove and plug the 30" Butterfly Valve 17 on the overflow to the river, and replace the 66" Sluice Gate 9 on the suction side of Pump No. 1. It replaces the discharge flap gates on all six storm pumps. In the 'O' Street Pumping Station this project will replace seven gate valves on the suction and discharge of the four sanitary pumps and automate these gate valves to improve control of the flow within the station. A major part of this project's budget was funded by transferring the rehabilitation tasks ( and associated budgets) from Project EK.

**Impact on Operations:**

There will be no significant impacts on operational costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	13,155,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	17,345,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	4,190,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	835	1,113	4,261	6,075	464	0	0	0	0	0
<b>Commitments Budget</b>	0	2,593	1,592	12,860	300	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **FX Rehab Northeast Boundary Sewer-PH 1**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2016

**Project Description:**

This project will repair several segments of the lower portion of the Northeast Boundary Trunk Sewer (NEBT). The proposed project will rehabilitate approximately 5,700 feet of the sewer from structure B-1098 to structure N-36141, using the appropriate rehabilitation methods.

**Impact on Operations:**

Not implementing this project may result in the possible failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	18,500,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	18,500,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	671	1,034	6,558	5,066	513	0	0
<b>Commitments Budget</b>	0	0	0	0	1,234	17,266	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **FZ Tiber Creek Sewer Lining -Ph 1**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	
Construction:	
Project Completion:	Dec 2017

**Project Description:**

This project will rehabilitate approximately 6,300 total feet between two sewer segments of the Tiber Creek Trunk Sewer. This project will fix all observed structural defects, restore the structural integrity of the sewer, reduce root intrusion, improve hydraulic capacity and reduce infiltration and inflow into the sewer.

**Impact on Operations:**

Not implementing this project may result in the possible failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	16,500,000
Increase/(Decrease) to Approved Life Budget:	16,500,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	665	893	5,808	4,475	459	0
<b>Commitments Budget</b>	0	0	0	0	0	1,101	15,399	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **G7 Combined Sewers Under Buildings**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Oct 2021

**Project Description:**

This new project is the outcome of the recommendations of a comprehensive Sewer System Assessment (SSA) commissioned by DC WASA. This study recommended certain High Priority rehabilitation projects that needed to be undertaken to fix structural defects and restore structural integrity of the sewer system. This project rehabilitates combined sewers located under buildings citywide identified as high priority activities under the SSA. Other activities included in this project are cleaning, pre and post CCTV, sealing joints and repair of offset pipe.

**Impact on Operations:**

There will be no significant impacts on operational costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	7,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	67,080,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	60,080,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	324	2,547	2,100	1,481	2,595	4,212	5,816	6,694	7,019	20,483
<b>Commitments Budget</b>	0	7,000	137	2,193	4,355	6,688	8,920	9,220	9,513	9,720	9,333

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **K1 Main & "O" St. Pump Stations / Nine Minimum Controls**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	Apr 2005
<b>Project Completion:</b>	Dec 2012

**Project Description:**

Project K1 provides for the restoration of the capacity of the Main Pumping Station to its rated flow of 240 MGD and the "O" Street Pumping Station to 45 MGD. Work will include rebuilding and upgrading the sanitary pumps, upgrading the electrical and ventilation systems, replacing screens and installing screening handling systems and odor control systems. These are needed to reduce combined sewer overflow to the river, meet the requirements of the Federal Clean Water Act and restore the stations to a reliable operating condition.

**Impact on Operations:**

Rehabilitation of these stations will increase the amount of flow that can be pumped to Blue Plains thus reducing the quantity of overflows. The project make the facilities safer for personnel by improving the ventilation, providing odor control, installing new lighting, replacing handrails and other safety features, repairing various structural defects in the two structures and eliminating the need to handle screenings by hand. It will also decrease the personnel hours spent handling the screenings. It will improve the appearance of the overall facility by replacing and upgrading the brickwork on the "O" Street Station, replacing the pavement, providing new landscaping and exterior lighting and restoring the building exterior of the Main Station. There will be no material impacts on operating costs.

**Funding by User (percent):**

DC - 55.23%  
 EPA/Fed - 44.77%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	75,920,723
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	75,900,723
<b>Increase/(Decrease) to Approved Life Budget:</b>	-20,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	63,020	8,356	267	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	74,465	1,436	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **K3 East Side Pumping Station / Nine Minimum Controls**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

Phase	Start Date
Design:	
Construction:	Aug 2004
Project Completion:	Jan 2011

**Project Description:**

Project K3 provides for the restoration of the pumping capacity of this facility to its rated flow of 45 MGD by providing a new, above grade pumping station. This is necessary to reduce combined sewer overflow to the Anacostia River by increasing flow to Blue Plain to meet the requirements of the Federal Clean Water Act.

**Impact on Operations:**

Replacement of this station will increase the amount of flow that can be pumped to Blue Plains thus reducing the quantity of overflow. It will provide a facility with greatly improved ventilation, odor control, screening handling system, lighting and safety features. It will provide a much higher degree of reliability than the existing facility. There will be no material impact on operating costs.

**Funding by User (percent):**

DC - 55.19%  
 EPA/Fed - 44.81%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	18,455,852
FY2010 Revised/FY2011 Proposed Life Budget	17,193,005
Increase/(Decrease) to Approved Life Budget:	-1,262,847

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	16,066	586	76	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	16,760	433	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **K4 Poplar Point Pumping Station / Nine Minimum Controls**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Apr 2005
<b>Construction:</b>	May 2010
<b>Project Completion:</b>	Mar 2013

**Project Description:**

Project K4 provides for the rehabilitation of the existing pumping station and improvement to its reliability. This project includes structural and architectural repairs to the station, HVAC upgrades, addition of odor control, electrical and lighting upgrades and storm drain and paving modifications. Final decision on a new station will depend on CSO Long Term Control Plan recommendations.

**Impact on Operations:**

The station's rated capacity of 45 mgd has been restored by replacing the pump impellers. This meets the Earth Justice Consent Decree requirement. The rehabilitation project will provide an improved ventilation system and a new odor control system, improve the station lighting, eliminate manual screenings handling by providing washers, compactors and dumpsters for the screenings and improve the station reliability by replacing many of the support systems. It will also repair structural defects and improve the appearance of the station exterior. There will be no material impact on operating costs.

**Funding by User (percent):**

DC - 95.17%  
 EPA/Fed - 4.83%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	8,601,001
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	9,751,001
<b>Increase/(Decrease) to Approved Life Budget:</b>	1,150,000

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	1,467	901	3,238	1,781	22	0	0	0	0	0	0
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	1,930	7,671	150	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** Combined Sewer Projects  
**Activity Group/Project Title:** **K5 Dry-Weather Overflow Elimination / Nine Minimum Controls**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Dec 2000
<b>Construction:</b>	Mar 2000
<b>Project Completion:</b>	Nov 2026

**Project Description:**

Under this project, engineering and design for the rehabilitation of the CSO overflow structures to eliminate dry weather overflow has been completed. Construction has been initiated at these locations. As a separate activity, the combined sewer system area served by outfall 006 will be separated into two separate systems for the collection of sanitary and storm sewage flow separately. This will result in the elimination of the outfall and resultant CSOs. In addition, this project includes the inspection of the Anacostia River siphons in Year 2010. The siphons are scheduled for inspection every 10 years to ensure their reliability and to evaluate their condition.

**Impact on Operations:**

When the CSO structures are rehabilitated, there will be an increase in the efficiency of operation and maintenance tasks related to these structures that will result in a cost reduction. However, some additional workload will be required to operate and maintain the trash collection facilities at the separated stormwater outfalls resulting in no net reduction to operational costs.

**Funding by User (percent):**

DC - 63.43%  
 EPA/Fed - 36.57%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	12,128,271
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	12,128,271
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	8,953	1,646	71	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	12,028	0	100	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** CSO Long Term Control Plan  
**Activity Group/Project Title:** **CY CSO LTCP Anacostia Projects**  
**Managing Department:** Engineering and Technical Services **EPMC:** LTCP  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Apr 2009
<b>Construction:</b>	Feb 2010
<b>Project Completion:</b>	Dec 2025

**Project Description:**

The purpose of this project is to capture and provide storage for combined sewer overflows (CSOs) being discharged to the Anacostia River. The project comprises construction of approximately 8 miles of tunnels with a volume of about 126 million gallons. Two basic tunnels will be constructed; one extending from Poplar Point to the area of RFK Stadium with the second running from the stadium area, then along Florida Avenue to about 8th Street NW. Construction also includes two side tunnels off the northerly side of the Florida Avenue tunnel for flood control, consolidation of 3 existing CSO outfalls in the Navy Yard area, a pumping station at Poplar Point to dewater the tunnels to the existing collection system for treatment of the stored CSO at Blue Plains, an intercepting sewer along the east side of the Anacostia River to capture overflows from two CSO outfalls and convey them to the tunnels and various diversion structures to convey combined sewer flow to the tunnels. When completed, this project together with CSO control projects already completed or underway are expected to reduce CSOs to the Anacostia River by about 98 percent.

**Impact on Operations:**

The project will result in increased operations and maintenance costs related to the tunnels, pumping station, intercepting sewer and various diversion structures. Additional operations and maintenance costs will also be incurred for monitoring the completed facilities to assess performance of the CSO controls against predictions established as part of LTCP development.

**Funding by User (percent):**

DC - 89.91%  
 EPA/Fed - 3.09%  
 WSSC - 5.46%  
 Fairfax - 1.00%  
 Loudoun/PI - 0.54%



<b>FY2009 Approved Life Budget</b>	1,372,544,800
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,673,325,016
<b>Increase/(Decrease) to Approved Life Budget:</b>	300,780,216

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	29,244	21,977	27,750	74,638	146,129	97,909	107,879	133,962	141,824	61,348	546,530
<b>Commitments Budget</b>	101,750	30,214	243,764	154,012	20,017	250,559	179,816	114,917	4,587	191,552	382,136

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** CSO Long Term Control Plan  
**Activity Group/Project Title:** CZ CSO LTCP Potomac Projects  
**Managing Department:** Engineering and Technical Services **EPMC:** LTCP  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

Phase	Start Date
Design:	Mar 2018
Construction:	Mar 2021
Project Completion:	Jun 2025

**Project Description:**

The purpose of this project is to capture and provide storage for combined sewer overflows (CSOs) being discharged to the Potomac River. The project comprises construction of a tunnel approximately 3 miles long with a volume of about 58 million gallons, along the Georgetown bank of the river. Construction also includes a pumping station near the Kennedy Center to dewater the tunnel to the existing collection system for treatment of the stored CSO at Blue Plains and various diversion structures to convey combined sewer flow to the tunnel. When completed, this project, together with CSO control projects already completed, or underway, are expected to reduce CSOs to the Potomac River by about 93 percent.

**Impact on Operations:**

The project will result in increased operations and maintenance costs related to the tunnel, pumping station and various diversion structures. Additional operations and maintenance costs will also be incurred for monitoring the completed facilities to assess performance of the CSO controls against predictions established as part of LTCP development.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	418,700,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	418,700,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	1,619	5,381	5,484	9,187	369,925
<b>Commitments Budget</b>	0	0	0	0	0	0	20,935	0	0	56,801	340,964

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Combined Sewer Overflow  
**Program Title:** CSO Long Term Control Plan  
**Activity Group/Project Title:** **DZ CSO LTCP Rock Creek Projects**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Court Ordered, Stipulated Agreements, Etc.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Mar 2019
<b>Construction:</b>	Mar 2022
<b>Project Completion:</b>	Jun 2025

**Project Description:**

The purpose of this project is to capture and provide storage for combined sewer overflows (CSOs) being discharged to Piney Branch, a tributary to Rock Creek. The project comprises construction of a tunnel approximately 1 mile long, with a volume of about 9.5 million gallons, above the banks of Rock Creek. Construction also includes a pipeline and control structure to convey stored CSO to the existing collection system for treatment at Blue Plains and diversion structures to convey CSO to the tunnel. When completed, this project, together with CSO control projects already completed, or underway, are expected to reduce CSOs to Rock Creek by about 90 percent

**Impact on Operations:**

The project will result in increased operations and maintenance costs related to the tunnel, pipeline and structures. Additional operations and maintenance costs will also be incurred for monitoring the completed facilities to assess performance of the CSO controls against predictions established as part of LTCP development.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	70,341,600
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	70,341,600
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	243	808	837	62,598
<b>Commitments Budget</b>	0	0	0	0	0	0	0	3,517	0	0	66,825

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



District of Columbia Water and Sewer Authority

# CAPITAL IMPROVEMENT PROGRAM

APPROVED FY 2009-2018



## Section VI STORMWATER SERVICE AREA

*Necessary upgrades to the infrastructure must be undertaken to improve service. DC WASA invests more than \$600 million on the replacement and rehabilitation of mains and valves.*



## **STORMWATER**

Over 34 miles of rivers and streams in and around the District of Columbia do not support swimming and aquatic life. Stormwater runoff from separated and combined sewers is the primary source of pathogens that cause impairments to the District's local waterways. The District's stormwater system includes both separate and combined sewers, has approximately 600 miles of storm sewer pipes, catch basins, inlets, special structures and related facilities. Some components of the existing storm sewer system are over 100 years old. The system is constructed of a variety of materials such as ductile iron, plastic, steel, brick, cast iron, cast-in place concrete, brick and concrete, vitrified clay, and concrete. DC WASA is responsible for the maintenance and replacement of certain public facilities that convey stormwater runoff to the Anacostia and Potomac Rivers, Rock Creek, and other receiving streams within certain areas of the District of Columbia, specifically the areas of the District served by combined sewers.

In other locations, those served by separate storm sewers, the tasks are shared by several agencies, with the District of Columbia's Department of the Environment (DDOE) having central responsibility for managing the work. The District is required to meet certain regulatory requirements in managing its separate stormwater system under the District's MS4 permit issued by the federal government. Since 2007, DDOE has been responsible for the separate storm water system and compliance with the Clean Water Act as the stormwater administrator. Among other things, DDOE coordinates the stormwater management (MS4) task force, making recommendations regarding stormwater priorities, goals and recommendations on the adequacy of funding mechanisms for stormwater management activities. In November 2007, DDOE negotiated a revised permit with several best practice enhancements, several with measurable and quantifiable milestones.

While DC WASA has a long term control plan to address these issues within the combined sewer areas, DC WASA's staff continues to participate in the MS4 task force, and to monitor the impact of other MS4 NPDES requirements on DC WASA and its ratepayers. Significant progress has been made throughout the District. Since 2001, DC WASA collected the MS4 stormwater fees on behalf of the District and acted as stormwater administrator until the creation of DDOE and the transfer of duties in early 2007. DC WASA continues to collect those fees on behalf of the District and transfers them to DDOE quarterly. Most recently, a Memorandum of Understanding and continued dialogue among task force members resulted in a better definition of roles, responsibilities and funding sources for the activities required to enhance stormwater management. Discussion of other matters, such as the turnover of stormwater pumping facility maintenance continues.

DC WASA's lifetime budget for the Stormwater Service Area is \$58.7 million. Projects include rehabilitation or replacement of certain storm sewer systems that have experienced structural deterioration and studies and analysis. DC WASA has continued to support stormwater management in the District of Columbia through catch basin cleaning in the combined sewer area (per our Blue Plains NPDES permit and an important component of storm water pollution control efforts) and through coordination of cleaning activities throughout the District (along with DC Public Works) as a member of the taskforce and an agency that values the design and implementation of environmentally responsible policies and programs. As new technologies for water quality catch basin and best management practices become available and are installed by DC Department of Transportation, DC WASA has pledged to support



stormwater efforts through expeditious review and approval, as appropriate, of proposals and providing catch basin cleaning and maintenance of new technologies utilizing available funding under the MS4 program. In addition, DDOE has, from time to time, identified areas within the District that may require additional study of stormwater impact. DC WASA has the expertise available to support this research as required to enable evaluation of alternatives and best practices for future decision making.

**Local Drainage Projects - \$15.8 million**

*(project pages VI-5 to VI-6)*

This category includes several projects to relieve local flooding and to address short term needs for improvements to storm sewers located in the separate and combined sewer areas. A significant project to highlight is the sewer lining for the Northwest Boundary Sewer Overflow (NWBSO) at 22nd & P Streets, NW, which will correct a drainage and flooding problem. Complication with access permits resulted in a delay of construction advertisement. The design was completed in FY 2008 and construction was begun in FY 2009.

**On-Going Stormwater Projects – \$8.9 million**

*(project pages VI-7 to VI-21)*

These include projects carried out by DC WASA’s Department of Sewer Services, including storm sewer rehabilitation and extensions to serve new development.

**Pumping Facilities - \$.0 million**

*(project pages VI-22 to VI-22)*

As in last year’s budget, we have not included funding for stormwater pumping rehabilitation projects. We have been engaged in extensive discussions with the District over the last few years regarding how responsibilities for a variety of stormwater-related functions are divided among District agencies, including responsibility for stormwater pumping stations. To date, turn over of these activities to others is still anticipated.

**DDOT Storm Projects – \$4.8 million**

*(project pages VI-23 to VI-39)*

This program funds projects associated with DDOT road projects, which often require relocation of storm sewers, inlets or other structures. We have increased the lifetime budgets in this area based on an analysis of actual spending and work completed over the past few years.

**Stormwater Research and Program Management - \$10.6 million**

*(project pages VI-40 to VI-40)*

This area provides for required technical assessments and hydraulic studies required to assess problems in the storm water system. For example, a comprehensive study of the Palisades Stormwater neighborhood flooding problems was completed in FY 2008 and a study of the federal triangle area has been requested by various federal agencies. These investigations are anticipated to be

reimbursed through the MS4 fees and thus have no impact upon the rate payers, however, the budget is included within this program area. This also funds program management costs associated with studies and designs of DC WASA facilities that may involve review of stormwater facilities.

**Trunk/Force Sewers – \$18.6 million**

*(project pages VI-41 to VI-41)*

This program includes funds for major maintenance of the storm water piping system as well as funding for two capital projects that were previously undertaken.

- Pennsylvania Avenue Storm Sewer Rehab – Project BO 04 – The project involves the replacement of a storm sewer under Pennsylvania Avenue between 38<sup>th</sup> and Texas Avenue SE and other improvements at the discharge headwall. The final design was provided in FY 2008 and construction was begun in FY 2009.
- Bangor Street & Park Drive Storm Sewer Rehab – Project BO 06 – The project involves the installation of an inlet and associated storm sewer along an undeveloped alley easement to an existing storm sewer near Bangor Street. Additional alley improvements (curbing, regrading) will be necessary to prevent overland flow from adjacent properties. In addition, the budget includes reconstruction of a stormwater outfall to a stream on National Park Service property at the end of 32<sup>nd</sup> Street, SE, near Park Drive. The outfall will include an energy dissipater and stabilization of the stream bank in the immediate vicinity of the outfall to prevent erosion of the outfall. Design for the projects was completed in FY 2009 with construction in FY 2010.

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater Local Drainage  
**Activity Group/Project Title:** **A6 Lining, 22nd & Psts., NW**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-III**  
**Priority:** Good Engineering, Low, M&F over long term

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jul 2013

**Project Description:**

This projects is for the investigation, design and repair of the existing 8'-3" diameter Northwest Boundary Interceptor Sewer, which has shown signs of structural defects during prior inspections. The project will decrease further deterioration of the asset.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	3,019,166
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	3,019,246
<b>Increase/(Decrease) to Approved Life Budget:</b>	80

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	209	64	1,011	263	33	0	0	0	0	0	0
<b>Commitments Budget</b>	526	0	2,403	90	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater Local Drainage  
**Activity Group/Project Title:** **GY Storm Rehab @ Various Locations**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, Low, M&F over long term

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Aug 2021

**Project Description:**

This multi-job project rehabilitates storm sewers located throughout the District. Storm sewer infrastructure to be rehabilitated is prioritized based on the criticality given to inspected sewer segments, with priority given to infrastructure which transverses under existing buildings. Sewer infrastructure would be rehabilitated utilizing appropriate lining methods as well as the repair of any offset pipe. Multiple jobs provide the annualized program to rehabilitate the storm sewer inventory which exhibits deteriorated conditions and is located under buildings.

**Impact on Operations:**

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	12,780,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	12,780,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	37	138	276	493	692	830	917	955	3,080
<b>Commitments Budget</b>	0	0	430	900	1,350	1,900	2,000	2,000	2,100	2,100	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** AN FY2010 - DSS Storm Sewer Projects  
**Managing Department:** Sewer Services EPMC: N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jul 2011

**Project Description:**

This project is for the FY2010 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the storm sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	600,000
FY2010 Revised/FY2011 Proposed Life Budget	600,000
Increase/(Decrease) to Approved Life Budget:	0

Disbursements Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	0	72	188	0	0	0	0	0	0	0	0
Commitments Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	0	600	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** **AO FY2009 - DSS Storm Sewer Projects**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Mar 2011

**Project Description:**

This project is for the FY2009 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the storm sewer system.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	497,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	497,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	3	151	54	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	3	494	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** **BD FY2011 - DSS Storm Sewer Projects**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
<b>Project Completion:</b>	Jun 2012

**Project Description:**

This project is for the FY2011 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the storm sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	618,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	618,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	120	154	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	618	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** C1 FY2001 - DSS Storm Sewer Project  
**Managing Department:** Sewer Services EPMC: N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jan 2010

**Project Description:**

This project was created as an annual program for planned projects by the Department of Sewer Services in FY2001 for storm water infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	247,000
FY2010 Revised/FY2011 Proposed Life Budget	247,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	162	8	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	247	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** C4 FY2004- DSS Storm Sewer Project  
**Managing Department:** Sewer Services EPMC: N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Dec 2010

**Project Description:**  
 This project was created as an annual program for planned projects by the Department of Sewer Services in FY2004 for storm water infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**  
 This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	497,000
FY2010 Revised/FY2011 Proposed Life Budget	497,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	412	14	5	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	416	81	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** C6 FY2006- DSS Storm Sewer Project  
**Managing Department:** Sewer Services EPMC: N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This project was created as an annual program for planned projects by the Department of Sewer Services in FY2006 for storm water infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	497,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	497,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	331	43	9	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	416	81	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** C7 FY2007- DSS Storm Sewer Project  
**Managing Department:** Sewer Services EPMC: N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Mar 2011

**Project Description:**

This project was created as an annual program for planned projects by the Department of Sewer Services in FY2007 for storm water infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	497,000
FY2010 Revised/FY2011 Proposed Life Budget	497,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	6	170	59	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	6	491	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** C8 FY2008 - DSS Storm Sewer Project  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Dec 2010

**Project Description:**

This project was created as an annual program for planned projects by the Department of Sewer Services in FY2008 for storm water infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	497,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	497,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	372	48	10	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	419	78	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** CD FY2012 - DSS Storm Water Projects  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jun 2013

**Project Description:**

This project is for the FY2011 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the storm sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	637,000
FY2010 Revised/FY2011 Proposed Life Budget	637,000
Increase/(Decrease) to Approved Life Budget:	0

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	0	0	0	124	157	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	0	637	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** CN FY2013 - DSS Stormwater Projects  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jun 2014

**Project Description:**

This project is for the FY2013 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the storm sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	660,000
FY2010 Revised/FY2011 Proposed Life Budget	660,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	126	165	0	0	0	0	0
<b>Commitments Budget</b>	0	0	0	0	660	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** **D7 FY2014 - DSS Stormwater Projects**  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jun 2015

**Project Description:**

This project is for the FY2014 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the storm sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	680,000
FY2010 Revised/FY2011 Proposed Life Budget	680,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	133	172	0	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	680	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** DJ FY2015 - DSS Stormwater Projects  
**Managing Department:** Sewer Services EPMC: N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	Jun 2016

**Project Description:**

This project is for the FY2015 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the storm sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	701,000
FY2010 Revised/FY2011 Proposed Life Budget	701,000
Increase/(Decrease) to Approved Life Budget:	0

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	0	0	0	0	0	0	137	175	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	701	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** DX FY2016 - DSS Stormwater Projects  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	
Project Completion:	May 2017

**Project Description:**

This project is for the FY2016 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the stormwater sewer system. This project is needed to replace aged infrastructure to restore integrity and reliability of the stormwater sewer system. Job numbers will be issued to identify the location of projects

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	720,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	720,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	184	139	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	720	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** FN FY2017 DSS Stormwater Projects  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	May 2018

**Project Description:**

This project is for the FY2017 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the storm sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

No significant O&M cost impact.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	745,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	745,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	187	145	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	745	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater On-Going  
**Activity Group/Project Title:** H5 FY2018 - DSS Stormwater Projects  
**Managing Department:** Sewer Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	May 2019

**Project Description:**

This project is for the FY2018 annual program of planned projects by the Department of Sewer Services for the rehabilitation and improvement of the storm sewer system. Job numbers will be issued to identify the location of projects issued to identify the location of projects.

