

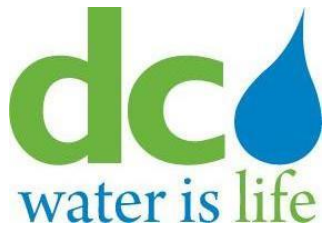


APPROVED FY 2018 BUDGETS

ADOPTED DECEMBER 1, 2016
(Fiscal year starts on October 1)

Matthew T. Brown, Board Chairman
George S. Hawkins, CEO and General Manager
Mark T. Kim, Chief Financial Officer

SUSTAINABILITY & AFFORDABILITY



Blue Horizon 2020 Strategic Plan

The DC Water Blue Horizon 2020 Strategic Plan, adopted by the Board of Directors in March 2013 and revised in 2015, serves as a blueprint for achieving a vision to be a world-class water utility. Three focus areas – leadership, value and innovation – serve as key drivers in achieving the goals and objectives of the plan. By laying out a course of action, Blue Horizon represents a disciplined process for making fundamental decisions and shaping DC Water’s future, including the appropriate allocation of funding.

FOCUS AREAS

Leadership: DC Water will advocate and lead local, regional, and national collaborations, while internally developing the workforce of the future.

Value: DC Water will be recognized for the value it delivers by protecting public health and the environment, supporting community sustainability, and providing for economic vitality.

Innovation: DC Water will achieve international prominence in development and adoption of science, technology, and processes in support of a culture of innovation.

VISION

To be a world-class utility.

VALUES

Respectful: Serve with a positive attitude, courtesy, and respect that engender collaboration and trust.

Ethical: Maintain high ethical standards, accountability, and honesty as we advance the greater good.

Vigilant: Attend to public health, the environment, quality, efficiency, and sustainability of our enterprise.

Accountable: Address challenges promptly, implement effective solutions, and provide excellent service as a committed team.

MISSION

Exceed expectations by providing high quality water services in a safe, environmentally friendly, and efficient manner.

GOALS

The goals in our strategic plan framework represent the core strategies that DC Water will pursue. The Board and Executive Management believe that they are essential to the achievement of the mission and to becoming a world-class water utility.

OBJECTIVES

Objectives are the strategic measures that will enable the Board and Executive Management to evaluate achievement of the goals. Some of the specific measures will need to be further researched and refined as the organization implements the plan and obtains additional insight and information.

INITIATIVES

Initiatives are the allocation of resources (time and money) to achieve the objectives and the goals.

BOARD OF DIRECTORS

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Ellen O. Boardman, District of Columbia
Rachna Butani-Bhatt, District of Columbia
Obiora “Bo” Menkiti, District of Columbia
Vacant, District of Columbia
Vacant, District of Columbia
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Vacant, District of Columbia
Vacant, District of Columbia
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Mustaafa Dozier, Esq., Chief of Staff
Biju George, Chief Operating Officer

Henderson J. Brown, IV Esq., General Counsel
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Aklile Tesfaye, Assistant General Manager, Blue Plains

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Sudhir Murthy, Innovations Chief
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Carlton Ray, Director, DC Clean Rivers Project
Brian McDermott, Director, Permit Operations

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Salil Kharkar, Director, Operations, Wastewater Treatment
Anthony Mack, Director, Maintenance Services

Nicholas Passarelli, Director, Process Engineering
Chris Peot, Director, Resource Recovery

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Tsedale Berhanu, Acting, Director, Customer Services
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Jason Hughes, Director, Utility Services - Water
Chuck Sweeney, Director, Distribution and Conveyance Systems

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Robert Hunt, Director, Finance
Syed Khalil, Director, Revenues and Financial Planning
John Madrid, Controller

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Dan Bae, Director, Procurement
Steve Caldwell, Director, Security
Timothy Fitzgerald, Director, Fleet Management
Rick Green, Director, Human Capital Management
Ayodele McClenney, Director, Occupational Safety and Health
Johnnie Walker, Director, Facilities Management

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Pamela Mooring, External Communications Manager
Scott Ellinwood, Internal Communications Manager
Tamara Stevenson, Production Manager

OFFICE OF CHIEF INFORMATION OFFICER

Joseph M. Edwards, Director, Infrastructure and Operations

ACKNOWLEDGEMENTS

The office of the Chief Financial Officer would like to extend our appreciation to the Executive Team and Senior Management Staff for their strategic guidance and leadership.

In addition, we would like to acknowledge the following staff members from the departments of Finance, Accounting & Budget, Engineering & Technical Services and External Affairs for their hard work and dedication geared towards the publication of this document.

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Kunle Fagbohunka

Sonia Francone

Ermon Green

Paul Guttridge

Rodea Hines

Michelle Idowu

Stacey Johnson

Shirley Thomas

William Lake

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Dennis Samson

Suzette Stona

Bill Jones

Pamela Mooring

Pade Zuokemefa

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GOVERNMENT FINANCE OFFICERS ASSOCIATION

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Budget Presentation
Award*

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District of Columbia Water & Sewer Authority

District of Columbia

For the Fiscal Year Beginning

October 1, 2016

Executive Director



APPROVED BUDGETS



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Section I EXECUTIVE BUDGET SUMMARY



Executive Budget Summary

Approved FY 2018 • Adopted December 1, 2016

(Fiscal year starting October 1)

Matthew T. Brown, Chairman of the Board

George S. Hawkins, CEO and General Manager

Mark T. Kim, Chief Financial Officer

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY



Green infrastructure project, Bloomingdale

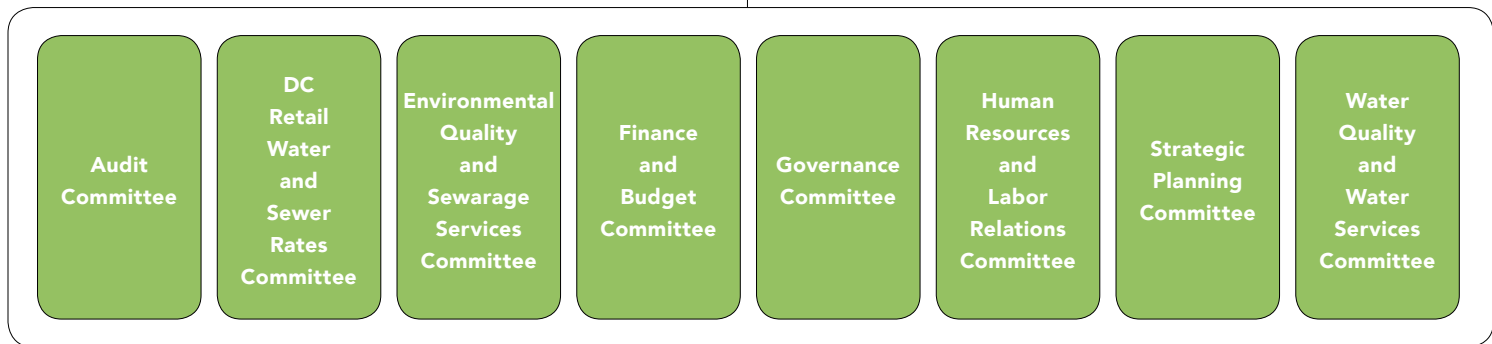


DC water is an independent authority of the District of Columbia, established under District of Columbia and Federal law; governed by an 11-member Board of Directors.

It provides clean drinking water to residents of the District of Columbia and wastewater and stormwater conveyance, and treatment services to both residents of the District of Columbia and wholesale customers in Maryland and Virginia.

This standalone document is intended for our diverse stakeholders. Additional Information can be found in the detail copies of our approved budget book available online at dcwater.com.

DC Water’s Board of Directors and the Executive Management Team collaborated to assess key industry trends and the greatest challenges, and to identify the critical factors important to DC Water’s long term success. This led to the adoption of DC Water’s Blue Horizon 2020 strategic plan, adopted by the Board of Directors in March 2013 and revised in FY 2015.



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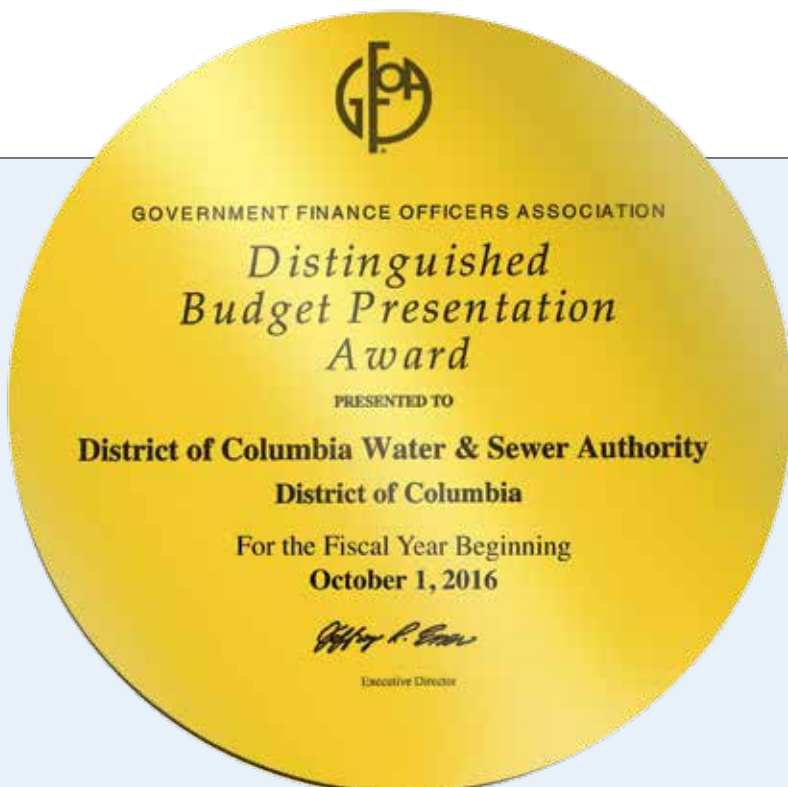
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The Strategic Plan provides the framework for the formulation, prioritization and monitoring of the (operating and capital) budgets and financial planning process. Below are the strategic plan goals.

Strategic Plan (Blue Horizon 2020 Goals)

1. Develop, Maintain, and Recruit a High Performing Workforce
2. Collaborate Locally, Regionally, Nationally and Internationally
3. Increase Board Focus on Strategic Direction
4. Enhance Customer and Public Confidence, Communications and Perception
5. Promote Financial Sustainability and Responsible Resource Allocation
6. Assure Safety and Security
7. Maximize Water Quality Treatment, Compliance and Efficiency
8. Optimally Manage Infrastructure
9. Enhance Operating Excellence through Innovation, Sustainability, and Adoption of Best Practices



DC Water providing water at Adam's Morgan Day



The year ahead again presents significant firsts for DC Water. We are entering the second year of a budget within the parameters of the Board-adopted multi-year rate proposal. The budget underscores our strategic approach and our discipline to adhere to it. We will be operating within funding requirements defined a year ago, which validates the budget development process and the confidence we have in this Authority as we continue to evolve using innovations and technology to improve operational results.

The strategic focus of DC Water entails a number of undertakings. First, we exist to serve the community. Our service include building a strong Minority and Women-owned Business Enterprise (MWBE) program and recently launched a local hiring program. The latter, called *DC Water Works*, is aimed at increasing employment for those in the region through identification and in some cases, skills training or certification.

Our green infrastructure (GI) projects can provide some of these opportunities, as well as numerous additional benefits for the environment. GI will help prevent flooding and combined sewer overflows by capturing stormwater runoff before it can enter the sewer system, keeping pollutants out of our local waterways. This will also green the District, reduce the heat island effect and can potentially raise property values. Our recent consent decree modification to include GI also allows a longer timeframe, thus reducing the immediate impact to ratepayers.

Another top priority at DC Water is managing its enormous capital and operations and maintenance budgets while balancing affordability for our customers. Recognizing that more than one-fourth of the population in the District lives

below the poverty line, we are constantly seeking relief for our ratepayers and this year will be instituting the second expansion of our Customer Assistance Program in recent years. This expansion will give credits for the Clean Rivers Impervious Area Charge, the fastest-growing charge on our water and sewer bills. Our staff researched this measure thoroughly before our Board approved the expansion. We are not yet done as we continue to evaluate the rate structure for all our customers.

Operational efficiencies and innovation have been key drivers to the leveling off of O&M costs. In the most recent year, we commissioned our wastewater-to-energy project, generating electricity through anaerobic digestion, offsetting one-third of our energy needs at Blue Plains, and reducing costs for hauling biosolids. We are evaluating a large-scale solar project to produce some of the Plant's energy needs and are also exploring co-digestion.

Additionally, DC Water is at the forefront of research of the innovative practice using Anammox bacteria in the wastewater treatment process to drive down costs for aeration and carbon, since the bacteria need far less oxygen and carbon food sources.

Each year, I am impressed with the creativity and performance of what I like to call the "Superbowl of Water" team members who will no doubt continue to bring to fruition, innovation that contributes to high performance, a reliable system and a rate structure with the least customer burden possible.

I am enormously proud of DC Water's Board-adopted Fiscal Year 2018 budget. This is the second consecutive year that our core O&M (operations and maintenance) costs have decreased, representing a trend that benefits the Authority and our ratepayers. The operating and capital budgets are aligned with the Authority's Strategic Plan with a continued focus on sound financial management and, more importantly, lowering costs through innovation.

Like with all other utilities, DC Water faces daunting financial challenges. The cost of meeting largely unfunded regulatory mandates continues to drive our capital spending, as reflected by the fact that 37 cents of every capital dollar that we spend is to address these mandates. Aging infrastructure is another challenge and we are developing asset management solutions as a strategic and effective way to redeploy our limited capital by reprioritizing our projects using a risk-based approach.

Some notable financial accomplishments include:

- **A relentless focus on affordability** – As noted by our CEO & General Manager, we expanded our Customer Assistance Program (CAP) to provide a credit of 50 percent towards the Clean Rivers Impervious Area Charge, which funds the largest regulatory mandate in DC Water's history and represents the fastest growing portion of our average residential customer's bill
- **Achieving credit rating upgrades** – During FY 2016, Standard and Poor's Investors Service (S&P) upgraded DC Water's credit rating to the coveted "AAA" for our senior lien revenue bonds, marking the first time in history that we have achieved the highest rating by a rating agency. S&P highlighted DC Water's "exceptional management practices, very good transparency and disclosure, [and] a detailed CIP that identifies funding sources and well-delineated policies" as the basis for its upgrade. Moody's Investors Service subsequently also upgraded DC Water's credit rating to "Aa1" for our senior lien revenue bonds
- **Pioneering novel financial solutions** – We continue to lead the industry with groundbreaking municipal bond offerings such as green bonds, century bonds (bonds with a 100 year maturity), and most recently the nation's first Environmental Impact Bond (EIB). The defining characteristic of the EIB is that the total rate of return on the bond is tied to project performance, specifically the effectiveness of green infrastructure in managing stormwater runoff. This novel financing transfers project risk to the investors and won *The Bond Buyer's* Non-traditional Deal of the Year Award



In closing, while our accomplishments have been notable, there is still much work to be done. I look forward to working with Team Blue as we continue to blaze the trail in creating the utility of the future.

Mark T. Kim

DC WATER FINANCIAL INFORMATION (\$ Millions)

Bond Rating: AAA/Aa1/AA	FY 2017	FY 2018
Revenue (Cash Receipts)	\$595.4	\$617.2
Operating Budget	\$535.8	\$561.9
Capital Disbursements Budget	\$507.0	\$387.3

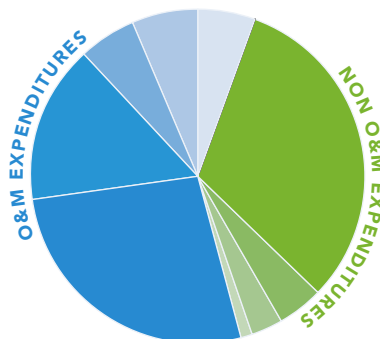
A Budget that focuses on: Sustainability and Affordability

The approved budget focuses on controlling both operating and capital expenditures while maintaining the Authority's high level of customer service. It provides the necessary resources to balance the need to maintain DC Water's critical infrastructure with rates that are reasonable, fair and affordable.

The following charts highlight the FY 2017/2018 operating and capital budgets. Detailed descriptions can be found in the budget book available online at dcwater.com

Operating Expenditures (\$ Thousands)

FY 2017



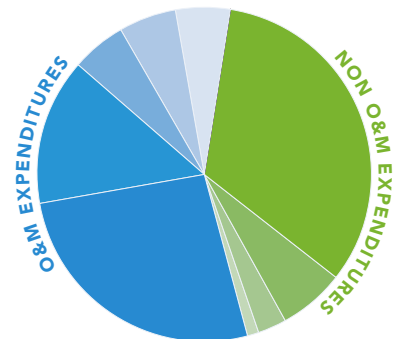
O&M EXPENDITURES

- \$144,761 - Personnel Services
- \$82,760 - Contractual Services
- \$29,278 - Water Purchases
- \$34,709 - Chemicals and Supplies
- \$28,670 - Utilities
- \$1,230 - Small Equipment

NON O&M OPERATING EXPENDITURES

- \$169,346 - Debt Service
- \$24,014 - Cash Financed Capital Improvements
- \$15,957 - Payment in Lieu of Taxes
- \$5,100 - Right of Way Fees

FY 2018



O&M EXPENDITURES

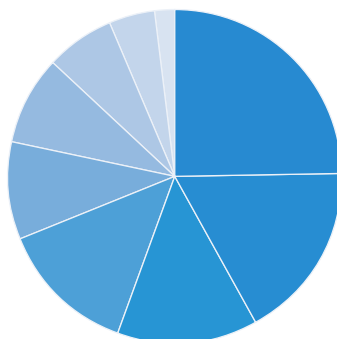
- \$149,193 - Personnel Services
- \$79,354 - Contractual Services
- \$30,156 - Water Purchases
- \$30,658 - Chemicals and Supplies
- \$29,399 - Utilities
- \$1,071 - Small Equipment

NON O&M OPERATING EXPENDITURES

- \$185,480 - Debt Service
- \$35,260 - Cash Financed Capital Improvements
- \$16,276 - Payment in Lieu of Taxes
- \$5,100 - Right of Way Fees

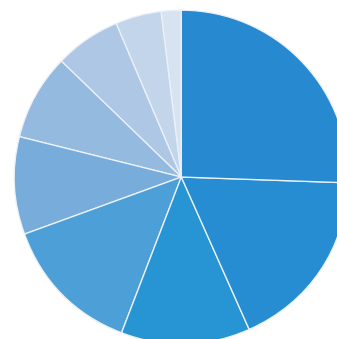
Operating Revenues (\$ Thousands)

FY 2017



- \$147,587 - Commercial
- \$102,308 - Residential
- \$81,468 - Wholesale
- \$79,093 - Multi-family
- \$57,540 - Federal Government
- \$51,080 - Other Revenues
- \$39,717 - Water System Replacement Fee
- \$25,877 - Municipal & Housing
- \$10,776 - Metering Fee

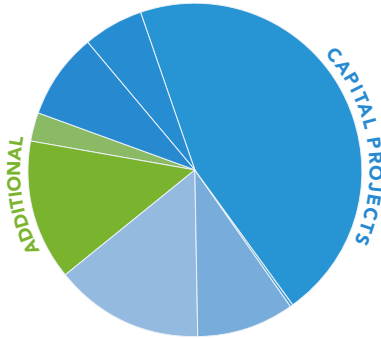
FY 2018



- \$159,147 - Commercial
- \$109,793 - Residential
- \$76,028 - Wholesale
- \$84,099 - Multi-family
- \$58,494 - Federal Government
- \$51,214 - Other Revenues
- \$39,717 - Water System Replacement Fee
- \$27,891 - Municipal & Housing
- \$10,776 - Metering Fee

Capital Improvement Program (\$ Thousands)

FY 2017



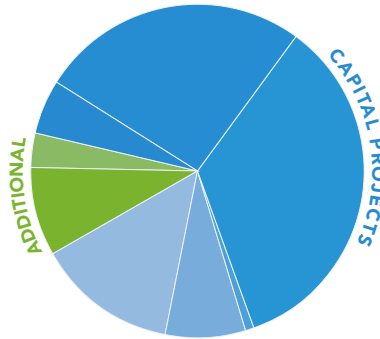
CAPITAL PROJECTS

- \$34,150 - Non Process Facilities
- \$123,789 - Wastewater Treatment
- \$184,387 - Combined Sewer Overflow
- \$1,706 - Stormwater
- \$38,302 - Sanitary Sewer
- \$58,819 - Water

ADDITIONAL CAPITAL PROGRAMS

- \$54,949 - Capital Equipment
- \$10,896 - Washington Aqueduct

FY 2018



CAPITAL PROJECTS

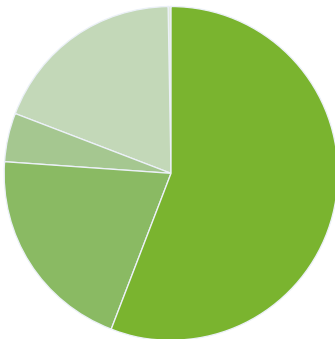
- \$20,030 - Non Process Facilities
- \$98,423 - Wastewater Treatment
- \$130,475 - Combined Sewer Overflow
- \$2,682 - Stormwater
- \$39,294 - Sanitary Sewer
- \$51,738 - Water

ADDITIONAL CAPITAL PROGRAMS

- \$32,897 - Capital Equipment
- \$11,768 - Washington Aqueduct

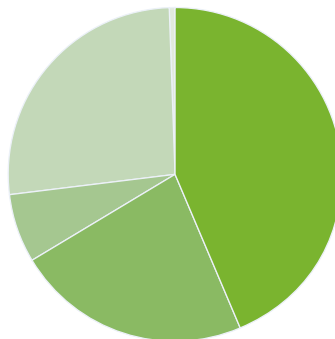
Capital Revenues (\$ Thousands)

FY 2017



- \$300,000 - Debt Financing & Proceeds from Commercial Paper/Extendable Municipal Commercial Paper/Treasury Notes
- \$107,732 - Wholesale Capital Payments
- \$25,013 - EPA Grants & CSO Appropriations
- \$100,633 - Pay-Go Financing
- \$1,283 - Interest Income on Bond Proceeds

FY 2018



- \$154,938 - Debt Financing & Proceeds from Commercial Paper/Extendable Municipal Commercial Paper/Treasury Notes
- \$80,043 - Wholesale Capital Payments
- \$23,093 - EPA Grants & CSO Appropriations
- \$95,514 - Pay-Go Financing
- \$1,365 - Interest Income on Bond Proceeds

Blue Plains



Performance Measures

The DC Water Blue Horizon 2020 Strategic Plan serves as a blueprint for achieving a vision to be a world-class water utility. By laying out a course of action, Blue Horizon represents a disciplined process for making fundamental decisions and shaping DC Water’s future, including the appropriate allocation of funding. To achieve the goals in the plan, the Authority is embracing a culture premised on strategy and performance.

DC Water is paving the way to realizing its vision through the development of performance management at the organizational, business unit and individual levels. By implementing a performance management program based on the goals outlined in Blue Horizon 2020, DC Water will set priorities and appropriately allocate resources to sustain and improve services. Ultimately, strategy will drive organizational performance, be used to assess and improve business unit processes and inform individual performance goals.

To effectively implement performance management, DC Water is developing cascading strategies, goals and metrics beginning at the organizational level. This level involves engaging the DC Water Board of Directors and Executive Team who are responsible for focusing on the Authority’s strategies. Together, these two groups developed a Strategy Map to communicate four key organizational strategy perspectives based on the goals outlined in Blue Horizon 2020 – workforce, finance, operations and customer.

The Strategy Map will serve as the foundation for the development of strategic outcome metrics aligned with the four key strategy perspectives. These metrics will

The Path to a World-Class Water Utility



represent a holistic view of how DC Water is performing at the organization level as directed by the Board of Directions and Blue Horizon 2020.

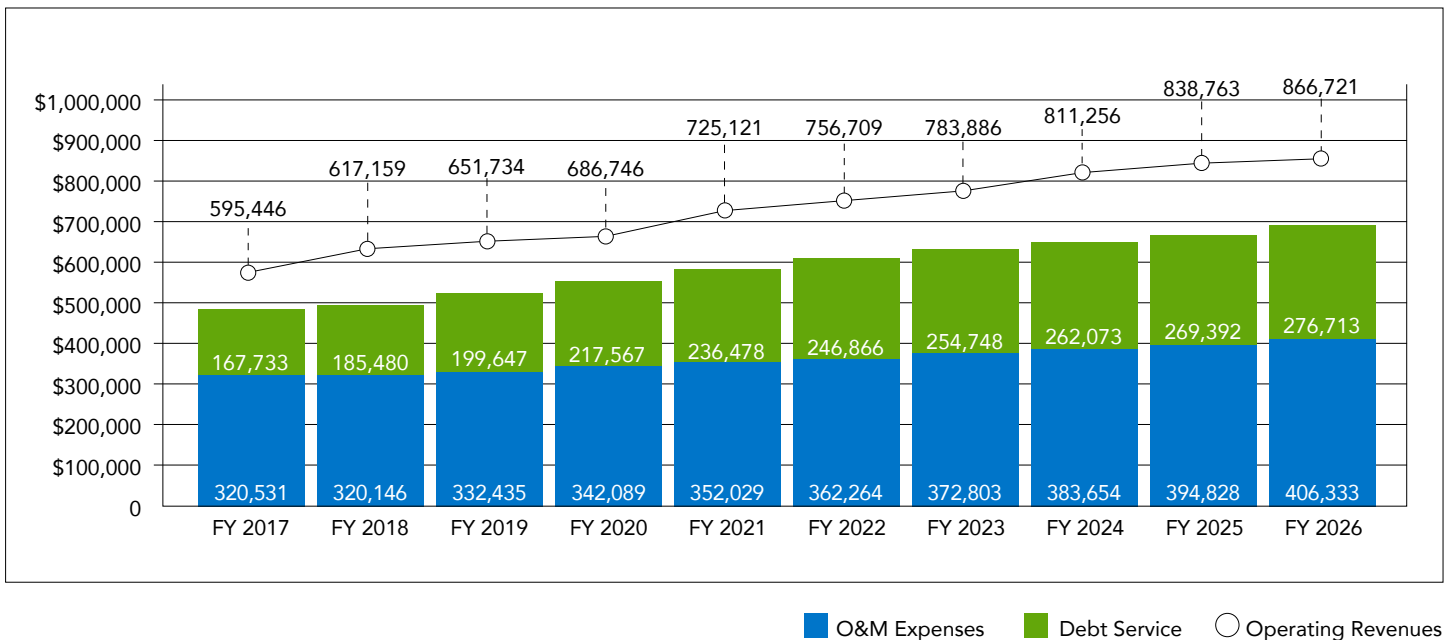
Blue Horizon 2020 instructs DC Water to participate in national and international benchmarking surveys. While performance management ensures DC Water is accomplishing enterprise strategies, benchmarking studies enable the Authority to define its performance compared to peer utilities. Essentially, performance management is an internal compass and benchmarking serves as an external compass to guide DC Water in achieving its vision of becoming a world-class water utility.



Ten-Year Financial Plan

DC Water's ten-year financial plan provides a strong financial framework to support implementation of the Board strategic plan, policies, priorities and guidance in several key financial areas. This financial plan serves as one of management's key tools to monitor progress in meeting financial goals and to proactively address future financial and operational issues. Given DC Water's substantial borrowing needs over the next ten years, adherence to these Board policies is crucial in order to cost-effectively access the capital markets and retain our credibility with customers and regulators. The ten-year financial plan encompasses annual projected revenue requirements, operating expenditures, debt service costs, coverage ratios for indenture requirements, and sufficiency liquidity to meet all the Authority's financial obligations.

FY 2017 - FY 2026 FINANCIAL PLAN (\$ Thousands)



Detailed description of the ten year Financial Plan is available within the Approved FY 2018 budget book online at dcwater.com.



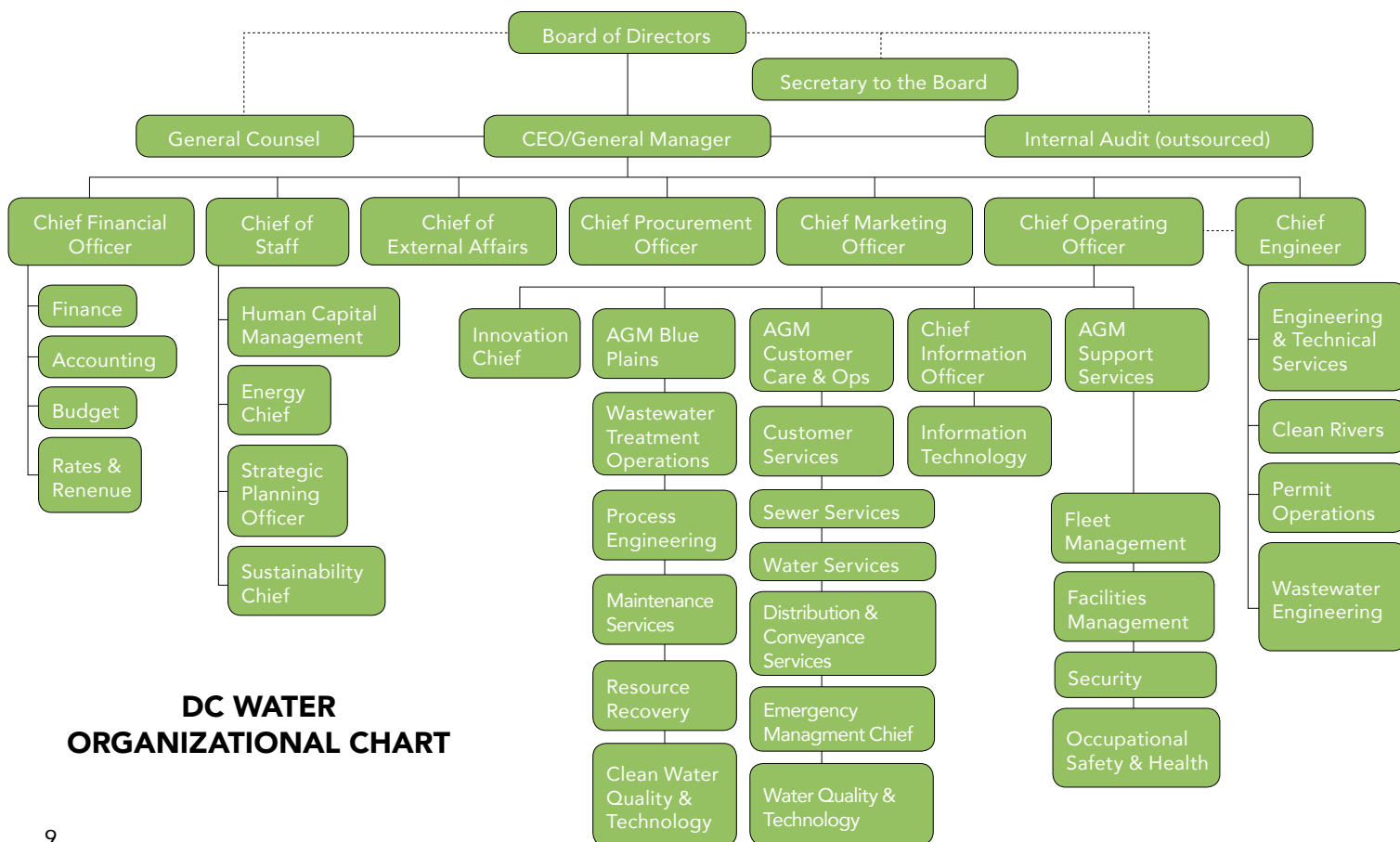
DC Water’s annual operating budgets provide the resources necessary to sustain a multi-billion dollar water treatment and distribution and sewage collection and treatment system. The Authority continues to deliver clean water, collect and treat the sewage before returning clean water to the local waterways and repair main and sewer breaks as needed. DC Water’s FY 2018 approved budget reflects management’s focus on controlling operating expenditures while maintaining our high level of customer service. The adopted budget strategy incorporates two core focus areas: financial sustainability and customer affordability.

COMPARATIVE OPERATING BUDGETS BY CATEGORY (\$ Thousands)

	FY 2017 Approved	FY 2018 Approved
Personnel Services	\$144,761	\$149,193
Contractual Services	82,760	79,354
Water Purchases	29,278	30,156
Chemicals and Supplies	34,709	30,658
Utilities	28,670	29,399
Small Equipment	1,230	1,071
Subtotal O&M Expenditures	\$321,408	\$319,831
Debt Service	169,346	185,480
Cash Financed Capital Improvements	24,014	35,260
Payment in Lieu of Taxes	15,957	16,276
Right of Way Fees	5,100	5,100
Total Operating Expenditures	\$535,825	\$561,947

The approved FY 2018 budget totals \$561.9 million, an increase of \$26.4 million or approximately 5 percent above the FY 2017 budget, which is due entirely to debt service and pay-go requirements necessary to finance the Authority’s Capital Improvement Program (CIP). However, the core operations and maintenance (O&M) portion of the budget decreased by approximately \$1.6 million, and is attributable to materialized savings from various capital investments, including the Digester and Combined Heat and Power (CHP) projects. These projects resulted in decreases in electricity, chemicals, and biosolids hauling costs.

Detailed descriptions of the approved FY 2017 and FY 2018 operating budgets are available online at dcwater.com.



DC WATER ORGANIZATIONAL CHART

DC Water's organizational structure is a key tool for ensuring that the organizational mission is achieved. The structure consists of twenty-four departments that are defined primarily along functional roles and further grouped along service lines (Operational or Administrative) or reporting lines (cluster groups) of authority.

OPERATING EXPENDITURES BY DEPARTMENT (\$ Thousands)

	FY 2017 APPROVED	FY 2018 APPROVED
BLUE PLAINS	\$109,515	\$101,917
Wastewater Treatment - Operations	80,466	74,686
Maintenance Services	21,057	19,558
Wastewater Treatment - Process Engineering	7,991	7,673
CHIEF ENGINEER	\$30,394	\$32,018
DC Clean Rivers	3,023	2,995
Engineering & Technical Services	25,126	26,728
Permit Operations	2,244	2,295
CHIEF FINANCIAL OFFICER	\$14,391	\$15,299
Finance, Accounting & Budget	14,391	15,299
CUSTOMER CARE & OPEARTIONS	\$106,767	\$106,180
Customer Services	18,679	19,281
Sewer Services	15,077	14,315
Water Services	22,936	24,094
Distribution & Conveyance System	50,075	48,490
INDEPENDENT OFFICES	\$37,300	\$40,480
Board Secretary	625	599
External Affairs	2,272	2,531
General Counsel	5,823	7,332
General Manager	4,373	4,138
Information Technology	11,045	11,315
Internal Audit	890	907
Procurement	4,450	5,672
Human Capital Management	7,823	7,986
SUPPORT SERVICES	\$23,041	\$23,936
Assistant General Manager - Support Services	527	513
Fleet Management	5,456	5,321
Occupational Safety & Health	1,691	1,871
Facilities Management	8,490	8,695
Security	6,877	7,536
SUBTOTAL O&M EXPENDITURES	\$321,408	\$319,831
Debt Service	169,346	185,480
Cash Financed Capital Improvements	24,014	35,260
Payment in Lieu of Taxes	15,957	16,276
Right of Way Fees	5,100	5,100
TOTAL OPERATING EXPENDITURES	\$535,825	\$561,947
Personnel Services charged to Capital Projects	(21,934)	(21,061)
TOTAL NET OPERATING EXPENDITURES	\$513,891	\$540,886
FULL TIME APPROVED POSITIONS	1,260	1,260



East side pumping station green roof

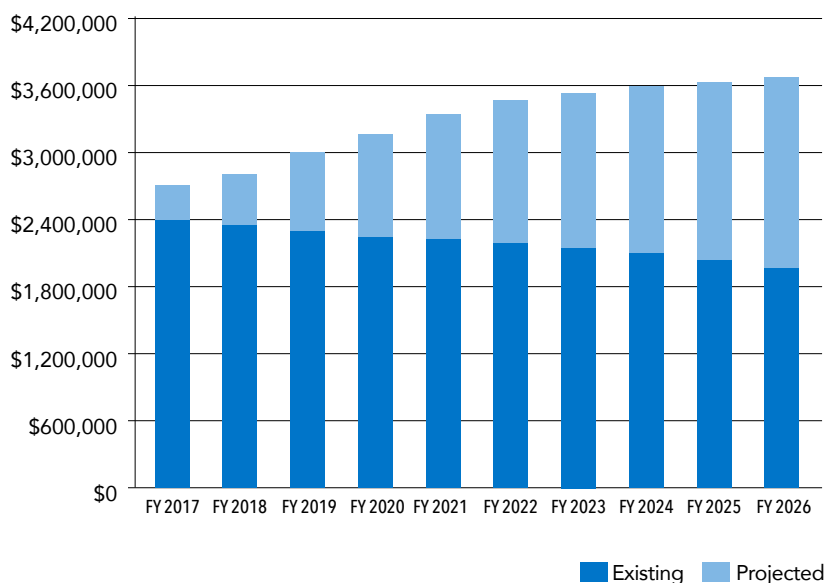
The cost of financing DC Water’s ten-year \$3.75 billion CIP (cash disbursement basis) continues to be the fastest growing line item of the operating budget. Debt management consists of managing funds borrowed through revenue bonds, commercial paper, and other short-term notes. Currently, debt financing represents approximately 40 percent of the funding in the ten-year financial plan and 33 percent of the FY 2018 operating budget. The Authority’s long term debt, including current maturities total \$2.78 billion as of the end of FY 2016.

During fiscal year 2016, DC Water refunded approximately \$390 million of its existing debt (Series 2016A). This refunding resulted in almost \$3 million in present value savings to the Authority. The Authority also issued a \$25 million Environmental Impact Bond (EIB, Series 2016B), an industry first, to construct green infrastructure designed to mimic natural processes to absorb and slow surges of stormwater during periods of heavy rainfall. This practice will help to reduce the incidence and volume of combined sewer overflows (CSOs) that pollute the District’s waterways. CSO reduction has become an increasingly urgent environmental challenge as a result of climate change, which has increased the frequency and severity of intense rainfall events.

DC Water’s strong financial performance and its success in achieving and maintaining strong bond ratings has been primarily due to the annual development of and adherence to a ten-year strategic financial plan. DC Water’s credit ratings on its senior lien bonds remain strong at AAA, Aa1, and AA ratings by Standard and Poor’s Ratings Services, Moody’s Investors Service and Fitch Ratings, respectively. These notable results are due to the Authority’s solid financing team and strong financial performance, diligent planning and market favorability.

Furthermore, as new issuances are planned, internet road shows for domestic and international investors are provided, giving pertinent information on the Authority’s strong management, capital improvement activities and financial forecasts. DC Water provides information for current and future investors on its website, dcwater.com.

FY 2017 - FY 2026 DEBT OUTSTANDING (\$ Thousands)



Capital Improvement Program (CIP)

The approved ten-year Capital Improvement Program (CIP) provides a framework for the development, prioritization, implementation and measurement of the capital projects undertaken. DC Water's FY 2017 - FY 2026 CIP budget increased by \$91.0 million over the FY 2016 - FY 2025 CIP due mainly to additional projects at the Blue Plains Wastewater Treatment Facility.

The FY 2017 and FY 2018 capital budgets total \$507.0 million and \$387.3 million, respectively (cash disbursement basis), while the ten-year disbursement plan totals \$3.75 billion and lifetime budget is \$10.95 billion (total commitments for projects that are active during the ten-year CIP).

Detailed description of major CIP changes and program details can be found in Section V – Capital Improvement Program of the budget book and online at dcwater.com.

FY 2017 – FY 2026 CAPITAL IMPROVEMENT PROGRAM (\$ Thousands)

FY 2017 Revised	FY 2018 Approved	Service Area	Ten-Year Disbursement Plan	Total Lifetime Budget
\$34,150	\$20,030	Non Process Facilities	\$85,486	\$139,789
123,789	98,423	Wastewater Treatment	844,706	3,551,615
184,387	130,475	Combined Sewer Overflow	1,340,146	3,153,028
1,706	2,682	Stormwater	23,055	83,991
38,302	39,294	Sanitary Sewer	513,517	1,448,589
58,819	51,738	Water	639,387	1,892,803
\$441,153	\$342,642	Capital Projects	\$3,446,297	\$10,269,817
54,949	32,897	Capital Equipment	193,119	193,119
10,896	11,768	Washington Aqueduct	112,207	112,207
\$65,845	\$44,665	Additional Capital Programs	\$305,326	\$305,326
		Labor		374,276
\$506,998	\$387,306	Total Capital Budgets	\$3,751,623	\$10,949,419

MEASURE OF PRIORITY (\$ Thousands)

Mandates Agreements, Regulatory standards, Court orders, Issues and Permits requirements, Stipulated Agreements, Etc.	Health and Safety Required to address Public Safety	Board Policy Undertaken as a result of the Board's commitment to outside agencies	Potential Failure Related to Facilities in danger of failing, or critical to meeting permit requirements	High Profile / Good Neighbor Address Public Concern	Good Engineering / High Payback Need to fulfill Mission and upgrade Facilities	Good Engineering / Lower Payback Lower priority projects	Total	
FY 2017	\$243,565	\$7,195	\$28,221	\$28,664	\$5,413	\$133,394	\$60,547	\$506,998
FY 2018	174,430	8,742	28,375	30,790	6,683	84,523	53,763	387,306
FY 2019	124,062	8,609	35,933	52,702	4,420	99,932	69,186	394,843
FY 2020	153,863	15,374	26,815	61,809	88	126,079	43,179	427,208
FY 2021	178,331	7,148	24,580	21,522	43	105,695	41,223	378,542
FY 2022	118,340	1,158	29,807	29,680	154	102,558	54,027	335,725
FY 2023	100,877	3,109	33,884	40,478	323	93,125	49,571	321,367
FY 2024	75,001	301	36,540	32,851	2,212	98,581	69,981	315,467
FY 2025	68,394	363	39,864	30,639	391	101,125	61,811	302,588
FY 2026	147,050	291	34,911	33,040	-	99,391	66,895	381,579
TOTAL	\$1,383,913	\$52,291	\$318,930	\$362,176	\$19,726	\$1,044,404	\$570,183	\$3,751,623
% of Total	36.9%	1.4%	8.5%	9.7%	0.5%	27.8%	15.2%	100%



The Walter F. Bailey Bioenergy Facility



Hydrant replacement



Blue Plains Tunnel

Operational Impact of Major Capital Investments

DC Water’s Capital Improvement Program (CIP) includes operational impacts of significant capital investments on several large projects such as the Biosolids Management Program, DC Clean Rivers and Blue Plains Total Nitrogen Program. Below is a list of pertinent information on current and future operational impacts for these non-routine capital investments.

Biosolids Management Program: The Walter F. Bailey Bioenergy Facility, which is now operational, significantly reduces DC Water’s carbon footprint. The innovative CAMBI® thermal hydrolysis process uses intense heat and pressure to treat wastewater solids producing a much cleaner biosolid and onsite generation of up to one-third of Blue Plains’ electricity needs. This process has resulted in operational efficiencies in electricity, biosolids hauling and chemicals costs.

DC Clean Rivers: This project aims to nearly eliminate combined sewer overflows to the Anacostia and Potomac Rivers and Rock Creek, while improving the health of

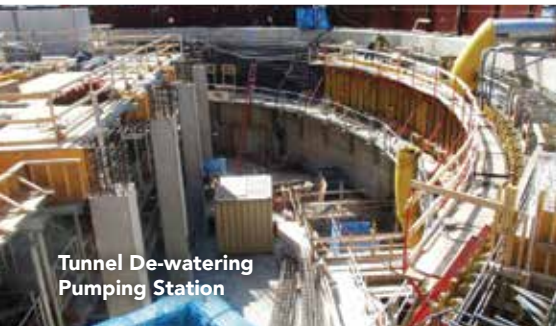
the Chesapeake Bay. This ongoing project is currently employing green infrastructure initiatives that will divert enriched water to the Blue Plains Advanced Wastewater Treatment Plant (AWWTP) for cleaning and processing. The tunnels have been completed between Blue Plains and Main & O Pumping Stations. The Anacostia River Tunnel is over 80 percent complete and the First Street Tunnel, which will alleviate Flooding in the Bloomingdale neighborhood, is complete.

Water Services: During FY 2016, the Authority’s performance in the Water Service Area exceeded the DC Water Board’s goal of renewing 1 percent of the small diameter water pipes. Other major replacements and upgrades to reservoirs and pumping stations will result in increased operational flexibility and reduction in long term maintenance costs.

Automated Meter Reading Replacement Program: This program aims to replace approximately 90,000 small water meters throughout the city. The program started in FY 2016



Rendering of new headquarters



Tunnel De-watering Pumping Station



Enhanced Nitrogen Removal Facility



Water meter

and is expected to be completed within the next two years. Data received from the water meters will better serve DC Water customers by providing timely and accurate meter reads for billing information.

Tunnel De-watering Pumping Station (TDPS)/Enhanced Clarification Facility (ECF): This facility will de-water the new tunnels being constructed by the DC Clean Rivers program. It will evacuate the stormwater gathered by the tunnels. The TDPS will deliver the stormwater to the ECF, for treatment, anticipated to be completed by the end of FY 2018.

New Administrative Headquarters Building: This facility will anchor DC Water’s new publicly-accessible campus along the Anacostia River. By relocating nonessential personnel from the Blue Plains campus, the Authority will preserve all valuable remaining space at Blue Plains AWWTP for future process improvements. This new building will be LEED® Platinum Class A certified, and incorporate environmentally sustainable features that will be used to

capture rainfall onsite for irrigation and non-potable water needs inside the facility. Additionally, alternative energy will be supplied by an innovative sewer heat recovery system that will lower operating costs. This project is anticipated to avoid renovation and expansion, including construction of a parking garage, at Blue Plains AWWTP.

Filtrate Treatment Facility: Also known as Centrate Treatment Facility, it is part of the Total Nitrogen Removal Wet Weather plan. The project assists in nitrogen removal from the water processed at Blue Plains AWWTP. This new facility uses six sequencing batch reactors to treat a nitrogen-rich stream from the Final Dewatering Facility’s belt filter presses. The de-ammonification process represents a major breakthrough in nitrogen removal, which lowers the use of methanol. It also has approximately 60 percent lower energy demand than the mainstream treatment and lowers greenhouse gas (GHG) emissions.



Operating Revenues

To provide continuous delivery of water and wastewater services, it is vital that DC water has a consistent revenue stream to cover operating and maintenance (O&M) costs, debt service, and other liquidity requirements. DC Water has a diverse customer base and receives revenues from a variety of sources. Retail rates are charges for water, sewer and other services to DC Water’s customers. Wholesale revenues are received from suburban water and sewer authorities for their share of the O&M costs of the Blue Plains Advanced Wastewater Treatment Plan.

Based on the analysis of the peak demand of different customer classes as well as affordability considerations, DC Water adopted several changes to its existing retail rate structure in FY 2016. These changes are designed to better align the Authority’s revenues and expenditures by establishing customer class-based volumetric water rates based upon peaking factors, to create a more progressive rate structure for its residential customers by establishing lifeline water rates, which discount core consumption. The Board approved establishing class-based water volumetric rates for Residential, Multi-family and Non-residential customers effective October 1, 2015.

Starting FY 2016, DC Water modified its existing rate structure and implemented a new meter-based **Water System Replacement Fee (WSRF)** in order to recover the cost of the 1 percent renewal and replacement program for water service lines. It is anticipated that the new

The FY 2017 revised revenue budget totals \$595.4 million and is projected to increase to \$617.2 million in FY 2018

FY 2017 - FY 2018 OPERATING REVENUES (\$ Thousands)

	FY 2017 Revised	FY 2018 Approved
Residential	\$102,308	\$109,793
Commercial	147,587	159,147
Multi-family	79,093	84,099
Federal Government	57,540	58,494
Municipal & Housing	25,877	27,891
Water System Replacement Fee (WSRF)	39,717	39,717
Metering Fee	10,776	10,776
Wholesale	81,468	76,028
Other Revenue	51,080	51,214
Total	\$595,446	\$617,159

Water System Replacement Fee (WSRF) will generate approximately \$39.7 million per year from fiscal years 2017 through 2026. The fee is based upon meter size and average flow. DC Water’s low income CAP customers receive a 100 percent credit for this fee.

DC Water’s Board approved a new **System Availability Fee (SAF)** to be effective January 1, 2018. SAF is a one-time fee assessed to a property owner of any premises, building or structure to recover the cost of system capacity serving all metered water service and sanitary sewer connections and renovation or redevelopment projects



Clean Rivers Impervious Area Charge (CRIAC)

The CRIAC is a separate sewer service fee established in FY 2009 to recover the \$2.6 billion cost of implementing the DC Clean Rivers Project (the District’s CSO-Long Term Control Program). The proposed monthly CRIAC ranges from \$25.18 per ERU (Equivalent Residential Unit) in FY 2018 to \$44.40 per ERU in FY 2026. The twenty year federal mandated CRIAC project is primarily driven by anticipated debt service costs to support the \$2.6 billion CSO Long Term Control Plan and is based on the amount of impervious surface on each individual property which impacts wet weather runoff that must be treated at the Blue Plains Wastewater Treatment Plant. The ten-year plan assumes no external funding beyond the special Congressional appropriation. DC Water has received \$224.8 million as of September 30, 2016.

FY 2017 - FY 2018 RETAIL RATES AND FEES

	Units	FY 2017 Approved	FY 2018 Approved	FY 2018 Increase/Decrease	
				\$	%
DC Water Retail Rates – Water					
• Residential 0-4 Ccf (Lifeline) ²	Ccf	\$3.23	\$3.39	\$0.16	5.0%
• Residential – > 4 Ccf ²	Ccf	\$4.06	\$4.26	\$0.20	5.0%
• Multi-family / DC Housing ²	Ccf	\$3.62	\$3.80	\$0.18	5.0%
• Non-Residential	Ccf	\$4.19	\$4.40	\$0.21	5.0%
DC Water Retail Rates – Sewer	Ccf	\$5.71	\$6.00	\$0.29	5.0%
DC Water Clean Rivers IAC	ERU	\$22.24	\$25.18	\$2.94	13.2%
DC Water Customer Metering Fee	5/8"	\$3.86	\$3.86	\$0.00	0.0%
DC Water System Replacement Fee ¹	5/8"	\$6.30	\$6.30	\$0.00	0.0%
District of Columbia PILOT Fee	Ccf	\$0.48	\$0.49	\$0.01	2.0%
District of Columbia Right-of-Way Fee	Ccf	\$0.17	\$0.18	\$0.01	1.0%
District of Columbia Stormwater Fee	ERU	\$2.67	\$2.67	\$0.00	0.0%

(1) DC WATER WSRF of \$6.30 effective October 1, 2015

(2) Approved Class-Based rates

that require an upsized meter service connection to the District's potable water system. The fee is assessed based on the peak water demand, excluding fire demand, for new meter water service connection and renovation or redevelopment projects that increase the peak water demand and associated SAF meter size for the property.

Multi-Year Rate Proposal: DC Water moved to a multi-

year rate proposal in FY 2016 covering the period FY 2017 and FY 2018. The Board approved the multi-year rate increases of 5 percent in each of fiscal years 2017 and 2018. The benefits of multi-year rates include:

- Greater revenue certainty
- Increased budget discipline
- Better alignment between revenues and expenditures



Customer Affordability

In the District of Columbia, one-fourth of the residents live below the poverty line, thus rate affordability is of utmost concern in the planning process. DC Water seeks to balance its operating and financial needs with consideration to the financial impact upon its customers. EPA guidelines suggest that fees and charges should be within 4 percent of the median household income to be considered affordable (2 percent for water and 2 percent for sewer). Using the last available census data (2013), DC Water's rates are well under that target and they are comparable with similar water and wastewater utilities.

DC Water sponsors two programs to assist low income customers in paying their water bills.

Customer Assistance Program ("CAP"): The Authority implemented the CAP in 2001 providing a discount of 4 Ccf per month of water service for single family residential homeowners that meet income eligibility guidelines. In

FY 2004, the Authority expanded the CAP to include tenants who meet the financial eligibility requirements and whose primary residence is separately metered by the Authority. In January 2009, the Authority further expanded the CAP to provide a discount of 4 Ccf per month of sewer services to eligible customers. In FY 2011, the discount was expanded to the first 4 Ccf associated with the PILOT/ROW fee in addition to the current discount provided on water and sewer services. In FY 2016, the CAP discount was expanded to include a 100 percent credit/discount for the Water System Replacement Fee (WSRF). In FY 2016, CAP assisted over 4,379 customers and provided 808,797 in discounts to low-income customers.

In FY 2017, Management recommended, and the Board approved, expansion of the Customer Assistant Program (CAP) to low-income customers to include Clean Rivers Impervious Surface Area Charge (CRIAC) credit in their monthly bills. The CRIAC credit, is anticipated to be implemented during FY 2017.

Serving People by Lending a Supporting Hand ("S.P.L.A.S.H")

The SPLASH program was implemented in FY 2001. Through the SPLASH program, DC Water offers assistance to families in need so that they can maintain critical water and sewer services until they get back on their feet. The program is administered by the Greater Washington Urban League. Every dollar received by DC Water is distributed to eligible customers. In FY 2016, SPLASH assisted 309 households and provided 101,098 in contributions to low-income customers.

Regional Demographics

At DC Water, identifying and understanding customer requirements are a strategic component of our planning process. Therefore, we must be sensitive to the local economy in terms of sociopolitical and macro-economic trends. DC Water's retail customers include 'Residential, Commercial and Multifamily', (which is the largest base), 'Federal Government', 'DC Government', and the 'DC Housing Authority'. There are nearly 672,000 residents in the District of Columbia living in approximately 306,000 households and merely 134,000 customers with the responsibility to pay for the majority of operations, maintenance and replacement of the water and sewer infrastructure throughout Washington, DC. Compared to the additional 1.6 million living throughout the DC Water service area and using a small portion of the wastewater collection and a larger portion of the treatment facilities, there are fewer customers to share the burden of the aging infrastructure assets serving the residents, visitors and governmental entities in Washington DC. The FY 2018 budget incorporates trends and statistics impacting DC and the region.



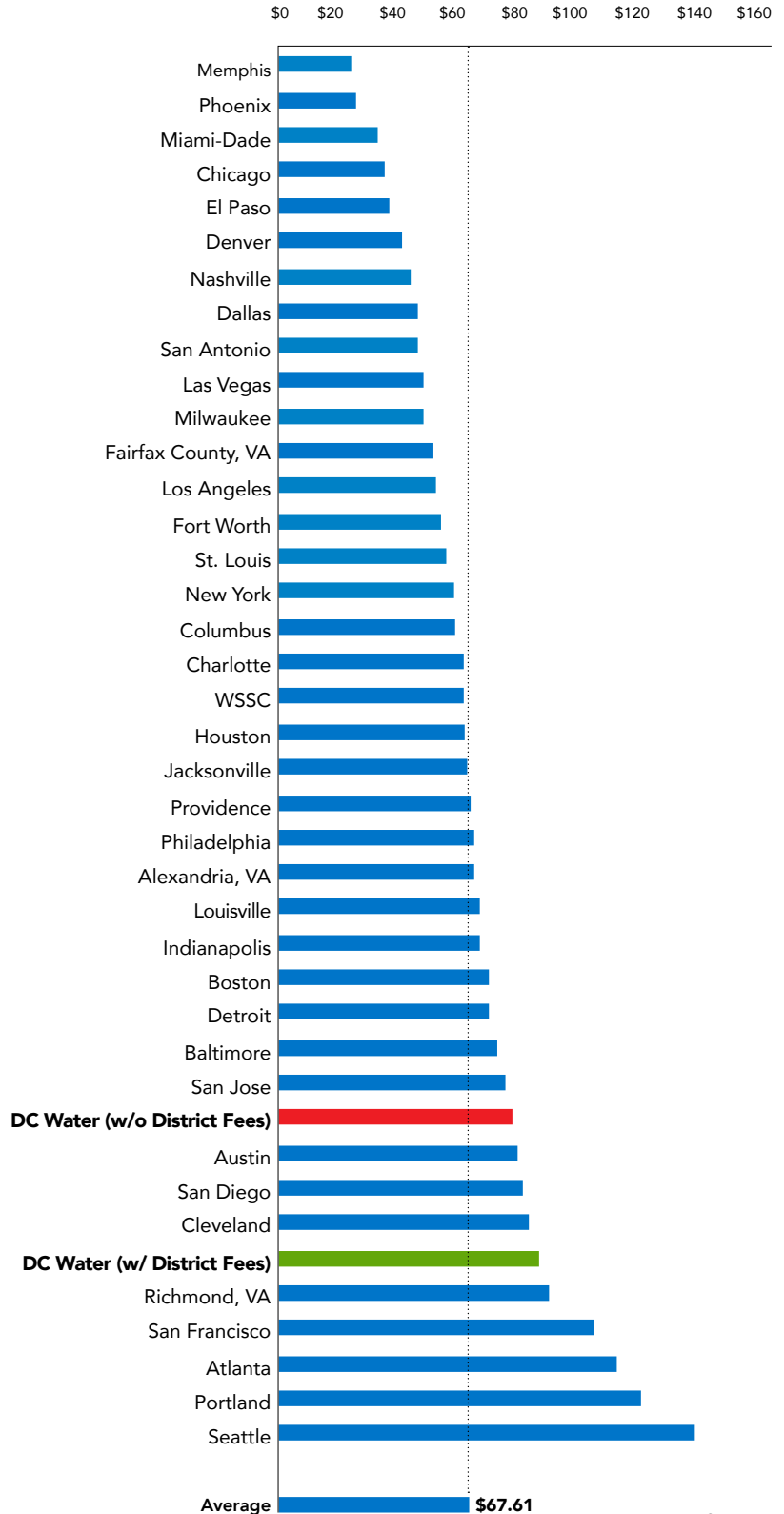
Employees distributing sandbags in Bloomingdale

FY 2017 - FY 2018 AVERAGE RESIDENTIAL CUSTOMER MONTHLY BILL

Approved (FY 2017) Approved (FY 2018)

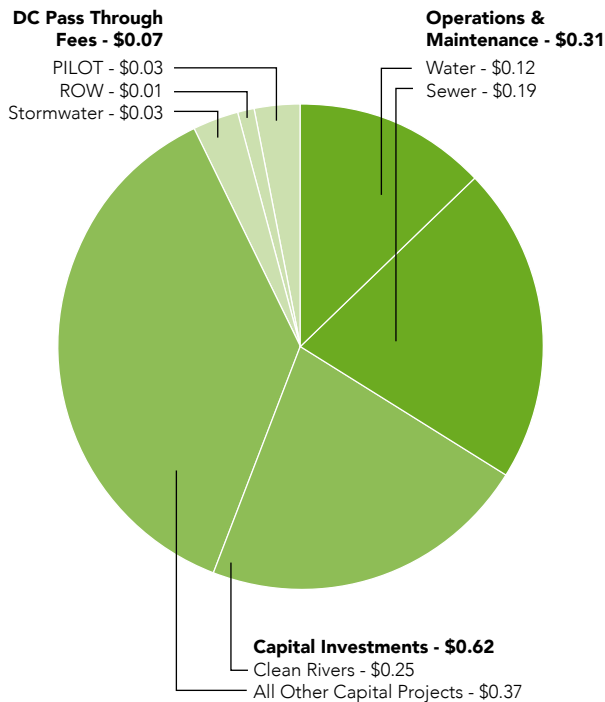
dc DC WATER RATES AND FEES		
Water / Sewer Retail Rates	\$57.25	\$60.13
Clean Rivers IAC	\$22.24	\$25.18
Customer Metering Fee	\$3.86	\$3.86
Water System Replacement Fee	\$6.30	\$6.30
DC Water Subtotal	\$89.65	\$95.47
*** DISTRICT OF COLUMBIA CHARGES		
PILOT	\$2.98	\$3.04
Right-of-Way Fee	\$1.05	\$1.12
Stormwater Fee	\$2.67	\$2.67
District Subtotal	\$6.70	\$6.83
Total Bill	\$96.35	\$102.30
(% Increase)	5.1%	6.2%

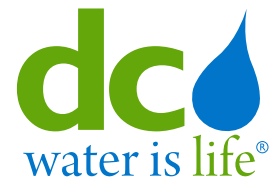
DC WATER RETAIL RATES COMPARED TO OTHER LARGE UTILITIES



FY 2018: Where Does Your Money Go?

How does DC Water spend each \$1.00 received from the average residential customer?





dcwater.com





APPROVED BUDGETS



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Section II OVERVIEW

History: In 1996, the District of Columbia Water and Sewer Authority was created by District law, with the approval of the United States Congress, as an independent authority of the District Government with a separate legal existence.

Age of Pipes: The median age of District water main pipes is over 77 years old, with approximately 9 percent of pipes installed in the 1900s and 2 percent dating back to the 1860s before the Civil War.

Service Area: Providing more than 672,000 residents and 21.3 million annual visitors in the District of Columbia with retail water and wastewater (sewer) service, DC Water has a total service area of approximately 725 square miles. In addition, DC Water treats wastewater for approximately 1.6 million people in neighboring jurisdictions, including Montgomery and Prince George's Counties in Maryland and Fairfax and Loudoun Counties in Virginia.

Employees: Approximately 1,100 people are employed by DC Water and work at various facilities across the District.

Drinking Water Quality: With a strong emphasis on water quality, DC Water maintains an annual flushing program, regulatory and voluntary water quality testing and ongoing system upgrades. In partnership with the U.S. Army Corps of Engineers Washington Aqueduct, DC Water ensures a high quality treatment process for delivering outstanding drinking water throughout the year.

Pumped and Treated Water Storage: During Fiscal Year 2016, DC Water pumped an average of 99 million gallons of water per day. In addition, DC Water stores 61 million gallons of treated water at its eight facilities. The Washington Aqueduct stores an additional 49 million gallons.

Water Distribution System: DC Water delivers water through 1,350 miles of interconnected pipes, four pumping stations, five reservoirs, three water tanks, 48,979 valves, and 9,462 fire hydrants.

Blue Plains Advanced Wastewater Treatment Plant: Blue Plains, located at the southernmost tip of the District, is the largest advanced wastewater treatment facility in the world, covering 153 acres along the Potomac River.

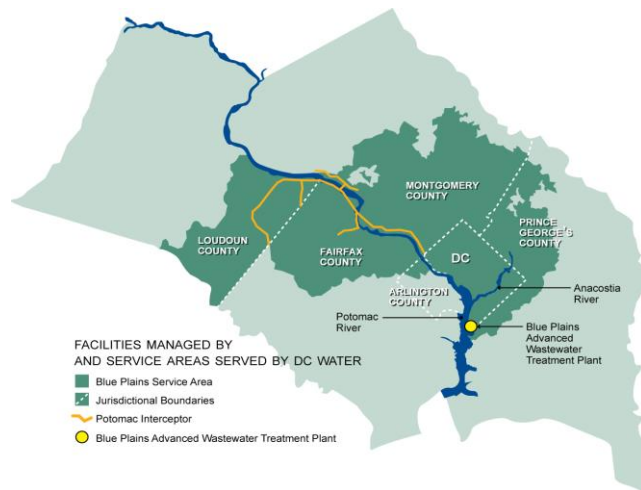
Wastewater Treatment Capacity: Blue Plains treats an annual average of 300 million gallons per day (MGD) and has a design capacity of 370 MGD, with a peak design capacity to treat more than one billion gallons per day.

Sewer System: 1,800 miles of sanitary and combined sewers and 22 flow-metering stations, 9 off-site wastewater pumping stations, 16 stormwater pumping stations, 12 inflatable dams and a swirl facility comprise the DC Water sewer system.

Financial Performance: During fiscal year 2016 DC Water achieved two bond rating upgrades for senior lien revenue bonds. In February, Standard & Poor’s Investors Service upgraded DC Water’s credit rating to AAA. In April, Moody’s Investors Service upgraded DC Water to Aa1. The rating from Fitch Ratings was reaffirmed as AA. DC Water also received its 18th consecutive unqualified audit opinion of its financial statements.

A 24-hour Emergency Command Center, at (202) 612-3400, operates as the centralized communication facility for receiving and responding to a variety of emergency calls from customers and the public.

DC WATER SERVICE AREA



Community Service: Donating their time and resources, DC Water employees actively support a variety of charitable projects and community services. DC Water also invests in the community by conducting science laboratory exercises in District high schools and engaging the public through tours of the Blue Plains Plant.

Governance: DC Water’s Board of Directors establishes policies and guides the strategic planning process. The Board is composed of 22 members, representing the District, Montgomery and Prince George’s Counties in Maryland and Fairfax County in Virginia. The District members set rates, charges and policies for District services. The entire Board votes and establishes policies for joint-use services. The Chief Executive Officer/General Manager reports to the Board and manages operations and performance of the enterprise.

Customer Service: DC Water communicates valuable customer-related information through bill inserts, monthly newsletters, its website, and social media to include Facebook, YouTube, Flickr and Twitter. Using an interactive voice recognition system, DC Water makes information readily available in more than 150 languages.

DC Water Financial Information (\$ in millions)		
Bond Rating: AAA/Aa1/AA	FY 2017	FY 2018
Revenue (Cash Receipts)	\$595.4	\$617.2
Operating Budget	\$535.8	\$561.9
Capital Disbursements Budget	\$507.0	\$387.3

Budget Summary

[summary](#)
[overview](#)
[financial plan](#)
[rates&rev](#)
[capital](#)
[financing](#)
[department](#)
[glossary](#)

Description	Unit of Measurement	FY 2017	FY 2018	Increase/ (Decrease)
Operating Budget	\$ in thousands	\$535,825	\$561,947	\$26,122
Ten-Year CIP (Cash Disbursements)	\$ in billions	\$3.66	\$3.75	\$0.09
Total Revenue	\$ in thousands	\$595,446	\$617,159	\$21,713
Wholesale Operating Revenues	\$ in thousands	\$81,468	\$76,028	(\$5,440)
Water Residential – 0 – 4 Ccf	Ccf	\$3.23	\$3.39	\$0.16
Water Residential - > 4 Ccf	Ccf	\$4.06	\$4.26	\$0.20
Water Multi-family	Ccf	\$3.62	\$3.80	\$0.18
Water Non-residential	Ccf	\$4.19	\$4.40	\$0.21
Sewer	Ccf	\$5.71	\$6.00	\$0.29
Monthly Clean Rivers IAC	ERU	\$22.24	\$25.18	\$2.94
Water System Replacement Fee	5/8"	\$6.30	\$6.30	\$0
PILOT Fee	Ccf	\$0.48	\$0.49	\$0.01
ROW Fee	Ccf	\$0.17	\$0.18	\$0.01

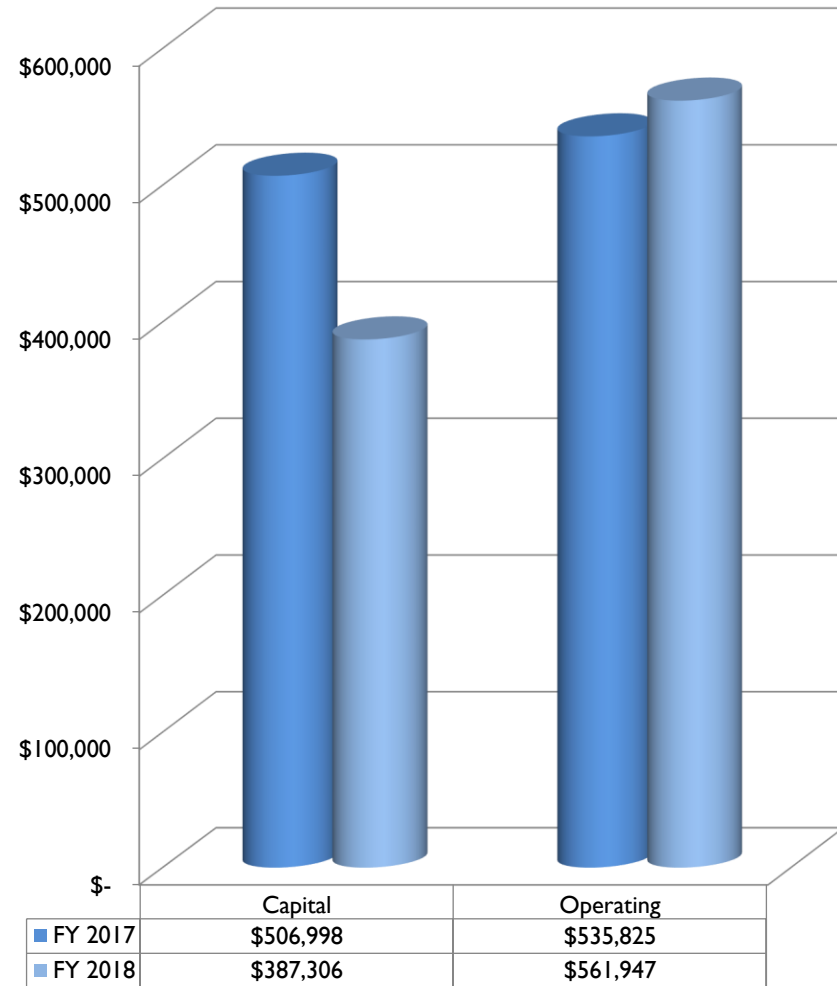
Comparative Operating & Capital Expenditures

\$ in thousands

OPERATING AND CAPITAL BUDGETS ENSURE SERVICE NEEDS AND STRATEGIC OBJECTIVES ARE MET

	APPROVED FY 2017	APPROVED FY 2018
<u>CAPITAL (Cash Disbursements Basis)*</u>		
Wastewater Treatment	\$ 123,789	\$ 98,423
Sanitary Sewer	38,302	39,294
Combined Sewer Overflow	184,387	130,475
Stormwater	1,706	2,682
Water	58,819	51,738
Washington Aqueduct	10,896	11,768
Capital Equipment	54,949	32,897
Non Process Facilities	34,150	20,030
Total Capital	\$ 506,998	\$ 387,306
<u>OPERATING</u>		
Personnel Services	144,761	149,193
Contractual Services	82,760	79,354
Water Purchases	29,278	30,156
Chemicals and Supplies	34,709	30,659
Utilities	28,670	29,399
Small Equipment	1,230	1,071
Total O&M	321,408	319,831
Debt Service	169,346	185,480
Cash Financed Capital Improvements	24,014	35,260
Payment in Lieu of Taxes	15,957	16,276
Right of Way Fees	5,100	5,100
Subtotal Operating	535,825	561,947
Personnel Services charged to Capital Projects	(21,934)	(21,061)
Net Operating	\$ 513,891	\$ 540,886

* Reflects revised FY 2017 capital disbursements budget



Comparative Operating & Capital Revenues

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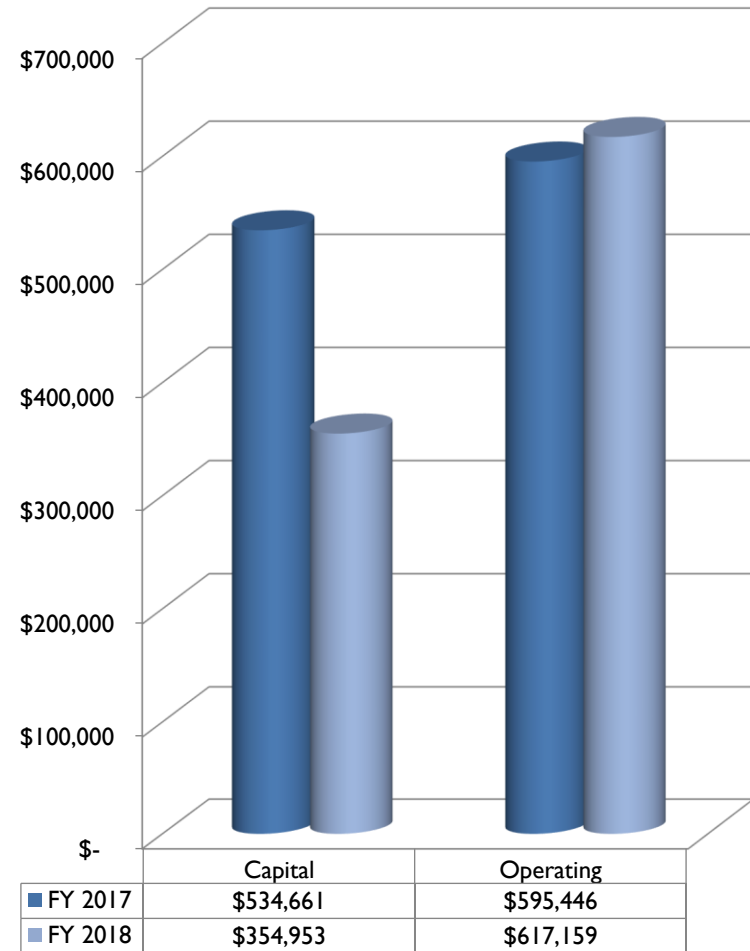
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\$ in thousands

	REVISED FY 2017	APPROVED FY 2018
CAPITAL		
Wholesale Capital Payments	\$ 107,732	\$ 80,043
EPA Grants & CSO Appropriations	25,013	23,093
Interest Income on Bond Proceeds	1,283	1,365
Pay-Go Financing	100,633	95,514
Revenue Bonds/Commercial Paper/EMCP	300,000	154,938
Total Capital Revenue	\$ 534,661	\$ 354,953
OPERATING		
Residential	\$ 102,308	\$ 109,793
Commercial	147,587	159,147
Multi-family	79,093	84,099
Federal Government	57,540	58,494
Municipal & Housing	25,877	27,891
Water System Replacement Fee (WSRF)	39,717	39,717
Metering Fee	10,776	10,776
Wholesale	81,468	76,028
Other Revenue	51,080	51,214
Total Operating Revenue	\$ 595,446	\$ 617,159



- Water and Sewer volumetric rates are listed below:
 - Residential customers: “Consumption of 0 – 4 Ccf” water rate increase of \$0.15 per Ccf to \$3.23 per Ccf, {increase of \$0.20 to \$4.32 per 1,000 gallons}
 - Residential customers: “Consumption greater than 4 Ccf” water rate increase of \$0.19 per Ccf to \$4.06 per Ccf, {increase of \$0.26 to \$5.43 per 1,000 gallons}
 - Multi-family customers: water rate increase of \$0.17 per Ccf to \$3.62 per Ccf, {increase of \$0.23 to \$4.84 per 1,000 gallons}
 - Non-residential customers: water rate increase of \$0.20 per Ccf to \$4.19 per Ccf, {increase of \$0.27 to \$5.60 per 1,000 gallons}
- Sewer rate increase of \$0.27 per Ccf to \$5.71 per Ccf, {increase of \$0.36 to \$7.63 per 1,000 gallons}
- Monthly Clean Rivers Impervious Area Charge increase of \$1.94 to \$22.24 per ERU to recover the costs of the DC Clean Rivers Project
- Water System Replacement Fee (WSRF) of \$6.30 for 5/8” meter size will remain the same. This fee varies with meter size. The WSRF is to recover the costs of 1 % renewal and replacement program for water service lines
- PILOT fee increase of \$0.01 per Ccf to \$0.48 per Ccf {increase of \$0.01 to \$0.64 per 1,000 gallons}
- No increase in ROW fee, which remains the same at \$0.17 per Ccf {\$0.23 per 1,000 gallons}

- Water and Sewer volumetric rates are listed below:
 - Residential customers: “Consumption of 0 – 4 Ccf” water rate increase of \$0.16 per Ccf to \$3.39 per Ccf, {increase of \$0.21 to \$4.53 per 1,000 gallons}
 - Residential customers: “Consumption greater than 4 Ccf” water rate increase of \$0.20 per Ccf to \$4.26 per Ccf, {increase of \$0.27 to \$5.70 per 1,000 gallons}
 - Multi-family customers: water rate increase of \$0.18 per Ccf to \$3.80 per Ccf, {increase of \$0.24 to \$5.08 per 1,000 gallons}
 - Non-residential customers: water rate increase of \$0.21 per Ccf to \$4.40 per Ccf, {increase of \$0.28 to \$5.88 per 1,000 gallons}
- Sewer rate increase of \$0.29 per Ccf to \$6.00 per Ccf, {increase of \$0.39 to \$8.02 per 1,000 gallons}
- Monthly Clean Rivers Impervious Area Charge increase of \$2.94 to \$25.18 per ERU to recover the costs of the DC Clean Rivers Project
- Water System Replacement Fee (WSRF) of \$6.30 for 5/8” meter size will remain the same. This fee varies with meter size. The WSRF is to recover the costs of 1 % renewal and replacement program for water service lines
- PILOT fee increase of \$0.01 per Ccf to \$0.49 per Ccf {increase of \$0.01 to \$0.65 per 1,000 gallons}
- ROW fee increase of \$0.01 per Ccf to \$0.18 per Ccf {increase of \$0.01 to \$0.24 per 1,000 gallons}

Cash Flow Summary

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\$ in thousands

	FY 2016 Actual	FY 2017 Approved	FY 2017 Revised	FY 2018 Approved
OPERATING BUDGET				
Operating Revenue				
Residential, Commercial & Multi-Family	\$248,661	\$254,504	\$258,144	\$268,331
Federal	10,454	7,087	8,247	8,580
Municipal	44,250	36,925	36,925	39,620
D.C. Housing Authority	7,525	7,134	7,035	7,311
Groundwater	-	5	5	5
Water System Replacement Fee (WSRF)	11,479	10,776	10,776	10,776
Metering Fee	30,287	40,000	39,717	39,717
Payment in Lieu of Taxes / Right of Way Fee	21,985	20,976	21,082	21,511
Clean Rivers IAC Revenue	98,810	102,869	102,049	115,577
Sub-total Retail	473,452	480,276	483,981	511,428
Wholesale	79,784	79,946	81,468	76,028
Interest Earnings	1,040	2,424	1,505	2,097
Other Operating Rev. ⁽¹⁾	34,840	29,650	28,169	27,155
Total Operating Revenue ⁽¹⁾	589,115	592,296	595,123	616,707
Operating Expenditures				
Personnel Services	121,101	122,827	122,827	128,132
Contractual Services	78,097	82,760	82,760	79,353
Chemicals & Supplies	26,644	34,709	34,709	30,156
Utilities & Rent	37,160	28,670	28,670	30,659
Water Purchases	34,791	29,278	29,278	29,399
Small Equipment	660	1,230	1,230	1,071
Subtotal - Operating Expenditures	298,452	299,474	299,474	298,770
Payment in Lieu of Taxes / Right of Way Fee	20,744	21,057	21,057	21,376
Debt Service	152,081	169,346	167,733	185,480
Cash Financed Capital Improvements/Defeasance	23,475	24,014	24,199	35,260
Total Operating Disbursements	494,752	513,891	512,463	540,886
Operating Surplus ⁽¹⁾	94,364	78,407	82,660	75,821
CAPITAL Disbursements (See Section VI for more details)				
Sources of Capital Funds	594,622	500,590	534,661	354,953
Uses of Capital Funds	557,009	472,238	506,998	387,307
Capital Disbursements Overage / (Shortage)	37,613	28,352	27,663	(32,354)
CASH RESERVES				
Beginning O&M Reserve Balance (Net of Rate Stabilization Fund)	160,055	140,000	162,652	140,000
Operating Surplus	94,364	78,407	82,660	75,821
Wholesale Customer Refunds/Payments for Prior Years	(13,017)	(5,500)	(10,000)	(7,000)
Transfer to Rate Stabilization Fund	(19,000)			
Federal Customer Refund/Payments for Prior Years	(11,679)	(19,201)	(19,201)	(9,019)
Interest Earned from Bond Reserve	213	505	323	452
Pay-As-You-Go Capital Financing	(48,284)	(54,711)	(76,434)	(60,254)
Ending O&M Reserve Balance (Net of Rate Stabilization Fund)	162,652	139,500	140,000	140,000
Rate Stabilization Fund	\$ 51,450	\$ 51,450	\$ 51,450	\$ 51,450

(1) Does not include interest earned from the debt service reserve fund

The District of Columbia Water and Sewer Authority (DC Water) was created in April 1996 and began operating October 1, 1996 under and pursuant to an act of the Council of the District of Columbia and an act of the United States Congress. Previously, the Water and Sewer Utility Administration, a division of the District's Department of Public Works, performed DC Water's operations. In the aftermath of the District's financial crisis in the 1990s, Congress created an independent utility agency governed by a Board of Directors consisting of eleven principal and eleven alternate members who represent the District of Columbia, Montgomery and Prince George's Counties in Maryland and Fairfax County in Virginia to govern DC Water. The Mayor of the District of Columbia appoints, and the Council confirms, all District Board members, including the Chairperson. In addition, the Mayor appoints the five principal and five alternate members who represent the surrounding jurisdictions based on submissions from those jurisdictions. All members serve four-year terms. The existence of a quorum and an affirmative vote of a majority of the members present, who are permitted to participate in the matter under consideration, shall be required to approve any Board action; except, that 7 affirmative votes shall be required for approval of the Authority's budget and 8 affirmative votes shall be required for the selection or relieving of the CEO/General Manager. All Board members participate in decisions directly affecting the general management of joint-use facilities (such as projects at the Blue Plains Advanced Wastewater Treatment Plant), and only the District of Columbia members participate in decisions for those matters that affect only District ratepayers. Rates setting authority resides solely with the Board of Directors, and is a non-joint use matter.

At its inception, DC Water faced a cash shortage and projected multi-million dollar deficit. The newly established utility was also burdened with a barely functional fleet, poorly maintained infrastructure, an antiquated billing system, and a number of operating weakness. Through the leadership of an active Board of Directors and strong management staff, a line of credit was obtained, municipal bonds were

issued and new strategic goals, business processes and technologies were developed. DC Water made tremendous strides in its prudent financial management and cutting-edge technology, customer service improvements, extensive capital investment, environmental stewardship, peer-reviewed research and establishment of an award winning fleet. Our credit rating since 1996 has gone from no credit to AAA.

Over the years, we have developed strong partnerships with the District government, Congress, suburban jurisdictions, federal regulators and environmental advocates. We are continuing to strengthen our existing partnerships while reaching out to establish new relationships. Our success has been acknowledged through many awards as well as positive financial results and audits over the years. Since 1996, the Authority has met its mission of providing clean drinking water to residents of the District of Columbia and wastewater conveyance and treatment services to both residents of the District and wholesale customers in Maryland and Virginia.

At DC Water, we focus all of our technology initiatives on improving both the quality of services we provide to our customers and organizational effectiveness. We were one of the first utilities to automate our meter reading program (AMR) which has been heralded as a best practice in the industry. The automated meters use radio frequency and cell phone technology to send daily water usage information from the meter to DC Water. This tool analyzes daily water consumption and provides monthly and yearly averages on an account so a customer can monitor their own water use. In addition, we developed a powerful application in-house called the High Use Notification Application (HUNA). This tool alerts customers of unusually high amounts of water delivered to their meter so they can check for leaks and avoid a high bill. Over the last 10 years that we have offered the service, 33% of all customers have received at least one alert. We anticipate reaching a total of 90,000 alerts sent to customers in 2017.

Basis of Accounting

DC Water is a single enterprise fund and maintains accounting records using the accrual basis of accounting in accordance with Generally Accepted Accounting Principles (GAAP). Under this basis of accounting, revenues are recorded when earned, and expenses are recorded when incurred. DC Water's expenditure budget is prepared on a comparable basis to GAAP, with the exception of debt service (including principal and interest) that is budgeted in full when due. Depreciation and interest expense are recorded as expenses for financial statement purposes. (Depreciation is not budgeted.)

Annual Budget Process

As a first step in the budget development process, the Finance, Accounting & Budget Department updates DC Water's ten-year financial plan to reflect any revisions to the capital improvement program and any other major revenue or operating budget issues, and analyzes the potential impact of these items on rates. In addition to these items, the ten-year plan is also developed based on the financial and rate-setting policies adopted by the Board as well as the Board's Strategic Plan.

Approval Process

In June, departments submit their initial budget requests for management review. DC Water's strategic and operational priorities are included in each department's work plan and performance agreements, as appropriate. During the month of June and in early July, departments complete budget reviews with budget staff, and in July and August, reviews are held with the Executive Team and with the CEO/General Manager in tandem.

Typically in November of each year, management presents the operating budget, ten-year capital improvement program and ten-year financial plan to the Board's Environmental Quality and Sewerage Services, Water Quality and Water Services, DC Water Retail Water and Sewer Rates and Finance and Budget Committees for their review. This budget is proposed for the following fiscal year (e.g. beginning October 1, 2016). The Committees review the budget documents in November through December and submit budget recommendations to the full Board in December. Typically, decisions are finalized and Board action on the budget is taken between December and January.

Upon budget adoption, the Budget Department publishes and distributes the approved budget book and ensures that DC Water's budget is included in the District of Columbia's budget submission, which is transmitted to the U.S. Congress for approval. Once approved by Congress, the budget is effective October 1 of each year.