**Impact on Operations:**

Not implementing this project may result in the possible failure of the infrastructure in the future with undesirable environmental and social consequences.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	770,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	770,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	193	293
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	0	770	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater Pumping Facilities  
**Activity Group/Project Title** **AA Rehab. Stormwater Pumping Station**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-III**  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Jan 2009

**Project Description:**

As in last year's budget, we have not included funding for stormwater pumping rehabilitation projects. We have been engaged in extensive discussions with the District over the last few years regarding how responsibilities for a variety of stormwater-related functions are divided among District agencies, including responsibility for stormwater pumping stations. To date, turn over of these activities to others is still anticipated.

**Impact on Operations:**

As this responsibility is to be transferred to DDOT, there is no impact on operating costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	1,172,937
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	0
<b>Increase/(Decrease) to Approved Life Budget:</b>	-1,172,937

**CLOSED**

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	343										
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	343										

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **AR FY2009 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Dec 2010

**Project Description:**

This project is for the FY2009 annual program of stormwater infrastructure projects that are coordinated with street rehabilitation or other construction work performed by the District of Columbia Department of Public Works. This project is needed to minimize public inconvenience caused by construction work and to save WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	160,000
FY2010 Revised/FY2011 Proposed Life Budget	160,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	6	20	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	160	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **B3 B3 FY2010 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2011

**Project Description:**

This project is for the FY2010 annual program of storm water infrastructure projects that are coordinated with street rehabilitation or other construction work performed by the Department of Public Works. This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	165,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	165,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	63	21	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	165	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **BM FY2011 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2012

**Project Description:**  
 This project is for the FY2011 annual program of storm water infrastructure projects that are coordinated with street rehabilitation or other construction work performed by the Department of Public Works. This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**  
 This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	170,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	170,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	65	21	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	0	170	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **CB FY2012 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2013

**Project Description:**

This project is for the FY2012 annual program of storm water infrastructure projects that are coordinated with street rehabilitation or other construction work performed by the Department of Public Works. This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	175,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	175,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	66	23	0	0	0	0	0
<b>Commitments Budget</b>	0	0	0	0	175	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **CL FY2013 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2014

**Project Description:**

This project is for the FY2013 annual program of planned projects by the District Department of Transportation for the rehabilitation and improvement of the storm water system. This project is needed to replace aged infrastructure to restore integrity and reliability of the storm sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	180,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	180,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	69	23	0	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	180	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **D8 FY2014 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2015

**Project Description:**

This project is for the FY2014 annual program of planned projects by the District Department of Transportation for the rehabilitation and improvement of the storm water system. This project is needed to replace aged infrastructure to restore integrity and reliability of the storm sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	185,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	185,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	71	24	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	185	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **DK FY2015 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Sep 2015

**Project Description:**

This project is for the FY2015 annual program of planned projects by the District Department of Transportation for the rehabilitation and improvement of the storm water system. This project is needed to replace aged infrastructure to restore integrity and reliability of the storm sewer system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	191,000
FY2010 Revised/FY2011 Proposed Life Budget	191,000
Increase/(Decrease) to Approved Life Budget:	0

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	0	0	0	0	0	0	98	0	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	191	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **DT FY2016 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2016

**Project Description:**

This project is for the FY2016 annual program of storm water infrastructure projects that are coordinated with street rehabilitation or other construction work performed by the Department of Public Works. This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	196,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	196,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	87	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	196	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **FM FY2017 DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2017

**Project Description:**

This project is for the FY2017 annual program of planned projects by the District Department of Transportation for the rehabilitation and improvement of the storm water system.

**Impact on Operations:**

No significant O&M cost impact.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	205,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	205,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	90	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	205	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **H4 FY2018 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2018

**Project Description:**

This project is for the FY2018 annual program of planned projects by the District Department of Transportation for the rehabilitation and improvement of the stormwater system.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	215,000
Increase/(Decrease) to Approved Life Budget:	215,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	99	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	0	215	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** P1 FY2000 - DDOT Stormwater Projects  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Dec 2010

**Project Description:**

This project was created as an annual program for planned DPW projects in FY2000 for stormwater infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	755,198
FY2010 Revised/FY2011 Proposed Life Budget	755,198
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	178	18	4	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	500	255	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** P2 FY2001 - DDOT Stormwater Projects  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This project was created as an annual program for planned projects by the Department of Public Works in FY2001 for stormwater infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	713,955
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	713,955
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	564	7	6	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	714	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **P3 FY2002 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Nov 2010

**Project Description:**

This project was created as an annual program for planned projects by the Department of Public Works in FY2002 for stormwater infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	184,672
FY2010 Revised/FY2011 Proposed Life Budget	184,672
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	111	4	2	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	185	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** P4 FY2003 - DDOT Stormwater Projects  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Dec 2010

**Project Description:**

This project was created as an annual program for planned projects by the Department of Public Works in FY2003 for stormwater infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	175,000
FY2010 Revised/FY2011 Proposed Life Budget	175,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	7	23	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	175	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **P5 FY2004 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<u>Phase</u>	<u>Start Date</u>
Design:	
Construction:	
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This project was created as an annual program for planned projects by the Department of Public Works in FY2004 for stormwater infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	<input type="text" value="20,000"/>
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	<input type="text" value="20,000"/>
<b>Increase/(Decrease) to Approved Life Budget:</b>	<input type="text" value="0"/>

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	1	3	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	20	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **P8 FY2007 - DDOT STORMWATER PROJECTS**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This project was created as an annual program for planned projects by the Department of Public Works in FY2007 for stormwater infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	155,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	155,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	155	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** DDOT Stormwater  
**Activity Group/Project Title:** **P9 FY2008 - DDOT Stormwater Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This project was created as an annual program for planned projects by the Department of Public Works in FY2008 for stormwater infrastructure improvements. Job numbers will be issued to identify location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	1,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	6	20	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	1,000	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater Research & Program Mgmt  
**Activity Group/Project Title:** **AT Stormwater Program Management**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-III  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2021

**Project Description:**

This project provides engineering program management services for the stormwater service area capital projects and design management services for the rehabilitation or replacement of 15 stormwater pumping stations. It also provides engineering services for condition assessment of the storm sewer system and development of conceptual design for the storm sewer system capital projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	7,630,190
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	10,630,190
<b>Increase/(Decrease) to Approved Life Budget:</b>	3,000,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	5,263	1,022	794	257	229	278	223	188	196	267	939
<b>Commitments Budget</b>	7,103	527	1,400	0	0	0	0	1,600	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Stormwater Service Area  
**Program Title:** Stormwater Trunk/Force Sewers  
**Activity Group/Project Title:** **BO Future Stormwater Projects**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-III**  
**Priority:** Good Engineering, Low, M&F over long term

Phase	Start Date
Design:	
Construction:	
Project Completion:	Oct 2014

**Project Description:**

This project provides design and construction services for stormwater sewer interceptors, trunk sewers and force mains that require upgrades. Sewers rehabilitated by this project are defined by the major planning and condition assessment program underway for the stormwater sewer system. As the assessment of the storm sewer system progresses and specific rehabilitation needs are identified, jobs will be created under this project to remediate system problems.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	18,405,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	18,605,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	200,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,051	479	1,175	2,467	1,860	930	5	0	0	0	0
<b>Commitments Budget</b>	1,756	4,378	5,503	2,998	2,000	1,970	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



District of Columbia Water and Sewer Authority

# CAPITAL IMPROVEMENT PROGRAM

APPROVED FY 2009-2018



## Section VII WATER SYSTEM SERVICE AREA

*At DC WASA's Bryant Street water pumping station, aging 15 ton water main valves are replaced, improving the reliability of the water distribution system. DC WASA pumps 153 million gallons of water per day.*



## **WATER**

Projects in the Water Service Area are designed to maintain safe, adequate and reliable potable water supply to customers and for fire protection. Categories of projects include the rehabilitation and replacement of water mains, storage facilities, and pumping stations. This area also includes water service connection and meter replacements.

The water distribution system includes appurtenances necessary for proper system operation, inspection, and repair. DC WASA's system includes approximately 1,300 miles of pipe and over 36,000 valves of various sizes. A variety of valve types allow flow control, prevent air entrapment, allow watermain draining, permit flow in only one direction, and allow water transfer between service areas during emergencies. The system also includes approximately 9,000 hydrants in public space for water main system operational requirements and to support DC Fire and Emergency Services.

The lifetime budget for the Water Service Area is approximately \$1.2 billion, which is \$192 million higher than last year's CIP, primarily due to the implementation of the recommendations in the Water System Facility Plan offset for the reduction in the Lead Service Replacement Program. Major water projects include construction of a new pumping station to serve areas east of the Anacostia River; water main replacements, rehabilitations and extensions; lead service replacements; fire hydrant replacements; and valve replacements.

### **Water System Facilities Planning**

DC WASA began work on its first Water System Facilities Plan in 1998 and completed it in September 2000. A facilities plan evaluates the existing system and provides an assessment of improvements needed. The 2000 Facilities Plan identified fourteen projects and a small diameter water main rehabilitation program to be included in the CIP. A recent update of the facilities plan identified current system needs and related potential CIP projects. Specifically, the report indicated a need for a more aggressive small diameter water main rehabilitation program, given that approximately half of the small diameter water mains in service are more than 75 years old and over 15% are more than 100 years old.

The increase in the lifetime budget for this service area reflects the findings of this update. The ten year CIP shows a net increase of about \$142 million, excluding the reduction for the Lead Service Replacement Program, and reflects the ramp up to the one percent per year replacement as recommended in the Plan beginning in FY 2010 with full implementation of the small mains program in FY 2014 and the large mains program in FY 2016.

A partial listing of the projects that are currently planned to begin in FY 2010 are set forth below.

#### **Water Distribution**

- AK01 - Fourth High Check Valve and WSSC Connections
- BZ02 – Large Valve Replacement

- DF01 – 24” Water Main Rehabilitation – Rock Creek Crossing
- F602 – Steel Main Rehabilitation
- GU01 - Crosstown Water Main Rehabilitation
- S501 and S504 – Large Diameter Water Main Repairs

#### Pumping Stations

- AY01 – Upgrades to FT Reno Pumping Station
- F801 – 16<sup>th</sup> and Alaska Pump Station Upgrades
- FH01 – Discharge Piping at Bryant Street Station
- M613 Bryant Street Pumping Station Hydraulic Loop

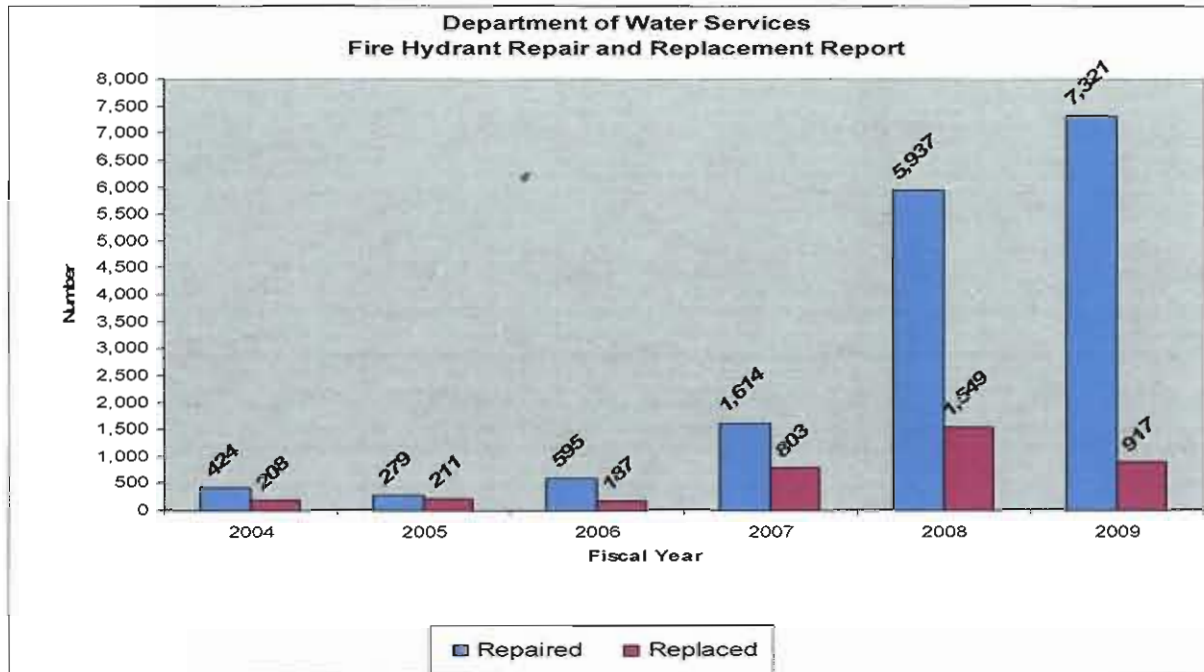
#### **Water Distribution System – \$618.4 million**

*(project pages VII-8 to VII-45)*

This program provides for rehabilitation, replacement or extension of the water distribution system through several project categories. This year’s water distribution system budget includes increases for a variety of water quality-related work, primarily in the small main area. Highlights of the work under this program by project category are:

- *Valve Replacements* - This involves replacing defective valves throughout the water distribution system. Operable valves are necessary to complete the annual flushing program, for routine and emergency system repairs, and for support of capital projects that require valve operation to isolate portions of the system. Six contracts replacing 112 large valves (16-inch and larger) are either completed or under construction, and three additional contracts to replace approximately 50 large valves are planned for construction in FY 2010 through FY 2012. Additionally, a contract that includes replacing 38 small diameter valves throughout the District commenced construction in FY 2009.
- *Fire Hydrant Program* - The original \$26.5 million program provided funding for the replacement/upgrade of up to 3000 of the critical public fire hydrants on behalf of the District of Columbia government over a five year period that began in FY 2006. Through FY 2009, over 3,400 hydrant replacements/upgrades in public space were completed by DC WASA as shown in the graph below. An additional 2700 have been proposed to DC Fire and Emergency Medical Services to be replaced by FY 2015.





In addition, repairs and maintenance are ongoing. In October 2007, DC WASA and the DC Fire and Emergency Medical Services entered into a Memorandum of Understanding to jointly inspect all public fire hydrants annually within the District and provide an identification and replacement program for a portion of the inventory. As DC WASA is well on its way to completing the original quantity target prior to the end of the five year period, the continuation of the phase two program has been included within this budget proposal for approximately \$30 million over a five year period. As the cost is born by the District of Columbia (DC) and not the rate payers, the proposal will be subject to review and acceptance by DC officials and the appropriate budget process. However, inclusion within the DC WASA budget proposal will provide congressional contracting authority that will be required to move forward. A major highlight through FY 2009 has been both the significant replacement of outdated fire hydrants and the use of computer technology to geographically locate all public fire hydrants and provide public access to the current condition of the hydrants through the use of Google Earth.

- Small Diameter Water Main Rehabilitation* - Work includes rehabilitating small diameter (12-inch diameter and smaller) water mains to improve system reliability as well as improve water pressure, maintain water quality and ensure adequate flows in the system. Construction is underway to replace small diameter mains in the new pressure zone east of the Anacostia River with

construction scheduled to be completed in FY 2010. Higher pressures combined with older mains in this area makes replacement necessary. Additionally, a holistic approach to the water main rehabilitation program was implemented. The concept for this approach is, for a given block where the small diameter water main replacement is required DC WASA will also assess all the necessary work to be done. For example, replacement of all valves and hydrants will be accomplished at the same time as required. Finally, it was coordinated that the District Department of Transportation will complete a majority of the road and sidewalk restoration work after the water mains are installed. The concept is to complete all needed improvements to a block at one time to minimize disruption and costs. Future fiscal year small diameter water main replacement projects will follow this holistic approach.

- *Cleaning & Lining Large Diameter Water Mains* – DC WASA is re-evaluating the rehabilitation program for large diameter water mains and alternative rehabilitation or replacement methods may be proposed in the future.

#### **On-Going Water Projects – \$68.4 million**

*(project pages VII-46 to VII-58)*

The ongoing program includes small projects for extension of water mains to service new development in the District of Columbia, repairing water main breaks, replacing valves and fire hydrants, replacing water service connections, and other minor water main rehabilitation work. Budgeted projects reflect the substantial costs of street repaving due to the street repair and restoration regulations required of DC WASA and other area utilities.

#### **Water Pumping Facilities – \$133.3 million**

*(project pages VII-59 to VII-68)*

This program includes several projects to rehabilitate or replace water-pumping stations in the system.

- Construction of a new Anacostia Pumping Station at the same site of the existing pumping station commenced in FY 2007 and was completed in early FY 2009. The new pumping station includes pumps that will serve the new proposed service area in the southern portion of the Anacostia first high service area. The total project budget is noted as \$39 million, but includes a new proposal to consolidate customer service personnel at this facility under the recent land use plan. In FY 2011, this budget will be separated and reduced to \$32 million.
- A major rehabilitation of the Bryant Street Pumping Station to meet current code requirements and maintain the reliability of the water distribution system was substantially completed in FY 2007. The final closeout of the construction contract was completed in FY 2009. Work included replacing 11 high lift pumps, architectural improvements to the building, replacing heating, cooling and ventilating system, paving and site improvements, replacing water mains, cathodic protection of a 48-inch steel water main, rehabilitating the warehouse and shop buildings, and an electronic security system. Also, upgrading SCADA for the water distribution system is included. The total budget for this project is \$62.5 million.
- The Fort Reno Pumping Station will be upgraded to improve pressure in the fourth high service area in the northwest quadrant of the District. This project includes the replacement of pump controls, three existing variable drives and electrical equipment. The improvements also include an emergency backup generator and twenty-eight (28) remote pressure monitoring stations at critical

locations in the water distribution system, which will improve system operations. Construction is scheduled to commence in FY 2010 at a total project budget of \$10.8 million.

- A project to upgrade the 16<sup>th</sup> and Alaska Avenue Pumping Station is included in the CIP and provides for the installation of redundant suction and discharge headers; replacement of the electrical distribution equipment and controls; improvements to the ventilation system for cooling of the station and provisions for a second electric feeder. The total budget for this project is \$4.4 million. Construction is scheduled to commence in FY 2011.

**DDOT Water Program – \$39.2 million**

*(project pages VII-69 to VII-87)*

This program includes projects for relocation, rehabilitation, replacement and extension of water mains, for which the work is completed under District Department of Transportation (DDOT) construction contracts for street paving or reconstruction.

**Water Storage Facilities – \$49.6 million**

*(project pages VII-88 to VII-91)*

Studies have identified the need for several new storage facilities to support changing development patterns, to provide additional water pressure to certain areas of the District, and to provide emergency backup service. The most immediate need is for two million gallons of elevated storage tank in the southern portion of the Anacostia first high service area. Coordination with District authorities to obtain zoning approvals will be completed by early FY 2011 and construction scheduled to be completed in FY 2013. In addition, siting studies for the two new storage facilities are scheduled as follows: 5 million gallon reservoir in the 2<sup>nd</sup> high service area, (Project MR), and a 2 million gallon elevated storage tank in the 4<sup>th</sup> high service area, (Project MQ). Design of each of these facilities follows the completion of the siting study with construction commencing in FY 2012 and FY 2017 respectively.

Design for the emergency rehabilitation of the Fort Stanton Reservoir #2 (Project FA) is completed with construction scheduled to commence in FY 2010. The emergency work is required to stop the leakage of reservoir, and repair the damage caused by the failure of the embankment and drainage system near the reservoir.

**Water Service Area - Management – \$51.1 million**

*(project pages VII-92 to VII-92)*

This program area provides engineering program management services for the water system capital improvements program, including assessing system needs, developing facilities plans and conceptual designs, and managing design consultants through the development of scope of work, cost estimates, task orders or agreements, and design document review. In FY 2009, a water system facilities plan was completed and the recommendations, as indicated above, have been included in both the lifetime budgets and the ten year CIP. The plan includes water demand projections and identifies needs through 2030.

**Lead Service Replacement Program – \$200 million**

*(project pages VII-93 to VII-93)*

In FY 2009, DC WASA modified its Lead Service Replacement Program to reduce the number of services to be replaced annually. This resulted in a reduction in the lifetime budget of \$99.0 million as well as a reduction in the 10-year CIP of \$80.3 million. We will continue to monitor the performance of the program to determine if any further adjustments are warranted.

**Metering – \$42.8 million**

*(project pages VII-94 to VII-95)*

The meter installation / Automated Meter Reading (AMR) program, representing approximately 130,000 customer locations is substantially completed. We are also in the process of upgrading the automated meter reading equipment. This planned upgrade is part of DC WASA's preventative maintenance program for the Data Collection Units (DCU's), which collect approximately 260,000 meter readings per day and are an essential asset to our billing process. The upgrade allows DC WASA to move to the current version of AMR software in addition to providing two-way communication from the meter transmitting units (MTU's) to the data collection units (DCU's). The original equipment provided for one-way communication. The AMR upgrade will be done in phases with the DCU replacements starting in FY 2010.

The battery component of MTU's units is rapidly approaching the end of its useful life and the units will need to be replaced beginning in FY 2012. The costs associated with this new program have not been included in the 10 year CIP program at this time. This is due to the fact that the overlapping lives of the water meters and AMR units (residential meters accuracy begins to diminish after about 12 – 15 years) provide us with an opportunity to analyze the most cost effective manner in which to provide our customers with not only bills based on actual reads but also ones that reflect actual usage. The cost estimates could approach \$40 - \$50 million or more, over the next ten years depending on the outcome of the analysis.

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **A3 16" Tie-in to McMillan Plant**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Board Policy, WASA's commitment to outside agencies

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Apr 2003
<b>Construction:</b>	Feb 2006
<b>Project Completion:</b>	Jan 2010

**Project Description:**

This project includes the installation of approximately 4,600 linear feet of 16-inch diameter water main along Michigan Avenue to connect the existing 16-inch Third High water main at Harewood Road, NE to the McMillan Water Treatment Plant (WTP). This project provides a looped main along Michigan Avenue improving the service reliability to the WTP and eliminates the dead end condition of the 16-inch main along Harewood Road.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	3,418,948
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	3,418,948
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	2,369	271	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	3,019	400	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **AK WSSC Interconnections**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, Low, M&F over long term

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Dec 2008
<b>Construction:</b>	Apr 2011
<b>Project Completion:</b>	Sep 2012

**Project Description:**

This project entails the upgrade of 5 metered interconnections between WASA and WSSC to improve water supply reliability by providing an alternative source of supply during emergency conditions.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	2,312,238
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	2,566,736
<b>Increase/(Decrease) to Approved Life Budget:</b>	254,498

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	702	84	308	931	0	0	0	0	0	0	0
<b>Commitments Budget</b>	884	0	1,683	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **BZ Large Valve Repl. (Contracts 8 & 9)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
<b>Design:</b>	Mar 2009
<b>Construction:</b>	Jan 2010
<b>Project Completion:</b>	Jul 2013

**Project Description:**

Replacement of 40 broken large diameter valves under two separate contracts through out the water distribution system. Replacement of inoperable valves will improve the reliability of the system by reducing the number of valves that would need to be closed under emergency conditions. Increasing the number of operable valves in the system will also reduce the number of customers that may be impacted during emergency conditions.

**Impact on Operations:**

This project will improve valve operations thus increasing schedule efficiencies. O & M cost avoidance will be realized.

**Funding by User (percent):**

DC - 71.47%  
 EPA/Fed - 28.53%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	7,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	7,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	144	343	1,150	1,040	851	0	0	0	0	0	0
<b>Commitments Budget</b>	300	4,530	0	2,170	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **C9 Large Diameter Water Mains 1**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-II**  
**Priority:** Good Engineering, Low, M&F over long term

Phase	Start Date
Design:	Dec 2014
Construction:	Apr 2016
<b>Project Completion:</b>	<b>Oct 2018</b>

**Project Description:**

Replacement of 12,000 linear feet of 30-inch cast iron water main from the Georgetown Reservoirs to Washington Circle, NW is required, as a result of a pipe condition assessment. Installed in 1859, this pipe is one of the oldest transmission mains in the District and is located in MacArthur Boulevard, Canal Road, and M Street, NW. A section of this 30-inch cast iron pipe broke in December 2002, which resulted in low pressure in the First High Service Area because this main serves as a critical link between Dalecarlia and the First High Service Area.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	18,400,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	18,400,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	137	538	1,221	6,576	4,918	401
<b>Commitments Budget</b>	0	0	0	0	0	300	1,370	16,730	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **D4 Small Valve Replacements 5**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Mar 2007
Construction:	Nov 2009
<b>Project Completion:</b>	Jun 2011

**Project Description:**

Replacement of broken critical small diameter valves at thirty five locations through out the water distribution system. Replacement of critical inoperable valves will improve the reliability of the system by reducing the number of valves that would need to be closed under emergency conditions. Increasing the number of operable valves in the system will also reduce the number of customers that may be impacted during emergency conditions.

**Impact on Operations:**

This project realize O & M cost avoidance in future budgets.