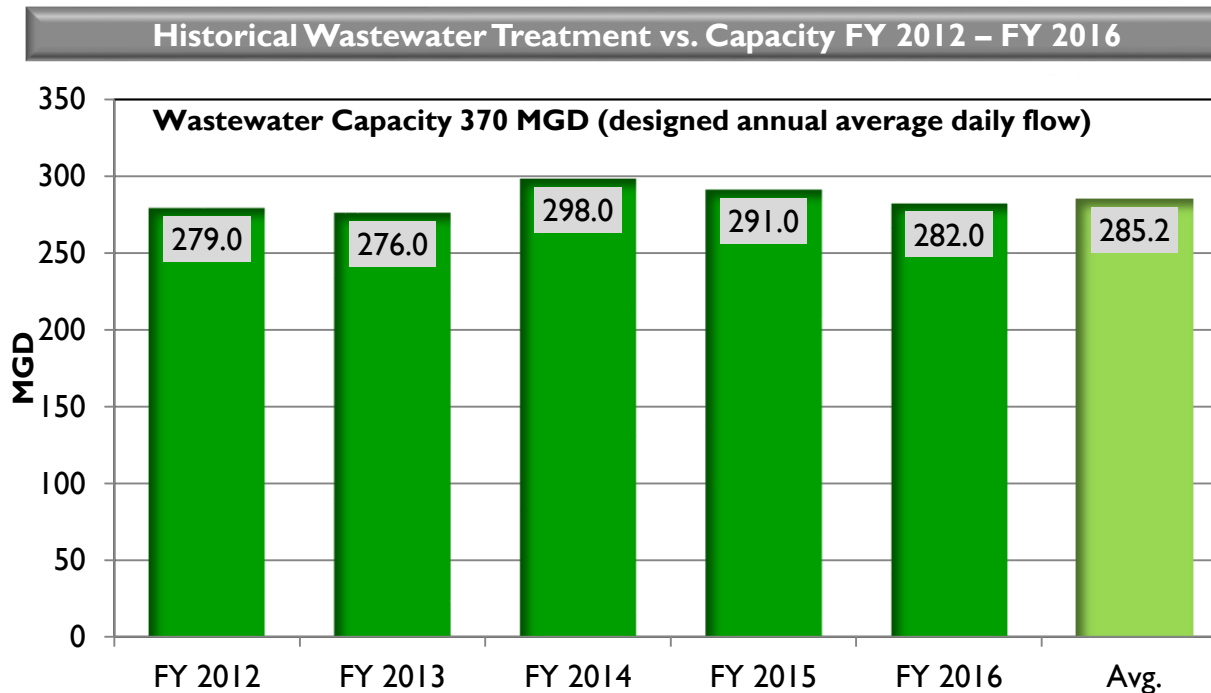
Budgetary Control

After the U.S. Congress approves the budget, the operating and capital budgets are loaded into the DC Water's financial management system, which prevents overspending without appropriate approvals. The Department of Finance, Accounting and Budget prepares monthly management reports for each operating unit, management staff, the Board of Directors and its various committees. The reports are consistently reviewed each month to ensure that DC Water complies with its authorized budget levels.

Month	Event
May 16	Chief Executive Officer (CEO) & General Manager’s Budget Kickoff Meeting
May 16	Distribution of budget manual and budget templates
June 15	FY 2018 Operating and Ten-Year Capital Budget requests due to Finance, Accounting and Budget department (Team FAB)
June - July	Revised FY 2017 Budget Proposed Review with Committee Departmental FY 2018 Operating and Capital Budget Reviews with Team FAB, Office of General Manager, Information Technology (IT) and Support Services
July 7	FY 2017 Retail Rates & Fees Proposal Delivered to Board for Action
July	Evaluation of departmental FY 2018 budget requests by Budget Department Begin Preliminary Ten-Year Financial Plan update (Submit IMA, CSO and EPA grants)
August	Operating and Capital Budget Review with Chief Operating Officer and Chief Financial Officer
September	Completion of Final FY 2018 Operating and Ten-Year Capital Budget Decisions Process
October 5	CEO & GM and Executive Team’s briefing of Operating and Ten-year CIP
October 7	Transmittal of CEO & GM’s final budget proposal to Assistant General Managers & Department Heads
October	Budget Book Preparation and Production
November 3	Budget Workshop – Board Briefing of the CEO & GM’s Proposed FY 2018 Budgets
November	Committees Conduct in-depth review of budget proposal Committees forward recommendations to full Board for deliberation/action
December 1	Board Adoption
December	Submission to the District of Columbia

WASTEWATER SYSTEM CAPACITY ENSURES SERVICE AREA MEETS NEEDS THROUGH 2040

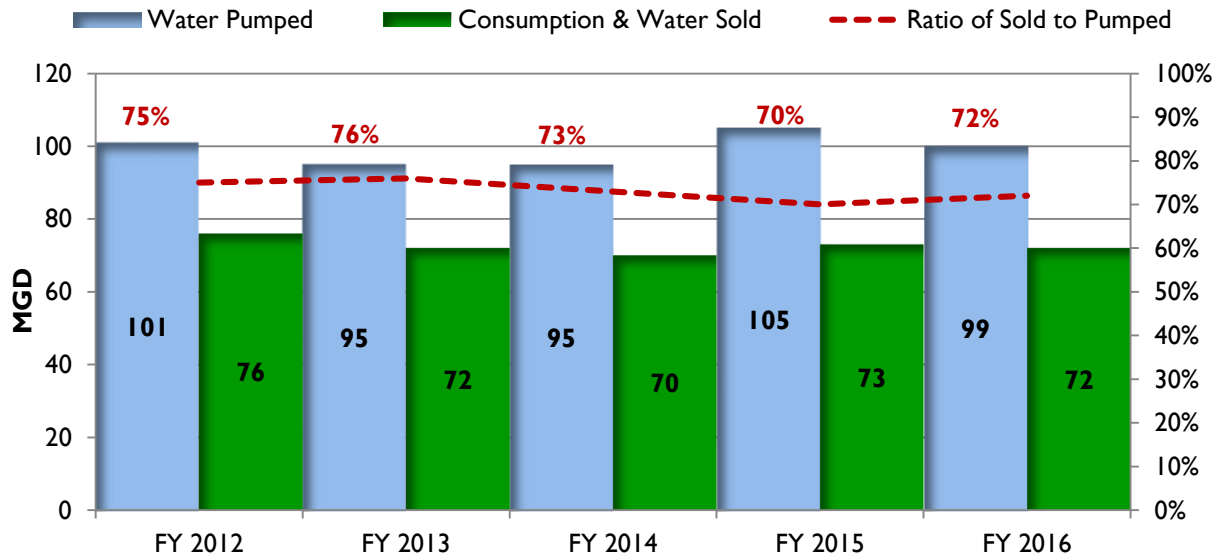
- Blue Plains is the world’s largest advanced wastewater treatment plant
 - Treats an average of approximately 300 million gallons per day (MGD) annually
 - Designed for average daily flow of 370 MGD and peak wet weather capacity of 1,076 MGD
- System comprises 1,800 miles of sanitary, stormwater and combined sewers; 125,000 building sewer lateral; 22 flow-metering stations; 9 off-site wastewater pumping stations; and 16 stormwater pumping stations



WATER SYSTEM CAPACITY MEETS SERVICE AREA NEEDS

- Water purchased from the Washington Aqueduct, owned and operated by U.S. Army Corps of Engineers
- Total treatment capacity of 320 MGD exceeds average daily and peak requirements in service areas
- Four pumping stations with adequate capacity to meet peak demand
 - Bryant Street, New Fort Reno, 16th and Alaska, Anacostia
- One Washington Aqueduct pumping station with capacity sufficient to take over for Bryant Street pumping station
- 1,350 miles of interconnected pipes

Volume of Water Pumped versus Sold FY 2012 – FY 2016



Infrastructure Index Leakage (ILI) :	
FY 2012	8.31
FY 2013	6.89
FY 2014	7.49
FY 2015	9.94
FY 2016	7.84

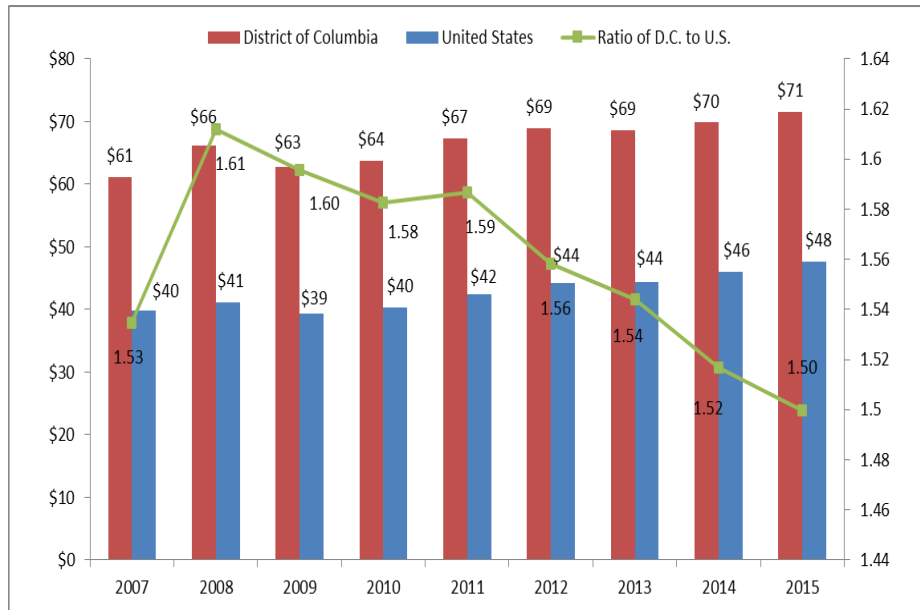
Strong financial planning requires careful monitoring and analysis of various trends and factors that may influence the market place. In this case, the market place for DC Water is the District of Columbia and its surrounding region. DC Water monitors consumption and wastewater flow trends within the customer base, weather patterns, regional income changes, population trends, federal activity in the region, housing starts, office vacancy rates and employment trends. A review of experiences from similar national systems is a useful benchmark assessment. While there are no crystal balls in the area of forecasting water demand, monitoring such data can provide insight into customer behavior and anticipated service demands.

Regional Economy

DC Water's service area has weathered the recent national recession well. The regional unemployment rates remain relatively low and the regional per capita incomes remain higher than the U.S. average. Office vacancy rates remain lower than the region, which experts believe are favorable economic indicators. A major local employer, the federal government, remains relatively stable for this employment sector. Select demographic charts following support the generally positive outlook for the Washington Metropolitan region and its economy.

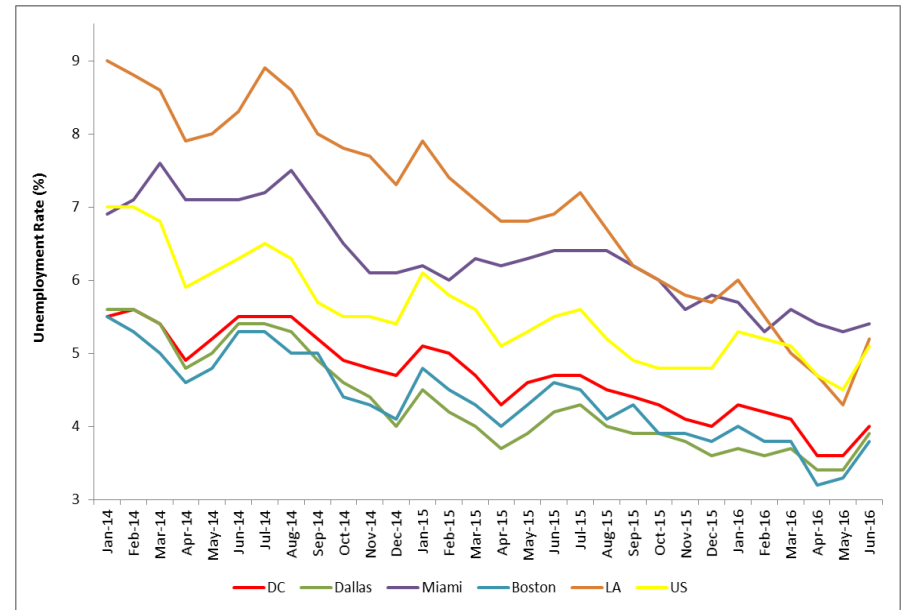
As the largest job center in the DC Metropolitan region, DC can be impacted by economic declines. However, impacts are tempered by the relatively stable federal employment enjoyed by the nation's capital.

DC Per Capita Income is Higher than U.S. Average



Source: Bureau of Economic Analysis

DC Unemployment Rate Remains Relatively Low



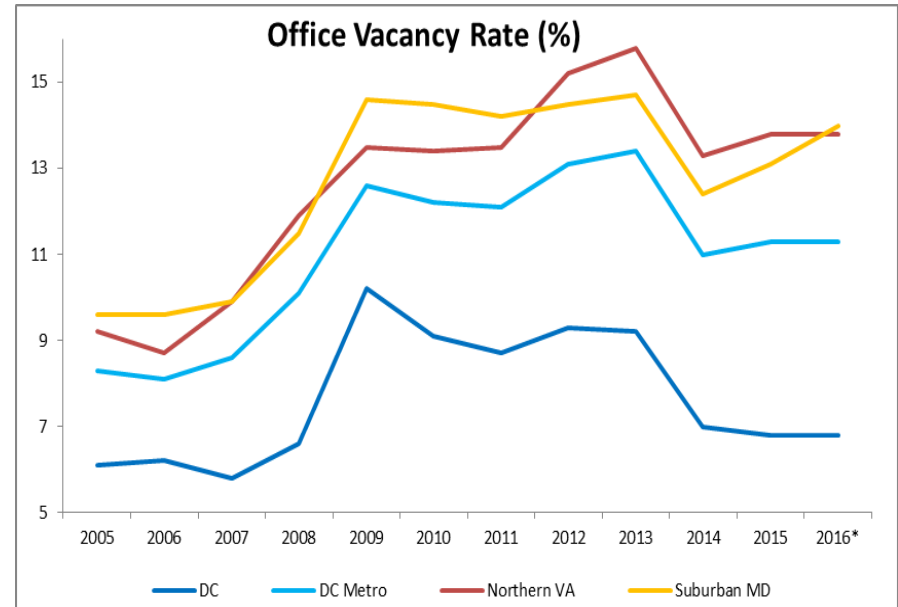
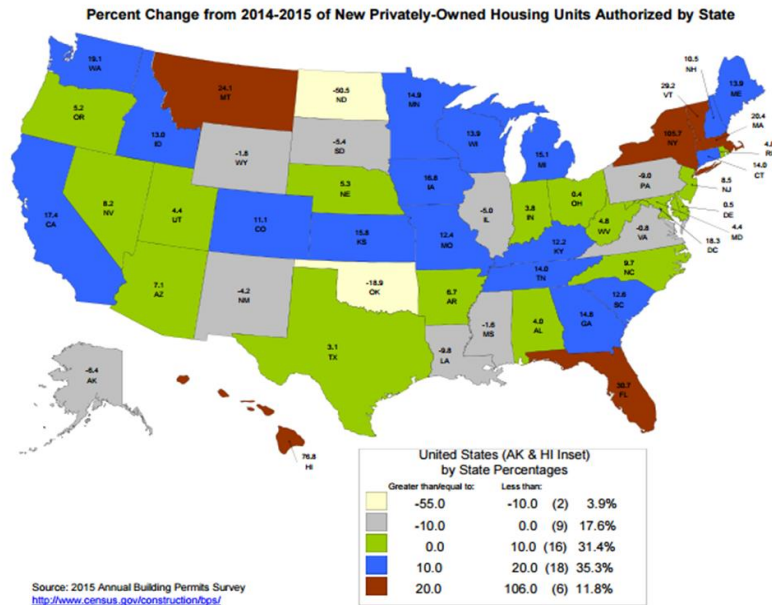
Source: Bureau of Labor Statistics

- The scale on the left side of the chart shows personal income per capita which applies to the columns in each year for DC and the U.S.
- The scale on the right side of the chart shows the ratio of DC income to U.S. income which is reflected by the line in the chart

Low commercial office vacancy rates and growth in housing permits throughout the region provide positives signs for the regional economy.

**2014 – 2015
DC Growth in Housing-Permit Issuance
at Par with the Rest of U.S.**

**DC Office
Vacancy Rates
Lower Than The Region**



Source: US Census Bureau

Source: District of Columbia Office of Chief Financial Officer and Delta Associates

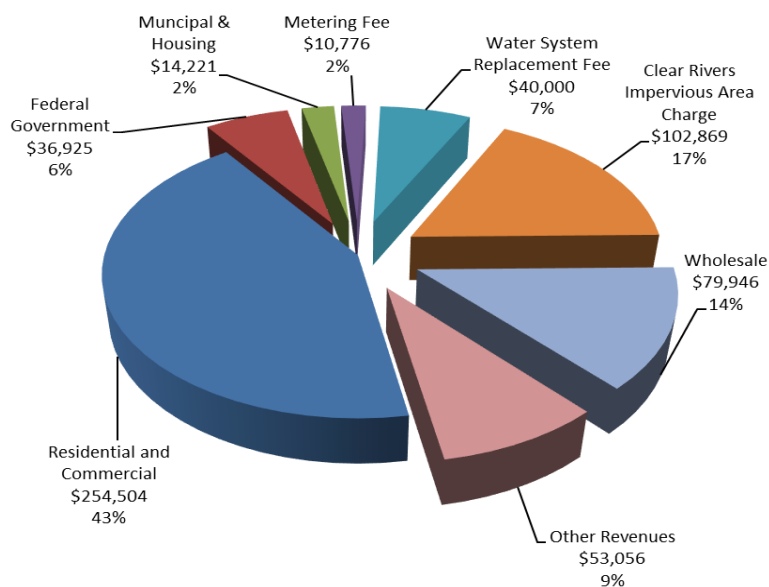
- DC’s performance is driven by federal government growth and associated industries, supporting regional growth and diversification

- The region’s residential housing and office markets have weathered the economic climate relatively well compared to neighboring states

The regional economic indicators are positive with strong incomes and unemployment below the national level. These factors coupled with stable consumption and the financial strength of some of the major AAA rated customers helps to ensure the financial success of DC Water.

The DC Water service area includes highly-rated customers

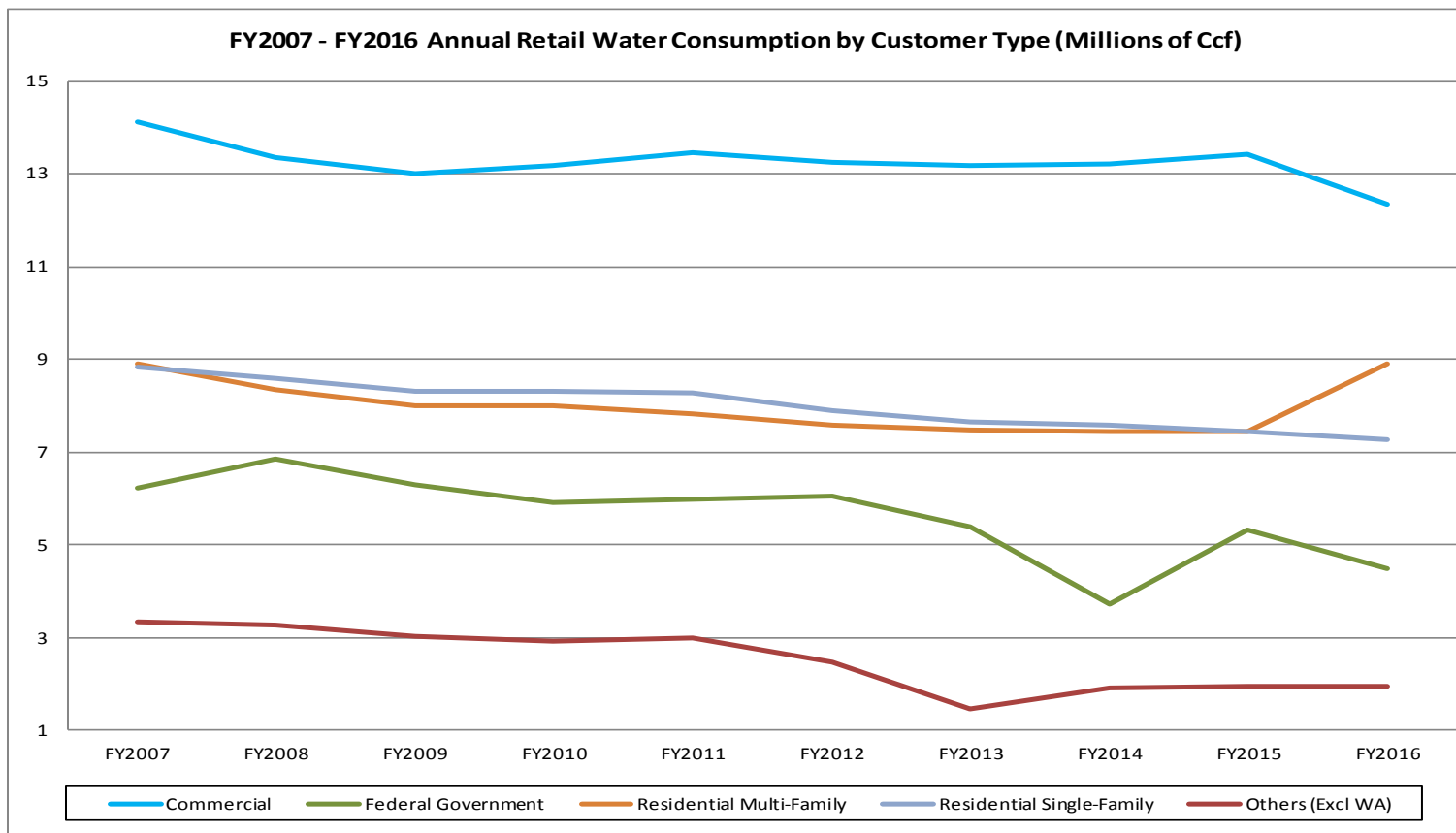
- ❑ About 19.7% of the projected FY 2017 revenues come from “AAA” rated entities and are received in advance of service:
 - Federal Government
 - Fairfax County
 - Washington Suburban Sanitary Commission
 - Loudon County Sanitation Authority
- ❑ An additional 2.4% of revenues come from the District of Columbia which is rated “AA-”



Media reports reference the service area’s economic strength

- ❑ On Business Insider’s US states economy ranking, DC was ranked second highest due to “DC’s November 2015 average weekly wage of \$1,342, GDP per capita of \$159,386, and increase in house prices of 15.4% were all the highest in the country.” Business Insider, January 11, 2016
- ❑ “The District’s population will continue to grow steadily and reach nearly 1 million residents in the next 30 years... According to the Metropolitan Washington Council of Governments... from 2015 to 2025, the region’s job growth is projected to be 13 percent, compared with 10 percent for the nation.” Washington Post, March 9, 2016
- ❑ “Unemployment in the D.C. area continued to fall in January... At the same time, the size of the labor force increased in all three states... The types of jobs being added have experts particularly optimistic. The largest share came within the professional and business service category, typically higher-paying positions...” The Washington Post, March 14, 2016

Customer Demand: A reasonable degree of accuracy in forecasting water demand is important for sound financial planning and rate-setting. DC Water has typically assumed an annual reduction in Water demand of one percent in line with a ten year historic average. The FY 2007 - 2016 actual averaged annual demand decline of 1.9 percent. The FY 2017 – FY 2026 Financial Plan assumed retail water consumption decline of one percent in FY 2017 and onwards. We believe that this conservative estimate is in line with the financial policies and assures revenue sufficiency for the Authority.



FY 2006 - FY 2016 usage shows an average annual rate of change in aggregate demand of -1.9%, excluding Washington Aqueduct. FY 2016 consumption decreased 1.7%, mostly due to decreases in consumption for Federal Government and commercial accounts, offset somewhat by the increases in consumption in multi-family accounts. FY 2007 – FY 2016 average annual rate of change in demand for the customer classes: Commercial -1.5%; Federal Government: -3.6%; Multi-Family: -0.01%; Single Family: -2.2%; and Other (include Exempt, DC Housing Authority, DC Municipal Government, and DC Water): -5.8%



**APPROVED
BUDGETS**



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

**Section III
FINANCIAL PLAN**

THE DC WATER TEN-YEAR FINANCIAL PLAN PROVIDES A STRONG FINANCIAL FRAMEWORK TO SUPPORT IMPLEMENTATION OF THE BOARD STRATEGIC PLAN

Vision

To be a world-class water utility

Mission

Exceed expectations by providing high quality water services in a safe, environmentally friendly, and efficient manner.

Values

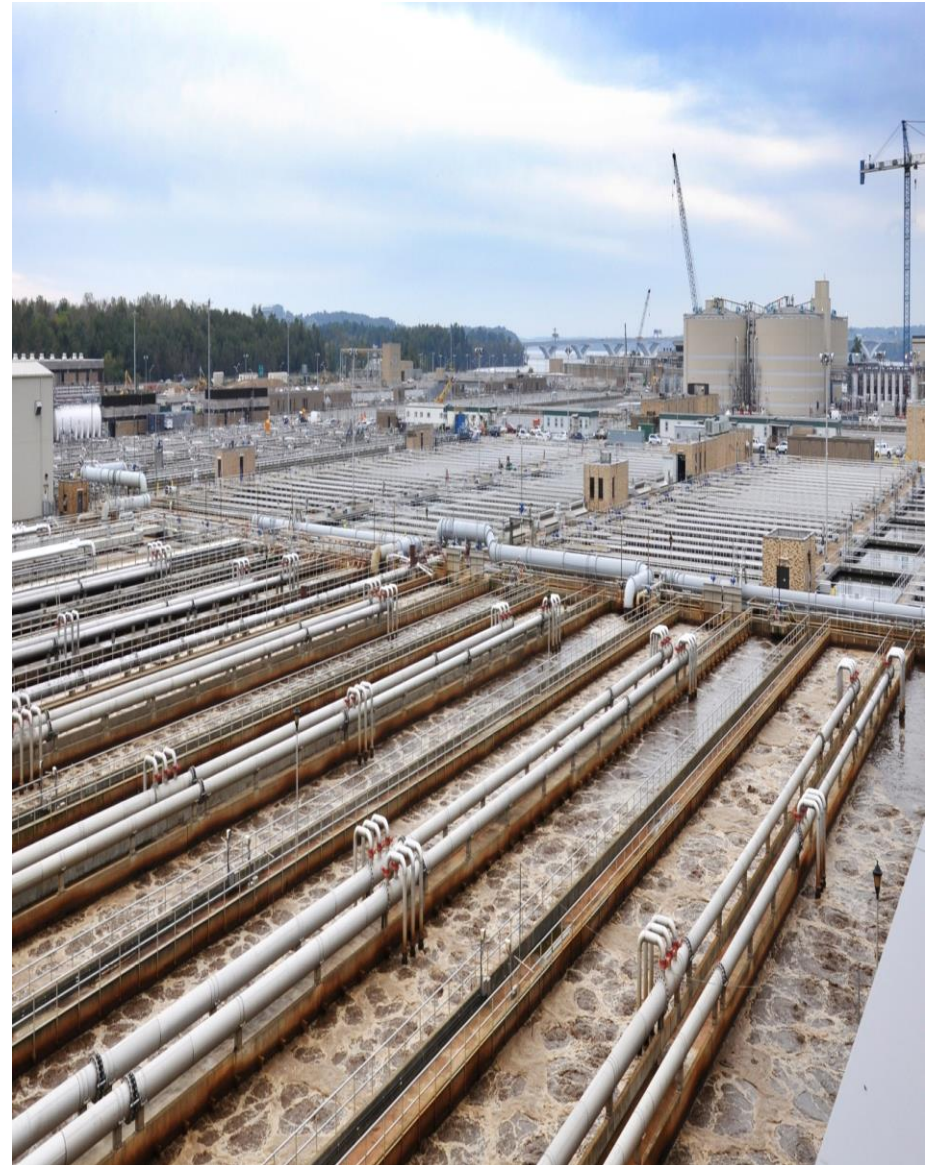
- Respectful, serve with a positive attitude, courtesy, and respect that engender collaboration and trust
- Ethical, maintain high ethical standards, accountability, and honesty as we advance the greater good
- Vigilant, attend to public health, the environment, quality, efficiency, and sustainability of our enterprise
- Accountable, address challenges promptly, implement effective solutions, and provide excellent service as a committed team

Goals

The goals represent the core strategies that DC Water will pursue. The Board and Executive Management believe that they are essential to the achievement of the mission to become a world-class water utility

- Develop, maintain and recruit a high performing workforce
- Collaborate locally, regionally, and nationally
- Increase Board focus on strategic direction
- Enhance customer/stakeholder confidence, communications, and perception
- Assure financial sustainability and integrity
- Assure safety and security
- Consider DC Water role in drinking Water Treatment
- Optimally manage infrastructure
- Enhance operating excellence through innovation and adoption of best practices

Note: DC Water Strategic Plan adopted by the DC Water Board of Directors on March 7, 2013.



BLUE HORIZON 2020

Blue Horizon **2020** serves as a blueprint for future decision-making and provides a structure through which annual reviews can be accomplished to assure that the goals and objectives retain their relevance over time. By laying out a course of action, this plan represents a disciplined process for making fundamental decisions and shaping DC Water's future.

The plan represents the collaboration of the Board of Directors, Executive Management, and the management team, as well as input from key external stakeholders. The plan is designed to be a lasting framework, although updates should be made to goals, objectives, and initiatives as the organization moves forward and circumstances change.

This plan contains the DC Water vision, mission statement, values, goals, objectives, and initiatives. It addresses DC Water's current challenges and helps ensure continued success in operations and management of resources and assets.

DC Water's vision describes the desired future state and guides the organization toward the future, while the mission of the utility describes the purpose of the organization and its role within the service area. Values articulate the deeply-held beliefs, norms, and qualities of the utility, and are the basis from which each DC Water staff member should operate.

FOCUS AREAS

The strategic plan, and the accompanying strategic framework, is the direct result of evaluation and analysis of the elements of the environmental scan and the needs of key stakeholders represented by the DC Water Board. Early in the process, three key themes emerged, which are embodied in Blue Horizon **2020**. These have been called focus areas and are:

 <p>LEADERSHIP DC Water will advocate and lead local, regional, and national collaborations, while internally developing the workforce of the future.</p>	 <p>VALUE DC Water will be recognized for the value it delivers by protecting public health and the environment, supporting community sustainability, and providing for economic vitality.</p>	 <p>INNOVATION DC Water will achieve international prominence in development and adoption of science, technology and processes in support of a culture of innovation.</p>
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Overview

DC Water's strong financial performance and its success in achieving and maintaining strong bond ratings have been primarily due to the annual development of and adherence to a ten-year strategic financial plan. During FY 2016, Standard and Poor's Rating Services upgraded DC Water's rating to AAA and Moody's Investors Service upgraded DC Water to Aa1. Fitch Ratings reaffirmed their AA rating. This financial plan serves as one of management's key tools to monitor progress in meeting financial goals and to proactively address future financial and operational issues. During FY 2016, DC Water met or exceeded the goals set by Board policy and the FY 2016 – FY 2025 ten-year plan. This budget includes DC Water's seventeenth comprehensive ten-year financial plan, covering FY 2017 – FY 2026.

The necessity of a ten-year financial plan is clear:

1. DC Water operates under a regulatory and capital project-driven environment that requires a longer term ten-year planning horizon. In order to provide our customers with the best service possible and with gradual and predictable rate increases, DC Water must plan for all projects on a long-term and integrated basis, including both capital and operating requirements. A five-year, capital-only financial plan would insufficiently prepare DC Water to address the major regulatory, operational and capital project issues that will impact service, operations, and rates over the next five to ten years.
2. In accordance with Board policy, DC Water sets rates so that each customer is charged for the actual cost to provide each service, rate increases are implemented transparently and predictably, utilizing all available options to mitigate future customer impacts. Since proposed future rate increases are primarily driven by financing of DC Water's capital program and full utilization of the rate stabilization fund, the development of a ten-year financial plan allows DC Water to meet these key goals.
3. The Board has directed DC Water management to undertake internal improvements and investments that will significantly lower operating costs over a ten-year period. A ten-year plan is required to bridge current operations and related capital and operating budgets with these longer term cost reduction goals.

Board policies, strategic plan, priorities and guidance in several key financial areas drive the development of the FY 2017 – FY 2026 financial plan. Given DC Water's substantial borrowing needs over the next ten years, adherence to these Board policies is crucial in order to cost-effectively access the capital markets and retain our credibility with customers and regulators.

- **DEBT SERVICE COVERAGE** – DC Water will set rates and develop operating and capital budgets that ensure **senior debt service coverage of 140 percent**
 - This coverage level exceeds DC Water’s bond indenture requirement of 120 percent senior debt service coverage
- **CASH RESERVES** – DC Water will maintain **cash reserves equivalent to 120 days of budgeted operations and maintenance expenses with the objective of maintaining at least \$125.5 million** in operating reserves.
- **PAY-GO FINANCING OF CAPITAL** – DC Water will finance a portion of its capital program on a **pay-go basis from cash balances that exceed operations requirements or restricted use.**
- **RATE-SETTING POLICIES**
 - Rates that, together with other revenue sources, **cover current costs and meet or exceed all bond and other financial requirements** as well as goals set by the Board
 - Rates that yield a **reliable and predictable** stream of revenues, taking into account trends in costs and in units of service
 - Rates based on **annually updated forecasts of operating and capital budgets**
 - Rate structures that are **legally defensible**, based on objective criteria, **and transparently designed**
 - Rate structures **that customers can understand** and DC Water can **implement efficiently and efficaciously**
 - Rates increases, if required, are implemented **transparently and predictably.**

To the extent annual revenues exceed costs, the Board’s policy will continue to utilize all available options to mitigate future customer impacts and annual rate increases, including transferring some or all of such excess funds to the Rate Stabilization Fund.

- **RATE STABILIZATION FUND** - Once DC Water achieves its **required level of cash reserves**, a **rate stabilization fund** will be established **to avoid “rate shock.”** Based on favorable financial performance in FY 2016, the balance in the RSF was \$51.45 million.

Financing and Reserve Policies

In FY 2004 and again in FY 2008, the Board completed a review of its existing financing policies, reaffirming the core policies. Two modifications were made to the reserves policy: 1) Changing the timing of when DC Water is required to meet its overall operations and maintenance reserve requirement from September 1 to an average daily balance basis, resulting in a more conservative calculation; and 2) revising the indenture-required renewal and replacement reserve requirement from two percent of original plant in service to \$35 million, with a requirement to revisit this reserve level every five years in conjunction with the indenture-required system assessment prepared by DC Water’s independent rate consultants. The assessment was last performed in 2013.

In FY 2013, the Board adopted further revisions which modified the operating reserve policy and under Resolution #13-57 revised the DC Water's Statement of Financial Policies as follows:

1. DC Water will maintain financial practices and policies that result in high quality investment grade bond ratings so as to ensure the lowest practical cost of debt necessary to finance DC Water's long-term capital program.
2. DC Water will maintain strong levels of operating cash reserves, equivalent to 120 days of budgeted operations and maintenance costs, calculated on an average daily balance basis, with the objective of maintaining at least \$125.5 million in operating reserves. The annual reserve amount will be formally approved by the Board as part of its annual approval of the operating and capital budgets and ten-year plan. The operating reserve requirement will be evaluated every five years by DC Water's independent rate consultant in conjunction with the Indenture-required system assessment.
3. The operating reserve will, at a minimum, include any reserve requirements contained in DC Water's Master Indenture of Trust, (the "Indenture"), excluding any debt service reserve funds and the rate stabilization fund, as follows:
 - *Operating Reserve* – equivalent to sixty days' operating costs
 - *Renewal & Replacement Reserve* - \$35 million. This reserve requirement will be in conjunction with the Indenture-required system assessment
4. DC Water will maintain senior debt service coverage of 140 percent, in excess of DC Water's indenture requirement of 120 percent. Senior debt service coverage will be calculated in accordance with DC Water's indenture.
5. In general, DC Water will utilize operating cash in excess of the Board's reserve requirement and any other significant one-time cash infusions for capital financing or for repayment of higher cost debt.
6. DC Water will whenever possible use the least costly type of financing for capital projects, based on a careful evaluation of DC Water's capital and operating requirements and financial position for each year.
7. DC Water will attempt to match the period of debt repayment, in total, with the lives of the assets financed by any such debt.

Pay-As-You-Go Capital Financing Policy

1. The CEO/General Manager will include in the annual ten-year financial plan, developed as part of the annual operating budget process, a separate schedule showing projected annual cash balances and planned annual pay-go financing of capital projects.
2. The planned annual pay-go financing will be formally approved by the Board of Directors as part of its annual approval of the ten-year financial plan, operating and capital budgets.
3. At any time during the fiscal year, the CEO & General Manager may use pay-go financing for capital projects, as approved by the Board of Directors.
4. During the fourth quarter of each fiscal year, the CEO & General Manager (or designee) will conduct an analysis of DC Water's financial performance.
5. The CEO & General Manager will report the results of this analysis and his recommendations, including updated projected annual cash balances and annual pay-go financing, to the Finance and Budget Committee no later than its regularly scheduled meeting in July, for recommendation to the Board for action at its September meeting.

Cash Management and Investment Policies

The Board has adopted a “Statement of Investment Policy”. This policy is designed to ensure the prudent management of Authority funds, the availability of operating and capital funds when needed, and an investment return competitive with comparable funds and financial market indices. The investment portfolio shall be managed to accomplish the following hierarchy of objectives:

1. Safety
2. Liquidity
3. Return on investment
4. Diversity

The current Investment Policy is available on-line at www.dcwater.com.

Debt Policy and Guidelines

The purpose of DC Water’s Debt Policy and Guidelines (the “Debt Policy”) is to provide DC Water officials and staff a comprehensive guide to DC Water’s issuance and use of debt to fund capital projects or to refund/refinance/restructure outstanding debt. The advantages of adopting and adhering to a clear, concise and comprehensive debt policy are:

- Enhancing the quality of decisions
- Documenting the decision-making process
- Identifying objectives clearly to facilitate staff implementation
- Demonstrating a commitment to Long-Term financial planning objectives that result in a sound financial position
- Enhancing the positive assessment of credit quality by the bond Rating Agencies in order to maintain and improve DC Water’s high credit ratings
- Integrating the Debt Policy with the operating and capital budgets, the multi-year Capital Improvement Program (CIP), multi-year Financial Plan and other financial policies

The financial policies outlined in this document, in most cases, impose higher standards than the legal requirements contained in DC Water’s Master Indenture of Trust dated as of April 1, 1998 as amended and supplemented from time to time (the “Indenture”) and other legal requirements.

The current Debt Policy and Guidelines is available on-line at www.dcwater.com

During FY 2016, DC Water met or exceeded the financial goals set out by the Board and the FY 2016 – FY 2025 financial plan. Senior debt service coverage, reserve levels, and budget performance met or surpassed Board policies, as discussed in more detail below:

- DC Water Board policy requires senior debt service coverage of at least 140 percent; greater than the indenture requirement of 120 percent. **DC Water's senior debt service coverage in FY 2016 was at 528 percent**, while maintaining the Board's rate setting and financial policies. The senior debt service coverage is expected to increase to 674 percent by FY 2026 despite increase in capital spending and related debt issuance; the coverage is above the Board requirement of 140 percent. Subordinate debt service coverage, which includes DC Water's subordinated lien revenue bonds and Jennings Randolph Reservoir debt, was at 190 percent in FY 2016. DC Water is required to have 100 percent coverage of subordinate debt service. Combined debt service coverage was at 163 percent in FY 2016.
- In January 2016, DC Water issued Series 2016A bonds to redeem certain maturities of existing 2007A, 2008A and 2009A Bonds, which resulted in significant savings in future debt service.
- In September 2016, DC Water closed on its Series 2016B (\$25.0 million) environmental impact bond. This bond will be used to construct green infrastructure practices designed to mimic natural processes to absorb and slow surges of stormwater during periods of heavy rainfall, reducing the incidence and volume of combined sewer overflows (CSOs) that pollute the District's waterways. CSO reduction has become an increasingly urgent environmental challenge as a result of climate change, which has increased the frequency and severity of intense rainfall events.
- During FY 2016, Standard and Poor's Rating Services upgraded DC Water's rating to AAA and Moody's Investors Service upgraded DC Water to Aa1. Fitch Ratings reaffirmed their AA rating.
- **COMMERCIAL PAPER:** These notes issued are considered subordinate debt under the Master Indenture of Trust. DC Water's commercial paper is issued in increments with maturities less than 270 days. The Board approved the commercial paper program in early FY 2002; proceeds from the sale of the notes are used for interim bond financing, short-term financing for capital equipment and certain taxable costs for the Washington Aqueduct. Each new bond issuance is evaluated to determine the most cost effective way of reducing the amount of taxable commercial paper. Normal market conditions for commercial paper carry significantly lower interest rates than long-term debt. Two series of notes have been issued under the commercial paper program: the tax-exempt Series B CP Notes in an aggregate principal amount not to exceed \$100,000, and the taxable Series C CP Notes in an aggregate principal amount not to exceed \$50,000. To provide liquidity and credit support for the Commercial Paper Notes, the Authority obtained irrevocable, direct-pay letters of credit issued by Helaba-Landesbank Hessen-Thüringen Girozentrale, New York Branch which currently expires on May 15, 2020.
- **EXTENDABLE MUNICIPAL COMMERCIAL PAPER (EMCP):** The addition of the EMCP program in the amount of \$100 million provides diversification of the variable rate products available for interim financing needs. EMCP does not require a supporting bank letter of credit but relies on DC Water's liquidity to address any failed re-marketing of the EMCP. The initial placement is typically for 90 – 180 days and in the event of a failed re-marketing due to poor market conditions, DC Water has 3 – 6 months to address payment with a maximum number of days from the initial issuance of 270 days.

- **DC Water did not utilize rate stabilization fund (RSF) in FY 2016** but contributed \$19.0 million to RSF - The Rate Stabilization Fund's ending balance for FY 2016 was \$51.45 million.
- **DC Water continued its strong operating budget performance in FY 2016** - For FY 2016, actual cash receipts were higher than the revised budget by \$8.8 million, or 1.5 percent. Actual operating expenditures were \$49.1 million or 9.1 percent lower than budget. DC Water experienced lower O&M due to underspending in contractual services attributable to materialized savings in biosolids hauling costs and delayed fee to operate the CHP project; lower unit prices for methanol and the use of safer and less expensive chemicals to control alkalinity and pH levels; utilities resulting from energy generated from the CHP project; and water purchase based on DC Water's share of Washington Aqueduct's budget. Underspending in debt service was attributable to lower interest rates, refinancing and delayed issuances. Furthermore, due to favorable projected O&M at 92% there was no need to utilize the Cash Financed Capital Improvements, which was established to cover emergency financial needs.
- **The Clean Rivers Impervious Surface Area Charge (CRIAC) was implemented in May 2009** to recover the cost of the Combined Sewer Overflow Long-Term Control Plan (CSO LTCP), also known as the DC Clean Rivers Project. In FY 2011, a six-tiered rate structure was successfully implemented for all residential retail customers to better reflect the impacts of various size residential properties. The twenty-year CSO LTCP, whose terms are outlined in a consent decree executed in March 2005, exclusive of the nine-minimum controls programs are projected to cost \$2.3 billion. See "Combined Sewer Overflow Long-Term Control Plan" in Section IV, Rates and Revenues for additional details on the projected rate impact of the plan.
- DC Water implemented a retail water and sewer rate increase of 6.5 percent in FY 2016 to recover increased revenue requirements of \$14.3 million. No Rate Stabilization Fund (RSF) was utilized in FY 2016. If needed, the RSF helps to mitigate rate shock and reduces needed retail rate increases. In addition, there was a 2 percent increase in PILOT as per the PILOT MOU signed with the District on September 4, 2014. ROW fees remained same as in FY 2015. The changes in PILOT and ROW fee are made to recover the full costs of these fees charged to DC Water by the District of Columbia government. The rate changes are mainly due to the increase in debt service cost to finance the capital improvement program.
- **Water System Replacement Fee (WSRF) was implemented in FY 2016 becoming** effective from October 1, 2015 (FY 2016), WSRF recovers the costs of 1 percent renewal and replacement program for water service lines. WSRF varies with meter size. The WSRF for 5/8" meter size is \$6.30. Low income CAP customers get 100 percent discount for this fee.
- **Multi-Year Rates:** DC Water moved to a multi-year rate proposal in FY 2016 covering the period FY 2017 and FY 2018. The Board has approved the multi-year rates, which will become effective from October 1, 2016.

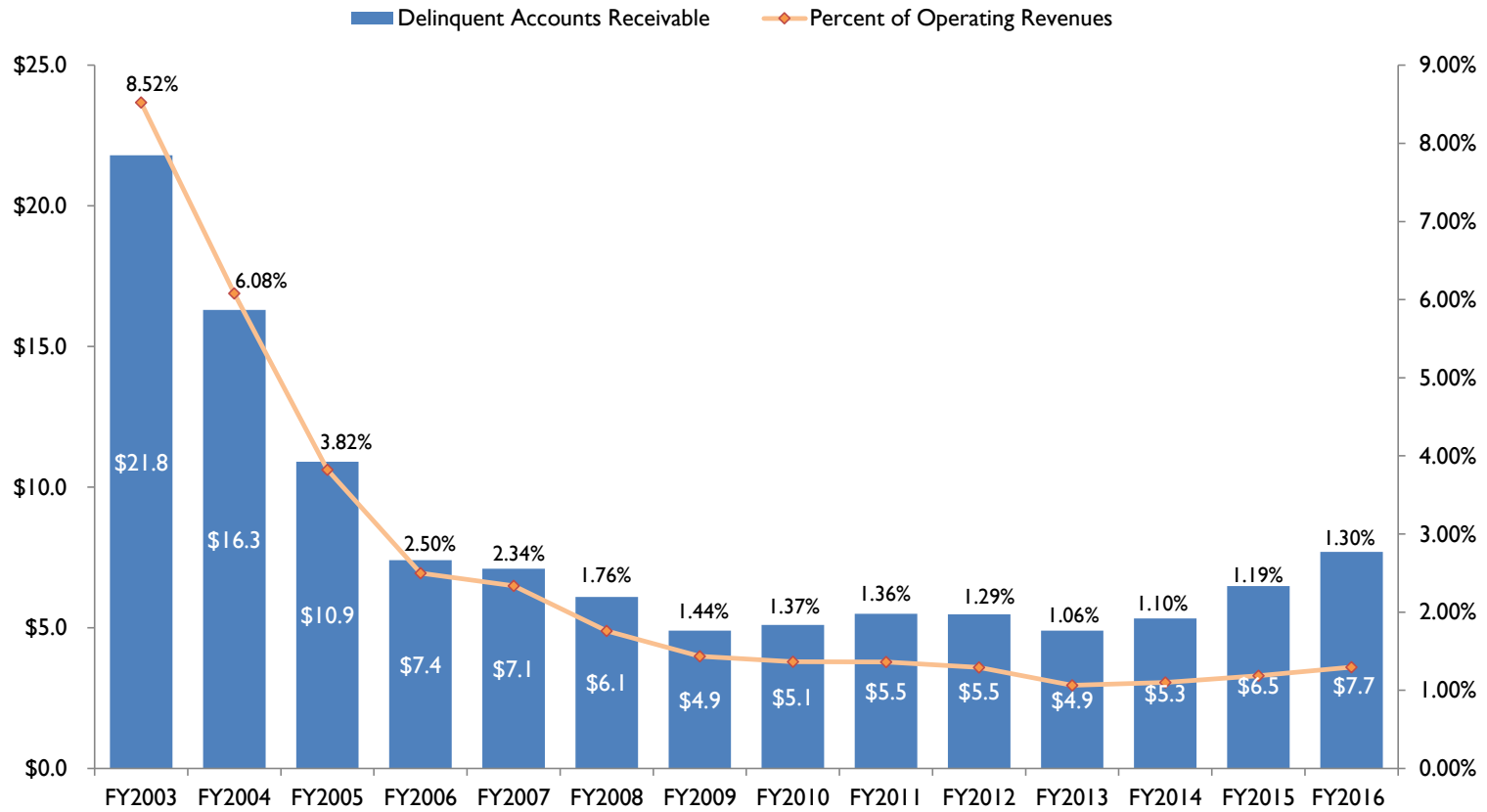
The benefits of multi-year rates include:

- Greater revenue certainty
- Increased budget discipline
- Better alignment between revenues and expenditures

- For the sixteenth consecutive year, DC Water received the Government Finance Officers' Award for Distinguished Budget Presentation for its FY 2016 budget submission. DC Water also received its nineteenth unqualified audit opinion for the fiscal year ended September 30, 2015 and received the nineteenth GFOA Certificate of Achievement for Excellence in Financial Reporting.
- In FY 2016, DC Water successfully renewed all of the Authority's operations insurance policies at essentially the same terms at 8.9% higher costs than previous year. DC Water's coverage is generally comparable to expiring.
- DC Water completed its twelfth year of its rolling owner-controlled insurance program (ROCIP), sixth year of ROCIP II, third year of ROCIP III and is moving forward with ROCIP IV. DC Water procures general liability and workers' compensation insurance coverage for the majority of its construction contractors. The result is substantially higher insurance coverage levels for all contractors and significant cost savings. At the end of FY 2016, 65 projects and 393 contractors were enrolled in the expired ROCIP I program, 47 projects and 770 contractors were enrolled in the now expired ROCIP II program, 46 projects and 699 contractors were enrolled in the ROCIP III program and four projects and six contractors are currently enrolled in the ROCIP program. Preliminary avoided costs (aka savings) are estimated in the range of \$4 to \$5 million for ROCIP I; approximately \$9 million for ROCIP II and \$12 million for ROCIP III. Given the success of ROCIP I, II and III, DC Water again has moved forward with a five year ROCIP IV program in fiscal year 2016 and \$9 million in savings anticipated. ROCIP II and III are three year insurance programs that support an estimated \$1.2 billion and \$942 million of planned construction respectively. A major reason for the cost savings is the implementation of a uniformly strong safety program for all contractors.
- DC Water revenue collection rates rival high levels of performance achieved by investor-owned water utilities. Delinquent accounts receivable represents less than 2 percent of Total Operating Cash Receipts by:
 - Automated meter reading and monthly billing continue to contribute significantly to the reduction of unpaid bills. These processes further allow meter reading staff to focus on other business needs i.e. maintenance of the meters
 - The gradual decoupling of revenues from volumetric based revenues to more predictable relatively fixed revenue sources increases our ability to negotiate payment plans with customers based on expected future bills
 - Continuous updating of the customer information systems to allow the integrity of the data to be maintained, resulting in better credit decision making
 - Maintain the predictive dialer outbound calls to remind customers to pay before balances become unmanageable
 - Adhering to payment plan policies that balance managing arrears and keep a vital service on for customers

- Continuous placement of property liens when an account balance exceeds \$200 and is more than 60 days past due
- Getting Executive and Board support for credit policies and developing assistance programs such as the customer assistance program (CAP) and SPLASH program for low income customers. The CAP discount program administered by DOEE provided discount to 4,379 customers representing \$808,797 as of September 30, 2016
- SPLASH – This is the program that provides assistance to needy customers as well. It operates solely on contributions from Customers, the community and DC Water employees. DC Water pays all administrative fees to Greater Washington Urban League (GWUL), who administers the program. For FY 2016, DC Water received \$101,098 in contributions and assisted 309 customers as of September 2016. CAP and SPLASH together provide approximately \$909,895 per year in assistance to approximately 4,700 low income households to help make their bills more affordable
- Continuous focus is placed on the top 75 accounts with the largest balances by making outbound calls to negotiate payments and assess risk.

DELINQUENT ACCOUNTS RECEIVABLE (\$ in Millions)



- Graph represents Delinquent Accounts Receivable as percent of Total Operating Cash Receipts (includes Retail, Wholesale and Other)

General Principles of Affordability for Low- Income Customers Policy

On September 4, 2014, The General Principles of Affordability for Low-Income customers was approved. It is the policy of the Board of Directors of DC Water in setting retail rates, to follow the General Principles of Affordability for Low-Income Customers articulated herein:

1. Consideration of rate impacts on low-income customers;
2. Exploration of affordability alternatives for low-income customers; and
3. Development of a more innovative rate structure, the goal of which is to reduce the economic burden on low-income customers at the earliest practicable date consistent with the Board's need to gather sufficient data to support any rate structure chosen.

DC Water reviews the equity and sufficiency of its rates and rate structures periodically through various costs of service studies. In FY 2015, a Cost of Service Study was conducted by the Independent Financial Consultants which provided several recommendations:

Additional Alternative Fees and Charges:

1. Customer Class-Based Volumetric Rates – Rate differentiation based on the peaking demands of each customer class (residential, multi-family and non-residential).
2. Lifeline Rate – A lifeline rate for first 4 Ccf of Single Family Residential (SFR) water use to reflect baseline usage by residential customers without peaking costs. The lifeline rate provides an economic benefit to low-volume Residential customers, while spreading the cost of peaking to high-volume Residential customers.
3. Water System Replacement Fee (WSRF) – In Fiscal Year 2016, DC Water to modify its existing rate structure and to implement a new meter-based Water System Replacement Fee (WSRF) in order to recover the cost of the 1% renewal and replacement program for water service lines. It is anticipated that the new WSRF will generate \$40 million per year. DC Water's low income CAP customers would receive a 100% credit for this fee.
4. System Availability Fee (SAF) – DC Water to propose a new System Availability Fee (SAF). A one-time fee assessed to a property owner of any premises, building or structure to recover the cost of system capacity put in place to serve all metered water service and sanitary sewer connections and renovation or redevelopment projects that require an upsized meter service connection to the District's potable water system. The fee is assessed based on the peak water demand, excluding fire demand, for new meter water service connection and renovation or redevelopment projects that increase the peak water demand and associated SAF meter size for the property.

5. Based on the 2015 Cost of Service Study, DC Water has adopted several changes to its existing retail rate structure starting in Fiscal Year 2016. These changes are designed to better align the Authority's revenues and expenditures by establishing customer class-based volumetric water rates based upon peaking factors, to create a more progressive rate structure for its residential customers by establishing lifeline water rates which discount core consumption, and to fund the authority's water main replacement program by establishing a monthly, fixed Water System Replacement Fee.
- In 2015, the Independent Financial Consultants performed a cost of service study (COS) to determine the costs of providing fire protection service to the District. DC Water provides Fire Protection Services to the District, including but not limited to the delivery of water for firefighting, inspection, maintenance and upgrading of public fire hydrants in the District of Columbia. The consultants compared DC Water costs with the revenues received from the District for fire protection services. Projections of DC Water costs were developed for FY 2014 – FY 2017. As per terms of the 2013 MOU and based on the results of the 2015 COS, Fire Protection Service fee was established at \$10.8 million for fiscal years FY 2015, FY 2016 and FY 2017. This fee is \$3.9 million higher than the FY 2014 fee of \$6.9 million.
 - A new PILOT MOU was signed between DC Water and the District of Columbia on September 4, 2014, which reduced the annual PILOT payment. As per agreement, the PILOT of \$15.3 million for FY 2015 would be escalated by 2 percent per year. The agreement will be effective till September 30, 2024.
 - On October 07, 2014, DC Water and the District reached an agreement on the ROW terms and conditions, which provides that DC Water will continue to make payments totaling \$5.1 million annually to the District for FY 2015 – FY 2024.
 - DC Water periodically reassesses its policies every five years regarding the operating reserve requirement. The Independent Financial Consultants conducted the study to consider the appropriate level of its Total Operating Reserves for FY 2013 and subsequent years. The Independent Financial Consultants recommended that DC Water maintain its current operating reserve policy to require a minimum balance of the greater of \$125.5 million or 120 days of budgeted O&M expenses. The next Operating Reserves study will be conducted in FY 2017.
 - DC Water Indenture of Trust requires the Authority to maintain a Renewal and Replacement (R&R) Reserve Fund. In FY 2013, the Independent Financial Consultants conducted this study to examine the reasonableness of the amount on deposit in the R&R Reserve Fund and make recommendations to the Authority for the value of the Fund for the next 5-year period of FY 2013 through FY 2017. The Independent Financial Consultants recommended that DC Water maintain its current R&R Reserve Fund policy to require a balance of \$35 million. The next R&R Reserve Fund study will be conducted in FY 2017.

- With respect to Operating Reserves and Renewal and Replacement (R&R) Reserve Fund Study, the Independent Financial Consultants also recommended the following:
 - DC Water’s Operating Reserves and R&R Reserve Fund requirement be reassessed at least every five years in conjunction with the Indenture-required system assessment.
 - DC Water and its financial advisor should monitor the rating agencies assessment of the Total Operating Reserves (including the R&R Reserve Fund) on an ongoing basis. The purpose of such monitoring would be to ensure that the rating agencies remain comfortable with the level of the reserves. The Independent Financial Consultants also recommended that DC Water consider having wholesale customers provide a proportionate share of the contributions required for the R&R Reserve Fund.

Future Goals and Financial Assumptions

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ALL LEGAL COVENANTS, FINANCIAL BOARD POLICIES, ACCOMPLISHMENTS AND TARGETS ARE INCORPORATED INTO THIS TEN YEAR FINANCIAL PLAN

Compliant?	Description	Legal covenant	Performance Target	FY 2016 Actual	FY 2017 Revised	FY 2018 Approved
<input checked="" type="checkbox"/>	Senior Debt Service Coverage	120%	140%	528%	489%	465%
<input checked="" type="checkbox"/>	Operating Cash Reserves	N/A	\$125.5 million	162.65 million	\$140 million	\$140 million
<input checked="" type="checkbox"/>	Short Term Investment Return Benchmark Merrill Lynch 3-Month Treasury Index	N/A	25 basis points	62 basis points	57 basis points	78 basis points
<input checked="" type="checkbox"/>	Long Term Investment Return Benchmark Merrill Lynch 1-3 Year Treasury Index	N/A	50 basis points	113 basis points	135 basis points	189 basis points
<input checked="" type="checkbox"/>	Water and Sewer Rates	Revenues must be sufficient to cover: operating expenses, senior and sub debt service, amounts necessary to maintain DSRF and ORF levels, and any annual PILOT payments	Each customer will be charged for the actual cost to provide each service, and rate increases will be reliable and predictable	Future rate increases are driven by financial impact of the capital program and full utilization of the RSF; the development of a 10-year financial plan allows DC Water to meet these key goals of full cost recovery and predictability	Same as Performance Target	
<input checked="" type="checkbox"/>	Rate Stabilization Fund (RSF)	N/A	Help to avoid spikes in rate increases for retail customers	Zero Utilization of the RSF, leaving a balance of \$51.45 million. The RSF will have a balance of \$98.45 million by the end of FY 2026	Projected at \$51.45 million at the end of FY 2017	Projected at \$51.45 million at the end of FY 2018

The Approved FY 2017 - FY 2026 financial plan includes the resources necessary to accomplish critical financial and operational goals over the coming years, as summarized below.

- Continue adherence to the Board's financial, investment, rate-setting and long-term planning policies
- Continue implementation of the ten-year \$3.75 billion capital improvement program
- Includes disbursements of \$1.2 billion over the ten-year planning period for Clean Rivers Project (CSO Long-Term Control Plan) exclusive of the nine-minimum controls program
- Continued exceptional financial performance, reduction in overtime, adherence to Board's customer outreach and transparency to include customer input and flexibility to meet emerging needs
- Improving Public Image: re-focus of the government relations activities to bring greater visibility to DC Water and the national need for infrastructure investment and funding; and various pilot projects to look for additional improvements to DC Water services
- Efficiency
 - Capital efficiencies through in-sourcing of engineering design, valve operations and fire hydrant maintenance
 - Organizational development and process improvement to enhance the Team Blue activities initiated in FY 2011 and continued through FY 2016
- Enhancing security
 - Initiate Hardening Project at Blue Plains (reinforcing exterior security) and integration of operations cameras at 'off-Blue Plains' location
 - Complete Vulnerability Assessment to identify weaknesses in DC Water's physical, cyber, and operational security
 - Continue build of dedicated Security network (virtual network) and incorporate Physical Security Information Management (PSIM) technology into Security Command Center (SCC)
- Workforce
 - Continue to focus employees' efforts on DC Water's most important goals in line with the Board Strategic Plan
 - Improve recruiting process by identifying high-quality candidates using job descriptions based upon the expertise of high performing employees holding uniquely valued competencies
 - Fill critical talent management needs and address company and industry changes promptly
 - Continue to Enhance management skills through training

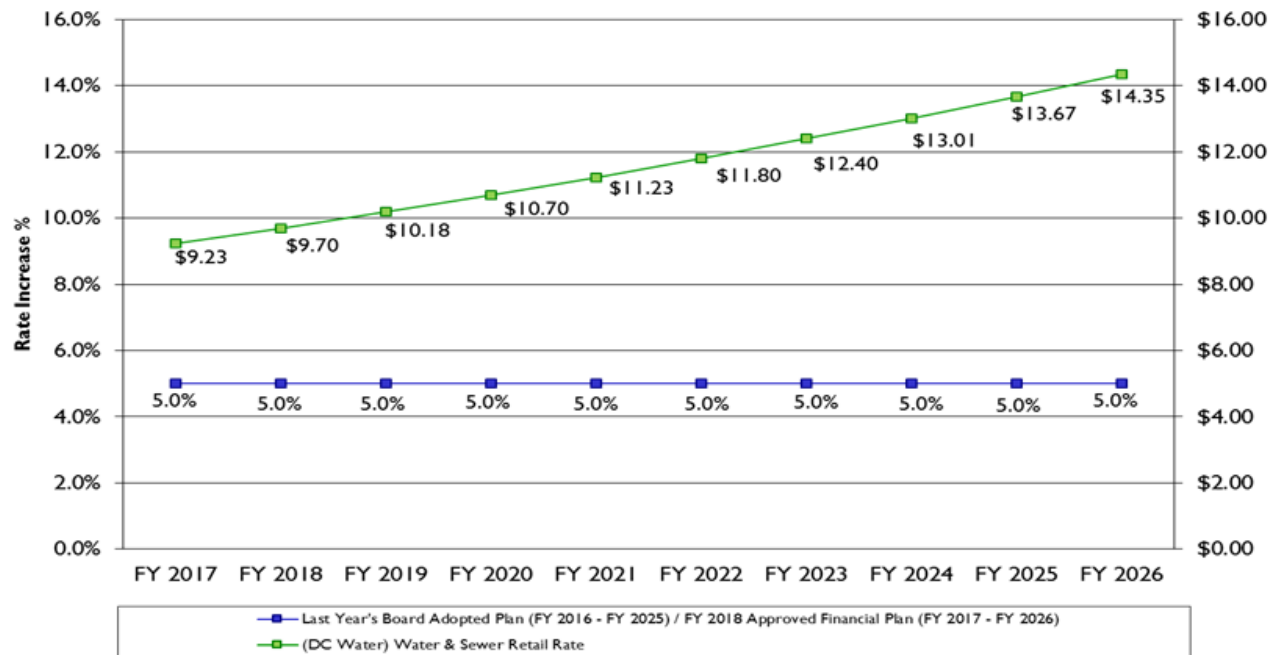
The ten-year financial plan reflects the following major assumptions:

- Operating and maintenance expenses (excluding the payment-in-lieu-of-taxes and right-of-way fee) are projected to grow at an average annual rate of 2.8 percent, primarily due to projected inflation
- Personnel services is projected to increase to accommodate for insourcing initiatives to support the capital program
- Payment-in-lieu-of-taxes (PILOT) to the District of Columbia for FY 2017 will be at \$15.96 million. PILOT payment is projected to increase by 2 percent per annum in accordance with the new memorandum of understanding (MOU) signed on September 4, 2014 with the District
- According to the new memorandum of understanding (MOU) dated October 4, 2014, the Right-of-Way payment to the District of Columbia stays level at \$5.1 million
- Debt Service:
 - Interest on Variable debt assumed to be 2.50 percent in FY 2017 and FY 2018
 - Interest on Fixed debt assumed to be 5.75 percent in FY 2017 and 6.50 percent in FY 2018
 - Utilization of the Commercial Paper program / Extendable Municipal Commercial Paper (EMCP) is assumed for interim financing for bond issuance, capital equipment and Washington Aqueduct

Due to these ongoing and new initiatives, from FY 2017 – FY 2026 DC Water’s water and sewer volumetric retail rates are projected to increase by \$0.47 to \$0.68 per 100 cubic feet as shown in the chart below. Cumulative rate increases would total 50.0 percent over the ten-year period compared to 51.5 percent projected in last year’s ten-year plan (FY 2016 – FY 2025).

Projected Retail Rate Increases

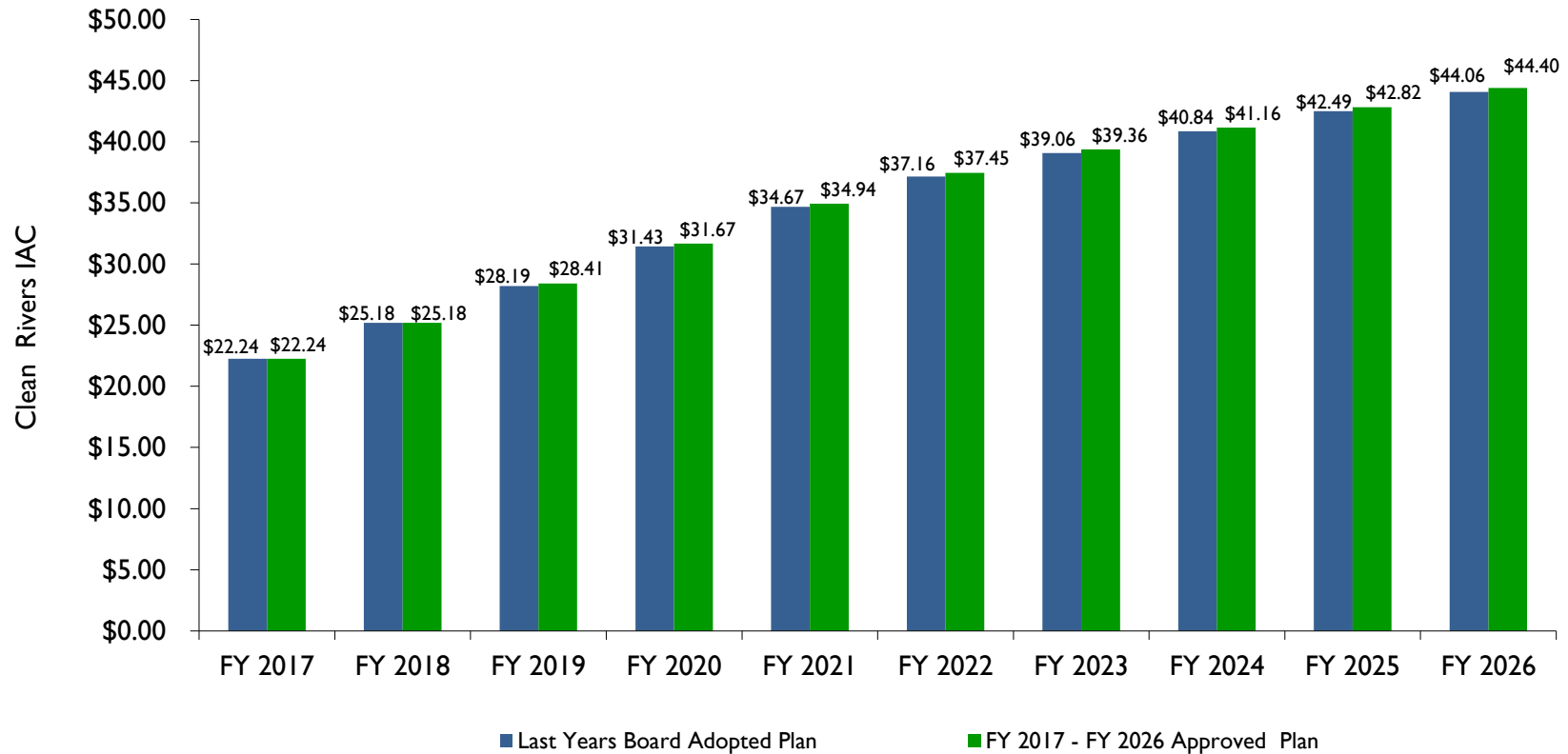
FY 2017 – FY 2026



Rates shown above reflect weighted water and sewer rates for Residential customers’ category. The approved retail water and sewer combined rate for FY 2017 is \$9.23 per Ccf and \$9.70 per Ccf for FY 2018. In addition, the approved increase in the combined Right-of-Way and PILOT Fees is \$0.01 per Ccf, {\$0.01 per 1,000 gallons}, in FY 2017 and is \$0.02 per Ccf, {\$0.02 per 1,000 gallons} in FY 2018 to recover the full amount for services charged to DC Water by the District. There is no increase in FY 2017 Right-of-Way Fee, which remains same at \$0.17 per Ccf (\$0.23 per 1,000 gallons). The approved monthly Clean Rivers Project CRIAC charges for FY 2017 and FY 2018 are \$22.24 and \$25.18 respectively per ERU (Equivalent Residential Unit); an increase of \$1.94 over the FY 2016 charge and \$2.94 over the FY 2017 charge respectively.

Projected Monthly Clean Rivers Impervious Surface Area Charge Increases

FY 2017 – FY 2026



- The projected charges displayed in the chart above are primarily driven by anticipated debt service costs necessary to support the twenty year Clean Rivers Project totaling \$2.6 billion federally mandated Clean Rivers Project (CSO LTCP) and the nine-minimum control program.
- The annual Clean Rivers Project IAC costs for the average Tier 2 residential customer (700 – 2,000 sq. ft. of Impervious Area) is projected to increase from \$22.24 per month in FY 2017 to \$44.40 per month in FY 2026.

The proposed rate and fee adjustments included in the FY 2017 – FY 2026 financial plan are driven by the following trends and initiatives:

- Assumed retail water consumption decline of 1 percent in FY 2017 over FY 2016 projection and conservation of 1 percent in FY 2018 and onwards.
- Increasing debt service expenditures, driven by DC Water’s \$3.75 billion capital improvement program (cash disbursements basis), which increases on average by 5.8 percent over the Financial Plan period.
- Operations and maintenance expenditure (excluding the payment-in-lieu-of-taxes and right-of-way-fee) increase on average of 2.8 percent annually over ten year period.
 - Increasing operating expenditures, driven primarily by projected increases in personnel services, contractual services, chemicals, and water purchases
 - Continuation of In-Sourcing Proposals for in-house planning & design and valve operations
 - Enhanced service to the development community through improved permitting operations

Customer Assistance Programs: We continued our commitment to help improve the quality of life for those of our customers who are least able to pay, by providing relief through our customer assistance programs (CAP). Through CAP, we provide eligible customers a discount of 4 Ccf per month on their water and sewer bills. Since it began in FY 2001, participation in CAP has continued to increase. As of October 1, 2010, the Board expanded the CAP discount to include the first 4 Ccf of Payment-in-Lieu of Taxes (PILOT) and Right- of-Way (ROW) to qualifying low-income residential customers. The District Department of Energy and Environment (DOEE), administers this program for the Authority and several other utilities in the area. For FY 2016, \$808,797 in discount benefits was provided to 4,379 customers. Our SPLASH program customers donated an additional \$101,098 through their water bills for the benefit of those customers who needed additional help.

In FY 2016, DC Water implemented Water System Replacement Fee (WSRF). This is a fixed monthly fee set to recover the costs of the 1 percent renewal and replacement program for water service lines. The fee is based on meter size and average flow. The DC Water’s low-income CAP customer will receive 100 percent credit for this fee.

DC Water Board Approved a DC Clean Rivers Impervious Surface Area Charge Incentive Program (CRIAC) effective from October 1, 2013. This is a three year pilot credit/discount program for the DC Clean Rivers Impervious Surface Area Charge.

FY 2017 Revised Vs Approved Operating Receipts

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The Revised FY 2017 operating receipts projection totals \$595.4 million, an increase of \$2.6 million above the approved FY 2017 receipts. The Approved FY 2018 operating receipts total \$617.2 million, an increase of \$21.7 million over the Revised FY 2017 receipts.

COMPARATIVE OPERATING RECEIPTS FY 2017 – FY 2018 (\$ in 000's)

	FY 2017 Approved	FY 2017 Revised	Increase/ (Decrease)	Percent Change	FY 2018 Approved	Increase/ (Decrease)	Percent Change
Residential	104,665	102,308	(2,357)	-2.3%	109,793	7,485	7.3%
Commercial	149,820	147,587	(2,233)	-1.5%	159,147	11,560	7.8%
Multi-family	75,634	79,093	3,459	4.6%	84,099	5,006	6.3%
Sub-Total Residential, Commercial and Multi-family	330,119	328,988	(1,131)	-0.3%	353,039	24,051	7.3%
Federal Government(1)	53,590	57,540	3,950	7.4%	58,494	954	1.7%
District Government	16,345	17,505	1,160	7.1%	19,066	1,561	8.9%
D.C. Housing Authority	8,471	8,372	(99)	-1.2%	8,825	453	5.4%
Transfer from Rate Stabilization Fund	-	-	-	0.0%	-	-	0.0%
Water System Replacement Fee (WSRF)	40,000	39,717	(283)	-0.7%	39,717	-	0.0%
Metering Fee	10,776	10,776	-	0.0%	10,776	-	0.0%
Total Retail	459,301	462,898	3,598	0.8%	489,917	27,019	5.8%
IMA Wastewater Charges	72,412	72,931	519	0.7%	67,895	(5,036)	-6.9%
Potomac Interceptor Wastewater Charges	7,534	8,537	1,003	13.3%	8,133	(404)	-4.7%
Total Wholesale	79,946	81,468	1,522	1.9%	76,028	(5,440)	-6.7%
District Stormwater Revenue (2)	1,000	1,000	-	-	1,000	-	0.0%
Misc. Rev. (e.g. water tap installation, fire hydrant usage, etc.)	28,458	26,977	(1,481)	-5.2%	24,036	(2,941)	-10.9%
Washington Aqueduct Debt Service Revenue for Falls Church & Arlington	193	193	-	-	193	-	0.0%
Interest Income (including interest on Bond Debt Service Reserve Fund)	2,929	1,828	(1,101)	-37.6%	2,549	721	39.4%
System Availability Fee (SAF)	-	-	-	-	1,925	1,925	-
Right of Way	5,100	5,100	-	-	5,100	-	0.0%
PILOT Fee	15,876	15,982	107	0.7%	16,411	429	2.7%
Total Other	53,556	51,080	(2,475)	-4.6%	51,214	134	0.3%
Total Operating Cash Receipts	592,803	595,446	2,645	0.4%	617,159	21,713	3.6%

(1) Historical actuals are presented on revenue basis. Projected amounts shown are billed revenues. Actual Federal receipts are a combination of current year projected revenues and prior year adjustments, which are presented as reserve items. See Section 3 for further explanation.

(2) Reflects District stormwater fee revenue that will fund DC Water's share of District stormwater permit compliance activities, and will not be funded through DC Water's retail rates or other DC Water revenue sources. See Section 3 for further explanation.

- **Residential, Commercial and Multi-family Receipts** - are projected at \$329.0 million, which is approximately \$1.1 million less than the Board approved FY 2017 level, primarily due to lower consumption projection.
- **Federal revenues** - are projected to increase by \$3.9 million or 7.4 percent reflecting the Congressional approval level for the FY 2017 federal bill.
- **Municipal & D.C. Housing Authority Receipts** - are projected to increase by \$1.1 million (or 4.3 percent) primarily due to increase in CRIAC charges for these categories.
- **Rate Stabilization Fund Utilization** - The ten-year plan and near-term revenue projections assume no utilization of RSF in FY 2017. Prior years' plans assumed the use of these funds, which is necessary as DC Water reaches its peak years of spending in the CIP. Utilization of RSF monies allows DC Water to implement future rate increases in a reliable and predictable manner while still meeting Board and indenture policies on cash reserves and debt service coverage.
- **Customer Metering Fee** - This fee recovers the costs associated with installing, operating, maintaining and replacing meters, and is charged to all retail customers (including federal and municipal customers). The fee varies based on meter size, with monthly fees ranging from \$3.86 for a 5/8 inch meter (typical size of a residential customer meter) to \$349.06 for 16" meters (typically used for large commercial customers). No revenue change is anticipated in this category.
- **Wholesale Receipts** - are projected to increase by \$1.5 million, or 1.9 percent, reflecting higher budgeted costs at Blue Plains due primarily to personnel, electricity and chemical price increases.
- **Stormwater** - DC Water's FY 2017 and FY 2018 receipts include \$1.0 million each year from the Department of Energy and Environment (DOEE), formerly DDOE, which will be used to fund DC Water's services provided on behalf of the District's stormwater permit compliance activities including the billing and collection through DC Water invoices of fees established by DOEE. The FY 2017 – FY 2026 financial plan assumes that all incremental costs borne by DC Water for stormwater permit compliance activities will be reimbursed by the stormwater fund, and that no DC Water funds will be advanced to pay for these activities.
- **Other revenues** - In FY 2017 are projected to decrease by \$2.5 million, or 4.6 percent, mainly due to decrease in the interest income and IMA Indirect Cost Reimbursement for Capital Projects.
- **Right-of-Way and Payment-In-Lieu of Taxes (PILOT) Pass-Through Fees** - Similar to other Washington area utilities, DC Water has implemented fees that pass through the costs of the District's Right-of-Way fee (ROW) and Payment in Lieu of Taxes (PILOT) as separate line items on its bill. In FY 2017 revised budget as compared to FY 2017 approved budget, PILOT is projected to increase by \$0.1 million, or 0.7 percent due to higher consumption projection.

Other major assumptions underlying the revenue projections contained in the FY 2017 – FY 2026 financial plan include:

- For FY 2017, 1.0 percent reduction in water sales is assumed over FY 2016 projection for all customer categories, based on historical trends in consumption levels. For FY 2018 and onwards, 1.0 percent conservation is assumed for all categories.
- 3.0 percent average revenue increase between FY 2019 and FY 2026 for wholesale customers, in line with operating and maintenance expense increases for joint use facilities. In FY 2018, however, the wholesale revenue decreased by \$5.4 million or 6.7 percent due to lower revised operations and maintenance expense projection for FY 2018.
- Based on the current interest rate environment, interest projections are conservatively assumed at 1.0 percent earnings rate in FY 2017 and 2.0 percent in FY 2018 and FY 2019 on operating funds. Interest rates for FY 2020 is assumed at 3.0 percent. For FY 2021 and onwards, interest rates are assumed at 5.0 percent.
- The majority of other non-operating revenues, totaling \$28.2 million in FY 2017 are projected to increase within the ten-year plan, and include such items as:
 - Reimbursement from Arlington County and Falls Church for debt service issued for pre-1997 Washington Aqueduct capital improvements - \$0.2 million.
 - Reimbursement from the Stormwater Enterprise Fund for services provided to DOEE under their MS4 permit - \$1.0 million.
 - Recovery of indirect costs from DC Water’s IMA partners - \$6.5 million - this reflects recovery of indirect costs on capital projects (e.g., costs for Finance, Accounting and Budget, General Counsel, and Human Resources functions).
 - Reimbursement from the District for the Fire Protection Services fee of \$10.8 million.
 - Other miscellaneous fees and charges, including service line replacements, developer-related fees, and the Engineering Review and wastehauler fees - \$9.7 million.

The Approved FY 2018 receipts projection totals \$617.2 million, approximately \$21.7 million, or 3.6 percent higher than the revised FY 2017 projections. This increase is due primarily to:

- **Residential, Commercial & Multi-Family** - FY 2018 projections reflect an increase of \$24.1 million, or 7.3 percent from FY 2017 revised due primarily to proposed retail rate increases of 5.0 percent (water and sewer volumetric rates) and \$2.94 monthly ERU fee for the Clean Rivers IAC (see Section IV- Rate and Revenues for detail on all rate and fee proposals)
 - One percent decrease in consumption has been assumed due to conservation in FY 2018.
- **Federal Revenues** - Approved FY 2018 federal revenues are projected to increase by \$1.0 million or 1.7 percent over revised FY 2017 budget. Under existing federal billing legislation, federal billings are prepared on an estimated basis eighteen months in advance of the start of the fiscal year (e.g., the FY 2018 billing was prepared in April 2016, and are based on the current consumption estimates and projected rate increases as included in the current ten-year plan. These estimates are then reconciled with actual consumption and rate increases, and an adjustment is made in the subsequent year's billing (e.g., the reconciliation of FY 2016 estimated vs. actual consumption and rate increases will be included in the FY 2019 billing, prepared in April 2017). Federal revenues in the ten year plan are presented on a revenue basis, net of any adjustments for prior year reconciliations which are accounted for as reserve items. Consistent with this methodology, the proposed FY 2018 federal revenues reflect the final billing sent to the federal government in April 2016 net of the adjustment for the prior-year (FY 2015) reconciliation.
- **Municipal & D.C. Housing Authority Receipts** - are projected to increase \$2.0 million (or 7.8 percent), mainly due to proposed retail rate increases of 5.0 percent and \$2.94 monthly ERU fee for the Clean Rivers IAC.
- The **Rate Stabilization Fund** - is not utilized in FY 2018. There will be a balance of \$98.45 million by the end of FY 2026.
- **Water System Replacement Fee** - Proposed fixed monthly fee set to recover the costs of 1 percent renewal and replacement program for water service lines generating approximately \$39.7 million per year.
- **Customer Metering Fee** - This fee recovers the costs associated with installing, operating, maintaining and replacing meters, and is charged to all retail customers (including federal and municipal customers). The fee varies based on meter size, with monthly fees ranging from \$3.86 for a 5/8 inch meter (typical size of a residential customer meter) to \$349.06 for 16" meters (typically used for large commercial customers). No revenue change is anticipated in this category.
- **Wholesale Receipts** - DC Water's wholesale customers are responsible for a proportionate share of operating and maintenance expenses (associated only with shared facilities primarily at Blue Plains) based on their respective share of wastewater volume discharged. In addition, each user is responsible for a proportionate share of related indirect costs. In FY 2018, wholesale revenues are projected to decrease by \$5.4 million or 6.7 percent to \$76.0 million due to revised lower operations and maintenance expense projection for FY 2018.

- **Stormwater** - As noted earlier, the proposed FY 2018 receipts for this category include \$1.0 million each year from the Department of Energy and Environment (DOEE).
- FY 2018 **PILOT Fee** increase by 2 percent over prior year as per new PILOT MOU signed with the District Government on September 4, 2014.

DISTRICT OF COLUMBIA WATER & SEWER AUTHORITY FY 2017 – FY 2026 FINANCIAL PLAN (In 000's)

OPERATING	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Retail*	\$ 483,981	511,428	539,094	567,722	596,653	622,874	646,932	671,041	695,146	719,540
Wholesale*	81,468	76,028	78,308	80,658	83,077	85,570	88,137	90,781	93,504	96,309
Other	29,997	29,704	34,332	38,367	45,391	48,265	48,817	49,434	50,113	50,871
RSF	-	-	-	-	-	-	-	-	-	-
Operating Receipts (1)	\$ 595,446	\$ 617,159	\$ 651,734	\$ 686,746	\$ 725,121	\$ 756,709	\$ 783,886	\$ 811,256	\$ 838,763	\$ 866,721
Operating Expenses	(320,531)	(320,146)	(332,435)	(342,089)	(352,029)	(362,264)	(372,803)	(383,654)	(394,828)	(406,333)
Debt Service	(167,733)	(185,480)	\$ (199,647)	\$ (217,567)	\$ (236,478)	\$ (246,866)	\$ (254,748)	\$ (262,073)	\$ (269,392)	\$ (276,713)
Cash Financed Capital Improvement	\$ (24,199)	\$ (35,260)	\$ (26,955)	\$ (28,386)	\$ (29,833)	\$ (31,144)	\$ (32,347)	\$ (33,552)	\$ (34,757)	\$ (35,977)
Net Revenues After Debt Service	\$ 82,983	\$ 76,273	\$ 92,698	\$ 98,704	\$ 106,781	\$ 116,435	\$ 123,988	\$ 131,976	\$ 139,786	\$ 147,698
Operating Reserve-Beg Balance	162,652	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
Other Misc (Disbursements)/Receipts										
Wholesale/Federal True Up	(29,201)	(16,019)	(5,636)	-	-	-	-	-	-	-
Transfers To RSF	-	-	(5,000)	(5,000)	(4,000)	(7,000)	(8,000)	(8,000)	(7,000)	(3,000)
Pay-Go Financing	(76,434)	(60,254)	(82,061)	(93,704)	(102,781)	(109,435)	(115,988)	(123,976)	(132,786)	(143,144)
Operating Reserve - Ending Balance	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 141,554
Rate Stabilization Fund Balance RSF (2)	\$ (51,450)	\$ (51,450)	\$ (56,450)	\$ (61,450)	\$ (65,450)	\$ (72,450)	\$ (80,450)	\$ (88,450)	\$ (95,450)	\$ (98,450)
Senior Debt Service Coverage	489%	465%	545%	531%	518%	543%	538%	654%	681%	674%
Combined Debt Service Coverage	159%	163%	165%	166%	166%	166%	167%	169%	171%	174%
Actual/Projected Water/Sewer Rate Increases	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
*Operating Receipts \$ Increase/Decrease										
Retail	10,528	27,447	27,666	28,628	28,931	26,222	24,057	24,110	24,105	24,393
Wholesale	1,684	(5,440)	2,281	2,349	2,420	2,492	2,567	2,644	2,723	2,805
*Operating Receipts % Increase/Decrease										
Retail	2.2%	5.7%	5.4%	5.3%	5.1%	4.4%	3.9%	3.7%	3.6%	3.5%
Wholesale	2.1%	-6.7%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

(1) Includes interest earnings on senior lien revenue bonds' debt service reserve fund

(2) FY 2017 planned transfers of \$0.0 million to Rate Stabilization Fund maintains the total fund balance at \$51.45 million

Operating Expenditures

As in previous years, debt service continues to be the fastest growing expenditure in the ten-year financial plan as a result of DC Water's \$3.75 billion capital improvement program, growing at an average annual rate of 5.8 percent. All other operating expenses are projected to grow at an average annual rate of 2.8 percent. The following chart provides detailed comparison of the FY 2017 and FY 2018 operating budgets.