**Funding by User (percent):**

DC - 61.31%  
 EPA/Fed - 38.69%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	1,038,883
FY2010 Revised/FY2011 Proposed Life Budget	1,166,132
Increase/(Decrease) to Approved Life Budget:	127,249

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	191	215	157	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	238	928	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **DC Fire Hydrant Replacement Program**  
**Managing Department:** Water Services **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**

This project includes the replacement of 250 broken fire hydrants through out the water distribution system. DWS began a comprehensive fire hydrant repair and assessment program in FY 2005 resulting in a following project (DL) for the replacement and upgrade of up to 3000 fire hydrants on behalf of The District of Columbia.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC -  
 EPA/Fed -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY2009 Approved Life Budget</b>	1,567,482
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	0
<b>Increase/(Decrease) to Approved Life Budget:</b>	-1,567,482

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **DE Small Diameter Water Main Rehab 12**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Good Engineering, Low, M&F over long term

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Apr 2015
<b>Construction:</b>	Sep 2016
<b>Project Completion:</b>	Feb 2019

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace deteriorated pipe, improve available fire flows and water quality.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	13,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	37,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	24,000,000

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	0	0	0	0	0	634	1,886	8,758	13,026	4,175
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	0	0	0	0	0	3,080	33,920	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **DF Rehab 24" Steel Main - Rock Creek**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, Low, M&F over long term

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Aug 2010
<b>Construction:</b>	Oct 2011
<b>Project Completion:</b>	Apr 2013

**Project Description:**

This project is to rehabilitate 300 linear feet a of 24-inch low service steel main under the ramp of the Whitehurst Freeway and Rock Creek in vicinity of K and 30th Streets, NW. Rehabilitation includes lining the existing 24-inch water main with HDPE and replacement of thrust blocks, couplings and fittings. The water main in 29th and K Streets, NW will be replaced with new HDPE pipe.

**Impact on Operations:**

This project will have no material impact in the operating budget

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	838,883
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	966,132
<b>Increase/(Decrease) to Approved Life Budget:</b>	127,249

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	147	34	42	361	148	0	0	0	0	0	0
<b>Commitments Budget</b>	216	70	0	680	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **DL City Wide Fire Hydrant Program**  
**Managing Department:** Water Services **EPMC: EPMC-II**  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	Jul 2007
Project Completion:	Sep 2013

**Project Description:**

This project provides funding for the replacement and upgrade of approximately 9,000 fire hydrants on behalf of The District government. It is expected that approximately 3000 broken and older model type fire hydrants will be replaced or rehabilitated under this project.

**Impact on Operations:**

New or rehabilitated hydrants will reduce the number of service calls required by operating crews. Since the maintenance cost of the hydrants is reimbursed by The DC government, there will be no impact on retail rate payers.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	25,539,718
FY2010 Revised/FY2011 Proposed Life Budget	25,539,718
Increase/(Decrease) to Approved Life Budget:	0

Disbursements Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	15,306	5,616	646	0	0	0	0	0	0	0	0
Commitments Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	24,402	768	0	235	135	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **F1 Small Diameter Water Main Rehab 13**  
**Managing Department:** Engineering and Technical Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Apr 2016
<b>Construction:</b>	Sep 2017
<b>Project Completion:</b>	Feb 2020

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace deteriorated pipe, improve available fire flows and water quality.

**Impact on Operations:**

Replacement of aging infrastructure will result in less future maintenance and O & M cost avoidance.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	13,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	38,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	25,000,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	651	1,932	9,117	20,410
<b>Commitments Budget</b>	0	0	0	0	0	0	0	3,160	34,840	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority**  
**FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **F2 Small Diameter Water Main Rehabilitation (14)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Apr 2017
<b>Construction:</b>	Sep 2018
<b>Project Completion:</b>	Feb 2021

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants, or to clean and line unlined cast iron pipe provided the pipe is in sound condition. It includes the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program serves to gradually replace deteriorated pipe, and improve available fire flows and water quality

**Impact on Operations:**

No significant O&M cost impact.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	13,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	39,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	26,000,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	665	2,009	32,216
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	3,250	35,750	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **F6 Steel Water Mains Rehabilitation Phase I**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	Aug 2010
Construction:	Dec 2011
<b>Project Completion:</b>	Jan 2015

**Project Description:**

This project is to evaluate, rehabilitate and/or install cathodic protection systems on high priority large diameter steel water mains, where there is a near term need to rehabilitate and/or install cathodic protection in order to mitigate the effects corrosion degradation.

**Impact on Operations:**

No significant O&M cost impact.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	8,340,000
FY2010 Revised/FY2011 Proposed Life Budget	8,340,000
Increase/(Decrease) to Approved Life Budget:	0

Disbursements Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	2	27	202	1,693	1,473	2,139	394	0	0	0	0
Commitments Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	32	250	180	4,140	3,738	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** FE 20" Low Service Main & PRV  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Apr 2012
Construction:	Aug 2013
<b>Project Completion:</b>	Feb 2015

**Project Description:**

This project includes the installation of approximately 4,500 linear feet of 20-inch water main in the Low Service Area and a pressure reducing valve (PRV) between the 1st High and the Low Service Areas. The existing Low Service 20-inch main will be extended from the intersection of 17th and C Streets, NE to the intersection of Potomac Avenue, G Street and Kentucky Avenue, SE where it will connect to the existing Low Service 30-inch water main. The PRV between the 1st High and the Low Service Areas will also be located at the intersection of Potomac Avenue, G Street and Kentucky Avenue, SE.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	4,910,000
Increase/(Decrease) to Approved Life Budget:	4,910,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	80	254	2,449	713	0	0	0	0
<b>Commitments Budget</b>	0	0	0	400	4,510	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** FT Steel Water Mains Rehab Phase II  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Apr 2017
Construction:	Aug 2018
Project Completion:	Mar 2022

**Project Description:**

This project is to install cathodic protection (CP) systems or rehabilitate twenty-one (21) large diameter steel mains. There is a need of CP systems or rehabilitation for these large diameter steel mains in order to mitigate the effects corrosion degradation of these pipelines. This project includes an evaluation of these mains to determine the detailed scope of CP systems or rehabilitation required.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	38,500,000
Increase/(Decrease) to Approved Life Budget:	38,500,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	663	2,217	31,520
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	3,200	35,300	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **FU 2nd High Air Vacuum Valves**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Apr 2013
Construction:	Sep 2014
<b>Project Completion:</b>	Feb 2016

**Project Description:**

This project consists of the installation of automatic air / vacuum valves and pressure transmitter at the highpoint of an existing 2nd High Service Area 36-inch concrete water main near Rock Creek Church Road, NW.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	830,000
Increase/(Decrease) to Approved Life Budget:	830,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	14	43	413	122	0	0	0
<b>Commitments Budget</b>	0	0	0	0	70	760	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **GQ Fire Hydrant Replacement Program – Phase II**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	Jul 2010
Construction:	Jun 2010
<b>Project Completion:</b>	Aug 2015

**Project Description:**

This project provides funding for the replacement and upgrade of fire hydrants in the District. It is expected that approximately 2,700 broken and older model type fire hydrants will be replaced and 2,700 will be upgraded under this project if accepted by The District of Columbia under the October 2007 Memorandum of Understanding. This program is expected to be totally reimbursed by The District Government and will not impact retail rate payers.

**Impact on Operations:**

There will be no significant impacts on operational costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	29,600,000
FY2010 Revised/FY2011 Proposed Life Budget	29,600,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	510	4,271	4,782	4,352	4,419	2,870	0	0	0	0
<b>Commitments Budget</b>	0	5,100	7,520	5,580	5,820	5,580	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **GR Small Diameter Water Main Rehab. 15**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Apr 2018
Construction:	Sep 2018
<b>Project Completion:</b>	Feb 2021

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants, or to clean and line unlined cast iron pipe provided the pipe is in sound condition. It includes the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program serves to gradually replace deteriorated pipe, and improve available fire flows and water quality.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	40,000,000
Increase/(Decrease) to Approved Life Budget:	40,000,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	924	35,247
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	0	40,000	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **GU Crosstown Water Main Rehabilitation**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Dec 2009
<b>Construction:</b>	Dec 2010
<b>Project Completion:</b>	Jun 2012

**Project Description:**

This project is for the rehabilitation of a portion of the Crosstown Water Main which is currently leaking and out of service since December 19, 2008. The leak surfaced through Rock Creek Parkway and on the bank of Rock Creek in Rock Creek Park in the vicinity of 25th and N Streets NW, and was first reported to DC WASA by the National Park Service on December 4, 2008.

**Impact on Operations:**

DWS will have to operate for a few hours on a regular basis on the tunnel section of the Crosstown Water Main to flush the section and avoid water quality problems. Depending on the chlorine residual this operation may have to be done on a weekly basis.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	12,400,933
<b>Increase/(Decrease) to Approved Life Budget:</b>	12,400,933

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	644	4,180	4,347	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	1,141	11,260	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **GX Large Dia. Water Main Repl. II**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, Low, M&F over long term

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Apr 2018
<b>Construction:</b>	Sep 2019
<b>Project Completion:</b>	Feb 2022

**Project Description:**

This project is to replace or rehabilitate large diameter (16-inch and larger) water mains. The objective of this project is to rehabilitate large diameter mains when the pipe is in sound condition or to replace it if the condition warrants.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	20,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	20,000,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	320	17,416
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	0	1,600	18,400

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **HA Water Capital Equipment**  
**Managing Department:** Water Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, Low, M&F over long term  
**Project Description:**  
 Annual program for the repair and replacement of large motors and pumps in the Water Service area  
**Impact on Operations:**

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2011

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	520,000
Increase/(Decrease) to Approved Life Budget:	520,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	154	251	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	260	260	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **MK 877A1 - 24" Wtrmain Ft. Stanton Res to MLK AVE**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-II**  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Aug 2002
Construction:	Sep 2007
<b>Project Completion:</b>	<b>Dec 2010</b>

**Project Description:**

This project includes the installation of approximately 5,300 linear feet of 24-inch diameter water main connecting the 20-inch diameter main along MLK Jr. Avenue to the Fort Stanton reservoirs. This project will provide an alternate feed to the Fort Stanton Reservoirs and proposed First High South Low Lift Pumping Station, improving the overall reliability of the Anacostia First High service area.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	17,582,303
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	18,091,298
<b>Increase/(Decrease) to Approved Life Budget:</b>	508,995

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	11,557	3,721	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	18,061	30	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **MT Small Diameter Watermain Rehab. (1)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jul 2003
<b>Construction:</b>	Sep 2005
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace pipe that has exceeded the useful service life, improve available fire flows, and remove corrosion by-products from the inside of the pipe improving water quality and reducing the potential for creation of biofilms and bacteriological activity that can impair the quality of potable water.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	12,262,120
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	12,771,115
<b>Increase/(Decrease) to Approved Life Budget:</b>	508,995

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	9,687	1,531	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	12,559	212	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **MU Small Diameter Watermain Rehab. (2)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Aug 2005
<b>Construction:</b>	Jul 2008
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace pipe that has exceeded the useful service life, improve available fire flows, and remove corrosion by-products from the inside of the pipe improving water quality and reducing the potential for creation of biofilms and bacteriological activity that can impair the quality of potable water.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	15,851,242
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	16,423,862
<b>Increase/(Decrease) to Approved Life Budget:</b>	572,620

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	5,731	5,549	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	16,152	272	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **MV Small Diameter Watermain Rehab. (3)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	May 2006
<b>Construction:</b>	Mar 2009
<b>Project Completion:</b>	Mar 2011

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace pipe that has exceeded the useful service life, improve available fire flows, and remove corrosion by-products from the inside of the pipe improving water quality and reducing the potential for creation of biofilms and bacteriological activity that can impair the quality of potable water.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 49.29%  
 EPA/Fed - 50.71%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	16,341,029
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	16,913,649
<b>Increase/(Decrease) to Approved Life Budget:</b>	572,620

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	2,527	5,729	2,030	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	16,914	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **MW Small Diameter Watermain Rehab. (4)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Aug 2008
<b>Construction:</b>	Oct 2007
<b>Project Completion:</b>	Dec 2012

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace pipe that has exceeded the useful service life, improve available fire flows, and remove corrosion by-products from the inside of the pipe improving water quality and reducing the potential for creation of biofilms and bacteriological activity that can impair the quality of potable water.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 76.23%  
 EPA/Fed - 23.77%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	8,686,998
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	9,005,120
<b>Increase/(Decrease) to Approved Life Budget:</b>	318,122

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,914	1,850	855	346	0	0	0	0	0	0	0
<b>Commitments Budget</b>	8,560	445	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **MX Small Diameter Watermain Rehab. (5)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jan 2008
<b>Construction:</b>	Oct 2008
<b>Project Completion:</b>	Mar 2015

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace pipe that has exceeded the useful service life, improve available fire flows, and remove corrosion by-products from the inside of the pipe improving water quality and reducing the potential for creation of biofilms and bacteriological activity that can impair the quality of potable water.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 62.00%  
 EPA/Fed - 38.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	12,621,845
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	13,067,216
<b>Increase/(Decrease) to Approved Life Budget:</b>	445,371

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	618	782	3,091	1,996	861	899	259	0	0	0	0
<b>Commitments Budget</b>	952	8,095	1,250	2,770	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** MY Elim. Dead Ends (Contract 3 and 4)  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-II  
**Priority:** Health Safety

Phase	Start Date
Design:	Jun 2003
Construction:	Oct 2005
<b>Project Completion:</b>	Jan 2012

**Project Description:**

These are the third and fourth of four contracts to eliminate the potential for stagnant water at dead ends by looping of the water distribution network or by adding a fire hydrant at the dead end to allow flushing of the pipeline.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	8,529,952
FY2010 Revised/FY2011 Proposed Life Budget	8,529,952
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	6,742	844	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	8,291	239	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **N8 Small Diameter Watermain Rehab. (6)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Apr 2009
Construction:	Jan 2010
Project Completion:	Jul 2012

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants, or to clean and line unlined cast iron pipe provided the pipe is in sound condition. It includes the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program serves to gradually replace deteriorated pipe, and improve available fire flows and water quality.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 41.04%  
 EPA/Fed - 58.96%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	13,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	13,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	199	1,841	4,840	1,520	0	0	0	0	0	0	0
<b>Commitments Budget</b>	900	12,100	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **N9 Small Diameter Watermain Rehab. (7)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Aug 2010
<b>Construction:</b>	Dec 2011
<b>Project Completion:</b>	Jun 2014

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace pipe that has exceeded the useful service life, improve available fire flows, and remove corrosion by-products from the inside of the pipe improving water quality and reducing the potential for creation of biofilms and bacteriological activity that can impair the quality of potable water.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	13,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	18,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	5,000,000

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	47	782	2,412	7,074	2,976	0	0	0	0	0
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	0	1,500	0	16,500	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** NA 863A1 - Clean & Line 20" 4th High Wtrmain  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-II  
**Priority:** Good Engineering, Low, M&F over long term

Phase	Start Date
Design:	Nov 2003
Construction:	Mar 2009
Project Completion:	Nov 2010

**Project Description:**

This project is to install approximately 2,000 linear feet of 20-inch diameter water main in the 4th High Service Area, to relocate portions of the existing 20-inch cast iron water main from private properties to public space.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	4,599,832
FY2010 Revised/FY2011 Proposed Life Budget	4,454,330
Increase/(Decrease) to Approved Life Budget:	-145,502

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget	1,078	1,397	10	0	0	0	0	0	0	0	0
Commitments Budget	4,454	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **NB Small Diameter Watermain Replacements**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	Aug 2003
<b>Project Completion:</b>	Dec 2009

**Project Description:**

This project entails replacement of undersized and defective 12-inch diameter and smaller water mains at various locations city wide. Replacement of approximately 3,510 linear. ft. of 12-inch diameter water main at 6th Street, NW from College Street to Girard Street and at Girard Street, NW from 6th Street to Georgia Avenue. Replacement of approximately 12,840 linear. ft. of 8-inch diameter water main at the following locations:  
 East Capitol Street, NE from 46th Street to 55th Street; Alley Square 442, "S" Street and Ward Court, NW.; 4th Street, NE from Eye Street to K Street.; Linden Place, NE from 12th Street to 13th Street.; 14th Street, NE from East Capitol Street to North Carolina Avenue.; Nicholson Street, NE from 2nd Street to 3rd Street.; Crittenden Street, NE from 8th Street to 10th Street.; Eastern Avenue, NE from Division Avenue to Lee Street.; Lee Street, NE from 51st Street to Eastern Avenue.

This project is needed to replace aged infrastructure to restore integrity and reliability to the water distribution system. This project includes former projects NB, OR, OV, OW and OX.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	6,662,560
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	0
<b>Increase/(Decrease) to Approved Life Budget:</b>	-6,662,560

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	5,999										
<b>Commitments Budget</b>	5,999										

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **00 Small Diameter Watermain Rehab. (8)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Apr 2011
Construction:	Aug 2012
Project Completion:	Feb 2015

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace pipe that has exceeded the useful service life, improve available fire flows, and remove corrosion by-products from the inside of the pipe improving water quality and reducing the potential for creation of biofilms and bacteriological activity that can impair the quality of potable water.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	13,000,000
FY2010 Revised/FY2011 Proposed Life Budget	23,000,000
Increase/(Decrease) to Approved Life Budget:	10,000,000

Disbursements Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	0	0	389	1,161	5,413	7,969	2,125	0	0	0	0
Commitments Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	0	0	1,910	21,090	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **O1 Small Diameter Watermain Rehab. (9)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Apr 2012
Construction:	Sep 2013
Project Completion:	Feb 2016

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace pipe that has exceeded the useful service life, improve available fire flows, and remove corrosion by-products from the inside of the pipe improving water quality and reducing the potential for creation of biofilms and bacteriological activity that can impair the quality of potable water.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	13,000,000
FY2010 Revised/FY2011 Proposed Life Budget	28,000,000
Increase/(Decrease) to Approved Life Budget:	15,000,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	477	1,413	6,622	9,758	2,582	0	0	0
<b>Commitments Budget</b>	0	0	0	2,330	25,670	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** O2 Small Diameter Watermain Rehab. (10)  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Apr 2013
Construction:	Sep 2014
Project Completion:	Feb 2017

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace deteriorated pipe, and improve available fire flows and water quality.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	13,000,000
FY2010 Revised/FY2011 Proposed Life Budget	33,000,000
Increase/(Decrease) to Approved Life Budget:	20,000,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	558	1,679	7,801	11,483	3,047	0	0
<b>Commitments Budget</b>	0	0	0	0	2,750	30,250	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** O3 Small Diameter Watermain Rehab. (11)  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Apr 2014
Construction:	Sep 2015
Project Completion:	Feb 2018

**Project Description:**

This annual project is for the rehabilitation of small diameter (12-inch and smaller) water pipe. The objective is to replace pipe when the condition warrants replacement, or to clean and line unlined cast iron pipe provided the pipe is in serviceable condition. Also included is the elimination of dead end pipelines in the system, and the replacement of appurtenances, such as valves, fire hydrants and house service lines. The program will serve to gradually replace pipe that has exceeded the useful service life, improve available fire flows, and remove corrosion by-products from the inside of the pipe improving water quality and reducing the potential for creation of biofilms and bacteriological activity that can impair the quality of potable water.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	13,000,000
FY2010 Revised/FY2011 Proposed Life Budget	36,000,000
Increase/(Decrease) to Approved Life Budget:	23,000,000

Disbursements Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	0	0	0	0	0	613	1,842	8,550	12,469	3,354	0
Commitments Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	0	0	0	0	0	3,000	33,000	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **QM Small Valve Replacements - Contract 4**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Sep 2002
<b>Construction:</b>	Jul 2004
<b>Project Completion:</b>	Dec 2011

**Project Description:**

This project includes the replacement of approximately 258, 12-inch and smaller, inoperable distribution valves. The replacement of these inoperable valves will improve the reliability of the system by limiting the number of valves that need to be closed under emergency conditions and limiting the number of customers that would otherwise lose water service. This project will also improve the effectiveness of the DWS flushing program.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 43.27%  
 EPA/Fed - 56.73%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	3,891,195
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	3,050,262
<b>Increase/(Decrease) to Approved Life Budget:</b>	-840,933

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	2,789	89	27	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	2,977	73	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **S3 Large Valve Replacement (Contract 3-7)**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Jul 1999
Construction:	Jan 2004
<b>Project Completion:</b>	Dec 2012

**Project Description:**

This project replaces approximately 100 inoperable large diameter valves throughout the distribution system. This project includes four separate valve replacement contracts. Replacement of inoperable valves will improve the reliability of the system by reducing the number of valves that would need to be closed under emergency conditions. Increasing the number of operable valves in the system will also reduce the number of customers that may be impacted during emergency conditions.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 61.52%  
 EPA/Fed - 38.48%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	22,216,591
FY2010 Revised/FY2011 Proposed Life Budget	22,852,835
Increase/(Decrease) to Approved Life Budget:	636,244

Disbursements Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	14,250	1,979	1,015	895	147	0	0	0	0	0	0
Commitments Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	18,160	4,692	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Distribution Systems  
**Activity Group/Project Title:** **S5 WDSC6 - Lg.Dia.Wtrmain Int. Repairs**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Aug 2010
Construction:	Jan 2012
<b>Project Completion:</b>	May 2014

**Project Description:**

This project includes the installation of internal pipe joint repairs to approximately 50,000 linear feet of large diameter water mains with a high frequency of joint leakage. This project also includes the cleaning and lining of approximately 5,000 linear feet of 20-inch cast iron pipe prior to the installation of internal joint seals. This project will eliminate the costly repairs and need to temporarily shutdown these mains to undertake the repairs associated with joint leaks.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	14,106,322
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	14,106,322
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	2,339	321	938	2,157	3,998	1,233	0	0	0	0	0
<b>Commitments Budget</b>	2,742	1,885	0	5,950	3,528	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** E3 FY2003 - DWS Water Projects  
**Managing Department:** Water Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	Feb 2003
Project Completion:	Dec 2008

**Project Description:**

This project is for the FY2003 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	7,551,456
FY2010 Revised/FY2011 Proposed Life Budget	7,551,456
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	7,287	176	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	7,551	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** **AJ FY2007 - DWS Water Projects**  
**Managing Department:** Water Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
<b>Design:</b>	
<b>Construction:</b>	Jul 2007
<b>Project Completion:</b>	Aug 2009

**Project Description:**

This project is for the FY2007 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system.

**Impact on Operations:**

This project will result in cost avoidance to future O & M budgets and improved customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	6,406,883
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	0
<b>Increase/(Decrease) to Approved Life Budget:</b>	-6,406,883

**CLOSED**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	6,407										
<b>Commitments Budget</b>	6,407										

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** AI FY2008 - DWS Water Projects  
**Managing Department:** Water Services EPMC: N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
<b>Design:</b>	
<b>Construction:</b>	May 2008
<b>Project Completion:</b>	Jan 2010

**Project Description:**

This project is for the FY2008 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system. This Project is closed.

**Impact on Operations:**

This project will result in cost avoidance to future O & M budgets and improved customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	6,835,982
FY2010 Revised/FY2011 Proposed Life Budget	6,967,611
Increase/(Decrease) to Approved Life Budget:	131,629

Disbursements Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	6,643	177	0	0	0	0	0	0	0	0	0
Commitments Budget	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
	6,968	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** **AQ FY2009 - DWS Water Projects**  
**Managing Department:** Water Services **EPMC: N/A**  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	Apr 2009
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This project is for the FY2009 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will result in cost avoidance to future O & M budgets and improved customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	7,800,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	7,922,869
<b>Increase/(Decrease) to Approved Life Budget:</b>	122,869

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,657	4,336	601	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	6,273	1,650	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** **AF FY2010 - DWS Water Projects**  
**Managing Department:** Water Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	Nov 2010
Project Completion:	Nov 2011

**Project Description:**

This project is for the FY2010 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will result in cost avoidance to future O & M budgets and improved customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	6,200,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	6,200,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	1,613	2,766	295	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	3,100	3,100	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** **BE FY2011 - DWS Water Projects**  
**Managing Department:** Water Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
<b>Design:</b>	
<b>Construction:</b>	Feb 2011
<b>Project Completion:</b>	Mar 2012

**Project Description:**

This project is for the FY2011 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will result in cost avoidance to future O & M budgets and improved customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	4,130,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	4,130,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	1,816	1,238	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	4,130	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** **CC FY2012 - DWS Water Projects**  
**Managing Department:** Water Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	Jul 2012
<b>Project Completion:</b>	Jul 2013

**Project Description:**

This project is for the FY2012 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will result in cost avoidance to future O & M budgets and improved customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	4,255,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	4,255,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	1,343	1,659	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	0	4,255	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** CP FY2013 - DWS Water Projects  
**Managing Department:** Water Services EPMC: N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	Jul 2013
Project Completion:	Jul 2014

**Project Description:**

This project is for the FY2013 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system. Job numbers will be issued to identify the location of projects

**Impact on Operations:**

This project will result in cost avoidance to future O & M budgets and improved customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	4,920,000
FY2010 Revised/FY2011 Proposed Life Budget	4,920,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	1,552	1,936	0	0	0	0	0
<b>Commitments Budget</b>	0	0	0	0	4,920	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** **D5 FY2014 - DWS Water Projects**  
**Managing Department:** Water Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	Jul 2014
<b>Project Completion:</b>	Jul 2015

**Project Description:**

This project is for the FY2014 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system. Job numbers will be issued to identify the location of projects

**Impact on Operations:**

This project will result in cost avoidance to future O & M budgets and improved customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	5,070,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	5,070,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	1,617	2,001	0	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	5,070	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** **DG FY2015 - DWS Water Projects**  
**Managing Department:** Water Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	Jul 2015
Project Completion:	Jun 2016

**Project Description:**

This project is for the FY2015 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system. Job numbers will be issued to identify the location of projects

**Impact on Operations:**

This project will result in cost avoidance to future O & M budgets and improved customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	4,775,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	4,775,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	1,633	1,786	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	4,775	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** **DY FY2016 - DWS Water Projects**  
**Managing Department:** Water Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
<b>Design:</b>	
<b>Construction:</b>	Oct 2015
<b>Project Completion:</b>	Jun 2017

**Project Description:**

This project is for the FY2016 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system. Job numbers will be issued to identify the location of projects

**Impact on Operations:**

This project will result in cost avoidance to future O & M budgets and improved customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	5,375,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	5,375,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	2,047	1,848	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	5,375	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** **FK FY2017 - DWS Water Projects**  
**Managing Department:** Water Services **EPMC: N/A**  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	Oct 2016
Project Completion:	Feb 2018

**Project Description:**

This project is for the FY2017 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system. Job numbers will be issued to identify the location of projects

**Impact on Operations:**

This project will result in cost avoidance to future O & M budgets and improved customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	5,545,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	5,545,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	3,101	845	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	5,545	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water On-Going Projects  
**Activity Group/Project Title:** **GS FY2018 - DWS Water Projects**  
**Managing Department:** Water Services **EPMC:** N/A  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	
Construction:	Oct 2017
Project Completion:	Feb 2019

**Project Description:**

This project is for the FY2018 annual program of planned projects by the Department of Water Services for the rehabilitation and improvement of the water distribution system. This project is needed to replace aged infrastructure to restore integrity and reliability of the water distribution system. Job numbers will be issued to identify the location of projects

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	5,720,000
Increase/(Decrease) to Approved Life Budget:	5,720,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	3,263	1,054
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	0	5,720	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Pumping Facilities  
**Activity Group/Project Title:** **AY Upgrades to Ft. Reno Pumping Station**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jun 2009
<b>Construction:</b>	Jan 2011
<b>Project Completion:</b>	Jul 2012

**Project Description:**

This project includes the replacement of pump controls, three existing variable frequency drives, electrical switchgear and motor control centers, along with upgrades to the SCADA system at Fort Reno Pumping Station. The improvements also include the installation of: a surge suppression system at the Fort Reno Pumping Station; an altitude valve on Fort Reno Tank No. 2; installation of redundant instrumentation; security system upgrades; and 28 remote pressure monitoring stations at critical locations in the system to allow operators to monitor pressures in the distribution system. The main benefit of this project is increased pressures and improved system reliability supplying water to the 4th High Service Area west of Rock Creek Park.

**Impact on Operations:**

This project will have no material impact on the operating budget, but will improve system reliability and customer service.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	10,489,172
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	10,807,294
<b>Increase/(Decrease) to Approved Life Budget:</b>	318,122

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	895	517	2,874	3,875	0	0	0	0	0	0	0
<b>Commitments Budget</b>	1,674	0	9,133	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Pumping Facilities  
**Activity Group/Project Title:** **DU Water System Laboratory Facilities**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, Low, M&F over long term

Phase	Start Date
Design:	Sep 2010
Construction:	Feb 2012
<b>Project Completion:</b>	Aug 2013

**Project Description:**

This project includes the conversion of available space at Bryant Street Pumping Station to laboratory facilities for the Water Quality Division of the Department of Water Services. Due to the demand in water quality monitoring and the limited space at the Fort Reno facility, the DWS Water Quality Division needs additional laboratory space. The project mainly includes the construction of laboratory benches, fume hoods, and the analytical equipment.

**Impact on Operations:**

This project will have an annual operating cost for maintenance of the laboratory and cost of utilities.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	488,883
FY2010 Revised/FY2011 Proposed Life Budget	616,131
Increase/(Decrease) to Approved Life Budget:	127,248

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	149	15	28	112	176	0	0	0	0	0	0
<b>Commitments Budget</b>	166	60	0	390	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Pumping Facilities  
**Activity Group/Project Title:** **F8 16th & Alaska Avenue Pumping Station Upgrades**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
<b>Design:</b>	Sep 2010
<b>Construction:</b>	Feb 2012
<b>Project Completion:</b>	Aug 2013

**Project Description:**

This project provides upgrades to the 16th Street and Alaska Avenue Pumping Station to increase reliability and serviceability. Upgrades include: installation of a second suction and discharge headers; new variable frequency drive (VFD) on the existing fourth constant speed pump; replacement of existing variable frequency drives (VFDs) with new solid state equipment; replacement of existing instrumentation and controls with PLC based soft logic controls; installation of redundant instrumentation; security system upgrades; improvements to ventilation system for cooling of the station; and the provision of a second electric feeder to the pumping station.

**Impact on Operations:**

No significant O&M cost impact.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	4,380,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	4,380,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	4	203	1,052	1,825	0	0	0	0	0	0
<b>Commitments Budget</b>	0	430	0	3,950	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Pumping Facilities  
**Activity Group/Project Title:** **FC Water Fac Instrumentation Upgrades**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Apr 2011
Construction:	Aug 2012
<b>Project Completion:</b>	Feb 2014

**Project Description:**

This project is to install redundant instrumentation at facilities that contain critical operation sensors to improve reliability and reduce emergency maintenance. This project provides for the installation of redundant instruments, communications conduits and power conduits, digital input/output signals, analog instrumentation items, and redundant SCADA system start-up and testing.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	0
FY2010 Revised/FY2011 Proposed Life Budget	660,000
Increase/(Decrease) to Approved Life Budget:	660,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	18	55	307	93	0	0	0	0	0
<b>Commitments Budget</b>	0	0	90	570	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Pumping Facilities  
**Activity Group/Project Title:** **FD Water Fac Security System Upgrades**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Apr 2011
<b>Construction:</b>	Jun 2012
<b>Project Completion:</b>	Nov 2015

**Project Description:**

This project is to upgrade security systems at the following facilities: Bryant Street Pumping Station, Soldiers Home Reservoir, Brentwood Reservoir, Anacostia Tank No. 1 (Boulevard Tank), Anacostia Tank No. 2 (Good Hope Tank) and Fort Stanton Reservoirs Site.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,430,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	1,430,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	4	41	243	413	238	43	0	0	0
<b>Commitments Budget</b>	0	0	120	1,310	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Pumping Facilities  
**Activity Group/Project Title:** FH Discharge Piping Bryant Street Pumping Station  
**Managing Department:** Engineering and Technical Services EPMC: EPMC-II  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

Phase	Start Date
Design:	Jun 2009
Construction:	Sep 2010
<b>Project Completion:</b>	Mar 2014

**Project Description:**

This project provides for the replacement of six discharge pipes from the Bryant Street Pumping Station that are highly corroded. The discharge piping will be replaced from the cone valves inside the station to a point on Bryant Street away from the station site, to reduce the probability of a catastrophic pipe break next to the station wall and foundation.

**Impact on Operations:**

No significant O&M cost impact.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	7,000,000
FY2010 Revised/FY2011 Proposed Life Budget	7,000,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	54	426	786	1,971	1,246	515	0	0	0	0	0
<b>Commitments Budget</b>	460	6,540	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Pumping Facilities  
**Activity Group/Project Title:** **FJ Parking Ramp Rehabilitation – Bryant Street PS**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Potential Failure/Ability to continue meeting permit requirement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jul 2009
<b>Construction:</b>	May 2010
<b>Project Completion:</b>	May 2011

**Project Description:**

This project is for the rehabilitation of the parking deck bridge ramp connecting to the rooftop parking area over the Meter Shop and Warehouse building that is severely deteriorated

**Impact on Operations:**

No significant O&M cost impact.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	420,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	420,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	9	99	206	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	35	385	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Pumping Facilities  
**Activity Group/Project Title:** **M6 WPFA1- Rehab. Bryant St. Pump Sta.**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Mar 1999
<b>Construction:</b>	Mar 2002
<b>Project Completion:</b>	Sep 2013

**Project Description:**

This project is to rehabilitate and upgrade the Bryant Street Pumping Station and the warehouse and shops building to meet current code requirements and maintain the reliability of the water distribution system. Project includes refurbishing 11 high lift pumps and replacing 11 electric motors mechanically coupled to the pumps; architectural improvements to the building; complete replacement of the heating, cooling and ventilating equipment; site improvements, dewatering, hydraulic loops; replacement of water mains at the site; and cathodic protection for a 48-inch steel water main. Also included in this project is the SCADA for the water distribution system installed by WASA IT services.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 70.20%  
 EPA/Fed - 29.80%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	62,212,250
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	62,455,925
<b>Increase/(Decrease) to Approved Life Budget:</b>	243,675

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	55,412	2,859	1,587	490	184	0	0	0	0	0	0
<b>Commitments Budget</b>	58,897	1,195	1,520	845	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Pumping Facilities  
**Activity Group/Project Title:** **M7 WPFA3 - Replacement of Anacostia Pump Sta.**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** High Profile, Good Neighbor Policy

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Apr 2004
<b>Construction:</b>	Mar 2007
<b>Project Completion:</b>	May 2012

**Project Description:**

This project is to replace the 85 year old Anacostia Pumping Station to meet code requirements, add pumps for the new Anacostia First High South Service Area and maintain the reliability of the Anacostia 1st and 2nd High Service Area distribution system. It includes the installation of 3,000 feet of 30-inch water main to link the Anacostia Pumping Station to the Anacostia 1st High South Service Area. The new Pumping Station will have a capacity of 60 MGD and will be constructed on the same site as the original Pumping Station, which will remain in service until the new facility is completed and operational. The current budget adjustment reflects a new board land use initiative that will relocate certain customer service facilities to this site, saving office rental space fees. As this work is better defined, a new project will be developed and seperated from the original pump operation improvements, and the budget will be reduced accordingly.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 54.33%  
 EPA/Fed - 45.67%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	31,152,835
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	38,536,830
<b>Increase/(Decrease) to Approved Life Budget:</b>	7,383,995

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	28,055	3,376	3,246	1,158	0	0	0	0	0	0	0
<b>Commitments Budget</b>	31,353	7,184	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Pumping Facilities  
**Activity Group/Project Title:** **LU Land Facility for Water Pumping**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, Low, M & F over long term

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jan 2016
<b>Construction:</b>	Sep 2018
<b>Project Completion:</b>	

**Project Description:**

This project will relocate the customer service group which is currently located at a commercial office building at 810 First Street NW, in downtown Washington, DC. with an annual cost of the rent of approximately \$900,000 to \$1,000,000. The old Anacostia Pump Station is vacant and unused, having been replaced by a more modern Pump Station on the other end of the site. Renovation cost for converting this old, unused structure will pay for itself in six years.

**Impact on Operations:**

No significant O & M cost impact.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	7,035,495
<b>Increase/(Decrease) to Approved Life Budget:</b>	7,035,495

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	2,345	2,345	2,345	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	7,035	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **R1 FY2000 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This project is for the FY2000 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	1,311,300
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,311,300
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

<b>Disbursements Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	1,065	81	11	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	<b>Pre FY 2010</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Post FY 2018</b>
	1,309	3	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **R2 FY2001 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Mar 2011

**Project Description:**

This project is for the FY2001 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	1,266,616
FY2010 Revised/FY2011 Proposed Life Budget	1,266,616
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	698	146	54	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	950	316	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** R3 FY2002 - DDOT Water Projects  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Nov 2010

**Project Description:**

This project is for the FY2002 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	2,600,814
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	2,600,814
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	2,237	124	21	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	2,601	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **R4 FY2003 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2010

**Project Description:**

This project is for the FY2003 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	4,284,816
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	4,284,816
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	3,717	205	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	4,258	27	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** R5 FY2004 - DDOT Water Projects  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Feb 2011

**Project Description:**

This project is for the FY2004 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	641,393
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	641,393
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	572	16	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	621	21	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **R6 FY2005 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Oct 2010

**Project Description:**

This project is for the FY2005 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	415,000
FY2010 Revised/FY2011 Proposed Life Budget	415,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	279	49	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	415	0	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **R7 FY2006 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Aug 2010

**Project Description:**

This project is for the FY2006 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	383,742
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	383,742
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	32	0	0	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	34	350	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** R8 FY2007 - DDOT Water Projects  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Oct 2013

**Project Description:**

This project is for the FY2007 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	8,917,688
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	8,917,688
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	2,383	566	87	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	3,082	5,836	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** R9 FY2008 - DDOT Water Projects  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Dec 2010

**Project Description:**

This project is for the FY2008 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	2,190,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	2,288,722
<b>Increase/(Decrease) to Approved Life Budget:</b>	98,722

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	94	526	400	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	99	2,190	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** AS FY2009 - DDOT Water Projects  
**Managing Department:** DC Dept. of Transportation EPMC: N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This project is for the FY2009 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This project is needed to minimize public inconvenience caused by construction work and save WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	1,450,000
FY2010 Revised/FY2011 Proposed Life Budget	1,542,151
Increase/(Decrease) to Approved Life Budget:	92,151

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	75	343	258	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	92	1,450	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **B0 B0 FY2010 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Dec 2010

**Project Description:**

This project is for the FY2010 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This project is needed to minimize public inconvenience caused by construction work and to save WASA the paving cost.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	1,380,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,380,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	324	247	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	1,380	0	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **BN FY2011 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2011

**Project Description:**

This project is for the FY2011 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This project is needed to minimize public inconvenience caused by construction work and to save WASA the paving cost.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	1,650,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,650,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	1,166	0	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	1,650	0	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **CJ FY2012 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Sep 2012

**Project Description:**

This project is for the FY2012 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This project is needed to minimize public inconvenience caused by construction work and to save WASA the paving cost.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	1,700,000
FY2010 Revised/FY2011 Proposed Life Budget	1,700,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	1,189	0	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	0	1,700	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **CM FY2013 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Sep 2013

**Project Description:**

This project is for the FY2013 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This project is needed to minimize public inconvenience caused by construction work and to save WASA the paving cost

**Impact on Operations:**

The project will result in increased operations and maintenance costs related to the tunnel, pumping station and various diversion structures. Additional operations and maintenance costs will also be incurred for monitoring the completed facilities to assess performance of the CSO controls against predictions established as part of LTCP development.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	1,700,000
FY2010 Revised/FY2011 Proposed Life Budget	1,700,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	1,188	0	0	0	0	0	0
<b>Commitments Budget</b>	0	0	0	0	1,700	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **D9 FY2014 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Sep 2014

**Project Description:**

This project is for the FY2014 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This project is needed to minimize public inconvenience caused by construction work and to save WASA the paving cost

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	1,750,000
FY2010 Revised/FY2011 Proposed Life Budget	1,750,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	1,248	0	0	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	1,750	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** DH FY2015 - DDOT Water Projects  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2015

**Project Description:**

This project is for the FY2015 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This project is needed to minimize public inconvenience caused by construction work and to save WASA the paving cost

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	1,805,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,805,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	1,290	0	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	1,805	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** DV FY2016 - DDOT Water Projects  
**Managing Department:** DC Dept. of Transportation EPMC: N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

Phase	Start Date
Design:	
Construction:	
Project Completion:	Sep 2016

**Project Description:**

This project is for the FY2016 annual program of water infrastructure projects that are coordinated with street rehabilitation or other construction work performed by the Department of Public Works. This coordination minimizes public inconvenience caused by construction work and saves WASA the paving cost. Job numbers will be issued to identify the location of projects.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	1,805,000
FY2010 Revised/FY2011 Proposed Life Budget	1,805,000
Increase/(Decrease) to Approved Life Budget:	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	1,284	0	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	1,805	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **FL FY2017 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2017

**Project Description:**

This project is for the FY2017 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This project is needed to minimize public inconvenience caused by construction work and to save WASA the paving cost.

**Impact on Operations:**

No significant O&M cost impact.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	1,860,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,860,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	1,323	0	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	1,860	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** DDOT Water Projects  
**Activity Group/Project Title:** **GT FY2018 - DDOT Water Projects**  
**Managing Department:** DC Dept. of Transportation **EPMC:** N/A  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Sep 2018

**Project Description:**

This project is for the FY2018 annual program of water infrastructure jobs that are coordinated with street rehabilitation or other construction work performed by the District Department of Transportation (DDOT). This project is needed to minimize public inconvenience caused by construction work and to save WASA the paving cost.

**Impact on Operations:**

This project will have no material impact on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	0
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	1,920,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	1,920,000

**NEW**

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	0	0	0	0	0	0	0	0	1,386	0
<b>Commitments Budget</b>	0	0	0	0	0	0	0	0	0	1,920	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Storage Facilities  
**Activity Group/Project Title:** **FA Water Storage Facility Upgrades**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

Phase	Start Date
Design:	Dec 2008
Construction:	Jan 2010
Project Completion:	Nov 2019

**Project Description:**

This project includes replacing the expansion joint material within the Fort Stanton Reservoir No. 2 concrete floor slab to minimize the current leakage and repairing the damage caused by an embankment failure near Fort Stanton Reservoir No. 2.

**Impact on Operations:**

This project will reduce water loss, thus slowing the growth in water purchase costs.

**Funding by User (percent):**

DC - 83.30%  
 EPA/Fed - 16.70%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



FY2009 Approved Life Budget	3,000,000
FY2010 Revised/FY2011 Proposed Life Budget	9,740,000
Increase/(Decrease) to Approved Life Budget:	6,740,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	270	80	978	186	805	1,331	983	463	404	352	295
<b>Commitments Budget</b>	384	2,616	680	3,880	0	1,040	0	1,140	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Storage Facilities  
**Activity Group/Project Title:** **MA St. Elizabeth Water Tank**  
**Managing Department:** Engineering and Technical Services **EPMC: EPMC-II**  
**Priority:** High Profile, Good Neighbor Policy

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Jun 2010
<b>Construction:</b>	May 2012
<b>Project Completion:</b>	Dec 2014

**Project Description:**

The project includes the construction of a 2.0 million gallon elevated water storage tank. The new storage tank will provide additional potable water storage for the Anacostia 1st High South service area, increasing pressures to the higher elevation areas and improving fire protection in the distribution system served by this storage tank. St. Elizabeth's Hospital has agreed to allow the tank to be located on the Hospital complex as this new facility will improve the reliability of the Hospital's water supply system.

**Impact on Operations:**

New tank will require periodic (10 to 15 year) maintenance involving painting.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	7,089,438
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	16,681,184
<b>Increase/(Decrease) to Approved Life Budget:</b>	9,591,746

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,212	58	528	811	4,513	3,946	873	0	0	0	0
<b>Commitments Budget</b>	1,828	1,503	0	13,350	0	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Storage Facilities  
**Activity Group/Project Title:** **MQ 878A1 - 2MG 4th High Storage Tank**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, Low, M&F over long term

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	Jun 2015
<b>Construction:</b>	Nov 2016
<b>Project Completion:</b>	Aug 2018

**Project Description:**

This project includes the siting and feasibility study, design and construction for the future construction of a 2.0 million gallon storage tank to supply the 4th High Service Area on the west side of Rock Creek Park. This area does not have any usable storage and all water supply comes from the Fort Reno Pumping Station. The objective of the storage tank is to provide a source of supply should there be a failure of the pumping station, and provide storage capacity to improve the reliability of the water supply to this portion of the 4th High Service Area.

**Impact on Operations:**

New elevated water storage tank will require periodic painting (10 to 15 years) causing an increase on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	7,915,558
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	7,915,558
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	185	1	0	0	0	63	143	351	2,211	2,814	0
<b>Commitments Budget</b>	191	0	0	0	0	324	600	0	6,800	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Storage Facilities  
**Activity Group/Project Title:** **MR 5MG 2nd High Reservoir**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, Low, M&F over long term

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	Mar 2012
<b>Construction:</b>	Aug 2013
<b>Project Completion:</b>	Aug 2015

**Project Description:**

This project includes the siting and feasibility study, design and construction of a 5.0 million gallon water storage reservoir in the 2nd High Service Area east of Rock Creek Park. The reservoir will address storage deficiency and improve system reliability within the 2nd High service area located in northwest and northeast sections north of Florida Ave and Rhode Island Ave and south of Missouri Ave. The existing Van Ness reservoir (Washington Aqueduct facility) has capacity to supply 65% of the average daily usage in the 2nd High Service Area. The additional storage will provide flexibility to undertake routine maintenance of the existing and proposed reservoirs. In addition, a second reservoir in the area will allow taking one of the reservoirs out of service without having to pump into a closed system.

**Impact on Operations:**

New potable water reservoir will require maintenance causing some increase in the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	15,225,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	15,225,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	0

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	27	6	105	428	512	5,575	4,611	0	0	0	0
<b>Commitments Budget</b>	100	0	200	1,105	13,820	0	0	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Service Area Program Mgmt  
**Activity Group/Project Title:** **ME Water System Program Management Services**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Good Engineering, High pay back, Mission / Function

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Apr 2020

**Project Description:**

This project is to provide engineering program management services for the water system capital improvements program (CIP), to develop a comprehensive water distribution system hydraulic model and run model simulations for evaluation of capital improvement alternatives; to perform pipe condition assessments of pipelines; to assess the potable water storage and pumping needs; to investigate alternatives to eliminate low water pressures; improve water quality in the distribution system; provide reliable and adequate fire protection; to perform conceptual design of proposed capital projects; and to develop a comprehensive facilities plan for incorporation into the capital improvements program. It also includes developing scopes of work, preparing cost estimates, negotiating task orders and reviewing design submittals for the implementation of the capital improvement program.

**Impact on Operations:**

The impacts to operations are identified with each project. There are no impacts to operations from program management.

**Funding by User (percent):**

DC - 100.00%  
 EPA/Fed - 0.00%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	23,340,767
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	51,106,826
<b>Increase/(Decrease) to Approved Life Budget:</b>	27,766,059

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	4,001	2,657	3,248	3,092	3,080	3,109	3,953	3,851	3,845	3,897	7,435
<b>Commitments Budget</b>	6,507	19,900	0	0	0	0	24,700	0	0	0	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Water Lead Program  
**Activity Group/Project Title:** **BW Lead Service Replacement Program**  
**Managing Department:** Engineering and Technical Services **EPMC:** EPMC-II  
**Priority:** Board Policy, WASA's commitment to outside agencies

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	Nov 2026

**Project Description:**

Replacement of approximately 30,050 lead water service lines with copper piping throughout the water distribution system. The Lead Service Replacement Program started in FY2004 and will continue in conjunction with scheduled water main replacement and DDOT road work (new FY2008 policy). This project replaces lead service lines within Public Space and offers the property owner the option to replace the lead service on private property at cost.

**Impact on Operations:**

This project will have no material impact in the operating budget.

**Funding by User (percent):**

DC - 93.69%  
 EPA/Fed - 6.31%  
 WSSC - 0.00%  
 Fairfax - 0.00%  
 Loudoun/PI - 0.00%



<b>FY2009 Approved Life Budget</b>	297,000,000
<b>FY2010 Revised/FY2011 Proposed Life Budget</b>	200,000,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	-97,000,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	121,308	11,461	4,141	4,751	5,493	5,815	5,603	5,511	5,658	5,555	0
<b>Commitments Budget</b>	137,229	21,755	2,841	4,214	4,966	5,277	5,402	5,881	6,147	6,288	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Water Service Area  
 Program Title: Metering  
 Activity Group/Project Title: **EM1 Future Meter Replacements**  
 Managing Department: Customer Service **EPMC:**  
 Priority: Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**

Project to fund ongoing meter and related equipment replacements and upgrades beyond the AMR program. This Project does not include meters being replaced as part of the Lead service line replacement program. In prior years this project was shown in the AMR budget.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Life Budget	16,310,000
FY 2011 Proposed Life Budget	1,802,000
Increase/(Decrease) to Approved Life Budget:	-14,508,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	204	223	438	130	130	131	132	133	134	147	
<b>Commitments Budget</b>	204	223	438	130	130	131	132	133	134	147	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Water Service Area  
**Program Title:** Metering  
**Activity Group/Project Title:** **EM2 Automated Meter Reading Project**  
**Managing Department:** Customer Service **EPMC:**  
**Priority:** Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	3/4/2002
<b>Project Completion:</b>	

**Project Description:**

WASA is replacing all meters with meters that automatically transmit consumption data via radio and cellular technology. This has improved the accuracy of meter reads to over 99.9 percent, and the labor needed for meter reading has been substantially reduced. By the end of FY 2008 a substantial amount of this project has been completed (approximately 120,000 meters had been installed, or 98.9% of the project). This project will be completed over the next two years.