COMPARATIVE OPERATING BUDGETS						
FY 2017 - FY 2018						
(\$ in 000's)						
	FY 2017		FY 2018		Increase/ (Decrease)	Percent Change
	APPROVED		APPROVED			
Personnel Services	\$ 144,761	\$	149,193	\$	4,432	3.1%
Contractual Services	73,160		72,951		(209)	-0.3%
Biosolids	9,600		6,402		(3,198)	-33.3%
Water Purchase	29,278		30,156		878	3.0%
Supplies	8,421		8,356		(65)	-0.8%
Chemicals	26,288		22,303		(3,985)	-15.2%
Utilities	28,670		29,399		729	2.5%
Small Equipment	1,230		1,071		(159)	-12.9%
Subtotal Operations & Maintenance	\$ 321,408	\$	319,831	\$	(1,577)	-0.5%
Debt Service	\$ 169,346	\$	185,480	\$	16,134	9.5%
Cash Financed Capital Improvements	24,014		35,260		11,246	46.8%
PILOT	15,957		16,276		319	2.0%
Right Of Way Fee	5,100		5,100		0	0.0%
Subtotal Debt Service, CFCI & PILOT / ROW	214,417		242,116		27,699	12.9%
TOTAL OPERATING EXPENDITURES	\$ 535,825	\$	561,947	\$	26,122	4.9%
Less Personnel Services Charged to Capital Projects	(21,934)		(21,061)		873	-4.0%
Total Net Operating Expenditures	\$ 513,891	\$	540,886	\$	26,995	5.3%

The approved FY 2018 budget total of \$561.9 million is approximately 4.9 percent higher than the approved FY 2017 budget. This net increase is primarily due to increasing debt service costs associated with DC Water's capital improvement program offset by a slight decrease in the operations and maintenance budget. The FY 2018 operations and maintenance budget net decrease of 0.5 percent is primarily due to projected decreases in chemicals and biosolids hauling costs. Specific information regarding each department is included in Section VII. A description of the assumptions and major issues/changes in each major expenditure category follows.

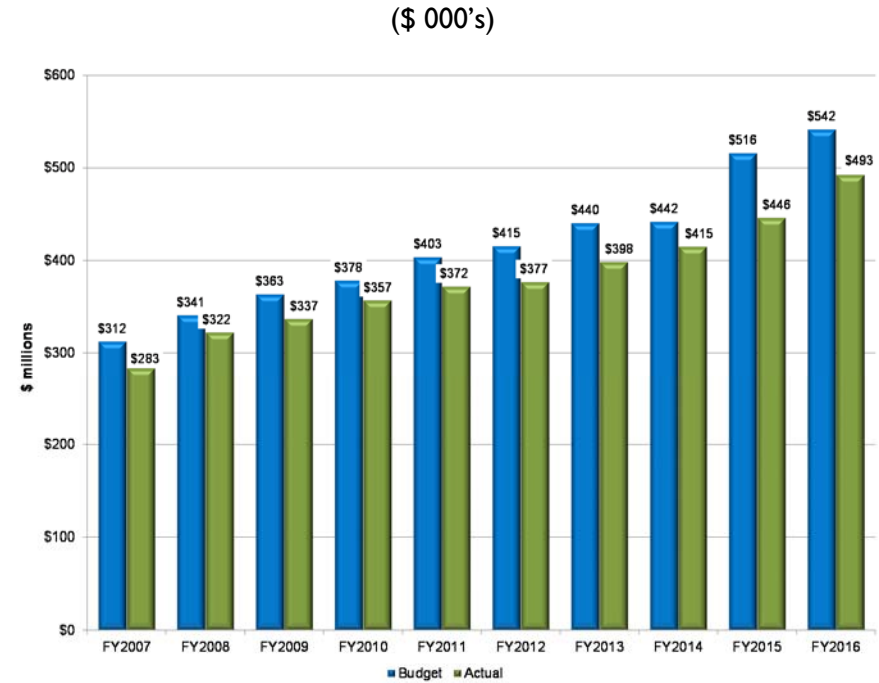
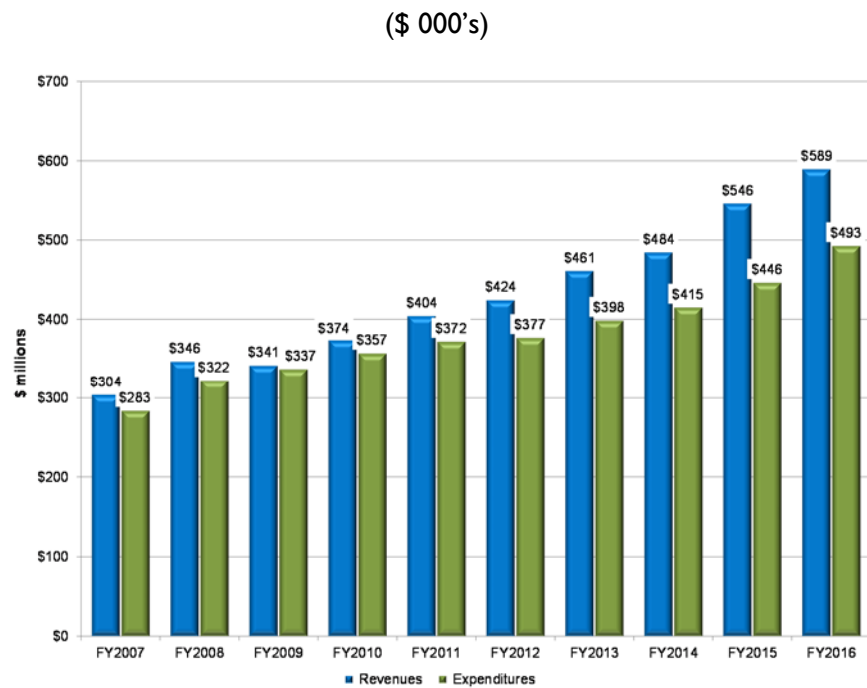
- **Personnel Services** – increase of \$4.4 million or 3.1 percent above the approved FY 2017 budget. The increase is attributable to health benefits and anticipated reduction of vacancies as the Authority continues its increased hiring efforts. Lower overtime, also impacted by increased hiring, is primarily on account of better accountability through established management escalation process for high overtime users. The potential budget impact of Labor Contract Agreement, which expired on September 30, 2015, is unknown at this time.
- **Utilities** – increase by approximately \$0.7 million or 2.5 percent above the approved FY 2017 budget mainly in natural gas demand for heating and water usage primarily for steam production in the digesters. The electricity budget is \$19.9 million or 2.5 percent lower than the FY 2017 budget, due to estimated savings from the DC Water's thermal hydrolysis process and anaerobic digesters which became operational in the fall of 2015 and produce electricity from wastewater. The net onsite generation from the Combined Heat and Power (CHP) process will power up to one third of Blue Plains Plant's operation. The Authority-wide energy consumption is estimated at 27MW which includes usages for the new Wet Weather facility that will treat excess flow during wet weather events, the Filtrate Treatment Facility (FTF) that will remove ammonia generated by the dewatering facilities, and, the new Headquarters Building anticipated in 2018.
- **Chemicals** – decrease of \$4.0 million or 15.2 percent below the approved FY 2017 budget is a result of anticipated savings from reduction in mainstream ammonia load from the Filtrate Treatment Facility (FTF), and change in the treatment process from lime stabilization during 2015 to the innovative thermal hydrolysis, and Digester system which uses intense heat and pressure to treat wastewater.
- **Water purchase** – increase of approximately \$0.9 million or 3.0 percent above the approved FY 2017 budget. This represents DC Water's share of the Washington Aqueduct's FY 2018 O&M budget increase.
- **Biosolids Hauling** – decrease by approximately \$3.2 million or 33.0 percent below the approved FY 2017 budget. The decrease is due to the materialized savings from transportation costs attributable to production of Class A biosolids estimated at 450 wet tons/day from the CHP facility. Previously, the Blue Plains Plant produced 1,200 wet tons per/day of Class B biosolids.

Solid Financial Performance with Revenues Consistently Exceeding Expenses

- FY 2016 Actual Operating cash receipts increased by \$43.2 million to \$589.3 million or 7.9 percent
- FY 2016 Actual Operating expenses increased by \$46.3 million to \$492.5 million, or 10.4 percent
- FY 2016 Budget to actual results showed both revenues exceeding and expenses below budget

Revenues vs. Expenditures

Expenditure Budget to Actual Results

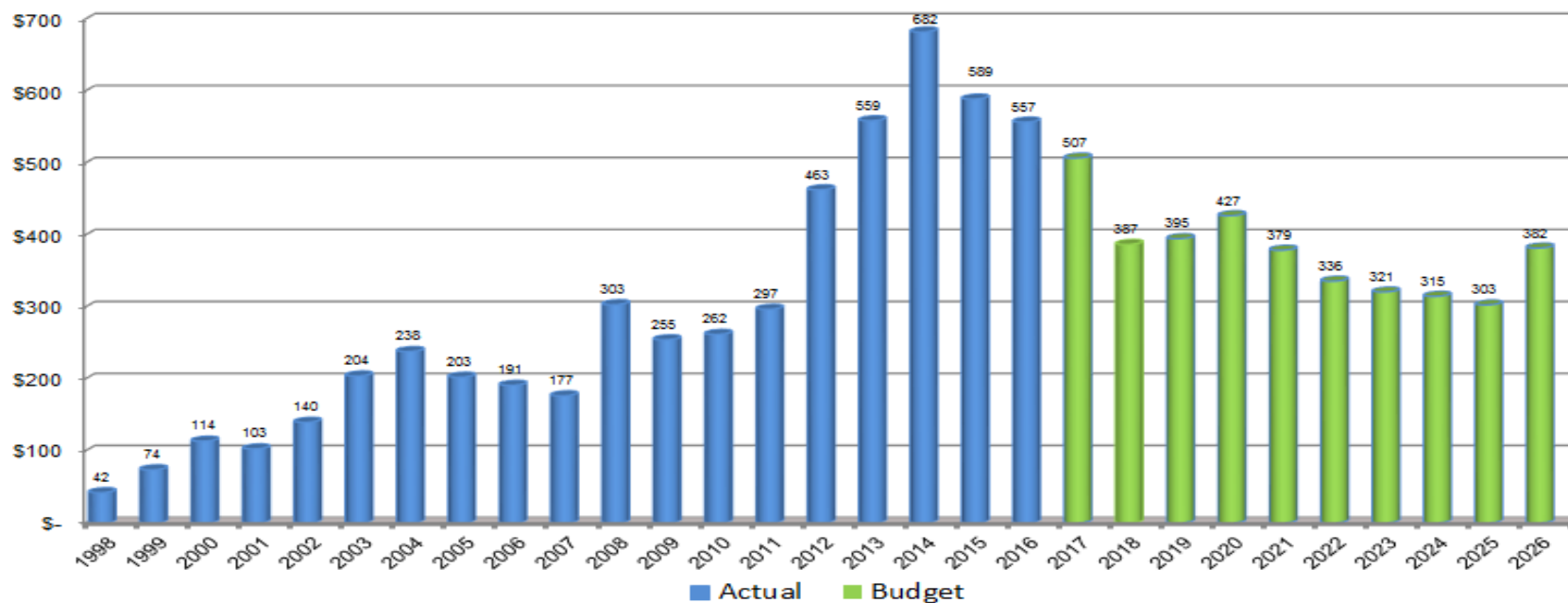


The \$3.75 Billion 10-Year CIP Protects Our Assets While Leveraging Long-Term Debt

The FY 2017 – FY 2026 financial plan anticipates capital disbursements of \$3.75 billion. Over the last 19 years, \$5.5 billion have been invested on DC Water’s system averaging approximately \$287 million per year. Projected annual spending ranges from \$303 million to nearly \$507 million as shown in the chart below (or approximately \$375 million per year from FY 2017 – FY 2026). The financing of DC Water’s capital program comes from four primary sources, as more fully described in this section. The amount of EPA grant funding is defined by annual federal appropriations, while jurisdictional capital contributions are based on a fixed percentage of Blue Plains and other shared facilities. The remainder of the program is funded with DC Water’s debt and PAY-GO financing from operations.

As noted earlier in this section, DC Water developed a comprehensive financing plan in FY 1999 with the dual goals of 1) securing the lowest cost of capital possible, and 2) maximizing administrative and operating flexibility. The plan includes the following components: Grants; wholesale capital payments; permanent financing; Interim financing and PAY-GO.

**HISTORICAL AND PROJECTED CAPITAL SPENDING FY 1998 – FY 2026
(\$ IN MILLIONS)**



Additional details on each financing source are described below:

	FY2017 - 2026 PLAN TOTAL	PERCENT OF TOTAL
Revenue Bonds/Commercial Paper/EMCP	\$ 1,625,632,964	41.4%
Wholesale Capital Payments	713,146,000	18.1%
EPA Grants & CSO Appropriations	224,082,414	5.7%
Interest Income on Bond Proceeds	13,599,708	0.4%
Pay-Go Financing	1,352,972,125	34.4%
Total Sources:	\$ 3,929,433,211	100%

- **EPA and CSO Grants** – For FY 2017 – FY 2026, EPA and CSO grants represent only 5.7 percent of the funding for 10-year capital program. DC Water currently plans to finance part of its Ten-Year CIP through EPA grant funding for certain eligible projects under the Clean Water and Safe Drinking Water Acts. In general, the District of Columbia projects carried out by DC Water are supported by approximately one percent of the available annual funding through revolving fund programs associated with the Clean Water and Safe Drinking Water Acts. In addition, DC Water has received \$224.8 million in Congressional appropriations for the Clean Rivers Project (aka CSO LTCP) as of September 30, 2015.
- **Wholesale Capital Payments** - Approximately 60 percent of the capacity of DC Water’s wastewater treatment facilities are contractually committed to provide wholesale service to suburban jurisdictions under various contracts. Montgomery and Prince George's Counties (through the Washington Suburban Sanitary Commission (WSSC), Fairfax County, and the Loudoun County Sanitation Authority pay a proportionate share of capital-related costs equal to their share of contracted capacity at Blue Plains. DC Water anticipates 18.1 percent of its capital funding will come from wholesale customers.
- **Revenue Bonds/Commercial Paper/EMCP**- Currently debt financing represent only 41.4 percent of the funding in the ten-year capital program.
- **PAY-GO (Internal) Financing** – ‘Pay-go’ financing shall mean any cash financing of capital projects. The amount transferred from operations to the capital program each year shall be cash in excess of all operating requirements or restricted use. Approximately 34.4 percent of total funding for the FY 2017 – FY 2026 plan is projected to come from PAY-GO financing, which strikes an appropriate balance between maintaining moderate debt levels and financing provided by current ratepayers.

PAY-GO funds will be used in a manner consistent with our financial policies: 1) to fund capital financing or for repayment of higher cost debt and that whenever possible, the least costly capital financing be used for capital projects, 2) to produce the lowest practical cost of debt for financing its capital projects.

FY 2017 & FY 2018 Debt Issuance Plans & Debt Service Assumptions

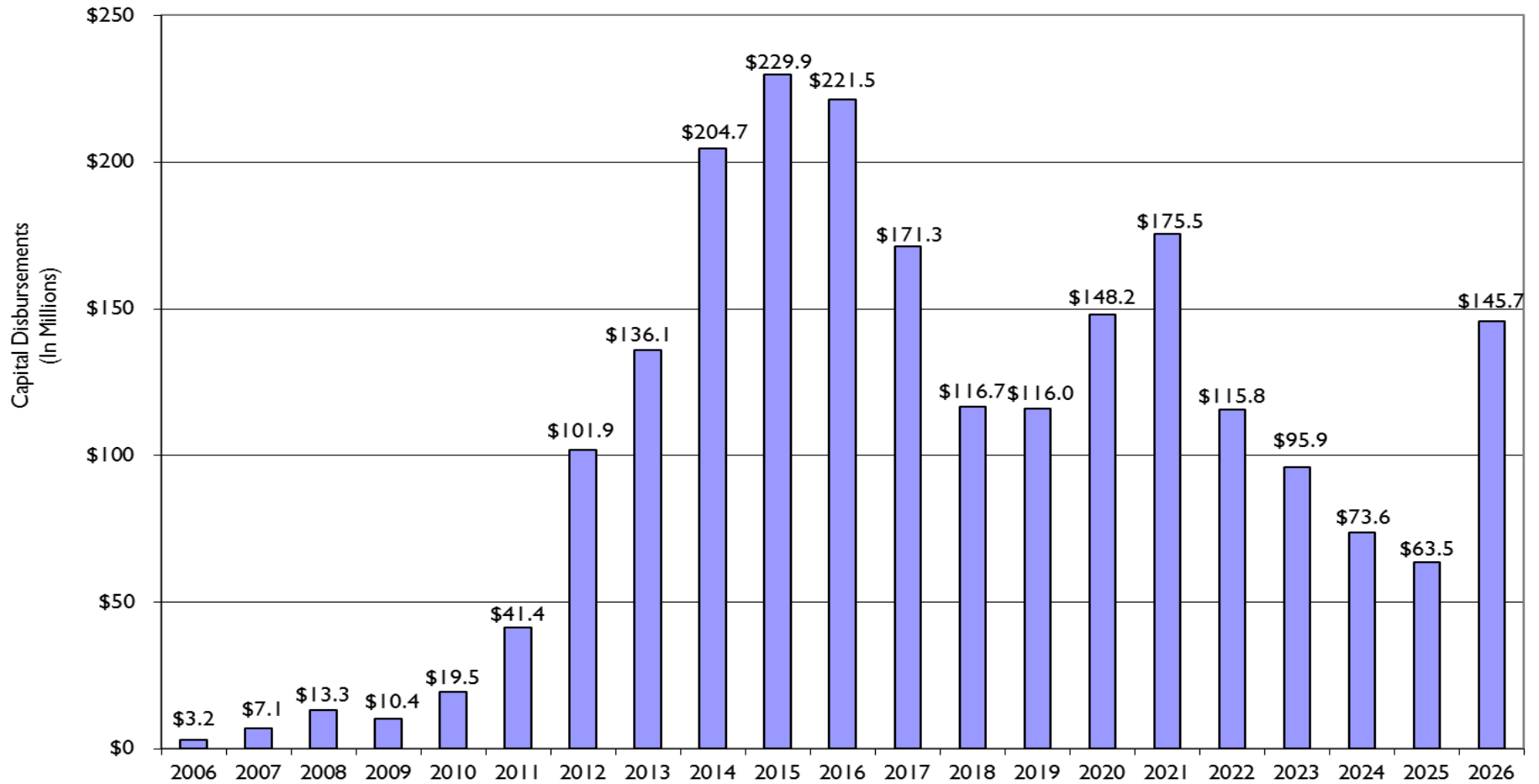
Based on current capital project spending, we plan to: 1) issue approximately \$300 million in new bonds in second quarter of FY 2017. For the purpose of financial planning we have assumed fixed rate, tax-exempt bonds at 5.75 percent. Similarly for the remainder of the ten-year plan we have assumed issuing long term bonds at 6.50 percent, 2) issue commercial paper/EMCP for interim financing. The ten-year plan assumes a variable interest rate of 2.50 percent in FY 2017 – FY 2026. In order to yield the best possible interest rate savings, our debt portfolio is evaluated on a regular basis.

DC Clean Rivers Project

In December 2004, the Board reached agreement with the federal government on the proposed DC Clean Rivers Project LTCP and entered into a related consent decree. Lifetime capital costs for this project currently stands at approximately \$2.6 billion and this year's proposed ten-year plan includes \$1.2 billion of projected disbursements. Projected spending by fiscal year for the Clean Rivers Project is shown in the next chart.

In FY 2016, DC Water received federal funding of \$14.0 million for the Combined Sewer Overflow Long term Control Plan Service Area. However, as the project spending increases over the years, so does the projected Clean Rivers Impervious Service Area Charge (CRIAC) rate. If additional federal assistance is provided, the Clean Rivers IAC would increase at a slower pace than this ten-year plan proposal assumes. As noted earlier, this plan assumes jurisdictional contributions, for joint use Projects, to the Clean Rivers Project under the IMA of 7.1 percent beginning in FY 2011. Please see section IV for more details on the Clean Rivers IAC.

Clean Rivers CSO LTCP Disbursements by Fiscal Year



Cash balances totaled \$215.1 million at the end of FY 2016. As detailed below, this includes \$51.4 million for rate stabilization. Over the next ten years, cash balances are projected to meet the Board-required reserve level, of 120 days of operating and maintenance budget or no less than \$125.5 million.

DC Water's operating reserve includes the following components:

FY 2016 YEAR - END CASH

(In 000's)

BOARD-ADOPTED OPERATING RESERVES (120 DAYS OF O&M)

60 Day Operating Reserve (Indenture Required)	\$	49,134
Renewal & Replacement Reserve (Indenture Required)		35,000
Undesignated Reserve		41,366
TOTAL OPERATING RESERVES	\$	125,500

OTHER RESERVES

Rate Stabilization Fund Reserve	\$	51,450
DC Insurance Reserve		1,041
TOTAL OTHER RESERVES	\$	52,491

TOTAL RESERVES

Cash in Excess of Reserves ⁽¹⁾		37,153
TOTAL CASH POSITION ⁽¹⁾	\$	215,144

(1) Excludes Debt Service Reserve Funds

- **Indenture-Required Operating Reserve** - This reserve is required by DC Water's bond indenture and is equivalent to two months' operations and maintenance expenses from the prior year, or approximately \$49.1 million in FY 2016.
- **Renewal & Replacement Reserve** - In FY 2013 the Board reaffirmed the amount of \$35 million in the financing policy. The reserve level will be reviewed every five years by DC Water's independent rate consultants in conjunction with the indenture-required assessment of the physical condition of the system.
- **Undesignated Reserve** - After allocating portions of the operating and maintenance reserve to the reserves listed above, the amount that remains (approximately \$41.4 million for FY 2016) is DC Water's undesignated reserve, and is available for other contingencies.

DC Water has other reserves that are available for very specific circumstances:

- **Rate Stabilization Fund** - Consistent with the Board's financial policies and as envisioned in the bond indenture, this fund is to be established to mitigate large annual rate increases. This year's plan reflects continued use of the rate stabilization fund, which totaled \$51.45 million as of September 2016. Future deposits to the rate stabilization fund will be determined annually based on financial performance in that fiscal year and updated ten-year capital and operating forecasts. The current plan anticipates \$51.45 million available at the end of FY 2017 and a balance of \$98.45 million by the end of FY 2026.
- **Debt Service Reserve Funds** - The supplemental bond indenture associated with the Series 1998 senior lien bonds requires DC Water to maintain a debt service reserve fund. This reserve which is in addition to the 120 day operating and maintenance reserve, is held by DC Water's trustee and can only be used in the event that net revenues are insufficient to meet the next debt service payment. DC Water earns interest on this reserve that is included in other operating revenue and is used to offset annual debt service payments. The amount of interest earnings that DC Water can retain on the debt service reserve fund is limited by federal arbitrage restrictions.



APPROVED BUDGETS

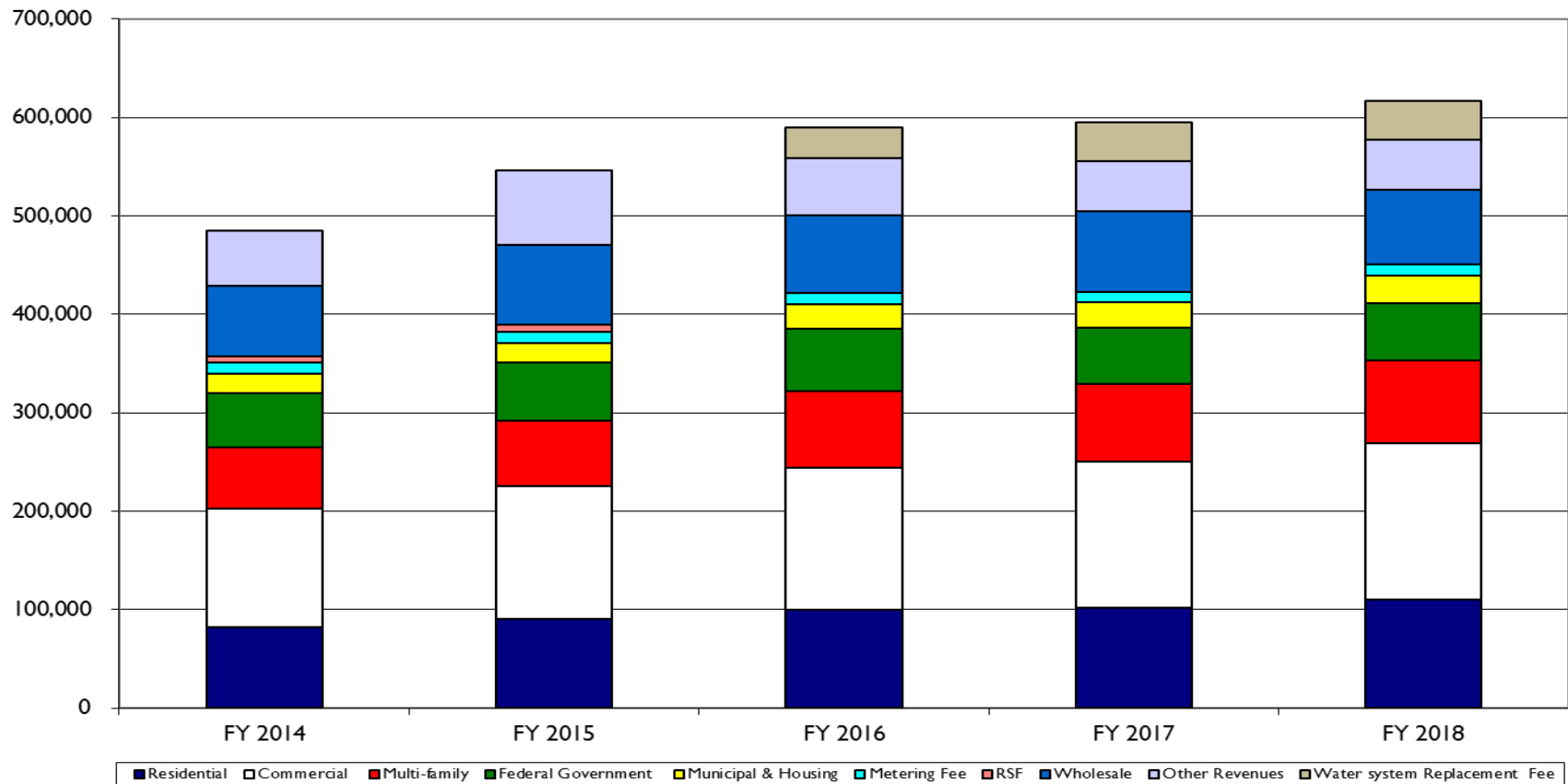


DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Section IV RATES AND REVENUES

In order to provide continuous delivery of water and wastewater services, DC Water must ensure a reliable and predictable revenue stream that cover operating and maintenance (O&M) costs and meet or exceed all Board and other financial requirements. DC Water has a diverse customer base and thus receives cash receipts from a variety of sources. This diversity mitigates reliance on any single customer and provides a level of revenue stability.

Historical & Projected Cash Receipts
(\$ 000's)



Historical and Projected Operating Cash Receipts

(\$ 000's)

	FY 2014 Actual	FY 2015 Actual	FY 2016 Actual	FY 2017 Revised	FY 2018 Approved
Residential	81,854	90,765	100,032	102,308	109,793
Commercial	120,965	134,724	144,355	147,587	159,147
Multi-family	61,563	66,378	77,566	79,093	84,099
Sub-Total Residential, Commercial and Multi-family	264,383	291,867	321,953	328,988	353,039
Federal Government (1)	55,725	59,171	62,989	57,540	58,494
District Government	12,734	12,894	15,988	17,505	19,066
D.C. Housing Authority	7,100	6,968	8,772	8,372	8,825
Transfer from Rate Stabilization Fund	6,500	7,500	-	-	-
Water System Replacement Fee (WSRF)	-	-	30,287	39,717	39,717
Metering Fee	11,207	11,111	11,479	10,776	10,776
Total Retail	357,648	389,511	451,467	462,898	489,917
IMA Wastewater Charges	63,822	73,889	71,970	72,931	67,895
Potomac Interceptor Wastewater Charges	6,941	7,341	7,814	8,537	8,133
Total Wholesale	70,763	81,230	79,784	81,468	76,028
District Stormwater Revenue (2)	930	899	944	1,000	1,000
Misc. Rev. (e.g. water tap installation, fire hydrant usage, etc.)	30,773	31,169	33,703	26,977	24,036
Washington Aqueduct Debt Service Revenue for Falls Church & Arlington	201	193	193	193	193
Interest Income (including interest on Bond Debt Service Reserve Fund)	560	846	1,253	1,828	2,549
System Availability Fee (SAF)	-	-	-	-	1,925
Transfer from DC PILOT/ROW Fund	-	5,100	-	-	-
DC Contribution of 50% PILOT Fund to DCW	-	15,049	-	-	-
Right-of-Way Fee	-	5,100	5,100	5,100	5,100
PILOT Fee	23,618	16,998	16,885	15,982	16,411
Total Other	56,082	75,354	58,078	51,080	51,214
Total Operating Cash Receipts	484,493	546,095	589,329	595,446	617,159

(1) Historical actuals are presented on revenue basis. Projected amounts shown are billed revenues. Actual Federal receipts are a combination of current year projected revenues and prior year adjustments, which are presented as reserve items. See Section 3 for further explanation.

(2) Reflects District stormwater fee revenue that will fund DC Water's share of District stormwater permit compliance activities, and will not be funded through DC Water's retail rates or other DC Water revenue sources. See Section 3 for further explanation.

CUSTOMER CATEGORIES AND ACCOUNTS

As of September 30, 2016, DC Water had 127,650 active, metered water and wastewater accounts. In addition, there are 9,443 separate accounts that are billed only for impervious surface. DC Water's customers are classified as retail (residential, multi-family and non-residential) and wholesale customers only. However, within the retail customer class, DC Water tracks receipts and associated consumption at a more detailed level in order to analyze trends and service characteristics. Retail customers' characteristics can be viewed in six groups: residential, multi-family, commercial, federal, DC Municipal and Housing Authority.

FY 2016 revenue receipts are actual as of September 30, 2016.

In FY 2011, a study of the demand characteristics of DC Water customers was undertaken to determine if additional customer classes should be defined for the purpose of cost allocation. Review of 12 months of data (May 2010 to April 2011) revealed, (among other things) that there is a difference in peaking characteristics between many of the customer groups. Generally, the federal customers have the highest peaking factor, with commercial customers having the next highest peaking factor and municipal, residential, multi-family and Housing Authority customers having the lowest peaking factor. Segmentation of water customers is typically done by class-based peak use characteristics with the higher peaking customers allocated more of the system costs (primarily driven by electricity and system capacity costs).

This information helped to inform an analysis of alternative rate structures within the FY 2012 Cost of Service Study (COS). Among the alternatives reviewed, the study reviewed different volumetric rates by customer class/category based on the different demands they place on the system. Differentiation could be based on water peaking characteristics or discharge strength contributions (wastewater). While it was recommended that additional analysis be undertaken in for any further consideration of discharge strength differentiation, management recommended that a new customer class, "Multi-Family", be created to acknowledge the similarity of peaking characteristics with other residential customers, yet provide transparency between single family and multi-family residential units. (Multi-Family residential facilities will continue to be defined as those facilities with 4 or more residential units.) The new Multi-family class has been effective from October 1, 2013. The three customer classes are defined as follows:

- Residential – a single-family dwelling used for domestic purposes; a condominium or apartment unit where each unit is served by a separate service line and is individually metered and the unit is used for domestic purposes; or a multi-family structure of less than four apartment units where all the units are served by a single service line that is master metered

- Multi-Family – a multi-family structure (such as a condominium or apartment dwelling) used for domestic purposes, with four or more units
- Non-residential – all customers not within either the residential or multi-family class

In FY 2015, a COS was conducted by Independent Financial Consultants. These recommendations were incorporated in the FY 2016 rate proposal, and were approved by the Board. These are summarized below:

- New class-based rate structure including Lifeline rate
- Based on similar peaking ratios, District of Columbia Housing Authority (DCHA) category moved to Multi-family class

Residential, commercial and multi-family receipts are projected to increase in FY 2017 by approximately \$7.0 million, or 2.2 percent, over the FY 2016 level due to:

- Board-approved volumetric retail rate increase of 5.0 percent, effective October 1, 2016
- Board-approved Clean Rivers Project CRIAC rate change from \$20.30 to \$ 22.24 per ERU in FY 2017 and to \$25.18 per ERU per month in FY 2018
- 1 percent decrease in consumption due to conservation
- In FY 2016, DC Water's collections on its retail receivables was strong, with accounts receivable over 90 days at \$7.7 million as of September 30, 2016. DC Water will continue its aggressive collection efforts
- The customer assistance program reduces projected revenues by approximately \$2.3 million

Residential and multi-family customers:

- In FY 2017, residential customers include 106,120 accounts that comprise 17.2 percent of the total operating revenues. Given the large number of individual account holders who are in residential, it is unlikely that any one customer will have a major impact on the DC Water cash receipts.
- Multi-family customers house 4 or more units within one building with a master meter. In FY 2017, there are 8,311 accounts that comprise 13.3 percent of the total operating revenues.

The commercial group of customers includes a number of nationally-recognized universities and regional hospitals, national associations, lobbying firms, major law firms and hotels. This group has 10,510 accounts and will comprise 24.8 percent of the projected FY 2017 operating revenues. In FY 2018, they will comprise 25.8 percent of the fiscal year operating revenue.

FY 2018 projections for Residential, Multi-Family and Commercial customers reflect an increase of \$24.1 million, or 7.3 percent from FY 2017 revised due primarily to proposed retail rate increases of 5.0 percent (water and sewer volumetric rates), and \$2.94 monthly ERU fee for the Clean Rivers IAC. In FY 2017 and onwards, one percent decrease in consumption has been assumed due to conservation.

The Federal customers' revised FY 2017 receipts are projected to total \$57.5 million; a decrease of \$5.4 million, or 8.7 percent over FY 2016. The projected federal revenues will be lower by \$5.4 million or 8.7 percent in FY 2017 due to estimated rate and consumption assumptions provided under the federal billing policies. The projected decline in the federal revenues is due to an executive order to federal agencies to reduce water and electricity consumption, coupled with the federal telework and commuting act to reduce footprint in the District, transfer of federal properties and large metering issues at restricted federal properties. In FY 2018, the Federal receipts will increase by \$1.0 million or 1.7 percent to \$ 58.5 million.

Under existing federal billing legislation, federal billings are prepared on an estimated basis eighteen months in advance of the start of the fiscal year (e.g., the FY 2017 billing was prepared in April 2015), and are based on the current consumption estimates and projected rate increases as included in the current ten-year plan. These estimates are then reconciled with actual consumption and rate increases, and an adjustment is made in the subsequent year's billing (e.g., the reconciliation of FY 2017 estimated vs. actual consumption and rate increases will be included in the FY 2020 billing, to be prepared in April 2018.) Federal revenues in the ten-year plan are presented on a revenue basis, net of any adjustments for prior year reconciliations which are accounted for as reserve items. Consistent with this methodology, revised FY 2017 federal revenues reflect the final billing sent to the federal government in April 2015 net of the adjustment for the prior year (FY 2014) reconciliation. The Authority serves many facilities of the federal government as well as the District of Columbia. The largest federal accounts include General Services Administration, U.S. Congress, the Smithsonian Institution, Department of the Navy, National Park Service and the Department of Defense in both DC and VA.

Municipal & D.C. Housing Authority – FY 2017 receipts from the District of Columbia government and the District of Columbia Housing Authority are projected at \$25.9 million, an increase of \$1.1 million or 4.5 percent over FY 2016. In FY 2018, receipts from these organizations are projected to total \$27.9 million, an increase of \$2.0 million, or 7.8 percent, mainly due to increases in retail volumetric rates and CRIAC.

- The municipal customer group includes 641 accounts under the authority of the District of Columbia government. This includes offices and facilities for various government agencies and activities such as education, regulatory affairs and general government operations. This group will comprise of 2.9 percent of the FY 2017 operating budget and 3.1 percent of the proposed FY 2018 budget.

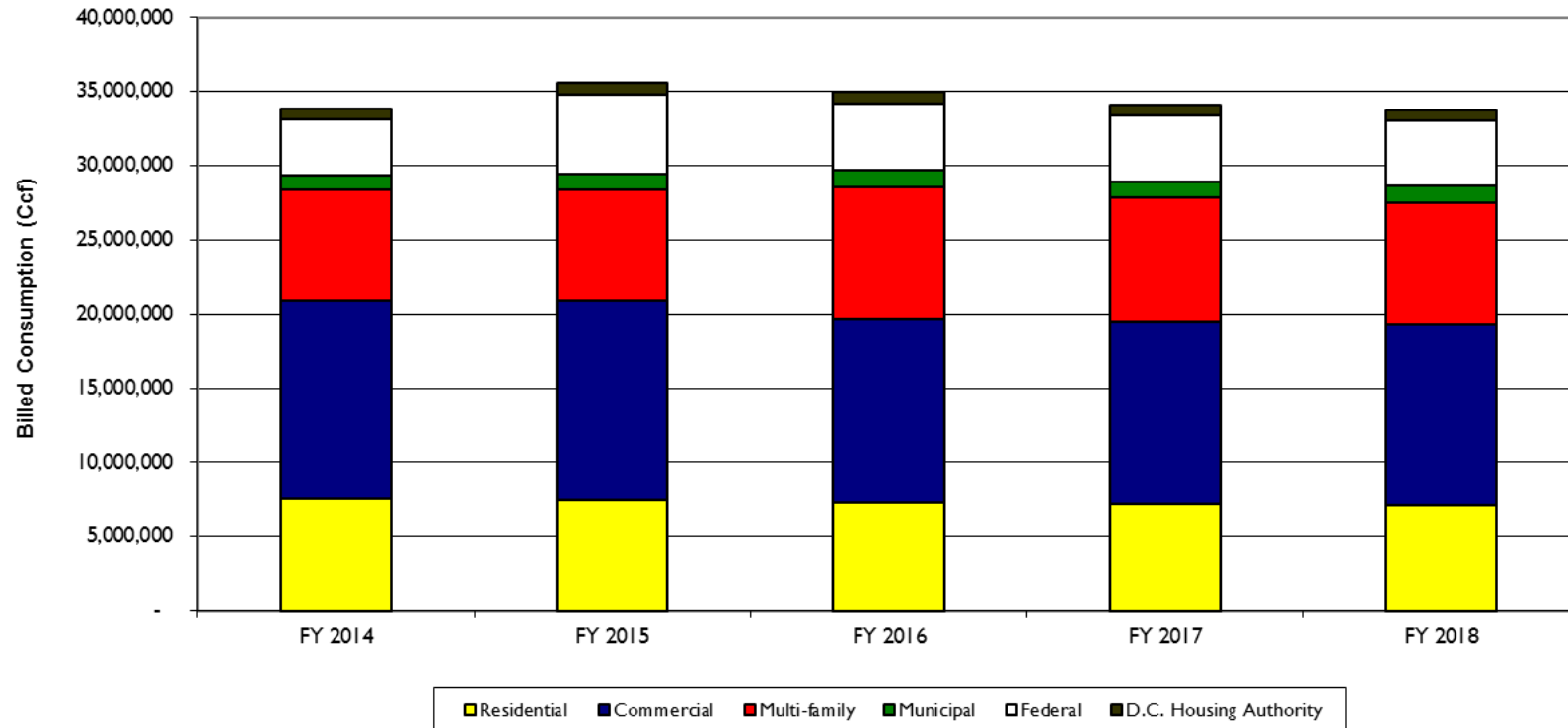
- The D.C. Housing Authority has multiple accounts that include public housing at various facilities throughout the District of Columbia. They have 1,462 accounts. Their annual billings make up only 1.4 percent of the FY 2017 cash receipts and 1.4 percent of the proposed FY 2018 cash receipts.

Wholesale customer revenue - FY 2017 revenues are projected at \$81.5 million, an increase of \$1.7 million or 2.1 percent over FY 2016. In FY 2018, wholesale revenues are projected to decrease by \$5.4 million or 6.7 percent to \$76.0 million. DC Water provides wholesale wastewater treatment services to User Jurisdictions at the Blue Plains Plant. The wholesale customers' share of operating costs at Blue Plains are recovered in accordance with the Blue Plains Intermunicipal Agreement of 2012, effective April 3, 2013, (which replaces Blue Plains Intermunicipal Agreement of 1985), the Potomac Interceptor Agreements and the Loudoun County Sanitation Authority Agreement (as discussed in more detail in "THE SYSTEM – The Wastewater System"), and are based on actual costs of operating and maintaining the plant and the collection facilities, prorated to each User Jurisdiction based on its respective actual share of wastewater flows. The User Jurisdiction's share of capital costs is based on each User Jurisdiction's share of capacity allocations in the Plant. Both operating and capital payments are made on a quarterly basis. Capital-related charges are billed quarterly with payments due on the 15th day of the second month following the end of the quarter. The operating and maintenance-related charges are billed annually by mid-October and payments are due on November, February, May and August. Receipts are projected to be 13.7 percent and 12.3 percent of total receipts in FY 2017 and FY 2018 respectively. Following each fiscal year, the Authority prepares a reconciliation that determines the actual costs and each wholesale customer's appropriate share of such costs. Adjustments are then billed or credited to the wholesale customers in the first quarter of the subsequent fiscal year. The wholesale customers include: Washington Suburban Sanitary Commission (WSSC), Loudoun County, VA, Fairfax County, VA and a group of small customers of the Potomac Interceptor (PI). The PI customers are comprised of Dulles International Airport (MWAA), National Park Service, Department of Navy and the Town of Vienna.

CONSUMPTION

While wholesale customers pay for their proportional share of wastewater services, retail customers are billed based upon metered consumption. Therefore, variations in consumption have a direct impact upon DC Water retail rates. The consumption for DC retail customers declined by 1.7 percent in FY 2016. Given the uncertainty of the current economy as well as the federal government’s goal to close some neighboring federal facilities and implement a number of conservation best practices over the next few years, the revenue projections assume a 1 percent decline in FY 2017 over FY 2016 projection and 1 percent decline in FY 2018 and beyond.

Historical and Projected Billed Consumption (Ccf)



Historical and Projected Billed Consumption (Ccf) ⁽³⁾

	FY 2014 Actual	FY 2015 Actual	FY 2016 Actual	FY 2017 Projected	FY 2018 Projected
Residential	7,566,045	7,431,013	7,262,184	7,190,000	7,118,000
Commercial (1)	13,336,392	13,507,756	12,440,516	12,316,000	12,193,000
Multi-family	7,439,742	7,437,925	8,889,754	8,300,000	8,217,000
Municipal (2)	1,035,424	1,066,587	1,110,717	1,099,000	1,088,000
Federal	3,706,631	5,319,948	4,493,362	4,448,000	4,404,000
D.C. Housing Authority	<u>776,944</u>	<u>795,696</u>	<u>761,401</u>	<u>754,000</u>	<u>746,000</u>
Total Retail	33,861,178	35,558,925	34,957,934	34,107,000	33,766,000

(1) Reflects consumption at Commercial facilities and selected facilities at Soldiers' Home.

From October 1, 2011, Howard University accounts have been transferred to Commercial and are no longer exempt from paying water.

(2) Reflects consumption at District of Columbia Government facilities and DC Water facilities

(3) Ccf - hundred cubic feet or 748 gallons

COST OF SERVICE STUDIES:

In FY 2010, DC Water's Independent Financial Consultants performed a Cost of Service (COS) Study to include objectives from senior staff on prioritizing DC Water's pricing objectives. One of the objectives noted was the Class-Based Volumetric Differentiation.

In FY 2011, a Customer Segmentation Study was performed to identify classes of customers for the purpose of rate-setting, planning, supply management and cost analysis among others. Typically, this classification is based on: A. general service characteristics and B. demand patterns. Each class is assumed to have somewhat different needs and progressively higher demands than the previous class. Most water utilities typically have three principal classes of customers: A. Residential, B. Commercial and C. Industrial. DC Water has two customer classes: A. Residential and B. Non-Residential.

Furthermore, the FY 2012 Cost of Service Study identified several customer categories that demonstrated a reasonable level of differentiation in terms of peak usage. The customer classes identified included A. Residential, B. Multi-family and C. Non-residential. DC Water added a new class of customer, Multi-family effective October 1, 2014.

In FY 2015, DC Water successfully completed its Cost of Service Study (COS). This study is undertaken every three years to review and certify DC Water's water and wastewater volumetric rates, Clean Rivers Impervious Surface Area Charge (CRIAC) and other DC Water fees and charges to ensure that revenues are sufficient to recover projected revenue requirements, that Board rate setting policies are followed, and that rates are allocated equitably.

DC Water expanded the COS to include alternative rate structure analysis that would more effectively meet DC Water's highest priority pricing objectives:

- Lifeline Rates
- Classed-based Volumetric Rates
- Water System Replacement Fee (WSRF)
- System Availability Fee (SAF)

Lifeline Rate

The lifeline rate allows for the first 4 Ccf of Single Family Residential (SFR) water use to reflect baseline usage by residential customers without peaking costs. The lifeline water rate provides an economic benefit to low-volume Residential customers, while spreading the cost of peaking to high-volume Residential customers.

Class-based Rate Structure

The Independent Financial Consultants analyzed rate differentiation based on the peaking demands of each customer class. They also analyzed consumption patterns to better understand how customers use water and how their use of water may inform selection of an optimized rate structure. Based upon the analysis of the peak demand of different customer classes as well as affordability considerations, the Board approved establishing class-based water volumetric rates for Residential, Multi-family and Non-residential customers effective from October 1, 2015 (FY 2016).

Water Volumetric	Class-Based (w/ lifeline)		
	FY 2016	FY 2017	FY 2018
Residential - 0-4 Ccf	\$ 3.08	\$3.23	\$3.39
Residential - >4 Ccf	\$ 3.87	\$4.06	\$4.26
Multi-Family / DC Housing	\$ 3.45	\$3.62	\$3.80
Non-Residential	\$ 3.99	\$4.19	\$4.40

Water System Replacement Fee (WSRF)

Effective October 1, 2015 (FY 2016), DC Water modified its existing rate structure and implemented a new meter-based Water System Replacement Fee (WSRF) in order to recover the cost of the 1% renewal and replacement program for water service lines. It is anticipated that the new Water System Replacement Fee (WSRF) will generate approximately \$39.7 million per year from fiscal years 2017 through 2026. The fee is based upon meter size and average flow. DC Water’s low income CAP customers receive a 100% credit for this fee.

Meter Size (inches)	Meter Register Type	Monthly Water System Replacement Fee
5/8"	Single Register	\$ 6.30
3/4"	Single Register	\$ 7.39
1"	Single Register	\$ 9.67
1"x1.25"	Single and Multiple Register	\$ 15.40
1.5"	Single Register	\$ 41.35
2"	Single and Multiple Register	\$ 83.75
3"	Single and Multiple Register	\$ 232.13
4"	Single and Multiple Register	\$ 561.02
6"	Single and Multiple Register	\$ 1,292.14
8"	Single Register	\$ 5,785.51
8"x2"	Multiple Register	\$ 1,899.60
8"x4"x1"	Multiple Register	\$ 2,438.35
10"	Single and Multiple Register	\$ 6,679.65
12"	Single and Multiple Register	\$ 6,679.65
16"	Single Register	\$ 6,679.65

Multi-Year Rates

DC Water moved to a multi-year rate proposal in FY 2016 covering the period FY 2017 and FY 2018. The Board has approved the multi-year rates, which will become effective from October 1, 2016.

The benefits of multi-year rates include:

- Greater revenue certainty
- Increased budget discipline
- Better alignment between revenues and expenditures

System Availability Fee (SAF)

Many utilities have implemented a fee, assessed to new development (or redevelopment) to recover the investment in available system capacity. On June 17, 2016, DC Water’s Board approved a new System Availability Fee (SAF) to be effective from January 1, 2018. All Residential Customers with meters 1 inch or smaller will use the same set of fees. All Residential Customers with meters larger than 1”, and all Multi-Family and Non-Residential Customers will have SAF based on their meter size.

The System Availability Fee will be assessed for all new buildings, structures or properties under development and properties under redevelopment. For properties under redevelopment, DC Water will determine the net System Availability Fee by determining the property’s proposed capacity requirements and applying a credit for the capacity of accounts being removed from the system. However, if the associated credit for capacity removed is equal to or greater than the future System Availability Fee, the net System Availability Fee shall be zero. Properties under redevelopment shall not receive a credit for accounts that are inactive for more than 12 months.

Effective January 1, 2018, DCRA Construction Permit Applicants and federal facilities shall be assessed a System Availability Fee (SAF) for new water and sewer connections and renovation or redevelopment projects for existing connections to the District’s potable water and sanitary sewer systems based on the SAF meter size in accordance with the following fee schedule and requirements:

- (a) Residential customers shall be charged a System Availability Fee based on the SAF meter size as listed below:

SAF Meter Size (inches)	Water System Availability Fee	Sewer System Availability Fee	Total System Availability Fee
5/8"	\$ 1,135	\$ 2,809	\$ 3,944
3/4"	\$ 1,135	\$ 2,809	\$ 3,944
1"	\$ 1,135	\$ 2,809	\$ 3,944
1"x1.25"	\$ 2,047	\$ 5,066	\$ 7,113
1.5"	\$ 5,491	\$ 13,591	\$ 19,082
2"	\$ 11,125	\$ 27,536	\$ 38,661

- (b) Multi-Family and all Non-Residential customers shall be charged a System Availability Fee based on the SAF meter size as listed below:

SAF Meter Size (inches)	Water System Availability Fee	Sewer System Availability Fee	Total System Availability Fee
1" or smaller	\$ 1,282	\$ 3,173	\$ 4,455
1"x1.25"	\$ 2,047	\$ 5,066	\$ 7,113
1.5"	\$ 5,491	\$ 13,591	\$ 19,082
2"	\$ 11,125	\$ 27,536	\$ 38,661
3"	\$ 32,500	\$ 80,442	\$ 112,942
4"	\$ 83,388	\$ 206,394	\$ 289,782
6"	\$ 229,246	\$ 567,408	\$ 796,654
8"	\$ 229,246	\$ 567,408	\$ 796,654
8"x2"	\$ 229,246	\$ 567,408	\$ 796,654
8"x4"x1"	\$ 229,246	\$ 567,408	\$ 796,654
10"	\$ 229,246	\$ 567,408	\$ 796,654
12"	\$ 229,246	\$ 567,408	\$ 796,654
16"	\$ 229,246	\$ 567,408	\$ 796,654

The following terms are defined:

Development – the construction of a premises, building or structure that establishes a new water and/or sewer connection.

Redevelopment – the renovation or alteration of a premises, building or structure or reconstruction of a property that increases or decreases the water supply demand or drainage, waste, and vent (DWV) system load. Redevelopment shall not include the up-sizing of a water service or sewer lateral to comply with the D.C. Construction Codes Supplement, provided the water supply demand and DMV system load remain the same.

System Availability Fee – A one-time fee assessed to a property owner of any premises, building or structure to recover the cost of system capacity servicing all metered water service and sanitary sewer connections and renovation or redevelopment projects that require an upsized meter service connection to the District’s potable water system. The fee is assessed based on the peak water demand, excluding fire demand, for new meter water service connection and renovation or redevelopment projects that increase the peak water demand and associated SAF meter size for the property.

Clean Rivers IAC Credit:

In FY 2016, DC Water’s Board asked management to evaluate and propose recommendations for expansion of the Customer Assistance Program (CAP) to include fees assessed for the Clean Rivers Impervious Surface Area Charge (CRIAC). The staff evaluated the three options for CRIAC credit: (i) Dollar credit, (ii) ERU credit, and (iii) percent of CRIAC credit (25%, 50%, 75%). Based on the detailed analysis, the management made recommendation to the Board to expand Customer Assistance Program (CAP) to low-income customers to include CRIAC credit in their monthly bills. On December 1, 2016 the Board adopted to expand the Customer Assistance Program for eligible single-family residential accounts and individually metered accounts to include a fifty percent (50%) credit off of the monthly billed Clean Rivers Impervious Area Charge. The CRIAC credit, subject to the final approval of the Board, is anticipated to be implemented in FY 2017.

The Board has approved the following rates and fees to be effective from October 1, 2016:

- Water volumetric rates:
 - Residential customers: “Consumption of 0 – 4 Ccf” - water rate increase of \$0.15 per Ccf, {\$0.20 per 1,000 gallons} from \$3.08 per Ccf to \$3.23 per Ccf, {\$4.32 per 1,000 gallons}
 - Residential customers: “Consumption greater than 4 Ccf” - water rate increase of \$0.19 per Ccf, {\$0.26 per 1,000 gallons} from \$3.87 per Ccf to \$4.06 per Ccf, {\$5.43 per 1,000 gallons}
 - Multi-family customers: water rate increase of \$0.17 per Ccf, {\$0.23 per 1,000 gallons} from \$3.45 per Ccf to \$3.62 per Ccf, {\$4.84 per 1,000 gallons}
 - Non-Residential customers: water rate increase of \$0.20 per Ccf, {\$0.27 per 1,000 gallons} from \$3.99 per Ccf to \$4.19 per Ccf, {\$5.60 per 1,000 gallons}
- Sewer rate increase of \$0.27 per Ccf, {\$0.36 per 1,000 gallons} for all classes of customers from \$5.44 per Ccf to \$5.71 per Ccf, {\$7.63 per 1,000 gallons}
- Monthly Clean Rivers Impervious Area Charge (CRIAC) increase of \$1.94 from \$20.30 per ERU to \$22.24 per ERU
- Clean Rivers Impervious Area Charge (CRIAC) six-tier residential rates structure is shown in the table below:

Tiers	Residential Impervious Area Range	ERU
Tier 1	100 – 600 sq ft	0.6 ERU
Tier 2	700 – 2,000 sq ft	1.0 ERU
Tier 3	2,100 – 3,000 sq ft	2.4 ERU
Tier 4	3,100 – 7,000 sq ft	3.8 ERU
Tier 5	7,100 – 11,000 sq ft	8.6 ERU
Tier 6	11,100 sq ft and more	13.5 ERU

- The Water System Replacement Fee (WSRF) recovers the costs of 1% renewal and replacement program for water service lines. WSRF varies with meter size. There will be no increase in WSRF, which will remain same as in FY 2016. WSRF for 5/8” meter size is \$6.30.
- Right-of-Way Fee – This fee recovers the full cost of the Right-of-Way Fee charged to DC Water by the District of Columbia
 - There is no increase in the Right-of-Way Fee, which remains the same at \$0.17 per Ccf, (\$0.23 per 1,000 gallons)

- Payment-in-Lieu of Taxes Fee – This fee recovers the cost of providing municipal services to DC Water by the District of Columbia. On September 4, 2014 the District and the Authority entered into a new Memorandum of Understanding (the “2014 PILOT MOU”) amending the 1998 PILOT MOU. According to the MOU, the Authority shall increase the amount of the PILOT payment by two percent per annum based on the amount of prior year’s annual PILOT payment.
 - Increase of \$0.01 per Ccf in the PILOT fee (\$0.01 per 1,000 gallons) to \$0.48 per Ccf, (\$0.64 per 1,000 gallons)
- These changes increased the typical residential customer’s total monthly bill by \$4.70 or 5.1 percent

The Board has approved the following changes in the rates and fees to be effective from October 1, 2017:

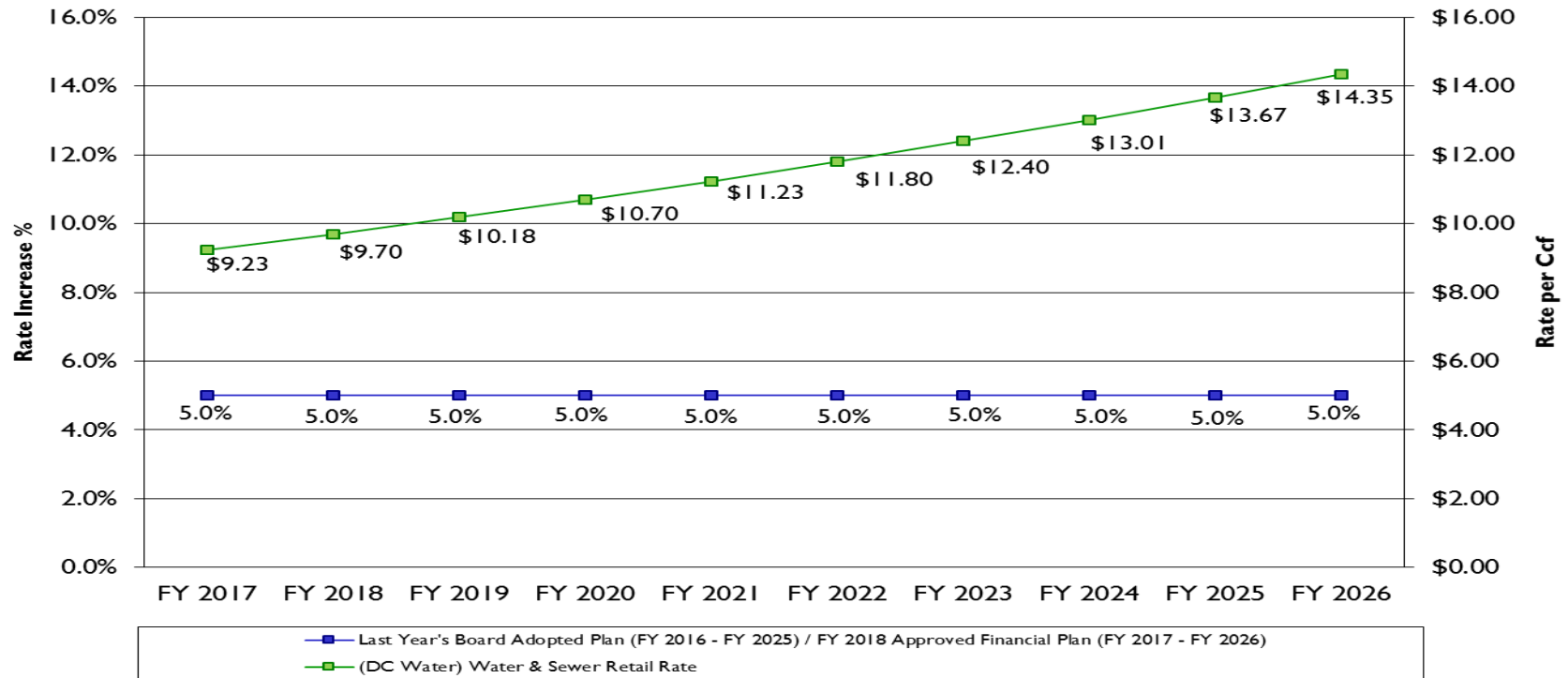
- Water volumetric rates:
 - Residential customers: “Consumption of 0 – 4 Ccf” - water rate increase of \$0.16 per Ccf, {\$0.21 per 1,000 gallons} from \$3.23 per Ccf to \$3.39 per Ccf, {\$4.53 per 1,000 gallons}
 - Residential customers: “Consumption greater than 4 Ccf” - water rate increase of \$0.20 per Ccf, {\$0.27 per 1,000 gallons} from \$4.06 per Ccf to \$4.26 per Ccf, {\$5.70 per 1,000 gallons}
 - Multi-family customers: water rate increase of \$0.18 per Ccf, {\$0.24 per 1,000 gallons} from \$3.62 per Ccf to \$3.80 per Ccf, {\$5.08 per 1,000 gallons}
 - Non-Residential customers: water rate increase of \$0.21 per Ccf, {\$0.28 per 1,000 gallons} from \$4.19 per Ccf to \$4.40 per Ccf, {\$5.88 per 1,000 gallons}
- Sewer rate increase of \$0.29 per Ccf, {\$0.39 per 1,000 gallons} for all classes of customers from \$5.71 per Ccf to \$6.00 per Ccf, {\$8.02 per 1,000 gallons}
- Monthly Clean Rivers Impervious Area Charge (CRIAC) increase of \$2.94 from \$22.24 per ERU to \$25.18 per ERU
- Water System Replacement Fee (WSRF) will remain the same. This fee varies with meter size. The WSRF is to recover the costs of 1% renewal and replacement program for water service lines. WSRF for 5/8” meter size is \$6.30.
- PILOT and Right-of-Way fee – These fees are proposed to increase to recover the full cost of the PILOT and Right-of-Way fees charged to DC Water by the District of Columbia
 - Increase of \$0.01 in the PILOT fee, {\$0.01 per 1,000 gallons} to \$0.49 per Ccf, {\$0.65 per 1,000 gallons}
 - Increase of \$0.01 in the Right-of-Way fee, {\$0.01 per 1,000 gallons} to \$0.18 per Ccf, {\$0.24 per 1,000 gallons}

The ten-year projected water and sewer rate increases under this year’s plan (FY 2017 – FY 2026) total 50.0 percent driven primarily by capital spending for DC Water’s \$3.75 billion capital improvement program.

Primary spending in the ten-year capital plan includes: DC Clean Rivers Project (CSO LTCP), Enhanced Nitrogen Removal Facilities and various on-going water and sewer infrastructure improvements.

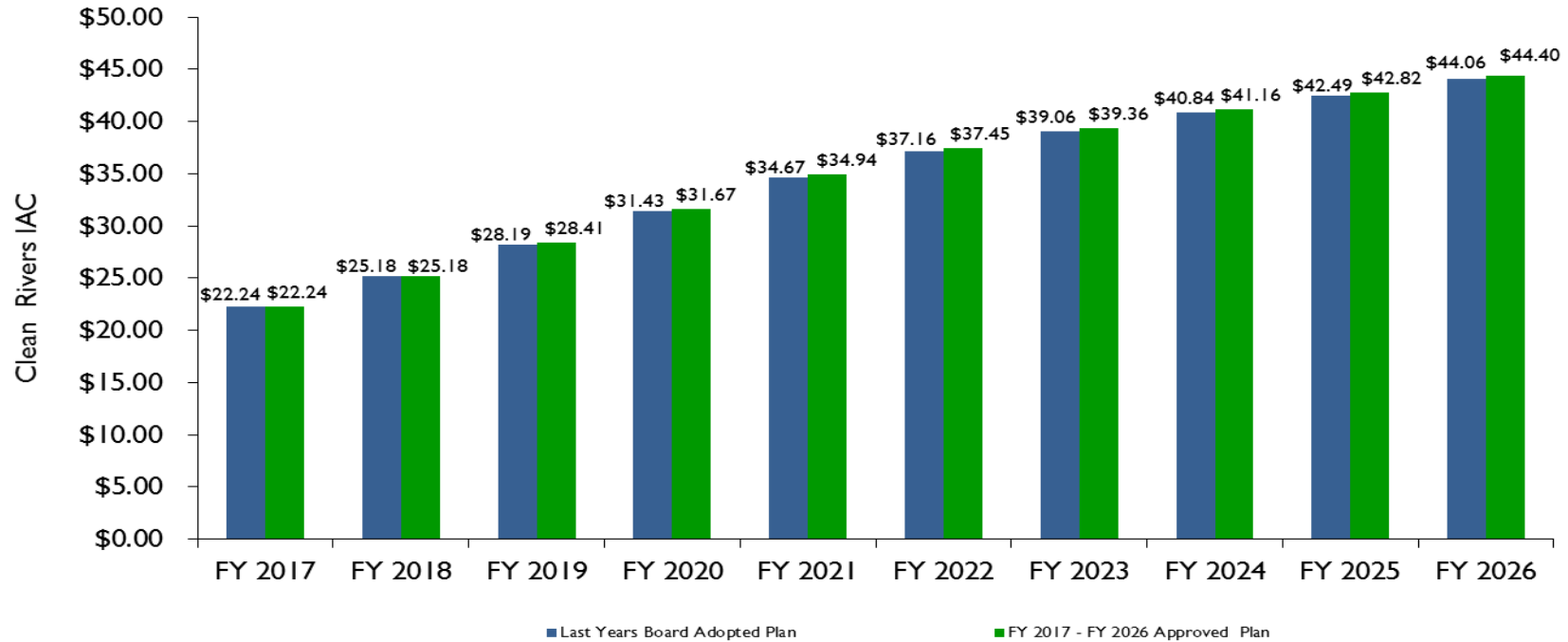
The public outreach and comment process for the multi-year rate proposal for FY 2017 and FY 2018 occurred between April and June 2016. With the approval of the rates by DC Water Board, these changes will increase the typical residential customer’s monthly bill by \$4.70 or 5.1 percent in FY 2017 and by \$5.95 or 6.2 percent in FY 2018 as shown on page IV–23.

PROJECTED RETAIL WATER & SEWER RATE CHANGES FY 2017 – FY 2026



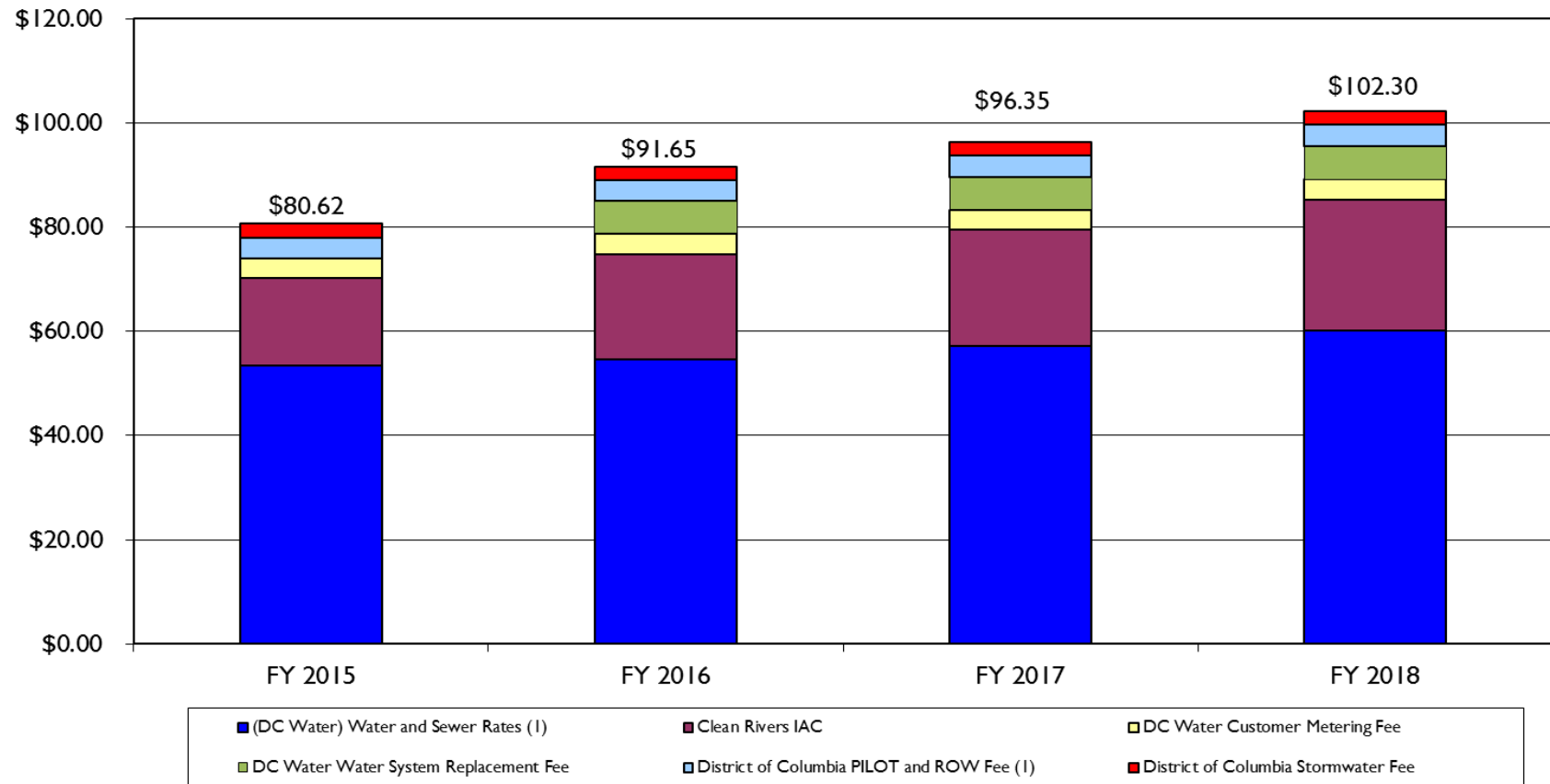
- 1) Rates shown above reflect weighted water and sewer rates for Residential customer category
- 2) In FY 2017 approved water and sewer rate increase of \$0.43 per Ccf, (\$0.57 per 1,000 gallons)
 — Combined water and sewer rate increases from \$8.80 to \$9.23 per Ccf
- 3) In FY 2018 approved water and sewer rate increase of \$0.47 per Ccf, (\$0.63 per 1,000 gallons)
 — Combined water and sewer rate increases from \$9.23 to \$9.70 per Ccf
- 4) Rate increases of 5.0 percent for the period FY 2018 to FY 2026

PROJECTED MONTHLY CLEAN RIVERS IMPERVIOUS SURFACE AREA CHARGE (CRIAC) CHANGES FY 2017 – FY 2026



- The projected charges displayed in the chart above are primarily driven by anticipated debt service costs necessary to support the twenty year \$2.6 billion Clean Rivers Project, which includes the federally mandated CSO-LTCP and the nine-minimum controls program
- The annual Clean Rivers Project costs for the average Tier 2 residential customer (700 – 2,000 sq ft of impervious area) is projected to increase from \$302.16 in FY 2018 to \$532.80 in FY 2026

AVERAGE RESIDENTIAL CUSTOMER MONTHLY BILL FY 2015 – FY 2018



- I) Assumes average monthly consumption of 6.20 Ccf, or 4,638 gallons
 – FY 2018 cost per gallon is \$0.01 (water and sewer rates only)

AVERAGE RESIDENTIAL CUSTOMER MONTHLY BILL FY 2015 – FY 2018

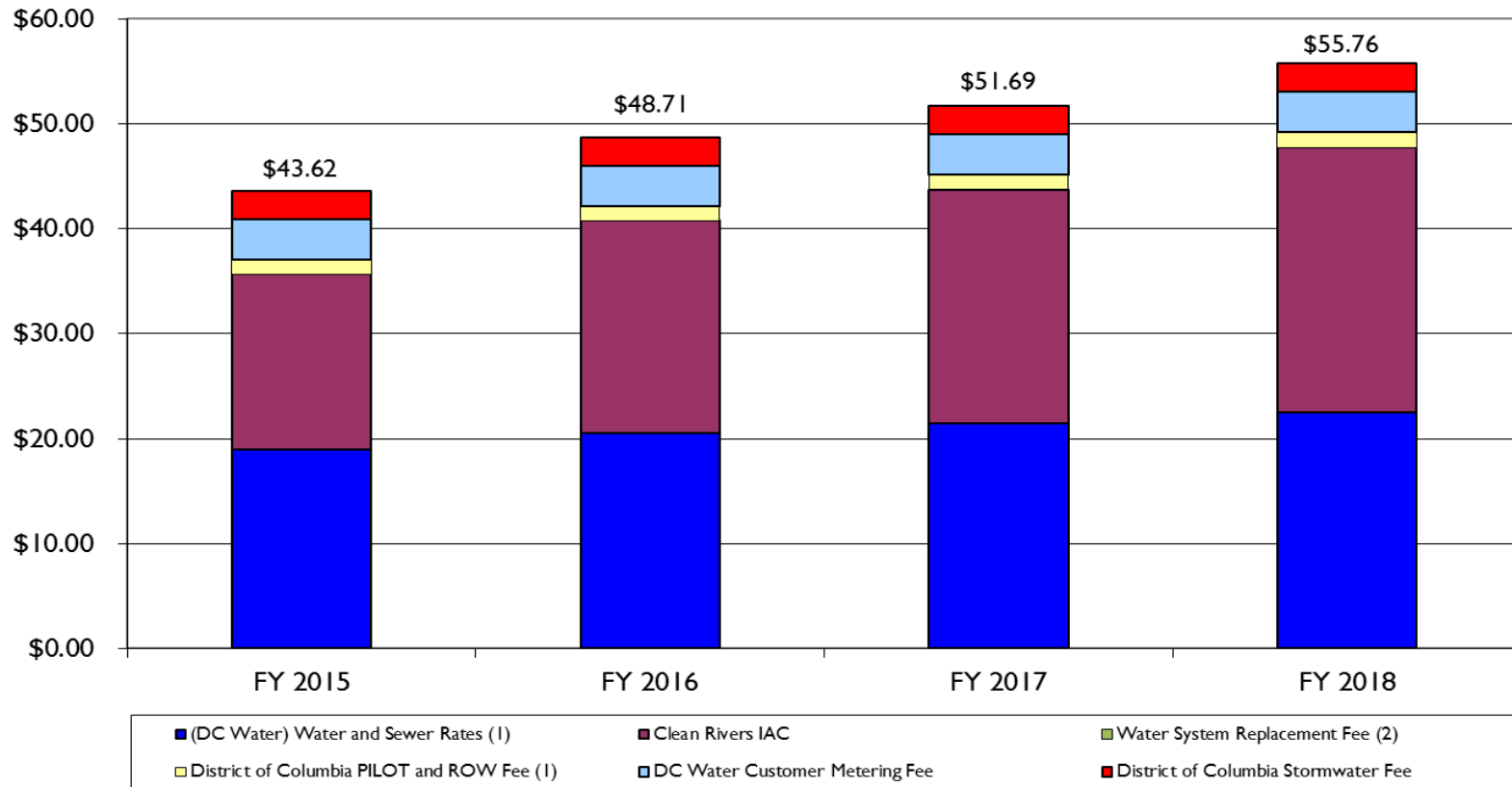
	Units	FY 2015	FY 2016	Approved FY 2017	Approved FY 2018
DC Water and Sewer Retail Rates ⁽¹⁾	Ccf	\$ 53.44	\$ 54.56	\$ 57.25	\$ 60.13
DC Water Clean Rivers IAC	ERU	16.75	20.30	22.24	25.18
DC Water Customer Metering Fee	5/8"	3.86	3.86	3.86	3.86
DC Water Water System Replacement Fee ⁽³⁾	5/8"	-	6.30	6.30	6.30
Subtotal DC Water Rates & Charges		\$ 74.05	\$ 85.02	\$ 89.65	\$ 95.47
Increase / Decrease		\$ 8.62	\$ 10.97	\$ 4.63	\$ 5.82
District of Columbia PILOT ⁽¹⁾	Ccf	\$ 2.85	\$ 2.91	\$ 2.98	\$ 3.04
District of Columbia Right-of-Way Fee ⁽¹⁾	Ccf	1.05	1.05	1.05	1.12
District of Columbia Stormwater Fee ⁽²⁾	ERU	2.67	2.67	2.67	2.67
Subtotal District of Columbia Charges		\$ 6.57	\$ 6.63	\$ 6.70	\$ 6.83
Total Amount Appearing on DC Water Bill		\$ 80.62	\$ 91.65	\$ 96.35	\$ 102.30
Increase / Decrease Over Prior Year		\$ 8.18	\$ 11.03	\$ 4.70	\$ 5.95
Percent Increase in Total Bill		11.3%	13.7%	5.1%	6.2%

(1) Assumes average monthly consumption of 6.20 Ccf, or (4,638 gallons)

(2) District Department of the Environment stormwater fee of \$2.67 effective November 1, 2010

(3) DC Water "Water System Replacement Fee" of \$6.30 for 5/8" meter size effective October 1, 2015

AVERAGE CAP CUSTOMER MONTHLY BILL FY 2015 – FY 2018



- Assumes average monthly consumption of 6.20 Ccf, or 4,638 gallons
 - FY 2018 cost per gallon is \$0.01 (water and sewer rates only)
- Assumes 100 percent discount for Water System Replacement Fee (WSRF) to CAP customers, therefore, WSRF is not shown in the above graph

Recent and Approved Rate & Fee Changes

AVERAGE CAP CUSTOMER MONTHLY BILL FY 2015 – FY 2018

	Units	FY 2015	FY 2016	Approved FY 2017	Approved FY 2018
DC Water and Sewer Retail Rates ⁽¹⁾	Ccf	\$ 53.44	\$ 54.56	\$ 57.25	\$ 60.13
DC Water Clean Rivers IAC	ERU	16.75	20.30	22.24	25.18
DC Water Customer Metering Fee	5/8"	3.86	3.86	3.86	3.86
DC Water Water System Replacement Fee	5/8"	-	6.30	6.30	6.30
Subtotal DC Water Rates & Charges		\$ 74.05	\$ 85.02	\$ 89.65	\$ 95.47
Increase / Decrease		\$ 8.62	\$ 10.97	\$ 4.63	\$ 5.82
District of Columbia PILOT ⁽¹⁾	Ccf	\$ 2.85	\$ 2.91	\$ 2.98	\$ 3.04
District of Columbia Right-of-Way Fee ⁽¹⁾	Ccf	1.05	1.05	1.05	1.12
District of Columbia Stormwater Fee ⁽⁴⁾	ERU	2.67	2.67	2.67	2.67
Subtotal District of Columbia Charges		\$ 6.57	\$ 6.63	\$ 6.70	\$ 6.83
Total Amount		\$ 80.62	\$ 91.65	\$ 96.35	\$ 102.30
Less: CAP Discount (4 Ccf per month) ^{(1), (2)}		\$ (37.00)	\$ (36.64)	\$ (38.36)	\$ (40.24)
Water System Replacement Fee (WSRF) ⁽³⁾		\$ -	\$ (6.30)	\$ (6.30)	\$ (6.30)
Total Amount Appearing on DC Water Bill		\$ 43.62	\$ 48.71	\$ 51.69	\$ 55.76
Increase / Decrease Over Prior Year		\$ 6.06	\$ 5.09	\$ 2.98	\$ 4.07
CAP Customer Discount as a Percent of Total Bill		-45.9%	-46.9%	-46.4%	-45.5%

(1) Assumes average monthly consumption of 6.20 Ccf, or (4,638 gallons)

(2) Extension of CAP program in FY 2011 to first 4 Ccf of PILOT and ROW

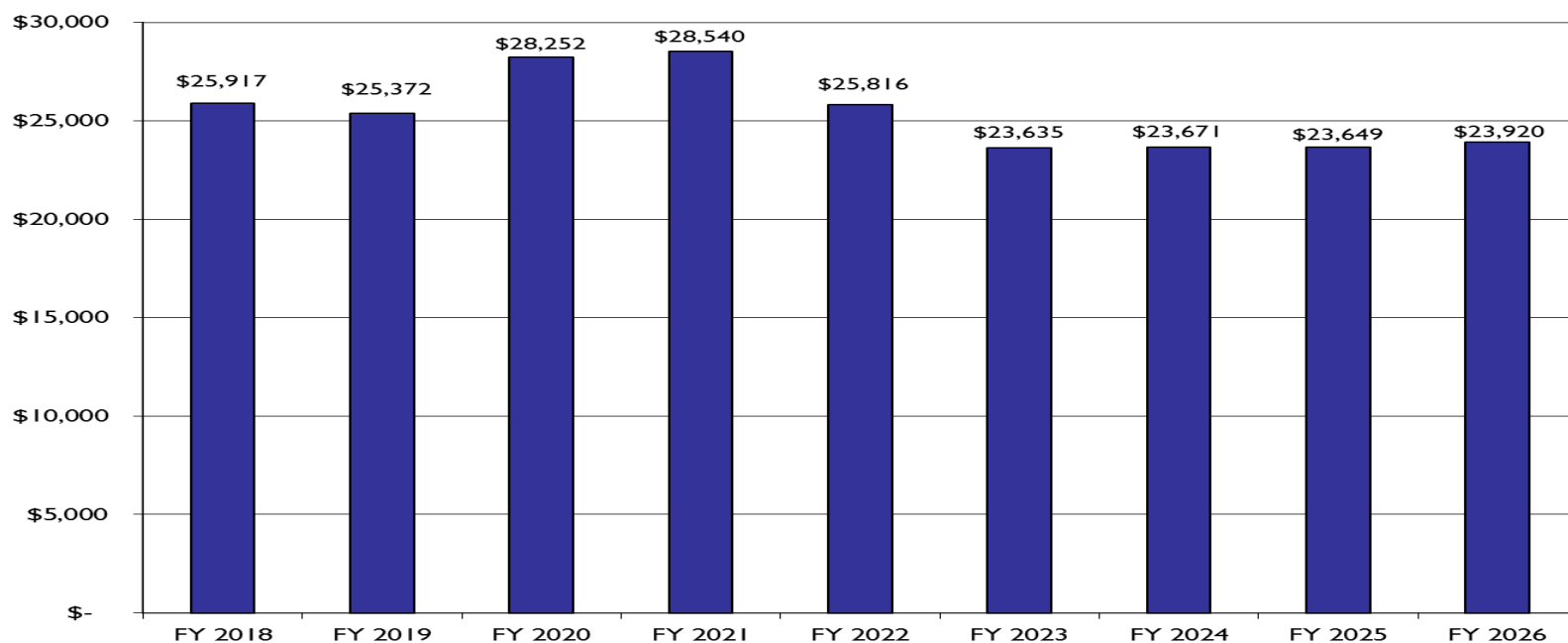
(3) Assumes 100 percent discount for Water System Replacement Fee (WSRF) to CAP customers

(4) District Department of the Environment stormwater fee of \$2.67 effective November 1, 2010

FY 2017 – FY 2026 FINANCIAL PLAN

- As shown in the chart below, incremental increases in retail revenues are projected to range from \$23.6 million to \$28.5 million in FY 2018 – FY 2026, due to:
 - Average annual debt service increase of 5.8 percent
 - Average annual O&M increase of 2.8 percent
 - Annual projected Payment-in-Lieu of Taxes (PILOT) and Right-of-Way (ROW) increases due to DC Government increasing costs of providing services to the District
 - This year’s ten-year financial plan reflects anticipated operating cost savings at Blue Plains beginning in FY 2015 due to the implementation of the digester/cambi biosolids management project

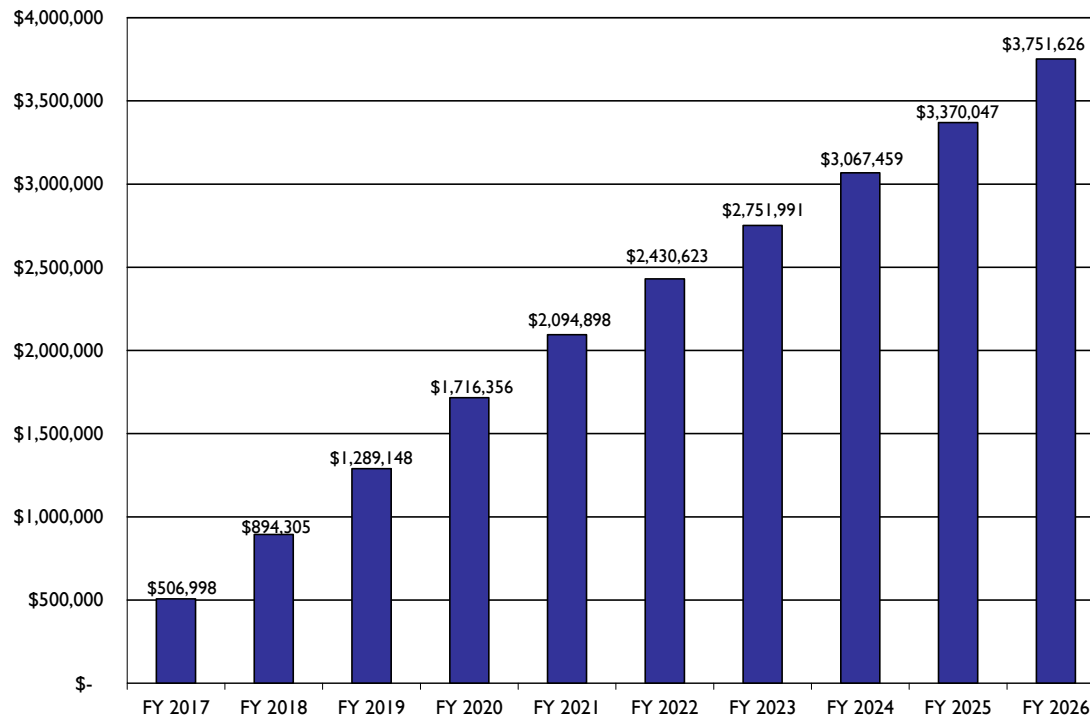
INCREMENTAL INCREASE IN REVENUES
FY 2018 – FY 2026
(\$ 000's)



- These costs would be recovered through:
 - Proposed water and sewer rate increases of 5.0 percent from FY 2018 to FY 2026
 - Proposed Clean Rivers Impervious Surface Area Charge (CRIAC) revenues ranging from \$25.18 to \$44.40 per ERU per month
 - Proposed DC PILOT fee increases of 2 percent in accordance with the current MOU dated September 4, 2014 to recover the amount of PILOT payment obligation to the District of Columbia
 - The ROW fee will remain the same at \$5.1 million per annum in accordance with the current MOU signed on October 2, 2014 to recover the amount of ROW payment obligation to the District of Columbia
 - Utilization of the Board-authorized Rate Stabilization Fund (RSF) to offset retail rate increases

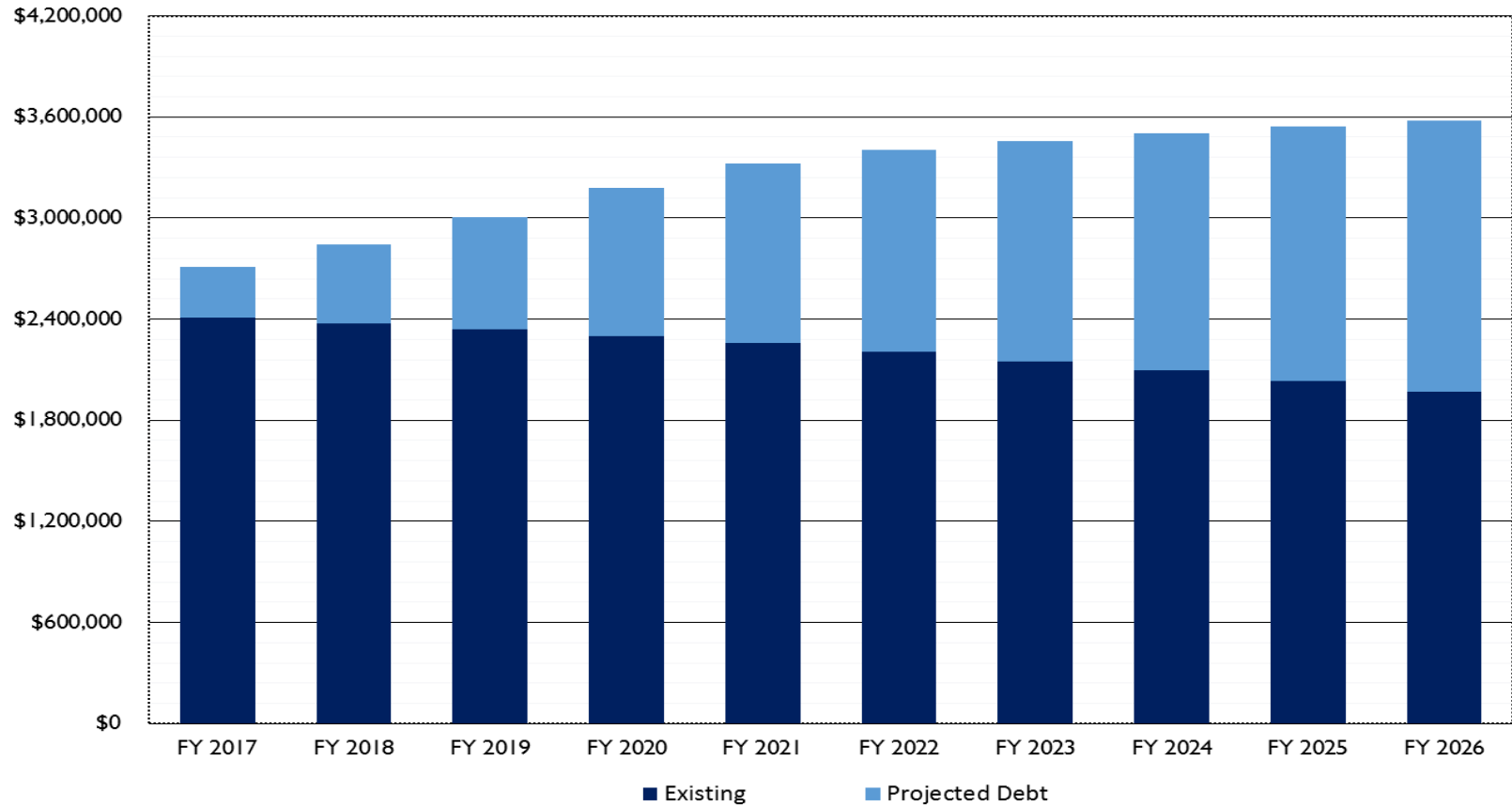
DC Water’s proposed rate increases are primarily required to fund increasing debt service costs from increased capital spending.

CUMULATIVE CAPITAL SPENDING
FY 2017 – FY 2026
(\$ 000's)



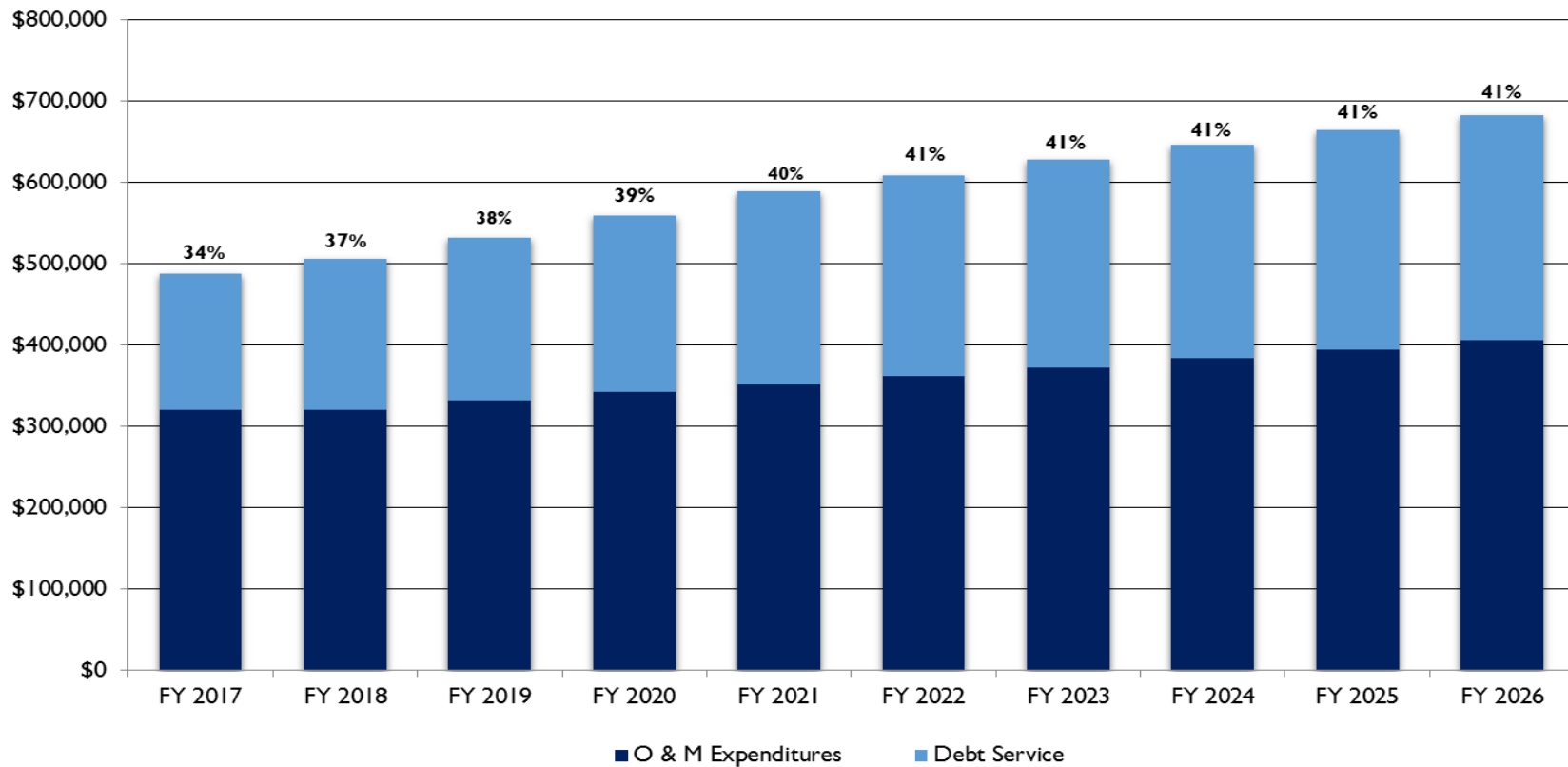
- DC Water’s ten-year capital improvement program totals \$3.75 billion, with annual spending ranging from \$302.6 million to \$507.0 million
- Once completed, the ten-year capital improvement project will double the book value of DC Water’s infrastructure
- The ten-year plan includes disbursements of the Clean Rivers Project (CSO LTCP), totaling nearly \$1.2 billion exclusive of nine minimum controls
- Water and sewer infrastructure continues to drive the ten-year Capital Improvement Plan from FY 2017 through FY 2026

NEW & EXISTING DEBT OUTSTANDING FY 2017 – FY 2026 (\$ 000's)



- The largest source of funding for DC Water’s capital program is debt
- Over the next ten years, DC Water will issue approximately \$1.5 billion in new debt (which includes the funding of reserves and costs of issuance), increasing total debt outstanding to \$3.58 billion at the end of FY 2026

DEBT SERVICE AS PERCENT OF TOTAL OPERATING & MAINTENANCE EXPENDITURES
FY 2017 – FY 2026
(\$ 000's)



OPERATING & DEBT SERVICE EXPENDITURES FY 2017 – FY 2026

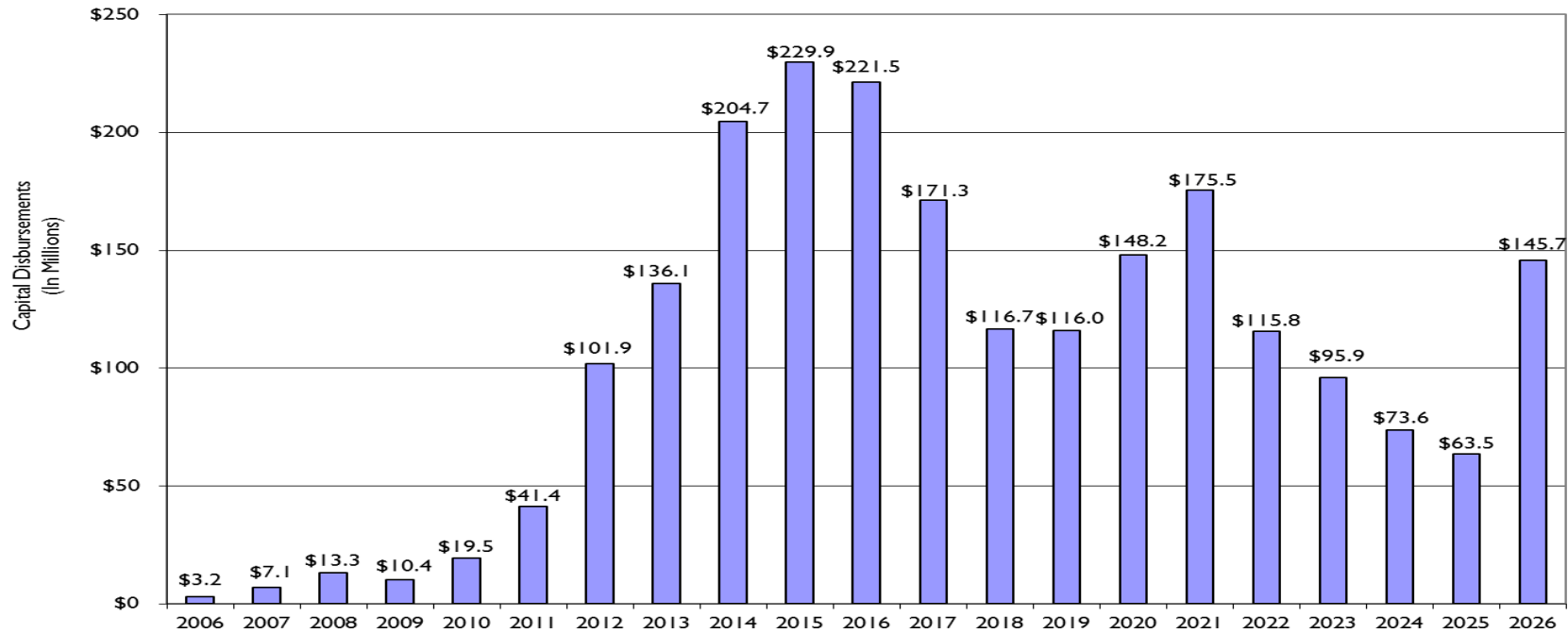
Over the ten-year period, total expenditures increase on average by 3.9 percent annually

DC Water's proposed rate increases are primarily required to fund increasing debt service costs

- Operations and maintenance expenditures (excluding the payment-in-lieu of taxes and right-of-way fee) increase on average by only 2.8 percent annually
- Debt service expenditures grow at an annual average rate of 5.8 percent
- This year's ten-year financial plan reflects anticipated operating cost savings at Blue Plains due to the implementation of the digester/cambi biosolids management project. Digesters commenced operation in FY 2015

POTENTIAL IMPACT OF CSO LONG-TERM CONTROL PLAN ON RATES

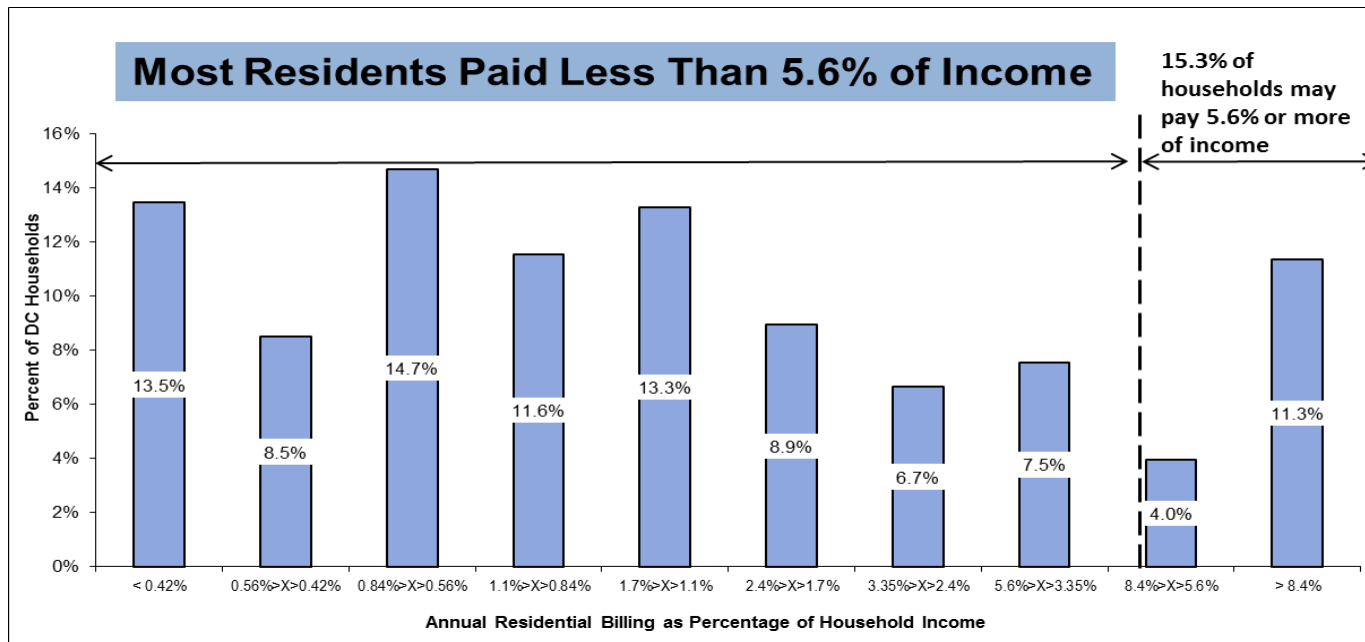
Clean Rivers CSO LTCP Disbursements by Fiscal Year

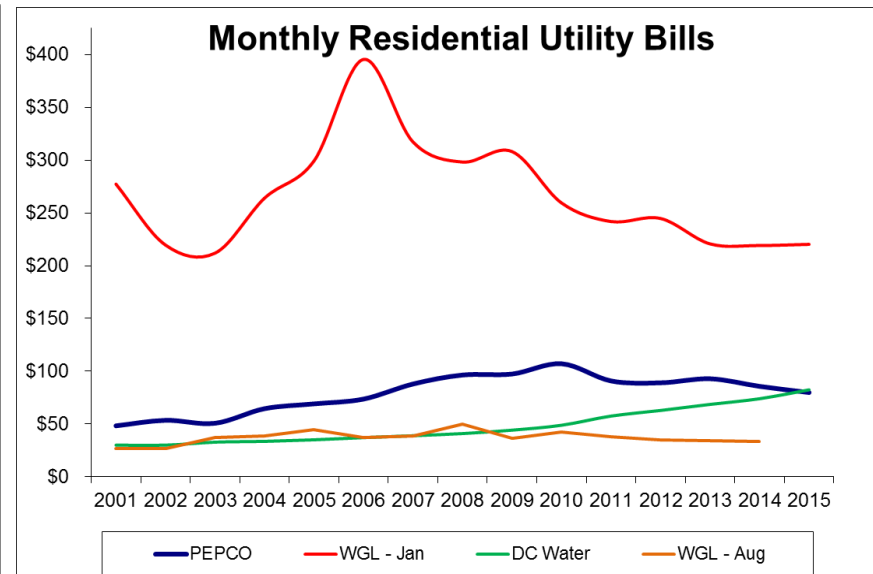
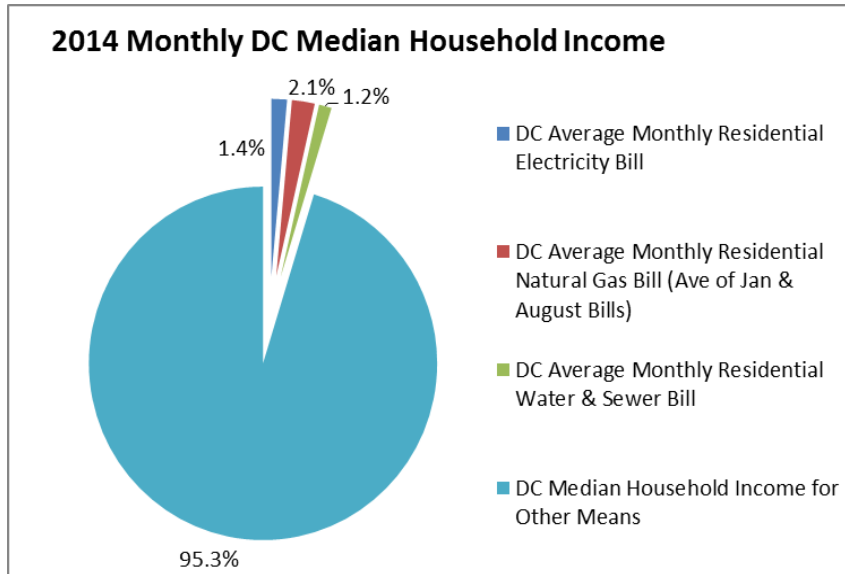


In December 2004, the Board reached an agreement with the federal government on the Clean Rivers Project (CSO-LTCP) and entered into a related consent decree. Actual and projected disbursements by fiscal year for the Clean Rivers Project are shown in the chart above and are the drivers for changes in the Clean Rivers Impervious Area Charge over the ten-year plan. Wholesale customers contribute 7.1 percent to the Clean Rivers Project. To mitigate impacts, DC Water continues to look for federal support for this program. As of September 30, 2016, \$224.8 million has been received through federal appropriations. Lifetime capital costs for the plan (exclusive of the nine – minimum controls program) total approximately \$2.3 billion, and this year’s proposed ten-year plan includes \$1.2 billion of projected Clean Rivers Project disbursements.

DC WATER CHARGES ARE STILL AFFORDABLE AND COMPETITIVE WITH OTHER MAJOR CITIES

- **Median household income:** The average DC Water charges are less than 5.6% of income for 84.7% of the households in the District of Columbia. US EPA guidelines suggest that charges greater than 4% of median household income are typically viewed as a strain on household budgets (2% water + 2% sewer)
- **Typical DC Water residential bill as a percentage of median household income is lower than average when compared to other utilities of similar size**
- **Customer Assistance Programs are in place to help eligible low income customers with their water/sewer bills**





Observation:

- DC Water’s average monthly residential water & sewer bill is about 1.2 percent of the total monthly household income for the median income family, which is lower, compared to the average monthly electricity and natural gas bill and at about the national average for urban populations

Observation:

- Average electricity and natural gas are higher than water & sewer bills

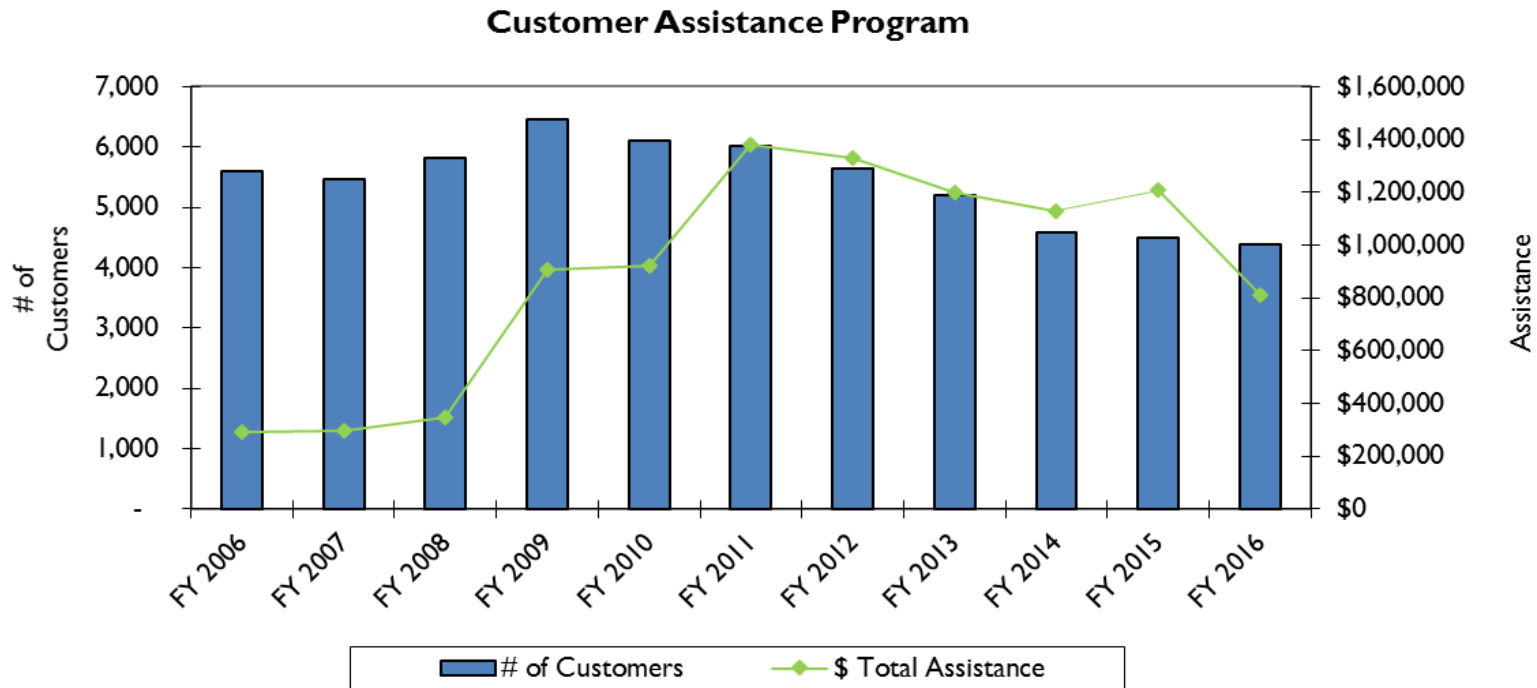
Assumption:

- Average DC customer is assumed to use 6.69 Ccf of water, 200 Therms of natural gas and 695 kWh of electricity per month in 2014

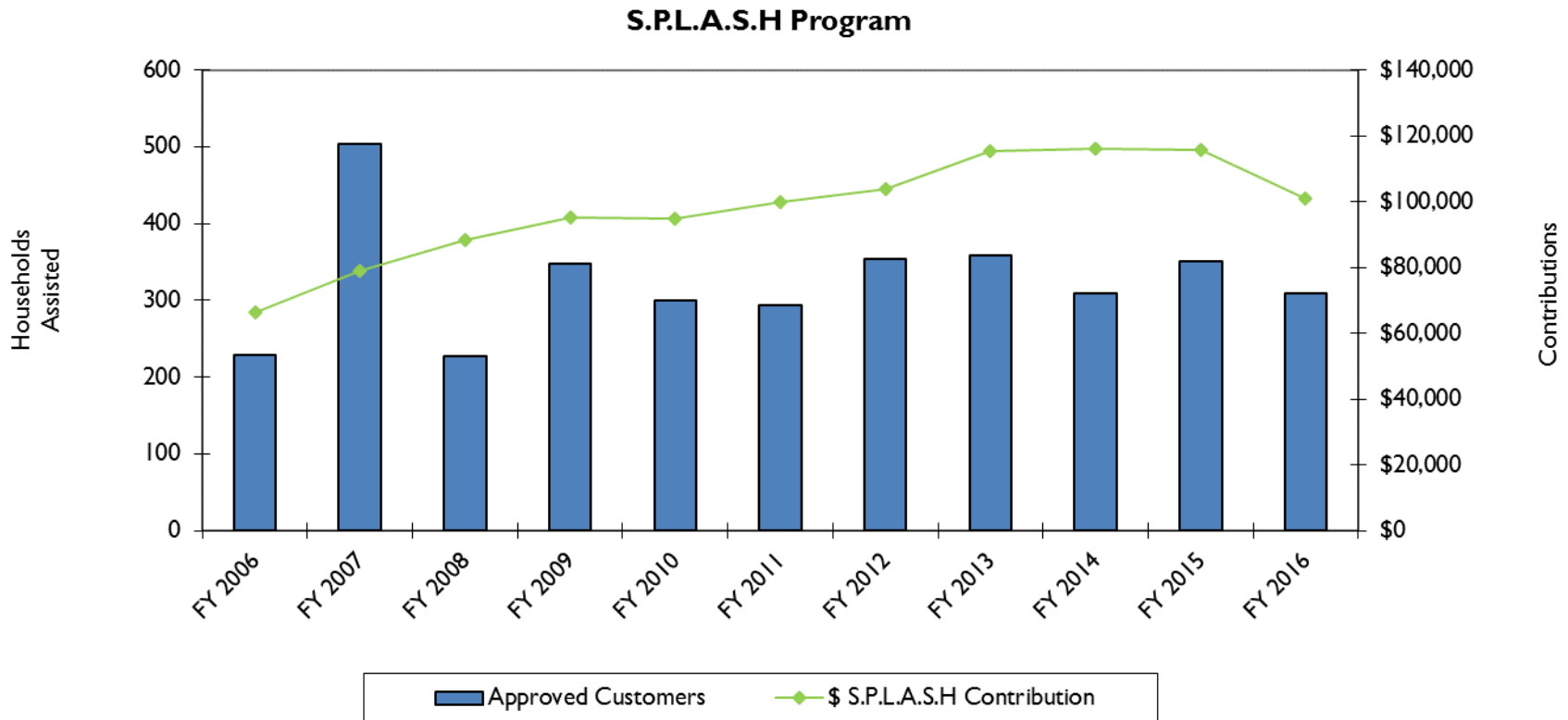
Sources:
 Electricity and Gas: DC Public Service Commission
 Water and Sewer: DC Water Assuming 6.69 Ccf, or 5,004 gallons consumption
 Median HH Income: US Census Bureau, American Community Survey 2013 1-Year Estimates

DC Water sponsors two programs to assist low income customers in paying their water bills:

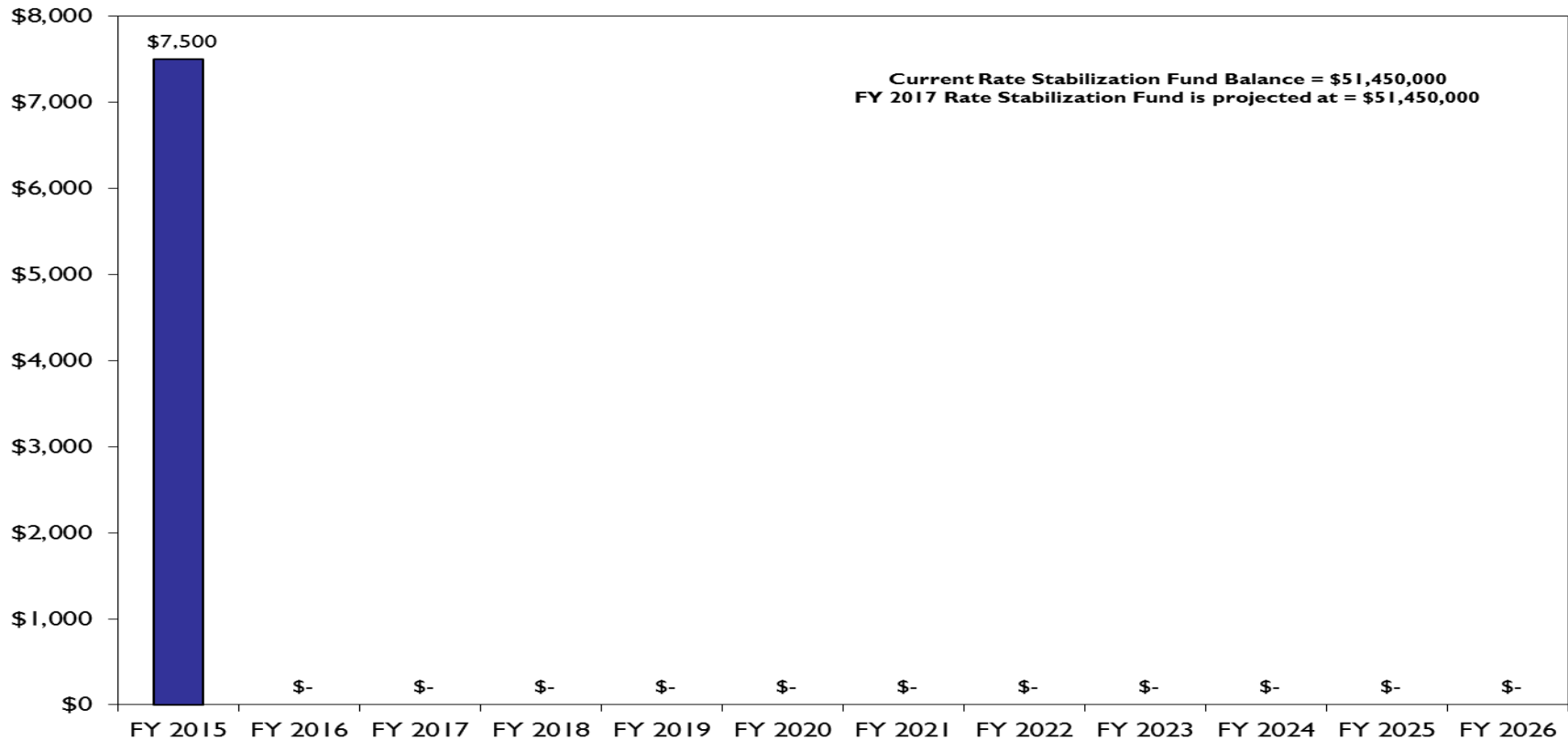
- Customer Assistance Program (“CAP”)**: The Authority implemented the CAP in 2001 providing a discount of 4 Ccf per months of water service for single family residential homeowners that meet income eligibility guidelines. In FY 2004, the Authority expanded the CAP to include tenants who meet the financial eligibility requirements and whose primary residence is separately metered by the Authority. In January 2009, the Authority further expanded the CAP to provide a discount of 4 Ccf per month of sewer services to eligible customers. In FY 2011, the discount was expanded to the first 4 Ccf associated with the PILOT/ROW fee in addition to the current discount provided on water and sewer services. In FY 2016, the CAP discount was expanded to include a 100 percent credit/discount for the Water System Replacement Fee (VSRF). In FY 2016, CAP assisted over 4,379 customers and provided 808,797 in discounts to low-income customers.



- Serving People by Lending a Supporting Hand (“S.P.L.A.S.H”)**: The SPLASH program was implemented in FY 2001. Through the SPLASH program, DC Water offers assistance to families in need so that they can maintain critical water and sewer services until they get back on their feet. The program is administered by the Greater Washington Urban League. Every dollar received by DC Water is distributed to eligible customers. In FY 2016, SPLASH assisted 309 households and provided 101,098 in contributions to low-income customers.



**RATE STABILIZATION FUND USAGE
FY 2017 – FY 2026
(\$ 000's)**



- At the end of FY 2016, DC Water’s rate stabilization fund (RSF) balance was \$51.45 million. No RSF is proposed to be utilized from FY 2017 to FY 2026. RSF will have a balance of \$98.45 million at the end of FY 2026.

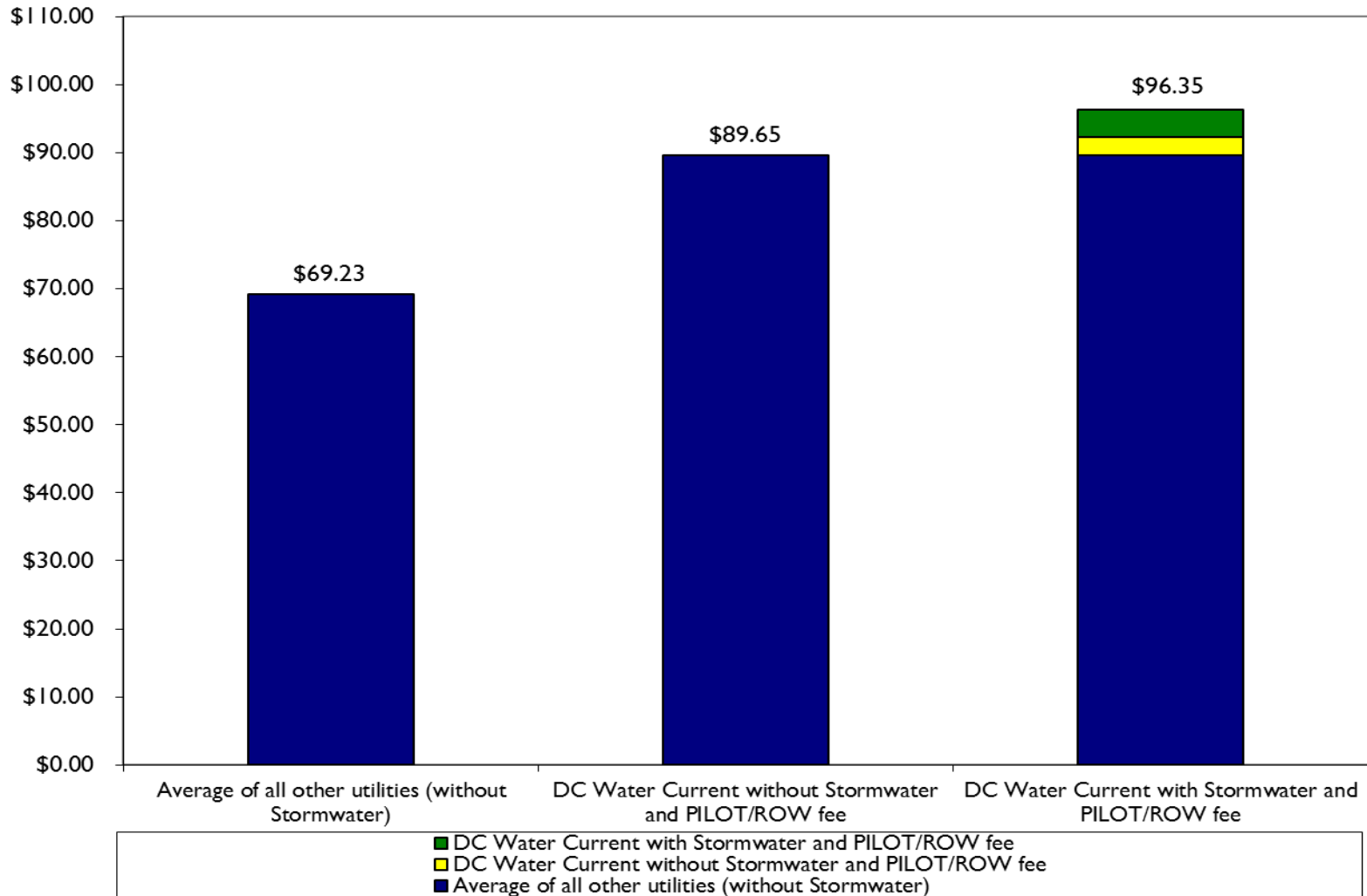
One method of assessing the affordability of residential rates is to calculate the portion of the Median Household Income that would be spent on typical water, wastewater, and stormwater bills and compare the results with the same calculation for other utilities. While no utilities are exactly alike, in the most recent rate survey conducted for DC Water in March 2016, DC Water's charges for a single family residential customer as a percentage of median income, excluding District fees, were below the average of other large and regional water and wastewater utilities.

The following charts provide DC Water combined water, sewer and stormwater charges for single family residential customers compared to: large CSO communities, other similar large jurisdictions and other regional jurisdictions. There are distinct differences between DC Water and other large and regional utilities. Some differences include:

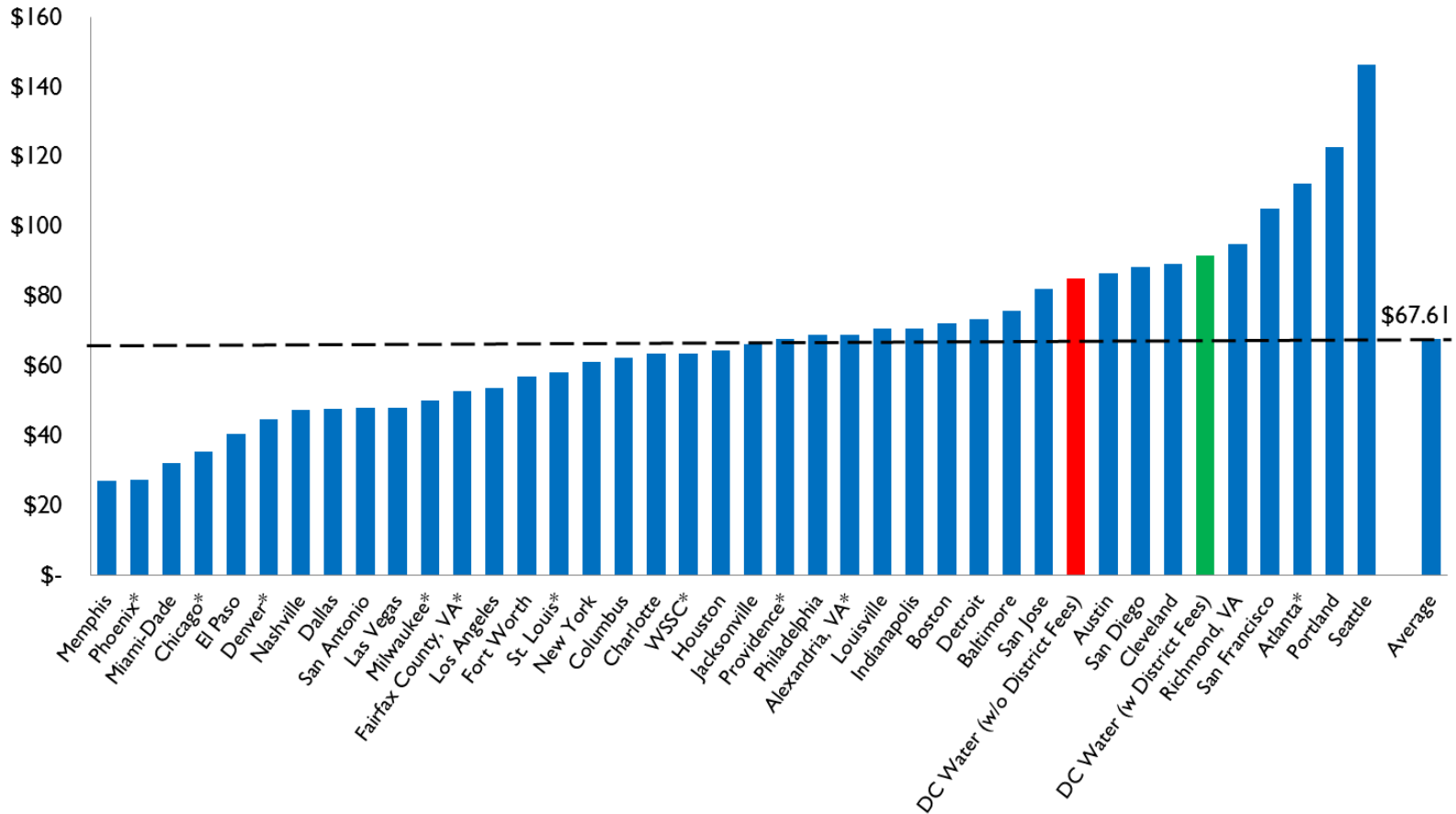
- Different patterns of water use (e.g., suburban jurisdictions can have different demands from urban centers)
- Revenues from taxes that reduce the revenues to be raised from water, sewer and stormwater rates (e.g., WSSC, Alexandria, Arlington, Milwaukee, St. Louis, Atlanta, Chicago, etc.)
- Available undeveloped areas supporting high developer contributions for growth that can again reduce the revenues to be raised from water, sewer and stormwater rates (e.g., Fairfax County)
- Separate sewer systems in certain large jurisdictions and regional jurisdictions (e.g., Dallas)
- Differences in climate that may affect water supply or conservation needs (e.g., Seattle)
- Varying stages of completion of facilities to meet federal mandates (e.g., Atlanta and Boston have completed most of their major investments - the DC Clean Rivers Project is in progress at this time)

DC WATER'S RETAIL RATES ARE COMPARABLE TO OTHER UTILITIES

DC Water's Current FY 2017 Monthly Residential Bill
 vs.
Average Monthly Bill of Other Utilities in Effect Spring 2016



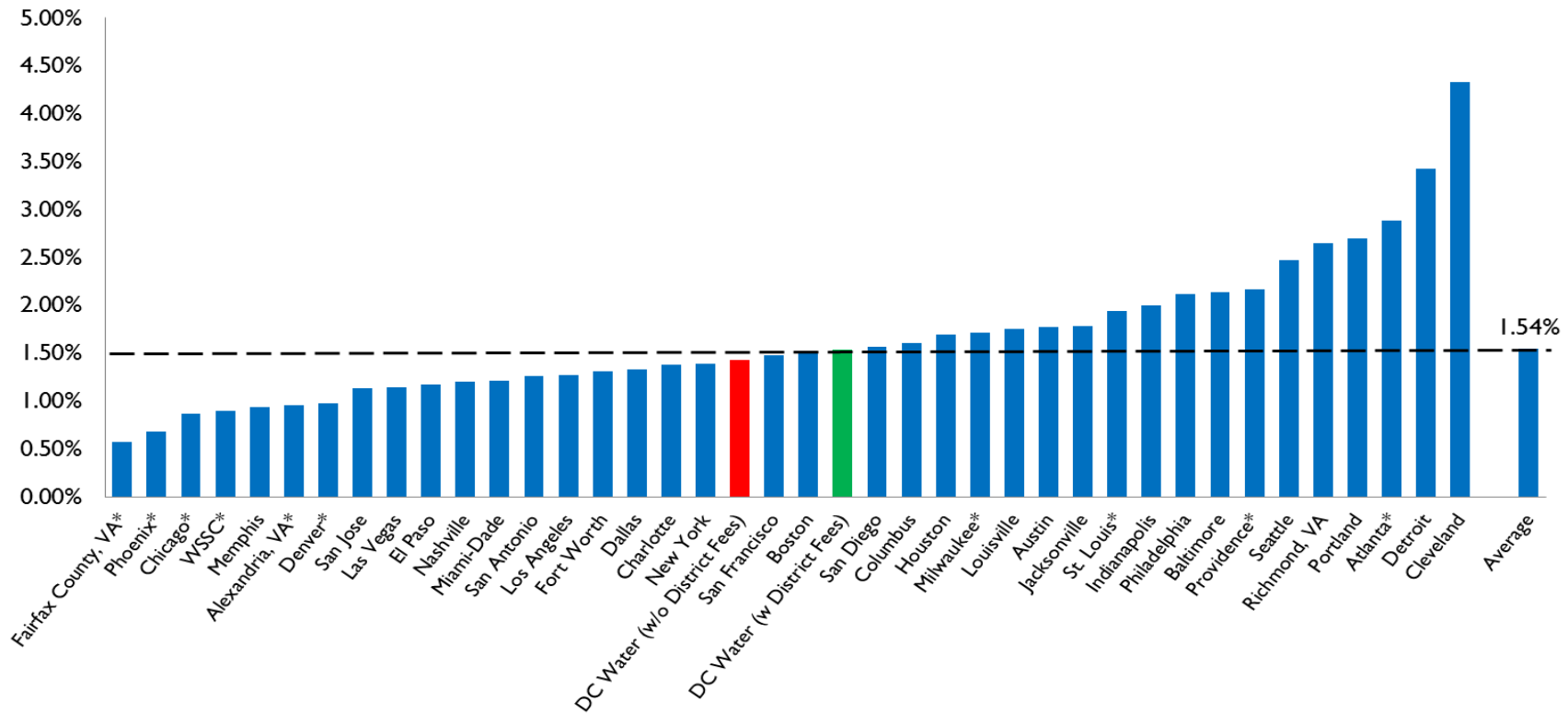
DC Water Retail Rates Compared to Other Large Utilities (Based on Rates in effect Spring 2016)



- (1) Assumes average residential consumption of 6.20 Ccf, or 4,638 gallons, per month. Ccf = hundred cubic feet, or 748 gallons
- (2) Reflects rates and fees in place as of March 1, 2016. The Authority's rate includes the PILOT/ROW fee totaling \$0.64 per Ccf (effective October 1, 2015) and the DOEE residential stormwater rate of \$2.67 per ERU per month.
- (3) Some cities use property tax revenue or other revenues to pay for part of the cost of water, wastewater, or stormwater services, as indicated by * in the graph above. In such situations, the user charge will not reflect the full cost of water, wastewater or stormwater services.

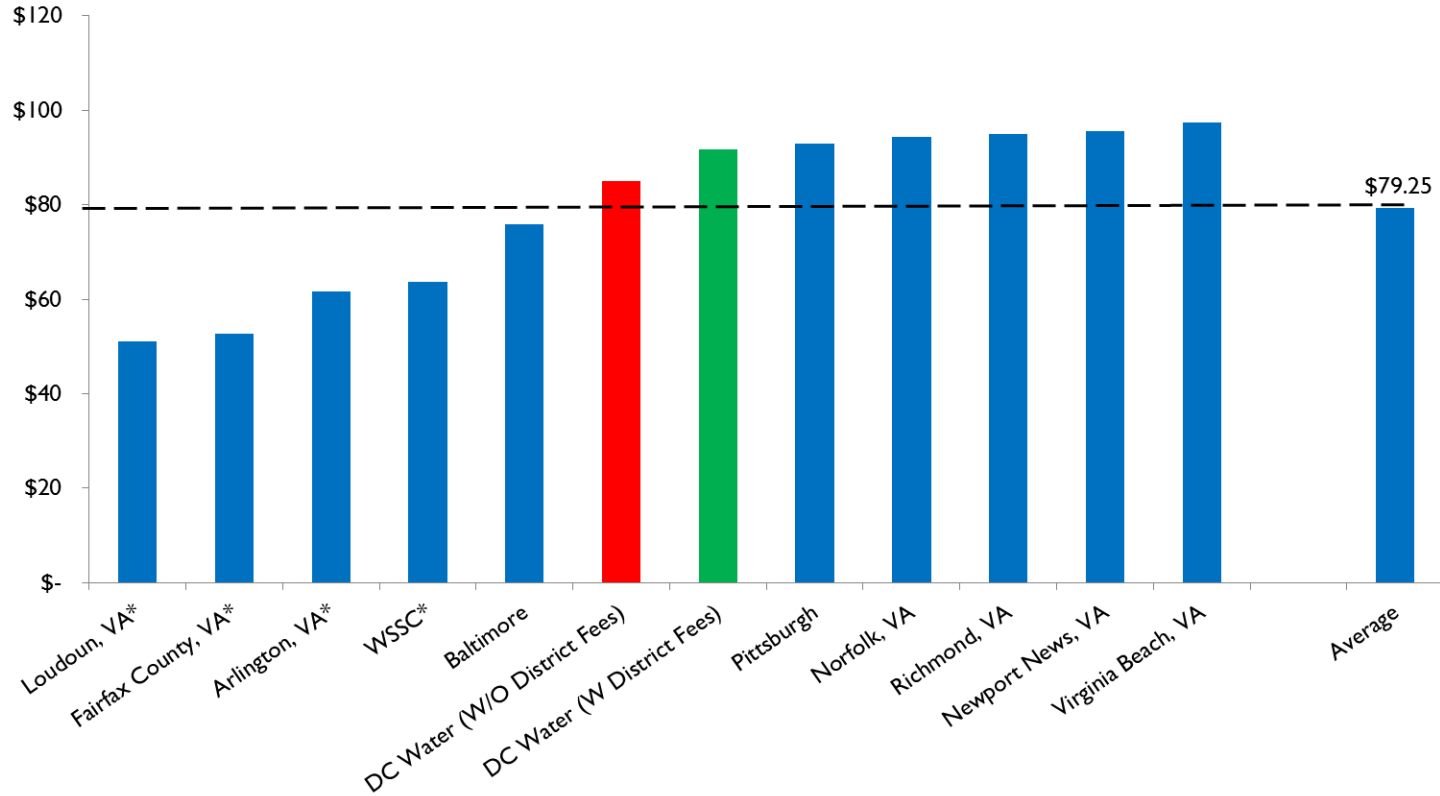
In the chart below, DC Water current charges rank at the median for bill comparison purposes for water and wastewater services compared to a select group of large, regional and CSO utilities, but well within US EPA guidance of 4 percent.

Single Family Residential (SFR) Monthly Bill as % of Median Household Income - Large National Utilities (Based on Rates in effect Spring 2016)



- (1) Assumes average residential consumption of 6.20 Ccf, or 4,638 gallons, per month. Ccf = hundred cubic feet, or 748 gallons
- (2) Reflects rates and fees in place as of March 2016. Some cities use property tax revenue or other revenues to pay for part of the cost of water, wastewater, or stormwater services, as indicated by * in the graph above. In such situations, the user charge will not reflect the full cost of water, wastewater or stormwater services.

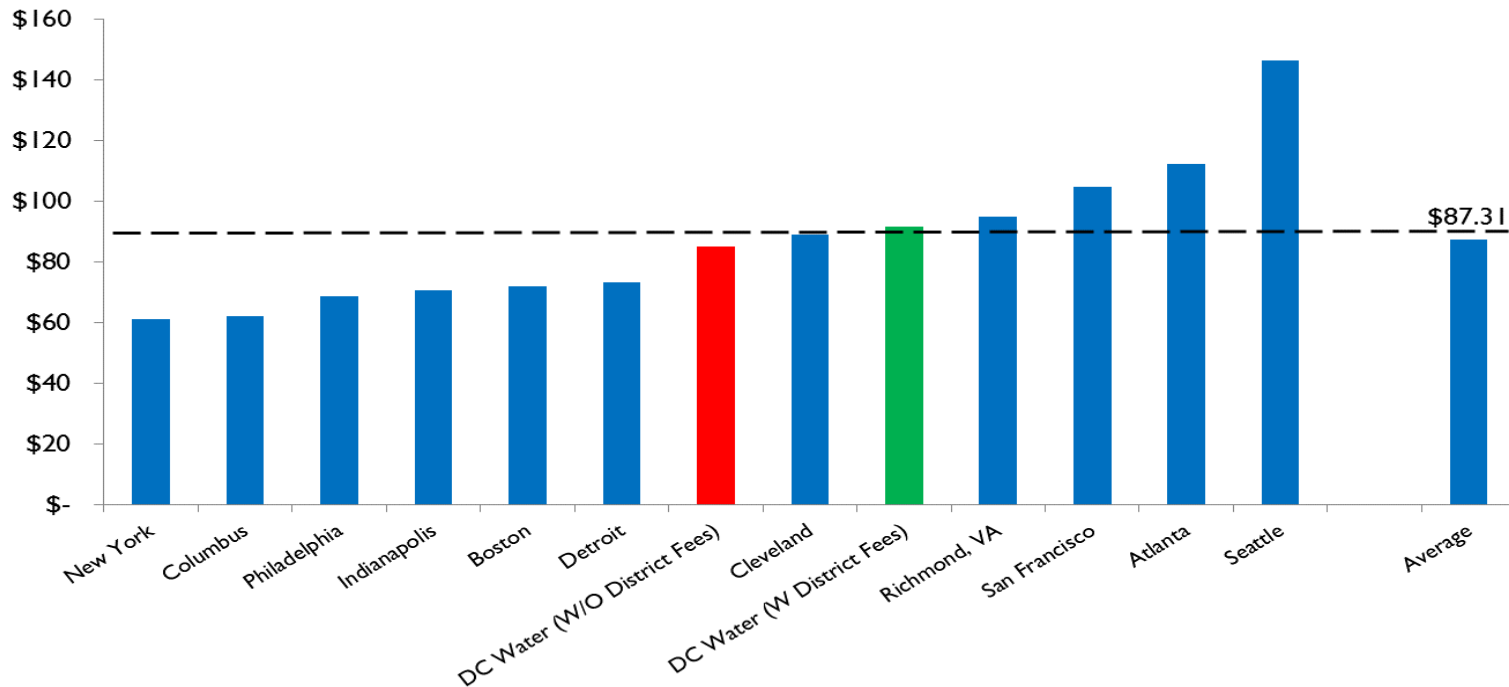
DC Water Retail Rates Compared to Regional Utilities (Based on Rates in effect Spring 2016)



- (1) Assumes average residential consumption of 6.20 Ccf, or 4,638 gallons, per month. Ccf = hundred cubic feet, or 748 gallons
- (2) Reflects rates and fees in place as of March 2016. Some cities use property tax revenue or other revenues to pay for part of the cost of water, wastewater, or stormwater services, as indicated by * in the graph above. In such situations, the user charge will not reflect the full cost of water, wastewater or stormwater services.

**DC Water Compared to CSO Communities
(Based on Rates in effect Spring 2016)**

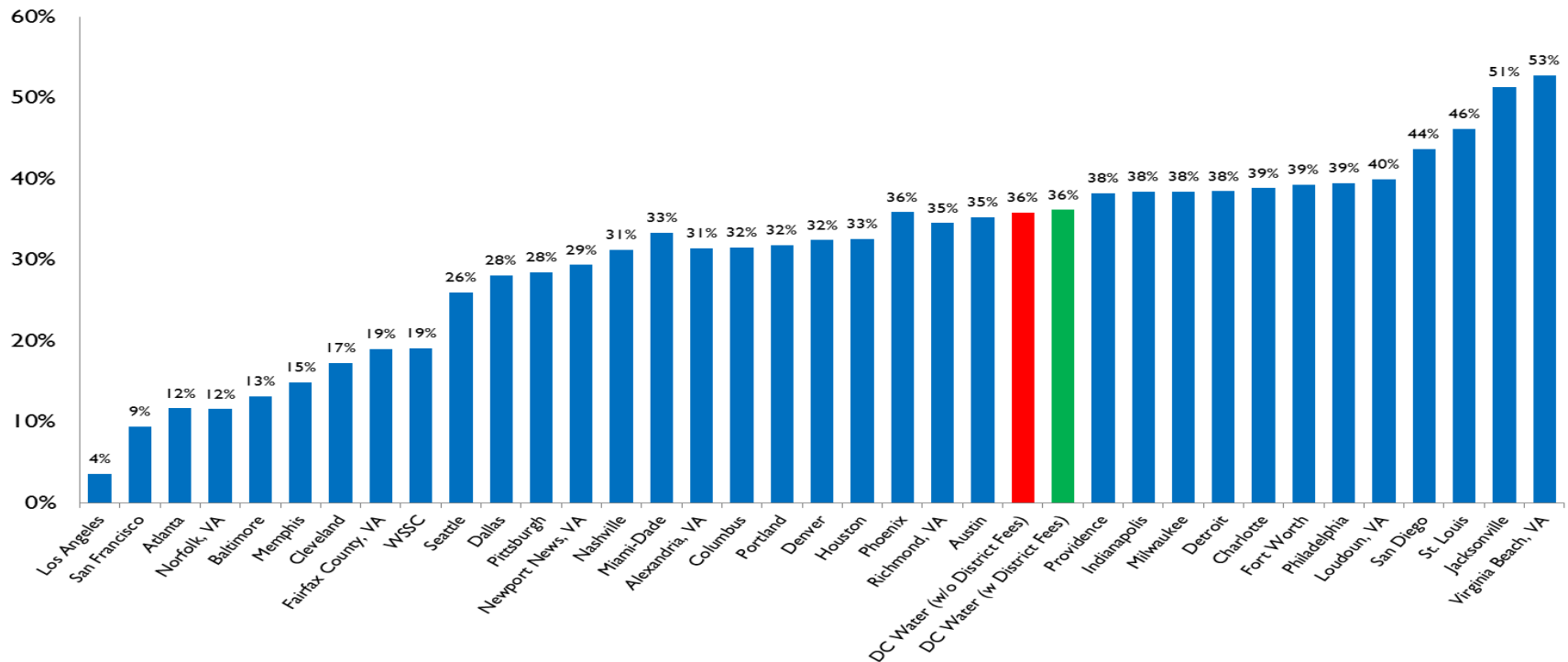
SFR Monthly Bill Utilities with CSO Programs



- (1) Assumes average residential consumption of 6.20 Ccf, or 4,638 gallons, per month. Ccf = hundred cubic feet, or 748 gallons.
- (2) Reflects rates and fees in place as of March 1, 2016. The Authority's rate includes the PILOT/ROW fee totaling \$0.64 per Ccf (effective October 1, 2015) and the DDOE residential stormwater rate of \$2.67 per ERU per month.
- (3) Most CSO communities have implemented double digit rate increases to recover CSO-LTCP costs
- (4) Increases do not reflect other available dedicated taxes or state funding potentially available to some agencies
- (5) Chart reflects SFR monthly bill utilities with CSO programs without offsets to user charges

Fixed charges are a small component of the DC Water monthly bill and is less than median for large utilities. This provides the customer more opportunities to impact monthly bills through water conservation.

**Fixed Charge as % of Total Single-Family Residential Bills in Large Cities
(Based on Rates in effect Spring 2016)**



- (1) User Charges are based upon information provided by the identified cities and standardize assumptions regarding water consumption, wastewater discharge, stormwater drainage area and other factors. Sewer charges include stormwater charges in those cities where separate stormwater fees are assessed. Some cities use property tax revenue or other revenues to pay for the part of the cost of water, wastewater, or stormwater services
- (2) DC Water rate schedule was effective October 1, 2015. Whereas, charges for all cities reflect rate schedules in effect March 2016
- (3) DC Water PILOT and ROW fees are split between variable water charges and variable sewer charges
- (4) DC Water charges include the stormwater charges of the District
- (5) CSO/Stormwater charges may cover the cost of CSO abatement facilities in those cities with combined sewers; such charges can also cover the cost of stormwater-related facilities and services



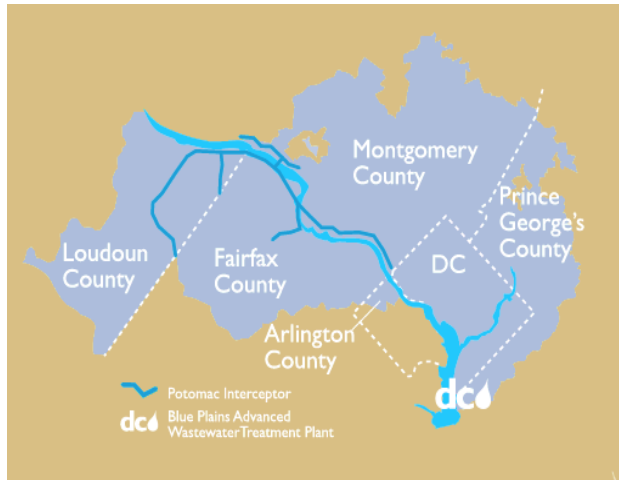
**APPROVED
BUDGETS**



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Section V
CAPITAL PROGRAMS

FY 2017 – FY 2026



DC Water Service Area



Blue Plains Advanced Wastewater Treatment Plant



Enhanced Nitrification

OVERVIEW

DC Water’s Capital Improvement Program (CIP) supports the continuation of major capital asset investment in programs and projects that will upgrade the District’s water distribution system, improve the condition of our local waterways and create clean energy. The CIP includes all mandated projects as well as rehabilitation of assets required to meet permit and other regulatory requirements and also all immediate needs necessary to maintain existing service levels.

DC Water presents its CIP on two different bases: 10-year disbursement plan and lifetime budget. Actual cash disbursements are critical to forecasting the anticipated level of rate increases and the amount and timing of capital financing. The 10-year disbursement plan provides a more realistic projection of actual “cash out the door” excluding contingencies but including historical and projected completion rates as well as in-house labor. The CIP review process also includes an extensive review of the total project, or “lifetime” budget, which reflects historical spending prior to, during, and beyond the current 10-year period, although excludes in-house labor. Lifetime budgets represent projects active during the 10-year period and are the primary area of focus in budget development and day-to-day monitoring. In addition to ‘Active’ projects, projects for which all activities have been completed during the previous fiscal year and are listed as ‘Closed’ are also included in the CIP. Closed projects are dropped from the CIP in the next fiscal year.

Detailed information on the projects can be found online at www.dewater.com

CIP DEVELOPMENT AND APPROVAL PROCESS

DC Water’s capital budget review process begins each year in the spring. This process includes a review of major accomplishments, priorities, status of major projects, and emerging regulatory and related issues impacting the capital program by the Department of Engineering & Technical Services. Projections of changes in project lifetime budgets are also included. The review process involves the DC Water departments with responsibility for managing the operations of DC Water services and capital projects as well as staff from Finance, Accounting and Budget and Executive Management. The CIP is integrated into DC Water’s 10-year financial plan; and is the primary driver of DC Water’s projected rate increases over the current 10-year planning period.

This review process spans over several months and culminates with the presentation of the updated CIP to DC Water’s Board of Directors’ Environmental Quality and Sewerage Services, Water Quality and Water Services, Finance and Budget and DC Retail Water and Sewer Rates Committees in November 2016. The operating budgets, capital improvement program, and 10-year financial plan was forwarded to the full Board for consideration and action in December.

After adoption by the Board of Directors, DC Water is required to submit its annual operating and capital budget to the Mayor and the District of Columbia Council for review and comment. However, neither has the power to change DC Water’s annual budgets. The District of Columbia includes DC Water’s budgets in their submission to Congress.

CAPITAL AUTHORITY REQUEST

Capital authority represents the amount of Congressionally-authorized funding that DC Water can use to administer its capital program. Sufficient authority is required to be in place prior to contracts being executed. Actual commitments within the eight service areas may vary up or down for a particular year. However, they are “not to exceed the total” FY 2018 – FY 2026 capital authority request in the amount of \$3.24 billion.

It should be noted that the execution of any contract requires the approval of General Manager, as Contracting Officer, or his delegee. Major projects and contracts valued at \$1 million or more require DC Water Board approval.

CAPITALIZATION POLICY

DC Water’s capitalization policy determines how expenditures will be recognized and accounted. DC Water matches the financing of an asset to the projected useful life of an item, the policy also determines how projects will be financed.

Definition:

- Capital Project – has an average life of 30 years and is financed with long term debt.
- Capital Equipment – has a life of at least 3 years, individual component cost of \$5,000 or more, and is financed with short-term debt or cash.

The following guidelines are used to categorize items as either capital equipment or an operating expense:

Expenditure Activity	Description	Accounting Treatment
Enhancement	Replacement of an asset, or addition/replacement of a sub-component of an asset, to improve the “attributes” of the asset.	Capitalize
Refurbishment	Expenditure on an asset that creates a material extension to the Estimated Operating Life (EOL) of the asset. It does not improve its attributes. This is distinct from maintenance work, which is carried out to ensure that an asset is able to perform its designated function for its normal EOL.	Capitalize
Replacement	Expenditure to replace substantially all of an asset.	Capitalize
Repair/Maintenance	Routine expense that neither extends the life of the asset nor increase its functionality.	Expense

Capital Improvement Program

FY 2017 – FY 2026 (10-Year) Disbursement Plan – projected annual cash disbursements; Lifetime Budget – total lifetime budget for projects active during 10-year period, \$ in thousands

	FY 2017 - FY 2026 Disbursement Plan										10-Yr Total	Lifetime Budget
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026		
NON PROCESS FACILITIES												
Facility Land Use	\$34,150	\$20,030	\$17,555	\$10,306	\$1,800	\$1,605	\$40	\$0	\$0	\$0	\$85,486	\$139,789
Subtotal	34,150	20,030	17,555	10,306	1,800	1,605	40	0	0	0	85,486	139,789
WASTEWATER TREATMENT												
Liquid Processing	16,152	24,883	52,941	43,931	24,215	34,226	39,622	49,838	45,391	45,980	377,180	1,275,084
Plantwide	11,313	14,562	17,562	32,116	22,815	26,977	29,470	18,351	22,831	13,761	209,758	477,349
Solids Processing	7,654	4,836	15,305	15,927	14,254	7,396	1,489	943	513	343	68,660	764,689
Enhanced Nitrogen Removal Facilities	88,670	54,141	5,533	4,010	983	7	1,300	916	11,101	22,446	189,107	1,034,493
Subtotal	123,789	98,423	91,341	95,985	62,266	68,605	71,882	70,049	79,836	82,530	844,706	3,551,615
COMBINED SEWER OVERFLOW												
DC Clean Rivers□	171,300	116,713	115,974	148,210	175,492	115,822	95,920	73,621	63,527	145,743	1,222,320	2,764,014
Program Management	3,827	5,355	3,943	1,376	2,760	4,098	4,409	3,019	1,829	0	30,615	64,563
Combined Sewer	9,260	8,407	8,239	16,901	8,349	6,010	8,105	10,262	5,210	6,468	87,211	324,451
Subtotal	184,387	130,475	128,156	166,486	186,601	125,929	108,433	86,902	70,566	152,211	1,340,146	3,153,028
STORMWATER												
Local Drainage	172	8	76	353	69	642	272	864	1,055	222	3,733	15,736
On-Going	424	572	644	599	618	760	734	762	466	534	6,113	12,408
Pumping Facilities	368	1,743	2,068	72	1,136	4,155	20	0	0	308	9,869	25,000
DDOT	16	19	12	0	0	0	0	0	0	0	48	3,237
Research and Program Management	270	238	182	64	123	179	207	163	129	0	1,554	12,013
Trunk/Force Sewers	456	102	1,070	109	0	0	0	0	0	0	1,737	15,597
Subtotal	1,706	2,682	4,053	1,196	1,946	5,736	1,233	1,789	1,649	1,064	23,055	83,991
SANITARY SEWER												
Collection Sewers	4,890	2,249	2,057	8,042	7,304	11,799	6,962	6,531	22,763	32,239	104,837	332,601
On-Going	11,838	11,645	10,896	9,630	10,411	10,204	10,704	11,107	11,455	6,210	104,100	194,633
Pumping Facilities	2,806	290	1,793	2,389	1,588	140	209	0	0	0	9,214	36,759
Program Management	8,755	11,917	9,184	4,738	4,902	6,915	7,227	6,640	5,228	1,810	67,316	135,791
Interceptor/Trunk Force Sewers	10,013	13,194	29,068	32,942	30,499	30,419	29,346	28,956	13,307	10,304	228,049	748,806
Subtotal	38,302	39,294	52,999	57,741	54,704	59,479	54,447	53,235	52,753	50,563	513,517	1,448,589
WATER												
Distribution Systems	30,148	28,847	40,047	32,416	28,660	36,427	44,699	52,312	58,953	59,424	411,932	1,116,878
Lead Program	1,050	720	1,345	1,820	2,063	2,321	2,537	2,536	2,964	1,112	18,468	208,940
On-Going	10,643	6,886	7,521	6,944	7,235	7,275	7,366	7,735	8,007	9,336	78,948	147,604
Pumping Facilities	2,598	1,958	3,395	7,761	3,173	664	1,627	7,579	1,365	0	30,120	177,881
DDOT	830	516	188	0	0	0	0	0	0	0	1,534	33,933
Storage Facilities	7,728	8,072	6,612	4,361	1,382	1,685	5,188	9,395	2,354	0	46,779	106,364
Program Management	5,823	4,739	5,040	3,801	6,021	6,286	4,095	4,186	4,572	7,043	51,606	101,203
Subtotal	58,819	51,738	64,149	57,102	48,534	54,658	65,512	83,744	78,217	76,915	639,387	1,892,803
CAPITAL PROJECTS												
	441,153	342,642	358,253	388,816	355,852	316,013	301,546	295,719	283,021	363,283	3,446,297	10,269,817
CAPITAL EQUIPMENT												
	54,949	32,897	26,043	26,551	8,780	8,780	8,780	8,780	8,780	8,780	193,119	193,119
WASHINGTON AQUEDUCT												
	10,896	11,768	10,547	11,840	13,911	10,932	11,041	10,969	10,787	9,516	112,207	112,207
ADDITIONAL CAPITAL PROGRAMS												
	65,845	44,665	36,590	38,391	22,690	19,712	19,821	19,748	19,567	18,296	305,326	305,326
LABOR												
												374,276
TOTAL CAPITAL BUDGETS												
	\$506,998	\$387,306	\$394,843	\$427,208	\$378,542	\$335,725	\$321,367	\$315,467	\$302,588	\$381,579	\$3,751,623	\$10,949,419



New Headquarters Building (HQO)



Green Roof in New Headquarters Building

FY 2017 - FY 2026 Disbursement Plan										Lifetime Budget	
FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	
\$34,150	\$20,030	\$17,555	\$10,306	\$1,800	\$1,605	\$40	\$0	\$0	\$0	\$85,486	\$139,789
											(\$ in thousands)

OVERVIEW

The Non-Process Facilities Service Area accommodates projects approved under the Non-Process Facilities Master Plan (NPFMP) and related improvements necessary to support DC Water activities and critical operations. The goals of this CIP are the same as those in the NPFMP, which are designed to:

- Optimize efficient use of existing DC Water land and facilities.
- Introduce state-of-the-art material management technologies that will enhance inventory security, inventory storage and distribution, transportation, and reduce duplication and inefficiencies of human resources.
- Implement Green Strategies and Sustainable Design within DC Water infrastructure and facility planning.
- Maximize flexibility throughout DC Water facilities for future treatment needs, distribution system operations, and innovative opportunities.

PROGRAM AREA

Facility Land Use – The primary objective of this service area is to implement the NPFMP. Projects that generally improve DC Water’s operations but do not per se represent a core process area within DC Water’s mission continue to be evaluated and reallocated as needed, into this category. Included in this program are:

- **New Headquarters Building (HQO)** – The DC Water Administrative Headquarters Building, located next to the historic Main Pumping Station, will be DC Water’s most sustainable construction project ever. The Headquarters will anchor DC Water’s new publicly-accessible campus along the Anacostia River. Currently, DC Water’s administrative offices are spread across the District of Columbia in multiple facilities, including leased space. By relocating nonessential personnel off of the Blue Plains industrial campus, DC Water will preserve what little remaining space exists – an irreplaceable commodity – for future process improvements if required by permit or desired for innovation.
- **Floatable Debris Dock Replacement** – This project was reallocated from the Combined Sewer Overflow Service Area, as there was an opportunity to blend the dock work with related facility and security improvements needed for staff and equipment. The existing docks are more than 25 years old and need to be replaced. The replacement slips (at least five) and associated new piles will allow flexibility and maneuverability of the boats, overcome the existing draft challenges of the river bottom, and most importantly, create safe conditions for the staff and their operations. Future improvements include the installation of a new boat ramp and updated fencing and lighting to further improve the efficiencies of skimmer boat operations.
- **Main & O Redevelopment Efforts** – This project relocates sewer and fleet operations from the Main & O Campus in order to accommodate the redevelopment plans for the District of Columbia in and around the Navy Yard. All cost associated with the acquisition of new land and construction of new facilities will be reimbursed to DC Water by the District of Columbia.

ACCOMPLISHMENTS

- DC Water successfully negotiated the Guaranteed Maximum Price (GMP) for the New Headquarters Building (HQO). The Board approved the construction contract with Skanska/Smith Group.

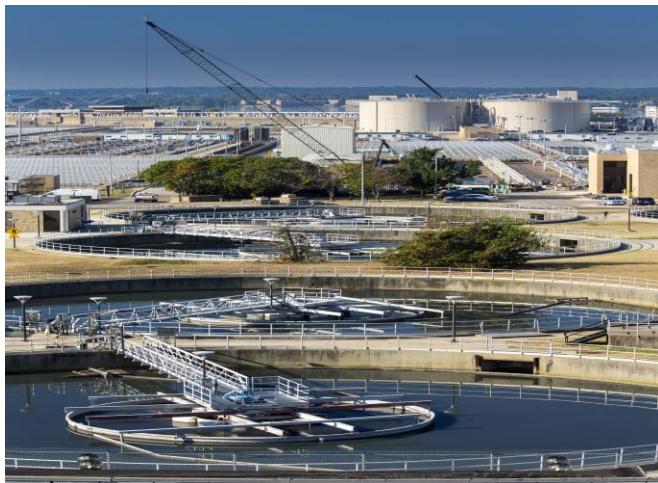
OPERATIONAL IMPACT OF MAJOR CAPITAL INVESTMENTS

New Headquarters Building (HQO) – This facility will anchor DC Water’s new publicly-accessible campus along the Anacostia River. By relocating nonessential personnel from the Blue Plains campus, the Authority will preserve all valuable remaining space at Blue Plains AWWTP for future process improvements. This new building will be LEED® Platinum Class A certified, and incorporate environmentally sustainable features that will be used to capture rainfall onsite for irrigation and non-potable water needs inside the facility. Additionally, alternative energy will be supplied by an innovative sewer heat recovery system that will lower operating cost. This project is anticipated to avoid renovation and expansion, including construction of a parking garage, at Blue Plains AWWTP.

Non Process Facilities

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

FACILITY LAND USE		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
HC	New Warehouse/Visitor/Security Facility	FY 2010	Closed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,374	FY 2016
DS	New Headquarters Building (HQO)	FY 2009	Active	32,697	16,838	586	549	136	0	0	0	0	0	50,806	76,100	FY 2021
DU	Water System Laboratory Facilities	FY 2007	Active	86	81	0	0	0	0	0	0	0	0	166	647	FY 2018
HE	Bryant Street Pump Station Building Mods	FY 2018	Active	0	831	1,376	7,865	1,048	0	0	0	0	0	11,119	14,370	FY 2021
HF	Fort Reno Pump Station - Field Ops Facility West	FY 2020	Active	0	0	0	187	571	1,585	26	0	0	0	2,369	3,150	FY 2023
HH	Main & O Redev. Efforts (FKA New Fleet Facility)	FY 2015	Active	426	1,143	6,296	0	0	0	0	0	0	0	7,864	11,500	FY 2019
HJ	COF Renovations	FY 2017	Active	746	712	8,109	1,140	0	0	0	0	0	0	10,706	12,904	FY 2020
HK	CMF Renovations and Consolidation	FY 2017	Active	19	20	936	565	46	20	15	0	0	0	1,620	1,750	FY 2023
NZ	Floatable Debris Dock Replacement	FY 2017	Active	176	406	254	0	0	0	0	0	0	0	836	995	FY 2019
TOTAL FACILITY LAND USE BUDGETS				\$34,150	\$20,030	\$17,555	\$10,306	\$1,800	\$1,605	\$40	\$0	\$0	\$0	\$85,486	\$139,789	
TOTAL NON PROCESS FACILITIES BUDGETS				\$34,150	\$20,030	\$17,555	\$10,306	\$1,800	\$1,605	\$40	\$0	\$0	\$0	\$85,486	\$139,789	



Blue Plains Advanced Wastewater Treatment Plant



Secondary Sedimentation



Nitrification Reactors

FY 2017 - FY 2026 Disbursement Plan										Lifetime Budget	
FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	
\$123,789	\$98,423	\$91,341	\$95,985	\$62,266	\$68,605	\$71,882	\$70,049	\$79,836	\$82,530	\$844,706	\$3,551,615

(\$ in thousands)

OVERVIEW

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 National Pollutant Discharge Elimination System (NPDES) permit requirements and produce a consistent, high-quality dewatered solids product. DC Water’s current NPDES permit is effective from September 30, 2010 through September 30, 2015, and remains in effect while a new permit for the next five years is negotiated. This permit requires wastewater treatment to a level that meets one of the most stringent NPDES discharge permits in the United States. The Blue Plains Enhanced Nitrogen Removal Facilities Program, which provides for projects necessary to meet the stringent total nitrogen discharge limit in the NPDES permit, comprise a significant portion of the projects within the Wastewater Treatment Service Area.

PROGRAM AREAS

Liquid Processing – 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 and ultimately discharge the treated effluents into the Potomac River.

Plantwide – This program provides for upgrading, rehabilitating, or installing support systems and facilities that are required for both the liquid processing and solids processing programs.

Solids Processing – 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 sludge produced by the secondary and nitrification/denitrification processes, dewatering by centrifuge and lime stabilization.

Enhanced Nitrogen Removal Facilities – Provides for new facilities and upgrades to existing facilities needed at Blue Plains to meet the total nitrogen discharge limit assigned to DC Water. The necessary facilities have been completed and are in service. DC Water is fully compliant in meeting the reduced total nitrogen discharge limit, effective January 1, 2015.

ACCOMPLISHMENTS

- Enhanced Nitrogen Removal Facility – The project provided limit of technology treatment for nitrogen removal they have been substantially completed. The total annual nitrogen discharge from Blue Plains is below the stringent NPDES permit limit and monthly concentrations have been consistently low since the new facilities went on-line.
- Enhanced Nitrogen Removal Facility North – This project improved the performance of the secondary treatment facilities by providing limited nitrogen removal and more consistent quality for the downstream denitrification processes. Construction was 90 percent complete as of September 2016.
- Filtrate Treatment Facility – This side-stream treatment project will utilize anammox bacteria to remove nitrogen from the filtrate, from the belt filter press facility resulting in savings in electrical power and methanol addition, which are otherwise necessary when the filtrate is processed through the plant.
- Tunnel Dewatering Pumping Station (TDPS) – The project being designed and built in conjunction with the Enhanced Clarification Facility (ECF) will pump out the Blue Plains Tunnel at a rate up to 225 MGD for processing through ECF or the Blue Plains plant mainstream as required by permit. The design-build contract is 39 percent complete as of September 2016 and is scheduled to be operational by March 23, 2018, along with ECF.
- Enhanced Clarification Facility – The project provides facilities to treat up to 225 MGD of flow from the station in excess of the capacity of the Blue Plains mainstream flow. The design-build contract is 39 percent complete as of September 2016 and is scheduled to be operational by March 23, 2018 along with the pumping station (TDPS).
- Raw Wastewater Pumping Station 2 – The pumping station delivers wastewater from the wastewater collection system to the east preliminary treatment processes at Blue Plains. This project updates aging electrical equipment, both replacing equipment that is beyond its useful life and relocating sensitive electronic equipment to a less corrosive environment to reduce the rate of deterioration of the equipment. The construction contract was issued in September 2016 and is scheduled to be complete by May 2019.

OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS

Biosolids Management Program – The Walter F. Bailey Bioenergy Facility, which is now operational, significantly reduces DC Water’s carbon footprint. The innovative CAMBI® thermal hydrolysis process uses intense heat and pressure to treat wastewater solids producing a much cleaner biosolid and onsite generation of up to one third of Blue Plains’ electricity needs. This process has resulted in operational efficiencies in electricity, biosolids hauling and chemicals costs.

Tunnel De-watering Pumping Station (TDPS) / Enhanced Clarification Facility (ECF) – This facility will de-water the new tunnels being constructed by the DC Clean Rivers program. It will evacuate the stormwater gathered by tunnels. The TDPS will deliver the stormwater to the ECF, for treatment anticipated to be completed by the end of FY 2018.

Filtrate Treatment Facility (FTF) – Also known as Centrate Treatment Facility, FTF is part of the Total Nitrogen Removal Wet Weather plan. The project assists in nitrogen removal from the water processed. This new facility uses six sequencing batch reactors to treat a nitrogen-rich stream from the Final Dewatering Facility’s belt filter presses. The de-ammonification process represents a major breakthrough in nitrogen removal, which lowers the use of methanol. It also has approximately 60 percent lower energy demand than the mainstream treatment and lowers greenhouse gas (GHG) emissions.