**Impact on Operations:**

The cost of a single meter read will be reduced from approximately \$3 in FY 2002 to approximately \$1.13 when the program is fully implemented.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Life Budget</b>	43,328,000
<b>FY 2011 Proposed Life Budget</b>	41,031,000
<b>Increase/(Decrease) to Approved Life Budget:</b>	-2,297,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	40,918	113	0	0	0	0	0	0	0	0	
<b>Commitments Budget</b>	40,918	113	0	0	0	0	0	0	0	0	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



District of Columbia Water and Sewer Authority

# CAPITAL IMPROVEMENT PROGRAM

APPROVED FY 2009-2018



## Section VIII

## WASHINGTON AQUEDUCT

*DC WASA purchases treated water from the U.S. Army Corps of Engineers Washington Aqueduct and distributes it to homes and businesses through a 1,300-mile network of transmission lines, pump stations, water mains, storage tanks and fire hydrants.*



## **WASHINGTON AQUEDUCT**

The Washington Aqueduct, managed by the U.S. Army Corps of Engineers, provides wholesale water treatment services to DC WASA and its partners in Northern Virginia, Arlington County and Falls Church. DC WASA purchases approximately 73.54 percent of the water produced by the Aqueduct's two treatment facilities, the Dalecarlia and McMillan treatment plants, and thus is responsible for 73.54 percent of the Aqueduct's operating and capital costs. Under federal legislation and a memorandum of understanding enacted in 1997, DC WASA and its Northern Virginia partners have a much greater role in oversight of the Aqueduct's operations and its capital improvement program.

The proposed lifetime budget for DC WASA's share of Washington Aqueduct projects totals \$186 million or \$10 million less than last year's 10-year plan of \$196.4 million. This change is due primarily to a close out of projects.

The Aqueduct CIP is broken into seven primary areas with specific Projects under each area:

### **Basin Waste Recovery/Residuals Disposal - \$94 Million**

*(project pages VIII-5)*

The residual project is the single largest project in the Aqueduct's CIP. In 2003, the EPA issued a revised NPDES permit to the Aqueduct and entered into a Federal Facilities Compliance Agreement (the federal agency equivalent of an Administrative Order) that requires the Aqueduct to have a new process in operation by Dec 31, 2010. The Aqueduct selected a process to meet the Compliance Agreement, which dewateres the residuals on site and trucks them off-site for disposal. The major contract was awarded in FY 2008 and construction is underway.

### **Dalecarlia Pumping Station Improvements - \$8.8 Million**

*(project pages VIII-6)*

Beginning in FY2011, the Aqueduct will start a series of initiatives at Dalecarlia Pumping Station aimed at modernizing and upgrading the facility. These initiatives include: a building renovation ( FY 2011- FY 2012); elevator replacement (FY 2012 - FY 2014); mechanical upgrades (FY 2016 - FY 2018); overhead crane replacements (FY 2012 - FY 2014); pump motor control conversions (FY 2011); roof replacements (FY 2011 - FY 2012); SCADA upgrades (FY 2017 - FY 2019); valve and piping replacement (FY 2018 - FY 2020) and fire protection system improvements (FY 2011 - FY 2012).

### **Cabin John Bridge Repairs - \$.8 Million**

*(project pages VIII-7)*

Scheduled in FY 2013 through FY 2015 are future improvements including parapet and additional roadway repairs. The most recent improvements to the bridge were completed in FY 2001.



**McMillian Water Treatment Plant Improvements - \$ 25.9 Million**

*(project pages VIII-8)*

The immediate focus for the Aqueduct will be on current projects including the conversion from chlorine to sodium hypochlorite, the filter media/valve replacements, the chemical building HVAC improvements and the first phase of a building renovations project. Future major projects include: annex 1 building renovation (FY 2011 - FY 2013); boat dock/chemical storage building renovation (FY 2014 - FY 2016); chemical building renovations (FY 2011 - FY 2012; FY 2016 - FY 2018); clearwell cleaning & disinfection (FY 2011 - FY 2012; FY 2014 - FY 2015; FY 2018 - FY 2019); EASA (Engineering Automation Support Activity) building demolition (FY 2013 - FY 2015); the east shaft pumping station renovation (FY 2011 - FY 2013); GIS system (FY 2015 - FY 2017); building renovations (FY 2013 - FY 2015); roadway repairs starts in FY 2017; roof replacements (FY 2016 - FY 2018); SCADA upgrade starts in FY 2017; silt curtain replacement (FY 2011); instrumentation improvements starts in FY 2015; process improvements starts in FY 2017; sample line replacement (FY 2011) and fire protection system improvements (FY 2011 - FY 2012).

**Appurtenant Transmission & Storage Facility - \$22 Million**

*(project pages VIII-9)*

This project area covers improvements to the Aqueduct's major transmission mains, storage facilities and outlying structures. Future major projects include: Champlain street building renovation (FY 2017 - FY 2018); city tunnels repair (FY 2018 - FY 2020); conduit repairs FY 2014; cross connection structure upgrades (FY2015 - FY 2017); finished water reservoir cleanings (FY 2011 & FY 2013); Georgetown reservoir building improvements (FY 2011 - FY 2013); Great Falls intake building improvements (FY 2014 - FY 2016); Little Falls Pumping Station crane overhaul (FY 2014 - FY 2016); Little Falls Pumping Station HVAC upgrades (FY 2012 - FY 2014); Little Falls Pumping Station motor control upgrades (FY 2011 - FY 2012); Rock Creek blow-off valve replacements starts in FY 2017; SCADA upgrades starts in FY 2017; transmission main improvements (FY 2012 - FY 2014); warehouse no. 6 improvements (FY 2011 - FY 2012); warehouse no. 8 improvements (FY 2014 - FY 2015) and fire protection system improvements (FY 2011 - FY 2012).

**Dalecarlia Water Treatment Plant Improvements - \$35.3 Million**

*(project pages VIII-10)*

Dalecarlia WTP will continue to improve its infrastructure with current projects including the conversion from chlorine to sodium hypochlorite; renovation of the old pumping station into a visitors center and SCADA/instrumentation improvements, among others. Future projects include: administration building improvements (FY 2012 - FY 2014); basin no. 3 & no. 4 flocculation/sedimentation improvements (FY2016 - FY 2018); carbon facility tank renovations (FY 2014 -FY 2016); chemical building electrical upgrades (FY 2013 - FY 2015); clearwell cleaning & disinfection (FY 2012 - FY 2013; FY 2016 - FY 2017); east filter building renovation phase II (FY 2011- FY 2013); fuel line replacements (FY 2015- FY 2016); GIS System (FY 2015 - FY 2017); intake building renovation (FY

2012 – FY 2014); maintenance building renovation ( FY 2011 - FY 2013); roadway improvements (FY 2017 - FY 2019); roof replacements (FY 2015 - FY 2017); SCADA upgrades will start in FY 2017; south connection building renovation (FY 2015 - FY 2016); and wash water tank renovations will start in FY 2018; west filter building improvements (FY 2015 - FY 2017); instrumentation improvements will start in FY 2015 ; sample line replacement ( FY 2011); fire protection system improvements (FY 2011 - FY 2012) and visitors center exhibits ( FY 2013 - FY 2015).

**Alternate Treatment Methods - \$1.4 Million**

*(project pages VIII-11)*

In FY2014 Aqueduct will begin the 30 MG clearwell mixing improvements project, while future projects include Georgetown mixing improvements starts in FY 2018.

**Financing of Aqueduct Capital Projects**

The U.S. Army Corps of Engineers in accordance with Federal procurement regulations require DC WASA to remit cash in an amount equal to the total project cost in advance of advertising contracts, and these funds are transferred immediately to a Corps/U.S. Treasury account to be drawn down by Washington Aqueduct during the execution of the project through completion with no interest to DC WASA. Over the last few years, extensive discussions with the U.S. Office of Management and Budget (OMB) and the Corps resulted in a proposal in the President's FY2006 and FY2007 budgets that would allow Aqueduct customers to deposit funds for any projects required by their NPDES permit (including the residuals project) to a separate escrow account, allowing the Aqueduct customers to retain interest on these funds. The proposal was submitted in May 2006 to the Senate and House. During FY 2006, the Corps briefed the Senate Environment and Public Works committee staff and in conjunction with DC WASA briefed the Senate Homeland Security and Government Affairs committee staff. Additionally DC WASA and Washington Aqueduct staff provided DC Delegate Norton's office with the Administration's proposal. Neither of the Senate committees acted on the proposal.

We continue to pursue other options that would be more favorable to DC WASA, including transferring dollars on a phased basis, utilizing taxable bonds, taxable commercial paper, or providing the Corps with a bank line of credit. In the past, some of these options have not been viewed favorably by the U.S. Treasury, but we will continue to educate and work with Congressional staff, federal agencies and the Corps on this critical issue.

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Washington Aqueduct  
**Program Title:** Washington Aqueduct  
**Activity Group/Project Title:** WAD121 Basin Waste Recovery  
**Managing Department:** EPMC:  
**Priority:** Federal Facilities Compliance Agreement

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	10/1/2007
<b>Project Completion:</b>	10/1/2010

**Project Description:**

Under the Aqueduct's NPDES permit and a related FFCA (the federal agency equivalent of an administrative order), the Aqueduct is required to remove 85 percent of incoming sediments, rather than periodically discharging them to the Potomac River. The FFCA requires that the new process be in place by Dec. 31, 2010. The Aqueduct is implementing a plan it developed to build new residuals processing facilities at the Dalecarlia treatment plant. The construction started in April 2008, with completion expected in 2010.

**Impact on Operations:**

The estimated increase to the Washington Aqueduct Operating budget due to the Residual Facilities is in the range of \$3.0 to \$5.0 million. We anticipate future cost increases in areas of personnel, building maintenance, chemicals, electricity and contract disposal. The major portion of the increase will be in the areas of electrical consumption and contract trucking for disposal. Funding is included in FY 2011.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Life Budget	93,802,396
FY 2011 Proposed Life Budget	93,949,635
Increase/(Decrease) to Approved Life Budget:	147,239

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	14,560	4,362									
<b>Commitments Budget</b>	14,560	4,362									

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Washington Aqueduct  
**Program Title:** Washington Aqueduct  
**Activity Group/Project Title:** WAD122 Dalecarlia Pumping Station  
**Managing Department:** **EPMC:**  
**Priority:** Good Engineering Practices

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	10/1/2010
<b>Project Completion:</b>	10/1/2017

**Project Description:**

The Dalecarlia Pumping Station was built over forty years ago and beginning in FY 2011, the Aqueduct will start its next series of improvements aimed at modernizing and upgrading the pumping station. These initiatives include: a building renovation (FY 2011- FY 2012); elevator replacement (FY 2012 - FY 2014); mechanical upgrades (FY 2016 - FY 2018); overhead crane replacements (FY 2012 - FY 2014); pump motor control conversions (FY 2011); roof replacements (FY 2011 - FY 2012); SCADA upgrades (FY 2017 - FY 2019); valve and piping replacement (FY 2018 - FY 2020) and fire protection system improvements (FY 2011 - FY 2012).

**Impact on Operations:**

Improvements to the Dalecarlia pumping station are not expected to have significant impact on operating costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Life Budget</b>	10,422,858
<b>FY 2011 Proposed Life Budget</b>	8,753,739
<b>Increase/(Decrease) to Approved Life Budget:</b>	-1,669,119

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	7	2,389	1,687	1,151	478	468		114	480	1,219	
<b>Commitments Budget</b>	7	2,389	1,687	1,151	478	468		114	480	1,219	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Washington Aqueduct  
 Program Title: Washington Aqueduct  
 Activity Group/Project Title: **WAD123 Cabin John Bridge**  
 Managing Department: \_\_\_\_\_ EPMC:  
 Priority: Good Engineering Practices

Phase	Start Date
Design:	
Construction:	10/1/2010
Project Completion:	10/1/2015

**Project Description:**

This project includes roadway and parapet repairs to the historic Cabin John Bridge. The bridge is over 140 years old and carries a nine foot conduit that runs from Great Falls to the Dalecarlia Reservoir. The most recent improvements to the bridge were completed in 2001. Future improvements scheduled for FY 2013 through FY 2015 are additional roadway and parapet repairs.

**Impact on Operations:**

Improvements to the Cabin John Bridge are not expected to have a significant impact on operating costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Life Budget	714,582
FY 2011 Proposed Life Budget	808,940
Increase/(Decrease) to Approved Life Budget:	94,358

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
Disbursements Budget					79	234	531				
Commitments Budget					79	234	531				

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Washington Aqueduct  
**Program Title:** Washington Aqueduct  
**Activity Group/Project Title:** **WAD126 McMillian WTP Improvements**  
**Managing Department:** **EPMC:**  
**Priority:** Good Engineering Practices

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	10/1/2007
<b>Project Completion:</b>	10/1/2017

**Project Description:**

The McMillian Water Treatment Plant was originally built in 1905 and was replaced in 1985 by a 120 MGD rapid-sand filtration facility, located in Northwest Washington adjacent to WASA's Bryant Street pumping station. Current projects include the conversion from chlorine to sodium hypochlorite, the filter media/valve replacements, the chemical building HVAC improvements and the first phase of a building renovations project. Future major projects include: annex 1 building renovation (FY 2011 - FY 2013); boat dock/chemical storage building renovation (FY 2014 - FY 2016); chemical building renovations (FY 2011 - FY 2012; FY 2016 - FY 2018); clearwell cleaning & disinfection (FY 2011 - FY 2012; FY 2014 - FY 2015; FY 2018 - FY 2019); EASA (Engineering Automation Support Activity) building demolition (FY 2013 - FY 2015); the east shaft pumping station renovation (FY 2011 - FY 2013); GIS system (FY 2015 - FY 2017); building renovations (FY 2013 - FY 2015 ; FY 2018 - FY 2020); roadway repairs (FY 2017 - FY 2019); roof replacements (FY 2016 - FY 2018); SCADA upgrade (FY 2017 - FY 2019); silt curtain replacement (FY 2011); instrumentation improvements (FY 2015 & FY 2020); process improvements (FY 2017 - FY 2019); sample line replacement (FY 2011) and fire protection system improvements (FY 2011 - FY 2012).

**Impact on Operations:**

Improvements to the McMillian WTP are not expected to have a significant impact on operating costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Life Budget</b>	24,616,150
<b>FY 2011 Proposed Life Budget</b>	25,853,206
<b>Increase/(Decrease) to Approved Life Budget:</b>	1,237,056

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,892	2,531	1,679	1,819	957	546	1,880	800	1,589	2,152	
<b>Commitments Budget</b>	1,892	2,531	1,679	1,819	957	546	1,880	800	1,589	2,152	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Washington Aqueduct  
**Program Title:** Washington Aqueduct  
**Activity Group/Project Title:** **WAD127 Appurtenant Transmission and Storage Facilities**  
**Managing Department:** EPMC:  
**Priority:** Good Engineering Practices

Phase	Start Date
<b>Design:</b>	
<b>Construction:</b>	10/1/2010
<b>Project Completion:</b>	10/1/2017

**Project Description:**

Raw water is taken from Great Falls on the Potomac River into two raw water conduits. Raw water is also taken at the Little Falls Pumping Station on the Potomac. Both discharge into the Dalecarlia Reservoir. This project area covers improvements to the Aqueduct's major transmission mains, storage facilities and outlying structures. Future major projects include: Champlain street building renovation (FY 2017 - FY 2018); city tunnels repair (FY 2018 – FY 2020); conduit repairs (FY 2014 - FY 2019); cross connection structure upgrades (FY2015 - FY 2017); finished water reservoir cleanings (FY 2011 & FY 2013 - FY 2018 & FY 2020); Georgetown reservoir building improvements (FY 2011 - FY 2013 & FY 2020); Great Falls intake building improvements (FY 2014 - FY 2016); Little Falls Pumping Station crane overhaul (FY 2014 - FY 2016); Little Falls Pumping Station HVAC upgrades (FY 2012 - FY 2014); Little Falls Pumping Station motor control upgrades (FY 2011 - FY 2012); Rock Creek blow-off valve replacements (FY 2017 - FY 2019); SCADA upgrades (FY 2017 - FY 2019); transmission main improvements (FY 2012 - FY 2014); warehouse no. 6 improvements (FY 2011 - FY 2012); warehouse no. 8 improvements (FY 2014 - FY 2015) and fire protection system improvements (FY 2011 - FY 2012).

**Impact on Operations:**

Improvements to the appurtenant transmission and storage facility are not expected to have a significant impact on operating costs.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Life Budget</b>	22,072,713
<b>FY 2011 Proposed Life Budget</b>	22,026,793
<b>Increase/(Decrease) to Approved Life Budget:</b>	-45,920

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	365	107	2,851	1,893	1,355	3,103	2,312	3,847	1,718	3,264	
<b>Commitments Budget</b>	365	107	2,851	1,893	1,355	3,103	2,312	3,847	1,718	3,264	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Washington Aqueduct  
**Program Title:** Washington Aqueduct  
**Activity Group/Project Title:** **WAD128 Dalecarlia WTP improvements**  
**Managing Department:** **EPMC:**  
**Priority:** Good Engineering Practices

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	10/1/2007
<b>Project Completion:</b>	10/1/2017

**Project Description:**

The existing rapid-sand filtration Dalecarlia Water Treatment Plant was built in 1928, with significant improvements made over time, bringing total plant capacity to 220 MGD. Current projects include the conversion from chlorine to sodium hypochlorite; renovation of the old pumping station into a visitors center and SCADA/instrumentation improvements, among others. Future projects include: administration building improvements (FY 2012 - FY 2014); basin no. 3 & no. 4 flocculation/sedimentation improvements (FY2016 - FY 2018); carbon facility tank renovations (FY 2014 -FY 2016); chemical building electrical upgrades (FY 2013 - FY 2015); clearwell cleaning & disinfection (FY 2012 - FY 2013; FY 2016 - FY 2017; FY 2019 - FY 2020); east filter building renovation phase II (FY 2011- FY 2013); fuel line replacements (FY 2015- FY 2016); GIS System (FY 2015 - FY 2017); intake building renovation (FY 2012 – FY 2014); maintenance building renovation ( FY 2011 - FY 2013); roadway improvements (FY 2017 - FY 2019); roof replacements (FY 2015 - FY 2017); SCADA upgrades (FY 2017 - FY 2019); south connection building renovation (FY 2015 - FY 2016); and wash water tank renovations (FY 2018 - FY 2019); west filter building improvements (FY 2015 - FY 2017); instrumentation improvements (FY 2015 & FY 2020); sample line replacement ( FY 2011); fire protection system improvements (FY 2011 - FY 2012) and visitors center exhibits ( FY 2013 - FY 2015).

**Impact on Operations:**

Improvements to the Dalecarlia WTP are not expected to have a significant impact on operating costs

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Life Budget</b>	42,879,047
<b>FY 2011 Proposed Life Budget</b>	35,349,547
<b>Increase/(Decrease) to Approved Life Budget:</b>	-7,529,500

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,683	1,071	1,702	2,636	5,184	3,591	2,972	3,238	4,212	1,291	
<b>Commitments Budget</b>	1,683	1,071	1,702	2,636	5,184	3,591	2,972	3,238	4,212	1,291	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Washington Aqueduct  
 Program Title: Washington Aqueduct  
 Activity Group/Project Title: **WAD130 Alternate Treatment Methods**  
 Managing Department: \_\_\_\_\_ EPMC: \_\_\_\_\_  
 Priority: Good Engineering Practices

Phase	Start Date
Design:	
Construction:	10/1/2008
Project Completion:	10/1/2017

**Project Description:**

The Aqueduct undertakes various studies and pilot projects to optimize plant treatment and model the potential impact of future regulatory changes on plant operations. Future projects are the Georgetown mixing improvements (FY 2018 - FY 2019) and the 30 MG clearwell mixing improvements (FY2014 - FY 2015).

**Impact on Operations:**

Depending on study results and application to existing and future treatment methods, operating costs could increase or decrease.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Life Budget	1,966,138
FY 2011 Proposed Life Budget	1,386,181
Increase/(Decrease) to Approved Life Budget:	-579,957

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
Disbursements Budget	88	172				78	303			72	
Commitments Budget	88	172				78	303			72	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



District of Columbia Water and Sewer Authority

# CAPITAL IMPROVEMENT PROGRAM

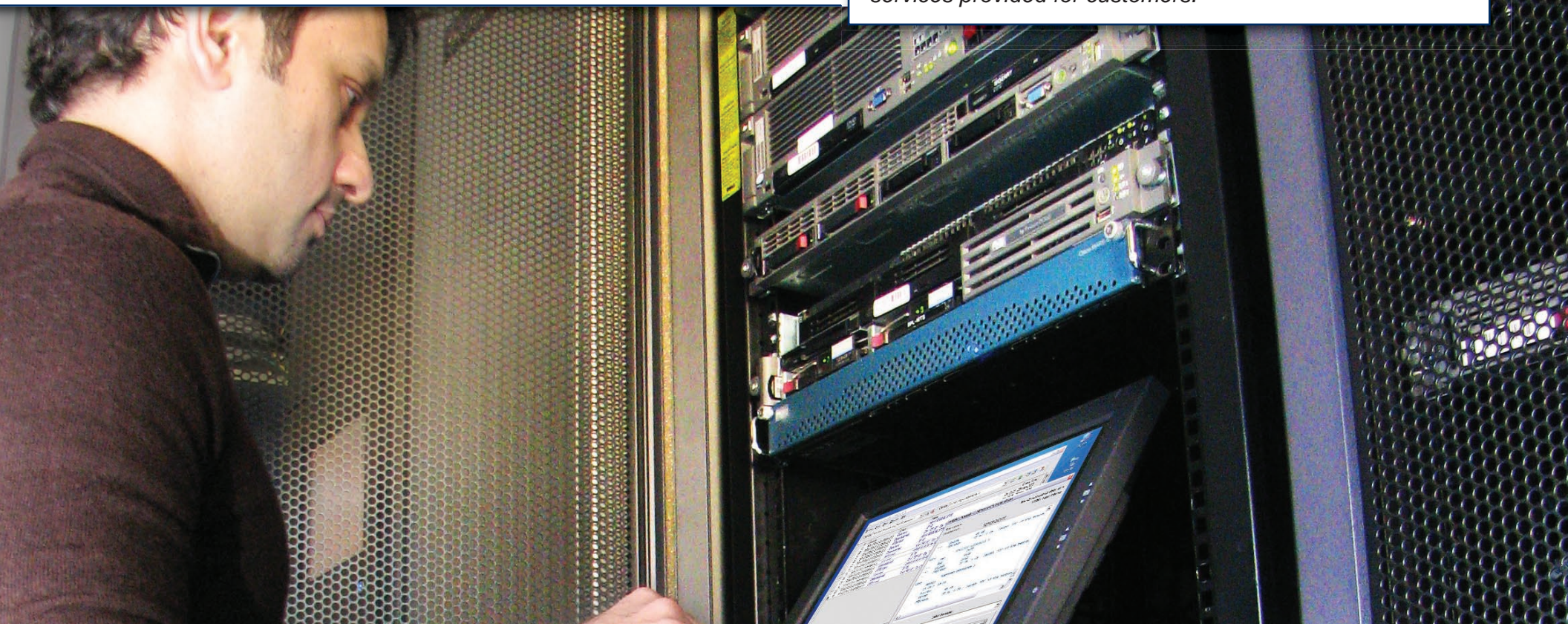
APPROVED FY 2009-2018



## Section IX

## CAPITAL EQUIPMENT

*With the integration of innovative technology, DC WASA is improving both organizational effectiveness and quality of services provided for customers.*