Wastewater Treatment

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

LIQUID PROCESSING		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
TO	Secondary Treatment Fac	FY 1998	Closed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$70,303	FY 2016
A2	Liquid Processing Program Management	FY 2001	Active	2,768	1,962	1,265	1,808	2,254	1,938	4,014	5,605	4,960	3,120	29,693	49,579	FY 2027
BG	Dual Purpose Rehabilitation	FY 2009	Active	2,942	494	1,714	675	0	0	0	0	0	0	5,826	32,208	FY 2020
BP	Grit Chamber Facilities Ph II	FY 2017	Active	26	79	106	55	29	0	0	0	0	0	295	397	FY 2021
BQ	Primary Treatment Facilities Ph II	FY 2017	Active	185	1,742	2,306	12,893	7,159	604	2,514	571	0	0	27,974	39,036	FY 2024
BR	Nitrification/Denitrification Fac	FY 2006	Active	1,986	2,256	1,781	643	1,014	685	247	0	0	0	8,613	53,693	FY 2023
BT	Filtration/Disinfection Fac Ph II	FY 2008	Active	323	251	109	488	1,719	362	0	0	0	0	3,253	24,967	FY 2022
BV	RVVWPS No. 2 Upgrades	FY 2013	Active	5,353	7,539	2,965	202	3	0	0	0	0	0	16,063	42,696	FY 2021
DA	DWT Research / Pilot Projects	FY 2006	Active	0	0	0	0	0	0	0	0	0	0	0	4,114	FY 2017
IX	Headworks Hvac Rehab	FY 2013	Active	0	0	0	0	0	0	0	0	0	0	0	518	FY 2021
IY	Effluent Filter Upgrade	FY 2017	Active	517	1,700	11,075	4,067	2,585	8,594	4,673	5,016	4,883	10,474	53,584	152,204	FY 2030
IZ	Replace/Upgrade Influent Screens	FY 2016	Active	527	5,937	4,051	578	566	156	1,441	2,016	2,220	8,476	25,968	82,148	FY 2032
J2	Replace/Upgrade Primary Treatment Mech.	FY 2017	Active	26	83	7,647	316	317	858	493	158	0	0	9,899	18,750	FY 2031
J6	Deammonification Project	FY 2013	Active	0	0	18	211	1,176	1,190	235	34	0	0	2,864	3,493	FY 2024
LC	Effluent Disinfection Upgrades	FY 2026	Active	0	0	0	0	0	0	0	0	0	1	1	8,011	FY 2033
OZ	Grit Chambers I&2 Upgrades	FY 2017	Active	269	828	2,761	6,845	1,824	0	0	0	0	0	12,528	18,500	FY 2021
PD	Secondary East & West Upgrades	FY 2016	Active	242	467	89	0	203	2,679	4,094	1,181	0	0	8,955	10,200	FY 2024
PE	Nitrification Reactor/Sediment Upgrades	FY 2017	Active	25	374	2,112	644	2,166	2,572	0	0	0	0	7,892	10,950	FY 2022
TF	Grit Chamber Bldg I&2	FY 1996	Active	0	0	0	0	0	0	0	0	0	0	0	71,046	FY 2017
UC	Filtration/Disinfection Fac	FY 2000	Active	837	428	12,212	13,424	678	43	0	0	0	0	27,621	101,815	FY 2022
UD	Raw Water Pump Stations I&2	FY 1999	Active	0	0	0	0	0	0	0	0	0	0	0	15,838	FY 2017
B6	Primary Sedimentation Tank Covers	FY 2018	New	0	441	766	110	6	1,865	1,819	14,542	16,535	675	36,759	43,598	FY 2027
B7	Primary Sedimentation Tank Odor Scrubblers	FY 2024	New	0	0	0	0	0	0	0	689	106	1,795	2,589	45,870	FY 2032
BC	Headworks Influent Structures	FY 2017	New	127	304	1,964	970	0	0	0	0	0	0	3,364	5,050	FY 2020
I4	Grit Removal Facilities - 20 Year Rebuild	FY 2026	New	0	0	0	0	0	0	0	0	0	1,997	1,997	52,500	FY 2031
I5	Raw Water Pump Stations I&2 - 20 Year Rebuild	FY 2021	New	0	0	0	0	1,426	5,916	5,957	6,002	6,032	967	26,301	29,000	FY 2026
I7	Primary Treatment - 20 Year Rebuild	FY 2021	New	0	0	0	0	1,088	6,763	14,135	14,018	6,615	4,481	47,100	54,600	FY 2026
JC	Secondary East And West - 20 Year Rebuild	FY 2025	New	0	0	0	0	0	0	0	0	514	5,588	6,103	96,000	FY 2032
LF	Nitrification Reactor/Sediment - 20 Year Rebuild	FY 2024	New	0	0	0	0	0	0	0	8	3,526	8,405	11,938	138,000	FY 2033
TOTAL LIQUID PROCESSING BUDGETS				\$16,152	\$24,883	\$52,941	\$43,931	\$24,215	\$34,226	\$39,622	\$49,838	\$45,391	\$45,980	\$377,180	\$1,275,084	

Wastewater Treatment

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

PLANTWIDE		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
DP	Chemical Building Enhancements	FY 2008	Closed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,591	FY 2016
AL	Plantwide Project Program Management	FY 2001	Active	1,782	1,942	767	7,134	3,565	2,312	2,178	2,194	2,205	1,387	25,464	43,552	FY 2027
AZ	COF Renovations	FY 2002	Active	191	194	214	244	99	0	0	0	0	0	943	17,690	FY 2021
BY	Additional Chemical Systems Ph III	FY 2021	Active	0	0	0	0	100	399	795	856	517	404	3,071	3,822	FY 2026
CH	Misc Facility Projects	FY 2004	Active	60	37	41	47	19	0	0	0	0	0	203	8,037	FY 2021
CV	Laboratory Upgrades	FY 2006	Active	1	2	3	2	1	0	0	0	0	0	8	8,510	FY 2021
CW	Security At Blue Plains	FY 2005	Active	399	1,411	402	458	232	0	0	0	0	0	2,903	6,117	FY 2021
DQ	Non-OEM PLC Interfaces/Replacements	FY 2009	Active	75	0	0	0	0	0	0	0	0	0	75	2,133	FY 2017
EI	Plantwide Painting of Steel Pipes	FY 2012	Active	0	0	0	0	1,357	1,462	1,472	20	0	0	4,311	4,960	FY 2024
EN	WWTP - Central Fire Alarm System	FY 2008	Active	0	0	0	0	0	0	0	0	0	0	0	3,092	FY 2017
GP	I & C & Elec - EPMC	FY 2009	Active	983	1,033	409	0	0	0	0	0	0	0	2,425	7,226	FY 2019
GW	Control Systems Replacement	FY 2021	Active	0	0	0	0	763	654	814	3,715	10,097	9,032	25,075	37,000	FY 2028
HL	DWT - Process and Operations Jobs	FY 2011	Active	446	528	683	271	1,111	0	0	0	0	0	3,038	7,106	FY 2021
HU	Blue Plains Logistics	FY 2011	Active	411	45	61	34	18	0	0	0	0	0	568	6,942	FY 2021
IC	Electrical Monitoring Systems	FY 2015	Active	0	256	1,561	2,433	154	0	0	0	0	0	4,404	7,250	FY 2021
IV	Blue Plains IT Backbone FOC Tubes	FY 2016	Active	977	652	343	1,555	0	0	0	0	0	0	3,527	5,475	FY 2020
JF	Construction of Flood Seawall	FY 2018	Active	0	59	0	0	0	244	975	3,489	5,633	866	11,267	13,234	FY 2028
JY	IT - Data Center	FY 2010	Active	13	3	4	4	2	0	0	0	0	0	26	2,397	FY 2021
LP	Wastewater Asset Mngmt Tech Support	FY 2013	Active	1,386	1,055	0	0	0	0	0	0	0	0	2,441	10,000	FY 2018
LS	Misc. Facilities Projects FY2013	FY 2013	Active	1,578	903	667	839	297	0	0	0	0	0	4,285	8,188	FY 2021
LX	Process Control System Upgrade	FY 2018	Active	0	233	0	0	1,547	1,604	2	0	0	0	3,386	4,000	FY 2023
OD	Plantwide Paving	FY 2015	Active	136	138	921	954	768	751	757	762	766	182	6,136	7,990	FY 2026
OE	Plantwide Drainage & Runoff	FY 2016	Active	404	1,255	1,218	584	245	225	227	229	230	55	4,672	7,151	FY 2026
OF	Process & Service Water Rehabilitation	FY 2018	Active	0	0	589	1,903	497	0	0	0	0	0	2,990	3,950	FY 2021
OG	City Water & Sewer Upgrades at WWTP	FY 2020	Active	0	0	0	1	535	551	0	0	0	0	1,087	1,250	FY 2022
OH	Plantwide Demolition	FY 2021	Active	0	0	0	0	2,418	4,821	2,016	599	0	0	9,854	11,100	FY 2024
OI	Plantwide Painting & Signage	FY 2022	Active	0	0	0	0	0	104	258	46	0	0	409	450	FY 2024
OK	Plantwide H2S Mitigation	FY 2021	Active	0	0	0	0	1	327	840	1,514	1,977	1,536	6,195	10,000	FY 2029
OM	Plantwide Hot Water System/ Loop Rehab	FY 2017	Active	24	386	1,212	832	467	728	1,111	563	189	0	5,512	7,650	FY 2025
ON	Plantwide Grounding Upgrades	FY 2018	Active	0	61	243	768	905	1,615	899	12	0	0	4,502	5,500	FY 2024
OP	Plantwide Sump Pump Rehabilitation	FY 2023	Active	0	0	0	0	0	0	0	105	317	299	721	1,000	FY 2028
OQ	Plantwide Roofing Upgrades	FY 2020	Active	0	0	0	0	1,160	2,760	2,767	1,483	819	0	8,989	10,000	FY 2025
OS	Plantwide Lighting Upgrades	FY 2017	Active	0	291	944	649	266	0	0	0	0	0	2,151	3,000	FY 2021

Wastewater Treatment

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

PLANTWIDE, CONT.		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
PF	Chemical System/Building Upgrades	FY 2015	Active	\$1,380	\$1,374	\$2,388	\$4,283	\$3,649	\$1,643	\$46	\$0	\$0	\$0	\$14,763	\$22,500	FY 2023
TA	Process Computer Control System	FY 1997	Active	25	0	0	0	0	0	0	0	0	0	25	65,281	FY 2017
TZ	Elec Power System - Switch Gear	FY 2001	Active	674	1,148	3,524	7,601	1,573	5,955	13,645	2,433	0	0	36,554	59,399	FY 2024
YD	Miscellaneous Projects	FY 1999	Active	368	337	1,002	1,522	1,065	820	668	330	83	0	6,194	50,306	FY 2025
IU	Solar Photovoltaic System	FY 2017	New	1	1,218	366	0	0	0	0	0	0	0	1,585	2,500	FY 2019
TOTAL PLANTWIDE BUDGETS				\$11,313	\$14,562	\$17,562	\$32,116	\$22,815	\$26,977	\$29,470	\$18,351	\$22,831	\$13,761	\$209,758	\$477,349	
SOLIDS PROCESSING		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
AM	Solids Processing Program Management	FY 2001	Active	\$573	\$509	\$328	\$884	\$1,399	\$952	\$320	\$496	\$513	\$343	\$6,316	\$16,063	FY 2027
BX	Gravity Thickener Upgrades Ph II	FY 2010	Active	621	2,068	8,067	10,517	5,905	1,898	0	0	0	0	29,075	70,840	FY 2036
EV	Area Substation No. 6	FY 2008	Active	5	0	0	0	0	0	0	0	0	0	5	22,074	FY 2017
I2	Biosolids Loadout Crane Rehabilitation	FY 2011	Active	0	0	0	0	0	0	0	0	0	0	0	3,596	FY 2016
I3	Biosolids Blending Development Center	FY 2015	Active	69	70	77	79	770	391	0	0	0	0	1,456	2,500	FY 2022
LD	Pre-Dewatering Additional Centrifuges	FY 2019	Active	0	0	421	1,111	5,086	219	0	0	0	0	6,837	10,156	FY 2022
LE	High Strength Waste Receiving Facility	FY 2020	Active	0	0	0	194	500	2,917	432	0	0	0	4,043	6,008	FY 2023
XA	New Digestion Facilities	FY 1999	Active	6,352	627	3,766	0	0	0	0	0	0	0	10,744	553,859	FY 2019
XB	Centrifuge Thickener Facility	FY 1999	Active	30	0	0	0	0	0	0	0	0	0	30	48,670	FY 2017
XZ	Solids Processing Building / DSLF	FY 1999	Active	4	1,563	2,646	3,142	594	1,020	738	447	0	0	10,154	28,690	FY 2024
YZ	Digestion Facilities Site Preparation	FY 1999	Active	0	0	0	0	0	0	0	0	0	0	0	2,234	FY 2017
TOTAL SOLIDS PROCESSING BUDGETS				\$7,654	\$4,836	\$15,305	\$15,927	\$14,254	\$7,396	\$1,489	\$943	\$513	\$343	\$68,660	\$764,689	
ENHANCED NITROGEN REMOVAL		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
BI	Enhanced Nitrogen Removal North	FY 2008	Active	\$6,499	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,499	\$75,472	FY 2017
E8	Enhanced Clarification Facilities	FY 2009	Active	37,369	30,196	400	64	33	0	0	0	0	0	68,062	216,424	FY 2021
E9	Nitrogen Removal Facilities	FY 2008	Active	330	7	4	2	1	0	0	0	0	0	343	271,457	FY 2021
EE	Filtrate Treatment Facilities	FY 2009	Active	15,862	2,667	348	145	1	0	0	0	0	0	19,024	106,345	FY 2021
EG	Blue Plains Tunnel	FY 2008	Active	715	138	1	0	0	0	0	0	0	0	854	177,380	FY 2019
FG	Secondary Treatment Upgrades For TN	FY 2013	Active	392	0	0	0	0	7	1,300	916	11,101	22,446	36,163	57,142	FY 2029
FR	BP Tunnel Dewatering Pumping Sta	FY 2010	Active	7,471	5,013	188	0	0	0	0	0	0	0	12,671	33,487	FY 2019
FS	Bolling Overflow & Diversion	FY 2010	Active	13,481	5,382	0	0	0	0	0	0	0	0	18,862	53,405	FY 2018
LM	ENR Program Management	FY 2013	Active	6,552	10,738	4,592	3,799	948	0	0	0	0	0	26,629	43,381	FY 2021
TOTAL ENHANCED NITROGEN REMOVAL BUDGETS				\$88,670	\$54,141	\$5,533	\$4,010	\$983	\$7	\$1,300	\$916	\$11,101	\$22,446	\$189,107	\$1,034,493	
TOTAL WASTEWATER TREATMENT BUDGETS				\$123,789	\$98,423	\$91,341	\$95,985	\$62,266	\$68,605	\$71,882	\$70,049	\$79,836	\$82,530	\$844,706	\$3,551,615	



Anacostia River Tunnel Boring Machine, Nannie



First Street Tunnel



Combined Sewer Overflow Outfall

FY 2017 - FY 2026 Disbursement Plan

FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime Budget
\$184,387	\$130,475	\$128,156	\$166,486	\$186,601	\$125,929	\$108,433	\$86,902	\$70,566	\$152,211	\$1,340,146	\$3,153,028

(\$ in thousands)

OVERVIEW

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 Advanced 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 47 active CSO outfalls in the District.

DC Water has continued to implement its CSO Long Term Control Plan (LTCP), called the DC Clean Rivers Project, to reduce CSO's that discharge to the Anacostia and Potomac Rivers, as well as Rock Creek. DC Water obtained an amendment to the CSO Consent Decree in January of 2016 which will allow DC Water to include Green Infrastructure and extend the completion milestone to 2030. When fully implemented, CSO's will be reduced by a projected 96 percent during an average year (98 percent on the Anacostia River) resulting in improved water quality and significantly reduce debris on our national capital's waterways.

PROGRAM AREAS

DC Clean Rivers – The plan includes a variety of improvements throughout the District. The backbone of the plan includes constructing the Anacostia River Tunnel System to control CSO's to the Anacostia River and to relieve surface flooding, a tunnel dewatering pumping station and increased excess flow treatment during wet weather events with system completion in 2025. In addition, the amended plan includes constructing green infrastructure in large scale and a tunnel system to control Potomac River overflows with project completion in 2030. Green infrastructure will also be constructed to control CSOs to Piney Branch/Rock Creek with the first project scheduled to be completed in 2019.

Program Management – The CSO Program Manager provides program management services for DC Clean Rivers activities both at Blue Plains and in all areas in the District. The Program Manager is responsible for evaluation of combined sewer systems, as well as management for tunnel system design, sewer pumping station replacement and other sewer infrastructure projects.

Combined Sewer – Projects within the Combined Sewer Program Area include rehabilitation and/or relocation of combined sewers, control of wet weather related pollution, and upgrades to pumping stations. Most projects in this Program Area are related to the Nine Minimum Controls and include planned upgrades to facilities based on our long term facilities plan.

ACCOMPLISHMENTS

- Completed mining the First Street Tunnel, which will reduce flooding in the Bloomingdale neighborhood of the District of Columbia.
- Completed design and issued documents for the procurement of the Northeast Boundary Tunnel, the final segment of the Anacostia River Tunnel System
- Completed conceptual design and issued documents for the procurement of the first Rock Creek Green Infrastructure project.
- Continued mining activities to construct the Anacostia River Tunnel, over 80 percent completed.
- Inspection and assessment of major combined sewer assets continued in FY 2016.
 - B Street/NJ Avenue Trunk Sewer was inspected, assessed, and design commenced for construction implementation in mid-2018.
 - Tiber Creek Trunk Sewer was also inspected and assessed with design commencing next year.

OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS

DC Clean Rivers – This project aims to nearly eliminate CSO's to the Anacostia and Potomac Rivers and Rock Creek, while improving the health of the Chesapeake Bay. This ongoing project is currently employing green infrastructure initiatives that will divert enriched water to the Blue Plains AWWTP for cleaning and processing. The tunnels have been completed between Blue Plains and Main & O Pumping Stations. The Anacostia River Tunnel is over 80 percent complete.

Combined Sewer Overflow

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

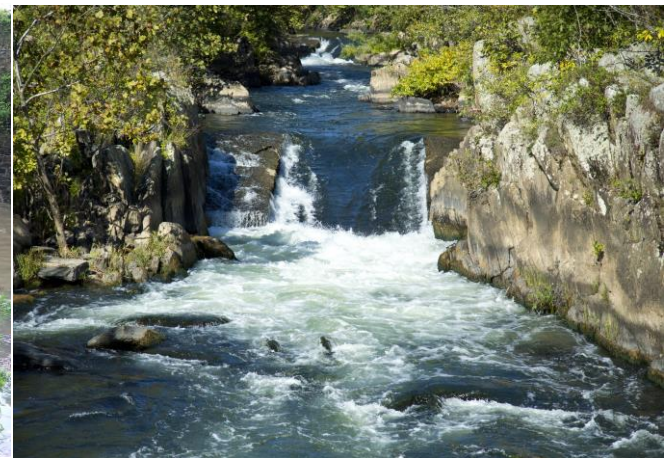
DC CLEAN RIVERS		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
CY	Anacostia LTCP Projects	FY 2005	Active	\$141,949	\$76,888	\$105,731	\$148,210	\$161,495	\$73,297	\$44,791	\$3,104	\$3,485	\$632	\$759,581	\$1,910,975	FY 2026
CZ	Potomac LTCP Projects	FY 2010	Active	22,439	31,832	6,927	0	13,996	26,823	28,136	64,760	46,866	120,590	362,370	614,100	FY 2029
DZ	Rock Creek CSS LTCP Project	FY 2010	Active	6,912	7,992	3,316	0	0	15,701	22,992	5,757	13,176	24,521	100,368	238,939	FY 2030
TOTAL DC CLEAN RIVERS BUDGETS				\$171,300	\$116,713	\$115,974	\$148,210	\$175,492	\$115,822	\$95,920	\$73,621	\$63,527	\$145,743	\$1,222,320	\$2,764,014	
PROGRAM MANAGEMENT		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
AV	CSO Program Management	FY 2001	Active	\$3,827	\$5,355	\$3,943	\$1,376	\$2,760	\$4,098	\$4,409	\$3,019	\$1,829	\$0	\$30,615	\$64,563	FY 2025
TOTAL PROGRAM MANAGEMENT BUDGETS				\$3,827	\$5,355	\$3,943	\$1,376	\$2,760	\$4,098	\$4,409	\$3,019	\$1,829	\$0	\$30,615	\$64,563	
COMBINED SEWER		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
A7	Supplemental Environmental Projects	FY 2005	Closed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,900	FY 2015
DD	O Street Development Effort	FY 2006	Closed	0	0	0	0	0	0	0	0	0	0	0	185	FY 2016
BA	DC Water Low Impact Development	FY 2002	Active	114	58	10	0	0	0	0	0	0	0	182	2,935	FY 2019
BH	Rock Creek CSO Projects	FY 2004	Active	0	0	0	0	0	0	0	0	0	0	0	16,670	FY 2017
EJ	Potomac Pumping Station Ph III Rehab	FY 2010	Active	2,222	1,185	0	0	0	0	0	0	0	0	3,407	22,784	FY 2018
EK	Long Term Rehab-Main & O Pump Sta	FY 2021	Active	0	0	0	0	19	52	2,046	6,245	3,537	2,592	14,492	55,644	FY 2030
EL	Swirl Facility Rehabilitation	FY 2008	Active	146	186	0	0	0	0	0	0	0	0	332	4,570	FY 2018
EQ	Potomac Pumping Station Ph IV Rehab	FY 2019	Active	0	0	45	86	1,372	0	0	0	0	0	1,503	2,325	FY 2021
FQ	Main & O St. PS Intermediate Upgrade	FY 2010	Active	4,357	6,289	4,877	3,565	2,571	1,360	0	0	0	0	23,019	46,185	FY 2022
FX	Rehab Northeast Boundary Sewer Ph I	FY 2015	Active	985	9	18	581	472	4,157	5,204	98	37	27	11,588	18,500	FY 2029
FZ	Tiber Creek Sewer Lining Ph I	FY 2017	Active	587	650	2,076	5,953	1,358	0	0	0	0	0	10,624	17,113	FY 2021
G7	Combined Sewers Under Buildings	FY 2010	Active	803	31	1,029	3,675	0	0	0	0	0	0	5,537	15,981	FY 2020
IH	Combined Sewer Rehabilitation 2	FY 2013	Active	46	0	184	3,041	2,557	0	0	0	0	0	5,828	24,833	FY 2021
IP	Tiber Creek Trunk Sewer Rehabilitation	FY 2022	Active	0	0	0	0	0	442	855	3,782	1,246	0	6,324	8,250	FY 2025
KI	Main & O St. Pump Stations	FY 1999	Active	0	0	0	0	0	0	0	0	0	0	0	79,901	FY 2017
OB	Inflatable Dams Replacement FY24	FY 2024	Active	0	0	0	0	0	0	0	137	390	3,849	4,375	6,675	FY 2027
TOTAL COMBINED SEWER BUDGETS				\$9,260	\$8,407	\$8,239	\$16,901	\$8,349	\$6,010	\$8,105	\$10,262	\$5,210	\$6,468	\$87,211	\$324,451	
TOTAL COMBINED SEWER OVERFLOW BUDGETS				\$184,387	\$130,475	\$128,156	\$166,486	\$186,601	\$125,929	\$108,433	\$86,902	\$70,566	\$152,211	\$1,340,146	\$3,153,028	



City Street Catch Basin



Stormwater Overflow



Potomac River

FY 2017 - FY 2026 Disbursement Plan											Lifetime Budget
FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	
\$1,706	\$2,682	\$4,053	\$1,196	\$1,946	\$5,736	\$1,233	\$1,789	\$1,649	\$1,064	\$23,055	\$83,991

(\$ in thousands)

OVERVIEW

Stormwater is the water generated by rain or melted snow on “impervious surfaces” or surfaces that do not allow the water to soak into the ground (such as roads, driveways, sidewalks, parking lots, and buildings). Stormwater runoff occurs when rain or snowmelt flows over these impervious surfaces.

Stormwater can pick up trash, excess nutrients (such as nitrogen and phosphorus), sediment and other pollutants that flow into the storm sewer system or directly to a lake, stream, river, or wetland. Untreated stormwater runoff ends up in the waterbodies we use for swimming, fishing and drinking water. Polluted stormwater runoff can have many adverse effects on plants, fish, animals and people. For example, trash can clog waterbodies, nutrients can cause algae blooms, and sediment impacts aquatic life.

The District’s Municipal Separate Storm Sewer System (MS4), 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. DC Water is responsible for the maintenance and replacement of the publicly-owned collection and conveyance facilities that transport stormwater runoff to the Anacostia and Potomac Rivers, Rock Creek, and other receiving streams within the District of Columbia.

PROGRAM AREAS

Local Drainage – Includes projects for the investigation, design and repair of the Northwest Boundary Interceptor Sewer (over eight foot in diameter) which has shown signs of structural defects during prior inspections.

On-Going – This was created as an annual program for planned projects by the Department of Sewer Services infrastructure improvements. Job numbers are issued to identify the location of the projects. These projects represent a significant effort to maintain the DC Water Sewer infrastructure.

Pumping Facilities – Rehabilitation of twelve of the sixteen stormwater pumping stations that were not upgraded in the last five years. These stations are aging and require new mechanical and electrical equipment to maintain operations. These facilities, a part of DC Water overall Sewer infrastructure are significant assets which require regular upgrades for efficient operation.

DDOT – The annual program of stormwater infrastructure projects are coordinated with street rehabilitation or other construction work performed by the District of Columbia Department of Transportation. In an effort to ease public disruption and save paving costs, DC Water coordinates its activities with those by the District Department of Transportation.

Research and Program Management – Provides engineering program management services for the stormwater service area capital projects and design management services for the rehabilitation or replacement of fifteen 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.

Trunk/Force Sewers – Provides for the 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.

ACCOMPLISHMENTS

- Five projects for the rehabilitation and improvement of the storm sewer system, were completed and closed in the past fiscal year.
- FEMA grants for permanent generators at five pumping stations, and rehabilitation and flood proofing of one of these pumping station was received with construction of these improvements commencing in FY 2018.

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

LOCAL DRAINAGE		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
A6	Lining 22nd & P Sts. NW/NVBSO Repair	FY 2001	Active	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,040	FY 2015
GY	Storm Sewer Rehab Various Location	FY 2013	Active	172	8	76	343	0	0	0	0	0	0	599	5,680	FY 2020
IE	Storm Sewer Rehabilitation 3	FY 2020	Active	0	0	0	10	69	642	272	864	1,055	222	3,134	7,017	FY 2026
TOTAL LOCAL DRAINAGE BUDGETS				\$172	\$8	\$76	\$353	\$69	\$642	\$272	\$864	\$1,055	\$222	\$3,733	\$15,736	

ON-GOING		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
C6	FY2006 - DSS Stormwater Projects	FY 2005	Closed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$497	FY 2007
AO	FY2009 - DSS Stormwater Projects	FY 2009	Closed	0	0	0	0	0	0	0	0	0	0	0	497	FY 2010
CD	FY2012 - DSS Stormwater Projects	FY 2011	Closed	0	0	0	0	0	0	0	0	0	0	0	630	FY 2016
D7	FY2014 - DSS Stormwater Projects	FY 2014	Closed	0	0	0	0	0	0	0	0	0	0	0	680	FY 2016
DJ	FY2015 - DSS Stormwater Projects	FY 2015	Closed	0	0	0	0	0	0	0	0	0	0	0	701	FY 2016
BD	FY2011 - DSS Stormwater Projects	FY 2011	Active	0	0	0	0	0	0	0	0	0	0	0	618	FY 2014
CN	FY2013 - DSS Stormwater Projects	FY 2013	Active	45	0	0	0	0	0	0	0	0	0	45	660	FY 2017
DX	FY2016 - DSS Stormwater Projects	FY 2016	Active	75	25	0	0	0	0	0	0	0	0	100	720	FY 2018
FN	FY2017 - DSS Stormwater Projects	FY 2017	Active	304	234	0	0	0	0	0	0	0	0	538	745	FY 2018
H5	FY2018 - DSS Stormwater Projects	FY 2018	Active	0	313	270	0	0	0	0	0	0	0	583	770	FY 2019
HM	FY2019 - DSS Stormwater Projects	FY 2019	Active	0	0	375	228	0	0	0	0	0	0	603	794	FY 2020
JH	FY2020 - DSS Stormwater Projects	FY 2020	Active	0	0	0	370	237	0	0	0	0	0	607	820	FY 2021
LO	FY2021 - DSS Stormwater Projects	FY 2021	Active	0	0	0	0	381	249	0	0	0	0	631	845	FY 2022
M8	FY2022 - DSS Stormwater Projects	FY 2022	Active	0	0	0	0	0	510	204	0	0	0	715	820	FY 2023
MG	FY2023 - DSS Stormwater Projects	FY 2023	Active	0	0	0	0	0	0	529	212	0	0	741	845	FY 2024
NV	FY2024 - DSS Stormwater Projects	FY 2024	Active	0	0	0	0	0	0	0	551	217	0	768	870	FY 2025
PI	FY2025 - DSS Stormwater Projects	FY 2025	Active	0	0	0	0	0	0	0	0	249	534	783	896	FY 2026
TOTAL ON-GOING BUDGETS				\$424	\$572	\$644	\$599	\$618	\$760	\$734	\$762	\$466	\$534	\$6,113	\$12,408	

PUMPING FACILITIES		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
NG	Stormwater Pump Stations Rehabilitation	FY 2017	Active	\$368	\$1,743	\$2,068	\$72	\$1,136	\$4,155	\$20	\$0	\$0	\$308	\$9,869	\$25,000	FY 2028
TOTAL PUMPING FACILITIES BUDGETS				\$368	\$1,743	\$2,068	\$72	\$1,136	\$4,155	\$20	\$0	\$0	\$308	\$9,869	\$25,000	

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousand

DDOT	Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
P5	FY2004 - DDOT Stormwater Projects	FY 2004	Active	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20	FY 2016
P8	FY2007 - DDOT Stormwater Projects	FY 2015	Active	0	0	0	0	0	0	0	0	0	0	155	FY 2016
P9	FY2008 - DDOT Stormwater Projects	FY 2015	Active	0	0	0	0	0	0	0	0	0	0	1,000	FY 2016
AR	FY2009 - DDOT Stormwater Projects	FY 2015	Active	0	0	0	0	0	0	0	0	0	0	160	FY 2015
B3	FY2010 - DDOT Stormwater Projects	FY 2015	Active	0	0	0	0	0	0	0	0	0	0	165	FY 2015
BM	FY2011 - DDOT Stormwater Projects	FY 2015	Active	0	0	0	0	0	0	0	0	0	0	170	FY 2015
CB	FY2012 - DDOT Stormwater Projects	FY 2015	Active	8	0	0	0	0	0	0	0	0	8	175	FY 2017
CL	FY2013 - DDOT Stormwater Projects	FY 2017	Active	2	8	0	0	0	0	0	0	0	9	180	FY 2018
D8	FY2014 - DDOT Stormwater Projects	FY 2018	Active	0	2	12	0	0	0	0	0	0	14	185	FY 2019
DK	FY2015 - DDOT Stormwater Projects	FY 2015	Active	0	0	0	0	0	0	0	0	0	0	191	FY 2015
DT	FY2016 - DDOT Stormwater Projects	FY 2016	Active	7	0	0	0	0	0	0	0	0	7	196	FY 2017
FM	FY2017 - DDOT Stormwater Projects	FY 2015	Active	0	0	0	0	0	0	0	0	0	0	205	FY 2015
H4	FY2018 - DDOT Stormwater Projects	FY 2018	Active	0	10	0	0	0	0	0	0	0	10	215	FY 2018
HP	FY2019 - DDOT Stormwater Projects	FY 2015	Active	0	0	0	0	0	0	0	0	0	0	220	FY 2015
TOTAL DDOT BUDGETS				\$16	\$19	\$12	\$0	\$0	\$0	\$0	\$0	\$0	\$48	\$3,237	

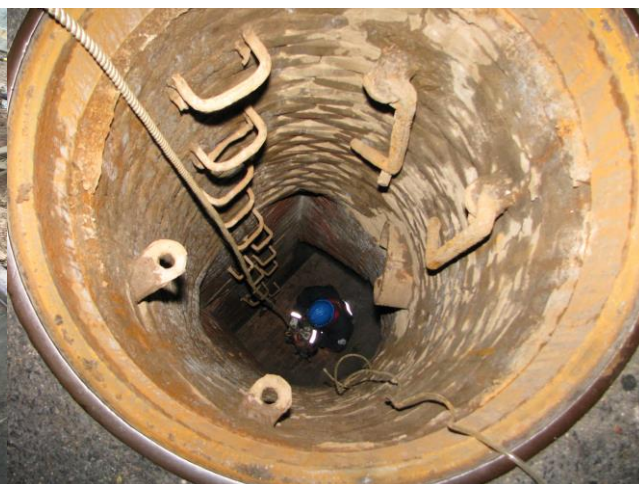
RESEARCH & PROGRAM MANAGEMENT	Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion	
AT	Stormwater Program Management	FY 2001	Active	\$270	\$238	\$182	\$64	\$123	\$179	\$207	\$163	\$129	\$0	\$1,554	\$12,013	FY 2025
TOTAL RESEARCH & PROGRAM MANAGEMENT BUDGETS				\$270	\$238	\$182	\$64	\$123	\$179	\$207	\$163	\$129	\$0	\$1,554	\$12,013	

TRUNK/FORCE SEWERS	Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
BO	Future Stormwater Projects	FY 2005	Active	\$456	\$102	\$1,070	\$109	\$0	\$0	\$0	\$0	\$0	\$1,737	\$15,597	FY 2020
TOTAL TRUNK/FORCE SEWERS BUDGETS				\$456	\$102	\$1,070	\$109	\$0	\$0	\$0	\$0	\$0	\$1,737	\$15,597	

TOTAL STORMWATER BUDGETS				\$1,706	\$2,682	\$4,053	\$1,196	\$1,946	\$5,736	\$1,233	\$1,789	\$1,649	\$1,064	\$23,055	\$83,991
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Work on Sewer Laterals



Sewer Inspection Work



Sewer Rehabilitation - CIPP

FY 2017 - FY 2026 Disbursement Plan

FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime Budget
\$38,302	\$39,294	\$52,999	\$57,741	\$54,704	\$59,479	\$54,447	\$53,235	\$52,753	\$50,563	\$513,517	\$1,448,589

(\$ in thousands)

OVERVIEW

DC Water is responsible for wastewater collection and transmission in the District of Columbia, including operation and maintenance of the sanitary sewer system. The sanitary sewer system includes approximately 1,900 miles of combined, sanitary, and stormwater sewers; 50,000 manholes; 25,000 catch basins; 22 flow-metering stations, nine wastewater pumping stations, and 16 stormwater pumping stations. The combined sewer system generally serves the central, older portions of the District, and the sanitary sewer system includes approximately 600 miles of large interceptor sewers and smaller gravity collection sewers. DC Water is also responsible for sewer lateral connections from the sewer mains to the property lines of residential, government, and commercial properties. In addition, DC Water is responsible for the 50-mile long Potomac Interceptor System, which provides conveyance of wastewater from Dulles International Airport, and areas in Virginia and Maryland, to the Blue Plains AWWTP.

PROGRAM AREAS

Collection Sewers – 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 sanitary sewer pipes.

On-Going – Capital projects managed by the Department of Sewer Services including the replacement of sewer laterals, sewer mains, inspection and cleaning of sewer laterals and mains.

Pumping Facilities – Projects required for the upgrade of existing wastewater pumping stations, as well as projects for the engineering and construction of new wastewater pumping facilities to enhance the reliability and integrity of DC Water’s sanitary sewer system.

Program Management – Engineering program management services for the sewer system capital improvement program, including assessing system needs, developing facilities plans, developing design scopes of work, preparing cost estimates, preparing task orders or agreements, and reviewing design documents.

Interceptor/Trunk Force Sewers – The replacement or rehabilitation of large diameter sewers that have reached the end of their useful life or are in need of major repair.

ACCOMPLISHMENTS

- Over 60 miles of sewer inspection and 50 miles of condition assessment were successfully completed in FY 2016.
- Two hundred eleven (211) sewer flow meters were installed these are continuing to gather important data on the operation of the system. This data is being used to develop an overarching coordination plan to link all monitoring efforts throughout the DC Water collection system, calibrate the system-wide sewer model, provide inflow/infiltration characterization, and assess rehabilitation effectiveness.
- The Upper Potomac Interceptor Relief Sewer was cleaned under live-flow conditions (150 MGD average daily flow) removing 20,000 cubic feet of debris.
- Two Odor Abatement Facilities in Virginia were substantially completed in late 2015. These two, together with three in Maryland and one in the District, are undergoing continued improvements through the addition of dual-media treatment which will greatly improve the conditions along the Potomac Interceptor for the adjacent residential and commercial areas, and hiker/bikers along the C&O Canal Tow Path.
- Received FEMA grants for a portable generator to serve any one of DC Water’s primary pumping stations (Sewer – Main, O Street or Potomac or Water – Bryant Street), and a generator purchase, construction to commence in 2018.
- O Street Pumping Station improvements, associated with the new headquarters building, commenced construction in FY 2016.
- Construction of the sewer rehabilitation within the National Arboretum, commenced during the summer of 2016. This project will rehabilitate the Upper ESI and local sewers within the property.
- DC Water is participating with DDOE on a stream restoration project, along Pope Branch, to protect the sewer in the stream valley.

OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS

Potomac Interceptor Odor Abatement Facilities – The Potomac Interceptor (PI) is a 50-mile long sanitary sewer starting at the Washington-Dulles International Airport and serving Loudoun and Fairfax Counties in Virginia, Montgomery County, Maryland, and the District of Columbia. The PI was constructed in the 1960's and today carries greater than 50 million gallons a day of wastewater to the Blue Plains Advanced Wastewater Treatment Plant. DC Water maintains this asset through regular internal inspections to identify segments needing rehabilitation, and subsequently undertakes CIP projects to rehabilitate and maintain the integrity of the PI.

DC Water operates six odor abatement facilities located strategically along the PI. Four facilities are adjacent to the C&O Canal with one facility in northwest Washington, DC and three within Maryland with the other two facilities in Virginia. These facilities use a vacuum blower to pull odorous air from the PI and push it through a dual-bed carbon filter before discharging to the atmosphere. Combined with passive treatment units (carbon canisters) located in various vents along the PI these facilities help reduce the odorous air emitted from the sewer in public areas. Contributing to better public relations.

Sanitary Sewer

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

COLLECTION SEWERS		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
JX	Sanitary Sewer Rehabilitation 10	FY 2017	Active	\$6	\$6	\$1,070	\$3,502	\$0	\$0	\$0	\$0	\$0	\$0	\$4,584	\$13,600	FY 2020
JU	Sanitary Sewer Rehabilitation 13	FY 2018	Active	0	46	377	3,279	1,975	197	0	0	0	0	5,875	15,175	FY 2022
JS	Sanitary Sewer Rehabilitation 15	FY 2019	Active	0	0	52	469	3,846	1,265	0	0	0	0	5,633	13,830	FY 2022
PY	Sanitary Sewer Rehabilitation 16	FY 2020	Active	0	0	0	185	744	5,868	70	0	0	0	6,868	16,100	FY 2023
LK	Sanitary Sewer Rehabilitation 17	FY 2020	Active	0	0	0	49	372	3,934	2,232	0	0	0	6,587	16,100	FY 2023
LL	Sanitary Sewer Rehabilitation 18	FY 2023	Active	0	0	0	0	0	0	460	944	6,665	135	8,204	16,582	FY 2026
NF	Sanitary Sewer Rehabilitation 19	FY 2021	Active	0	0	0	0	82	535	3,707	2,683	0	0	7,006	15,164	FY 2024
MO	Sanitary Sewer Rehabilitation 20	FY 2024	Active	0	0	0	0	0	0	0	398	923	6,251	7,571	15,000	FY 2027
NI	Sanitary Sewer Rehabilitation 21	FY 2024	Active	0	0	0	0	0	0	0	90	586	5,097	5,773	17,100	FY 2027
MP	Sanitary Sewer Rehabilitation 22	FY 2023	Active	0	0	0	0	0	0	387	1,232	7,146	30	8,796	17,600	FY 2026
NC	Sanitary Sewer Rehabilitation 23	FY 2023	Active	0	0	0	0	0	0	106	683	5,026	3,108	8,922	17,600	FY 2026
MZ	Sanitary Sewer Rehabilitation 24	FY 2024	Active	0	0	0	0	0	0	0	378	1,097	7,559	9,034	18,100	FY 2027
NX	Sanitary Sewer Rehabilitation 25	FY 2024	Active	0	0	0	0	0	0	0	123	763	7,063	7,949	18,664	FY 2027
NY	Sanitary Sewer Rehabilitation 26	FY 2025	Active	0	0	0	0	0	0	0	0	557	1,780	2,337	19,100	FY 2027
J3	Sewer Upgrade - City Wide	FY 2001	Active	1,200	1,450	558	558	285	0	0	0	0	0	4,049	18,004	FY 2021
G1	Small Local Sewer Rehab 1	FY 2010	Active	2,219	748	0	0	0	0	0	0	0	0	2,967	28,114	FY 2018
G8	Small Local Sewer Rehab 2	FY 2010	Active	476	0	0	0	0	0	0	0	0	0	476	2,842	FY 2017
G9	Small Local Sewer Rehab 3	FY 2014	Active	1	0	0	0	0	0	0	0	0	0	1	368	FY 2017
GA	Small Local Sewer Rehab 4	FY 2015	Active	988	0	0	0	0	0	0	0	0	0	988	8,557	FY 2017
QB	Sanitary Sewer Rehabilitation 27	FY 2026	New	0	0	0	0	0	0	0	0	0	1,218	1,218	45,000	FY 2028
TOTAL COLLECTION SEWERS BUDGETS				\$4,890	\$2,249	\$2,057	\$8,042	\$7,304	\$11,799	\$6,962	\$6,531	\$22,763	\$32,239	\$104,837	\$332,601	
ON-GOING		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
CE	FY2012 - DSS Sanitary Sewer Projects	FY 2012	Closed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,375	FY 2015
CQ	FY2013 - DSS Sanitary Sewer Projects	FY 2013	Closed	0	0	0	0	0	0	0	0	0	0	0	10,205	FY 2015
Q3	FY2003 - DSS Sanitary Sewer Projects	FY 2003	Active	2,451	45	0	0	0	0	0	0	0	0	2,496	13,863	FY 2018
BF	FY2011 - DSS Sanitary Sewer Projects	FY 2011	Active	1,412	984	0	0	0	0	0	0	0	0	2,396	8,165	FY 2018
D6	FY2014 - DSS Sanitary Sewer Projects	FY 2014	Active	1,233	0	0	0	0	0	0	0	0	0	1,233	10,575	FY 2017
DI	FY2015 - DSS Sanitary Sewer Projects	FY 2015	Active	158	0	0	0	0	0	0	0	0	0	158	10,846	FY 2017
DW	FY2016 - DSS Sanitary Sewer Projects	FY 2015	Active	1,501	2,540	1,099	172	0	0	0	0	0	0	5,311	14,601	FY 2020
FP	FY2017 - DSS Sanitary Sewer Projects	FY 2017	Active	5,083	3,118	0	0	0	0	0	0	0	0	8,200	11,500	FY 2018
H6	FY2018 - DSS Sanitary Sewer Projects	FY 2018	Active	0	4,959	3,838	0	0	0	0	0	0	0	8,796	11,845	FY 2019
HN	FY2019 - DSS Sanitary Sewer Projects	FY 2019	Active	0	0	5,960	4,410	0	0	0	0	0	0	10,369	12,200	FY 2020
J1	FY2020 - DSS Sanitary Sewer Projects	FY 2020	Active	0	0	0	5,049	5,761	0	0	0	0	0	10,809	12,568	FY 2021

Sanitary Sewer

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

ON-GOING, CONT.		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
LN	FY2021 - DSS Sanitary Sewer Projects	FY 2021	Active	\$0	\$0	\$0	\$0	\$4,651	\$5,477	\$0	\$0	\$0	\$0	\$10,127	\$12,945	FY 2022
M9	FY2022 - DSS Sanitary Sewer Projects	FY 2022	Active	0	0	0	0	0	4,727	5,748	0	0	0	10,476	13,335	FY 2023
MF	FY2023 - DSS Sanitary Sewer Projects	FY 2023	Active	0	0	0	0	0	0	4,956	5,901	0	0	10,857	13,735	FY 2024
NW	FY2024 - DSS Sanitary Sewer Projects	FY 2024	Active	0	0	0	0	0	0	0	5,207	6,102	0	11,308	14,225	FY 2025
OX	FY2025 - DSS Sanitary Sewer Projects	FY 2025	Active	0	0	0	0	0	0	0	0	5,353	6,210	11,563	14,650	FY 2026
TOTAL ON-GOING BUDGETS				\$11,838	\$11,645	\$10,896	\$9,630	\$10,411	\$10,204	\$10,704	\$11,107	\$11,455	\$6,210	\$104,100	\$194,633	

PUMPING FACILITIES		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
CX	Sewer Facilities Security Upgrades	FY 2011	Active	\$246	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$246	\$1,335	FY 2017
GZ	Sewer Instrumentation & Control	FY 2012	Active	1,422	29	0	0	0	0	0	0	0	0	1,451	8,785	FY 2018
HB	DSS Sewer Pumping Project	FY 2010	Active	278	9	10	6	0	0	0	0	0	0	304	4,560	FY 2020
LY	Sewer Facilities Security Upgrades	FY 2018	Active	0	72	248	263	158	0	0	0	0	0	740	2,000	FY 2021
MB	3rd St & Constitution Ave NW PS	FY 2014	Active	194	1	727	1,123	91	0	0	0	0	0	2,135	7,374	FY 2021
MC	Additional Sewer Scada System Sites	FY 2015	Active	667	177	742	821	15	0	0	0	0	0	2,423	8,000	FY 2021
PM	East Side Pumping Station	FY 2019	Active	0	0	66	170	1,309	56	0	0	0	0	1,601	4,000	FY 2022
PT	Existing Sewer Facilities Bldg Optimization	FY 2020	Active	0	0	0	6	15	84	209	0	0	0	313	705	FY 2023
TOTAL PUMPING FACILITIES BUDGETS				\$2,806	\$290	\$1,793	\$2,389	\$1,588	\$140	\$209	\$0	\$0	\$0	\$9,214	\$36,759	

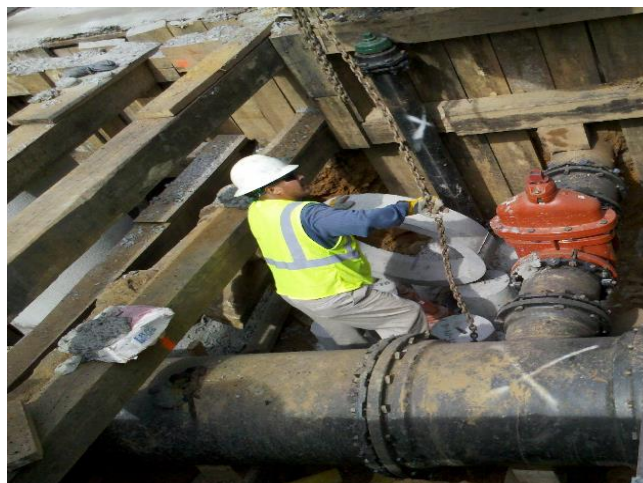
PROGRAM MANAGEMENT		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
AU	Sanitary Sewer Program Management	FY 2001	Active	\$3,651	\$5,165	\$3,822	\$1,484	\$2,841	\$4,141	\$4,508	\$3,395	\$2,578	\$0	\$31,585	\$75,901	FY 2025
DN	Sewer Inspection Program	FY 2010	Active	4,130	6,418	5,363	3,254	2,061	2,774	2,719	3,246	2,650	1,810	34,423	54,890	FY 2026
LR	Sanitary Sewer Asset Management	FY 2014	Active	975	334	0	0	0	0	0	0	0	0	1,309	5,000	FY 2018
TOTAL PROGRAM MANAGEMENT BUDGETS				\$8,755	\$11,917	\$9,184	\$4,738	\$4,902	\$6,915	\$7,227	\$6,640	\$5,228	\$1,810	\$67,316	\$135,791	

INTERCEPTOR/TRUNK FORCE SEWER		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
FV	Rehabilitation Of East Side Interceptor	FY 2011	Closed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,143	FY 2016
A4	Future Sewer System Upgrades	FY 2004	Active	994	1,476	1,379	139	0	0	0	0	0	0	3,988	43,456	FY 2020
DM	UAMI Relief Sewer	FY 2010	Active	0	0	100	418	63	34	1,463	4,103	815	0	6,996	14,505	FY 2025
DR	Low Area Trunk Sewer Rehabilitation	FY 2009	Active	166	535	3,993	1,403	0	0	0	0	0	0	6,098	17,735	FY 2020
FW	Rehab Piney Branch Trunk Sewer	FY 2011	Active	40	26	1,418	3,674	2,757	7,105	1,839	0	0	0	16,858	40,443	FY 2023
FY	Rehab Upstream Rock Creek Main Intrcpt	FY 2015	Active	739	774	0	13	480	748	5,765	4,211	0	0	12,731	29,560	FY 2024
G2	Sewer Structure Rehabilitation I	FY 2010	Active	76	638	700	463	0	0	0	0	0	0	1,877	9,182	FY 2020
G4	Upper Potomac Intercept Sewer Rehab.	FY 2001	Active	641	0	0	0	0	0	0	857	1,447	2,698	5,643	13,514	FY 2026

Sanitary Sewer

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

INTERCEPTOR/TRUNK FORCE, CONT.	Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
G5 Sewer Rehab Near Creek Beds	FY 2010	Active	\$1,143	\$1,189	\$3,509	\$7,714	\$3,653	\$117	\$0	\$0	\$0	\$0	\$17,325	\$50,893	FY 2022
G6 Sanitary Sewers Under Buildings I	FY 2010	Active	289	0	272	1,207	0	0	0	0	0	0	1,768	6,666	FY 2020
GG Large Sewer Rehab 2	FY 2014	Active	6	0	0	0	0	0	0	0	0	0	6	452	FY 2017
GH Large Sewer Rehab 3	FY 2014	Active	0	0	0	2,657	5,693	47	0	0	0	0	8,397	20,195	FY 2022
HS Rehabilitation Of Influent Sewers	FY 2017	Active	708	446	552	1,415	5,192	5,701	2,139	89	823	859	17,922	97,430	FY 2031
HT Rehabilitation Of Anacostia Force Main	FY 2012	Active	220	55	0	110	300	161	1,219	1,485	21	0	3,572	11,290	FY 2025
IF Sanitary Sewer Rehabilitation 2	FY 2015	Active	133	0	0	0	0	0	0	0	0	0	133	1,540	FY 2017
IK Potomac Force Main Rehabilitation	FY 2013	Active	58	359	1,055	702	0	0	0	0	0	0	2,175	6,074	FY 2020
IL Creekbed Sewer Rehabilitation 2	FY 2014	Active	2,834	4,204	1,232	2,968	1,583	31	0	0	0	0	12,852	52,615	FY 2022
IM Creekbed Sewer Rehabilitation 3	FY 2016	Active	114	201	191	700	517	999	3,109	301	0	0	6,132	15,462	FY 2024
IN Upper East Side Trunk Sewer Rehab	FY 2014	Active	33	494	682	188	2,745	3,876	0	0	0	0	8,018	19,002	FY 2022
J0 B St/New Jersey Ave Trunk Sewer Rehab	FY 2004	Active	98	577	3,907	1,213	16	0	0	0	0	0	5,810	16,200	FY 2021
J1 Oxon Run Sewer Rehabilitation	FY 2004	Active	97	414	602	234	295	976	3,080	5,784	2,562	0	14,044	30,051	FY 2025
LZ Potomac Interceptor - Rehab Ph 2	FY 2015	Active	1,042	1,612	7,119	1,295	4,514	5,655	5,410	6,242	2,294	3,401	38,587	99,190	FY 2028
N7 Potomac Sewer System Rehab.	FY 2000	Active	372	52	17	0	0	0	0	0	0	0	441	48,019	FY 2019
O4 Southwest Interceptor Inspection/Rehab	FY 2019	Active	0	0	46	85	216	1,710	129	0	0	0	2,186	4,530	FY 2028
O7 East Rock Creek Diversion Inspect/Rehab	FY 2025	Active	0	0	0	0	0	0	0	0	251	1,248	1,499	6,600	FY 2026
OA West Rock Creek Diversion Inspect/Rehab	FY 2023	Active	0	0	0	0	0	0	0	0	0	0	0	3,810	FY 2025
IQ Slash Run Sewer Rehabilitation	FY 2022	Active	0	0	0	0	0	383	1,550	3,331	0	0	5,265	10,000	FY 2024
IR Anacostia Main Interceptor Rehabilitation	FY 2023	Active	0	0	0	0	0	0	1,170	2,088	4,026	0	7,285	14,250	FY 2025
JK Little Falls Rehabilitation Project	FY 2019	Active	0	0	37	149	1,243	425	0	0	0	0	1,854	4,000	FY 2029
JM Northwest Major Sewer Rehabilitation	FY 2020	Active	0	0	0	272	1,018	2,033	0	0	0	0	3,323	7,000	FY 2022
PJ Re-Activation Of Anacostia Force Main	FY 2017	Active	209	143	2,257	5,923	0	0	0	0	0	0	8,533	20,000	FY 2020
PU Easby Point Trunk Sewer	FY 2021	Active	0	0	0	0	213	419	2,472	464	0	0	3,568	7,000	FY 2024
PV Broad Branch Trunk Sewer	FY 2025	Active	0	0	0	0	0	0	0	0	1,068	2,098	3,165	13,000	FY 2029
TOTAL INTERCEPTOR/TRUNK FORCE SEWER BUDGETS			\$10,013	\$13,194	\$29,068	\$32,942	\$30,499	\$30,419	\$29,346	\$28,956	\$13,307	\$10,304	\$228,049	\$748,806	
TOTAL SANITARY SEWER BUDGETS			\$38,302	\$39,294	\$52,999	\$57,741	\$54,704	\$59,479	\$54,447	\$53,235	\$52,753	\$50,563	\$513,517	\$1,448,589	



Water line Repairs



DC Water in the Community



Bryant Street Pump Station

FY 2017 - FY 2026 Disbursement Plan

FY 2017 - FY 2026 Disbursement Plan										Lifetime Budget	
FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	
\$58,819	\$51,738	\$64,149	\$57,102	\$48,534	\$54,658	\$65,512	\$83,744	\$78,217	\$76,915	\$639,387	\$1,892,803

(\$ in thousands)

OVERVIEW

Delivery of safe, clean, high-quality drinking water is one of DC Water's highest priorities. Drinking water in the District of Columbia comes from the Potomac River. The U.S. Army Corps of Engineers, Washington Aqueduct (Aqueduct), is a federally owned agency responsible for treating the drinking water. DC Water purchases water from the Aqueduct and is responsible for maintaining the distribution system that delivers drinking water to customers. DC Water maintains over 1,300 miles of pipe and distributes drinking water to more than 660,000 residents and businesses in the District of Columbia.

The DC Water distribution system begins at the water treatment plant and ends at private service lines. Customer service lines connect to the mains in the streets and deliver water to residents and commercial buildings, eventually reaching taps. Water is continuously moving through our distribution system, typically at a high water flow that keeps the water fresh. However, once the water leaves the main and enters a customer's service line, the flow of water is dependent on individual water usage.

OVERVIEW, CONT.

DC Water is committed to providing customers with the highest quality drinking water and continuously works to deliver water that goes beyond federal standards. We accomplish this goal by aiming to meet target levels that are stricter than water quality standards required by the EPA. We have a dedicated Drinking Water division that collects and analyzes water samples throughout the District of Columbia. These monitoring programs include sampling and analyses that are required by EPA and additional sampling programs conducted voluntarily by DC Water.

DC Water conducts compliance monitoring on a daily basis to ensure that water quality meets EPA standards. Water quality technicians collect and analyze samples for lead and copper, total coliform (bacteria) and disinfection byproduct levels. Compliance monitoring ensures that drinking water treatment effectively prevents pipe corrosion, removes bacteria and other contaminants, and minimizes potentially harmful treatment byproducts.

DC Water operates voluntary sampling programs to support our commitment to providing high-quality drinking water to our customers. Water quality technicians collect and analyze hundreds of water samples throughout the District of Columbia. The Drinking Water division responds quickly to customer complaints and conducts water quality monitoring among the District's most vulnerable populations. DC Water operates two mobile laboratories that allow technicians to conduct on-site water quality tests and respond to emergencies. The Drinking Water division also distributes hundreds of lead test kits each year to residents and assists residents with identifying lead sources.

PROGRAM AREAS

Distribution Systems – Provides for the rehabilitation, replacement or extension of the water distribution system through several projects. The distribution systems program area is the largest for drinking water and includes three primary elements: small diameter water main renewal; large diameter water main rehabilitation; and valve replacements.

Lead Program – The replacement of approximately 20,500 lead water service lines with copper piping has been completed. Additional replacement continues throughout the water distribution system as part of water main renewals projects and for customers that request full replacement.

On-Going – Includes small projects for .repairing water main breaks, replacing valves and fire hydrants, replacing water service connections, and other minor water main rehabilitation work.

Pumping Facilities – Rehabilitate or upgrade water-pumping stations in the system.

DDOT – Projects for the 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. This program is being closed and combined with distribution projects.

PROGRAM AREAS, CONT.

Storage Facilities – Rehabilitation or upgrade of elevated tanks and reservoirs. Studies to the system have identified the need for upgrades and/or new storage facilities to support changing development patterns, for regulatory compliance, to provide additional water pressure to certain areas of the District, and to provide emergency backup service.

Program Management – Provides engineering program management services for the water system capital improvements program, including asset management, developing facilities plans, conceptual designs, design scopes of work, cost estimates, task orders or agreements, and design document review.

ACCOMPLISHMENTS

- The water service areas are continuing to install small diameter water mains to meet the DC Water Board goal of renewing one (1%) percent of the system annually. This renewal includes a combination of replacement with new water mains and rehabilitation of existing water mains using cleaning and cement mortar lining.
- DC Water continued its Pipe Condition Assessment (PCA) of large diameter water mains. The assessments include detailed field inspection and leak detection of five miles of high-risk water transmission mains annually. Recommendations for rehabilitation result in targeted capital projects to address the identified pipe sections in need of repairs.
- The construction of emergency repairs to the 78-inch North Clear Well water main was completed. This project addressed pipe defects and leaks identified as part of the large diameter water main PCA program and required close coordination with the Washington Aqueduct so that repairs could be completed while the McMillan North Clear Well was out of service.

OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS

Water Mains – During FY 2016, the Authority continued renewal of small diameter water pipes with the goal of 1.0% annual renewal. Large water main rehabilitation projects continued with two projects using internal structural repair techniques on the existing transmission system. The capital expenditures for linear water asset renewal yields reduced reactive maintenance due to breaks and other unscheduled repairs, particularly helpful in reducing long-term maintenance costs.

Water Pumping and Storage – Three reservoir upgrade projects were completed in FY2016, which accomplished both regulatory upgrades as well as operational improvements. Maintenance costs are expected to be reduced due to improved access for water sampling equipment and well as SCADA improvements that allow for remote monitoring of reservoir water quality.

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

DISTRIBUTION SYSTEMS		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
MW	WSSC Interconnections	FY 2007	Closed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,709	FY 2016
MX	Small Diameter Water Main Rehab 5	FY 2007	Closed	0	0	0	0	0	0	0	0	0	0	0	9,030	FY 2016
N9	Small Diameter Water Main Rehab 7	FY 2010	Closed	0	0	0	0	0	0	0	0	0	0	0	16,957	FY 2015
BZ	Large Valve Repl. (Contracts 8 - 9 & 10)	FY 2009	Active	0	0	0	0	0	0	0	0	0	0	0	12,703	FY 2017
C9	Large Diameter Water Mains I	FY 2014	Active	284	1,200	5,979	2,030	0	0	0	0	0	0	9,492	19,251	FY 2020
DE	Small Diameter Water Main Rehab 12	FY 2015	Active	4,647	8,824	3,784	1,432	0	0	0	0	0	0	18,687	39,850	FY 2020
F1	Small Diameter Water Main Rehab 13	FY 2016	Active	450	8,061	8,378	534	0	0	0	0	0	0	17,423	31,170	FY 2020
F2	Small Diameter Water Main Rehab 14	FY 2017	Active	657	415	9,199	10,162	286	0	0	0	0	0	20,719	40,470	FY 2021
F6	Steel Water Main Rehab - Phase I	FY 2009	Active	48	122	1,361	804	0	0	0	0	0	0	2,336	9,944	FY 2020
FE	20 Low Service Main & PRV	FY 2012	Active	863	266	0	0	0	0	0	0	0	0	1,129	8,008	FY 2018
FT	Water Mains Rehab Phase II	FY 2015	Active	687	2,071	5,477	3,473	2,766	4,193	3,646	776	0	0	23,090	39,980	FY 2024
GQ	Fire Hydrant Replacement Program - Ph II	FY 2010	Active	471	151	85	31	14	0	0	0	0	0	753	28,244	FY 2021
GR	Small Diameter Water Main Rehab 15	FY 2018	Active	0	857	1,335	5,823	8,877	2,459	0	0	0	0	19,351	39,750	FY 2022
GX	Large Dia. Water Main Repl. II	FY 2023	Active	0	0	0	0	0	0	48	404	2,062	4,697	7,210	23,180	FY 2029
HX	Small Diameter Water Main Rehab 16	FY 2019	Active	0	0	3,161	1,963	6,235	9,592	2,651	0	0	0	23,601	37,350	FY 2023
I8	Large Valve Replacement (Contract 11-13)	FY 2012	Active	2,318	812	41	0	0	0	0	0	0	0	3,171	18,549	FY 2019
IB	Large Valve Replacement (Contract 17-19)	FY 2018	Active	0	35	210	1,450	3,201	3,312	2,049	118	0	0	10,376	20,130	FY 2024
J7	Small Diameter Water Main Rehab 17	FY 2020	Active	0	0	0	4,651	2,596	7,891	12,022	3,295	0	0	30,455	46,650	FY 2024
JZ	Large Dia Water Main Repl 3 - 4 & 5	FY 2021	Active	0	0	0	0	302	1,265	5,870	12,664	14,124	9,264	43,488	63,710	FY 2027
K7	Large Dia Water Main Repl 6 - 7 & 8	FY 2024	Active	0	0	0	0	0	0	0	368	1,526	6,914	8,808	69,920	FY 2030
KA	Large Valve Repl Contracts 20 - 21 & 22	FY 2021	Active	0	0	0	0	49	269	1,792	3,920	4,016	2,378	12,425	17,610	FY 2027
KB	Large Valve Repl Contracts 23 - 24 & 25	FY 2024	Active	0	0	0	0	0	0	0	58	326	2,372	2,755	19,220	FY 2029
KE	Small Diameter Water Main Rehab 18	FY 2021	Active	0	0	0	0	4,332	2,681	8,425	12,811	3,500	0	31,749	46,340	FY 2025
KF	Small Diameter Water Main Rehab 19	FY 2022	Active	0	0	0	0	0	4,766	2,891	9,006	13,606	3,621	33,891	47,730	FY 2026
KG	Small Diameter Water Main Rehab 20	FY 2023	Active	0	0	0	0	0	0	5,305	3,107	9,678	14,016	32,105	49,160	FY 2027
KH	Small Diameter Water Main Rehab 21	FY 2024	Active	0	0	0	0	0	0	0	5,784	3,222	5,394	14,400	50,640	FY 2028
MU	Small Diameter Water Main Rehab 2	FY 2002	Active	543	0	0	0	0	0	0	0	0	0	543	15,043	FY 2017
MV	Small Diameter Water Main Rehab 3	FY 2006	Active	33	66	646	64	0	0	0	0	0	0	808	15,624	FY 2020
NA	Clean & Line 20 4th High Wtrmain	FY 2002	Active	234	52	0	0	0	0	0	0	0	0	285	4,556	FY 2018
O0	Small Diameter Water Main Rehab 8	FY 2011	Active	37	38	9	0	0	0	0	0	0	0	84	20,681	FY 2019
O1	Small Diameter Water Main Rehab 9	FY 2012	Active	2,278	210	0	0	0	0	0	0	0	0	2,489	24,987	FY 2018
O2	Small Diameter Water Main Rehab 10	FY 2013	Active	2,582	1,586	382	0	0	0	0	0	0	0	4,549	36,842	FY 2019
O3	Small Diameter Water Main Rehab 11	FY 2014	Active	13,054	4,082	0	0	0	0	0	0	0	0	17,136	38,957	FY 2018
S3	Large Valve Replacement (Contract 3-7)	FY 1999	Active	50	0	0	0	0	0	0	0	0	0	50	23,100	FY 2017

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

DISTRIBUTION SYSTEMS, CONT.		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
S5	Large Dia Wtrmain Int. Repairs	FY 2001	Active	\$449	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$449	\$16,972	FY 2017
KI	Small Diameter Water Main Rehab 22	FY 2025	Active	0	0	0	0	0	0	0	0	6,894	3,635	10,529	52,160	FY 2029
PK	Large Meter Vault And Piping Improve	FY 2016	Active	461	0	0	0	0	0	0	0	0	0	461	980	FY 2017
KJ	Small Diameter Water Main Rehab 23	FY 2026	New	0	0	0	0	0	0	0	0	0	7,134	7,134	53,720	FY 2030
TOTAL DISTRIBUTION SYSTEMS BUDGETS				\$30,148	\$28,847	\$40,047	\$32,416	\$28,660	\$36,427	\$44,699	\$52,312	\$58,953	\$59,424	\$411,932	\$1,116,878	

LEAD PROGRAM		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
BW	Lead Service Replacement Program	FY 2003	Active	\$1,050	\$720	\$1,345	\$1,820	\$2,063	\$2,321	\$2,537	\$2,536	\$2,964	\$1,112	\$18,468	\$208,940	FY 2026
TOTAL LEAD PROGRAM BUDGETS				\$1,050	\$720	\$1,345	\$1,820	\$2,063	\$2,321	\$2,537	\$2,536	\$2,964	\$1,112	\$18,468	\$208,940	

ON-GOING		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
CC	FY2012 - DWS Water Projects	FY 2012	Closed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,282	FY 2016
CP	FY2013 - DWS Water Projects	FY 2013	Closed	0	0	0	0	0	0	0	0	0	0	0	8,830	FY 2015
D5	FY2014 - DWS Water Projects	FY 2014	Active	889	0	0	0	0	0	0	0	0	0	889	10,147	FY 2017
DG	FY2015 - DWS Water Projects	FY 2015	Active	1,648	0	0	0	0	0	0	0	0	0	1,648	9,630	FY 2017
DY	FY2016 - DWS Water Projects	FY 2015	Active	1,399	0	0	0	0	0	0	0	0	0	1,399	9,630	FY 2017
FK	FY2017 - DWS Water Projects	FY 2016	Active	6,707	97	0	0	0	0	0	0	0	0	6,803	9,630	FY 2018
GS	FY2018 - DWS Water Projects	FY 2018	Active	0	6,790	106	0	0	0	0	0	0	0	6,896	9,630	FY 2019
HY	FY2019 - DWS Water Projects	FY 2019	Active	0	0	7,415	108	0	0	0	0	0	0	7,523	9,630	FY 2020
JA	FY2020 - DWS Water Projects	FY 2020	Active	0	0	0	6,835	840	0	0	0	0	0	7,675	9,630	FY 2021
KW	FY2021 - DWS Water Projects	FY 2021	Active	0	0	0	0	6,396	1,194	0	0	0	0	7,590	9,630	FY 2022
KX	FY2022 - DWS Water Projects	FY 2022	Active	0	0	0	0	0	6,081	1,142	0	0	0	7,222	9,664	FY 2023
KY	FY2023 - DWS Water Projects	FY 2023	Active	0	0	0	0	0	0	6,224	1,147	0	0	7,371	10,150	FY 2024
KZ	FY2024 - DWS Water Projects	FY 2024	Active	0	0	0	0	0	0	0	6,588	1,203	0	7,791	10,452	FY 2025
L1	FY2025 - DWS Water Projects	FY 2025	Active	0	0	0	0	0	0	0	0	6,804	1,207	8,011	10,780	FY 2026
L2	FY2026 - DWS Water Projects	FY 2026	New	0	0	0	0	0	0	0	0	0	8,129	8,129	11,890	FY 2027
TOTAL ON-GOING BUDGETS				\$10,643	\$6,886	\$7,521	\$6,944	\$7,235	\$7,275	\$7,366	\$7,735	\$8,007	\$9,336	\$78,948	\$147,604	

PUMPING FACILITIES		Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
M6	Rehab. Bryant St. Pump Sta.	FY 1999	Closed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$61,153	FY 2016
AY	Upgrades To Ft. Reno Pumping Station	FY 2002	Active	910	341	294	0	0	0	0	0	0	0	1,544	13,549	FY 2019
F8	16th & Alaska Ave Pump Sta Upgrades	FY 2010	Active	72	5	0	0	0	0	0	0	0	0	77	4,879	FY 2018
FD	Water Fac Security System Upgrades	FY 2010	Active	89	250	263	148	0	0	0	0	0	0	750	2,067	FY 2020
FH	Discharge Piping Bryant St. Pump Sta	FY 2009	Active	144	12	9	0	0	0	0	0	0	0	165	14,279	FY 2019
HA	DWS Water Pumping Project	FY 2010	Active	173	0	0	0	0	0	0	0	0	0	173	1,460	FY 2017

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

PUMPING FACILITIES, CONT.			Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
HV	Bryant St PS - Spill Header Flow Control	FY 2013	Active	\$17	\$15	\$842	\$2,077	\$370	\$0	\$0	\$0	\$0	\$0	\$0	\$3,321	\$6,502	FY 2021
JB	Bryant Street PS Improvements - Ph II	FY 2012	Active	515	940	247	2,574	1,418	0	0	0	0	0	0	5,694	11,736	FY 2021
LT	Water System SCADA	FY 2014	Active	395	165	1,324	2,109	713	0	0	0	0	0	0	4,706	8,137	FY 2021
LU	Water Facilities Security Sys Upgrades 2	FY 2016	Active	34	167	354	327	174	92	0	0	0	0	0	1,148	2,000	FY 2022
M7	Replacement Of Anacostia PS	FY 2002	Active	250	51	0	0	0	0	0	0	0	0	0	301	33,434	FY 2018
HI	Bryant Street Pump Station Phase III	FY 2020	Active	0	0	0	43	86	199	1,025	2,539	0	0	0	3,892	5,920	FY 2024
HR	Anacostia Pump Sta Improvements Ph II	FY 2021	Active	0	0	0	0	43	154	323	2,212	391	0	0	3,123	4,700	FY 2025
OR	Fort Reno PS Improvements Ph II	FY 2021	Active	0	0	0	0	49	173	280	2,828	974	0	0	4,304	6,430	FY 2025
PS	Existing Water Facilities Bldg Optimization	FY 2020	Active	0	0	0	145	217	45	0	0	0	0	0	408	695	FY 2022
S6	Existing Water Facilities Bldg Optimization	FY 2018	New	0	13	61	338	103	0	0	0	0	0	0	515	940	FY 2021
TOTAL PUMPING FACILITIES BUDGETS					\$2,598	\$1,958	\$3,395	\$7,761	\$3,173	\$664	\$1,627	\$7,579	\$1,365	\$0	\$30,120	\$177,881	
DDOT			Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
B0	FY2010 - DDOT Water Projects	FY 2010	Active	\$145	\$6	\$1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$152	\$17,171	FY 2019
BN	FY2011 - DDOT Water Projects	FY 2011	Active	388	375	65	0	0	0	0	0	0	0	0	828	8,738	FY 2019
CJ	FY2012 - DDOT Water Projects	FY 2008	Active	167	135	122	0	0	0	0	0	0	0	0	424	6,474	FY 2019
CM	FY2013 - DDOT Water Projects	FY 2012	Active	130	0	0	0	0	0	0	0	0	0	0	130	1,549	FY 2017
TOTAL DDOT BUDGETS					\$830	\$516	\$188	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,534	\$33,933	
STORAGE FACILITIES			Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
FA	Water Storage Facility Upgrades	FY 2009	Active	\$1,871	\$1,237	\$2,970	\$3,420	\$300	\$0	\$0	\$0	\$0	\$0	\$0	\$9,798	\$36,137	FY 2021
HW	Rehabilitation Of Elevated Water Tanks	FY 2020	Active	0	0	0	105	305	758	2,103	1,292	541	0	0	5,104	7,000	FY 2025
MA	St. Elizabeth Water Tank	FY 2002	Active	5,124	6,568	3,527	0	0	0	0	0	0	0	0	15,219	36,883	FY 2019
MQ	2mg 4th High Storage Tank	FY 2004	Active	643	226	0	321	418	502	1,664	1,930	0	0	0	5,705	9,580	FY 2024
MR	2nd High Water Storage	FY 2009	Active	89	41	115	515	359	426	1,422	6,172	1,814	0	0	10,953	16,764	FY 2025
TOTAL STORAGE FACILITIES BUDGETS					\$7,728	\$8,072	\$6,612	\$4,361	\$1,382	\$1,685	\$5,188	\$9,395	\$2,354	\$0	\$46,779	\$106,364	
PROGRAM MANAGEMENT			Start	Status	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total	Lifetime	Completion
KV	Water Program Mgt. Services 2F	FY 2019	Active	\$0	\$0	\$1,705	\$3,801	\$6,021	\$6,286	\$4,095	\$2,284	\$0	\$0	\$0	\$24,192	\$30,610	FY 2024
LB	Water Program Mgt. Services 2G	FY 2024	Active	0	0	0	0	0	0	0	1,902	4,572	7,043	0	13,517	35,480	FY 2029
LQ	Water Service Area Asset Management	FY 2013	Active	1,304	0	0	0	0	0	0	0	0	0	0	1,304	5,000	FY 2017
ME	Water Sys Program Management Services	FY 1999	Active	4,519	4,739	3,335	0	0	0	0	0	0	0	0	12,593	30,113	FY 2019
TOTAL PROGRAM MANAGEMENT BUDGETS					\$5,823	\$4,739	\$5,040	\$3,801	\$6,021	\$6,286	\$4,095	\$4,186	\$4,572	\$7,043	\$51,606	\$101,203	
TOTAL WATER BUDGETS					\$58,819	\$51,738	\$64,149	\$57,102	\$48,534	\$54,658	\$65,512	\$83,744	\$78,217	\$76,915	\$639,387	\$1,892,803	



Maintenance Services



DC Water Quench Buggy



Washington Aqueduct

	FY 2017 - FY 2026 Disbursement Plan										10-Yr Total	Lifetime Budget
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026		
CAPITAL EQUIPMENT	54,949	32,897	26,043	26,551	8,780	8,780	8,780	8,780	8,780	8,780	193,119	193,119
WASHINGTON AQUEDUCT	10,896	11,768	10,547	11,840	13,911	10,932	11,041	10,969	10,787	9,516	112,207	112,207
TOTAL	\$65,845	\$44,665	\$36,590	\$38,391	\$22,690	\$19,712	\$19,821	\$19,748	\$19,567	\$18,296	\$305,326	\$305,326

(\$ in thousands)

OVERVIEW

Additional Capital Programs is a subset of the CIP comprised of Capital Equipment and the Washington Aqueduct.

Capital Equipment – This category includes capital purchases that have a life of at least three years and an individual component cost of \$5,000 or more. The current capital equipment disbursement budget includes the following cluster groups:

- **Blue Plains** – This group is comprised of the Departments of Wastewater Operations, Process Engineering, and Maintenance Services. These departments’ activities are within the Blue Plains AWWTP. Activities/purchases include: major pump rebuild/replacements, large electric motors, high priority rehabilitation program, centrifuge rebuild/replacements, membrane diffuser/mechanical replacements, electrical replacements, lab equipment, process computer control systems, actuators, flow meters, and programmable logic controllers.

OVERVIEW, CONT.

- **Finance, Accounting and Budget** – Capital equipment projects within this cluster are primarily for the enhancements to DC Water’s existing financial and payroll software solutions. This group also manages reserve funds to support additional capital equipment needs throughout DC Water.
- **Customer Care and Operations** – This group is comprised of the Departments of Customer Service, Distribution and Conveyance Systems, Water Services, and Sewer Services. Work within this group is for rehabilitating and replacing equipment outside of Blue Plains in the distribution and collection systems. Activities/purchases include: pipes/fittings, manhole covers/frames, pumps, flow meters, catch basins, sewer cameras, cured-in-place pipe, locators, emergency generators, water mains, service lines, valves, water sample lab equipment, backflow preventers, SCADA hardware, and fire hydrant custodial locks. In addition to these items, this group supports replacement of residential and commercial water meters through the Automated Meter Reading (AMR) and On-going Replacement Programs.
- **Independent Offices** – Capital equipment projects within this cluster are primarily for infrastructure projects for the Department of Information Technology (IT). Activities/purchases include: computer replacements, cabling, radios, uninterruptible power system, server hardware, SCADA core switches, and telephony upgrades. In addition to infrastructure, IT also manages enterprise technology projects as approved by the IT Steering Committees.
- **Support Services** – This group is comprised of capital equipment activities for the Departments of Facilities, Security and Fleet Management. Activities/purchases include: cameras, card readers, door/window/hatch sensors, fence-line detection systems, vehicles, buses, vac-trucks, boats, backhoes, cranes, trailers, forklifts, HVAC systems, fire suppression systems, elevators, plumbing, rollup doors, photocopiers, appliances, furniture, fixtures, signage, roofing, and general facility improvements.

Washington Aqueduct – The Washington Aqueduct, managed by the U.S. Army Corps of Engineers (USACE), provides wholesale water treatment services to DC Water and two wholesale customers in Northern Virginia, Arlington County and Fairfax Water. DC Water purchases approximately 73 percent of the water produced by the Aqueduct’s two treatment facilities, the Dalecarlia and McMillan Treatment Plants, and thus is responsible for approximately 73 percent of the Aqueduct’s operating and capital costs. Under federal legislation and a memorandum of understanding enacted in 1997 and updated in 2013 when Fairfax Water replaced the City of Falls Church, DC Water and the Aqueduct’s wholesale customers in Northern Virginia have a much greater role in oversight of the Aqueduct’s operations and its Capital Improvement Program than prior to 1997. The Aqueduct’s CIP is divided into six primary areas, with specific projects under each area.

- Dalecarlia Plant
- Aqueduct Wide
- McMillan Plant
- Appurtenant Transmission and Storage Facilities
- Advanced Treatment

The USACE, in accordance with Federal procurement regulations, requires DC Water 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 USACE/U.S. Treasury account to be drawn down during the execution of the project, through completion, with no interest going to DC Water. Over the years, extensive discussions with the U.S. Office of Management and Budget (OMB) and the USACE resulted in a proposal in the President’s FY 2006 and FY 2007 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

OVERVIEW, CONT.

submitted in May 2006 to the Senate and House. During FY 2006, the USACE briefed the Senate Environment and Public Works Committee staff and in conjunction with DC Water briefed the Senate Homeland Security and Government Affairs committee staff. Additionally, DC Water 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 Water, including transferring dollars on a phased basis, utilizing taxable bonds, or taxable commercial paper. In the past, some of these options have not been viewed favorably by the U.S. Treasury, but we will continue our outreach efforts to Congressional staff, federal agencies and the Corps on this critical issue. We expect to develop a more efficient financing system in the near future.

OPERATIONAL IMPACT OF MAJOR CAPITAL PROGRAMS

Automated Meter Reading (AMR) Replacement Program - This program aims to replace approximately 90,000 small water meters throughout the city. The program started in FY 2016 and is expected to be completed within the next two years. Data received from the water meters will better serve DC Water customers by providing timely and accurate meter reads for billing information.

Additional Capital Programs

10-Year Disbursement Plan & Lifetime Budget by project, \$ in thousands

CAPITAL EQUIPMENT		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	10-Yr Total
BLUE PLAINS												
EQP4710	Wastewater Operations	\$110	\$110	\$110	\$110	\$0	\$0	\$0	\$0	\$0	\$0	\$440
EQP4730	Wastewater Process Engineering	1,000	1,000	500	500	0	0	0	0	0	0	3,000
EQP4830	Maintenance Services	3,000	3,000	3,000	3,000	0	0	0	0	0	0	12,000
	Subtotal	4,110	4,110	3,610	3,610	0	0	0	0	0	0	15,440
FINANCE, ACCOUNTING & BUDGET												
EQP2410	Finance, Accounting & Budget	350	0	0	0	0	0	0	0	0	0	350
EQP2411	Reserve Fund	11,158	7,800	7,692	3,000	8,780	8,780	8,780	8,780	8,780	8,780	82,329
	Subtotal	11,508	7,800	7,692	3,000	8,780	8,780	8,780	8,780	8,780	8,780	82,679
CUSTOMER CARE & OPERATIONS												
EQP2340	Customer Service	21,898	6,041	2,618	2,618	0	0	0	0	0	0	33,175
EQP4210	Distribution & Conveyance Systems	925	625	1,300	1,200	0	0	0	0	0	0	4,050
EQP4410	Water Services	425	425	350	350	0	0	0	0	0	0	1,550
EQP4610	Sewer Services	250	250	250	250	0	0	0	0	0	0	1,000
	Subtotal	23,498	7,341	4,518	4,418	0	0	0	0	0	0	39,775
INDEPENDENT OFFICES												
EQP2110	IT Infrastructure	2,560	2,290	2,700	2,500	0	0	0	0	0	0	10,050
EQP2115	IT Enterprise Technology	7,900	6,270	3,000	8,500	0	0	0	0	0	0	25,670
	Subtotal	10,460	8,560	5,700	11,000	0	0	0	0	0	0	35,720
SUPPORT SERVICES												
EQP3410	Facilities Management	1,690	1,690	1,690	1,690	0	0	0	0	0	0	6,760
EQP3610	Security	849	563	0	0	0	0	0	0	0	0	1,412
EQP5610	Fleet Management	2,834	2,833	2,833	2,833	0	0	0	0	0	0	11,333
	Subtotal	5,373	5,086	4,523	4,523	0	0	0	0	0	0	19,505
TOTAL CAPITAL EQUIPMENT		\$54,949	\$32,897	\$26,043	\$26,551	\$8,780	\$8,780	\$8,780	\$8,780	\$8,780	\$8,780	\$193,119
WASHINGTON AQUEDUCT		10,896	11,768	10,547	11,840	13,911	10,932	11,041	10,969	10,787	9,516	112,207
TOTAL ADDITIONAL CAPITAL PROGRAMS		\$65,845	\$44,665	\$36,590	\$38,391	\$22,690	\$19,712	\$19,821	\$19,748	\$19,567	\$18,296	\$305,326



APPROVED BUDGETS



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Section VI CAPITAL FINANCING, CASH AND DEBT

\$ in thousands

Sources of Funds

	Amount	Percentage
Debt Financing ⁽¹⁾	\$ 1,519,576	39.7%
Wholesale Capital Payments	713,146	18.7%
EPA Grants & CSO Appropriations	224,082	5.9%
Interest Income on Bond Proceeds	13,600	0.4%
Pay-Go Financing ⁽²⁾	1,295,222	33.9%
System Availability Fee (SAF)	57,750	1.5%
Total Sources	\$ 3,823,376	100.0%

⁽¹⁾ Debt financing refers to the borrowing of funds through long-term revenue bonds, commercial paper and other short-term notes

⁽²⁾ Pay-go financing is any funds available after meeting the reserves and rate stabilization fund deposits

Sources & Uses of Funds

\$ in thousands

Capital Improvement Program

FY 2016 - FY 2018

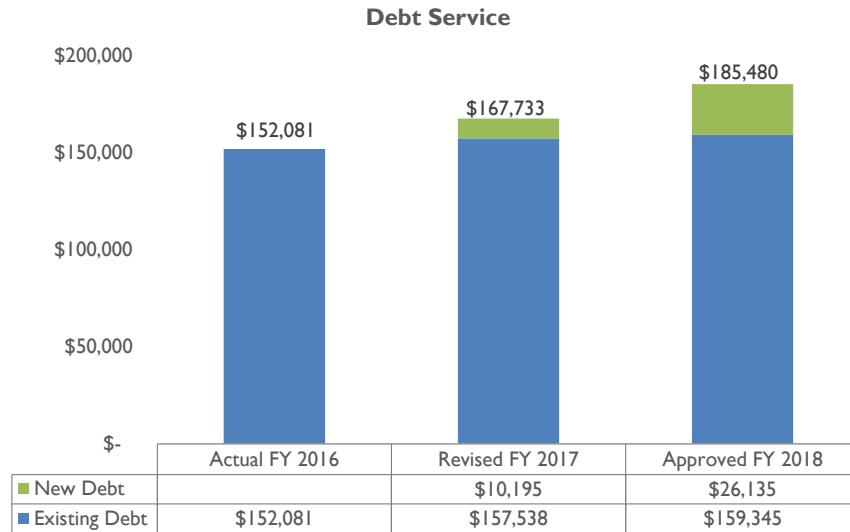
	FY 2016 Actual	FY 2017 Approved	FY 2017 Revised	FY 2018 Approved
Sources				
Beginning Balance	\$ 68,443,585	\$ 113,337	\$ 106,057	\$ 133,720
New Debt Proceeds / Commercial Paper/ EMCP (1)	454,453	300,000	300,000	154,938
Proceeds for Notes pay - off	(112,000)	-	-	-
System Availalbity Fee	-	-	-	1,925
Pay-Go Financing	71,759	78,725	100,633	93,589
EPA Grants	25,306	22,129	25,013	23,093
CSO Appropriations (2)	14,023	-	-	-
Wholesale Customer Capital Payments	140,156	97,321	107,732	80,043
Interest Income	925	2,415	1,283	1,365
Total Sources	\$ 594,622	\$ 500,590	\$ 534,661	\$ 354,953
Uses				
Water Projects	\$ 78,335	\$ 62,537	\$ 58,819	\$ 51,738
WasteWater Treatment	163,369	117,814	123,789	98,423
Sanitary Sewer Projects	47,380	61,144	38,302	39,294
Combined Sewer & LTCP Projects	235,322	151,125	184,387	130,475
Stormwater Projects	2,185	1,430	1,706	2,682
Non Process Facilities	5,200	28,613	34,150	20,030
Washington Aqueduct	7,153	10,838	10,896	11,768
Capital Equipment	13,139	29,530	28,151	23,586
Meter Replacement / AMR / CIS	4,926	9,207	26,798	9,311
Total Uses	\$ 557,009	\$ 472,238	\$ 506,998	\$ 387,306
Sources Minus Uses	\$ 37,613	\$ 28,352	\$ 27,663	\$ (32,354)

Cash Reserve Summary

\$ in thousands

	FY 2016 Actual	FY 2017 Approved	FY 2017 Revised	FY 2018 Approved
Beginning O&M Reserve Balance (Net of Rate Stabilization Fund)	\$ 160,055	\$ 140,000	\$ 162,652	\$ 140,000
Operating Surplus	94,364	78,407	82,660	75,821
Wholesale Customer Prior Year Billing Reconciliation	(13,017)	(5,000)	(10,000)	(7,000)
Transfer to Rate Stabilization Fund	(19,000)	-	-	-
Federal Customer Prior Year Billing Reconciliation	(11,679)	(19,201)	(19,201)	(9,019)
Interest Earned from Bond Proceeds	213	505	323	452
Pay-Go Capital Financing	(48,284)	(54,711)	(76,434)	(60,255)
Ending O&M Reserve Balance (Net of Rate Stabilization Fund)	\$ 162,652	\$ 140,000	140,000	140,000
Rate Stabilization Fund	\$ 51,450	\$ 19,450	\$ 51,450	\$ 51,450

\$ in thousands



INTEREST RATE ASSUMPTIONS

Budget Appropriation and Financial Plan

- Variable rate
 - 2.50% for FY 2017 and FY 2018
- Fixed rate
 - 5.75% (FY 2017) and 6.50 (FY 2018)
 - Plus cost of issuance and insurance

CAPITAL FINANCING PLAN

DC Water's comprehensive capital financing plan contains three key goals:

1) minimize cost of capital; 2) increase operational flexibility; and 3) optimize asset/liability matching through:

- Interim financing
- Permanent bond financing
- Pay-Go financing
- Federal grants

SENIOR BOND RATINGS

Moody's Investor Service	Aa1	Stable Outlook
Standard & Poor's Corporation	AAA+	Stable Outlook
Fitch's Rating	AA	Stable Outlook

DEBT SERIES	Actual FY 2016			Revised FY 2017			Approved FY 2018		
	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total
Senior Lien									
1998*	\$ 13,920	\$ 9,448	\$ 23,368	\$ 14,750	\$ 8,613	\$ 23,363	\$ 15,565	\$ 7,802	\$ 23,367
Series 2009 A	3,495	3,116	6,611	3,815	364	4,179	4,225	211	4,436
Series 2014 A	-	16,849	16,849	-	16,849	16,849	-	16,849	16,849
Total Senior Lien	\$ 17,788	\$ 29,846	\$ 46,829	\$ 18,565	\$ 25,826	\$ 44,391	\$ 20,190	\$ 25,267	\$ 44,652
Subordinate									
Jennings Randolph Bonds	\$ 373	\$ 432	\$ 805	387	418	805	400	405	805
WASA Bonds	-	-	-	-	10,195	10,195	-	26,135	26,135
Series 2007 A	-	1,893	1,893	-	-	-	-	-	-
Series 2008 A	6,600	3,369	9,969	6,735	680	7,415	6,865	343	7,208
Series 2010 A	417	10,813	11,230	-	11,094	11,094	-	11,094	11,094
Series 2012 A, B-1, B-2, C	4,915	16,192	21,107	5,140	15,918	21,058	5,345	15,713	21,058
Series 2013 A	-	14,994	14,994	-	14,994	14,994	-	14,994	14,994
Series 2014 B	-	252	252	-	1,998	1,998	-	3,250	3,250
Series 2014 C	-	17,468	17,468	-	17,468	17,468	-	17,648	17,648
Series 2015 A,B	-	16,793	16,793	-	17,521	17,521	580	17,521	18,101
Series 2016 A	-	10,500	10,500	-	17,420	17,420	-	17,420	17,420
Series 2016 B	-	-	-	-	867	867	-	858	858
EMCP	-	149	149	-	1,592	1,592	-	1,558	1,558
Commercial Paper	-	93	93	-	915	915	-	879	879
Total Subordinate Lien Debt	\$ 12,304	\$ 92,854	\$ 105,252	\$ 12,262	\$ 111,079	\$ 123,342	\$ 13,190	\$ 127,818	\$ 140,828
Total Debt	\$ 30,092	\$ 122,700	\$ 152,081	\$ 30,827	\$ 136,905	\$ 167,733	\$ 33,380	\$ 153,085	\$ 185,480

* Revenue Bond

Outstanding Debt

\$ in thousands

	Interest Rates (%)	Final Maturity	Amount Outstanding
Senior Debt			
Series 1998 Bonds	5.50-6.00	2028	\$156,605
Series 2009A Bonds	3.00-5.50	2039	8,040
Series 2014A Bonds	4.814	2114	\$350,000
Total Senior Debt			\$514,645
Subordinate Debt			
Series 2008A Bonds	5	2034	13,600
Series 2010A Bonds	4.07-5.523	2044	300,000
Series 2012A Bonds	3.00-5.00	2037	158,740
Series 2012C Bonds	4.00-5.00	2033	163,215
Series 2013A Bonds	4.75-5.00	2048	300,000
Series 2014B Bonds	VR4	2050	100,000
Series 2014C Bonds	3.00-5.00	2044	377,110
Series 2015A Bonds	2.00-5.00	2045	100,000
Series 2015B Bonds	5.00-5.25	2044	250,000
Series 2016A Bonds			389,110
Series 2016B Bonds	3.43	2046	25,000
Government Notes			
Jennings Randolph Reservoir Debt	3.25%	2041	\$12,841
Commercial Paper Notes (“CP Notes”)			
Series C CP Notes (taxable)	VR	20207	\$29,200
Extendable Municipal Commercial Paper Notes (“EMCP Notes”)			
Series A EMCP Notes	VR	N/A	\$50,000
Total Subordinate Debt			\$2,268,816
Total Debt Outstanding			\$2,783,461

DEBT LIMIT: DC Water is not subject to any legal debt limitations. However, prior to any new debt issuance, DC Water must meet an additional bonds test and certify revenue sufficiency

PUBLIC UTILITY SENIOR LIEN REVENUE BONDS: 1) Series 1998, (fixed-rate, Aaa/AAA/AAA, FSA insured, March 1998); and 2) Series 2009A (fixed-rate, Aa3/AA/AA-, January 2009)

PUBLIC UTILITY SUBORDINATE LIEN REVENUE BONDS: 1) Series 2007A (fixed-rate, Aaa/AAA/AAA, FGIC insured, May 2007); and 2) Series 2013A (fixed-rate, Aa3/AA/AA-, July 2013)

PUBLIC UTILITY SUBORDINATE LIEN REVENUE BONDS (FEDERALLY TAXABLE ISSUER SUBSIDY BUILD AMERICA BONDS): 1) Series 2010A (fixed-rate, Aa3/AA-/AA, October 2010)

PUBLIC UTILITY SUBORDINATE LIEN MULTIMODAL REVENUE BONDS: 1) Series 2012B-1 and Series 2012B-2 (SIFMA indexed variable-rate Aa3/AA/AA-, March 2012)

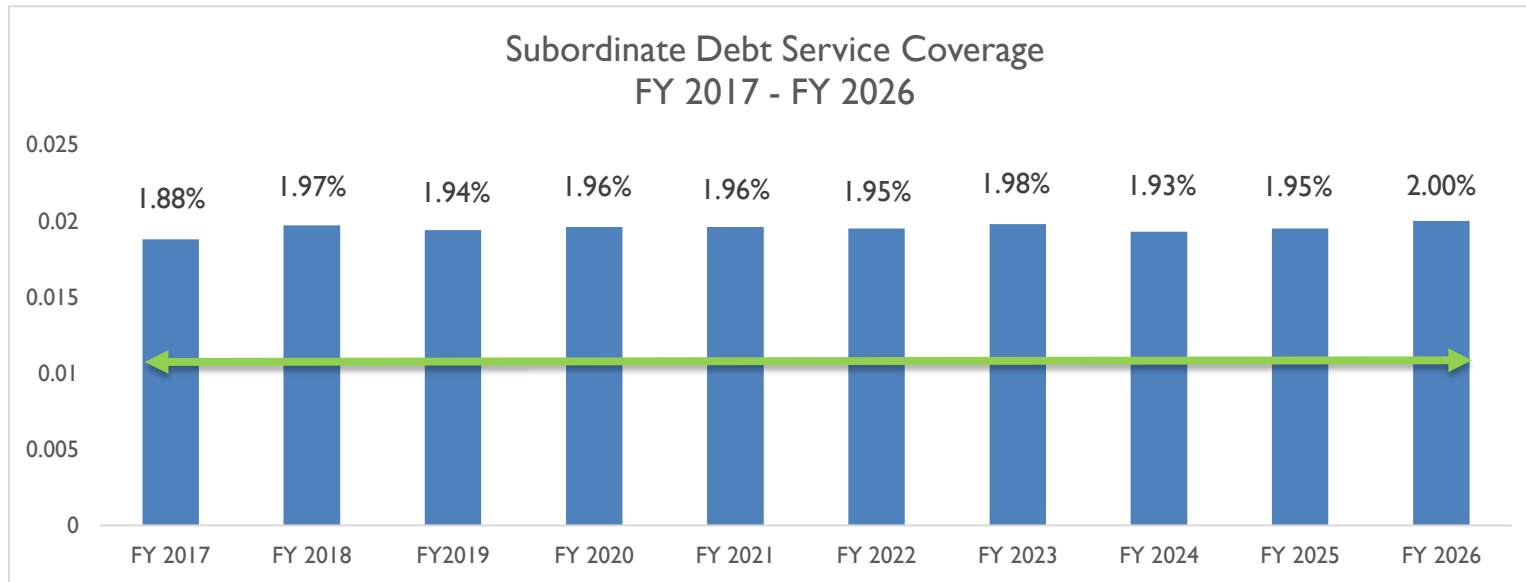
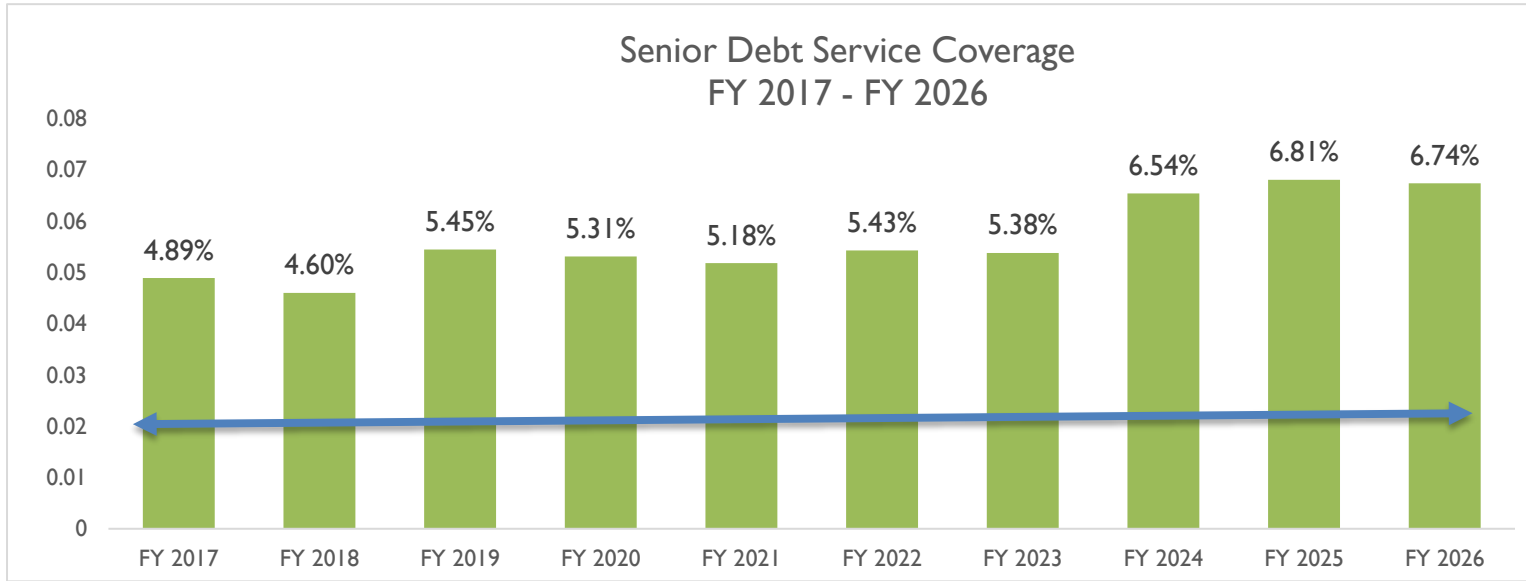
PUBLIC UTILITY SUBORDINATE LIEN REVENUE REFUNDING BONDS: 1) Series 2008A: (refunded Series 2004, fixed-rate, Aaa/AAA/AAA, Assured Guaranty insured, April 2008); 2) Series C taxable commercial paper: (refunded Series 2007B, April 2008); and 3) Series 2012C: (advance refunded Series 2003, fixed-rate, Aa3/AA/AA-, March 2012)

NOTES FOR JENNINGS RANDOLPH RESERVOIR: The note payable to the Federal government for improvements to the Jennings Randolph Reservoir is considered subordinate debt under the Master Indenture of Trust. The notes were issued to provide a backup water supply facility for the Authority. DC Water's share of operating and capital cost is 30 percent

NOTES FOR LITTLE SENECA RESERVOIR: The note payable to Washington Suburban Sanitary Commission (WSSC) is considered subordinate debt under the Master Indenture of Trust. The notes were issued by WSSC for construction of the Little Seneca Dam and Lake for backup and peak-day water supply for the Authority. DC Water's share of operating and capital costs is 40 percent. DC Water prepaid the note in full in August 2013

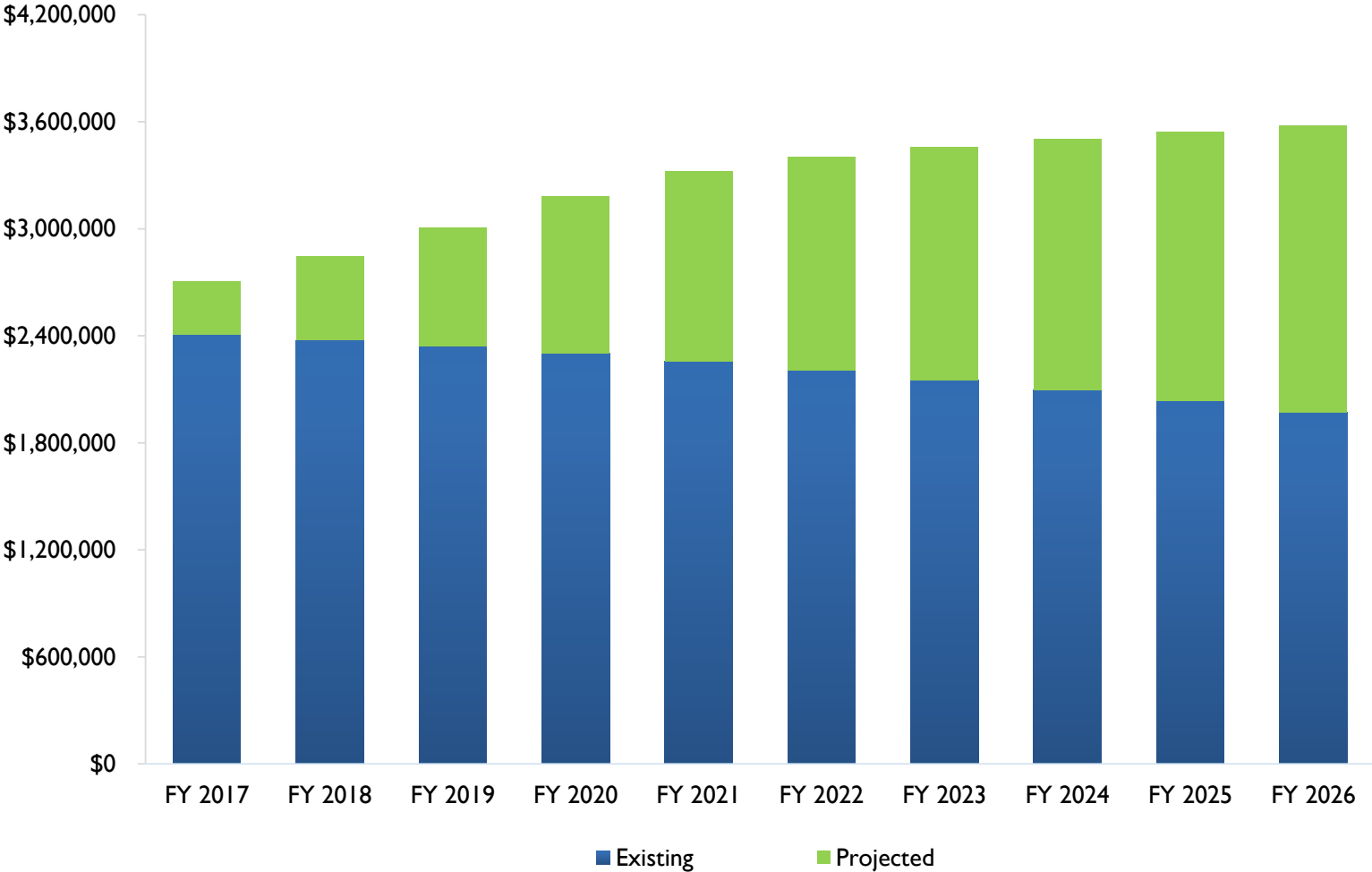
COMMERCIAL PAPER: These notes issued are considered subordinate debt under the Master Indenture of Trust. DC Water's commercial paper program is issued in increments with maturities less than 270 days. As described in Section III, the Board approved the commercial paper program in early FY 2002; proceeds from the sale of the notes are used for interim bond financing, short-term financing for capital equipment and certain taxable costs for the Washington Aqueduct. Each new bond issuance is evaluated to determine the most cost effective way of reducing the amount of taxable commercial paper. Normal market conditions for commercial paper carries significantly lower interest rates than long-term debt. In April 2013, DC Water successfully extended the Letter of Credit with JP Morgan Chase Bank and US Bank. The \$200 million commercial paper program includes: 1) Series A (tax-exempt) aggregate principal amount not to exceed \$75 million; 2) Series B (tax-exempt) aggregate principal amount not to exceed \$50 million; and (3) Series C (taxable) aggregate principal amount not to exceed \$75 million.

DEBT POLICY: DC Water's comprehensive debt policy can be found on our website at www.dcwater.com.



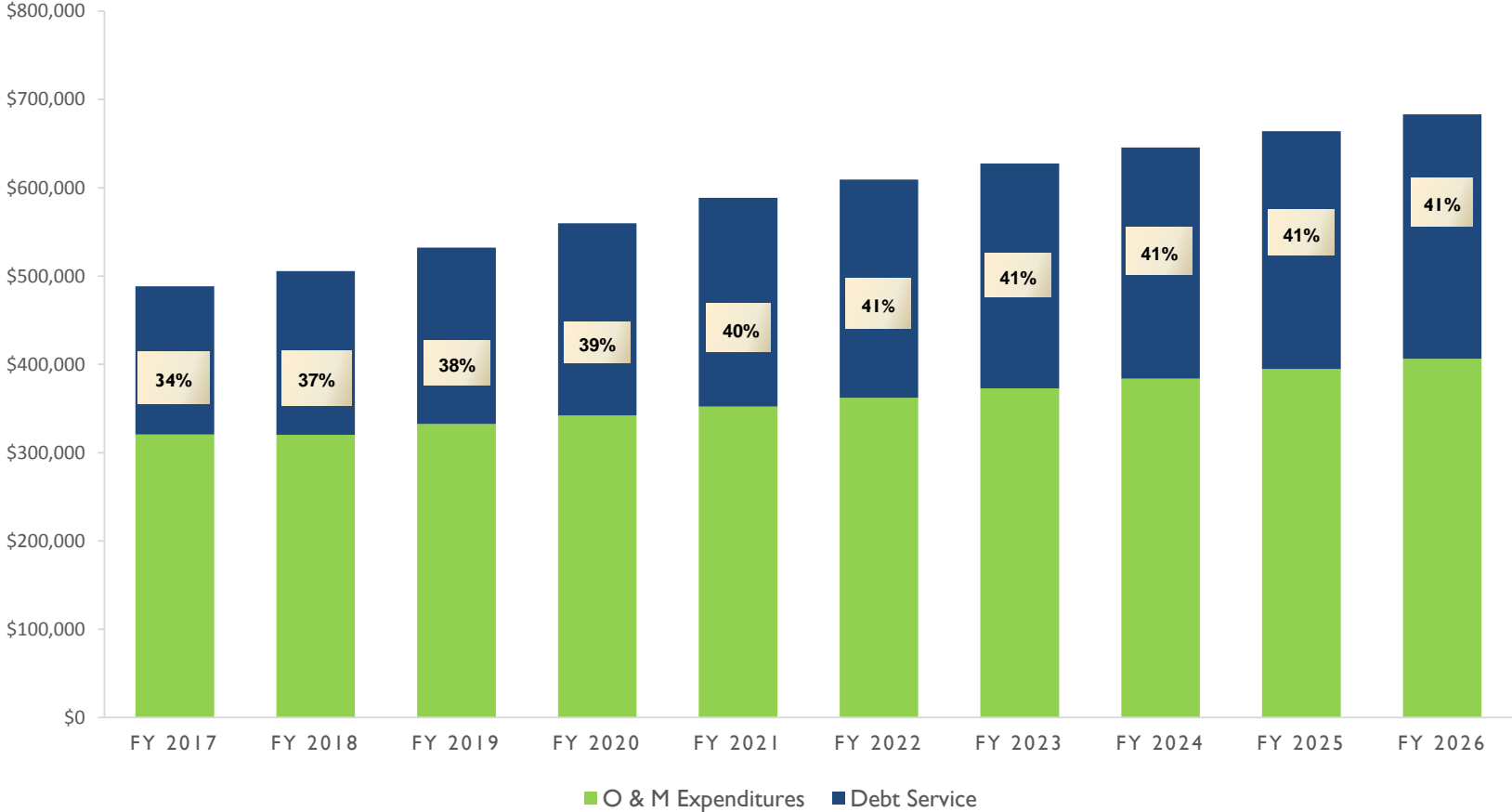
Existing & Projected Debt Service

\$ in thousands



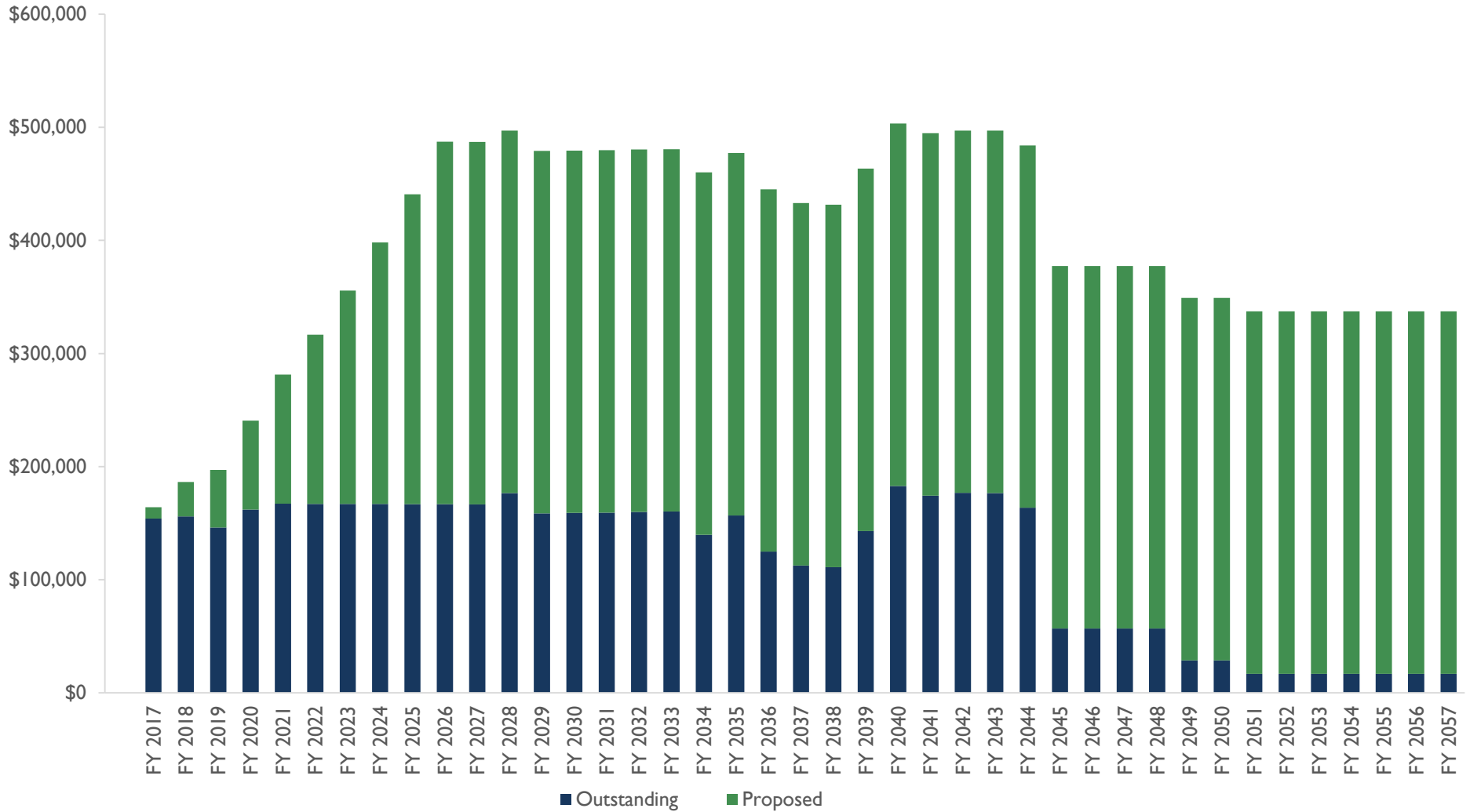
Debt Service as Percentage of O&M Expenditures

\$ in thousands



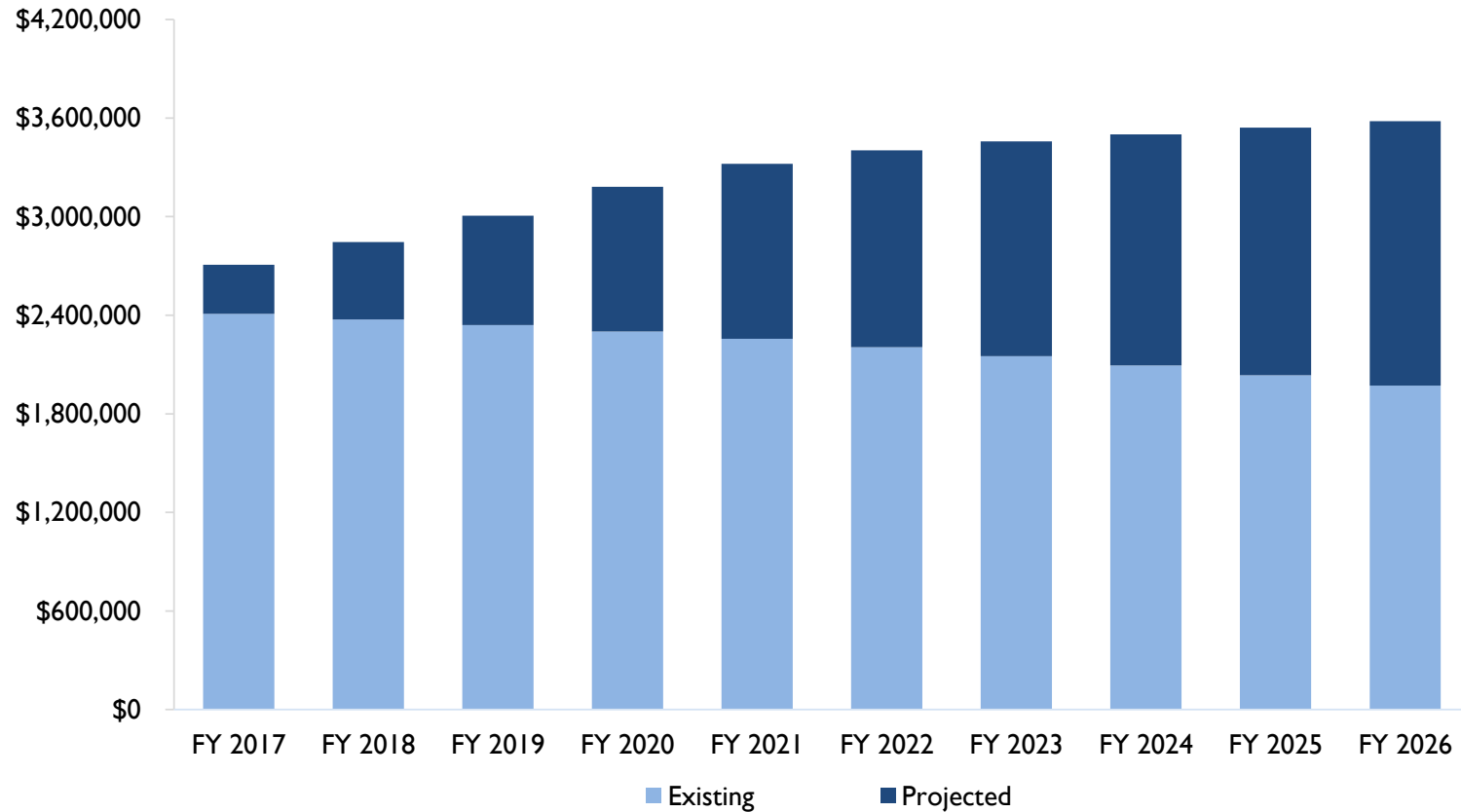
Total Proposed and Outstanding Debt

\$ in thousands



Principal Debt Outstanding

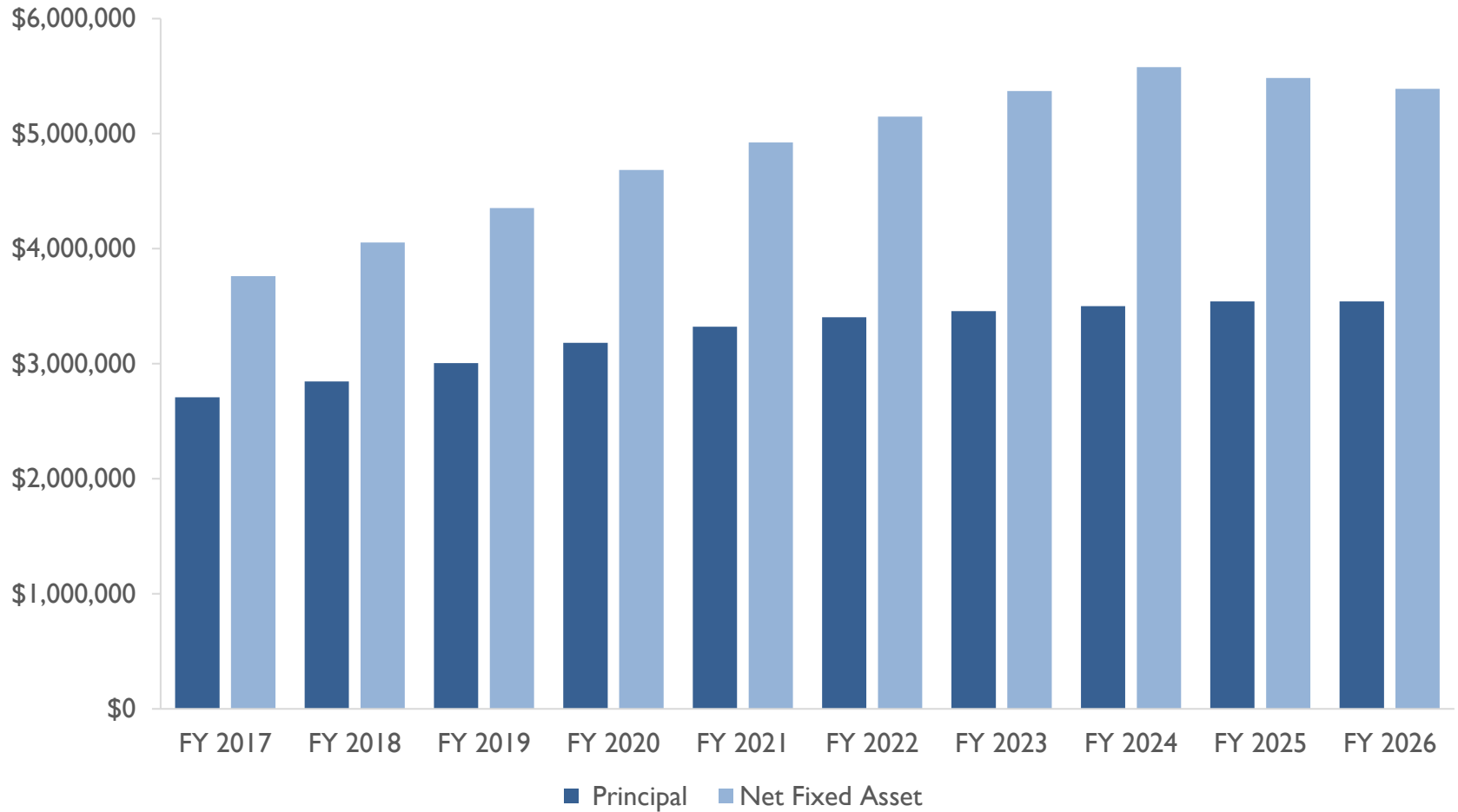
\$ in thousands



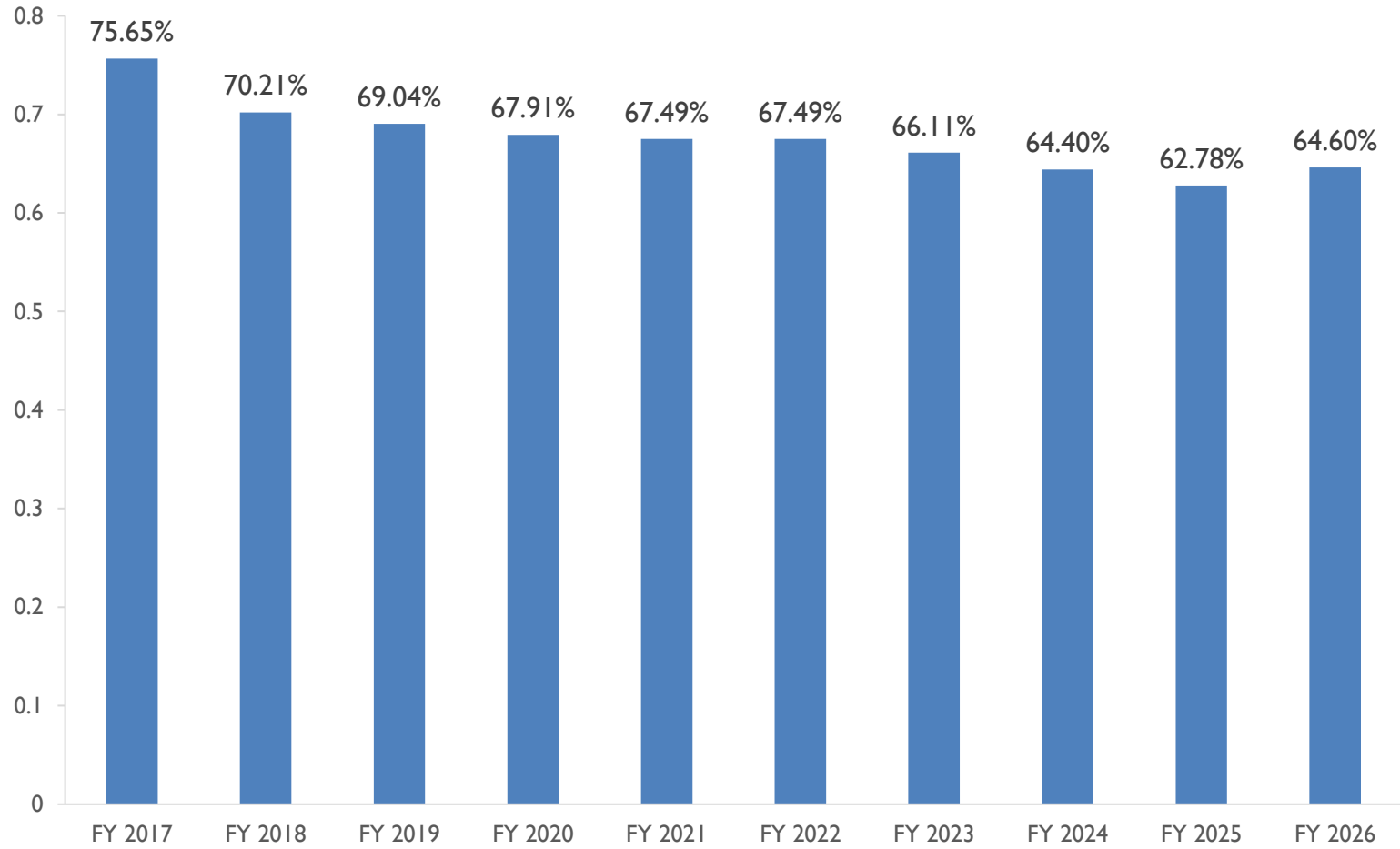
- The largest source of funding for DC Water's Capital Improvement Program is debt
- Over the next 10 - years, DC Water will issue approximately \$1.8 Billion in debt (this includes the funding of Reserves and Costs of Issuance), increasing total Debt Outstanding to \$3.6 Billion at the end of FY 2025

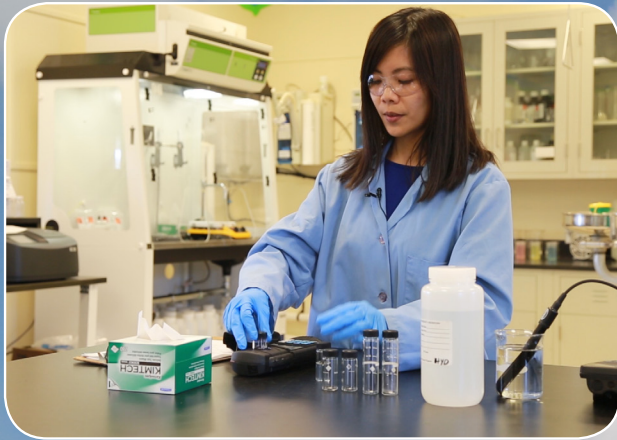
Principal vs. Net Fixed Assets

\$ in thousands



Debt to Net Fixed Assets Ratio





APPROVED BUDGETS

dc water is life®

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

**Section VII
DEPARTMENTAL
SUMMARIES**

Introduction to DC Water’s Operational and Administrative (Support) Departments

DC Water’s organizational structure is a key tool for ensuring that the organizational mission is achieved. The structure consists of twenty-four departments that are defined primarily along functional roles and further grouped along service lines (Operational or Administrative) or reporting clusters of authority.

Service Lines: Operational departments include: Water Services, Sewer Collection and Wastewater Treatment services (including maintenance of these facilities). These departments are responsible for the day-to-day operations of the DC Water’s extensive infrastructure and facilities that provide direct services to our customers. Similarly, the Customer Service Department is classified as an operational department due to the integrated nature of their work to operations (i.e., customer care, metering and billing). Provision of first-line customer care to our customers includes 24 hour emergency service. Engineering and Technical Services, Clean Rivers and Permit Operations departments are responsible for ongoing reinvestment of the system infrastructure, compliance with various mandates and provide services to the development community throughout the District of Columbia.

All other departments provide critical administrative and technical support to ensure the safe and reliable continuity of our vital services through short and long-term planning, asset management, leadership and all financial and human capital support requirements. An organizational chart can be found on page VII-13.

Reporting Lines: Departments are grouped within clusters to ensure accountability and to enhance efficiency and delivery of various services. A member of the Executive Team* heads each departmental cluster group and carries the accountability for service delivery and performance metrics of the departments within their cluster.

*Executive Team

CEO & General Manager	Chief Engineer	Chief External Affairs	Chief Financial Officer	Chief Information Officer	Chief Marketing Officer	Chief Operating Officer	Chief Procurement Officer	Chief of Staff	General Counsel
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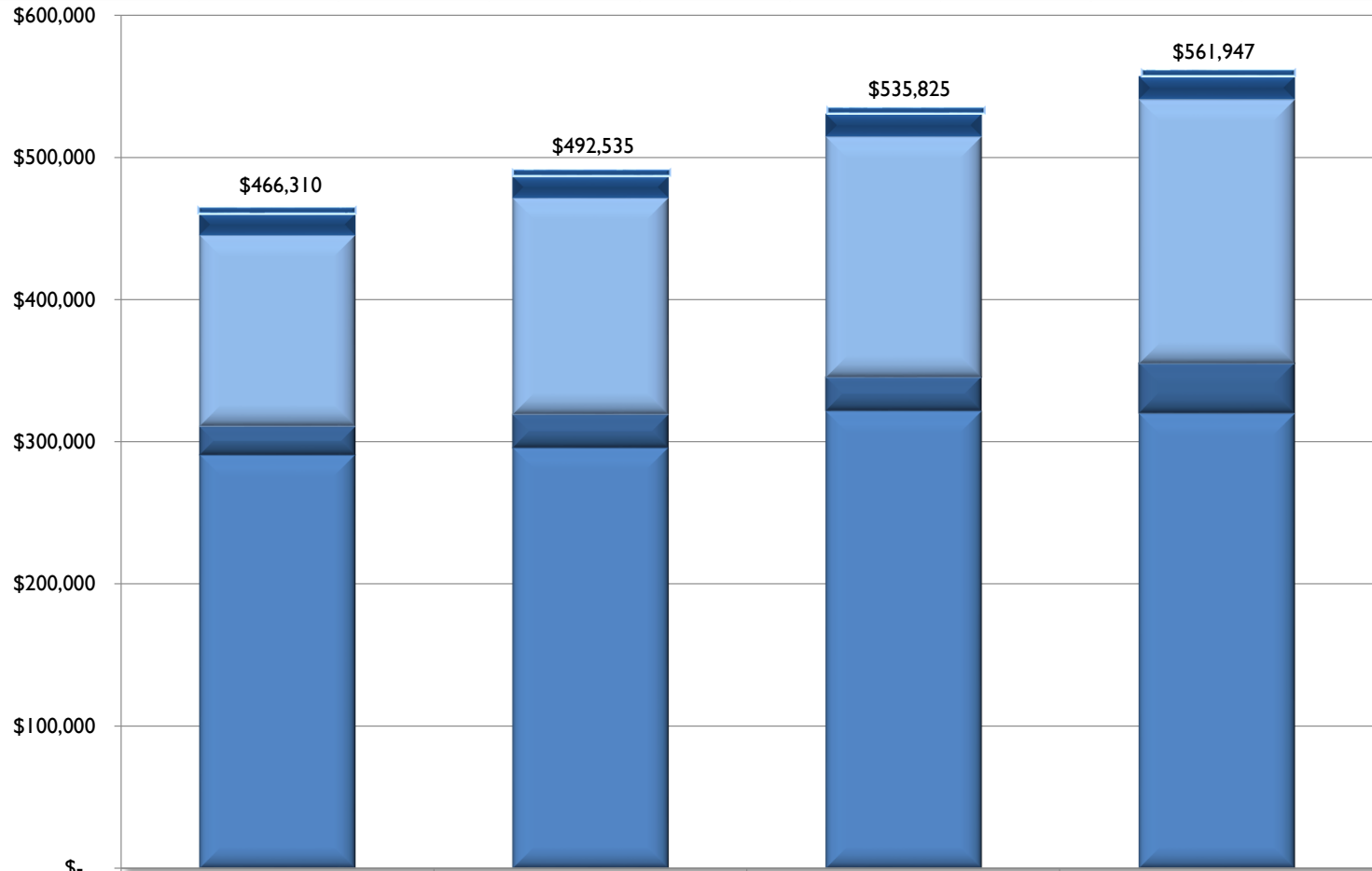
As DC Water strives in its mission to be a “best in world” organization, it also continues to make organizational changes and improvement to enhance efficiencies, improve processes and best utilize all assets with the goal to better serve the public and protect the environment.

In FY 2016, this resulted in various departmental and cluster group reorganization across the Authority, including:

- Department of Engineering and Technical Services – creation of a Wastewater Engineering Department dedicated to delivering capital improvements at Blue Plains and increase efficiencies in the current structure;
- Independent Offices Cluster – integration of Human Capital Management (HCM) and Procurement Departments from Support Services cluster group to enhance service delivery and improve core operations to meet employee and customer needs. As part of the Authority’s vision to achieve world-class business unit maturity, HCM was reorganized to keep pace with industry best practices and emerging trends;
- Customer Care and Operations Cluster – continuing efforts to improve operations and processes. This resulted in the consolidation of the contract management functions in Water Services Department.

Comparative Operating Expenditure Budgets

\$ in thousands



	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
■ ROW	\$5,100	\$5,100	\$5,100	\$5,100
■ PILOT	\$15,337	\$15,644	\$15,957	\$16,276
■ Debt Service	\$134,845	\$152,428	\$169,346	\$185,480
■ Cash Financed Capital Improvements	\$20,058	\$23,475	\$24,014	\$35,260
■ Operations & Maintenance	\$290,970	\$295,888	\$321,408	\$319,831

Operations and Maintenance Expenditures by Category

summary

overview

financial plan

rates&rev

capital

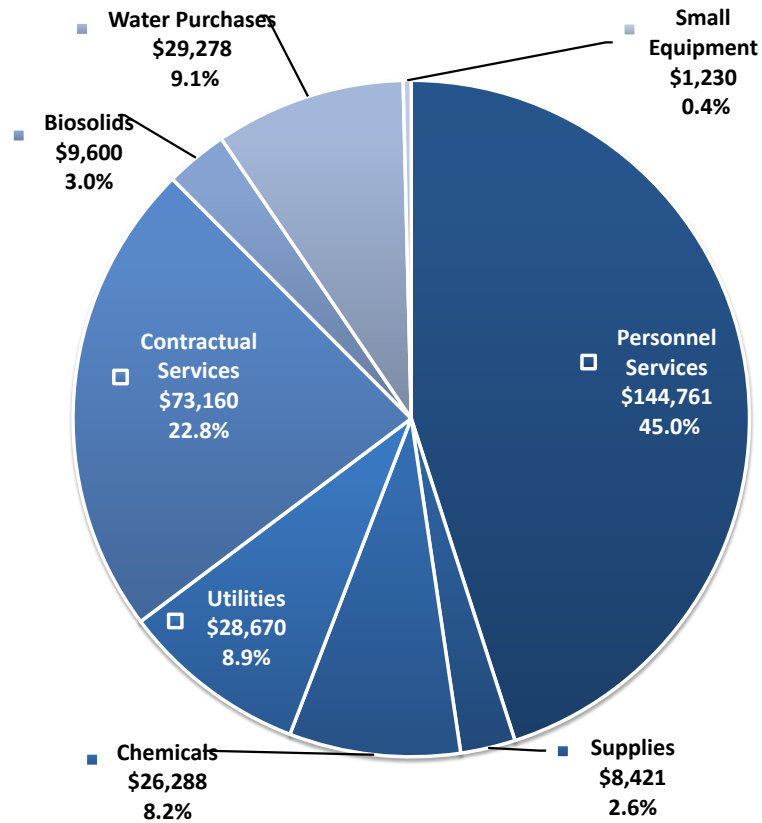
financing

departmental

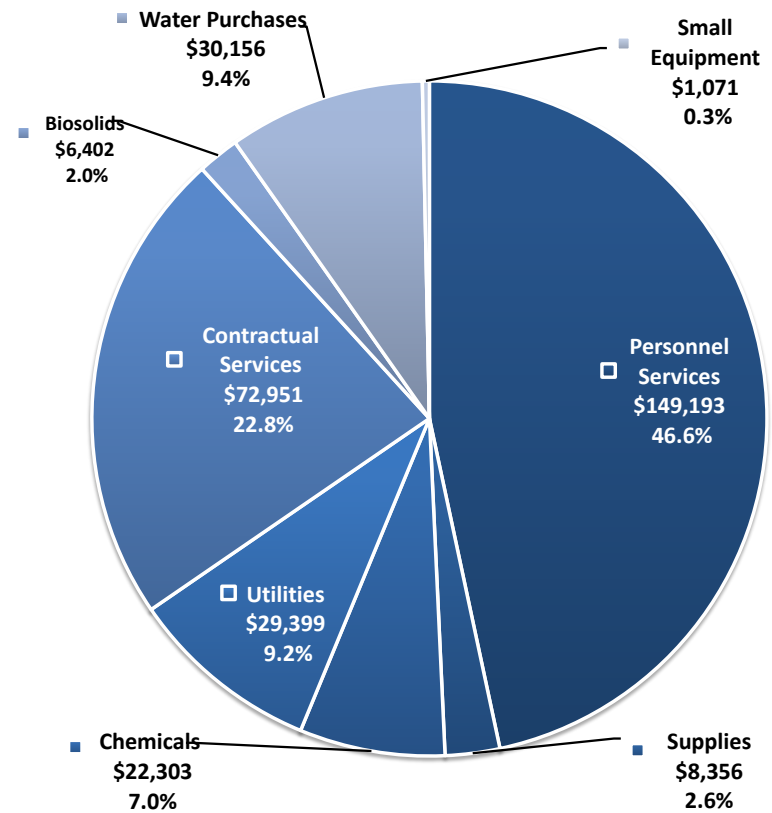
glossary

\$ in thousands

FY 2017 Approved



FY 2018 Approved



Operating Expenditures by Object

FY 2015 - FY 2018, \$ in thousands

Object	FY 2015 ACTUAL	FY 2016 ACTUAL	FY 2017 APPROVED	FY 2018 APPROVED
Personnel Services	\$ 133,935	\$ 141,886	\$ 144,761	\$ 149,193
Contractual Services	66,241	74,087	82,760	79,354
Water Purchases	29,109	26,345	29,278	30,156
Chemicals and Supplies	30,306	28,965	34,709	30,658
Utilities	30,848	23,934	28,670	29,399
Small Equipment	531	672	1,230	1,071
Subtotal Operations & Maintenance Expenditures	290,970	295,888	321,408	319,831
Debt Service	134,845	152,428	169,346	185,480
Cash Financed Capital Improvements	20,058	23,475	24,014	35,260
Payment in Lieu of Taxes	15,337	15,644	15,957	16,276
Right of Way Fees	5,100	5,100	5,100	5,100
Total Operating Expenditures	\$ 466,310	\$ 492,535	\$ 535,825	\$ 561,947
Personnel Services charged to Capital Projects	(18,702)	(17,648)	(21,934)	(21,061)
Total Net Operating Expenditures	\$ 447,608	\$ 474,887	\$ 513,891	\$ 540,886

Operating Expenditures by Department & Cluster

FY 2015 - FY 2018, \$ in thousands

Departments & Clusters	FY 2015 ACTUAL	FY 2016 ACTUAL	FY 2017 APPROVED	FY 2018 APPROVED
BLUE PLAINS	\$ 99,010	\$ 90,467	\$ 109,515	\$ 101,917
Maintenance Services	18,902	18,564	21,057	19,558
WWT-Operations	73,078	64,983	80,466	74,686
WWT-Process Engineering	7,030	6,921	7,991	7,673
CHIEF ENGINEER	27,603	29,203	30,394	32,018
D.C. Clean Rivers	2,487	2,835	3,023	2,995
Engineering & Technical Services	23,040	24,319	25,126	26,728
Permit Operations	2,075	2,049	2,244	2,295
CHIEF FINANCIAL OFFICER	11,970	13,141	14,391	15,299
Finance, Accounting & Budget	11,970	13,141	14,391	15,299
CUSTOMER CARE & OPERATIONS	98,503	101,232	106,767	106,180
Customer Service	17,009	17,677	18,679	19,281
Sewer Services	13,978	14,846	15,077	14,315
Water Services	21,974	23,407	22,936	24,094
Distribution & Conveyance System	45,543	45,302	50,075	48,490
INDEPENDENT OFFICES	34,310	39,896	37,300	40,480
Board Secretary	441	526	625	599
External Affairs	2,164	2,146	2,272	2,531
General Counsel	7,014	9,003	5,823	7,332
General Manager	3,209	3,844	4,373	4,138
Human Capital Management	6,895	7,780	7,823	7,986
Information Technology	10,258	10,992	11,045	11,315
Internal Audit	850	997	890	907
Procurement	3,479	4,608	4,450	5,672
SUPPORT SERVICES	19,574	21,950	23,041	23,936
Assistant General Manager - Support Services	393	473	527	513
Fleet Management	4,813	5,365	5,456	5,321
Occupational Safety & Health	1,437	1,556	1,691	1,871
Facilities Management	7,712	8,013	8,490	8,695
Security	5,219	6,545	6,877	7,536
Subtotal O & M Expenditures	290,970	295,888	321,408	319,831
Debt Service	134,845	152,428	169,346	185,480
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FY 2017 Approved Budget by Department by Category

\$ in thousands

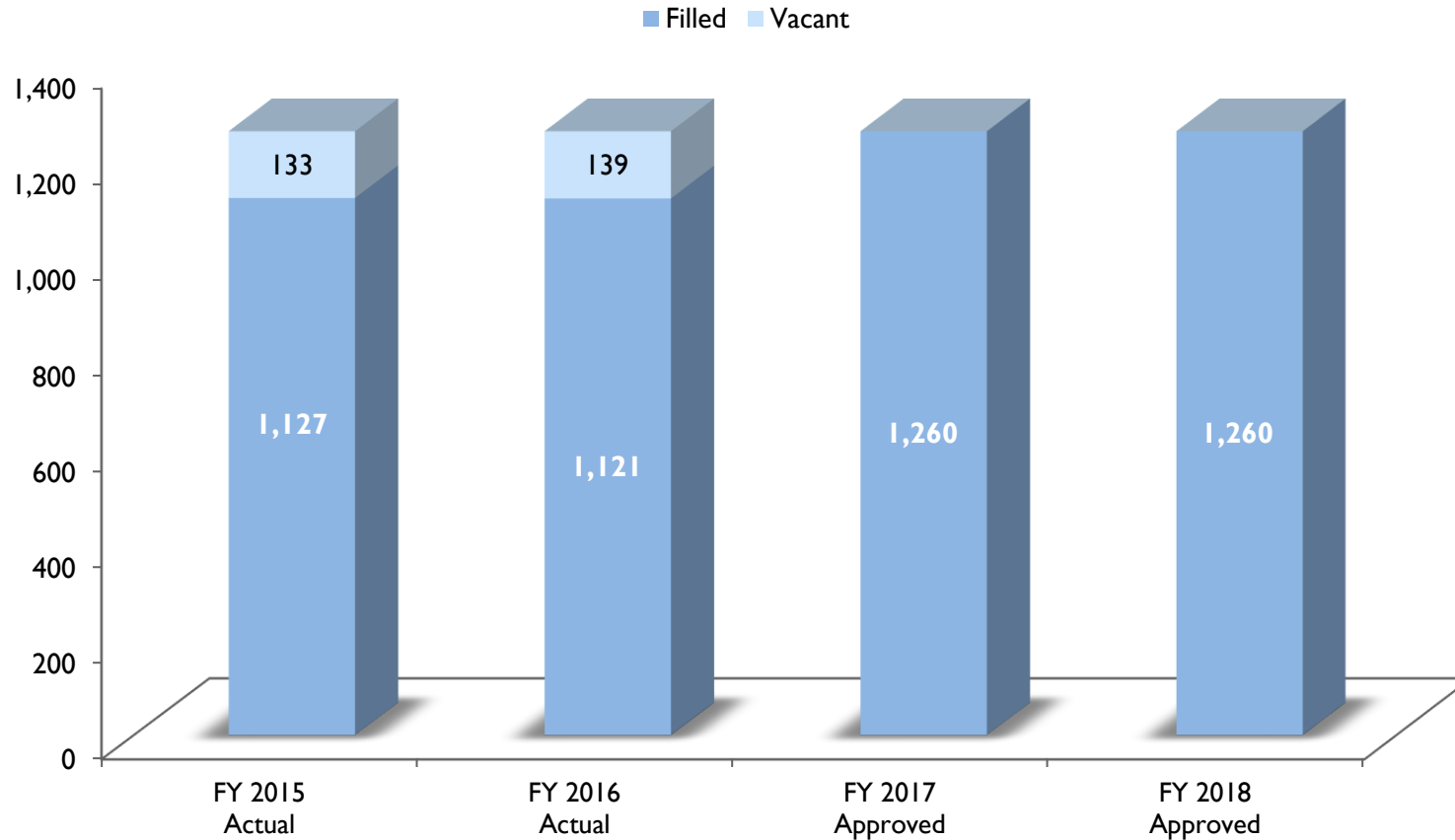
	Pos	Pay	Fringe	Overtime	Total Personnel Services	Supplies	Chemicals	Utilities	Contracts	Biosolids	Water Purchases	Equipment	Total Non-Personnel Services	Total Dept.
O														
Wastewater Treatment - Operations	121	\$ 10,020	\$ 3,140	\$ 1,451	\$ 14,611	\$ 1,285	\$ 25,895	\$ 19,353	\$ 9,619	\$ 9,600	\$ -	\$ 102	\$ 65,854	\$ 80,466
Wastewater Treatment - Process Engineering	40	3,348	1,124	120	4,591	628	-	64	2,692	-	-	16	3,400	7,991
Maintenance Services	116	8,986	2,891	700	12,578	3,457	-	164	4,639	-	-	220	8,480	21,057
Water Services	190	12,888	4,313	1,100	18,301	635	30	210	3,610	-	-	150	4,635	22,936
Sewer Services	119	8,094	2,717	900	11,711	472	40	803	1,991	-	-	60	3,366	15,077
Customer Service	124	8,958	2,988	260	12,206	171	-	1,239	5,013	-	-	50	6,472	18,679
Distribution & Conveyance Systems	88	7,200	2,293	750	10,243	701	323	4,450	4,854	-	29,278	226	39,832	50,075
Engineering and Technical Services	166	15,844	5,194	1,063	22,102	176	-	439	2,327	-	-	82	3,025	25,126
D.C Clean Rivers	16	2,062	692	5	2,759	10	-	97	157	-	-	-	265	3,023
Permit Operations	15	1,292	434	15	1,741	26	-	340	138	-	-	-	503	2,244
Subtotal Operations	995	78,692	25,787	6,364	110,843	7,561	26,288	27,159	35,039	9,600	29,278	907	135,832	246,675
A														
General Manager	15	2,229	748	8	2,984	13	-	29	1,347	-	-	-	1,389	4,373
Office of the Secretary (Board)	2	207	70	5	282	18	-	8	316	-	-	1	343	625
Internal Audit	-	-	-	-	-	-	-	8	883	-	-	-	890	890
General Counsel	15	1,508	506	2	2,017	8	-	20	3,779	-	-	-	3,806	5,823
External Affairs	13	1,290	433	27	1,750	10	-	33	471	-	-	7	522	2,272
Human Capital Management	25	2,888	838	5	3,731	34	-	48	4,008	-	-	2	4,092	7,823
Information Technology	28	3,006	1,009	27	4,042	64	-	161	6,654	-	-	124	7,003	11,045
Procurement	34	2,525	848	30	3,403	41	-	66	935	-	-	5	1,047	4,450
Finance, Accounting and Budget	48	4,899	1,644	30	6,573	53	-	207	7,554	-	-	4	7,818	14,391
AGM - Support Services	3	371	125	1	497	1	-	10	19	-	-	-	30	527
Facilities Management	59	4,105	1,354	250	5,710	548	-	104	2,078	-	-	50	2,780	8,490
Security	7	633	213	-	846	19	-	24	5,954	-	-	35	6,031	6,877
Occupational Safety and Health	9	931	312	2	1,245	37	-	36	363	-	-	10	446	1,691
Fleet Management	7	625	210	4	839	16	-	757	3,760	-	-	85	4,617	5,457
Subtotal Administration	265	25,218	8,309	390	33,919	860	-	1,512	38,121	-	-	323	40,815	74,733
Subtotal O & M Expenditures	1,260	\$ 103,911	\$ 34,096	\$ 6,754	\$ 144,761	\$ 8,421	\$ 26,288	\$ 28,670	\$ 73,160	\$ 9,600	\$ 29,278	\$ 1,230	\$ 176,647	\$ 321,408
Debt Service														169,346
Cash Financed Capital Improvements														24,014
Payment in Lieu of Taxes														15,957
Right of Way														5,100
Total Operating Expenditures														\$ 535,825
Personnel Services charged to Capital Projects														(21,934)
Total Net Operating Expenditures														\$ 513,891

FY 2018 Approved Budget by Department by Category

\$ in thousands

	Pos	Pay	Fringe	Overtime	Personnel Services	Supplies	Chemicals	Utilities	Contracts	Biosolids	Water Purchases	Equipment	Total Non-Personnel Services	Total Dept.	
Operations	Wastewater Treatment - Operations	122	\$ 10,306	\$ 3,232	\$ 1,463	\$ 15,001	\$ 1,234	\$ 22,109	\$ 19,968	\$ 9,838	\$ 6,402	\$ 134	\$ 59,685	\$ 74,686	
	Wastewater Treatment - Process Engineering	39	3,542	1,172	64	4,778	452	-	59	2,371	-	14	2,895	7,673	
	Maintenance Services	115	8,778	2,794	500	12,072	3,545	-	159	3,571	-	210	7,486	19,558	
	Water Services	190	13,352	4,454	1,047	18,853	617	-	300	3,750	-	100	4,766	23,619	
	Water Quality and Technology						71	15	-	339	-	-	50	475	475
	Sewer Services	115	7,968	2,665	900	11,533	534	25	815	1,372	-	-	35	2,782	14,315
	Customer Service	126	9,348	3,091	260	12,700	171	-	1,258	5,090	-	-	63	6,582	19,281
	Distribution & Conveyance Systems	88	6,915	2,276	541	9,732	622	154	4,168	3,608	-	30,156	50	38,758	48,490
	Engineering and Technical Services	166	16,773	5,547	1,024	23,344	196	-	490	2,592	-	-	106	3,384	26,728
	D.C. Clean Rivers	15	2,017	675	-	2,691	19	-	41	244	-	-	-	304	2,995
	Permit Operations	15	1,331	459	2	1,791	31	-	332	130	-	-	10	503	2,295
	Subtotal Operations	991	80,329	26,366	5,801	112,496	7,491	22,303	27,589	32,905	6,402	30,156	772	127,619	240,115
Administration	General Manager	16	2,412	799	9	3,221	13	-	37	868	-	-	917	4,138	
	Office of the Secretary (Board)	2	215	73	8	296	18	-	7	278	-	-	303	599	
	Internal Audit	-	-	-	-	-	-	-	5	902	-	-	-	907	907
	General Counsel	14	1,538	526	2	2,066	9	-	21	5,236	-	-	5,266	7,332	
	External Affairs	14	1,421	488	27	1,936	10	-	26	551	-	-	7	594	2,531
	Human Capital Management	25	3,092	925	4	4,020	34	-	43	3,889	-	-	-	3,965	7,986
	Information Technology	28	3,111	1,041	15	4,167	59	-	179	6,817	-	-	94	7,148	11,315
	Procurement	36	3,461	1,140	30	4,631	34	-	57	945	-	-	5	1,041	5,672
	Finance, Accounting and Budget	49	5,211	1,787	40	7,038	40	-	171	8,045	-	-	4	8,261	15,299
	AGM - Support Services	3	366	124	-	490	1	-	4	18	-	-	-	23	513
	Facilities Management	57	4,187	1,367	238	5,792	548	-	217	2,242	-	-	69	3,076	8,868
	Security	9	657	220	-	876	53	-	266	6,118	-	-	50	6,486	7,362
	Occupational Safety and Health	9	967	323	1	1,292	28	-	32	514	-	-	5	580	1,871
Fleet Management	7	650	217	3	871	18	-	743	3,625	-	-	65	4,450	5,321	
Subtotal Administration	269	27,289	9,031	377	36,697	864	-	1,809	40,046	-	-	299	43,018	79,715	
Subtotal O & M Expenditures	1,260	107,618	35,397	6,178	149,193	8,356	22,303	29,399	72,951	6,402	30,156	1,071	\$ 170,638	\$ 319,831	
Debt Service														185,480	
Cash Financed Capital Improvements														35,260	
Payment in Lieu of Taxes														16,276	
Right of Way														5,100	
Total OPERATING EXPENDITURES														\$ 561,947	
Personnel Services charged to Capital Projects														(21,061)	
TOTAL NET OPERATING EXPENDITURES														\$ 540,886	

FY 2015 - FY 2018



Due to the high historical vacancy rate, starting FY 2014, DC Water made a strategic decision to maintain the authorized head count until lower single-digit vacancy rate is accomplished. To achieve this goal, all vacancies have partial or full funding to support hiring efforts without impacting operations.

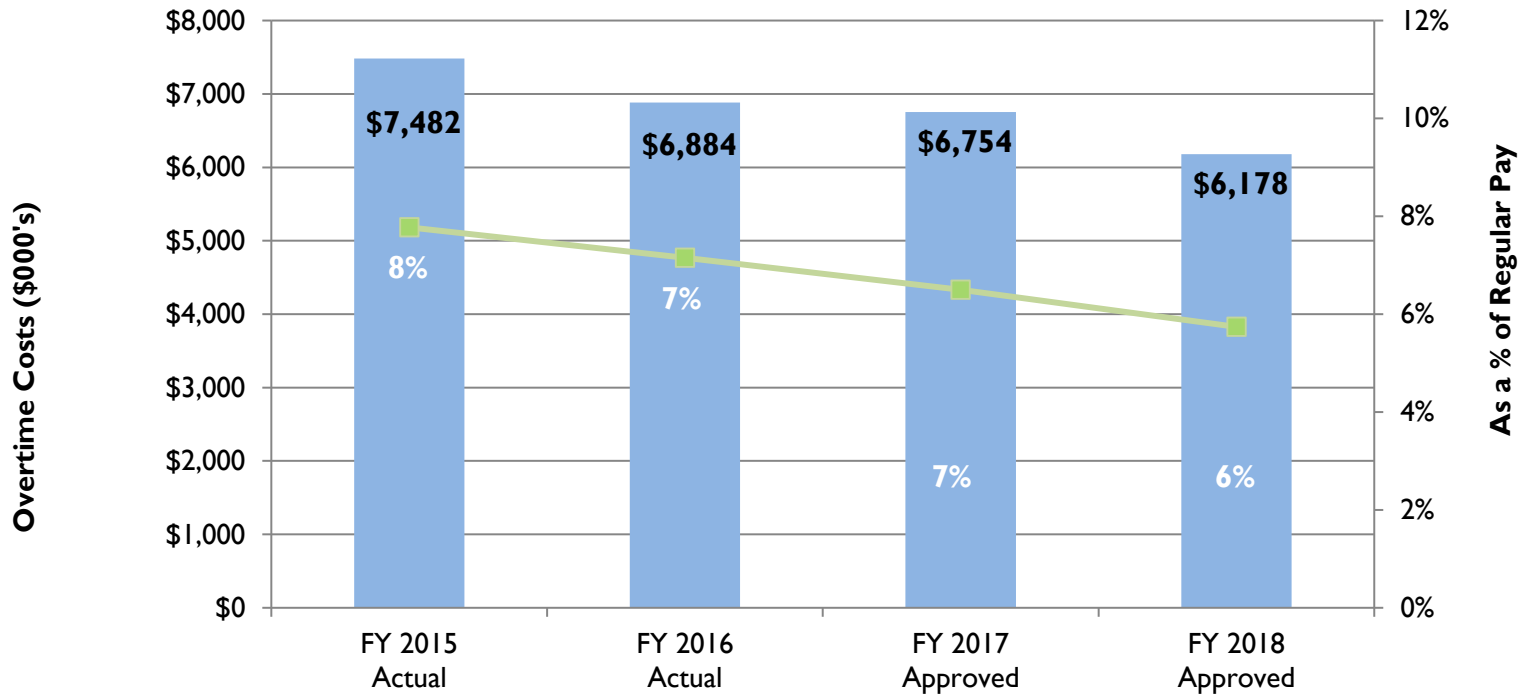
Authorized Positions by Department

		FY 2015				FY 2016				FY 2017	FY 2018
		Authorized	Average Filled	Average Vacant	Year -End Filled	Authorized	Average Filled	Average Vacant	Year -End Filled	Approved	Approved
O	Wastewater Treatment - Operations	121	112	10	115	122	114	8	113	121	122
p	Wastewater Treatment - Process Engineering	40	25	15	23	39	27	12	31	40	39
e	Maintenance Services	116	107	9	108	115	104	11	102	116	115
r	Water Services	190	163	27	168	195	168	27	172	190	190
a	Sewer Services	119	107	12	108	110	105	5	92	119	115
t	Customer Service	124	112	12	115	125	108	17	104	124	126
i	Distribution & Conveyance Systems	88	68	20	71	89	75	14	75	88	88
o	Engineering and Technical Services	166	147	19	149	166	155	11	156	166	166
n	D.C. Clean Rivers	16	13	3	14	15	14	1	14	16	15
s	Permit Operations	15	14	1	14	15	14	1	13	15	15
Subtotal		995	868	127	885	991	883	108	872	995	991
A	General Manager	15	11	4	15	16	15	1	16	15	16
d	Office of the Secretary (Board)	2	2	-	2	2	2	0	2	2	2
m	Internal Audit	-	-	-	-	-	-	-	-	-	-
i	General Counsel	15	12	3	13	14	13	1	14	15	14
n	External Affairs	13	13	0	12	14	12	2	12	13	14
i	Human Capital Management	25	24	1	23	25	23	2	21	25	25
s	Information Technology	28	23	5	27	28	26	2	25	28	28
t	Procurement	34	24	10	24	36	29	7	31	34	36
r	Finance, Accounting and Budget	48	45	3	46	49	47	2	48	48	49
a	Assistant General Manager - Support Services	3	2	1	2	3	3	0	3	3	3
t	Facilities Management	59	56	3	55	59	55	4	55	59	57
i	Security	7	6	1	7	7	7	0	7	7	9
o	Occupational Safety and Health	9	9	-	9	9	9	-	9	9	9
n	Fleet Management	7	6	1	7	7	7	0	6	7	7
Subtotal		265	234	31	242	269	247	21	249	265	269
Total Positions		1,260	1,102	158	1,127	1,260	1,130	130	1,121	1,260	1,260

Year-round interns, short-term temps and summer temps are not included in the filled count.

Annual Overtime Trend

\$ in thousands



The Authority's overtime target is 6 percent of regular pay. The high overtime costs in FY 2015 were due primarily to higher water main breaks from extreme cold temperatures during the winter season. In FY 2016, overtime costs were lower due to the implementation of overtime audit recommendations and process improvements in scheduling of overtime related activities.

Overtime by Department

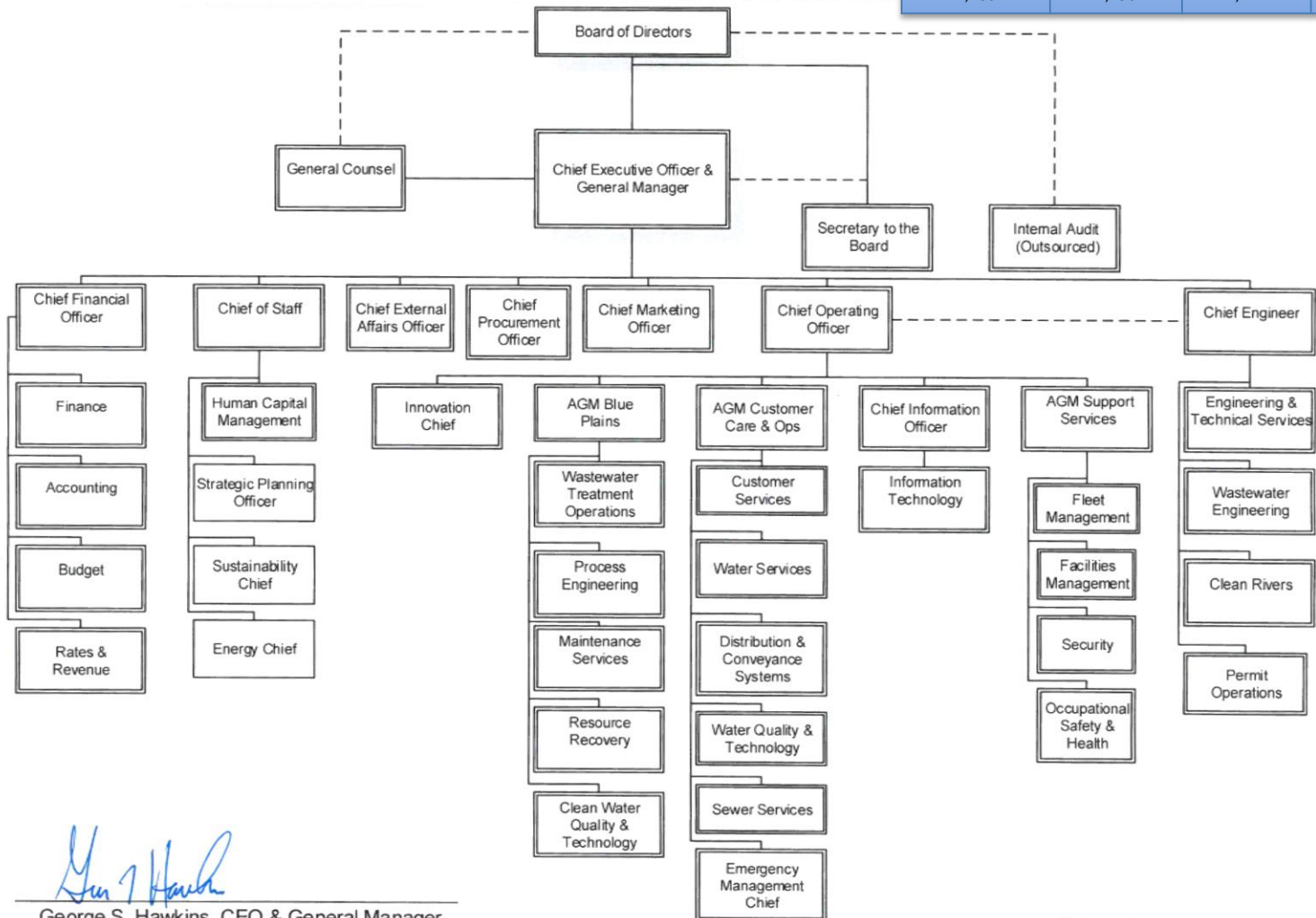
\$ in thousands

Department	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Wastewater Treatment - Operations	\$ 1,272	\$ 1,625	\$ 1,451	\$ 1,463
Wastewater Treatment - Process Engineering	58	30	120	64
Maintenance Services	979	393	700	500
Water Services	1,618	1,591	1,100	1,047
Sewer Services	941	1,010	900	900
Customer Service	263	316	260	260
Distribution and Conveyance Systems	860	759	750	541
Engineering and Technical Services	1,109	740	1,063	1,024
DC Clean Rivers	9	0	5	-
Permit Operations	3	4	15	2
General Manager	12	11	8	9
Office of the Board Secretary	12	13	5	8
Internal Audit	-	-	-	-
General Counsel	0	0	2	2
External Affairs	1	0	27	27
Information Technology	12	10	27	15
Finance, Accounting & Budget	39	27	30	40
Assistant General Manager - Support Services	2	1	1	-
Human Capital Management	6	3	5	4
Facilities Management	259	315	250	238
Security	0	-	-	-
Procurement	23	31	30	30
Occupational Safety and Health	1	1	2	1
Fleet Management	5	4	4	3
Total	\$ 7,482	\$ 6,884	\$ 6,754	\$ 6,178

Organization Chart

**FY 2018
Operating Budget
\$561,947,000**

POSITIONS				
FY 2016				
Authorized	Average Positions Filled	Year-End Positions Filled	FY 2017	FY 2018
1,260	1,130	1,121	1,260	1,260



George S. Hawkins, CEO & General Manager



Cluster: BLUE PLAINS

Department: WASTEWATER TREATMENT OPERATIONS

FUNCTIONS

BUDGET

FY 2018
\$74,686,000

POSITIONS

FY 2016

Authorized	122
Average Positions Filled	114
Year-End Positions Filled	113
FY 2017	FY 2018
121	122

Plant Operations	Resource Recovery	Clean Water Quality & Technology
102 - Positions	6 - Positions	14 - Positions
Treat influent wastewater to remove pollutants and meet National Pollutant Discharge Elimination System Permit (NPDES) requirements	Biosolids storage, loading, hauling and utilization/beneficial use	Physical, chemical and biological analysis of wastewater and Biosolids used for process control and permit reporting
Condition, thicken, dewater and stabilize biosolids for beneficial use	Certification and marketing of Class A Biosolids	Industrial pretreatment discharge monitoring
Manage 4 shift crews – round the clock and manage use of resources – chemicals, energy, and contracts including Combined Heating and Power (CHP)	Outreach and partnership with surrounding jurisdictions on regulatory requests for biosolids applications	Treatment process innovation and R&D Administration of the DC Water Advanced Research & Testing (ART) Program
Asset Management/MAXIMO Administration		

WASTEWATER TREATMENT - OPERATIONS

MISSION: To treat wastewater delivered to Blue Plains from the collection system of the District of Columbia and surrounding jurisdictions in Maryland and Virginia, ensuring that effluent is in compliance with the Clean Water Act.

BUDGET OVERVIEW: The approved FY 2018 budget is lower than the approved FY 2017 budget by \$5.8 million mainly due to projected decreases in chemicals attributable to the Digester Project and the Filtrate Treatment Facilities (FTF) coming online in 2018, and hauling costs resulting from the production of class A biosolids.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	121	122	121	122
Average number of positions filled	109	114		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 14,087	\$ 15,094	\$ 14,612	\$ 15,001
Overtime	1,272	1,625	1,451	1,463
Non-Personnel Services:				
Supplies	1,155	868	1,285	1,234
Chemicals	22,385	20,819	25,895	22,109
Utilities	21,979	15,037	19,353	19,968
Contractual Services, etc.	5,173	7,657	9,619	9,838
Biosolids	8,265	5,611	9,600	6,402
Small Equipment	35	20	102	134
Total Non-Personnel Services	58,991	50,012	65,854	59,685
Total Operations	\$ 73,078	\$ 65,106	\$ 80,466	\$ 74,686
Capital Equipment	\$ 69	\$ 98	\$ 110	\$ 110

Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Achieve NACWA Award Status	Gold	Gold	Platinum	Platinum
Compliance with disposal of biosolids regulations (100%)	100 % compliance	100 % compliance	100 % compliance	100 % compliance
Inspection and Sampling of Pretreatment Permittees (100%)	100 % compliance	100 % compliance	100 % compliance	100 % compliance
Obtain 90% acceptable results on discharge monitoring report quality assurance samples	90 % compliance	90 % compliance	90 % compliance	90 % compliance

Note: EPA 503 (i.e. Title 40 of the Code of Federal Regulations, Part 503) regulates the use or disposal of sewage sludge or biosolids EPA DMR QA (i.e. Discharge Monitoring Report Quality Assurance) is conducted on wastewater samples used for permit compliance reports. Achieving acceptable results for at least 90% of samples will minimize the potential for EPA to audit the laboratory.