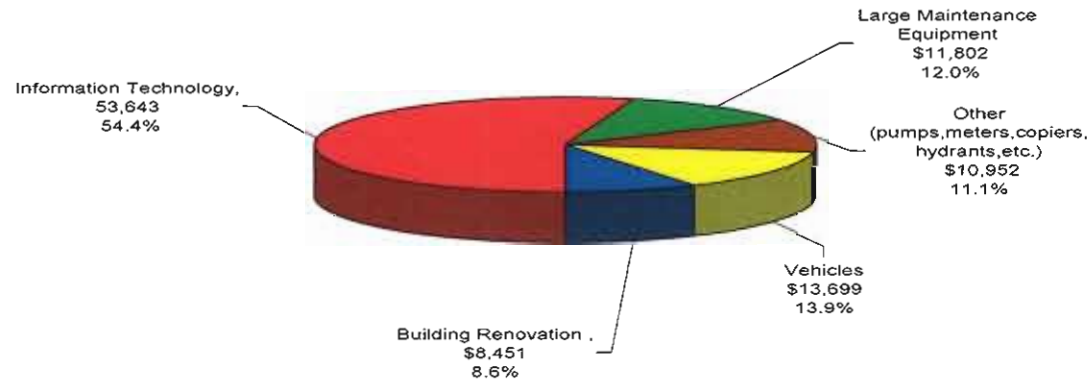


## CAPITAL EQUIPMENT

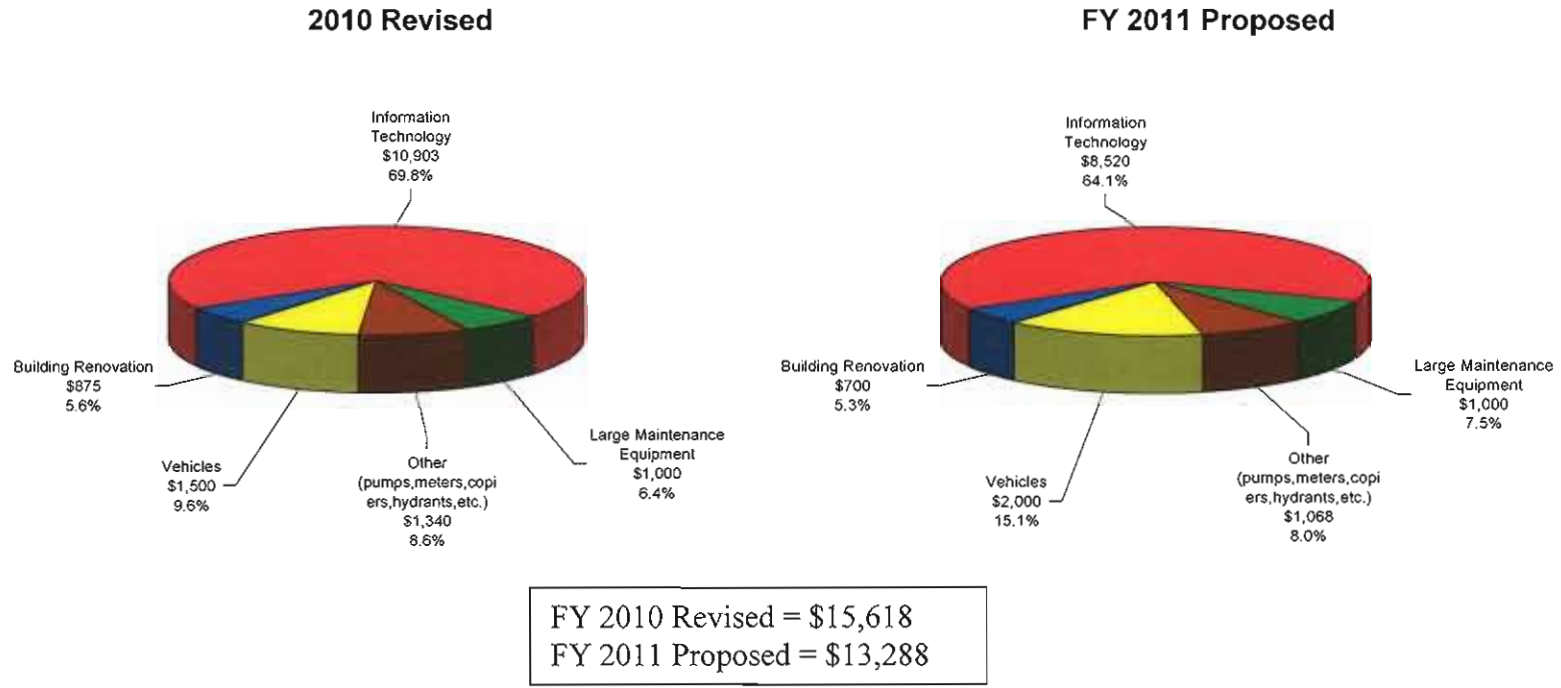
DC WASA's Capital Equipment budget totals approximately \$98.5 million for FY 2009 – FY 2018 plan, a decrease of approximately \$6 million compared to the last ten-year plan. Fifty four percent of spending in the capital equipment area continues to be on major information technology projects, including the network system renewal (budget of \$6.5 million) and the asset management system (budget of \$6.3 million). DC WASA continues its commitment to scheduled replacement of its vehicle fleet with a budget of \$13.7 million, representing almost fourteen percent of the ten-year plan. Finally, maintenance of large equipment at Blue Plains and in the major water and sewer pumping stations totals \$11.8 million, or twelve percent of the ten-year plan.

The revised FY 2010 budget at \$15.6 million is \$170 thousand lower than the FY 2010 approved budget. This variance is primarily attributable to the budget decreases in: the Wastewater Treatment department, Facilities managed programs and Maintenance Services department.

### CAPITAL EQUIPMENT DISBURSEMENTS BY MAJOR EXPENDITURE CATEGORIES FY 2009 – FY 2018 (\$ in 000's)



**CAPITAL EQUIPMENT DISBURSEMENTS BY MAJOR EXPENDITURE CATEGORIES**  
**FY 2010 Revised vs. FY 2011 Proposed**  
 (\$ in 000's)



**Equipment Purchases**

Equipment purchases are made by the Departments of Wastewater Treatment, Water Services, Sewer Services, Customer Service, Fleet Management, Facilities, Security, Information Technology, and Maintenance Services. Amounts shown below are 10-year disbursement totals.

*Department of Wastewater Treatment - \$0.3 million*

Capital equipment expenditures for this department are for laboratory equipment purchases to maintain a certified laboratory.



*Department of Water Services - \$8.0 million*

The Department of Water Services is responsible for replacing deteriorated or damaged fire hydrants, water system valves, and system appurtenances. These purchases are separate from Capital Improvement Program activities for the systematic replacement of valves; rather they are for interim replacement of these items as individual needs are encountered by field crews. Activities in the FY 2010 revised and FY 2011 proposed budgets largely remain the same as those carried out by the department in previous years for fire hydrant and water service replacements.

*Department of Sewer Services - \$2.6 million*

This department is responsible for replacing catch basins, manhole covers and frames, and rehabilitating regulators and outfall gates. The FY 2009 -2018 budget plan reflects a major thrust for buying Flow Meter Sensors, Catch Basin Tops and Manhole Covers/Frames.

*Department of Fleet Management - \$13.7 million*

A major emphasis is placed on coordinating equipment purchases with the realigned needs of the Authority as Internal Improvement Plans implemented in prior years continue to be carried out over the next few years. The past few years have focused efforts on the larger equipment such as backhoes and dump trucks, to ensure that the critical equipment necessary to support the organizations responsibilities is available and in good, safe working order. This year's budget focuses on replacing many of the infrastructure vehicles within the organization, including twelve ¾ ton pickup trucks with an average age of 11 years, twelve mid-size extended cab pickup trucks, five 15 passenger vans, eight ¾ ton cargo vans, and twenty electric carts.

*Department of Safety and Security - \$ .05 million*

This department is responsible for providing security measures throughout the Authority. This year's budget will focus on installing a modular hazardous material storage building as the current hazardous material storage building is out dated and does not meet required safety requirements.

*Department of Facilities - \$8.5 million*

Capital equipment activities for this department include HVAC system and plumbing maintenance at various locations, fencing, landscaping, and fire suppression and detection systems. Additionally, the organization has established a five year reassessment and replacement schedule for its photocopier requirements which began with equipment purchased in FY04, such that this 10-year disbursement schedule includes funding of \$2.7 million for two iterations of copier purchases.

*Department of Maintenance Services - \$7.6 million*

This department is responsible for rehabilitating and replacing large process equipment throughout the Authority, including pumps, screens, variable frequency drives, and large motors. A major emphasis has been placed on the High Priority Rehab Program over the past several

years, which ensures that large equipment will function properly until its scheduled replacement in the Capital Improvement Program. High Priority Rehab includes work on the Gravity Thickener turn table and main drive units, pumps for Eastern Ave Pumping Station, a Water Clutch Assembly for the Westfalia centrifuge and the Grit Process Blower. They will also be supporting the Solids building conveyor system and lime lines while the Department of Engineering and Technical Services designs and implements adjustments to the process to use the recommended smaller size lime pellets, thus achieving a better coalescence of the lime and sludge in the stabilization process and ultimately decreasing the amount of lime required.

*Department of Sewer and Water Pumping - \$4.2 million*

This department is responsible for rehabilitating and replacing large process equipment outside of Blue Plains plant, including pumps, screens, variable frequency drives, and large motors. A major emphasis has been placed on the High Priority Rehab Program over the past several years, which ensures that large equipment will function properly until its scheduled replacement in the Capital Improvement Program.

*Department of Information Technology - \$ 53.6 million*

At DC WASA, we focus all of our technology initiatives on improving both the quality of services we provide to our customers and organizational effectiveness. We are receiving recognition in this area from several prestigious third parties including back to back CIO 100 awards for 2008 and 2009 as well as recognition of our work in the field GIS by Environmental Systems Research Institute (ESRI), a global leader in GIS solutions, for most innovative implementation of GIS in 2009.

We are leading a collaboration group for CIO's and IT executives within the utilities industry enabling us to reduce risk while employing innovation. These activities have situated us at the same table with numerous multi-national organizations and governmental entities providing truth to the statement that DC WASA is a world class organization.

Our work during FY 2009 and our investments in technology over the next several years are further evidence of our commitment

**Technology Strategic Plan** – We continue to focus on implementing the Information Technology Strategic Plan, most recently revised in FY 2005. This Plan outlines a vision for the delivery of Information Technology services at DC WASA, and a methodology for prioritization of all technology projects (which includes an assessment of cost savings and productivity growth). Information Technology investments include those that focus on improvements in Information security, infrastructure and the use of Information Technology throughout DC WASA to improve the delivery of services to our customers and operational efficiency.

In FY 2009, we focused our efforts on continuing to improve our operations by better integrating people and processes through technology and creating new business values through innovative solution. A few key examples of this effort that are already underway or will begin in the near future are:

**Platform for Spatio-Temporal Analysis and Reasoning  
A First of A Kind Project (FOAK)**

In FY 2010 DC WASA and International Business Machines Corporation (“IBM”) embarked on a collaborative research project, First Of A Kind (“FOAK”) project for a "Platform for Spatio-Temporal Analysis and Reasoning (PSTAR). DC WASA and IBM will develop and apply data analytics technology to DC WASA’s Total Enterprise Asset Management System (TEAMS-Maximo), Automated Meter Reading (AMR), and Supervisory Control And Data Acquisition System (SCADA) data. The project may yield insights to DC WASA which can lead to business value through enhanced customer service, improved preventive maintenance, reduced cost, etc. IBM expects to develop technology that is applicable towards its Smarter Cities effort through this collaboration with DC WASA.

**Website Enhancements** – Continuing to build on the past success of our website, [www.dcwasa.com](http://www.dcwasa.com), multiple enhancements were implemented during FY 2009. Using our recently deployed continuous website improvement cycle, a new general site design structure went live in early 2009, which provides visitors streamlined access to information regarding DC WASA and this generated an extremely positive response from our website audience. Additional improvements included an Avatar-based Bill Tour, Board of Directors meeting live-video streaming and an Impervious Area Charge Calculator. To improve interaction regarding career opportunities, eRecruitment module was integrated in FY 2009, allowing for a robust job application process and tracking. Continuing forward with the website improvement life cycle during FY 2010, the Authority will implement additional customer outreach functionality, including online permit status updates, a Water Quality Avatar Tour, a live ‘chat’ feature, Board of Directors (BOD) Strategic Plan eScorecard, and eboardroom as part our green initiatives.

**Interactive Voice Response** – DC WASA’s enhanced Interactive Voice Response system (IVR) provides our customers with multiple tools related to communication with the Authority, including the ability to pay their bill or report a problem. In FY 2009, the IVR system was enhanced to support recently implemented Impervious Area Charges, providing an expedited path for communication related to these inquiries and an automated set of Frequently Asked Questions, to resolve any inquiries in an efficient manner. IVR also implemented a customer service survey and an outgoing call campaign to inform targeted customers of the need to implement Automated Meter Reading functionality at their premise. During FY 2010, enhancements to the IVR will include interfacing with the DC WASA new telephone system to improve Customer Service processes and reporting, as well as an outgoing call campaign for customers impacted by Lead Service Replacement service lines, reminding them about the service and to flush their lines.

**Total Enterprise Asset Management System (TEAMS-Maximo)** – During FY 2009, we committed a substantial amount of time and effort to upgrade TEAMS-Maximo to the most current version. This is set to “go-live” sometime in early FY 2010. This version will provide DC WASA with much more flexibility to support asset and work management needs. Additionally, this version provides a much better platform for integrating with other programs which we intend to take advantage of in FY 2010 and FY 2011, as well. This version will allow substantially better integration between Maximo and GIS which will help DC WASA staff to more effectively plan and execute work.

- *TEAMS-Maximo Supporting Fleet Management* - In FY 2009, we started the planning phase for the integration of fleet management into TEAMS-Maximo which will increase staff and contractor efficiency, reduce fleet cost-of-ownership, extend the life of assets and allow for performance evaluation, trending and analysis. We will continue pursuing this in FY 2010.
- *TEAMS-Maximo Supporting Tracking Private Backflow Prevention Assemblies* - DC WASA’s Cross-Connection Control Program is a regulated program under the DC code with a primary goal to protect district residents and WASA’s distribution system from accidental and intentional cross contamination. An essential component of the regulatory program is the ability to track the installation and testing of backflow prevention assemblies (BPA’s) in every commercial building in the District. In FY 2009, we commenced developing functionality

in Maximo to accommodate the tracking of BPA's and the annual testing of these assemblies. This is set to "go-live" sometime in early FY 2010.

- *TEAMS-Maximo Enhanced Integration with GIS* – In FY 2010, we intend to develop additional integration between Maximo and GIS. This will enhance the ability of Water Services and Sewer Services to plan and execute investigations and repairs as work in the same proximity will be shown graphically on a map. This will result in more investigations and repairs being completed per day, as well. Map-based work assignment routing will be deployed to increase field staff efficiency and allow more maintenance to be performed per day.
- *Permitting Application Tracking System (PATS-Maximo)* – During FY 2009, we developed functionality to allow customers to look-up, view and track information regarding their permit applications. This includes the status of the application, the scheduled completion date, design review comments, etc. This is set to "go-live" sometime in early FY 2010. This additional form of "customer communications" is part of DC WASA's continuing effort to provide meaningful and better customer service.
- **Enterprise Geographical Information System (GIS)** – DC WASA's GIS is a valuable tool that enables employees to look-up information, via the intranet, on our infrastructure; e.g., the exact location of the infrastructure, corresponding street and premise data. This saves time as employees can locate buildings, roads, sidewalks, parks, and assist our field crews and others in locating infrastructure assets. In FY 2009, DC WASA's vision, leadership, and innovative use of ESRI's geographic information system (GIS) technology was recognized by being awarded the Special Achievement in GIS Award from ESRI. DC WASA was selected from more than 300,000 organizations worldwide and recognized for making extraordinary contributions to our global society.

In FY 2009, we completed the Water Network Data conversion project and published a first version of this comprehensive dataset to be used in the field by our crews and DC FEMS. We also improved the overall integration of the FEMS Mobile Fire Hydrant Inspection in the business processes to reduce the amount of manual work required to capture, dispatch and track the repairs identified by the survey.

In FY 2010, the focus will be to have more customer facing applications leveraging the information collected in our online systems.

- **Impervious Area Charge System (IACS)** – In May 2009, we successfully went live with the IACS, which provided the tools required to determine the amount of impervious area on individual properties. Premise spatial data derived from implementing IACS also allowed us to perform an independent propagation study for the Automated Reading System upgrade project resulting in substantial cost saving. In the future the system will allow us to support new map-centric dashboards for AMR, route-planning tools to help reduce fuel costs, and many other business processes with respect to organization efficiency.

**Enterprise Records and Document Management System (ERDMS)** –In FY 2009, we continued enterprise-wide implementation of KnowledgeLink with Document Libraries for eight additional groups. The 24 x 7-accessible and searchable online Document Libraries enable quick and easy search and retrieval of records, as well as protecting the safety, security and integrity of the loaded documents. FY 2009 accomplished projects were:

- *Customer Service Library* for Call Center Lead Service Replacement files and Collections files

- *Biosolids Program Documents Library* to assist the Biosolids division in meeting the rigorous document control requirements of their third party Environmental Management System Certification
- *Risk Management Library* for Workers Compensation, Property / Auto / Liability [PAL], ROCIP Workers Compensation, ROCIP GL, Insurance Policies, Reports, and General Documents
- *Fleet Management Library* for Title and Registration, Acquisition Information, Work Order and Miscellaneous documents for Vehicles, Carts, Small Equipment and Non-tag Inventory Units managed by the Fleet Department
- *Safety and Security Library* for documents related to the Comprehensive Safety Program, the Comprehensive Security Program, Emergency Management and Response, Investigations, and Hazard Communications
- *Performance Measures Library* for documents related to the Board Strategic Plan, Performance Measures Communications and Departmental and Enterprise Scorecards
- *Water Quality Library*, to be deployed shortly, includes documents such as Consumer Confidence Reports, Plumbing Surveys, Lead Profiles, DBPR and TCR rules, and various other Water Quality reports and documents.
- *Government Relations Library*, in the final stages of development, for documents such as Budget and Appropriations, Legislation, Issues and Initiatives.

In FY 2010, we plan to continue enterprise-wide implementation of KnowledgeLink with the deployment of new departmental projects, such as Water/Sewer service maps.

***Supervisory Control and Data Acquisition (SCADA)*** – In FY 2007, the Authority embarked on an initiative to replace its 20 years old Data Acquisition (DAQ) SCADA. Our main objectives were to address reliability concerns, improve operational efficiency and securing sensitive data.

In FY 2009 we have successfully completed the implementation of an State-of-the -Art SCADA solution supported by an unique and innovative self healing, fault tolerant, media independent and highly secure architecture for real time transmission of command and control data. The Authority can control and monitor all remote nodes without compromising security. In FY 2010, we plan to continue with the integration of SCADA system with facilities coming online as part CIP.

In FY 2009, *CIO* magazine named DC WASA to its annual list of Top 100 organizations that exemplify the highest level of operational and strategic excellence in Information Technology (IT). DC WASA was selected for the CIO award based on First-of-Its-Kind communication and control network infrastructure to support Supervisory Control and Data Acquisition (SCADA) system.

***Information Security Program Information Security Program*** – In FY 2009, we completed a comprehensive Risk Management process for the identification, analysis, and management of business risk according to information asset value. The Information Security Strategic Plan (2009-2013) was developed to define the Authority's long-term plan for improving its security posture to meet the challenges of evolving technology and the changing threat landscape. Safeguards for the Authority's new SCADA system are almost complete to ensure system reliability and protection of our critical assets. This effort will continue as the system continues to expand to meet new business challenges,



including controlled information sharing with other WASA business systems. We have developed a Security Awareness & Education program to ensure users are an active and integral part of our Information Security Program.

**Field Service Management System (Mobile Computing)** – In FY 2008, we successfully deployed a mobile solution for hydrant inspections for DC FEMS. Based on the lessons learned in this project we will be designing similar applications for the DWS crews for various core service groups such as the valve crews and the hydrant crews. In 2010 we plan to extend our pilot program to deploy the existing GIS viewer. In addition we intend to deploy TEAMS-Maximo to the field staff in support of Water Services and Sewer Services investigation, maintenance and repair operations. This will help DC WASA capture information regarding work on the infrastructure more timely and more accurately and will provide critical data to the field so that personnel can make more informed and better decisions regarding the work. Also, field captured data will provide more complete information to office staff for trending and analysis

**Telephone System Upgrade** – In FY 2009, DC WASA started the implementation of our next generation telephone system to replace the aging legacy phone system. The new Alcatel-Lucent solution will utilize a single infrastructure for voice, data, and video offering greater mobility, advance applications in the areas of customer service and safety as well as system redundancy. Advance applications provide real time agent reporting, skills based routing and advanced agent supervision via Customer Contact application. The implementation of the new phone system is scheduled to be completed in early FY 2010.

Over the next two years, we will continue to focus our efforts on the Board's Strategic Plan to ensure that our use of technology ensures even better service to our customers.

### **Capital Equipment Technology Projects**

In addition to carrying out infrastructure and communication related technology projects, such as Web Development and Network Renewal, the Department of Information Technology is also responsible for planning and implementing enterprise systems throughout the Authority in partnership with the respective operating departments. The most significant efforts underway within the Enterprise Projects are as follows:

*Total Enterprise Asset Management System (TEAMS-Maximo-GIS) - \$6.3 million*

The TEAMS is a major DC WASA-wide undertaking, which began in FY 2004. This project was originally planned to be a water and sewer infrastructure asset management system and has since expanded to integrate the Permitting Application Tracking System, Water quality, work order management etc. This system now encompasses the entire organization and integrates technology already in place at DC WASA (such as customer information and billing, financial management systems, AMR, SCADA etc.)

*Radios - \$1.7 million*

The Authority will be upgrading the current Blue Plains plant radio system. Presently the plant radio system is an analog system which is over twenty years old. WASA's current license of 450 MHz utilized by this system is due to expire by 2012.

### *Document Management System –\$ 2.3 million*

WASA embarked on the Enterprise Records and Document Management System (ERDMS) in FY 2004. We will continue with enterprise-wide implementation of KnowledgeLink with Document Libraries throughout the Authority. The 24 x 7-accessible and searchable online Document Libraries enable quick and easy search and retrieval of records, as well as protecting the safety, security and integrity of the loaded documents.

### *Enterprise Resource Planner (ERP) System - \$4.0 million*

In 2000, DC WASA implemented its Financial System and in 2001 implemented its Customer Information System. When these systems were implemented DC WASA made a decision, based on organizational readiness and the solutions available at that time, not to go with ERP (Enterprise Resource Program...this program allows software systems to interface) System, but to utilize the option of selecting “best-of-breed” systems. In the past 10 years DC WASA as the industry has matured to a different level, and based on the organizational readiness-- and the solutions now available-- DC WASA will phase in an ERP System.

### *Automated Meter Reading (AMR)*

AMR was established at the Authority in 2002, and by 2008 the initial software and top-level hardware (Data Collection Units, Network Connection Console) was obsolete and required upgrade to current technology. Implementation of the latest version of software and hardware allows for improvement in Customer Service, reduction in troubleshooting processes, and greater reporting functionality. Upgrading the application, hardware, and underlying operating systems allows the Authority to take advantage of increased security capabilities, as well as improves system redundancy, business continuity, and disaster recovery services.

AMR supports DC WASA’s commitment to its customers by providing efficiencies in the cost of services and in the provision of information concerning water use. This is achieved through implementation of state-of-the-art software and hardware systems as well as a secure communications framework. Efficiencies have been gained by reducing personnel required for manual intervention with individual meters and by providing information internally to focus on critical business processes. Provision of interfaces provide information directly to customer billing system, High Usage Notification Systems (HUNA), and both internal- and external-AMR Graph, which allows a customer to view their most recent year of usage on a daily basis.

### *CIP Portfolio Manger System*

This is part of a recommendation from Independent Budget Review. DC WASA will embark on an initiative to implement Enterprise Portfolio Management System for CIP related projects.

### *Route Optimization System*

The proposed project consist of acquiring, configuring and implementing technology that would build on top of existing DC WASA Enterprise Systems, extending the Geographical Information System (GIS) currently in place at DC WASA to optimize routes and schedules of the Authority’s maintenance, customer service and inspection crews. By optimizing the performance of each vehicle operation, the Authority will be

able to improve customer service satisfaction, reduce labor and maintenance costs and operate in a more sustainable manner with potentially less vehicles. Overall the cost savings will result in stabilization of the operating budget minimizing the risk of having to reduce essential services or increase the rates.

#### *Supervisory Control And Data Acquisition (SCADA) System*

In FY 2007, the Authority embarked on an initiative to replace its 20 years old Data Acquisition (DAQ) SCADA. Our main objectives were to address reliability concerns, improve operational efficiency and securing sensitive data.

DC WASA plans to continue with the integration of SCADA system with facilities coming online as part of the CIP.

#### *Energy Management Information System*

DC WASA is deploying an energy management initiative, including a full system audit, which is “developing a plan to implement cost- effective energy savings measures for its facilities and identify carbon footprint reduction opportunities”. Successful implementation and management of the defined information system will allow DC WASA the ability to better manage total energy use, as well as identify and implement operational strategies that will control load factors, peak load needs and reduce inefficiencies. Ready access to the data also allows the Authority an ability to adjust amounts and timing of energy use to conserve electricity costs as well. Additionally, DC WASA may use the information system to coordinate with energy providers to arrange improved purchasing and rate schedules. Money slated for the system represents estimates for gathering system requirements. Upon completion of business requirements, the budget will be adjusted accordingly.

#### *Customer Information and Billing System - \$.8 million*

The Customer Information Billing system was implemented in June 2001. Continued updates and enhancements to the system are scheduled throughout the life of the 10-year disbursement plan.

#### *Redundant Data Center - \$2.3 million*

In keeping with the Information Technology Strategic Plan, DC WASA has been creating a Redundant Data Center. This facility, complete with uninterrupted power supply and system backup capability, when completed, will provide the ability to seamlessly transition without data loss and with minimal down time.

#### *Network System Renewal- \$6.5 million*

A 4-year replacement plan has been developed for Network infrastructure equipment, as well as Intel servers and Enterprise SUN servers for Asset Management, GIS, Document management. The following upgrades will take place to support this plan: Purchase additional servers to further standardize server technology, upgrade backbone routers, access switches, and log monitoring products and consulting services for technology implementation.

*Field Services Management System – \$3 million*

WASA plans to deploy TEAMS-Maximo-GIS to the field staff by deploying mobile terminals in the vehicles to support Water Services and Sewer Services investigation, maintenance and repair operations. This will help DC WASA capture information regarding work on the infrastructure more timely and more accurately and will provide critical data to the field so that personnel can make more informed and better decisions regarding the work. Also, field captured data will provide more complete information to office staff for trending and analysis.

**Notes:**

1. Capital equipment is defined by a purchase price greater than \$5,000 and an item that has a useful life of more than three years, or will extend the life of an asset by more than three years. Capital equipment expenditures fall into two broad categories: equipment purchases and ongoing projects. Purchases include items such as fire hydrants, catch basin components, water meters, vehicles, and computers. Budgets for equipment purchases are closed out at the end of each fiscal year. Ongoing projects extend over multiple years and are largely technology-related.
2. On the project pages that follow, lifetime budgets prior to FY 2010 reflect only FY 2009 actual disbursements, for projects of an 'on-going' nature, such as Desktop Replacements, High Priority Rehab, and vehicle purchases. On 'One-time' projects such as Asset Management, Document Management, and the Redundant Data Center, the disbursements reflect all of the spending on the effort since it began, while the Commitment budget reflects all of the anticipated spending required to complete the project and place it into service. Additionally, out year budgets show only spending expected through FY 2018. This is due to the generally annual nature of purchases and projects occurring in the Capital Equipment service area of DC WASA's capital program.

**FY 2009 - FY 2018 Capital Equipment Disbursements**  
(\$ in 000's)

Equipment Type	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY '09 - FY	Project
	Actuals	Revised	Proposed								'18	Sheet
											Total	Ref.
<b>Wastewater Treatment</b>												
Safety Equipment	\$0	\$15	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15	EB5
General Equipment	-	16	-	-	-	-	-	-	-	-	16	EB5
Lab Equipment	-	23	30	30	30	30	30	30	30	30	263	EB5
Metering & Recording Devices	-	9	-	-	-	-	-	-	-	-	9	EB5
<b>Total</b>	<b>\$0</b>	<b>\$62</b>	<b>\$30</b>	<b>\$30</b>	<b>\$30</b>	<b>\$30</b>	<b>\$30</b>	<b>\$30</b>	<b>\$30</b>	<b>\$30</b>	<b>\$302</b>	
<b>Water Services</b>												
Water Service Replacement	\$328	\$400	\$260	\$260	\$260	\$260	\$260	\$260	\$260	\$260	\$2,808	EA2
System Valve Replacements	144	270	225	225	225	225	225	225	225	225	2,214	EW1
Fire Hydrant Replacements	258	290	300	300	300	300	300	300	300	300	2,948	EX8
<b>Total</b>	<b>\$730</b>	<b>\$960</b>	<b>\$785</b>	<b>\$785</b>	<b>\$785</b>	<b>\$785</b>	<b>\$785</b>	<b>\$785</b>	<b>\$785</b>	<b>\$785</b>	<b>\$7,970</b>	
<b>Sewer Services</b>												
Sewer Pipes/Fittings	\$20	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$290	EA4
Manhole Covers/Frames	22	33	33	33	33	33	33	33	33	33	319	EA4
Regulator and Gate Rehabilitation	7	10	10	10	10	10	10	10	10	10	97	EA4
Sewer Cleaning and Repair Equip	37	55	55	55	55	55	55	55	55	55	532	EA4
Portable Pumps	20	30	20	20	20	20	75	20	20	20	265	EA4
Flow Meters/Sensor Replacemen	33	50	75	75	75	100	100	100	100	100	808	EA4
Catch Basin Tops/Frames/Covers	20	\$60	30	30	30	30	30	30	30	30	320	EA4
<b>Total</b>	<b>\$158</b>	<b>\$268</b>	<b>\$253</b>	<b>\$253</b>	<b>\$253</b>	<b>\$278</b>	<b>\$333</b>	<b>\$278</b>	<b>\$278</b>	<b>\$278</b>	<b>\$2,630</b>	
<b>Fleet Management</b>												
Vehicles	\$2,500	\$1,500	\$2,000	\$1,100	\$1,100	\$1,100	\$1,100	\$1,100	\$1,100	\$1,100	\$13,699	EB6
<b>Total</b>	<b>\$2,500</b>	<b>\$1,500</b>	<b>\$2,000</b>	<b>\$1,100</b>	<b>\$1,100</b>	<b>\$1,100</b>	<b>\$1,100</b>	<b>\$1,100</b>	<b>\$1,100</b>	<b>\$1,100</b>	<b>\$13,699</b>	
<b>Safety and Security</b>												
Modular Hazardous Mat. Storage	-	\$50	-	-	-	-	-	-	-	-	\$50	EO0
<b>Total</b>	<b>\$0</b>	<b>\$50</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$50</b>	
<b>Facilities</b>												
HVAC at Various Locations	\$60	\$225	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$1,085	EF3
Photocopier Purchase	265	100	200	600	200	200	200	200	200	500	2,665	EF5



**FY 2009 - FY 2018 Capital Equipment Disbursements**  
(\$ in 000's)

Equipment Type	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY '09 - FY	Project
	Actuals	Revised	Proposed								'18	Sheet
											Total	Ref.
WASA-wide fire suppress/detecti	302	25	75	75	75	75	75	75	75	75	927	EF7
Plumbing at Various Locations	251	50	25	25	25	25	25	25	25	25	501	EX6
Furniture and Fixtures	94	200	150	200	150	150	150	150	150	150	1,544	EX6
Facilities Improvements	125	200	150	200	150	150	150	150	150	150	1,575	EX6
Rollup Doors	63	50	-	-	-	-	-	-	-	-	113	EX6
WASA-wide Fencing	16	25	-	-	-	-	-	-	-	-	41	EX6
<b>Total</b>	<b>1,176</b>	<b>875</b>	<b>700</b>	<b>1,200</b>	<b>700</b>	<b>700</b>	<b>700</b>	<b>700</b>	<b>\$700</b>	<b>1,000</b>	<b>8,451</b>	

**Information Technology**

Desktop Replacements	\$627	\$610	\$550	\$550	\$559	\$672	\$562	\$565	\$550	\$559	\$5,804	EA6
Cable Renewal	144	175	175	150	150	150	150	150	150	150	1,544	EA7
Telephone System Renewal/Repl	737	308	100	100	100	100	100	100	100	100	1,845	EA8
Software Applications/Licenses	200	225	200	130	130	130	130	130	130	130	1,535	EB1
Messaging Services	15	50	225	10	10	50	225	10	10	50	655	EB2
Windows 2003 Migration/ Upgrad	11	180	30	30	30	30	30	30	30	30	431	EB3
Radios	-	610	900	30	30	30	30	30	30	30	1,720	EB4
Redundant Data Center	192	435	60	60	500	200	60	60	500	200	2,267	EB8
Network System Renewal	472	600	815	815	600	600	600	765	600	600	6,467	EC4
Audio Visual System - IT	50	70	60	60	25	30	60	25	30	60	470	EC6
Interactive Voice Response	69	50	60	20	20	20	20	20	20	20	319	EC7
EMAP Phases I and II	31	163	-	-	-	-	-	-	-	-	194	ED1
SQL Upgrade	119	130	175	10	10	10	10	10	10	10	494	EG1
Enterprise File System Archiving	-	100	10	10	250	150	10	10	150	10	700	EG2
Network Storage System Renewa	650	163	75	125	125	125	425	525	125	125	2,463	EG3
ERP System	-	500	1,000	2,450	-	-	-	-	-	-	3,950	EG4
Succession Planning	-	50	30	30	-	-	-	-	-	-	110	EH2
AMR Enhancements	75	500	50	200	50	50	50	50	50	50	1,125	EM5
E Contract/Procurement Mgt Syst	0	100	100	200	-	-	-	-	-	-	400	EP3
Network Systems Security	34	75	50	50	30	30	50	30	50	30	429	ET1
Intranet	60	189	75	75	75	75	75	75	75	75	849	ET2
Handheld Inventory	29	150	50	50	50	50	50	50	50	50	579	ET5
Enterprise Backup Solution	100	100	350	450	100	100	100	100	100	100	1,600	ET7
Video Conferencing	0	10	10	10	10	10	200	10	10	10	280	ET8
Field Services Mgmt System (Aut	500	500	500	600	685	50	50	50	50	50	3,035	ET9
Web-Site Development	199	290	125	125	75	75	75	75	75	75	1,189	EX7
Financial Management System	261	545	-	-	-	-	-	-	-	-	806	EZ1
Customer Information & Billing Sy	257	360	100	100	-	-	-	-	-	-	817	EZ2
Payroll/HR System	-	115	30	30	30	30	30	30	30	30	355	EZ4
Document Management System	489	650	513	300	50	50	50	50	50	50	2,252	EZ8

**FY 2009 - FY 2018 Capital Equipment Disbursements**  
(\$ in 000's)

Equipment Type	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY '09 - FY	Project
	Actuals	Revised	Proposed								'18	
											Total	Ref.
Asset Management System (Maximo)	1,194	1,300	1,502	1,300	535	85	85	85	85	85	6,256	EZ9
Fleet Management System	-	100	-	-	-	-	-	-	-	-	100	EZ9
Automated Security - Visitor Acce	-	100	-	-	-	-	-	-	-	-	100	EY3
Web EOC		50	50	-	-	-	-	-	-	-	100	EY4
Oracle Upgrade	-	40	200	200	-	-	-	-	-	-	440	EY5
AutoCAD		20	-	-	-	-	-	-	-	-	20	EO1
AutoCAD Lite		20	-	-	-	-	-	-	-	-	20	EO2
CIP Planner		510	-	-	-	-	-	-	-	-	510	EO3
Sewer and Water Gem		45	-	-	-	-	-	-	-	-	45	EO4
IBM Watson Research		150	-	-	-	-	-	-	-	-	150	EO5
Optimization- Pilot: Daily Fleet Operations		300	100	-	-	-	-	-	-	-	400	EO6
Water and Sewer SCADA		100	100	-	-	-	-	-	-	300	500	EO7
Board e-book		60	-	-	-	-	-	-	-	-	60	EO8
Permits Relocation		105	-	-	-	-	-	-	-	-	105	EO9
Energy Management		-	150	-	-	-	-	-	-	-	150	EQ1
<b>Total</b>	<b>\$ 6,517</b>	<b>\$10,903</b>	<b>\$ 8,520</b>	<b>\$ 8,270</b>	<b>\$ 4,229</b>	<b>\$ 2,902</b>	<b>\$ 3,227</b>	<b>\$ 3,035</b>	<b>\$ 3,060</b>	<b>\$ 2,979</b>	<b>\$ 53,643</b>	
<b><u>Maintenance Services</u></b>												
Shop Equipment and Plant Lighti	\$49	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$49	EA9
Major Pump Rebuild/Replacemer	1,000	500	300	300	300	300	300	300	300	300	3,900	EC1
Large Electric Motors	407	300	200	200	200	200	200	200	200	200	2,307	EC2
High Priority Rehab Program	746	-	-	-	-	-	-	-	-	-	746	EC3
Centrifuge Rebuild / Replace	600	-	-	-	-	-	-	-	-	-	600	EM4
<b>Total</b>	<b>\$2,802</b>	<b>\$800</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$7,602</b>	
<b><u>Sewer and Water Pumping</u></b>												
Major Pump Rebuild/Replacemer	\$0	\$0	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$2,400	EI1
Large Electric Motors	-	200	200	200	200	200	200	200	200	200	1,800	EI2
	<b>\$0</b>	<b>\$200</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$500</b>	<b>\$4,200</b>	
<b>Total Capital Equipment</b>	<b>\$13,883</b>	<b>\$15,618</b>	<b>\$13,288</b>	<b>\$12,638</b>	<b>\$8,097</b>	<b>\$6,795</b>	<b>\$7,175</b>	<b>\$6,928</b>	<b>\$6,953</b>	<b>\$7,172</b>	<b>\$98,546</b>	

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EB5 Laboratory Metering and Recording Equipment**  
 Managing Department: Wastewater Treatment EPMC:  
 Priority: Good Utility Practice  
**Project Description:**  
 Annually occurring purchase of laboratory equipment and metering devices.  
**Impact on Operations:**  
 This project will have no effect on the operating budget.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - 41.35%  
 EPA -  
 WSSC - 45.84%  
 Fairfax - 8.38%  
 Loudoun/PI - 4.43%



FY 2010 Approved Budget	609,000
FY 2011 Proposed Budget	302,000
Increase/(Decrease) to Approved Budget:	-307,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget	91	63	30	30	30	30	30	30	30	30	
Commitments Budget	91	63	30	30	30	30	30	30	30	30	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EA2 Water Service Replacement**  
 Managing Department: Water Services EPMC:  
 Priority: Good Utility Practice  
**Project Description:**  
 Annual maintenance of main and water service lines  
**Impact on Operations:**  
 This project will have no effect on the operating budget.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	2,760,000
FY 2011 Proposed Budget	2,808,000
Increase/(Decrease) to Approved Budget:	48,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	668	400	260	260	260	260	260	260	260	260	
<b>Commitments Budget</b>	668	400	260	260	260	260	260	260	260	260	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EW1 System Valve Replacement**  
 Managing Department: Water Services **EPMC:**  
 Priority: Good Utility Practice  
**Project Description:**  
 Annual program for system valve replacement.  
**Impact on Operations:**  
 This project will have no effect on the operating budget

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	2,282,000
FY 2011 Proposed Budget	2,214,000
Increase/(Decrease) to Approved Budget:	-68,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	311	270	225	225	225	225	225	225	225	225	
<b>Commitments Budget</b>	311	270	225	225	225	225	225	225	225	225	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EX8 Fire Hydrant Replacement**  
 Managing Department: Water Services **EMPC:**  
 Priority: Good Utility Practice

Phase	Start Date
Design:	
Construction:	
Project Completion:	

**Project Description:**

Annually occurring fire hydrant, valve, and service line rehab and replacement. Also, Lab Equipment and Flow Monitors and Water Service Replacement.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	3,315,000
FY 2011 Proposed Budget	2,948,000
Increase/(Decrease) to Approved Budget:	-367,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	773	290	300	300	300	300	300	300	300	300	
<b>Commitments Budget</b>	773	290	300	300	300	300	300	300	300	300	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EA4 Sewer Service Utility Equipment  
**Managing Department:** Sewer Services **EPMC:**  
**Priority:** Good Utility Practice  
**Project Description:**  
 Annual rehab and replacement of catch basins, and manholes.  
**Impact on Operations:**  
 This project will have no effect on the operating budget.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	2,825,000
<b>FY 2011 Proposed Budget</b>	2,631,000
<b>Increase/(Decrease) to Approved Budget:</b>	-194,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	547	268	253	253	253	278	333	278	278	278	
<b>Commitments Budget</b>	547	268	253	253	253	278	333	278	278	278	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EB6 Vehicle Purchases**  
 Managing Department: Fleet Services **EPMC:**  
 Priority: Good Utility Practice  
**Project Description:**  
 Annually occurring WASA-wide vehicle and equipment purchases.  
**Impact on Operations:**  
 Newer vehicles should result in lower operating costs.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	13,399,000
FY 2011 Proposed Budget	13,699,000
Increase/(Decrease) to Approved Budget:	300,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	4,600	1,500	2,000	1,100	1,100	1,100	1,100	1,100	1,100	1,100	
<b>Commitments Budget</b>	4,600	1,500	2,000	1,100	1,100	1,100	1,100	1,100	1,100	1,100	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **E00 Modular Hazardous Material Storage Bldg.**  
 Managing Department: Safety and Security **EPMC:**  
 Priority: Good Utility Practice  
**Project Description:**  
 This building is utilized for storing hazardous materials.  
**Impact on Operations:**  
 This project will have no effect on the operating budget.

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	0
FY 2011 Proposed Budget	50,000
Increase/(Decrease) to Approved Budget:	50,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget	0	50									0
Commitments Budget	0	50									0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EF3 HVAC at Various Locations  
**Managing Department:** Facilities **EPMC:**  
**Priority:** Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**  
Annual program to repair and replace HVAC equipment within DCWASA.

Facilities maintains the heating, ventilation and air conditioning of both manned and un-manned structures within the purview of the DCWASA system, much of which is necessary to ensure optimal operating conditions for the equipment maintained therein.

This program covers HVAC equipment which requires repairs or replacements outside of the normal renovation cycles of the structures in which they are located.

**Impact on Operations:**  
This project will have no impact on the operating budget

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	1,850,000
<b>FY 2011 Proposed Budget</b>	1,085,000
<b>Increase/(Decrease) to Approved Budget:</b>	-765,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	410	225	100	100	100	100	100	100	100	100	
<b>Commitments Budget</b>	410	225	100	100	100	100	100	100	100	100	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** **EF5 Photocopier Purchase**  
**Managing Department:** Facilities **EPMC:**  
**Priority:** Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**  
 Periodic program for replacement of DCWASA-owned copiers at the end of their useful lives.

DCWASA purchased new copiers in FY2004. The copier program calls for the assessment and replacement of copier equipment in 5 year cycles, based on repair costs, usage, and fitness for required tasks. In FY2010 DCWASA will perform it's next copier cycle, adjusting the types, speeds and capabilities of equipment which is reaching the end of its useful life according to the needs of the User areas. DCWASA will continue to use any equipment found to still be within it's useful life.

**Impact on Operations:**  
 This project will have no impact on opertating budget

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	2,800,000
<b>FY 2011 Proposed Budget</b>	2,665,000
<b>Increase/(Decrease) to Approved Budget:</b>	-135,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	265	100	200	200	600	200	200	200	200	500	
<b>Commitments Budget</b>	265	100	200	200	600	200	200	200	200	500	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EF7 WASA-wide fire supression/detection**  
 Managing Department: Facilities **EPMC:**  
 Priority: Good Utility Practice

Phase	Start Date
Design:	
Construction:	
Project Completion:	

**Project Description:**

This project will provide near-term, critical improvements to fire suppression systems in certain WASA facilities.

During FY2008 the TIC library dry chemical fire suppression system will be installed, and the discontinued HALON system will be removed. A DCWASA-wide assessment of the ADA compliance of all Fire Suppression systems will also be conducted, with all compliance tasks of which WASA personnel are capable also being performed.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	1,760,000
FY 2011 Proposed Budget	927,000
Increase/(Decrease) to Approved Budget:	-833,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	412	25	75	75	75	75	75	75	75	75	
<b>Commitments Budget</b>	412	25	75	75	75	75	75	75	75	75	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EX6 Facilities Improvements  
**Managing Department:** Facilities **EMPC:**  
**Priority:** Good Utility Practice

Phase	Start Date
Design:	
Construction:	
Project Completion:	

**Project Description:**  
Annual program for maintenance of WASA-wide facilities including HVAC replacement, elevator rehabs, plumbing, fencing and signage.

**Impact on Operations:**  
This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	4,086,000
FY 2011 Proposed Budget	3,774,000
Increase/(Decrease) to Approved Budget:	-312,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	1,014	525	325	425	325	325	325	325	325	325	
<b>Commitments Budget</b>	1,014	525	325	425	325	325	325	325	325	325	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EA6 Desktop Replacements**  
 Managing Department: Information Technology EPMC:  
 Priority: IT Best Practice (Life Cycle Management)

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**  
 Annual replacement of computer equipment according to three-year plan, including physically securing these assets.  
**Impact on Operations:**  
 This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	5,849,000
FY 2011 Proposed Budget	5,804,000
Increase/(Decrease) to Approved Budget:	-45,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,177	610	550	550	559	672	562	565	550	559	
<b>Commitments Budget</b>	1,177	610	550	550	559	672	562	565	550	559	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EA7 Cable Renewal**  
 Managing Department: Information Technology **EPMC:**  
 Priority: IT Best Practice (Life Cycle Management)  
**Project Description:**  
 Annual program for upgrading copper and fiber infrastructure.  
**Impact on Operations:**  
 This project will have no effect on the operating budget.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	1,600,000
FY 2011 Proposed Budget	1,544,000
Increase/(Decrease) to Approved Budget:	-56,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	344	175	175	150	150	150	150	150	150	150	
<b>Commitments Budget</b>	344	175	175	150	150	150	150	150	150	150	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EA8 Telephone System Renewal  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** IT Best Practice (Life Cycle Management)

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**  
Implementation of next generation telephone system and annual purchase of equipment and enhancements.

**Impact on Operations:**  
Ongoing maintenance renewal and system support.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	3,190,000
<b>FY 2011 Proposed Budget</b>	1,845,000
<b>Increase/(Decrease) to Approved Budget:</b>	-1,345,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	2,282	308	100	100	100	100	100	100	100	100	
<b>Commitments Budget</b>	2,282	308	100	100	100	100	100	100	100	100	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EB1 Software Applications/Licenses**  
 Managing Department: Information Technology EPMC:  
 Priority: IT Best Practice (Software Compliance Management)

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**  
 Annual software license purchases to ensure compliance with applications needs, usage and standardization.  
**Impact on Operations:**  
 Ongoing annual maintenance renewal cost.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	1,560,000
FY 2011 Proposed Budget	1,535,000
Increase/(Decrease) to Approved Budget:	-25,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	425	225	200	130	130	130	130	130	130	130	
<b>Commitments Budget</b>	425	225	200	130	130	130	130	130	130	130	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** **EB2 Messaging Services**  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** IT Best Practice  
**Project Description:**  
 Enhancements to current version of e-mail system and future upgrades.  
**Impact on Operations:**  
 Ongoing annual maintenance renewal and technical support.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	650,000
<b>FY 2011 Proposed Budget</b>	655,000
<b>Increase/(Decrease) to Approved Budget:</b>	5,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	25	50	225	10	10	50	225	10	10	50	
<b>Commitments Budget</b>	25	50	225	10	10	50	225	10	10	50	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EB3 Windows Migration**  
 Managing Department: Information Technology **EPMC:**  
 Priority: IT Best Practice  
**Project Description:**  
 Windows server migration/upgrade based on 4-year life cycle.  
**Impact on Operations:**  
 Ongoing annual maintenance renewal and technical support.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	480,000
FY 2011 Proposed Budget	431,000
Increase/(Decrease) to Approved Budget:	-49,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	41	180	30	30	30	30	30	30	30	30	
<b>Commitments Budget</b>	41	180	30	30	30	30	30	30	30	30	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EB4 Radios  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** IT Best Practice (Life Cycle Management)  
**Project Description:**  
 Radio system upgrade to next generation digital radio system and annual system enhancements.  
**Impact on Operations:**  
 Ongoing annual maintenance renewal and City-Wide radio fee.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	1,888,000
<b>FY 2011 Proposed Budget</b>	1,720,000
<b>Increase/(Decrease) to Approved Budget:</b>	-168,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	78	610	900	30	30	30	30	30	30	30	
<b>Commitments Budget</b>	78	610	900	30	30	30	30	30	30	30	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EB8 Redundant Data Center**  
 Managing Department: Information Technology **EPMC:**  
 Priority: IT Best Practice (Disater Recovery/Business Continuity)

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**  
 Implementation of plan to ensure data redundancy for WASA's mission critical systems.