WASTEWATER TREATMENT - OPERATIONS

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Maintain full compliance with the National Pollutant Discharge Elimination Systems (NPDES) permit
- Continue training of operators on new Filtrate Treatment Facilities (FTF) and Wet Weather Facility scheduled for commissioning in the fiscal year 2018
- Continue to support implementation of other CIP projects in progress, including Long Term Control Plan (LTCP), Enhanced Nitrogen Removal Facilities – North (ENRN), Raw Wastewater Pump Station 2 (RWWPS2) , Gravity Thickener and Primary Scum Screening Degrating Building (PSSDB) upgrades, Filtrate Treatment Facilities (FTF) and Tunnel Dewatering Pumping Station (TDPS) aka Wet Weather Facility
- Continue implementation of High Priority Rehabilitation Program to ensure availability of critical process equipment
- Continue implementation of Safety and Operator Cross Training
- Implement Goal #6 of the DC Water Board Strategic Plan to establish a Safety Management System in concert with OSHA department
- Continue implementation of an Asset Management Program in tandem with an Asset Reliability Program
- Continue to improve the structure and use of Maximo
- Continue to work with surrounding jurisdictions (Maryland and Virginia) on regulatory requirements for biosolids and land applications
- Continue to increase the use of biosolids products in the service area, for restoration projects, tree planning, and Low Impact Development (LID) projects
- Continue biosolids product assurance to maintain low number of offsite odor complaints
- Implementation of marketing plan for Class A exceptional quality Bloom
- Continue to take a lead in conducting cutting-edge research in wastewater treatment and biosolids management
- Expansion of innovative research strategies such as Advanced Research Technology (ART) initiatives

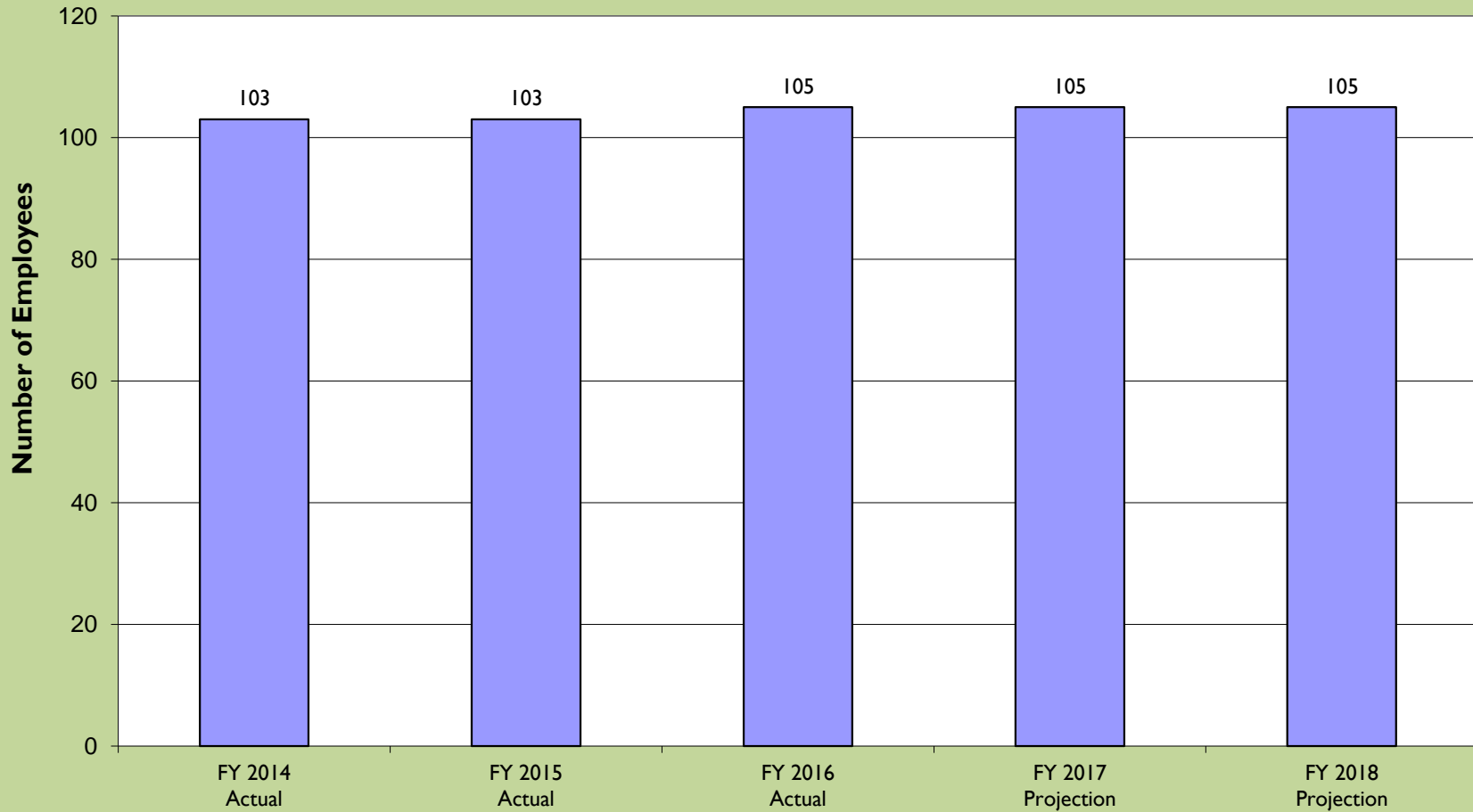
FY 2018 Major Recommended Activities and Changes

- Continue implementation of an Asset Management Program in tandem with an Asset Reliability Program
- Continue implementation of Goal 6 of the DC Water Board Strategic Plan
- Begin the operation and maintenance of the Filtrate Treatment Facilities (FTF) and Tunnel Dewatering Pumping Station (TDPS)

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

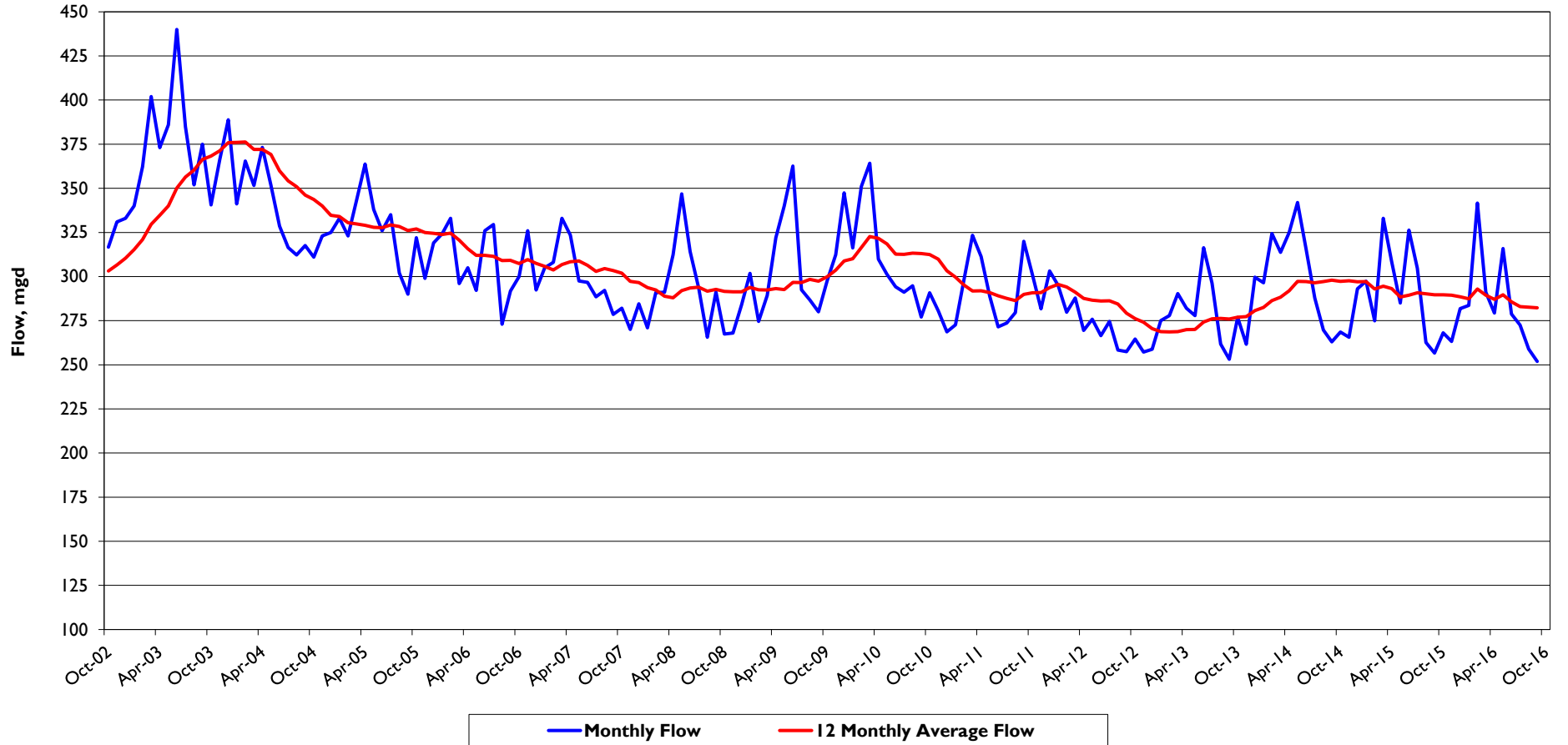
- Continuous optimization of the CHP performance in FY2017 is anticipated to generate approximately 8-10 (net) MW of renewable energy per year
- Operational startup of Filtrate Treatment Facilities (FTF) will decrease methanol usage, increase electricity usage (1MW) and other associated operation and maintenance costs

Wastewater Treatment Certified Operators* FY 2014 - FY 2018

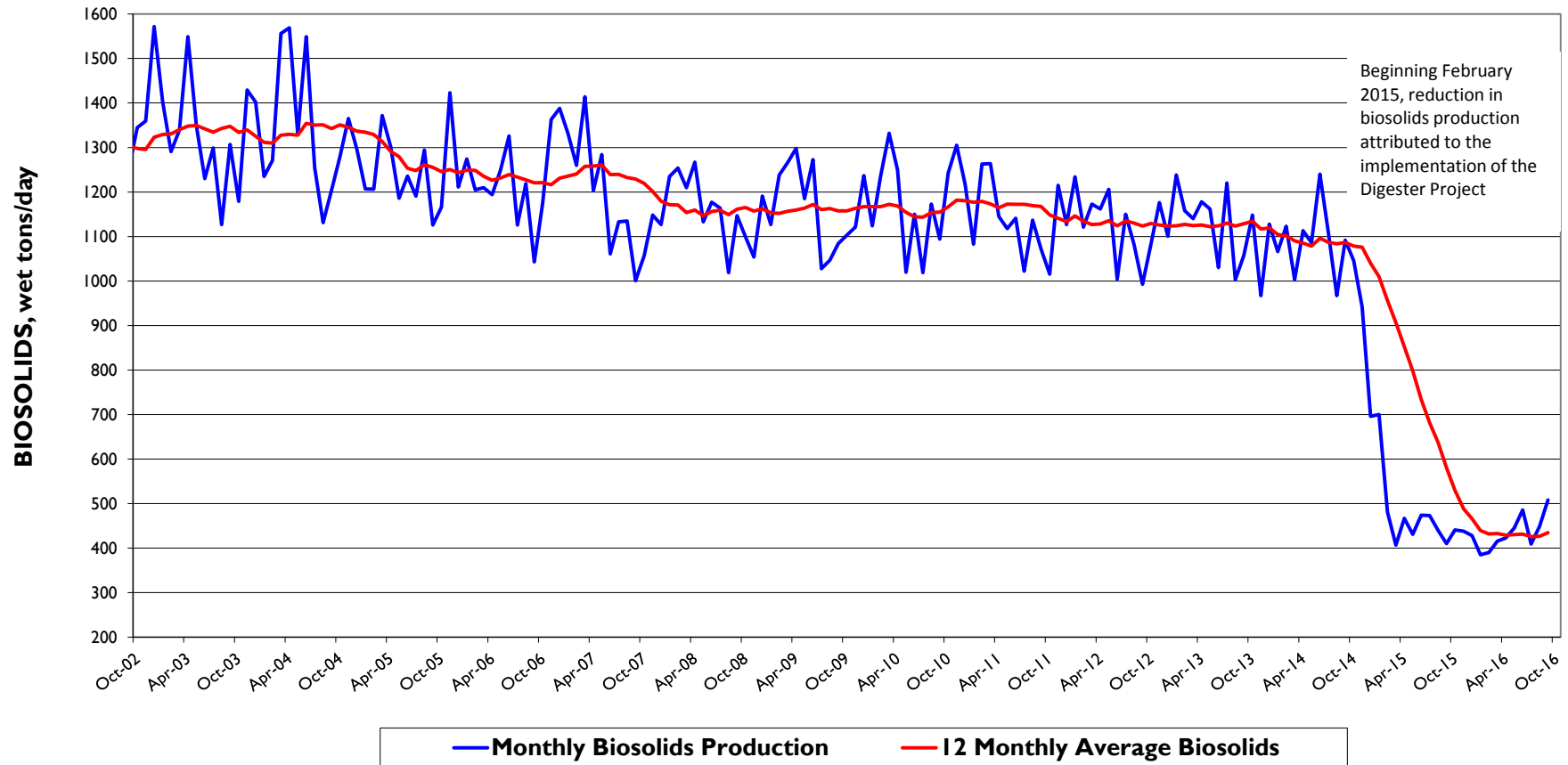


*Includes all positions with Certified Wastewater Treatment Plant Operator License

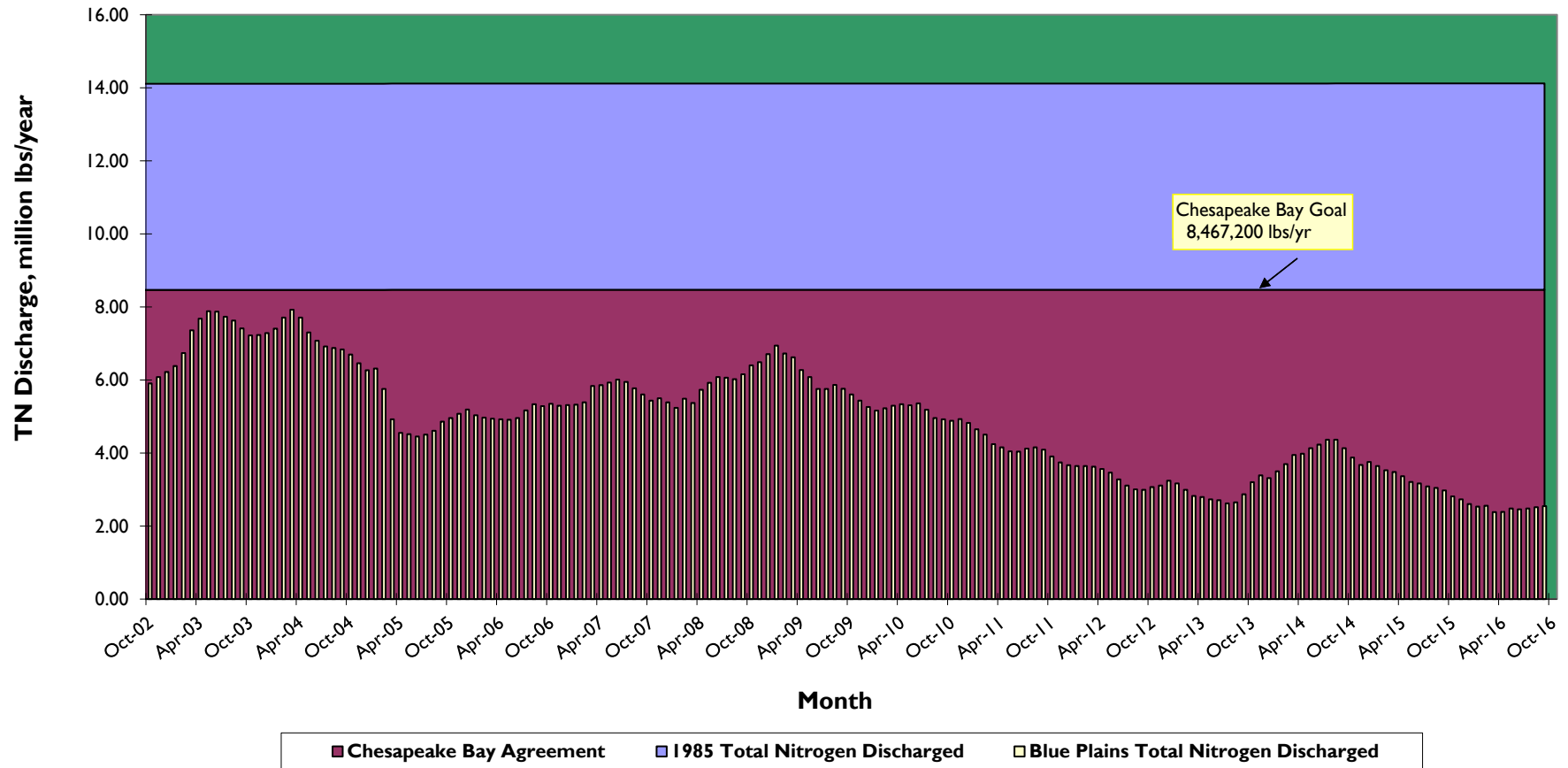
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OCTOBER 2002 - OCTOBER 2016





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Cluster: BLUE PLAINS

Department: WASTEWATER TREATMENT PROCESS ENGINEERING

FUNCTIONS

BUDGET

**FY 2018
\$7,673,000**

POSITIONS

FY 2016

Authorized	39
Average Positions Filled	27
Year-End Positions Filled	31
FY 2017	FY 2018
40	39

Process Engineering	Process Control Systems	Process Control Maintenance
10 - Positions	4 - Positions	25 - Positions
Establish Process Control operating targets for Blue Plains	Maintain Process Control System (PCS) for Blue Plains Advanced Wastewater Treatment Plant	Plan and coordinate all activities for corrective, preventive, and predictive maintenance
Optimize process, chemical, and power use at the Plant	Provide Design and Construction interface to PCS	Maintain electronic process control systems, flow measurement, metering and recording equipment for the Plant
Provide design comments and support during construction of capital projects	Manage PCS hardware, software, maintenance, and support services	
Troubleshoot process performance problems	Troubleshoot PCS issues and train Process and Instrumentation staff	

WASTEWATER TREATMENT - PROCESS ENGINEERING

MISSION: To economically maintain DC Water's process equipment and facilities at the Blue Plains Advanced Wastewater Treatment Plant, ensuring that the operational and customer service objectives of the Authority are achieved.

BUDGET OVERVIEW: The approved FY 2018 operating budget decreased by approximately \$0.3 million below the approved FY 2017 budget mainly in supplies and contractual services costs. The decrease in the Authorized headcount is as a result of reorganization within the cluster group.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	40	39	40	39
Average number of positions filled	25	27		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 3,325	\$ 3,539	\$ 4,591	\$ 4,778
Overtime	58	30	120	64
Non-Personnel Services:				
Supplies	330	236	628	452
Occupancy	57	46	64	59
Contractual	3,309	3,084	2,692	2,371
Equipment	9	15	16	14
Total Non-Personnel Services	3,704	3,381	3,400	2,895
Total Operations & Maintenance	\$ 7,030	\$ 6,921	\$ 7,991	\$ 7,673
Capital Equipment	\$ 1,087	\$ 1,134	\$ 1,000	\$ 1,000
Targeted Performance Measures				
	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Critical Equipment Availability (97%)	97%	97%	97%	97%

WASTEWATER TREATMENT – PROCESS ENGINEERING

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Provide guidance on set points and Plant operations
- Provide Process Engineering reviews on new capital projects in the planning and design phases
- Continue to assist with construction and project commissioning phases for the Filtrate Treatment Facilities (FTF), Raw Wastewater Pumping Station (RWWPS2) Upgrades, Tunnel Dewatering Pumping Station and Enhanced Clarification Facilities (TDPS/ECF) & Gravity Thickener Upgrades
- Continue upgrade and manage the Process Control System (PCS)
- Continue the Equipment Reliability Program (predictive maintenance/condition monitoring)
- Continue the Critical Spare Parts Inventory for process control equipment
- Continue the major critical equipment maintenance initiative across the Plant
- Continue the Unit Shelf Replacement (spares) Program
- Startup and training for new capital projects – Filtrate Treatment Facilities (FTF) & TDPS/ECF
- Develop and deploy key performance indicators in Process Engineering, Control Systems, and Control Maintenance groups
- Begin reorganization of Process Engineering roles, responsibilities, and reporting structure

FY 2018 Major Recommended Activities and Changes

- Continue to build on planned activities of FY 2017
- Startup and training for new capital projects – Filtrate Treatment Facilities (FTF), RWWPS2 Upgrades, Tunnel Dewater Pump Station and Enhanced Clarification Facilities (TDPS/ECF)
- Continue to optimize recently commissioned capital projects – Main Process Train (MPT), Enhanced Nitrogen Removal Facility (ENRF), Final Dewatering Facility (FDF) and FTF
- Conduct process design reviews for capital projects (i.e. Headworks Upgrades)
- Fine tune and monitor key performance indicators in Process Engineering, Control Systems, and Control Maintenance groups
- Conduct aggressive training program to support reduction in contracted work force

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Increased preventive maintenance costs for new equipment and facilities
- Increased effort for training and commissioning of new facilities – FTF, TDPS/ECR and RWWPS2



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Cluster: BLUE PLAINS

Department: MAINTENANCE SERVICES

FUNCTIONS

BUDGET

**FY 2018
\$ 19,558,000**

POSITIONS

FY 2016

Authorized	115
Average Positions Filled	104
Year-End Positions Filled	102
FY 2017	FY 2018
116	115

Electrical Maintenance	Mechanical Maintenance	Maintenance Management
35 - Positions	68 - Positions	12 - Positions
Maintain electrical process control systems, equipment, and components for the Blue Plains Advanced Wastewater Treatment Plant	Maintain mechanical process systems and equipment for the Plant	Plan and coordinate all activities for corrective, preventive, and predictive maintenance
Operate and maintain electrical power distribution system from 5kv to 69kv, electrical control systems for all process equipment and all DC Water facilities	Plan, schedule, and perform condition monitoring for all process equipment at all DC Water facilities	Plan and operate support systems to manage maintenance by planning, estimating, inspecting, and scheduling maintenance activities
Inspect and maintain cranes for all DC Water facilities		Coordinate work through operations and engineering and provide administrative support

MAINTENANCE SERVICES

MISSION: To economically maintain DC Water's process equipment and facilities at the Blue Plains Advanced Wastewater Treatment Plant, ensuring that the operational and customer service objectives of the Authority are achieved.

BUDGET OVERVIEW: The approved FY 2018 budget is lower than the approved FY 2017 budget by \$1.5 million primarily due to anticipated transfer of major contracts inhouse.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	116	115	116	115
Average number of positions filled	107	104		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 11,952	\$ 11,223	\$ 12,578	\$ 12,072
Overtime	979	393	700	500
Non-Personnel Services:				
Supplies	3,088	3,343	3,457	3,545
Utilities	126	150	164	159
Contractual Services, etc.	3,589	3,717	4,639	3,571
Small Equipment	148	130	220	210
Total Non-Personnel Services	6,950	7,339	8,480	7,486
Total Operations & Maintenance	\$ 18,902	\$ 18,563	\$ 21,057	\$ 19,558
Capital Equipment	\$ 3,881	\$ 4,132	\$ 3,000	\$ 3,000
Targeted Performance Measures				
	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Critical Equipment Availability (97%)	98%	Criteria Not Established	98%	Criteria Not Established

MAINTENANCE SERVICES

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Continue to perform preventive, corrective and predictive maintenance services in all treatment process area equipment to improve reliability, reduce down time and maximize asset life
- Continue all methanol maintenance activities inhouse and eliminate contractor support
- Continue driving change in support of both the Asset Reliability and Asset Management programs
- Continue critical spare parts inventory evaluation process and develop the part “Item Master” in Maximo using Failure Mode Effect Analysis (FMEA) and the results of Reliability Centered Maintenance (RCM) Analyses
- Continue to track, report, and analyze asset failures by cost to identify “poor performers”
- Continue Preventive Maintenance Validation Team’s improvement program and implementing tasks based on the FMEA and RCM results
- Continue to build equipment reliability program (predictive maintenance/condition monitoring)
- Continue building a world class lubrication program within the equipment reliability group
- Continue to increase safety awareness by planning and scheduling work orders, enhancing equipment specific LOTO (lockout/tag-out) procedure and conducting Job Safety Analyses
- Develop and deploy new key performance indicators to measure maintenance efficiency and productivity
- Increase level of work order planning and schedule compliance to reduce level of reactive maintenance

FY 2018 Major Recommended Activities and Changes

- Culture of Reliability and Asset Management fully embraced by everyone in the department and being shared throughout the Authority
- Transition of electrical utilization control and systems contract inhouse
- Assume full maintenance responsibilities for the Tunnel Pump Station, Enhanced Clarification, and Filtrate Treatment (DEMON) Process

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Full acceptance of capital project maintenance; Cambi, Digestion, Main Process Train, Final Dewatering, Tunnel Pump Station, Enhanced Clarification, and Filtrate Treatment (DEMON) Process



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Cluster: CUSTOMER CARE & OPERATIONS

Department: WATER SERVICES

FUNCTIONS

BUDGET

**FY 2018
\$24,094,000**

POSITIONS

FY 2016

Authorized	195
Average Positions Filled	168
Year-End Positions Filled	172
FY 2017	FY 2018
190	190

Distribution Maintenance	Distribution Control	Contract Management	Linear Asset Management	Water Quality & Technology
59 – Positions	84 - Positions	29 - Positions	5 - Positions	18 Positions
Repair and replace water main service lines, valves and hydrants	Inspect, exercise and perform preventative maintenance on the 40,000 system valves	Establish and administer a comprehensive asset management program for both water and sewer systems	Provides detailed data management related to process improvement and long-range financial planning	Environmental Protection Agency (EPA) drinking water compliance, monitoring and reporting
Lead Leak Detection efforts and Tap abandonment for the Authority	Administer the Flushing Program and perform minor valve leak repairs	Administer Public Space Restoration Program and associated contracts	Focused attention to linear assets in Water Distribution and Sewer Collection systems	Perform distribution system research (i.e. lead and copper, discolored water, microbial)
Manage fire hydrant contracts and respond to all fire hydrant inquiries	Manage the Valve Coordination Control program and test valve shutdown plans for CIP construction projects	Manage and direct Operating and CIP budgets, including construction projects inspections	Will optimize and prioritize capital program projects	Control and monitor corrosion in the water distribution system, and conduct routine water quality analysis
Support departmental safety efforts and assist in investigations as first responder during emergencies	Inspect, exercise and perform preventative maintenance on all the hydrants in the system	Update asset inventory data & perform QA/QC analysis	Lower lifecycle/maintenance costs and improve service life of assets	Manage cross connection program, direct daytime flushing activities

WATER SERVICES

MISSION: To operate and maintain a potable water distribution system, which delivers safe drinking water to DC Water's customers. Water Services will ensure that water distribution meets or exceeds the applicable water quality regulations promulgated by the Safe Drinking Water Act and is provided in a reliable manner.

BUDGET OVERVIEW: The approved FY 2018 budget is higher than the approved FY 2017 budget by approximately \$1.2 million primarily due to personnel service cost adjustments, coupled with increases in contractual services due to reallocation of the One Call Center and DC permit fees functions from Sewer Services as part of the reorganization of the CC&O cluster. This budget includes funding for a proposed Water Quality & Technology Department currently under review.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	190	190	190	190
Average number of positions filled	163	168		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 17,767	\$ 18,840	\$ 18,301	\$ 18,853
Overtime	1,618	1,591	980	1,047
Non-personnel Services:				
Supplies & Chemicals	951	901	665	703
Utilities	276	176	210	300
Contractual Services, etc.	2,975	3,488	3,610	4,089
Water Purchases	-		-	-
Small Equipment	5	44	150	150
Total Non-Personnel Services	4,207	4,609	4,635	5,241
Total Operations & Maintenance	\$ 21,974	\$ 23,449	\$ 22,936	\$ 24,094
Capital Equipment	\$ 322	\$ 493	\$ 425	\$ 425
Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Maintain full compliance with Safe Drinking Water Act standards for positive coliform results (less than 5%)	<5%	<5%	<5%	<5%
Flush at least 50% of the 1,300 miles of pipe in the distribution system annually	50%	50%	50%	50%
Exercise 18,000 - 23,000 valves annually	25,000	25,000	25,000	25,000
Maintain a 99% fire hydrant operational rate	99%	99%	99%	99%
Respond to 95% of all emergency service orders in less than 45 minutes	97%	97%	97%	97%
Repair 90% of reported main leaks within 10 days	90%	90%	90%	90%

WATER SERVICES

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Continue to expand the Cross Connection Prevention program to improve processes, increase resources, update regulations and implementation of applicable fees and fines
- Broaden the ongoing water quality research program to better assess root causes for all water quality complaints
- Continue implementation of the Asset Management Program to improve predictive, preventative and corrective maintenance activities
- Continue to inspect all public fire hydrants at least once a year and perform required repairs
- Continue to flow test 1,500 hydrants per year in accordance with the requirements of the Memorandum of Understanding (MOU) with DC Fire and Emergency Medical Services (DC FEMS), as well as respond to new service connection requests from developers
- Provide enhanced planning, execution, procedural guidance and overview of the repair/replacement process, ensuring that DC Water/ Industry standards are maintained at all times for the water distribution system assets
- Develop the ability to interface Asset Management Software to provide real-time data on open/shut status to GIS
- Provide enhanced planning, execution, procedural guidance and overview of the repair/replacement process, ensuring that DC Water/ Industry standards are maintained at all times for the water distribution system assets

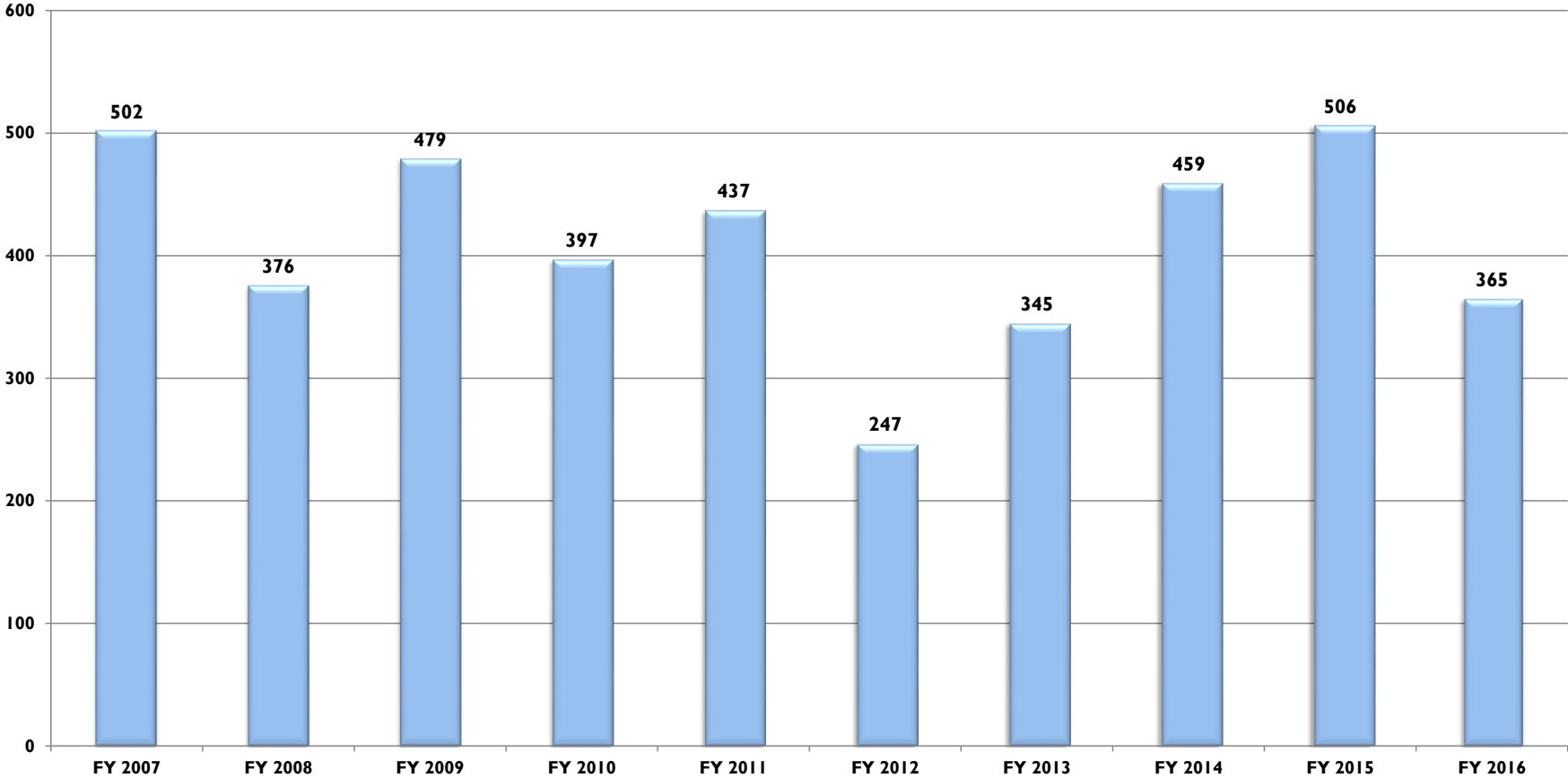
FY 2018 Major Recommended Activities and Changes

- Continue implementation of the Asset Management Program
- Establish Enforcement Task Force to protect the Water and Sewer Distribution System from illegal activities such as cross connection contamination, unlawful dumping of Fats, Oil and Grease (FOG), unauthorized fire hydrant use, and illegal connections into the water and sewer system
- Develop the ability to interface Asset Management Software to provide real-time data on open/close status to GIS
- Continue enhancements to the repair/replacement process for the water distribution system assets
- Continue mobile computing efforts to improve operational efficiencies and data collection
- Develop and implement the ability to provide near real-time operational asset status information (e.g., valve open/closed) in the work management system and GIS
- Continue annual inspection of public fire hydrants at least once a year and perform required repairs in accordance with the existing MOU
- Continue to execute main line replacements using operational resources where traditional capital improvement projects have not been available

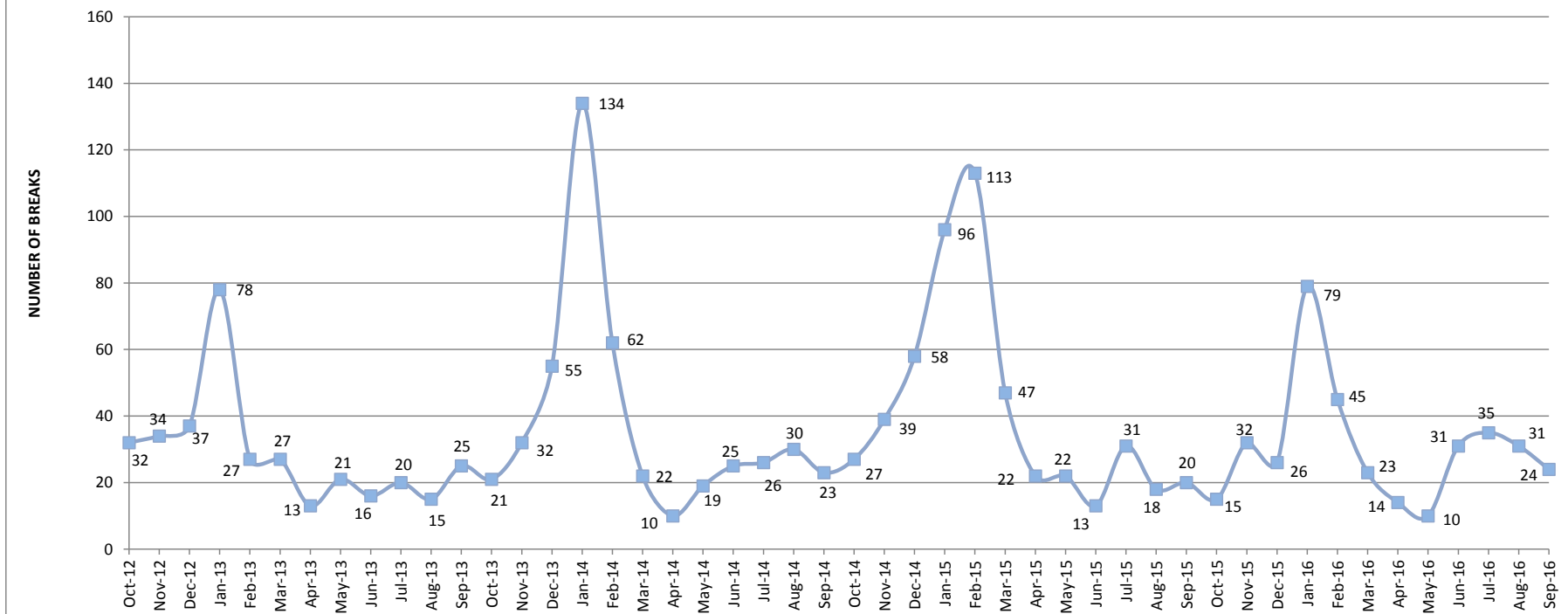
Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- No major items identified

FY 2007 - FY 2016



October 2012 thru September 2016





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Cluster: CUSTOMER CARE & OPERATIONS

Department: SEWER SERVICES

FUNCTIONS

BUDGET

**FY 2018
\$14,315,000**

POSITIONS

FY 2016

Authorized	110
Average Positions Filled	105
Year-End Positions Filled	92
FY 2017	FY 2018
119	115

Inspection and Maintenance	Construction and Repair
54 – Positions	56 - Positions
Inspect public sewers and sewer laterals. Clean sewers and inlet/ outlet structures. Operate and maintain sewer regulator structures	Install and repair sewer mains and sewer laterals
Remove floatable debris, and Monitor & Control Operations	Install and repair catch basins. Responsible for the cleaning and maintenance operations of regular catch basins, stormceptors, and grate ponds
Enforcement of Fats, Oils and Grease (FOG) removal program	Oversee maintenance program for storm water structures, filter bio-retention and water quality catch basins cleaning

SEWER SERVICES

MISSION: To perform engineering planning, design, and construction management necessary to execute DC Water's Capital Improvement Program (CIP); to provide assistance and advice to operating departments and management on engineering aspects of the Authority's operation and facilities. To develop and maintain engineering documentation of the Authority's facilities and systems; and to assist the Authority with environmental policy.

BUDGET OVERVIEW: The approved FY 2018 budget is lower than the FY 2017 budget by \$0.8 million primarily due to personnel services adjustments, coupled with reduction in various contractual services line items following re-organization in the CC&O cluster to consolidate construction contract management activities, including five (5) FTEs transferred to the Water Services Department.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	119	116	119	115
Average number of positions filled	108	105		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 11,198	\$ 12,057	\$ 11,711	\$ 11,533
Overtime	954	1,010	900	900
Non-Personnel Services:				
Supplies	498	702	472	534
Chemicals	14	-	40	25
Utilities	1,011	606	803	815
Contractual Services, etc.	1,242	1,546	1,991	1,372
Small Equipment	14	33	60	35
Total Non-Personnel Services	2,779	2,887	3,366	2,782
Total Operations & Maintenance	\$ 13,978	\$ 14,944	\$ 15,077	\$ 14,315
Capital Equipment	\$ 58	\$ 284	\$ 250	\$ 250
Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Percentage of KPI's Completed	80%	80%	80%	80%

SEWER SERVICES

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Continue the implementation of an asset management strategy and system for water and sewer infrastructure in conjunction with Department of Water Services
- Continue replacement of Sewer Laterals using Trenchless Technologies
- Work with IT and Fleet Management Departments to install laptops with GIS and Maximo capabilities in sewer service vehicles
- Continue cleaning of water quality catch basins in accordance with DOEE cleaning requirements
- Implement Standard Operating Procedures to maximize flows to Blue Plains during wet weather events with DC Clean Rivers Program
- Work with DETS to implement Odor, Corrosion and Green House Gases Master Plan for Collection System
- Coordinate DSS involvement with DETS/Clean Rivers Program and Department of Distribution and Conveyance Systems (DDCS)
- Coordinate Asset Management and Maximo Enhancement with Water Services and Information Technology Departments
- Administer construction contract for sewer main line rehabilitation and sewer lateral replacement
- Continue to perform close circuit television inspections on major storm and sanitary sewer lines
- Provide Condition Assessment and Failure Analysis on obstructed sewer mains and laterals
- Focus on a root control program capable of bringing corrective maintenance work in-house rather than having it performed by contractors
- Provide training for new Utility Service Worker positions that will support the inspection and maintenance of sewer mains and lateral lines
- Perform Redzone Robotics Closed-Captioned TV (CCTV) inspection pilot
- Perform Flowfinity application pilot to capture and record critical infrastructure data
- Track and report Multi-Jurisdictional Use Facilities (MJUF) operations and maintenance costs

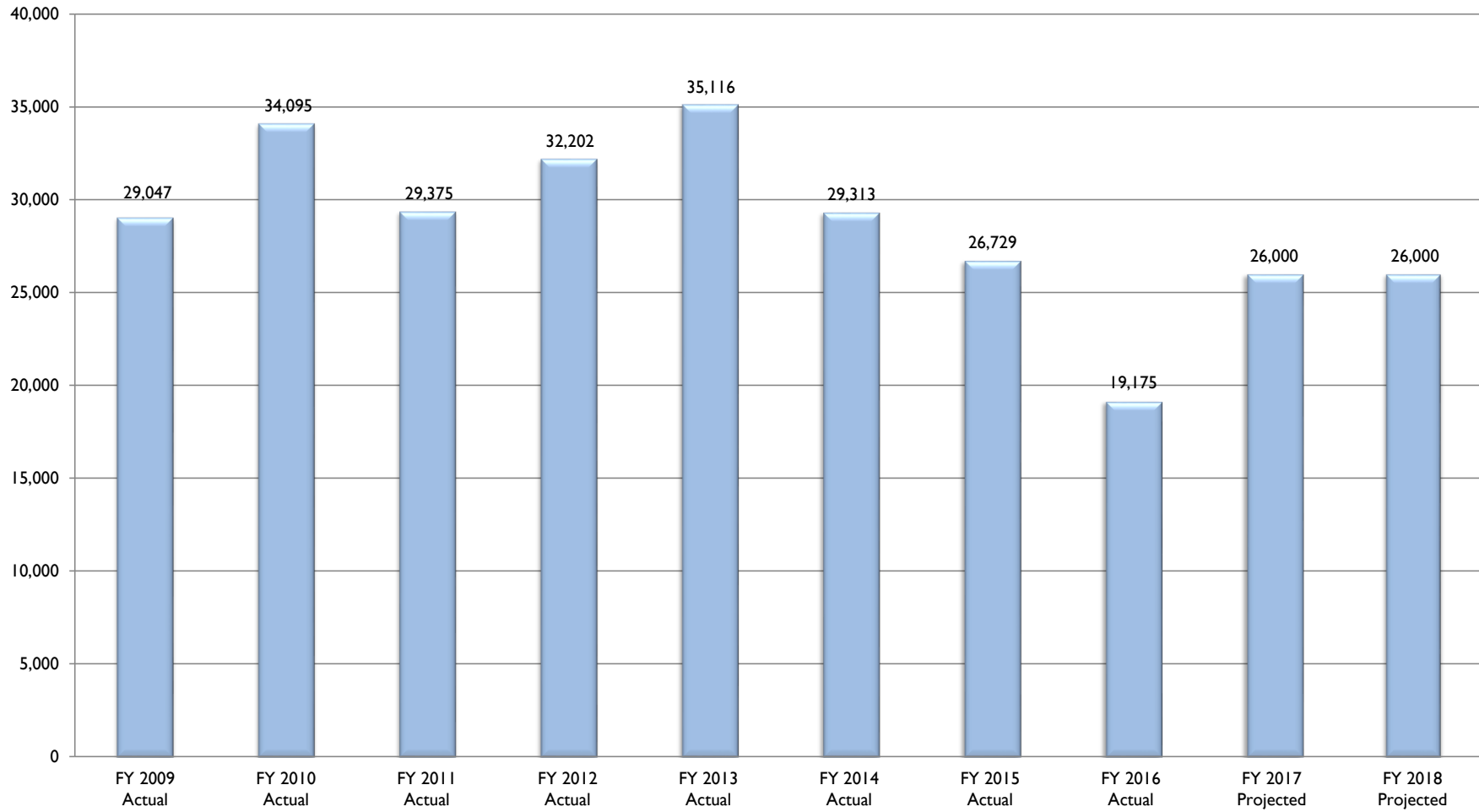
FY 2018 Major Recommended Activities and Changes

- Coordinate with DETS' ongoing construction activities at Poplar Point Pumping Station to include relocation of a section of mainline sewer
- Work with DDCS to begin new program to integrate rainfall prediction into SCADA to improve operational planning during high flow forecast
- Continue coordination efforts with DC Clean Rivers Program on construction activities that interface with sewer operations
- Work with DETS to secure all permits for the completion of the rehabilitation phase and return to service on the segment of the Upper Potomac Interceptor Sewer that is currently out of service, and located in Georgetown
- Continue replacement of Sewer Laterals using Trenchless Technologies
- Begin Redzone Robotics CCTV Inspection Program for 8-inch - 12-inch sewers
- Begin roll-out of Flowfinity application department wide

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Manage the FOG program to effectively reduce the adverse impact on the sewer system of odors, sewer backups, corrosion in pipes and excessive wear on pumps

FY 2009 - FY 2018





Cluster: CUSTOMER CARE & OPERATIONS

Department: CUSTOMER SERVICE

FUNCTIONS

BUDGET		Office of the Director	Credit and Collections	Customer Integration	Customer Care	Meter and Field Services
FY 2018 \$19,281,000		6 - Positions	11 - Positions	17 - Positions	46 - Positions	45 - Positions
POSITIONS		Manage customer care and operations cluster initiatives and operations	Manage receivables and collections process on delinquent accounts, including multi-family service termination, property lien filing, dunning process and receivership	Manage billing process and improvement of customer information and billing system.	Respond to customer calls, correspondence and internet/on-line requests	Maintain, install, test, repair and replace meters. Provide planning and project management for future systems implementations. Perform interior inspections, and termination of service for non-payment of bills
FY 2016						
Authorized	125	Manage Customer Service, Water Services, Sewer Services, and Distribution & Conveyance Systems Departments	Manage Customer Assistance Program (CAP)	Monitor and assist large accounts	Assist customers in Payment Office	Manage meter replacement/ automated meter reading project
Average Positions Filled	108					
Year-End Positions Filled	104					
FY 2017	FY 2018					
124	126					

CUSTOMER SERVICE

MISSION: To provide superior, equitable and responsive customer service to the diverse community that we serve.

BUDGET OVERVIEW: The approved FY 2018 budget is higher than the approved FY 2017 budget by approximately \$0.6 million primarily due to personnel service cost adjustments.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	124	125	124	126
Average number of positions filled	112	108		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 11,292	\$ 11,588	\$ 12,206	\$ 12,700
Overtime	263	317	260	260
Non-Personnel Services:				
Chemicals and Supplies	135	124	171	171
Utilities	1,105	1,170	1,239	1,258
Contractual Services, etc.	4,442	4,754	5,013	5,090
Small Equipment	35	40	50	63
Total Non-Personnel Services	5,717	6,089	6,472	6,582
Total Operations & Maintenance	\$ 17,009	\$ 17,677	\$ 18,679	\$ 19,281
Capital Equipment	\$ 5,889	\$ 6,165	\$ 21,898	\$ 6,041
Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Calls answered within 40 seconds	86%	85%	85%	85%
Percentage of AMR Meters Read	90%	75%	80%	90%
Sustained Retail 90-day receivable balance (not including IAC)	\$6.4 Million	\$6.8 Million	\$7.0 Million	\$7 Million
Top 100 Accounts Billed as Scheduled	98%	98%	98%	98%

CUSTOMER SERVICE

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Continue replacement of approximately 90,000 water meters and meter transmitting units (MTU's) as part of DC Water's Automated Meter Reading (AMR) replacement program
- Implementation of the new Customer Information System (CIS)
- Prepare for move to new Headquarters building

FY 2018 Major Recommended Activities and Changes

- Continue AMR installations
- Continue CIS implementation
- Implement System Availability Fee
- Perform Customer Service Satisfaction Survey

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Determination of in-house or hosted solution for CIS will affect the FY 2017 Capital and Operating budgets, differently
- Project and data management support for AMI meter replacement project would increase contractual labor costs



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Cluster: CUSTOMER CARE & OPERATIONS
Department: DISTRIBUTION & CONVEYANCE SYSTEMS

FUNCTIONS

BUDGET

FY 2018
\$48,490,000

POSITIONS

FY 2016

Authorized	89
Average Positions Filled	75
Year-End Positions Filled	75
FY 2017	FY 2018
88	88

Pumping Operations	SCADA Process Control	Maintenance	Potomac Interceptor	Emergency Management
28 - Positions	15 - Positions	33 - Positions	5 - Positions	8 - Positions
Operate Water Pumping Stations, Storage Facilities and Water Towers	Operate and maintain SCADA Applications, Hardware and Network Support	Plan, coordinate and perform all corrective, emergency, preventive, and predictive maintenance	Operate and maintain Potomac Interceptor (PI) Sewer	Develop and administer the Emergency Management Program
Operate Sanitary and ensure Combined Sewer Facilities to maximize flow to Blue Plains	Perform Storm Water Pollution Prevention Plan inspections and reports	Maintain and troubleshoot mechanical process systems and equipment	Operate and maintain PI Flow Meters and odor control facilities and manholes	Direct emergency response and planning activities throughout the Authority
Inspect inflatable dams to proper function during rain events	Operate and maintain all Process Instrumentation and controls	Plan, schedule, and perform condition monitoring for process equipment	Manage Miss Utility service in VA and Montgomery County, MD	Emergency preparedness training for DC Water staff and contractors
Operate Northeast Boundary Swirl Facility	Facilitate, compile and administer Consent Decree reporting	Maintain/update Engineering Records	Monitor Right-of-Way to maintain integrity and prevent encroachment	Perform Vulnerability Assessments

DISTRIBUTION AND CONVEYANCE SYSTEMS

MISSION: To provide high resiliency, customer focused delivery of water distribution and sewer collection pumping services every minute of every day.

BUDGET OVERVIEW: The approved FY 2018 budget is lower than the FY 2017 budget by approximately \$1.6 million primarily due to personnel service cost adjustments, coupled with cost reductions in various software matrix and contractual service line items. These reductions were offset in part by increase in water purchases and transfer of one (1) FTE from the Customer Service Department.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	88	89	88	88
Average number of positions filled	66	75		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 8,616	\$ 9,666	\$ 10,243	\$ 9,732
Overtime	860	759	750	541
Non-Personnel Services:				
Supplies	967	852	701	622
Chemicals	-	156	323	154
Utilities	4,282	4,609	4,450	4,168
Water Purchase	29,109	26,345	29,278	30,156
Contractual Services, etc.	2,458	3,527	4,854	3,608
Small Equipment	111	148	226	50
Total Non-Personnel Services	36,927	35,638	39,832	38,758
Total Operations & Maintenance	\$ 45,543	\$ 45,304	\$ 50,075	\$ 48,490
Capital Equipment	\$ -	\$ 478	\$ 925	\$ 625
	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Targeted Performance Measures				
Critical Equipment Availability (98%)	98%	98%	98%	98%
Number of inspections completed on Potomac Interceptor meters	400	400	400	400

DISTRIBUTION AND CONVEYANCE SYSTEMS

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Ensure adequate flow and distribution of retail water throughout the District of Columbia
- Ensure maximization of water conveyance to Blue Plains according to the Nine (9) Minimum Control Plan
- Coordinate, plan and perform all emergency, preventive and corrective maintenance operations for mechanical, electrical and industrial equipment
- Direct emergency response and planning activities throughout the Authority
- Continue to implement a Critical Infrastructure Protection Plan (CIPP) and resource management plan
- Expand emergency preparedness training for employees
- Continue coordination of DC Water’s Emergency Management Programs with other internal and external agencies
- Perform Potomac Interceptor Odor Control Carbon replacement at Odor Control Facilities located in the District of Columbia and Montgomery County, Maryland
- Track and report Multi-Jurisdictional Use Facilities (MJUF) operations and maintenance costs

FY 2018 Major Recommended Activities and Changes

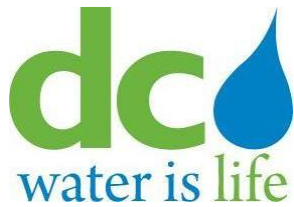
- Continue to implement plans for compliance inspections
- Expand safety program by ensuring compliance at all work areas throughout the District of Columbia
- Increase availability of data through Supervisory Control and Data Acquisition (SCADA) system to all water and sewer facilities
- Implement findings from Vulnerability and Risk Assessments
- Continue execution of the Office of Emergency Management training and exercise plan
- Update Emergency Management Plan and Continuity of Operations Plan (COOP)
- Enhance the performance of field response resources, including technology and communication updates of the Emergency Command Van and field communication units
- Complete the implementation and execution of the Authority-wide emergency communication strategy
- Continue to track and report Multi-Jurisdictional Use Facilities (MJUF) operations and maintenance costs

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- No major items identified



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Cluster: CHIEF ENGINEER

Department: ENGINEERING and TECHNICAL SERVICES

FUNCTIONS

BUDGET

FY 2018
\$26,728,000

POSITIONS

FY 2016

Authorized 166

Average Positions Filled 155

Year-End Positions Filled 156

FY 2017 FY 2018

166 166

Program Management	Design	Engineering & Asset Management	Planning	Water & Sewer Construction	Wastewater Engineering
5 - Positions	64 - Positions	22 - Positions	13 - Positions	54 - Positions	8 - Positions
Develop and maintain long-term facility planning process and generate bid documents for projects	Review, create and maintain standards to ensure technical adequacy	Develop and maintain contract specification, solicitations, awards and monitor DC Water budgets	Develops the 10-year CIP for all water and sewer system infrastructure improvements. Acquire permits needed for CIP programs	Administer contractors for new construction, major repairs and modifications to water and sewer systems	Perform design reviews and coordinate construction work with other departments
Provide data for production of the Capital Improvement Plan (CIP) and support for environmental policy issues affecting DC Water	Manage pipeline and facility CIP project designs outside Blue Plains and provide technical engineering expertise to support operating departments	Ensure contract documents comply with DC Water and Environmental Protection Agency Procurement Regulations	Coordinate with user jurisdictions for capital and operations and maintenance cost allocations of joint user facilities	Inspect construction of DC Water facilities by contractors and other District of Columbia agencies and private developers	Administer contracts for construction management, new construction, major repairs, modifications and start-up
Manage professional engineering firms retained for program management	Provide survey support for DC Water and maintain Enterprise Geographical Information System	Manage and track the CIP, EPA grants and engineering systems hardware and software	Continually inspect and assess the condition of buried assets and facilities		

ENGINEERING AND TECHNICAL SERVICES

MISSION: To perform engineering planning, design, and construction management necessary to execute DC Water's Capital Improvement Program (CIP); to provide assistance and advice to operating departments and management on engineering aspects of the Authority's operation and facilities. To develop and maintain engineering documentation of the Authority's facilities and systems; and to assist the Authority with environmental policy.

BUDGET OVERVIEW: The approved FY 2018 budget is higher than the approved FY 2017 budget by \$1.6 million primarily due to personnel service cost adjustments, and contractual services for shared matrix cost items.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	166	166	166	166
Average number of positions filled	145	155		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 21,066	\$ 21,581	\$ 22,102	\$ 23,344
Overtime	1,109	740	1,063	1,024
Non-Personnel Services:				
Chemicals and Supplies	126	122	176	196
Utilities	293	397	439	490
Contractual Services, etc.	1,555	1,876	2,327	2,592
Small Equipment	-	78	82	106
Total Non-Personnel Services	1,975	2,473	3,025	3,384
Total Operations & Maintenance	\$ 23,040	\$ 24,054	\$ 25,126	\$ 26,728
Capital Equipment	\$ -	\$ -	\$ -	\$ -
Targeted Performance Measures				
	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Percentage of KPI's Completed	80%	80%	80%	80%
Use 100% of Clean Water Act grant funds	100%	100%	100%	100%
Use 100% of Safe Drinking Water Act grant funds	100%	100%	100%	100%

ENGINEERING & TECHNICAL SERVICES

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Continue to validate and prioritize Capital Improvement Program (CIP) projects using the enterprise Asset Management Framework
- Lead and manage timely, and on-budget delivery of Capital Improvement Program (CIP) projects
- Implement Water, Wastewater Treatment and Sewer Facility Plans and corresponding Asset Management Plans
- Improve program management and project development and implementation across the service areas
- Improve metering and development of the sewer hydraulic model
- Acquire permits and approvals needed to execute various CIP projects
- Continue condition assessments of large diameter water mains
- Inspect and assess the condition of major and critical trunk sewers and interceptors
- Continue implementation of the Total Nitrogen/Wet Weather plan for Blue Plains Advanced Wastewater Treatment Plan (AWTP) through the completion and placing on-line of the Tunnel Dewatering Pump station/Enhanced Clarification project (required on-line per Consent Decree - March 23, 2018)
- Ensure EPA Fair Share Objectives are met or exceeded
- Develop and implement biosolids related projects to ensure continued success of the Biosolids Management Plan/Program
- Obtain grant funds, as appropriate, under the Clean Water Act and Safe Drinking Water Act
- Ensure all grant funding is obligated in accordance with grant requirements

FY 2018 Major Recommended Activities and Changes

- Continue departmental realignment/reorganization planning and implementation, including increased staffing in critical areas
- Continue to validate and prioritize Capital Improvement Program (CIP) projects using the enterprise Asset Management Framework

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Additional staffing to support implementation of the \$3.75 billion CIP for FY 2017 – FY 2026



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BUDGET

**FY 2018
\$2,995,000**

POSITIONS

FY 2016

Authorized	15
Average Positions Filled	14
Year-End Positions Filled	14
FY 2017	FY 2018
16	15

**Cluster: CHIEF ENGINEER
Department: DC CLEAN RIVERS (CSO - LTCP)**

FUNCTIONS

DCCR Planning and Design	DCCR Construction	DCCR Green Infrastructure (GI)
6 - Positions	5 - Positions	4 - Positions
Manage and oversee the planning and design phase of the \$2.6 billion, 20 year Clean Rivers Program	Manage and oversee the construction phase of the 20 year Clean Rivers Project	Manage and oversee the completion of the Green Infrastructure (GI) Program, siting and planning for GI projects
Oversee the program consultant's management of design contracts; and guide value engineering efforts to improve the quality and design cost effectiveness	Ensure adherence to all construction related consent decree requirements and guide constructability review efforts	Manage collaboration with external stakeholders including MOU development and negotiation with District
Develop risk mitigation strategies for all Clean Rivers projects and ensure adherence to all design related consent decree milestones	Develop risk mitigation strategies for all Clean Rivers projects, inspect tunnel construction and other CSO abatement facilities	Manage the design and construction of GI Challenge
Provide assistance in creating an accurate DC Clean Rivers Engineering Assets inventory with the integration of DC Water's operating facilities	Identify and mitigate potential project delay and scope growth	Ensure adherence to all GI consent decree milestones

CLEAN RIVERS (CSO LTCP)

MISSION: To develop, design, construct and implement the Authority’s 20-year DC Clean Rivers Project (aka Combined Sewer Overflow Long Term Control Plan) that includes federally enforceable consent decree driven milestones.

BUDGET OVERVIEW: The approved FY 2018 budget has no significant changes to the approved FY 2017 budget.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	16	15	16	15
Average number of positions filled	13	14		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 2,342	\$ 2,613	\$ 2,759	\$ 2,691
Overtime	9	0	5	-
Non-Personnel Services:				
Supplies	5	3	10	19
Utilities	77	106	97	41
Contractual Services, etc.	63	107	157	244
Small Equipment	-	6	-	-
Total Non-Personnel Services	145	222	265	304
Total Operations & Maintenance	\$ 2,487	\$ 2,835	\$ 3,023	\$ 2,995
Capital Equipment	\$ -	\$ -	\$ -	\$ -
Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Meet all CSO LTCP consent decree milestones	100%	100%	100%	100%
Meet Mayor's Task Force commitments to Northeast Boundary neighborhoods	100%	100%	100%	100%

CLEAN RIVERS (CSO LTCP)

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Continue design and implementation of DC Clean Rivers Project
- Continue construction of Anacostia River Tunnel System, Joint Base Anacostia-Bolling (JBAB) Overflow and Diversions Structures
- Continue design and procurement of the Northeast Boundary Tunnel
- Continue construction of Northeast Boundary Tunnel Utility Relocation
- Complete construction of the Main Pumping Station Diversions
- Complete Poplar Point Pumping Station Replacement and Main Outfall Sewers Diversion
- Continue the construction of CSO 02I Diversion Facilities
- Continue the Facility Planning for the Potomac River Tunnel
- Complete the development of an Environmental Impact Statement (EIS) for Potomac River
- Complete final design of the Green Infrastructure (GI) Challenge projects
- Complete GI Program Plan
- Complete required monitoring of the Low Impact Development Retrofit at DC Water Facilities
- Complete development of Request For Proposal (RFP) and begin procurement for Potomac River GI Project I, and Rock Creek GI Project I (including GI Challenge projects)
- Begin design for Piney Branch Diversion Structure Improvements
- Continue Memorandum Of Understanding (MOU) development and negotiations with District regarding GI implementation
- Continue DC Clean Rivers Engineering Assets inventory with the integration of DC Water’s operating facilities

FY 2018 Major Recommended Activities and Changes

- Complete construction of Anacostia River Tunnel, Joint Base Anacostia-Bolling (JBAB) Overflow and Diversions Structures
- Complete construction of Northeast Boundary Tunnel Utility relocation project
- Continue the construction of CSO 02I Diversion Facilities
- Commission and place the Phase I of Anacostia River Tunnel System Project in operation
- Begin and continue construction of Northeast Boundary Tunnel
- Continue DC Clean Rivers Engineering Assets inventory with the integration of DC Water’s operating facilities

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Green Infrastructure initiative will require an increase in operating expenditure due to increase of GI staff



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Cluster: CHIEF ENGINEER

Department: PERMIT OPERATIONS

BUDGET

**FY 2018
\$ 2,295,000**

POSITIONS

FY 2016

Authorized	15
Average Positions Filled	14
Year-End Positions Filled	13
FY 2017	FY 2018
15	15

FUNCTIONS

15 - Positions	
Review and approve permit applications	
Issue approvals to connect to the public water and sewer system document and store the proposed modifications	
Ensure development community compliance with DC Water design standards, criteria and specifications	
Evaluate impact of proposed development on water and sewer infrastructure for capacity and hydraulic grade	
Ensure compliance with combined sewer system/DC Clean Rivers program initiatives, current CIP and proposed improvements	
Coordinate with various DC agencies (DCRA, DDOT and DOEE) in support of the District's permit procedures	
Update and/or create customer service records (Premises) and the GIS database	
Assess and collect fees for permit review, fixed fee services, and inspection services. Assess System Availability Fees and manage the fee collection process	

PERMIT OPERATIONS

MISSION: To manage DC Water's development and permit services.

BUDGET OVERVIEW: The approved FY 2018 budget is relatively flat compared to the FY 2017 budget

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	15	15	15	15
Average number of positions filled	14	14		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 1,699	\$ 1,653	\$ 1,741	\$ 1,791
Overtime	3	4	15	2
Non-Personnel Services:				
Supplies	5	7	26	31
Utilities	295	314	340	332
Contractual Services, etc.	76	75	138	130
Small Equipment	-	-	-	10
Total Non-Personnel Services	376	396	503	503
Total Operations & Maintenance	\$ 2,075	\$ 2,048	\$ 2,244	\$ 2,295
Capital Equipment	\$ -		\$ -	\$ -
Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Process all permit applications in accordance with the service level agreement timeframe (85%)	85%	85%	85%	85%

PERMIT OPERATIONS

OVERVIEW

FY 2017 Major Planned Activities and Changes

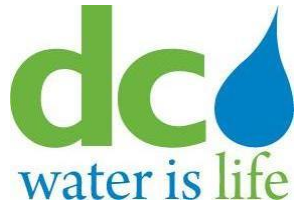
- Full integration of project tracking and new water/sewer infrastructure Geographic Information System (GIS) shapefiles with Maximo
- Dynamic hyperlinks linking GIS shapefiles to Maximo, Livelink, etc., and/or vice versa with possible integration of Permit Operations GIS shapefiles with the Enterprise GIS system so that all DC Water employees with GIS access can see and use the Permit Operations project tracking and new water/sewer infrastructure data for general information

FY 2018 Major Recommended Activities and Changes

- Implementation of the System Availability Fee (SAF) for new water and sewer connections and renovation or redevelopment projects for existing connections to the District’s potable water and sanitary sewer systems based on the SAF meter size
- Begin preliminary incorporation of customer service functions of reimbursable inspections cost account maintenance and explore opportunities for the expansion of the department
- Integration of online applications for permits
- Assessment of as-built fees for projects in order to fund out of house development of as-built drawings



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Cluster: INDEPENDENT OFFICES

Department: GENERAL MANAGER

BUDGET

**FY 2018
\$4,138,000**

FUNCTIONS

POSITIONS	
FY 2016	
Authorized	16
Average Positions Filled	15
Year-End Positions Filled	16
FY 2017	FY 2018
15	16

16 - Positions
Provides overall operational and policy direction in support of the Board of Director's Strategic Plan
Organize, plan and direct all operations of the Authority
Ensure development and implementation of improvement processes to increase operational efficiencies

GENERAL MANAGER

MISSION: The General Manager's Office administers, plans, organizes and directs the operations of DC Water.

BUDGET OVERVIEW: The approved FY 2018 budget is lower than the approved FY 2017 budget by approximately \$0.2 million primarily due to lower contractual services costs slightly offset by increase in personnel cost adjustments for additional headcount.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	15	16	15	16
Average number of positions filled	11	15		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 2,278	\$ 3,170	\$ 2,984	\$ 3,221
Overtime	12	11	8	9
Non-Personnel Services:				
Chemicals and Supplies	15	12	13	13
Utilities	28	28	29	37
Contractual Services, etc.	888	634	1,347	868
Small Equipment	-	-	-	-
Total Non-Personnel Services	931	674	1,389	917
Total Operations & Maintenance	\$ 3,209	\$ 3,844	\$ 4,373	\$ 4,138
Capital Equipment	\$ 57	\$ -	\$ -	\$ -
Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Implement all policies and directives of the Board of Directors	100%	100%		

GENERAL MANAGER

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Support Board of Directors’ review and update of the DC Water Strategic Plan (Blue Horizon 2020), and ensure continued implementation and oversight of DC Water Strategic Plan
- Pioneer development, implementation and marketing of innovations programs, products and initiatives generating revenue and optimizing operational performance
- Strengthen the ability of DC Water leaders to serve others, equipping them with the training, tools, and emotional intelligence necessary to realize their full potential through *Leading Blue* (the Authority’s Comprehensive Leadership Development Program)
- Energize DC Water’s work culture and enhance employee engagement to achieve vision of being a World-Class utility
- Administer oversight of DC Water operational and financial performance

FY 2018 Major Recommended Activities and Changes

- No major changes anticipated

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- No major items identified



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BUDGET

**FY 2018
\$599,000**

POSITIONS

FY 2016

Authorized	2
Average Positions Filled	2
Year-End Positions Filled	2
FY 2017	FY 2018
2	2

Cluster: INDEPENDENT OFFICES

Department: OFFICE OF THE SECRETARY (BOARD)

FUNCTIONS

2 - Positions	
Manage logistics for Board of Directors and Committee meetings, Public Hearings, Workshops, Strategic Planning Process and all other business activities of the Board	
Manage and oversee the day-to-day operations of the Board of Directors and maintain custodial of all books, records and official documents of the Board	
Administer the subpoena process and provide Notary Service for the Authority	

OFFICE OF THE SECRETARY (BOARD)

MISSION: To support the Board of Directors in developing and reviewing the DC Water's strategic goals, providing executive level assistance in planning, coordinating and executing assignments, and ensuring that the Board's business and activities are effectively managed.

BUDGET OVERVIEW: The approved FY 2018 budget is relatively flat compared to the approved FY 2017 budget.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	2	2	2	2
Average number of positions filled	2	2		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 265	\$ 282	\$ 282	\$ 296
Overtime	12	13	5	8
Non-Personnel Services:				
Chemicals and Supplies	19	20	18	18
Utilities	8	9	8	7
Contractual Services, etc.	149	216	316	278
Small Equipment	-	-	1	-
Total Non-Personnel Services	176	244	343	303
Total Operations & Maintenance	\$ 441	\$ 526	\$ 625	\$ 599
Capital Equipment	\$ -	\$ -	\$ -	\$ -
Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Provide timely and accurate Board and Committee agendas, reports and minutes	100%	100%	100%	100%
Follow-up and complete Board actions	100%	100%	100%	100%

OFFICE OF THE SECRETARY (BOARD)

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Continue to draft and submit notices and agendas for all Board and Committee meetings and Public Hearings for publication in the District of Columbia Register as required by the Open Meetings Act of 2010
- Continue to publish all Board and Committee agendas, meeting materials and meeting minutes on DC Water’s website as required by the Open Meetings Act of 2010
- Continue to coordinate logistics for the Board’s Strategic Planning Session (retreat)
- Continue to coordinate the process to fill the expired and/or vacant Board appointments
- Continue to effectively monitor follow-up requests from the Board and Committees to ensure timely responses
- Continue to enhance data dissemination process for the Board, DC Water employees, the general public and stakeholders by use of state-of-the-art technology that supports Board’s Strategic Plan
- Continue to manage recordkeeping process by ensuring accuracy, comprehensiveness and effective maintenance of all Board related documents and materials
- Continue to work with Information Technology to secure, install and utilize state-of-the-art technology to ensure efficient and effective recording of proceedings for all Board and Committee meetings

FY 2018 Major Recommended Activities and Changes

- No major activities and/or changes expected in FY 2018

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- No direct impact envisioned at this time



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Cluster: INDEPENDENT OFFICES

Department: INTERNAL AUDIT (outsourced)

BUDGET

**FY 2018
\$ 907,000**

POSITIONS

FY 2016

Authorized	0
Average Positions Filled	0
Year-End Positions Filled	0
FY 2017	FY 2018
0	0

FUNCTIONS

Oversight	Insight	Foresight
Conduct periodic audits	Assess programs and policies	Identify trends and challenges before they become crises
Conduct audits requested by the Board of Directors and/or the Chief Executive Officer & General Manager	Share best practices and benchmarking information	Identify risks and opportunities
Review of corporate governance	Provide ongoing feedback for re-engineering management practices and policies	Risk-based auditing

INTERNAL AUDIT

MISSION: The mission of Internal Audit (IA) is to provide independent, objective assurance and consulting activity that is guided by a philosophy of adding value to improve the operations of DC Water. IA assists the organization in accomplishing its objectives by bringing a systematic and disciplined approach to evaluate and improve the effectiveness of the organization's risk management, control and governance processes.

BUDGET OVERVIEW: The approved FY 2018 budget is relatively flat compared to the FY 2017 budget.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	-	-	-	-
Average number of positions filled				
Operating Expenses				
Personnel Services including Overtime	\$ -		\$ -	\$ -
Overtime	-	-	-	-
Non-Personnel Services:				
Supplies	-	-	-	-
Utilities	7	8	8	6
Contractual Services, etc.	844	989	883	902
Small Equipment	-	-	-	-
Total Non-Personnel Services	850	997	890	907
Total Operations & Maintenance	\$ 850	\$ 997	\$ 890	\$ 907
Capital Equipment	\$ -	\$ -	\$ -	\$ -
Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Internal Audit Work Planned	10	14	14	14

INTERNAL AUDIT

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Conduct an updated risk assessment and internal audit plan for the Authority
- Continue to manage DC Water’s hotline and implement the hotline protocol
- Report to the Board of Directors via the Audit Committee on the status of prior internal findings and management action plans
- Conduct follow-up procedures on newly presented audit findings and determine status of management action plans
- Implement committee and Board approved audit plans

FY 2018 Major Recommended Activities and Changes

- No major changes anticipated



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Cluster: INDEPENDENT OFFICES

Department: GENERAL COUNSEL

FUNCTIONS

BUDGET

FY 2018
\$ 7,332,000

POSITIONS

FY 2016

Authorized	14
Average Positions Filled	13
Year-End Positions Filled	14
FY 2017	FY 2018
15	14

Litigation	Administrative Law
Appellate	Board of Directors Support
Bankruptcy	Draft, review and advise on contract and Authority policies and procedures
Contract	Clean Water & Clean Air Acts Compliance
Construction	Construction Claims
Environmental	Safe Drinking Water Act & Regulatory Compliance
Procurement	Employment Law Matters
Tort	Intra-Governmental & Inter Jurisdictional Agreements
Receivership	Municipal Law & Real Property Matters
Employment	Pretreatment Enforcement Support
Foreclosures	Procurement Protests, Claims & Internal Appeals

GENERAL COUNSEL

MISSION: To support DC Water's mission by providing legal advice and services to the Board of Directors, CEO & General Manager and DC Water's departments.

BUDGET OVERVIEW: The approved FY 2018 budget is higher than the approved FY 2017 budget by approximately \$1.5 million primarily due to higher anticipated legal costs.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	15	14	15	14
Average number of positions filled	12	13		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 1,534	\$ 1,853	\$ 2,017	\$ 2,066
Overtime	0	0	2	2
Non-Personnel Services:				
Chemicals and Supplies	5	7	8	9
Utilities	19	21	20	21
Contractual Services, etc.	5,456	7,123	3,779	5,236
Small Equipment				
Total Non-Personnel Services	5,480	7,150	3,806	5,266
Total Operations & Maintenance	\$ 7,014	\$ 9,003	\$ 5,823	\$ 7,332
Capital Equipment	\$ -	\$ -	\$ -	\$ -
Targeted Performance Measures				
	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Hours of employee time spent on direct work 1,700	1,700	1,700	1,700	1,700

GENERAL COUNSEL

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Continue to manage litigation
- Continue to provide support to Clean Rivers Project and other long term Capital Improvement Program (CIP) Projects
- Provide legal support for Green Infrastructure activities
- Support Innovation initiatives
- Support Litigation

FY 2018 Major Recommended Activities and Changes

- Provide legal support to major construction projects
- Continue to provide support for Green Infrastructure activities
- Implement Strategic Compliance Plan
- Support environmental permits – National Pollutant Discharge Elimination System (NPDES), Total Maximum Daily Load (TMDL), Municipal Separate Storm Sewer System (MS4), Potomac Interceptor, and construction and operating permits under Clean Air Act
- Defend Litigation

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Provide legal support in environmental issues affecting DC Water CIP Projects and ongoing operations
- Provide legal support to business initiatives such as Bloom, Blue Drop, Advancing Research and Technology (ART)
- Provide legal support for the ongoing Long Term Control Plan, Green Infrastructure, and TMDL litigation activities



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Cluster: INDEPENDENT OFFICES

Department: EXTERNAL AFFAIRS

FUNCTIONS

BUDGET

FY 2018
\$2,531,000

POSITIONS

FY 2016

Authorized	14
Average Positions Filled	12
Year-End Positions Filled	12
FY 2017	FY 2018
13	14

Production and Operations	Communications and Government Relations	Public Outreach
5 - Positions	6 - Positions	3 - Positions
Facilitate communications training for employees (e.g. media speakers bureau, focus groups)	Prepare speeches, editorials, special reports and stakeholder presentations as well as articles for community and weekly newspapers and press releases	Partner on specific project/programs with neighborhood commissions, business, civic and environmental groups and organizations and schools
Manage the production of the Annual Report, Water Quality Report and Marketing materials	Produce newsletters, brochures, DC Water exhibits and materials. Provide editing support for other departmental communication projects and produce special high-profile project communications materials	Prepare exhibits, develop and coordinate community service and customer outreach activities
Produce Public Service Announcements, Commercials and Videos. Manage Speakers Bureau, department's budget, produce live and archived webcasts of Board meetings and manager stakeholder presentations and Plant tours	Respond to local/national media inquiries, manage website content; track and strategically influence relevant policy proposals. Establish and enhance working relationship with elected and appointed officials. Pursue state and federal government funding opportunities	Coordinate stakeholder presentations and community events; conduct Sewer Science and other public school programs

EXTERNAL AFFAIRS

MISSION: To provide information about DC Water services and programs and to raise awareness about DC Water's efforts and achievements to improve the quality of life in the region by protecting the environment in which it operates and supporting the community it serves.

BUDGET OVERVIEW: The approved FY 2018 budget is higher than the approved FY 2017 budget by \$0.3 million primarily due to higher projected personnel services cost for the additional headcount, a Plant Tour Guide for visitors of Blue Plains and other facilities.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	13	14	13	14
Average number of positions filled	13	12		
Operating Expenses: (\$000's)				
Personnel Services including Overtime	\$ 1,668	\$ 1,653	\$ 1,750	\$ 1,936
Overtime	1	0	27	27
Non-Personnel Services:				
Chemical and Supplies	10	50	10	10
Utilities	24	22	33	26
Contractual Services, etc.	457	421	471	551
Small Equipment	4	-	7	7
Total Non-Personnel Services	495	493	522	594
Total Operations & Maintenance	\$ 2,164	\$ 2,146	\$ 2,272	\$ 2,531
Capital Equipment	\$ -	\$ -	\$ -	\$ -
Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Publication of DC Water's Annual Report	1	1	1	1
Publication of Customer Newsletter	10	10	10	10
Publication of Clean River's Update	2	2	2	2
Publication of Employee Newsletter	12	12	12	12
Publication of Water Quality Report	1	1	1	1
Senior speech and presentation development	10	10	10	10
Community meetings/outreach re: lead, rates, CSO/CIP projects, etc.	100	100	100	100

EXTERNAL AFFAIRS

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Expand communications and marketing around tap water, with emphasis on partnerships with the business community, universities and civic/neighborhood groups
- Ongoing tap water promotion and distribution at large festivals - H Street Festival, DC Vegetable Fest, and Pride Festival
- Expand DC Water’s internal (employee) outreach, working closely with Human Capital Management, the Office of the CEO & General Manager and other departments
- Ramp up Clean Rivers outreach with a sustained public education campaign to inform all stakeholders about the benefits of the program
- Enhance DC Water’s social media strategies
- Ongoing rebranding efforts
- Continuing to expand and enhance our relationships with local media, community bloggers and trade press
- Develop and design new website to include information gathering, design, development, testing and maintenance

FY 2018 Major Recommended Activities and Changes

- No major changes anticipated

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- No direct impact



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Cluster: INDEPENDENT OFFICES
Department: HUMAN CAPITAL MANAGEMENT

FUNCTIONS

BUDGET

FY 2018
\$7,986,000

POSITIONS

FY 2016

Authorized	25
Average Positions Filled	23
Year-End Positions Filled	21
FY 2017	FY 2018
25	25

Talent	Operations	Labor Relations	Director's Office
8 - Positions	12 - Positions	3 - Positions	2 - Positions
Recruitment, onboarding, training and development.	Market analysis, Performance pay, job evaluation and position control	Labor Relations, Arbitration, and grievance resolution	Strategic initiatives
Performance management,, Succession planning and Employee engagement	Administration of Benefits, Wellness, American Disabilities Act, Drug and Alcohol testing, Workers Compensation, and Employee assistance	Employee relations	Change management
Education assistance, Internship, Rewards and recognition.	Systems, data integrity, records management and predictive analytics	Equal Employment Opportunity and Workplace Violence	Management of resources and operations

HUMAN CAPITAL MANAGEMENT

MISSION: To deliver high quality, innovative, valued and timely human capital management services that are responsive to the needs of DC Water employees and departments, in order to help facilitate employees to achieve their individual and organizational goals.

BUDGET OVERVIEW: The approved FY 2018 budget is higher than the approved FY 2017 by approximately \$0.2 million primarily due to personnel service cost adjustments for the departmental reorganization and slightly offset by lower contractual services.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	25	25	25	25
Average number of positions filled	25	23		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 3,549	\$ 3,584	\$ 3,731	\$ 4,020
Overtime	6	3,584	5	4
Non-personnel Services:				
Supplies	33	52	34	34
Utilities	36	44	48	43
Contractual Services, etc.	3,274	4,101	4,008	3,889
Small Equipment	3	-	2	-
Total Non-Personnel Services	3,346	4,196	4,092	3,965
Total Operations & Maintenance	\$ 6,895	\$ 7,780	\$ 7,823	\$ 7,986
Capital Equipment	\$ 129	\$ -	\$ -	
Targeted Performance Measures				
	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
120 days from job posting to hire	120	120	120	120
10 days to initiate disciplinary action	7	7	7	7
14 days new hire benefit set-up	14	14	14	14
22.5 Average number training hours per FTE	22.5	22.5	22.5	22.5
Comparison DC Water Employees Compensation (100%) vs Market 50th-%tile	100%	100%	100%	100%

HUMAN CAPITAL MANAGEMENT

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Continue negotiation of the Compensation Agreement for all five Unions and DC Water
- Continue departmental reorganization to focus on HCM operations, talent, strategy and change management
- Launch new talent acquisition and onboarding program focused on enhancing quality of hire and employee engagement
- Design and administer Employee Engagement Survey
- Develop and administer improved Employee Recognition and Rewards program
- Implement HCM Maturity Model and program initiatives designed to improve service delivery and business unit maturity
- Implement “Advancing Blue” Performance Management System for Union employees
- Design and implement HCM Dashboard of key performance indicators for HCM programs and services
- Designate, train and certify a cohort group of Authority leaders in Prosci change management
- Conduct leadership development program training to include new employees, first time managers, mid-level and executive level managers
- Develop and administer trainings on collective bargaining agreements, administering discipline, performance management and compliance programs
- Implement Ceridian DayForce Enterprise application as the core HR, Payroll, Benefits, Self Service, and Applicant Tracking Enterprise System

FY 2018 Major Recommended Activities and Changes

- Recommend and implement medical plan design changes to avoid the Patient Protection and Affordable Care Act (PPACA) excise “Cadillac” tax exposure projected for 2020
- Implement the new Compensation Agreement for DC Water union employees
- Implement the Compensation Collective Bargaining Agreement training for management staff
- Ongoing performance management systems training for DC Water union employees
- Conduct an Employee Engagement Survey as part of 2020 Blue Horizon (Strategic Plan Initiative)
- Conduct assessments for DC Water Succession Planning program as part of 2020 Blue Horizon (Strategic Plan Initiative)
- Implement the Rewards and Recognition program for union employees

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Asset Management Training in FY 2017 & FY 2018

FY 2017 AND FY 2018 TALENT DEVELOPMENT PLAN

TALENT DEVELOPMENT OVERVIEW

At DC Water our talent is our people, Team Blue. Talent development consists of training and development strategies and programs that motivate, engage, and educate our employees to cultivate a high performing workforce and results driven culture. Our ability to meet demands, realize our vision and fulfill our mission relies on the character and competence of our talent. Simply put, achieving world-class relies on Team Blue!

Goal #1 of the Board Strategic Plan, Blue Horizon 2020 is to “develop, maintain, and recruit a high-performing workforce.” Meeting this goal is dependent on the relationship between our management team and the employees they lead. As a result, we are connecting the concept development with building a culture of coaching. Effective coaching provides specific, timely, and actionable feedback to employees. We believe the role of the management team is much deeper than simply providing direction. Our leaders are charged with:

- Improving individual performance
- Opening up new possibilities for team members
- Removing obstacles in the way of success
- Playing a role in the ongoing development of the employees under their supervision

At DC Water, our management team leads by coaching and coaching unleashes the full array of talent and ingenuity our team possesses that would otherwise be untapped.

Other forms of talent development at DC Water include:

In-House Training – classes and programs designed in-house. In-house training may focus on non-technical courses, skills development, or new processes.

External Training – classes and programs that support individual employee development needs and requirements, not designed by an external vendor. This is an effective means of providing highly specialized or special focus training to individuals or a small group of employees. DC Water’s education assistance and tuition reimbursement program is included in this category.

eLearning - online courses housed within our learning management system (LMS), Cornerstone.

FY 2016 ACCOMPLISHMENTS

In FY 2016, we took a consultative approach to focus on the needs of our clients to help determine the best solution. The routine training offerings and training calendar that was distributed was discontinued and resulted in savings of \$200,000.

We conducted Authority-wide training on **Advancing Blue**, our new performance management program and process and implemented a full library of over 125 online courses in Cornerstone.

Leaders in the Department of Engineering and Technical Services, Information Technology, and Customer Care and Operations received leadership training by Dale Carnegie. DETS also completed 360 degree

assessments, participated in a feedback workshop and created development plans for areas of improvement.

The Authority continued to leverage its relationships with local colleges, vendors, and certification/licensing boards to run training programs such as the Journeyman Electrical Prep Course, Distribution & Collection Prep Course for Certification, Microsoft Suite Certifications and Commercial Driver's License (CDL). A shared FTE position, CDL & Safe Driver Program Specialist, located within Human Capital Management Department, continues to provide all CDL training.

Utilizing both internal and external training resources, classes such as Forklift, Backhoe, CPR/First Aid, Confined Space, Emergency Evacuation, Flagger, Overhead Crane, and Personal Protective Measures for Biological Events, Excavation & Trenching and Safety Trained Supervisor were also conducted.

The DC Water Summer Internship Program was enhanced this year. For the first time, pre-screening and interviews were conducted which led to the highest number of quality candidates to date. We hired 50 interns from a pool of over 200 candidates. The diverse group of students were from local areas such as Maryland, Virginia, and the District of Columbia and as far away as Nigeria, Ghana, Indonesia, Malawi, Vietnam, and China. Another first for our interns this year was participating in an Intern Expo at the end of the 10-week program, where each intern presented their key contributions and work progress in a science fair type of format. All DC Water employees were invited and there was significant attendance, with the interns receiving considerable praise. The interns were also treated to a "day out," at Lucky Strikes bowling alley and participated in Lunch & Learns facilitated by the learning & development specialists on topics such as *Networking* and *Responsible Social Media Use*. Summer

2016 saw a 9% conversion rate of summer interns to year-round interns and an emerging business need led to the creation of a Research Associate program in order to retain millennial talent that no longer qualifies for internship positions upon graduating from college or graduate school.

In FY 2016, 47 employees participated in the Education Assistance Reimbursement benefit program. DC Water provided \$121,429.51 to assist employees continue their education programs.

FY 2017 and FY 2018 Training Budgets

The approved FY 2018 training budget totals \$1.8 million, which is relatively flat compared to the approved FY 2017 budget.

The Talent branch of Human Capital Management (HCM) department will continue to focus on the need to develop our workforce beyond the initial job qualifications. Considerable attention will be given to Performance Management, (which was previously under the Compensation branch), Succession Planning, and Employee Engagement. Additionally, we will see the launch of **Leading Blue**, our leadership development program that will ensure each member of our management team possesses the skills necessary to function effectively in a culture premised on coaching to achieve results. **Leading Blue**, when implemented will expand the capacity of our leaders equipping them with the tools to direct employees, grow the capabilities of others, and achieve results aligned with strategic plans and operational priorities.

The Talent branch will lead the charge in the development of the workforce of the future.



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Cluster: INDEPENDENT OFFICES
Department: INFORMATION TECHNOLOGY

FUNCTIONS

BUDGET
FY 2018
\$11,315,000

POSITIONS	
FY 2016	
Authorized	28
Average Positions Filled	26
Year-End Positions Filled	25
FY 2017	FY 2018
28	28

Infrastructure & Operation	Enterprise Solutions	Project Management Office	Office of the CIO & Other
14 - Positions	8 - Positions	2 - Positions	4 - Positions
Provide technical support for applications and manage the IT infrastructure. Develop and provide standards for System Architecture/Integration	Maintain, service and enhance DC Water's enterprise applications	Support project planning, management, and implementation	Manage Information Technology initiatives, functions and assets of the Authority
Maintain DC Water's technology standards. Implement & support radio systems/phone	Support DC Water Authority-wide and business unit goals, objectives and business functions	Integrate and provide product support for the financial, payroll, maintenance and customer information and billing, AMR, IVR, AM systems	Manage project implementations and database administration
Maintenance of the Enterprise Continuity of Operations (COOP) capabilities	Create, plan, assist and implement enterprise solutions utilizing technology to meet the Authority's needs	Manage the project portfolio and provide Program & Project Management services for the enterprise	Design and implement Cyber security strategy for the enterprise. Test and validate Cyber protections
Manage the Solution Center (Help Desk)	Support the IT Governance process and maintain information needed to make sound business decisions for local and executive IT steering committees (ESC and LSCs)	Design and maintain DC Water's website to allow customer e-business access. Develop and support DC Water's intranet and manage project prioritization process	Support Disaster Recovery for the Authority

INFORMATION TECHNOLOGY

MISSION: To ensure that the Authority's mission is supported by state-of-the-art technology with an infrastructure capable of accommodating all traffic and connectivity demands, and a computing environment that encourages development of efficient business.