**Impact on Operations:**  
 Ongoing annual maintenance renewal and system support.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	2,550,000
FY 2011 Proposed Budget	2,267,000
Increase/(Decrease) to Approved Budget:	-283,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	692	435	60	60	500	200	60	60	500	200	
<b>Commitments Budget</b>	692	435	60	60	500	200	60	60	500	200	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EC4 Network System Renewal  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** IT Best Practice (Life Cycle Management)  
**Project Description:**  
 Ongoing replacement of servers as they reach the end of useful life and go out of maintenance.  
**Impact on Operations:**  
 Ongoing annual maintenance renewal and system support.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	6,676,000
<b>FY 2011 Proposed Budget</b>	6,467,000
<b>Increase/(Decrease) to Approved Budget:</b>	-209,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,043	600	815	815	600	600	600	765	600	600	
<b>Commitments Budget</b>	1,043	600	815	815	600	600	600	765	600	600	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EC6 Audio Video System**  
 Managing Department: Information Technology **EPMC:**  
 Priority: IT Best Practice (Life Cycle Mangement)

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**  
 Audio video system upgrades, primarily for Boardroom, to accommodate technology changes.  
**Impact on Operations:**  
 Ongoing annual maintenance renewal and system support.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	426,000
FY 2011 Proposed Budget	470,000
Increase/(Decrease) to Approved Budget:	44,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	66	70	60	60	25	30	60	25	30	60	
<b>Commitments Budget</b>	66	70	60	60	25	30	60	25	30	60	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EC7 Interactive Voice Response**  
 Managing Department: Information Technology **EPMC:**  
 Priority: IT Best Practice (Life Cycle Mangement)

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**  
 Upgrade of current electronic voice response system that allows outbound calling, call recording, and computer and telephone integration.  
**Impact on Operations:**  
 Ongoing annual maintenance renewal and system support.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	460,000
FY 2011 Proposed Budget	319,000
Increase/(Decrease) to Approved Budget:	-141,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	239	50	60	20	20	20	20	20	20	20	
<b>Commitments Budget</b>	239	50	60	20	20	20	20	20	20	20	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** **ED1 Electronic Maps**  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	4/1/2003
<b>Project Completion:</b>	9/30/2010

**Project Description:**

Vectorization of as-built drawings for Department of Engineering and Technical Services. This project is being coordinated with WASA's new asset management system.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	207,000
<b>FY 2011 Proposed Budget</b>	194,000
<b>Increase/(Decrease) to Approved Budget:</b>	-13,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	53	163									
<b>Commitments Budget</b>	53	163									

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EG1 SQL Update**  
 Managing Department: Information Technology **EPMC:**  
 Priority: IT Best Practice (Life Cycle Management)  
**Project Description:**  
 SQL server upgrade from SQL server 2000 to SQL server 2005.  
**Impact on Operations:**  
 This project will have no effect on the operating budget.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	470,000
<b>FY 2011 Proposed Budget</b>	494,000
<b>Increase/(Decrease) to Approved Budget:</b>	24,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	222	130	175	10	10	10	10	10	10	10	
<b>Commitments Budget</b>	222	130	175	10	10	10	10	10	10	10	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EG2 Enterprise File System Archiving**  
 Managing Department: Information Technology **EPMC:**  
 Priority: IT Best Practice  
**Project Description:**  
 Enterprise archival system for shared files.  
**Impact on Operations:**  
 Ongoing annual maintenance and system technical support.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	990,000
FY 2011 Proposed Budget	700,000
Increase/(Decrease) to Approved Budget:	-290,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget		100	10	10	250	150	10	10	150	10	
Commitments Budget		100	10	10	250	150	10	10	150	10	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EG3 Network Storage System Renewal**  
 Managing Department: Information Technology EPMC:  
 Priority: IT Best Practice (Life Cycle Management)

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Project Description:**  
Enterprise centralized storage data system

**Impact on Operations:**  
Ongoing annual maintenance and system support.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	2,978,000
FY 2011 Proposed Budget	2,463,000
Increase/(Decrease) to Approved Budget:	-515,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget	650	163	75	125	125	125	425	525	125	125	
Commitments Budget	650	163	75	125	125	125	425	525	125	125	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EG4 ERP System**  
 Managing Department: Information Technology **EPMC:**  
 Priority: IT Best Practice  
**Project Description:**  
 System upgrade for financial management system and customer information system and convergence  
**Impact on Operations:**  
 Ongoing annual maintenance and system support.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	4,700,000
FY 2011 Proposed Budget	3,950,000
Increase/(Decrease) to Approved Budget:	-750,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget		500	1,000	2,450							
Commitments Budget		500	1,000	2,450							

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EH2 Succession Planning**  
 Managing Department: Information Technology **EPMC:**  
 Priority: Good Utility Practice  
**Project Description:**  
 This program provides support to executive and senior staff in fulfilling development needs  
**Impact on Operations:**  
 This project will have no impact on operating budget

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	130,000
FY 2011 Proposed Budget	110,000
Increase/(Decrease) to Approved Budget:	-20,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget		50	30	30							
Commitments Budget		50	30	30							

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Water Service Area  
 Program Title: Metering  
 Activity Group/Project Title: **EM5 AMR System Enhancements**  
 Managing Department: Customer Service **EPMC:**  
 Priority: IT Best Practice (Life Cycle Management)

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**

Project designed to update and maintain the 64 rooftop mounted Data Collection Units (DCU) that receive meter readings.

**Impact on Operations:**

Ongoing annual maintenance and system support.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	1,100,000
FY 2011 Proposed Budget	1,125,000
Increase/(Decrease) to Approved Budget:	25,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	75	500	50	200	50	50	50	50	50	50	
<b>Commitments Budget</b>	75	500	50	200	50	50	50	50	50	50	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EP3 E Contract  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**

Procurement is in need of streamlined computer-based Procurement sourcing and Contract maintenance functionality. Solution options are being investigated to identify a recommendation.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	377,000
<b>FY 2011 Proposed Budget</b>	400,000
<b>Increase/(Decrease) to Approved Budget:</b>	23,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>		100	100	200							
<b>Commitments Budget</b>		100	100	200							

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **ET1 Network Systems Security**  
 Managing Department: Information Technology **EPMC:**  
 Priority: IT Best Practice (Information Security)

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Project Description:**  
 Additional measures to secure the network entry points for all WASA systems.

**Impact on Operations:**  
 This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	731,000
FY 2011 Proposed Budget	429,000
Increase/(Decrease) to Approved Budget:	-302,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	200	75	50	50	30	30	50	30	50	30	
<b>Commitments Budget</b>	200	75	50	50	30	30	50	30	50	30	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **ET2 Intranet**  
 Managing Department: Information Technology EPMC:  
 Priority: Good Utility Practice  
**Project Description:**  
 User needs analysis and enhanced inter-departmental document sharing.  
**Impact on Operations:**  
 Ongoing annual system support.

Phase	Start Date
Design:	
Construction:	
Project Completion:	

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	882,000
FY 2011 Proposed Budget	849,000
Increase/(Decrease) to Approved Budget:	-33,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
Disbursements Budget	167	189	75	75	75	75	75	75	75	75	
Commitments Budget	167	189	75	75	75	75	75	75	75	75	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** ET5 Handheld Inventory  
**Managing Department:** Information Technology **EMPC:**  
**Priority:** Good Utility Practice

Phase	Start Date
Design:	10/1/2005
Construction:	10/1/2006
Project Completion:	9/30/2010

**Project Description:**

Provides real-time information and technical control, reducing paperwork and automating basic inventory processes.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	746,000
FY 2011 Proposed Budget	579,000
Increase/(Decrease) to Approved Budget:	-167,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	185	150	50	50	50	50	50	50	50	50	
<b>Commitments Budget</b>	185	150	50	50	50	50	50	50	50	50	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **ET7 Enterprise Backup Solution**  
 Managing Department: Information Technology **EMPC:**  
 Priority: IT Best Practice

Phase	Start Date
Design:	
Construction:	
Project Completion:	

**Project Description:**  
 Periodic assessment and upgrade of entity-wide backup solutions which support the computer systems within DCWASA.

**Impact on Operations:**  
 Ongoing annual maintenance and system support.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	1,349,000
FY 2011 Proposed Budget	1,600,000
Increase/(Decrease) to Approved Budget:	251,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
Disbursements Budget	200	100	350	450	100	100	100	100	100	100	
Commitments Budget	200	100	350	450	100	100	100	100	100	100	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **ET8 Video Conferencing**  
 Managing Department: Information Technology EPMC:  
 Priority: Good Utility Practice  
**Project Description:**  
 Creation and maintenance of Video conferencing functionality at DCWASA.  
**Impact on Operations:**  
 Ongoing annual maintenance support.

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	420,000
FY 2011 Proposed Budget	280,000
Increase/(Decrease) to Approved Budget:	-140,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>		10	10	10	10	10	200	10	10	10	
<b>Commitments Budget</b>		10	10	10	10	10	200	10	10	10	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:**   
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**

Efficiency motivated effort to install computers in DCWASA service vehicles, to streamline reporting, outstanding issue, and ticket closing efforts by field staff. Also, provide ability to assign priority jobs to crews in the field via the onboard computers, instead of relying on radio functionality.

**Impact on Operations:**

Ongoing annual maintenance and system support.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	<input type="text" value="3,348,000"/>
<b>FY 2011 Proposed Budget</b>	<input type="text" value="3,035,000"/>
<b>Increase/(Decrease) to Approved Budget:</b>	<input type="text" value="-313,000"/>

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,213	500	500	600	685	50	50	50	50	50	
<b>Commitments Budget</b>	1,213	500	500	600	685	50	50	50	50	50	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** **EX7 Web Site Development**  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice  
**Project Description:**  
 Ongoing Website & Enhancements  
**Impact on Operations:**  
 Ongoing annual system support.

Phase	Start Date
Design:	
Construction:	4/1/2001
Project Completion:	09/30/2003

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	1,131,000
FY 2011 Proposed Budget	1,189,000
Increase/(Decrease) to Approved Budget:	58,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	255	290	125	125	75	75	75	75	75	75	
<b>Commitments Budget</b>	255	290	125	125	75	75	75	75	75	75	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EZ1 Financial Management System**  
 Managing Department: Information Technology **EPMC:**  
 Priority: IT Best Practice

Phase	Start Date
Design:	
Construction:	10/1/2002
Project Completion:	9/30/2010

**Project Description:**

In 2000, WASA implemented its financial system and in 2001 implemented its Customer Information System. When these systems were implemented WASA made a decision based on organizational readiness and the solutions available at that time, not to go with an ERP System, but to utilize the option of selecting "best-of-breed" systems. In the last 10 years, WASA has matured to a different level and the industry has as well, and based on current systems assesment WASA is in the process of procuring a ERP System.

**Impact on Operations:**

Ongoing annual maintenance and system support.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	888,000
FY 2011 Proposed Budget	806,000
Increase/(Decrease) to Approved Budget:	-82,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
Disbursements Budget	419	545									
Commitments Budget	419	545									

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** **EZ2 Customer Information & Billing System**  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice

Phase	Start Date
<b>Design:</b>	
<b>Construction:</b>	10/1/2000
<b>Project Completion:</b>	9/30/2012

**Project Description:**

This budget provides for ongoing system enhancements to provide new services to customers including automatic notification of high usage patterns, summary billing for customers with multiple accounts and new functionality to track lead service line replacement.

**Impact on Operations:**

Ongoing annual maintenance and system support.

**Funding by User (percent):**

DC - 100.00%  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	1,047,000
FY 2011 Proposed Budget	817,000
Increase/(Decrease) to Approved Budget:	-230,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	604	360	100	100							
<b>Commitments Budget</b>	604	360	100	100							

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EZ4 Payroll/HR System**  
 Managing Department: Information Technology **EPMC:**  
 Priority: IT Best Practice

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Project Description:**  
 Swipe card entry enhancement to payroll system and employee remote access to individual payroll information.

**Impact on Operations:**  
 This project will have no effect on the operating budget, however, due to ongoing system enhancements, the capital budget will maintain budgeted dollars.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	315,000
FY 2011 Proposed Budget	355,000
Increase/(Decrease) to Approved Budget:	40,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	45	115	30	30	30	30	30	30	30	30	
<b>Commitments Budget</b>	45	115	30	30	30	30	30	30	30	30	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** **EZ8 Document Management System**  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice

Phase	Start Date
Design:	10/1/2002
Construction:	
Project Completion:	9/30/2011

**Project Description:**

This project will provide a centralized electronic source for all critical WASA documents, allowing for better sharing among departments and transfer of information to future WASA employees.

**Impact on Operations:**

Ongoing annual maintenance and system support.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	2,916,000
FY 2011 Proposed Budget	2,252,000
Increase/(Decrease) to Approved Budget:	-664,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	1,355	650	513	300	50	50	50	50	50	50	
<b>Commitments Budget</b>	1,355	650	513	300	50	50	50	50	50	50	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** **EZ9 Water/Sewer Asset Management System/Fleet**  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice

Phase	Start Date
Design:	10/1/2002
Construction:	10/1/2004
Project Completion:	9/30/2011

**Project Description:**

A system to integrate existing customer information, maintenance management, process computer control system (PCCS)/supervisory control, data acquisition system (SCADA), and other systems, to assist WASA in better managing our water and sewer infrastructure and allow better tracking of specific asset performance.

**Impact on Operations:**

Ongoing annual maintenance and system support.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	6,420,000
FY 2011 Proposed Budget	6,356,000
Increase/(Decrease) to Approved Budget:	-64,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	2,194	1,400	1,502	1,300	535	85	85	85	85	85	
<b>Commitments Budget</b>	2,194	1,400	1,502	1,300	535	85	85	85	85	85	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** **EY3 Automated Security-Visitor Access System**  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	11/1/2008
<b>Construction:</b>	
<b>Project Completion:</b>	9/30/2011

**Project Description:**  
Standardize the visitor and access system for each of the major facilities.

**Impact on Operations:**  
Ongoing annual maintenance and technical support cost.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	200,000
<b>FY 2011 Proposed Budget</b>	100,000
<b>Increase/(Decrease) to Approved Budget:</b>	-100,000

<b>Disbursements Budget</b>	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
	0	100									0
<b>Commitments Budget</b>	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
	0	100									0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EY4 Web EOC  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice

Phase	Start Date
Design:	10/1/2009
Construction:	
Project Completion:	9/30/2011

**Project Description:**  
 Crisis information management software that delivers real-time information to emergency responders.  
**Impact on Operations:**  
 Ongoing annual license maintenance cost

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	100,000
FY 2011 Proposed Budget	100,000
Increase/(Decrease) to Approved Budget:	0

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	0	50	50								0
<b>Commitments Budget</b>	0	50	50								0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EY5 Oracle Upgrade**  
 Managing Department: Information Technology EPMC:  
 Priority: Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Project Description:**  
 Upgrade existing Oracle database environment to latest Oracle database environment; required for compatibility with existing and future Enterprise Application at WASA.

**Impact on Operations:**  
 Ongoing annual license maintenance cost.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	600,000
FY 2011 Proposed Budget	440,000
Increase/(Decrease) to Approved Budget:	-160,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	0	40	200	200							0
<b>Commitments Budget</b>	0	40	200	200							0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EO1 AutoCAD**  
 Managing Department: Information Technology **EPMC:**  
 Priority: Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**

This is software used to create and edit engineering drawings used in design and construction of WASA projects.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	0
FY 2011 Proposed Budget	20,000
Increase/(Decrease) to Approved Budget:	20,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>		20									0
<b>Commitments Budget</b>		20									0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:**   
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice

<u>Phase</u>	<u>Start Date</u>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**

This is software used to create and edit engineering drawings in the field as record documents for construction.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	<input type="text" value="0"/>
<b>FY 2011 Proposed Budget</b>	<input type="text" value="20,000"/>
<b>Increase/(Decrease) to Approved Budget:</b>	<input type="text" value="20,000"/>

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>		20									0
<b>Commitments Budget</b>		20									0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EO3 CIP Planner  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice

Phase	Start Date
Design:	
Construction:	
Project Completion:	

**Project Description:**  
 This software is used by DETS to manage the DIP's elements, time, cost and contract management.  
**Impact on Operations:**  
 This project will have no effect on the operating budget.

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	0
FY 2011 Proposed Budget	510,000
Increase/(Decrease) to Approved Budget:	510,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>		510									0
<b>Commitments Budget</b>		510									0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EO4 Sewer and Water Gem**  
 Managing Department: Information Technology EPMC:  
 Priority: Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Project Description:**  
 This software is used by the Engineering Planning section to model the DC sewer system.

**Impact on Operations:**  
 This project will have no effect on the operating budget.

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	<input type="text" value="0"/>
FY 2011 Proposed Budget	<input type="text" value="45,000"/>
Increase/(Decrease) to Approved Budget:	<input type="text" value="45,000"/>

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget		45									0
Commitments Budget		45									0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EO5 IBM Watson Research**  
 Managing Department: Information Technology **EMPC:**  
 Priority: Good Utility Practice

<u>Phase</u>	<u>Start Date</u>
Design:	
Construction:	
Project Completion:	

**Project Description:**

This project is a collaboration between DC WASA and IBM with the goal of developing and applying data analytics technology to DC WASA Maximo data (work orders, asset defect reports, meter readings, etc) and other data (SCADA, etc).

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	0
FY 2011 Proposed Budget	150,000
Increase/(Decrease) to Approved Budget:	150,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget		150									0
Commitments Budget		150									0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EO6 Optimization-Pilot: Daily Fleet**  
 Managing Department: Information Technology **EPMC:**  
 Priority: Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Project Description:**

This proposed project consist of acquiring, configuring and implementing technology that would build on top of existing DC WASA Enterprise Systems, extending the Geographical Information System (GIS) currently in place at DC WASA to optimize routes and schedules of the Authority's maintenance, customer service and inspection crews.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	<input type="text" value="0"/>
FY 2011 Proposed Budget	<input type="text" value="400,000"/>
Increase/(Decrease) to Approved Budget:	<input type="text" value="400,000"/>

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget		300	100								0
Commitments Budget		300	100								0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EO7 Water and Sewer SCADA**  
 Managing Department: Information Technology EPMC:  
 Priority: Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**

In 2007 DC WASA started SCADA project to support the business needs and improve operational efficiencies. A detailed plan for the system upkeep in line with technology advancements & replacing end of life equipment will be outlined. Equipment upgrade include communications and other ancillary devices.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	0
FY 2011 Proposed Budget	500,000
Increase/(Decrease) to Approved Budget:	500,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>		100	100							300	0
<b>Commitments Budget</b>		100	100							300	0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EO8 Board e-book**  
 Managing Department: Information Technology EPMC:  
 Priority: Good Utility Practice  
**Project Description:**  
 This project will convert the current print media to eBook format.  
**Impact on Operations:**  
 This project will have no effect on the operating budget.

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	<input type="text" value="0"/>
FY 2011 Proposed Budget	<input type="text" value="60,000"/>
Increase/(Decrease) to Approved Budget:	<input type="text" value="60,000"/>

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>		60									0
<b>Commitments Budget</b>		60									0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EO9 Permits Relocation  
**Managing Department:** Information Technology **EPMC:**  
**Priority:** Good Utility Practice  
**Project Description:**  
 This project will be utilized to facilitate the PERMITS department move to Downtown DC.  
**Impact on Operations:**  
 This project will have no effect on the operating budget.

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	0
<b>FY 2011 Proposed Budget</b>	105,000
<b>Increase/(Decrease) to Approved Budget:</b>	105,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>		105									0
<b>Commitments Budget</b>		105									0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EQ1 Energy Management  
**Managing Department:** Information Technology **EMPC:**  
**Priority:** Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**

This Project will be to develop a plan to implement cost-effective energy savings measures for its facilities and identify carbon footprint reduction opportunities.

**Impact on Operations:**

This project will result in operating efficiencies.

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	0
FY 2011 Proposed Budget	150,000
Increase/(Decrease) to Approved Budget:	150,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	150									0
<b>Commitments Budget</b>	0	150									0

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EA9 Shop Equipment and Plant Lighting**  
 Managing Department: Maintenance Services **EPMC:**  
 Priority: Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**

Annual program to repair and replace Shop Equipment and Plant Lighting.

Maintenance requires many small tools, rerouting pumps, testing and calibration equipment, drills, presses and other specialty tools to maintain the myriad types of equipment used within the DCWASA system.

In addition, there is a sizable lighting requirement for both safety and underground visibility requirements, whose periodic repair and replacement is covered by this program.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	350,000
<b>FY 2011 Proposed Budget</b>	49,000
<b>Increase/(Decrease) to Approved Budget:</b>	-301,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	169										
<b>Commitments Budget</b>	169										

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EC1 Pump Repair and Replacement**  
 Managing Department: Maintenance Services **EMPC:**  
 Priority: Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Project Description:**  
 Annual program for the repair and replacement of major pumps at Blue Plains.

In addition to addressing problems which arise during the year, FY10 will include rebuilds of Spent Wash Water Pumps, High Pressure Reclaimed Effluent Pumps, and Filter Influent Pumps. FY10 will include replacement of the Nitrification Return Sludge Pumps.

**Impact on Operations:**  
 This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	3,600,000
FY 2011 Proposed Budget	3,900,000
Increase/(Decrease) to Approved Budget:	300,000

	Pre FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Post FY 2018
<b>Disbursements Budget</b>	1,700	500	300	300	300	300	300	300	300	300	
<b>Commitments Budget</b>	1,700	500	300	300	300	300	300	300	300	300	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EC2 Large Electric Motors**  
 Managing Department: Maintenance Services **EPMC:**  
 Priority: Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Project Description:**

Large motors periodically need to be completely rebuilt or replaced at WASA facilities to maintain process systems and meet permit compliance. Repairs planned for FY 2010 include: Eddy Current Drivess, Filter Influent Pump Motors, Grit Pump Motors, Westfalia Centrifuge Motor, Spent Wash Water Pump Motor and Nitrification return Sludge Pump Motors.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	2,800,000
FY 2011 Proposed Budget	2,307,000
Increase/(Decrease) to Approved Budget:	-493,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget	907	300	200	200	200	200	200	200	200	200	
Commitments Budget	907	300	200	200	200	200	200	200	200	200	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*



**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** EC3 High Priority Rehab Program  
**Managing Department:** Maintenance Services **EPMC:**  
**Priority:** Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**

Major rebuild/replacement of critical process equipment at Blue Plains is needed in order to maintain permit compliance and provide water service to customers. Equipment includes, but is not limited to; Backflow Preventers, Rotamat Screens (Degrit), Dual Purpose Sedimentation Basin Gates, Gravity Thickener Collector, VFD's for Secondary Pumping and replace hanger bearing in solids processing conveyors.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



<b>FY 2010 Approved Budget</b>	2,914,000
<b>FY 2011 Proposed Budget</b>	746,000
<b>Increase/(Decrease) to Approved Budget:</b>	-2,168,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	1,360										
<b>Commitments Budget</b>	1,360										

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EM4 Centrifuge Repair and Replacement**  
 Managing Department: Maintenance Services EPMC:  
 Priority:  
 Project Description:  
 Repair and replacement of Centrifuges at Blue Plains.  
 Impact on Operations:  
 This project will have no effect on the operating budget.

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Funding by User (percent):**

DC - Joint Use - Indirect Cost  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	3,400,000
FY 2011 Proposed Budget	600,000
Increase/(Decrease) to Approved Budget:	-2,800,000

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
Disbursements Budget	900										
Commitments Budget	900										

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

**Service Area Title:** Capital Equipment  
**Program Title:** Capital Equipment  
**Activity Group/Project Title:** **EI1 Major Pump Rebuild/Replacement**  
**Managing Department:** Sewer and Water Pumping **EPMC:**  
**Priority:** Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
<b>Design:</b>	
<b>Construction:</b>	
<b>Project Completion:</b>	

**Project Description:**  
Annual program for the repair and replacement of Major Pumps at Blue Plains.

In addition to addressing problems which arise during the year, FY10 will include rebuilds of Spent Wash Water Pumps, High Pressure Reclaimed Effluent Pumps, and Filter Influent Pumps. FY10 will include replacement of the Nitrification Return Sludge Pumps.

**Impact on Operations:**  
This project will have no effect on the operating budget.

**Funding by User (percent):**

DC -  
EPA -  
WSSC -  
Fairfax -  
Loudoun/PI -



FY 2010 Approved Budget	0
FY 2011 Proposed Budget	2,400,000
<b>Increase/(Decrease) to Approved Budget:</b>	<b>2,400,000</b>

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>			300	300	300	300	300	300	300	300	
<b>Commitments Budget</b>			300	300	300	300	300	300	300	300	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*

**District of Columbia Water and Sewer Authority  
FY 2009 - 2018 Capital Improvement Program**

Service Area Title: Capital Equipment  
 Program Title: Capital Equipment  
 Activity Group/Project Title: **EI2 Large Electric Motors**  
 Managing Department: Sewer and Water Pumping **EPMC:**  
 Priority: Good Utility Practice

<b>Phase</b>	<b>Start Date</b>
Design:	
Construction:	
Project Completion:	

**Project Description:**

Large motors periodically need to be completely rebuilt or replaced at WASA facilities to maintain process systems and meet permit compliance. Repairs planned for FY 2010 include: Eddy Current Drives, Filter Influent Pump Motors, Grit Pump Motors, Westfalia Centrifuge Motor, Spent Wash Water Pump Motor and Nitrification return Sludge Pump Motors.

**Impact on Operations:**

This project will have no effect on the operating budget.

**Funding by User (percent):**

DC -  
 EPA -  
 WSSC -  
 Fairfax -  
 Loudoun/PI -



FY 2010 Approved Budget	<input type="text" value="0"/>
FY 2011 Proposed Budget	<input type="text" value="1,800,000"/>
Increase/(Decrease) to Approved Budget:	<input type="text" value="1,800,000"/>

	<u>Pre FY 2010</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Post FY 2018</u>
<b>Disbursements Budget</b>	0	200	200	200	200	200	200	200	200	200	
<b>Commitments Budget</b>	0	200	200	200	200	200	200	200	200	200	

*(projected disbursements do not include contingencies)*

*(dollars in thousands)*