BUDGET OVERVIEW: The approved FY 2018 budget is higher than the approved FY 2017 budget by \$0.3 million primarily due to higher projected contractual services for major software maintenance and support.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	24	28	28	28
Average number of positions filled	22	26		
Operating Expenses (\$000's)				
	\$ 3,369	\$ 4,035	\$ 4,041	\$ 4,166
Overtime	12	10	27	15
Non-Personnel Services:				
Chemicals and Supplies	35	13	64	59
Utilities	116	158	161	179
Contractual Services, etc.	6,658	6,750	6,654	6,817
Small Equipment	81	36	124	94
Total Non-Personnel Services	6,889	6,957	7,003	7,149
Total Operations & Maintenance	\$ 10,258	\$ 10,991	\$ 11,044	\$ 11,315
Capital Equipment	\$ 2,790	\$ 4,991	\$ 10,460	\$ 8,560
Targeted Performance Measures				
	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
98% Network uptime round the clock	99%	99%	99%	99%
96% of all high priority tickets completed within 4 hours	98%	98%	98%	98%
60% Tickets closed by Tier I support	60%	65%	70%	70%
50% of Projects Completed on-time	50%	60%	60%	60%
98% Network uptime during peak hours	98%	98%	98%	98%

INFORMATION TECHNOLOGY

OVERVIEW

FY 2017 Major Planned Activities and Changes

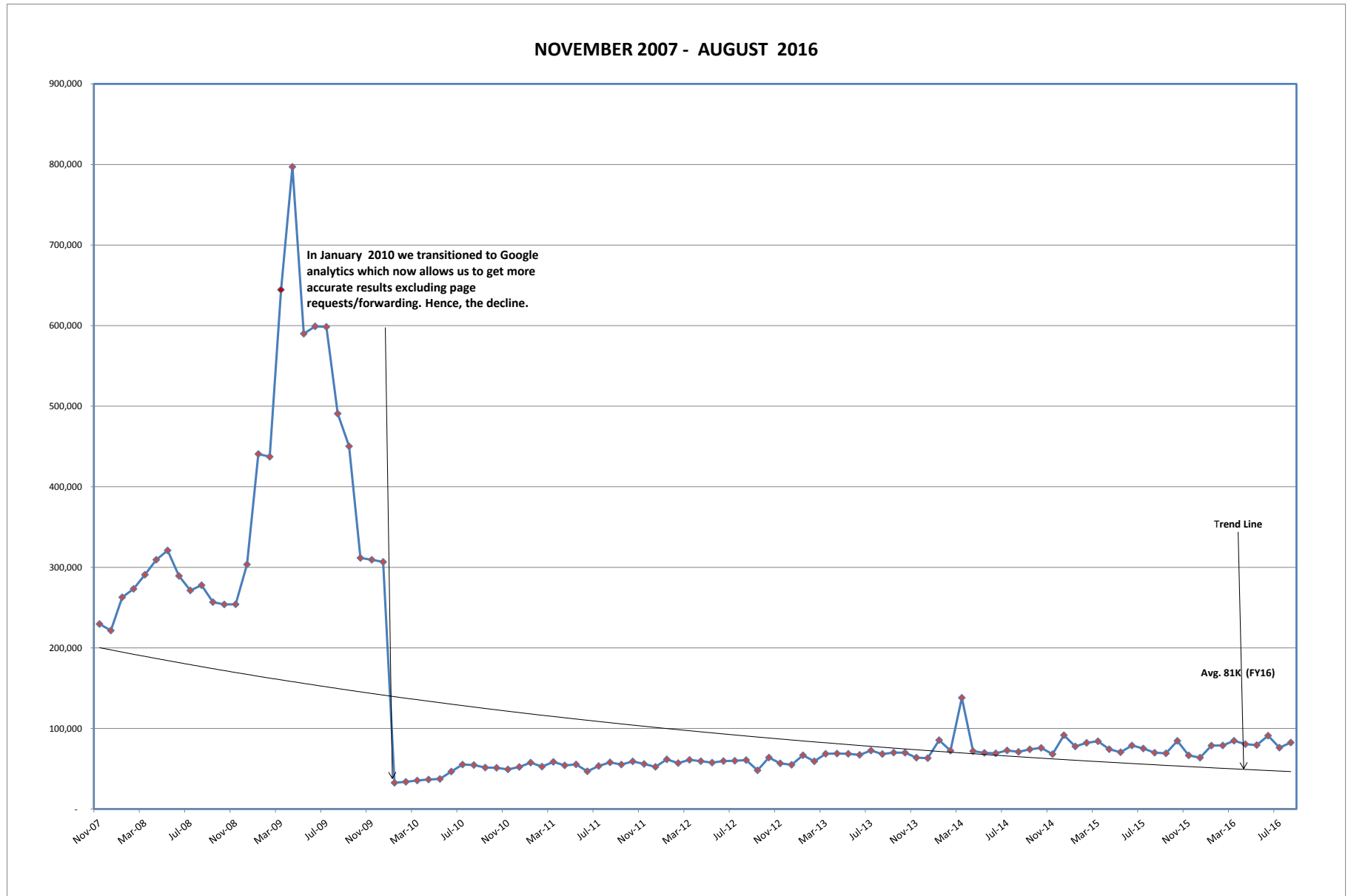
- Implement of the replacement for Enterprise Customer Information System (eCIS)
- Continue to ensure IT infrastructure reliability and upgrades consistent with Authority Technology Life-cycle for network infrastructure, telephone system, personal computers, laptops, cell phones, and tablet devices
- Complete upgrade of Automated Meter Reading/Advanced Metering Infrastructure (AMR/AMI) system as part of the meter replacement project
- Implement e-Procurement system
- Begin implementation of the Safety Risk System and the Financial System Replacement
- Complete upgrade of the current Primavera P6 and Contract Manager I3 (CM I3)
- Implement Mobility programs for Blue Plains and Linear assets
- Complete implementation of the DC Water Works Compliance System, the Permanent Employee Program (PEP) to promote hiring of DC residents
- Begin implementation of the technologies necessary to support the As-Built processes
- Complete implementation of Field Follow On Work, an application for the engineering inspectors, to investigate asset discrepancies reported by the field crew

FY 2018 Major Recommended Activities and Changes

- Continue Implementation of Financial System Replacement
- Finish implementation of Safety Risk System
- Finish implementation of the eCIS system
- Implement Phase 2 of Automated Vehicle Locator
- Select and deploy Integration Infrastructure Extract, Transform and Load tool which will tie different databases together seamlessly
- Complete Maximo Scheduler rollout
- Increase penetration of field force automation
- Continue implementation of the technologies necessary to support the As-Built processes
- Continue implementation of remaining components of the meter replacement program

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Implementation of Systems Applications and Products (SAP) Business objects will require additional maintenance costs (licenses) in the operating budget starting in FY 2017
- Contract labor and FTEs to support new Customer Information System (CIS), Automated Meter Reading (AMR) and Interactive Voice Recognition (IVR) solutions once they are in place





Cluster: INDEPENDENT OFFICES

Department: PROCUREMENT

FUNCTIONS

BUDGET

**FY 2018
\$ 5,672,000**

POSITIONS

FY 2016

Authorized	36
Average Positions Filled	29
Year-End Positions Filled	31
FY 2017	FY 2018
34	36

Category Management	Purchasing Administration	Contract Compliance	Materials Management
15 – Positions	3 - Positions	5 - Positions	13 - Positions
Manage DC Water's procurement process for products and services	Manage requisition process and purchasing operations	Manage DC Water's small business development, outreach programs, and local hiring initiative	Manage the warehouse and associated functions
Develop category and sourcing strategies	Provide procurement system administrative support	Manage the DC WaterWorks, purchase & travel cards and other contract compliance programs	Administer the material control system and associated functions, conduct spot, cycle and annual physical inventory
Manage vendor relationships	Represent Procurement and manage all IT system projects that impacts Procurement System	Maintain the department's web page	Provide direction and guidance on inventory policies and procedures, disposal of excess and obsolete inventory

PROCUREMENT

MISSION: To procure the best value products and services, with the highest degree of procurement integrity, utilizing efficient and cost-effective procurement methods, with a continuing focus on Local, Small, and Disadvantaged Business Enterprises (LSDBE) contracting participation.

BUDGET OVERVIEW: The approved FY 2018 budget is higher than the approved FY 2017 budget by approximately \$1.2 million primarily due to personnel services cost adjustments including staffing of the DC WaterWorks program in line with Board Strategic Initiative

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	37	36	34	36
Average number of positions filled	24	29		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 3,031	\$ 3,697	\$ 3,403	\$ 4,631
Overtime	23	31	30	30
Non-Personnel Services:				
Supplies	43	30	41	34
Utilities	49	62	66	57
Contractual Services, etc.	355	818	935	945
Small Equipment		-	5	5
Total Non-Personnel Services	448	910	1,047	1,041
Total Operations & Maintenance	\$ 3,479	\$ 4,608	\$ 4,450	\$ 5,672
Capital Equipment	\$ 969	\$ 11	\$ -	\$ -
Targeted Performance Measures				
	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Timely processing of small purchases within 7 working days	95%	95%	95%	95%
Issue Invitation for Bid (IFB) and award contracts within 90 calendar days	95%	95%	95%	95%
Issue Requests for Proposal (RFP) and award contracts within 120 calendar days	95%	95%	95%	95%
Issue Procurement request for inventory restock within one (1) business day of approval	95%	95%	95%	95%
System and physical issue of all stock request within same day of authorized request	95%	95%	95%	95%

PROCUREMENT

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Implement eSourcing tool (Sourcing/Contract Management/Supplier Portal/Supplier Scorecard/Spend Analytic) to implement and automate procurement process and achieve paperless strategy
- Continue stabilization/enhancement of materials management system and process
- Complete realignment of Procurement department with category management and strategic sourcing teams
- Increase training of procurement staff on strategic sourcing, category management, and Microsoft tools
- Generate, capture, and report cost savings through category management and strategic sourcing projects
- Complete the design of the DC WaterWorks program (a local hire initiative), and implement the program DC Water-wide
- Launch Supplier Relationship Management (SRM)

FY 2018 Major Recommended Activities and Changes

- Enhance eSourcing tool (Sourcing/Contract Management/Supplier Portal/Supplier Scorecard/Spend Analytic) to continue improvement in procurement efficiency and results
- Continue enhancement of materials management system and process
- Refine category management and strategic sourcing capabilities
- Continue training of procurement staff on strategic sourcing, category management, and Microsoft tools
- Generate, capture, and report cost savings through category management and strategic sourcing projects
- Continue improvement and expansion of the DC WaterWorks program (a local hire initiative)

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Annual software subscription fee after implementation of the eSourcing tool



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Cluster: CHIEF FINANCIAL OFFICER
Department: FINANCE, ACCOUNTING & BUDGET

FUNCTIONS

BUDGET

FY 2018
\$15,299,000

POSITIONS

FY 2016

Authorized	49
Average Positions Filled	47
Year-End Positions Filled	48
FY 2017	FY 2018
48	49

Finance	Accounting	Financial Systems & Control	Budget	Rates and Revenue
11 - Positions	20 - Positions	3 - Positions	12 - Positions	3 - Positions
Manage and oversee Treasury, Debt and Risk management functions of the organization	Manage accounting and financial reporting functions of the organization, Comprehensive Annual Financial Report (CAFR), and financial transactions	Manage and Support organization-wide Financial System and related applications to ensure accountability and safeguarding of the Authority's assets	Manage the budget and billing activities of the organization, including grants and county billing operations	Short and long-range financial planning, revenue forecasting, and monitoring and rate setting processes
Debt and investment portfolios, operations of cashiering and banking services	Establish accounting and reporting policies, maintain financial records and effective internal control structure	Management of Financial System, including upgrades and enhancements	Prepare and monitor operating and capital budgets	Manage cost of service studies for water & sewer, fire protection fee, and Potomac Interceptor customers
Administer all insurance and risk management activities, manage all general liability and tort claims for DC Water's Operations	Payroll operations, Vendor payment operation and Asset management finance and accountability	Financial System user support/access control/user training and Business Intelligence and Reporting	Board Committees' reporting process and Financial relationship with the Washington Aqueduct	Monitors accounts receivable and delinquencies greater than 90 days and Prepare independent budget and rate review for public hearing

Departmental Summary

FINANCE, ACCOUNTING AND BUDGET

MISSION: Manage all of DC Water's financial activities to maintain sound financial condition; and, to ensure performance that meets the expectations of the Board, stakeholders and the broader financial community.

BUDGET OVERVIEW: The approved FY 2018 budget increased by approximately \$0.9 million over the approved FY 2017 budget due to personnel service cost adjustments, coupled with projected increase in contractual services costs for financial systems support and insurance premiums.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	49	49	48	49
Average number of positions filled	44	47		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 6,270	\$ 6,756	\$ 6,573	\$ 7,038
Overtime	39	27	30	40
Non-Personnel Services:				
Chemical and Supplies	28	28	53	40
Utilities	197	184	207	171
Contractual Services, etc.	5,475	6,173	7,554	8,045
Small Equipment	-	0	4	4
Total Non-Personnel Services	5,700	6,385	7,818	8,261
Total Operations & Maintenance	\$ 11,970	\$ 13,141	\$ 14,391	\$ 15,299
Capital Equipment	\$ 121	\$ 434	\$ 11,506	\$ 7,800
Targeted Performance Measures				
Manage DC Water's financial operations to ensure revenue projections and O&M expenditures are within budget	Revenue - 99%	99%	Revenue - 99%	99%
Comply with the Board's investment policy and strategy	Expenditures - 93%		Expenditures - 95%	95%
Benchmarks: Short-Term Funds - ML 3 months US T-Bill Index and Core Funds - ML 1 - 3 year	100%	100%	100%	100%
Manage DC Water's financial operations to ensure 140% senior debt service coverage	70 basis points	65 basis points	57 basis points	78 basis points
Meet or exceed the 120 day operating and maintenance expense with the objective of maintaining at least \$125.5 million in operating reserves as set by Board policy	30 points	113 basis points	135 basis points	189 basis points
Issue Comprehensive Annual Financial Report (CAFR)	470%	536%	430%	406%
Pay 97% of all undisputed invoices within 30 days	125.5 million	125.5 million	125.5 million	125.5 million
	February	February	February	February
	97%	97%	97%	97%

FINANCE, ACCOUNT & BUDGET**OVERVIEW**FY 2017 Major Planned Activities and Changes**Finance:**

- Analyze and evaluate operating reserve level
- Administer post compliance reporting for all outstanding debt and monitor bond market for Green Bond issuance and performance
- Continue to evaluate investment portfolio strategy, performance and reporting
- Issue debt as required for liquidity in accordance with the 10-year plan
- Issue Request for Proposal for bond counsel services
- Update and revise Investor Relations portion of the DC Water website
- Complete Rolling Owner Controlled Insurance Program (ROCIP) property valuation of DC Water assets

Rates and Revenue:

- Continue Water Balance monitoring
- Continue to monitor economic conditions and affordability
- Monitoring of consumption trends and regional economic indicators
- Coordinate as needed with operating departments to implement new Customer Information System (CIS)
- Conduct study on operating reserve requirement
- Conduct study on renewal and replacement reserve
- Evaluate feasibility of including Clean Rivers Impervious Area Charge (CRIAC) in Customer Assistance Program (CAP)

Financial Systems & Controls:

- Preparation for Enterprise Resource Planning (ERP) system enhancement/replacement or major upgrade of current system
- Implement a paperless accounts payable process

Accounting:

- Coordinate and support Internal Auditors
- Minimize/eliminate paper check payments to vendors
- Implement Ceridian DayForce HR/Payroll System
- Ensure a clean external audit opinion
- Issuance of quarterly financial reports and annual Comprehensive Annual Financial Report (CAFR)
- Continue to review and update Capitalization Policy
- Financial Reporting Assessment and Development
- Increase focus on CIP, Intangible and Fixed Assets
- Develop Accounting Policy and Procedures for Innovation Program

FINANCE, ACCOUNTING & BUDGET (CONT')

Budget and Billing:

- Develop, monitor and report the annual operating and 10 year CIP budgets
- Ongoing financial management of critical programs
 - Continue monitoring of key financial performance targets
 - Document business procedures for new budget processes in support of new ERP system
- Implement streamlined and continual improvements to the budget planning process
- Federal Appropriations/Grants /Wholesale Customer Billing Audit
 - Continued improvements to the wholesale customer operating and capital billing processes
 - Document FEMA reimbursement request process
 - Continue timely process for bond draw and CSO appropriation reimbursement request
 - Issuance of annual operating settlement for wholesale customer
 - Assist with implementation of the billing methodology process for the Multi Jurisdiction Use Facilities (MJUF)
 - Coordinate the WSSC audit of FY 2015 operating cost
 - Provide support for the Audit of Financial Statements and Federal Awards Programs

FY 2018 Major Recommended Activities and Changes

- Continue improvements to the budget development and reporting processes
- Explore alternative revenue generating activities
- New bond issuance
- Continue with FY 2017 major activities
- Implementation of System Availability Fee (SAF)

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- There is \$350,000 in the FY 2017 budget for Ceridian (Dayforce HCM/Payroll) implementation. This involves migration to a new system platform that would result in operating efficiencies and additional cost in the amount of \$3,100 annually for maintenance of new time clocks at the new Headquarters Building



Cluster: SUPPORT SERVICES

Department: ASSISTANT GENERAL MANAGER

BUDGET

**FY 2018
513,000**

FUNCTIONS

POSITIONS	
FY 2016	
Authorized	3
Average Positions Filled	3
Year-End Positions Filled	3
FY 2017	FY 2018
3	3

Facilities Management	Security	Occupational Safety & Health	Fleet Management
Develop and direct the strategic objectives of the Authority's support services divisions			
Oversee and direct the administrative services functions that support the achievement of the Enterprise's goals			

ASSISTANT GENERAL MANAGER - SUPPORT SERVICES

MISSION: To oversee and direct the administrative services functions that support the achievement of DC Water's goals.

BUDGET OVERVIEW: The approved FY 2018 budget is relatively flat compared to the FY 2017 budget.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
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Positions: (FTE's)

Number of authorized positions	3	3	3	3
Average number of positions filled	3	3		

Operating Expenses (000's)

Personnel Services including Overtime	\$ 387	\$ 462	\$ 497	\$ 490
Overtime	2	1	1	-

Non-Personnel Services:

Supplies	-	-	1	1
Utilities	4	7	4	4
Contractual Services, etc.	2	3	11	18
Small Equipment	-	-	-	-
Total Non-Personnel Services	6	11	16	23

Total Operations & Maintenance	\$ 393	\$ 473	\$ 513	\$ 513
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Capital Equipment	\$ -	\$ -	\$ -	\$ -
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Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Planning Meetings with directors of supporting departments:				
Facilities Management	4	4	4	4
Security	4	4	4	4
Fleet Management	4	4	4	4
Human Capital Management*	4	4		
Procurement*	4	4		
Occupational Safety & Health	4	4	4	4

* Effective FY 2017, these functions are aligned under the Independent Offices cluster group

ASSISTANT GENERAL MANAGER - SUPPORT SERVICES

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Continue implementation of initiatives in line with Goal #6 – Assure safety and security under DC Water Strategic Plan
- Continue to enhance operating excellence through innovation, sustainability, and adoption of best practices in the areas of safety, security, facilities and fleet
- Enhance customer confidence and satisfaction
- Successfully implement appropriate recommendations of the Vulnerability Assessment

FY 2018 Major Recommended Activities and Changes

- Continue implementing strategies to move support services departments to next maturity level
- Continue process improvements in Facilities Management

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- No major items identified



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Cluster: SUPPORT SERVICES

Department: FACILITIES MANAGEMENT

FUNCTIONS

BUDGET

**FY 2018
\$8,695,000**

POSITIONS

FY 2016

Authorized	59
Average Positions Filled	55
Year-End Positions Filled	55
FY 2017	FY 2018
59	57

Office Services	Operations	Mechanical Services
11 - Positions	37 - Positions	9 - Positions
Mail, courier and freight services	Building operations/maintenance, procure and assign furniture, repair fences and rollup doors	Predictive/preventive maintenance
Motor pool services	Coordinate workspace assignments and moves	Adequate indoor air quality
Manage DC Water's recycling program (paper, cans, bottles)	Janitorial service, landscaping, trash removal, and pest control	Engage in project management of major construction and renovation projects
Coordinate work order requests and surveys for facilities	Adequate ground direction and building signage	Elevator and HVAC systems maintenance
Manage DC Water's copy services	Manage cafeteria operations	Fire suppression and detection

FACILITIES MANAGEMENT

MISSION: Support the operations of the Authority through routine maintenance, custodial services, repair and improvement of its facilities, buildings, grounds and roadways for DC Water's operations.

BUDGET OVERVIEW: The approved FY 2018 budget increase of approximately \$0.2 million is primarily due to increase in contractual services costs. The decrease in the authorized headcount reflects the transfer of two locksmith positions to the Security department

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	60	59	59	57
Average number of positions filled	56	55		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 5,496	\$ 5,632	\$ 5,710	\$ 5,619
Overtime	259	315	250	238
Non-Personnel Services:				
Supplies	416	554	548	548
Utilities	108	74	104	217
Contractual Services, etc.	1,655	1,706	2,078	2,242
Small Equipment	37	47	50	69
Total Non-Personnel Services	2,216	2,381	2,780	3,076
Total Operations & Maintenance	\$ 7,712	\$ 8,013	\$ 8,490	\$ 8,695
Capital Equipment	\$ 1,529	\$ 2,057	\$ 1,690	\$ 1,690
Targeted Performance Measures				
	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Annual work orders closed	1,312	7,450	7,000	7,500

FACILITIES MANAGEMENT

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Continue Building Information Management Preventative Maintenance Program
- Continue to implement enhanced Facilities Work Order system and process via the Facility Construction Coordination Center (FCCC)
- Continue to implement the Building Automation Program
- Enhance the current Energy Management efforts throughout DC Water
- Implement Fixed Asset Management and Inventory process
- Continue Central Operations Facility (COF) Cafeteria renovations and scheduled upgrades
- Parking lot and roadway repairs and maintenance
- Maintain the grounds, landscape, signage and general interior and exterior site aesthetics for the new buildings coming online
- Participate in the Facilities Maturity model and Program Assessment to improve service delivery and business unit maturity

FY 2018 Major Recommended Activities and Changes

- Complete COF Cafeteria renovations upgrades
- Continue the implementation of the agency-wide Safety Inspections Program
- Implementation of updated department Standard Operating Procedures (SOP) regarding administrative functions
- Continue to maintain the grounds, landscape, signage and general interior and exterior site aesthetics for the new Headquarter building
- Establish metrics for each Standard Operating Procedures (SOP) yielded from the Maturity model and Program Assessment to move department to the next maturity levels

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Increased ability to monitor and maintain DC Water facilities and its expanding property inventory
- Continued improvement of CMF, COF, Bryant Street and I25 O Street systems and buildings, while reducing the overall maintenance efforts and ultimately expenditures



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Cluster: SUPPORT SERVICES

Department: SECURITY

BUDGET

FY 2018
\$ 7,536,000

FUNCTIONS

POSITIONS	
FY 2016	
Authorized	7
Average Positions Filled	7
Year-End Positions Filled	7
FY 2017	FY 2018
7	9

Security Operations	Security Asset Protection
5 - Positions	4 - Positions
Identification and Badge Control	Electronic security asset testing and maintenance
Guard force and traffic management	Management of security related Capital Improvement Plan projects
Emergency Management & First Response and community awareness/training	Loss prevention, asset protection, vulnerability assessments, and hazardous threat training/awareness
Investigations, local and federal liaison, and Security work order requests	Information security, site surveys, and Key management

SECURITY

MISSION: To provide and maintain a safe and welcoming workplace that is customer focused and intended to enhance the well-being of staff and visitors, as well as protect all DC Water property and products.

BUDGET OVERVIEW: The approved FY 2018 budget increase of approximately \$0.7 million over the FY 2017 budget is mainly due to the transfer of 2 FTEs from Facilities Management department and projected increases in the security guard contract, and utilities costs.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	7	7	7	9
Average number of positions filled	6	7		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 748	\$ 850	\$ 846	\$ 1,050
Overtime	-	-	-	-
Non-Personnel Services:				
Supplies	25	20	19	53
Utilities	-	15	24	266
Contractual Services, etc.	4,443	5,638	5,954	6,118
Small Equipment	3	22	35	50
Total Non-Personnel Services	4,471	5,695	6,032	6,486
Total Operations & Maintenance	\$ 5,219	\$ 6,545	\$ 6,878	\$ 7,536
Capital Equipment	\$ 64	\$ 101	\$ 849	\$ 563
Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Completion times to initial security investigation report. Target = NTE 21 days	21 days	21 days	21 days	21 days
Response times to register/complete initial incident reports: Target = 24 hours	24 hours	24 hours	24 hours	24 hours
Number of DC Water community trained/briefed on Security/Parking/Crime Prevention issues: Target = 8.3% of population per month	8.30%	8.30%	8.30%	5.00%
Turnover rate of Guard Force Officers = NTE 25% per month	<25%	<25%	<25%	<10%
Camera Operational Uptime: Target = 95%	95%	95%	95%	97%
Smart Card Readers Operational Uptime: Target = 95%	95%	95%	95%	97%

SECURITY

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Fully initiate Phase II of the Hardening project at Blue Plains
- Fully incorporate Radio Frequency Identification (RFID) portal technology at high value targets throughout DC Water
- Conduct executive threat level assessments
- Complete integration of separate backbone for Security Systems
- Develop Request for Proposal (RFP) for updated Vulnerability Assessment
- Re-design and coordinate Blue Plains Main Entrance modifications
- Continue integrations upgrades of operations camera system on Blue Plains
- Commence implementation of dedicated Security network (virtual network)

FY 2018 Major Recommended Activities and Changes

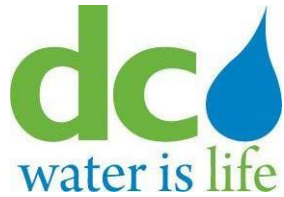
- Partially initiate Phase III of Hardening Project at Blue Plains
- Complete License Plate Recognition (LPR) technology at Blue Plains and Bryant Street
- Implement 'Self-Service' visitor temporary pass management system
- Complete updating of Vulnerability Assessment incorporating operational elements
- Initiate construction of Blue Plains Main Entrance modifications
- Initiate integration of operations cameras at 'off-Blue Plains' locations
- Continue build of dedicated Security network (virtual network)
- Incorporate Physical Security Information Management (PSIM) technology into Security Command Center (SCC)

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Continued improvement of security systems will reduce overall maintenance, improved response time, and decrease threat levels
- Mega-projects require significant security upgrades and enhancements which will require increased manning to provide full support
- The new Headquarters Building and Fleet Facility anticipated by FY 2018 is expected to increase security operations costs



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Cluster: SUPPORT SERVICES

Department: OCCUPATIONAL SAFETY AND HEALTH

FUNCTIONS

BUDGET

FY 2018
\$1,871,000

POSITIONS

FY 2016

Authorized	9
Average Positions Filled	9
Year-End Positions Filled	9
FY 2017	FY 2018
9	9

Operations Safety	Construction Safety	Data and Analysis
6 - Positions	2 - Positions	1 - Position
Compliance with environmental health and safety management system	Compliance with environmental health and safety management system	Compliance with environmental health and safety management system
Implement comprehensive safety program including facility and crew safety inspections	Oversight of the comprehensive construction safety program	Develop and analyze safety metrics
Coordinate with Office of Emergency Management to adhere to requirements of Occupational Safety & Health Administration (OSHA) and National Fire Protection Association (NFPA)	Oversight of Rolling Owner Controlled Insurance Program (ROCIP) safety program	Generate and provide required safety reports
Oversight of hazardous waste program and storage tank compliance		Administer and maintain safety database
Identify, develop, schedule and deliver required safety training		

OCCUPATIONAL SAFETY AND HEALTH

MISSION: To provide technical services and support that ensures a safe and healthy work environment for all DC Water employees.

BUDGET OVERVIEW: The approved FY 2018 budget is higher than the approved FY 2017 operating budget by \$0.2 million primarily due to increased contractual services costs for higher safety software license fees and new OSHA requirement for medical monitoring program

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
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Positions: (FTE's)

Number of authorized positions	9	9	9	9
Average number of positions filled	9	9		

Operating Expenses (\$000's)

Personnel Services including Overtime	\$ 1,201	\$ 1,204	\$ 1,245	\$ 1,370
Overtime	1	1	2	1

Non-Personnel Services:

Supplies	14	36	16	28
Utilities	34	49	36	32
Contractual Services, etc.	184	262	374	514
Small Equipment	5	5	-	5
Total Non-Personnel Services	236	352	426	580

Total Operations & Maintenance	\$ 1,437	\$ 1,556	\$ 1,671	\$ 1,950
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Capital Equipment	\$ 97	\$ -	\$ -	\$ -
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Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Reportable accidents per hours worked (Reduce 10%) Target = 5.9	6.8	6.5	6.4	6.3
Lost time due to non-fatal accidents. Target = 1.7	4.4	5	2.5	2.5
No. of time work stopped due to unplanned unsafe conditions. Target = 0	4.0	0.0	0.0	0.0
No. of formally raised safety related employee concerns (reduce 20%)	8	8	7	6
No. of Workplace Violence Incidents	0	0	0	0
% of investigations closed out in 45 days.	80%	100%	100%	100%
Organizational Non-Conformance				
No. of Vehicle Accidents (Prev). Target = 15	15	15	15	15

OCCUPATIONAL SAFETY AND HEALTH

OVERVIEW

FY 2017 Major Planned Activities and Changes

- Implement Environmental Health and Safety Management Program in line with Strategic Goal #6 of the Board Strategic Plan
- Continue to provide support to the Office of Risk Management in the oversight of the Rolling Owner Controlled Insurance Program for DC Water Contractors
- Begin preliminary implementation of new OSHA requirement for medical monitoring program
- Continue the Automated External Defibrillator (AED) Program, including maintenance, installation of new units, monitoring, and registration with DC government
- Assess organization compliance with new OSHA and NFPA standards

FY 2018 Major Recommended Activities and Changes

- Implement a Damage Utility Prevention Program
- Continue to implement Environmental Health and Safety Management System (Strategic Goal #6)
- Continue to provide support to the Office of Risk Management in the oversight of the ROCIP and Non-ROCIP Programs for DC Water
- Begin implementation of damage prevention initiative to reduce the occurrence of utility strikes by both in-house and contractor crews
- Continue to implement OSHA requirement for medical monitoring program



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Cluster: SUPPORT SERVICES

Department: FLEET MANAGEMENT

FUNCTIONS

BUDGET

**FY 2018
\$5,321,000**

POSITIONS

FY 2016

Authorized	7
Average Positions Filled	7
Year-End Positions Filled	6
FY 2017	FY 2018
7	7

Maintenance	Administrative	Acquisition
2 - Positions	4 - Positions	1 - Position
Preventive and repair maintenance	Fleet Rightsizing – process improvements, contract monitoring and budget management	Acquisition/Disposal of vehicles/equipment
Management of vehicles, equipment, parts and DC Water loaner pool program	Performance Measurements - percent of uptime/availability, and Commercial Driver's License (CDL) Safe Drivers Program	Integration and retrofitting of vehicles
Manage fleet maintenance contractor and vendors	Manage and support the Fleet Wave System, and monitor fuel usage	Inventory control

FLEET MANAGEMENT

MISSION: To provide safe, reliable and cost effective vehicles and equipment to DC Water for use by all departments in performance of their missions.

BUDGET OVERVIEW: The approved FY 2018 budget is relatively flat compared to the approved FY 2017 budget with cost adjustments for personal services and software maintenance items.

	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Positions: (FTE's)				
Number of authorized positions	7	7	7	7
Average number of positions filled	6	7		
Operating Expenses (\$000's)				
Personnel Services including Overtime	\$ 794	\$ 853	\$ 838	\$ 871
Overtime	5	3	4	3
Non-Personnel Services:				
Chemicals and Supplies	4	11	16	18
Utilities	718	642	757	743
Contractual Services, etc.	3,256	3,809	3,760	3,625
Small Equipment	42	48	85	65
Total Non-Personnel Services	4,019	4,511	4,617	4,450
Total Operations & Maintenance	\$ 4,813	\$ 5,364	\$ 5,456	\$ 5,321
Capital Equipment	\$ 2,070	\$ 3,444	\$ 2,834	\$ 2,833
Targeted Performance Measures	FY 2015 Actual	FY 2016 Actual	FY 2017 Approved	FY 2018 Approved
Preventive maintenance completed on schedule	98%	98%	98%	98%
Vehicles available for use	98%	98%	98%	98%
DC Water Priority vehicle in-service	98%	98%	98%	98%

FLEET MANAGEMENT

OVERVIEW

FY 2017 Major Planned Activities and Changes

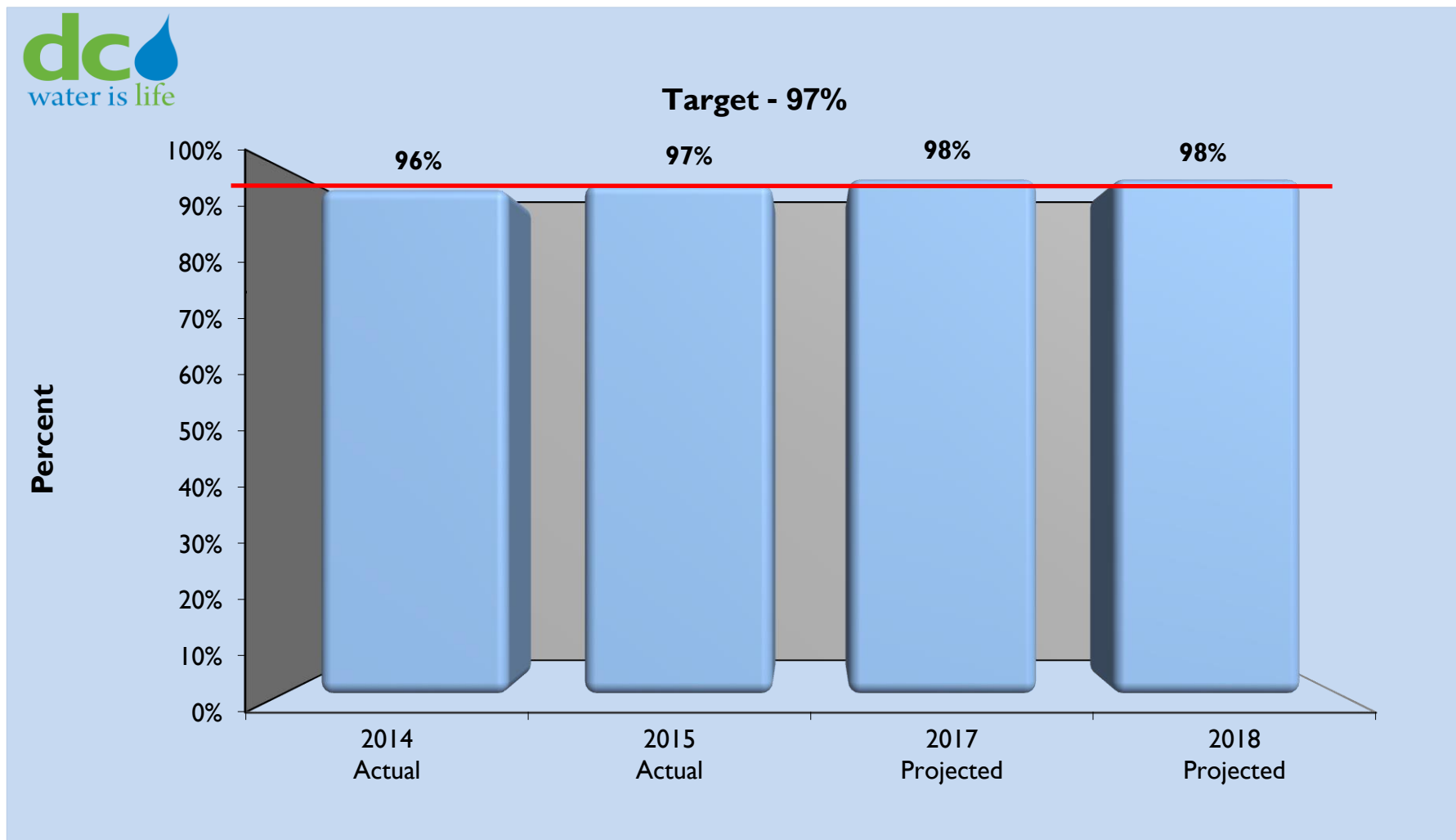
- Begin preliminary planning for assessment to relocation and transition to the new Fleet facility
- Continue implementation and upgrade of Field Services Mobile Support Technology Programs meshing and smart infrastructure
- Continue systems integration and upgrades to Fleet Management Information System (WAVE) Geotab, Rajant Mesh and Rideshare program
- Continue utilization of grants and enterprise collaborations for the purchase of Alternative Fueled Vehicles (AFV’s), Hybrid Plug-in Electric Vehicles (HPEV’s), Plug-in Electric Vehicles (PEV’s), Bio-Diesel, Flex-Fuel Vehicles and Custom Fleet Solutions
- Continue the “Right Sizing” Program as well as reduce the carbon footprint and the re-issuance of underutilized units
- Continue purchasing fuel efficient vehicles – Clean Idle, Certified Clean Diesel, electric vehicles, where possible to reduce carbon footprint
- Continue increased usage of Environmentally Friendly, Soy and Bio-based Products, where applicable
- Incorporate multiple centralized Rideshare sites for departmental usage
- Provide effective and efficient customer service in fleet maintenance to critical programs and operations across the enterprise and continue customization of Build to Technical Specification of vehicles and equipment

FY 2018 Major Recommended Activities and Changes

- Continue to follow the timeframe of relocation and transition to the new Fleet Facility
- Continue implementation and upgrade of Field Services Mobile Support Technology Programs meshing, smart Infrastructure and vehicle sensor technology
- Continue systems integration and upgrades to Fleet Management Information System (WAVE) Geotab, Rajant Mesh and Rideshare program
- A reassessment of the Priority Equipment and major change outs according to Departmental Programs
- Begin to transition Fleet services to an in-house operation
- Reassess vendor contracts for major equipment repair
- Continue utilization of grants and enterprise collaborations for the purchase of Alternative Fueled Vehicles (AFV’s), Hybrid Plug-in Electric
- Continue the “Right Sizing” Program as well as reduce the carbon footprint and the re-issuance of underutilized units
- Continue purchasing fuel efficient vehicles – Clean Idle, Certified Clean Diesel, electric vehicles, where possible to reduce carbon
- Continue increased usage of Environmentally Friendly, Soy and Bio-based Products, where applicable

Impact of Capital Projects on FY 2017 and FY 2018 Operating Expenditures

- Relocation and transition to new Fleet Facility
- Ability to improve serviceability of the units and reduce cost with requirement for increased training, operations and the implementation of a climate controlled environment
- Ability to perform certain tasks will be greatly reduced and potential increase in vehicle downtimes





APPROVED BUDGETS



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Section VIII GLOSSARY AND ACRONYMS

GLOSSARY

ACCRUAL BASIS: The method of accounting under which revenues are recorded when they are earned (whether or not cash is received at that time) and expenditures are recorded when goods and services are received (whether or not cash disbursements are made at that time).

ADVANCED METERING INFRASTRUCTURE (AMI): Also known as Smart meters, are updated, digital versions of the traditional electrical meter attached to the outside of your home. Smart meters are also designed to transmit pricing and energy information from the utility company to the consumer (two-way communication).

ADVANCED RESEARCH & TESTING PROGRAM: Specialized wastewater treatment services to outside entities

A/E CONTRACT: Architectural and Engineering Contracts

AERATION: The process that forces compressed air into wastewater. The oxygen keeps the microorganisms alive and sets off a chain reaction; live, eat, and work. Oxygen is an essential ingredient in “activating” sludge.

ALTERNATIVE FUELED VEHICLE: An alternative fuel vehicle is a vehicle that runs on a fuel other than traditional petroleum fuels (petrol or Diesel fuel); and also refers to any technology of powering an engine that does not involve solely petroleum.

AMERICAN RECOVERY AND REINVESTMENT ACT: Is an economic stimulus package enacted by the 111th United States Congress in February 2009. The stimulus was intended to create jobs and promote investment and consumer spending during the recession.

ANAEROBIC DIGESTION: A biological process that uses microorganisms to reduce the volume of biosolids.

APPROPRIATION: An authorization by Congress, which permits officials to incur obligations and expend Authority resources. Appropriations are usually made for fixed amounts, which extend for a fiscal year. Appropriations for capital improvement projects, however, extend until completion, usually beyond the current fiscal year.

ARBITRAGE: The simultaneous purchase and selling of an asset in order to profit from a differential in the price. This usually takes place on different exchanges or marketplaces. Also known as "riskless profit".

ASSETS: Property with monetary value owned by the Authority.

AUDIT: An independent systematic examination of resource utilization concluding in a written report. It is a test of management's internal accounting records. It also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statements.

AUTOMATED METER READING (AMR): System that automatically read customers' meters using radio frequencies, allowing for more accurate and frequent meter readings and transfer of data to a central database for billing and analysis. It is an older technology that only collects electrical energy consumption and transfers that data from the electric meter on the home to the utility (one-way communication).

BALANCED BUDGET: A budget in which the income equals expenditure.

BIOCHEMICAL OXYGEN DEMAND (BOD): An indicator of the amount of biodegradable contaminants in wastewater.

BIOSOLIDS: Sludge that has been treated to reduce pathogens, organics, and odors, forming a reusable agricultural product.

BLUE PLAINS ADVANCED WASTEWATER TREATMENT PLANT: Located in Washington, DC, Blue Plains is the world's largest advanced wastewater treatment plant, and has a permitted capacity of 370 million gallons per day.

BOARD OF DIRECTORS: DC Water's governing board (the Board), which includes 11 primary members, six members from the District of Columbia, two members each from Montgomery and Prince George's Counties in Maryland, and one member from Fairfax County, Virginia.

BLOOM: a soil conditioner made from Class A biosolids.

BOND: An obligation issued by DC Water promising to pay a specified sum of money (called principal or face value) at a specified future date (called the maturity date) along with periodic interest paid at a specified percentage of the principal (interest rate). Bonds are typically issued to fund specific capital improvement expenditures.

BUDGET: A plan of financial operations including an estimate of proposed expenditures and revenues for a fiscal period. The budget establishes funding levels for continuing service programs, operation and maintenance of public facilities, and principal and interest payments on bonded indebtedness. Recurring replacement of capital outlay and minor new capital outlay items are included.

CAPACITY MANAGEMENT OPERATION and MAINTENANCE (CMOM): A standard framework for municipal sewer collection systems to identify and incorporate widely-accepted wastewater industry practices to meet regulatory compliance.

CAPITAL BUDGET: A plan for investment in long-term assets such as buildings, plant, and equipment. DC Water's capital budget includes project schedules and funding needed to acquire, improve or construct properties or facilities to enhance water and sewer services to our customers.

CAPITAL EQUIPMENT: A capital asset with a useful life of at least 3 years, a cost exceeding \$5,000 and is financed with short-term debt or cash. Examples include rolling stock and computer equipment.

CAPITAL IMPROVEMENT PROGRAM (CIP): A plan, which identifies the nature, schedule and cost of long-term improvements to DC Water's infrastructure.

CERIDIAN: DC Water's fully integrated payroll and personnel system designed to accommodate a variety of pay, leave, and work rules and to provide a comprehensive set of human resource applications.

CHLORAMINATION: The process of adding chloramines to drinking water. Chloramine, a form of chlorine and ammonia, is used as a disinfectant by the Washington Aqueduct.

CLEAN RIVERS IMPERVIOUS AREA CHARGE: DC Water uses information contained in the District of Columbia's GIS plainmetric database, which includes tax and property records to determine impervious surface areas. (All surfaces are classified as either pervious or impervious). An impervious charge is billed to DC Water customers based on Equivalent Residential Unit (ERU). This is the amount of impervious surface area measured in square feet based on a statistical median for a single family residential property.

CLEAN WATER ACT (CWA): Act passed by the U.S. Congress in 1972 to control water pollution.

COMBINED HEAT AND POWER FACILITY (CHP): The facility provides steam necessary for the thermal hydrolysis process that uses intense heat and pressure to treat wastewater solids, producing a much cleaner biosolids, and onsite generation of up to one third of Blue Plains' electricity needs.

COMBINED SEWER OVERFLOWS (CSO): Discharge of untreated wastewater (a mixture of storm water and sanitary waste) directly to waterways during periods of significant rainfall.

COMBINED SEWER OVERFLOW LONG-TERM CONTROL PLAN (CSO LTCP): This Program encompasses projects designed to reduce overflows into the local waterways by 98%, and is now known as the Clean Rivers Project.

COMBINED SEWER SYSTEM LONG-TERM CONTROL PLAN (CSS LTCP): Final plan submitted by DC Water in July 2002 and approved by EPA in March 2005 to control Combined Sewer Overflow (CSO's) to the Districts waterways.

COMMERCIAL PAPER: Short-term (less than 270 days) notes issued by DC Water to provide interim financing of its capital improvement program. Commercial paper typically carries lower interest rates than long-term debt and is issued on a subordinate basis.

CUSTOMER CLASS-BASED VOLUMETRIC RATES: Rate differentiation based on the peaking demands of each customer class (residential, multi-family and non-residential).

CUSTOMER INFORMATION SYSTEM (CIS): System which DC Water utilizes for customer billing and information and other related services.

DC CLEAN RIVERS PROJECT: New name for the COMBINED SEWER OVERFLOW LONG TERM CONTROL PLAN (CSO LTCP), which is a program that encompasses projects designed to reduce overflows into the local waterways by 98%.

DC WATER WORKS: local hiring initiatives for DC Water projects.

DEAMMONIFICATION: Involves Anammox bacteria working synergistically with Ammonia Oxidizing Bacteria to oxidize ammonia without organic carbon to produce nitrogen gas.

DEBT RATING: An independent opinion, based on a comprehensive quantitative and qualitative evaluation, of a company's financial position, operating performance, business profile and management. Specifically, the debt rating reflects a company's ability to meet its obligations to repay interest and principal on outstanding obligations to investors. DC Water's bond ratings provided by Moody's Investors Service, Standard & Poor's and Fitch Ratings are Aa2, AA, and AA+, respectively.

DEBT SERVICE: Amount of money necessary to pay principal and interest on senior outstanding notes and bonds in any given fiscal year.

DEBT SERVICE COVERAGE: Requirement of DC Water's master trust indenture and Board policy that provides that annual revenue available to pay debt service must exceed annual debt service by a certain percentage. DC Water's master trust indenture requires 120 percent senior debt service coverage; DC Water Board policy requires 140 percent senior debt service coverage.

EFFLUENT: Treated wastewater discharged from the Blue Plains Advanced Wastewater Treatment Plant.

ENABLING ACT: Legislation which established DC Water and defined its purpose and authority. DC Water's enabling legislation was initially enacted in 1996.

ENCUMBRANCES: Obligations in the form of purchase orders, contracts or salary commitments which are chargeable to an appropriation and for which a part of the appropriation is reserved. They cease to be encumbrances when paid or when an actual liability is released.

ENHANCED CLARIFICATION FACILITY (ECF): This facility is part of DC Water's proposed Total Nitrogen-Wet Weather plan, which addresses the requirements of the Long Term Control Plan, as well as the Chesapeake Bay Tributary Strategies for reducing nitrogen discharged in the Chesapeake Bay.

ENHANCED NITROGEN REMOVAL FACILITY: This Program Area represents the new name for the Total Nitrogen Program (BTN) which includes projects 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 Water's 2010 NPDES permit.

ENTERPRISE FUND: A fund established to finance and account for the acquisition, operation, and maintenance of governmental facilities and services, which are entirely or predominantly self-supporting by user charges. This type of fund uses the accrual basis of accounting. DC Water is responsible for two enterprise funds:

- 1) Water and Sewer Enterprise Fund
- 2) The District of Columbia Stormwater Enterprise Fund

ENVIRONMENTAL PROTECTION AGENCY (EPA): Federal agency responsible for environmental regulations and enforcement.

EXPENDITURES: Payment for goods and services received.

EXTENDABLE MUNICIPAL COMMERCIAL PAPER PROGRAM (EMCP): A money-market security issued by large organizations to obtain funds to meet short-term debt obligations, and is backed only by an issuing bank or corporation's promise to pay the face amount on the maturity date specified on the note.

EXTRACT, TRANSFORM and LOAD (ETL) refers to a process in database usage and especially in data warehousing that:

- Extracts data from homogeneous or heterogeneous data sources
- Transforms the data for storing it in proper format or structure for querying and analysis purpose
- Loads it into the final target (database, more specifically, operational data store, data mart, or data warehouse)

FABRIDAM: A dynamic weir (or dam) that inflates and deflates depending on the structure set point. Set points vary from structure to structure.

FILTRATE TREATMENT FACILITY (FTF): This facility provides a new treatment system that will remove nitrogen from the recycle stream of solids processing at Blue Plains. It uses six sequencing batch reactors to treat a nitrogen-rich system from the Final Dewatering Facility's belt filter presses.

FISCAL YEAR: The twelve-month period used by DC Water, which begins October 1 and ends September 30 of the following calendar year.

FIXED ASSET: Long-lived property owned by an entity used by an entity in the production of its income. Tangible fixed assets include real estate, plant, and equipment.

GENERAL OBLIGATION DEBT: This is money that DC Water still owes the District of Columbia for bond issuance prior to the enabling act that created DC Water

HYBRID PLUG-IN VEHICLE: A hybrid electric vehicle that utilizes rechargeable batteries, or another energy storage device, that can be restored to full charge by connecting a plug to an external electric power source (usually a normal electric wall socket)

IMPERVIOUS SURFACE: an area that impedes or retards the percolation of water into the subsoil and impedes plant growth. Impervious surfaces include but are not limited to the following: roofprints, footprints of patios, driveways, private streets, other paved areas, tennis courts, and swimming pools, and any path or walkway that is covered by impervious material.

INFRASTRUCTURE: DC Water's facilities, services, and installations needed for its functioning, such as its water, sewer and customer delivery systems.

INTER-MUNICIPAL AGREEMENT OF 1985 (IMA): This agreement outlines the operating and financial responsibilities for wholesale wastewater treatment services at Blue Plains. Signatories to the IMA include the District of Columbia, Montgomery and Prince George's Counties in Maryland, Fairfax County, Virginia, and the Washington Suburban Sanitary Commission.

INTERCEPTORS: The large pipes that convey wastewater from the collection system to DC Water's wastewater treatment plant, Blue Plains.

INTERNAL IMPROVEMENT PLAN (IIP): Operational improvement plans for various operating departments across DC Water that will result in improved service and cost savings to DC Water's customers. Proposed improvements are a function of new capital projects, investments in technology, and new business processes. IIP's have been developed for the Departments of Wastewater Treatment, Maintenance Services, and Customer Service, and are in process for the Departments of Water and Sewer Services.

INVERTED BLOCK RATE STRUCTURES: Is a schedule of rates applicable to blocks of increasing usage in which the usage in each succeeding block is charged at a higher unit rate than in the previous blocks. Generally, each successive block rate may be applicable to a greater volume of water delivery than the preceding block(s).

JOINT USE SEWERAGE FACILITIES: A list of specific facilities identified in the DC Official Code, Section #34-2202.01(4).

LIFELINE RATE: A lifeline rate for the first 4 Ccf of Single Family Residential (SFR) water use to reflect baseline usage by residential customers without peaking cost.

LOCAL SMALL DISADVANTAGED BUSINESS ENTERPRISE (LSDBE): Business entities that are encouraged to do business in the District through supportive legislation, business development programs, and agency and public/private contract compliance.

LOW IMPACT DEVELOPMENT (LID): Integrates ecological and environmental considerations into all phases of urban planning, design and construction in order to avoid encroaching on environmentally fragile or valuable lands, and to decrease runoff volumes and peak flow impacts.

MASTER FACILITIES PLAN: A twenty-year plan that outlines proposed capital improvements across DC Water. This plan is updated every three to five years.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4): A regulatory program for controlling stormwater pollution.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES): A permit issued by the EPA that governs effluent discharges into various rivers and waterways by Blue Plains and DC Water's sewer system.

NINE MINIMUM CONTROLS (NMC): Nine EPA-designated activities that DC Water must undertake to reduce Combined Sewer Overflow (CSO) while implementing its Long Term Control Plan (LTCP).

NITRIFICATION: An aerobic process in which bacteria changes the ammonia and organic nitrogen in wastewater into oxidized nitrogen.

OPERATING BUDGET: The budget that encompasses the day-to-day activities for DC Water. The operating budget includes employee salaries, supplies, and other non-personnel items related to current activities. The operating budget also includes other costs including debt service and payment in lieu of taxes/right of way fees.

OPERATING RESERVE: Reserve established by the Board of Directors equivalent to approximately 120 days of budgeted operating and maintenance expenses with the objective of maintaining at least \$125.5 million.

OPERATIONS & MAINTENANCE (O&M): The activities related to the performance of routine, preventive, and predictive, actions aimed at preventing DC Water's equipment and infrastructure from failure or decline, with the goal of increasing efficiency, reliability, and safety.

OUTFALL: The place or structure where effluent is discharged into receiving waters.

PAYMENT IN LIEU OF TAXES (PILOT): Amounts which DC Water pays each fiscal year to the District and institutions in which its facilities are located. Consistent with the provisions of DC Water's Enabling Act, these payments are to be based on services received and certified from the District of Columbia.

PLANT RESIDUALS: In 2003, the EPA issued a revised NPDES permit to the Washington Aqueduct (WAD) and entered into a Federal Facilities Compliance Agreement (the federal agency equivalent of an Administrative Order) requiring WAD, to have in operation, by Dec 31, 2009, a new process, which dewateres the residuals on site and trucks them off-site for disposal.

PLUG-IN ELECTRIC VEHICLE: Any motor vehicle that can be recharged from an external source of electricity, such as wall sockets, and the electricity stored in the rechargeable battery packs drives or contributes to drive the wheels

POTOMAC INTERCEPTOR: Fifty-mile interceptor that carries wastewater from Loudoun and Fairfax Counties in Virginia and Montgomery County in Maryland to Blue Plains.

PRIMARY TREATMENT: A wastewater treatment process that allows those substances in wastewater that readily settles or floats to be separated from the water being treated.

PRINCIPAL: The total amount of money being borrowed or lent.

PROCESS COMPUTER CONTROL SYSTEM (PCCS): Electronically monitors and controls all treatment processes and facilities.

RATE STABILIZATION FUND: A fund established by the Board of Directors, which is used to implement rate increases on a gradual and predictable basis.

RESERVES: An accounting entry that properly reflects contingent liabilities.

REVENUE: An increase in (sources of) fund financial resources other than from inter-fund transfers and debt issue proceeds. Revenues should be classified by fund and source.

REVENUE BONDS: Bonds payable from specific source of revenue and which do not pledge the full faith and credit of the issuer.

RIGHT-OF-WAY FEE (ROW): A permit fee that the District of Columbia Government charges DC Water for water and sewer conduits that it occupies within the District of Columbia.

SAFE DRINKING WATER ACT (SDWA): Act passed by the U.S. Congress (most recently amended in 1996) to control drinking water quality.

SECONDARY TREATMENT: Usually following primary treatment, secondary treatment employs microorganisms to reduce the level of biochemical oxygen demand (BOD) in wastewater.

SENIOR DEBT: Debt whose terms in the event of bankruptcy require it to be repaid before subordinated debt receives any payment.

SLUDGE: Solid residue from wastewater treatment.

SUBORDINATED DEBT: Debt over which senior debt takes priority. In the event of bankruptcy, subordinated debtholders receive payment only after senior debt claims are paid in full.

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA): Equipment and computer technology used to monitor and control the water distribution and wastewater conveyance systems.

SUPPLEMENTAL ENVIRONMENTAL PROJECT (SEP): A project DC Water is funding as part of its nine minimum control (NMC) CSO consent order.

SYSTEM AVAILABILITY FEE (SAF): Fee assessed to new development (or redevelopment) to recover the investment in available system capacity, based on meter size.

WASHINGTON AQUEDUCT: A division of the U.S. Army Corps of Engineers which owns and operates the water treatment facilities for DC Water, Arlington and Falls Church, Virginia. DC Water purchases treated drinking water on a wholesale basis from the Washington Aqueduct, and is responsible for approximately 73 percent of the Aqueduct's costs.

WATER SYSTEM REPLACEMENT FEE (WSRF): A fixed monthly fee designed to fund the 1 percent renewal and replacement of aging water infrastructure for residential, multi-family and non-residential customers.

WET WEATHER TREATMENT FACILITY: A wet weather event is deemed to start when plant influent is greater than a rate of 511 mgd and deemed to stop four hours after plant influent drops to a rate of 511 mgd or a period of 4 hours has elapsed since the start of a wet weather event, whichever occurs last.

ACRONYMS

ADA: AMERICANS WITH DISABILITY ACT

AED: AUTOMATED EXTERNAL DEFIBRILLATOR

AFV: ALTERNATIVE FUELED VEHICLE

AMI: ADVANCED METERING INFRASTRUCTURE

AMR: AUTOMATIC METER READING

AMSA: ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES

ANC: ADVISORY NEIGHBORHOOD COMMISSION

ART: ADVANCED RESEARCH TESTING

BAB's: BUILD AMERICA BONDS

BOD: BIOCHEMICAL OXYGEN DEMAND

BP: BLUE PLAINS

CAFR: COMPREHENSIVE ANNUAL FINANCIAL REPORT

CAP: CUSTOMER ASSISTED PROGRAM

CC&O: CUSTOMER CARE & OPERATIONS

CFCI: CASH FINANCED CAPITAL IMPROVEMENTS

CHP: COMBINED HEAT AND POWER

CIP: CAPITAL IMPROVEMENT PROGRAM

CIPP: CRITICAL INFRASTRUCTURE PROTECTION PLAN

CIS: CUSTOMER INFORMATION SYSTEM

CMF: CENTRAL MAINTENANCE FACILITY

CMOM: CAPACITY MANAGEMENT OPERATION and MAINTENANCE

COBRA: THE CONSOLIDATED OMNIBUS BUDGE RECONCILIATION ACT OF 1985

COF: CENTRAL OPERATIONS FACILITY

COG: METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS

COOP: CONTINUITY OF OPERATIONS PLAN

CRIAC: CLEAN RIVERS IMPERVIOUS AREA CHANGE

CSO: COMBINED SEWER OVERFLOWS

CSO LTCP: COMBINED SEWER OVERFLOW LONG-TERM CONTROL PLAN

CSP: COMPREHENSIVE SAFETY PROGRAM

CSRS: CIVIL SERVICE RETIREMENT SYSTEM

CSS LTCP: COMBINED SEWER SYSTEM LONG-TERM CONTROL PLAN

CWA: CLEAN WATER ACT

CWSFR: CLEAN WATER STATE REVOLVING FUND

DCFEMS: DC FIRE and EMERGENCY MEDICAL SERVICES

DCRA: DISTRICT OF CONSUMER AND REGULATORY AFFAIRS

DOEE: DEPARTMENT OF ENERGY & ENVIRONMENT

DDOT: DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DETS: DEPARTMENT OF ENGINEERING AND TECHNICAL SERVICES

DRBCP: DISASTER RECOVERY AND BUSINESS CONTINUITY PLAN

DSLFL: DEWATERED SLUDGE LOADING FACILITY

DSS: DEPARTMENT OF SEWER SERVICES

DWS: DEPARTMENT OF WATER SERVICES

DWWT: DEPARTMENT OF WASTEWATER TREATMENT

EBU: EQUIVALENT BILLING UNIT

ECF: ENHANCED CLARIFICATION FACILITY

EDMC: ENGINEERING DOCUMENT MANAGEMENT AND CONTROL

EEOC: EQUAL EMPLOYMENT OPPORTUNITY COMMISSION

EMA: EMERGENCY MANAGEMENT AGENCY

EMCP: EXTENDABLE MUNICIPAL COMMERCIAL PAPER PROGRAM

ENRF: ENHANCED NITROGEN REMOVAL FACILITIES

EOC: EMERGENCY OPERATIONS CENTER

EPA: ENVIRONMENTAL PROTECTION AGENCY

ERDMS: ENTERPRISE RECORDS AND DOCUMENT MANAGEMENT SYSTEM

ERU: EQUIVALENT RESIDENTIAL UNIT

ESF: EMERGENCY SUPPORT FUNCTION

ETL: EXTRACT, TOOL, LOAD

FOC: FIBER OPTIC CABLE

FOG: FATS, OIL, AND GREASE

FTF: FILTRATE TREATMENT FACILITY

GFOA: GOVERNMENT FINANCE OFFICERS ASSOCIATION

GICD: GREEN INFRASTRUCTURE CONSENT DECREE

GIS: GEOGRAPHICAL INFORMATION SYSTEM

HPEV: HYBRID PLUG-IN VEHICLE

HPRP: HIGH PRIORITY REHABILITATION PROGRAM

HUNA: HIGH USAGE NOTIFICATION APPLICATION

HVAC: HEATING VENTILATION AND AIR CONDITIONING

HQO: HEAD QUARTERS OFFICE

I&C: INSTRUMENTATION AND CONTROL

IAC: IMPERVIOUS AREA CHARGE

IFB: INVITATION FOR BID

IIP: INTERNAL IMPROVEMENT PLAN

IMA: INTER-MUNICIPAL AGREEMENT

IVR: INTERACTIVE VOICE RESPONSE

JUDD: JOINT UTILITY DISCOUNT DAY

LID: LOW IMPACT DEVELOPMENT

LOTO: LOG OUT TAG-OUT

LSDBE: LOCAL SMALL DISADVANTAGED BUSINESS ENTERPRISE

LSR: LEAD SERVICE REPLACEMENT

LTCP: LONG TERM CONTROL PLAN

MBE: MINORITY BUSINESS ENTERPRISE

MGD: MILLION GALLONS PER DAY

MJUF: MULTI-JURISDICTIONAL USE FACILITY

MOU: MEMORANDUM OF UNDERSTANDING

MPT: MAIN PROCESS TRAIN

MS4: MUNICIPAL SEPARATE STORM SEWER SYSTEM

NEB: NORTH EAST BOUNDARY

NMC: NINE MINIMUM CONTROLS

NPDES: NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

NWBSO: NORTHWEST BOUNDARY SEWER OVERFLOW

O&M: OPERATIONS & MAINTENANCE

OCIP: OWNER CONTROLLED INSURANCE PROGRAM

OEM: ORIGINAL EQUIPMENT MANUFACTURER

PACT: POSITIVE ATTITUDE, ACCOUNTABILITY, COMMUNICATION AND TEAMWORK

PBS: PUBLIC BROADCASTING SERVICE

PCCS: PROCESS COMPUTER CONTROL SYSTEM

PDMS: PAYABLES DOCUMENT MANAGEMENT SYSTEMS

PEV: PLUG-IN ELECTRIC VEHICLE

PILOT: PAYMENT IN LIEU OF TAXES

PLC: PROGRAM LOGIC CONTROL

PM: PREVENTIVE MAINTENANCE

PPM: PARTS PER MILLION

PRV: PRESSURE RELEASE VALVE

PS: PUMPING STATION

PSA: PUBLIC SERVICE ANNOUNCEMENT

PSSDB: PRIMARY SCUM SCREENING DEGRATING BUILDING

SDWA: SAFE DRINKING WATER ACT

SEP: SUPPLEMENTAL ENVIRONMENTAL PROJECT

SOP: STANDARD OPERATING PROCEDURE

SOX: SARBANES OXLEY ACT

SPLASH: SERVING PEOPLE BY LENDING A SUPPORTING
HAND

SSO: SANITARY SEWER OVERFLOW

TEAMS: TOTAL ENTERPRISE ASSET MANAGEMENT SYSTEM

TMDL: TOTAL MAXIMUM DAILY POLLUTANT LOADS

TN: TOTAL NITROGEN

RFP: REQUEST FOR PROPOSAL

RFQ: REQUEST FOR QUOTATION

RSF: RATE STABILIZATION FUND

RWWP: RAW WASTEWATER PUMP STATION

SAF: SYSTEM AVAILABILITY FEE

SCADA: SUPERVISORY CONTROL AND DATA ACQUISITION

UAMI: UPPER ANACOSTIA MAIN INTERCEPTOR

ULSD: ULTRA LOW SULFUR DIESEL

VAV: VARIABLE AIR VOLUME

VEP: VALVE EXERCISE PROGRAM

VIT: VEHICLE INFORMATION TRANSMITTER

WAD: WASHINGTON AQUEDUCT

WBE: WOMEN BUSINESS ENTERPRISE

WSRF: WATER SYSTEM REPLACEMENT FEE

WSSC: WASHINGTON SUBURBAN SANITARY COMMISSION

WWTP: WASTERWATER TREATMENT PLANT

Presented and Adopted: December 1, 2016

SUBJECT: Approval of Fiscal Year 2017 - 2026 Ten-Year Financial Plan

**#16-92
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("DC Water") at its meeting held on December 1, 2016 upon consideration of a joint-use matter decided by a vote of ten (10) in favor and none (0) opposed, to take the following action with respect to the Fiscal Year 2017 - 2026 Financial Plan.

WHEREAS, prudent utility financial management requires a long-term financial plan that integrates common elements of the ten-year capital improvement program, future capital financing plans, projected operating and maintenance budgets, revenue requirements and projected rate increases to support long-term capital and operating needs; and

WHEREAS, the Board, in Resolutions 11-10 and 13-57, adopted a series of financial policies in the areas of capital financing, long-term financial planning, and rate-setting to assure the short-term and long-term financial health of DC Water; and

WHEREAS, adherence to these financial policies has allowed the DC Water to receive strong bond ratings that will reduce debt service costs over the ten-year planning period; and

WHEREAS, consistent with the Board policies, the General Manager has prepared a ten-year financial plan in conjunction with the proposed FY 2018 operating and capital budgets; and

WHEREAS, the ten-year financial plan is based on assumptions detailed in the proposed Fiscal Year 2018 Operating and Capital Budgets; and

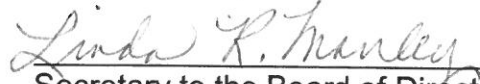
WHEREAS, the ten-year financial plan is consistent with projections appearing in the attached Schedules A, B and C of this resolution; and

WHEREAS, on November 15, 2016, the DC Retail Water and Sewer Rates Committee and the Finance and Budget Committee, respectively, met, reviewed and recommended that the Board adopt the ten-year financial plan as recommended by the General Manager.

NOW THEREFORE BE IT RESOLVED THAT:

1. The Board hereby accepts and approves the proposed Fiscal Year 2017 - 2026 Financial Plan that is supported by the attached Schedule A, B and C and the proposed Fiscal Year 2018 Operating and Capital Budgets.

This resolution is effective immediately.


Secretary to the Board of Directors

District of Columbia Water & Sewer Authority
FY 2017 - FY 2026 Financial Plan
(In 000's)

OPERATING	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
<i>Retail*</i>	483,981	511,428	539,094	567,722	596,653	622,874	646,932	671,041	695,146	719,540
<i>Wholesale*</i>	81,468	76,028	78,308	80,658	83,077	85,570	88,137	90,781	93,504	96,309
<i>Other</i>	29,997	29,704	34,332	38,367	45,391	48,265	48,817	49,434	50,113	50,871
<i>RSF</i>	-	-	-	-	-	-	-	-	-	-
Operating Receipts (1)	\$ 595,446	\$ 617,159	\$ 651,734	\$ 686,746	\$ 725,121	\$ 756,709	\$ 783,886	\$ 811,256	\$ 838,763	\$ 866,721
Operating Expenses	(320,531)	(320,146)	(332,435)	(342,089)	(352,029)	(362,264)	(372,803)	(383,654)	(394,828)	(406,333)
Debt Service	(167,733)	(185,480)	\$ (199,647)	\$ (217,567)	\$ (236,478)	\$ (246,866)	\$ (254,748)	\$ (262,073)	\$ (269,392)	\$ (276,713)
Cash Financed Capital Improvement	\$ (24,199)	\$ (35,260)	\$ (26,955)	\$ (28,386)	\$ (29,833)	\$ (31,144)	\$ (32,347)	\$ (33,552)	\$ (34,757)	\$ (35,977)
Net Revenues After Debt Service	\$ 82,983	\$ 76,273	\$ 92,698	\$ 98,704	\$ 106,781	\$ 116,435	\$ 123,988	\$ 131,976	\$ 139,786	\$ 147,698
Operating Reserve-Beg Balance	162,652	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
Other Misc (Disbursements)/Receipts										
Wholesale/Federal True Up	(29,201)	(16,019)	(5,636)	-	-	-	-	-	-	-
Customer Rebate	-	-	-	-	-	-	-	-	-	-
Transfers To RSF	-	-	(5,000)	(5,000)	(4,000)	(7,000)	(8,000)	(8,000)	(7,000)	(3,000)
Transfers To DC PILOT Fund	-	-	-	-	-	-	-	-	-	-
Pay-Go Financing	(76,434)	(60,254)	(82,061)	(93,704)	(102,781)	(109,435)	(115,988)	(123,976)	(132,786)	(143,144)
Operating Reserve - Ending Balance	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 141,554
Rate Stabilization Fund Balance RSF (2)	\$ (51,450)	\$ (51,450)	\$ (56,450)	\$ (61,450)	\$ (65,450)	\$ (72,450)	\$ (80,450)	\$ (88,450)	\$ (95,450)	\$ (98,450)
Senior Debt Service Coverage	489%	465%	545%	531%	518%	543%	538%	654%	681%	674%
Combined Debt Service Coverage	159%	163%	165%	166%	166%	166%	167%	169%	171%	174%
Actual/Projected Water/Sewer Rate Increases	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
*Operating Receipts \$ Increase/Decrease										
Retail	10,528	27,447	27,666	28,628	28,931	26,222	24,057	24,110	24,105	24,393
Wholesale	1,684	(5,440)	2,281	2,349	2,420	2,492	2,567	2,644	2,723	2,805
*Operating Receipts % Increase/Decrease										
Retail	2.2%	5.7%	5.4%	5.3%	5.1%	4.4%	3.9%	3.7%	3.6%	3.5%
Wholesale	2.1%	-6.7%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

(1) Includes interest earnings on senior lien revenue bonds' debt service reserve fund

(2) FY 2017 planned transfers of \$0.0 million to Rate Stabilization Fund maintains the total fund balance at \$51.45 million

Schedule B

**District of Columbia Water & Sewer Authority
FY 2017 - FY 2026 Average Residential Customer Monthly Bill**

	Units	Approved									
		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
DC Water and Sewer Retail Rates ⁽¹⁾	Ccf	\$ 57.25	\$ 60.13	\$ 63.13	\$ 66.32	\$ 69.63	\$ 73.15	\$ 76.86	\$ 80.69	\$ 84.73	\$ 88.76
DC Water Clean Rivers IAC	ERU	22.24	25.18	28.41	31.67	34.94	37.45	39.36	41.16	42.82	44.40
DC Water Customer Metering Fee	5/8"	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86
DC Water Water System Replacement Fee ⁽³⁾	5/8"	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.30
Subtotal DC Water Rates & Charges		\$ 89.65	\$ 95.47	\$ 101.70	\$ 108.15	\$ 114.73	\$ 120.76	\$ 126.38	\$ 132.01	\$ 137.71	\$ 143.32
Increase / Decrease		\$ 4.63	\$ 5.82	\$ 6.23	\$ 6.45	\$ 6.58	\$ 6.03	\$ 5.62	\$ 5.63	\$ 5.70	\$ 5.61
District of Columbia PILOT ⁽¹⁾	Ccf	\$ 2.98	\$ 3.04	\$ 3.10	\$ 3.16	\$ 3.22	\$ 3.29	\$ 3.35	\$ 3.41	\$ 3.47	\$ 3.54
District of Columbia Right-of-Way Fee ⁽¹⁾	Ccf	1.05	1.12	1.12	1.12	1.12	1.12	1.12	1.18	1.18	1.20
District of Columbia Stormwater Fee ⁽²⁾	ERU	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67
Subtotal District of Columbia Charges		\$ 6.70	\$ 6.83	\$ 6.89	\$ 6.95	\$ 7.01	\$ 7.08	\$ 7.14	\$ 7.26	\$ 7.32	\$ 7.41
Total Amount Appearing on DC Water Bill		\$ 96.35	\$ 102.30	\$ 108.59	\$ 115.10	\$ 121.74	\$ 127.84	\$ 133.52	\$ 139.27	\$ 145.03	\$ 150.73
Increase / Decrease Over Prior Year		\$ 4.70	\$ 5.95	\$ 6.29	\$ 6.51	\$ 6.64	\$ 6.10	\$ 5.68	\$ 5.75	\$ 5.76	\$ 5.70
Percent Increase in Total Bill		5.1%	6.2%	6.1%	6.0%	5.8%	5.0%	4.4%	4.3%	4.1%	3.9%

(1) Assumes average monthly consumption of 6.20 Ccf, or (4,638 gallons)

(2) District Department of the Environment stormwater fee of \$2.67 effective November 1, 2010

(3) DC Water "Water System Replacement Fee" of \$6.30 for 5/8" meter size effective October 1, 2015

District of Columbia Water & Sewer Authority
Retail Rates, Charges and Fees

	Units		FY 2017		Approved FY 2018	
DC Water Retail Rates Water (Residential Lifeline 0 - 4 Ccf)	Ccf	\$	3.23	\$	3.39	
DC Water Retail Rates Water (Residential > 4 Ccf)	Ccf	\$	4.06	\$	4.26	
DC Water Retail Rates Water (Multi-Family)	Ccf	\$	3.62	\$	3.80	
DC Water Retail Rates Water (Non-Residential)	Ccf	\$	4.19	\$	4.40	
DC Water Retail Rates Sewer	Ccf	\$	5.71	\$	6.00	
DC Water Clean Rivers IAC	ERU	\$	22.24	\$	25.18	
DC Water Customer Metering Fee	5/8"	\$	3.86	\$	3.86	
DC Water Water System Replacement Fee	5/8"	\$	6.30	\$	6.30	
District of Columbia PILOT Fee	Ccf	\$	0.48	\$	0.49	
District of Columbia Right of Way Fee	Ccf	\$	0.17	\$	0.18	
District of Columbia Stormwater Fee	ERU	\$	2.67	\$	2.67	

Presented and Adopted: December 1, 2016
Subject: Approval of Proposed Fiscal Year 2017 - 2026 Capital Improvement Program

#16-93
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("DC Water") at its meeting on December 1, 2016, upon consideration of a joint-use matter, decided by a vote of ten (10) in favor and none (0) opposed, to take the following action with respect to the Fiscal Year 2017 - 2026 Capital Improvement Program (10-Year Disbursement Plan and Lifetime Budget).

WHEREAS, Board Resolution #10-76 *Approval of Revised Rate Stabilization Fund Policy*, requires the General Manager to prepare an annually updated 10-Year Financial Plan, which includes a 10-Year Capital Disbursement Plan; and

WHEREAS, on November 3, 2016, the General Manager, Chief Financial Officer, Chief Operating Officer, and Chief Engineer briefed the Board members during the budget workshop on the Proposed 10-Year Disbursement Plan totaling \$3,751,623,000; and

WHEREAS, on November 15, 2016, the Finance & Budget and DC Retail Water & Sewer Rates Committees, in a joint meeting, reviewed the budget proposals and discussed in detail the budget drivers, strategic budget decisions, budget assumptions, and customer and operational impacts; and the Finance & Budget Committee recommended that the Board adopt the Proposed 10-Year Disbursement Plan totaling \$3,751,623,000, and related Lifetime Budget, which totals \$10,949,419,000; and

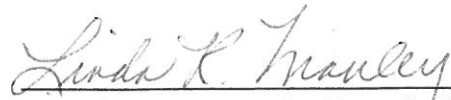
WHEREAS, on November 17, 2016, the Environmental Quality & Sewerage Services and the Water Quality & Water Services Committees, in a joint meeting, reviewed the budget proposals and discussed in detail the budget drivers, strategic budget decisions, budget assumptions, and customer and operational impacts; and both Committees recommended that the Board adopt the Proposed 10-Year Disbursement Plan totaling \$3,751,623,000, and related Lifetime Budget, which totals \$10,949,419,000.

NOW THEREFORE, BE IT RESOLVED THAT:

The Board hereby approves and adopts DC Water's Fiscal Year 2017 – 2026 Capital Improvement Program with the 10-Year Disbursement Plan totaling \$3,751,623,000 and related Lifetime Budget, which totals \$10,949,419,000 (Attachment A-1), and as further

detailed in the General Manager's Proposed Fiscal Year 2018 Budget, presented on November 3, 2016 and accompanying materials.

This resolution is effective immediately.


Secretary to the Board of Directors

10-Year Disbursement Plan & Lifetime Budget

\$ in thousands

Attachment A-I

	FY 2017 - FY 2026 Disbursement Plan										10-Yr Total	Lifetime Budget
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026		
NON PROCESS FACILITIES												
Facility Land Use	\$34,150	\$20,030	\$17,555	\$10,306	\$1,800	\$1,605	\$40	\$0	\$0	\$0	\$85,486	\$139,789
Subtotal	34,150	20,030	17,555	10,306	1,800	1,605	40	0	0	0	85,486	139,789
WASTEWATER TREATMENT												
Liquid Processing	16,152	24,883	52,941	43,931	24,215	34,226	39,622	49,838	45,391	45,980	377,180	1,275,084
Plantwide	11,313	14,562	17,562	32,116	22,815	26,977	29,470	18,351	22,831	13,761	209,758	477,349
Solids Processing	7,654	4,836	15,305	15,927	14,254	7,396	1,489	943	513	343	68,660	764,689
Enhanced Nitrogen Removal Facilities	88,670	54,141	5,533	4,010	983	7	1,300	916	11,101	22,446	189,107	1,034,493
Subtotal	123,789	98,423	91,341	95,985	62,266	68,605	71,882	70,049	79,836	82,530	844,706	3,551,615
COMBINED SEWER OVERFLOW												
DC Clean Rivers	171,300	116,713	115,974	148,210	175,492	115,822	95,920	73,621	63,527	145,743	1,222,320	2,764,014
Program Management	3,827	5,355	3,943	1,376	2,760	4,098	4,409	3,019	1,829	0	30,615	64,563
Combined Sewer	9,260	8,407	8,239	16,901	8,349	6,010	8,105	10,262	5,210	6,468	87,211	324,451
Subtotal	184,387	130,475	128,156	166,486	186,601	125,929	108,433	86,902	70,566	152,211	1,340,146	3,153,028
STORMWATER												
Local Drainage	172	8	76	353	69	642	272	864	1,055	222	3,733	15,736
On-Going	424	572	644	599	618	760	734	762	466	534	6,113	12,408
Pumping Facilities	368	1,743	2,068	72	1,136	4,155	20	0	0	308	9,869	25,000
DDOT	16	19	12	0	0	0	0	0	0	0	48	3,237
Research and Program Management	270	238	182	64	123	179	207	163	129	0	1,554	12,013
Trunk/Force Sewers	456	102	1,070	109	0	0	0	0	0	0	1,737	15,597
Subtotal	1,706	2,682	4,053	1,196	1,946	5,736	1,233	1,789	1,649	1,064	23,055	83,991
SANITARY SEWER												
Collection Sewers	4,890	2,249	2,057	8,042	7,304	11,799	6,962	6,531	22,763	32,239	104,837	332,601
On-Going	11,838	11,645	10,896	9,630	10,411	10,204	10,704	11,107	11,455	6,210	104,100	194,633
Pumping Facilities	2,806	290	1,793	2,389	1,588	140	209	0	0	0	9,214	36,759
Program Management	8,755	11,917	9,184	4,738	4,902	6,915	7,227	6,640	5,228	1,810	67,316	135,791
Interceptor/Trunk Force Sewers	10,013	13,194	29,068	32,942	30,499	30,419	29,346	28,956	13,307	10,304	228,049	748,806
Subtotal	38,302	39,294	52,999	57,741	54,704	59,479	54,447	53,235	52,753	50,563	513,517	1,448,589
WATER												
Distribution Systems	30,148	28,847	40,047	32,416	28,660	36,427	44,699	52,312	58,953	59,424	411,932	1,116,878
Lead Program	1,050	720	1,345	1,820	2,063	2,321	2,537	2,536	2,964	1,112	18,468	208,940
On-Going	10,643	6,886	7,521	6,944	7,235	7,275	7,366	7,735	8,007	9,336	78,948	147,604
Pumping Facilities	2,598	1,958	3,395	7,761	3,173	664	1,627	7,579	1,365	0	30,120	177,881
DDOT	830	516	188	0	0	0	0	0	0	0	1,534	33,933
Storage Facilities	7,728	8,072	6,612	4,361	1,382	1,685	5,188	9,395	2,354	0	46,779	106,364
Program Management	5,823	4,739	5,040	3,801	6,021	6,286	4,095	4,186	4,572	7,043	51,606	101,203
Subtotal	58,819	51,738	64,149	57,102	48,534	54,658	65,512	83,744	78,217	76,915	639,387	1,892,803
CAPITAL PROJECTS												
	441,153	342,642	358,253	388,816	355,852	316,013	301,546	295,719	283,021	363,283	3,446,297	10,269,817
CAPITAL EQUIPMENT												
WASHINGTON AQUEDUCT	54,949	32,897	26,043	26,551	8,780	8,780	8,780	8,780	8,780	8,780	193,119	193,119
	10,896	11,768	10,547	11,840	13,911	10,932	11,041	10,969	10,787	9,516	112,207	112,207
ADDITIONAL CAPITAL PROGRAMS												
	65,845	44,665	36,590	38,391	22,690	19,712	19,821	19,748	19,567	18,296	305,326	305,326
LABOR												
												374,276
TOTAL CAPITAL BUDGETS												
	\$506,998	\$387,306	\$394,843	\$427,208	\$378,542	\$335,725	\$321,367	\$315,467	\$302,588	\$381,579	\$3,751,623	\$10,949,419

Presented and Adopted: December 1, 2016
Subject: Approval of Proposed Fiscal Year 2018 Operating Budget

#16-94
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority, ("DC Water") at its meeting on December 1, 2016, upon consideration of a joint-use matter, decided by a vote of ten (10) in favor and none (0) opposed, to take the following action with respect to the Fiscal Year 2018 Proposed Operating Budget.

WHEREAS, on November 3, 2016, the General Manager, Chief Operating Officer, Chief Engineer, and Chief Financial Officer, briefed the Board at the budget workshop on the Proposed FY 2018 Operating Budget that totaled \$561,947,000; and

WHEREAS, on November 15, 2016, the Finance and Budget and the DC Retail Water and Sewer Rates Committees, in a joint meeting, reviewed the budget proposals and discussed in detail the budget drivers, strategic budget decisions, budget assumptions, customer and operational impacts. The Finance and Budget Committee recommended that the Board adopt the Proposed FY 2018 Operating Budget that totals \$561,947,000.

NOW THEREFORE BE IT RESOLVED THAT:

The Board hereby approves and adopts DC Water's Proposed Fiscal Year 2018 Operating Budget totaling \$561,947,000 and as further detailed in the General Manager's Proposed Fiscal Year 2018 Operating Budget, presented on November 3, 2016 and accompanying materials.

This resolution is effective immediately.


Secretary to the Board of Directors

Presented and Adopted: December 1, 2016
**SUBJECT: Intent to Reimburse Capital Expenditures with Proceeds
of a Borrowing**

#16-95
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

The Board of Directors ("Board") of the District of Columbia Water and Sewer Authority ("DC Water"), at the Board meeting held on December 1, 2016, upon consideration of a joint-use matter, decided by a vote of ten (10) in favor and none (0) opposed, to take the following action.

WHEREAS, DC Water intends to acquire, construct and equip the items and projects set forth in Exhibit A hereto (collectively, the "Projects"); and

WHEREAS, plans for the Projects have advanced and DC Water expects to advance its own funds to pay expenditures related to the Projects ("Expenditures") prior to incurring indebtedness and to receive reimbursement for such Expenditures from proceeds of tax-exempt bonds or notes or taxable debt, or both.

NOW THEREFORE BE IT RESOLVED THAT:

1. DC Water utilizes the proceeds of tax-exempt bonds, taxable bonds or notes (the "Bonds") or other debt in an amount not currently expected to exceed \$323,000,000 to pay costs of the Projects. These costs include amounts heretofore unreimbursed pursuant to Resolution 15-105 of the Board adopted on December 3, 2015, plus amounts projected to be reimbursed during Fiscal Year 2017 – 2018.
2. DC Water intends to use the proceeds of the Bonds to reimburse itself for Expenditures with respect to the Projects made on or after the date that is 60 days prior to the date of this Resolution. DC Water reasonably expects on the date hereof that it will reimburse the Expenditures with the proceeds of the Bonds or other debt.
3. Each Expenditure was or will be, unless otherwise supported by the opinion of bond counsel, either (a) of a type properly chargeable to a capital account under general federal income tax principles (determined in each case as of the date of the Expenditure), (b) a cost of issuance with respect to the Bonds, (c) a nonrecurring item that is not customarily payable from current revenues, or (d) a grant to a party that is not related to or an agent of DC Water so long as such

grant does not impose any obligation or condition (directly or indirectly) to repay any amount to or for the benefit of DC Water.

4. DC Water makes a reimbursement allocation, which is a written allocation by DC Water that evidences DC Water's use of proceeds of the Bonds to reimburse an Expenditure, no later than 18 months after the later of the date on which the Expenditure is paid or the Project is placed in service or abandoned, but in no event more than three years after the date on which the Expenditure is paid. The DC Water recognizes that exceptions are available for certain "preliminary expenditures," costs of issuance, certain de minimis amounts, expenditures by "small issuers" and expenditures for any construction, the completion of which is expected to require at least five years.
5. The Board adopts this resolution confirming the "official intent" within the meaning of Treasury Regulations Section 1.150-2 promulgated under the Internal Revenue Code of 1986, as amended.

This resolution is effective immediately.

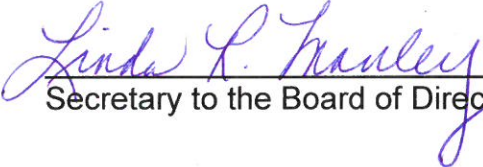

Secretary to the Board of Directors

EXHIBIT A — LIST OF PROJECTS

Blue Plains System
Non Process Facilities
Sanitary Sewer System
Combined Sewer System
DC Clean Rivers
Stormwater Sewer System
Water Pumping, Distribution and Storage
Metering and Capital Equipment
Washington Aqueduct